115th Congress
2d Session

COMMITTEE PRINT

S. PRT.
115–28

TAX EXPENDITURES

Compendium of Background Material on Individual Provisions

COMMITTEE ON THE BUDGET

UNITED STATES SENATE

DECEMBER 2018

PREPARED BY THE

CONGRESSIONAL RESEARCH SERVICE

Prepared for the use of the Committee on the Budget by the Congressional Research Service. This document has not been officially approved by the Committee and may not reflect the views of the members.

U.S. GOVERNMENT PUBLISHING OFFICE

34–119 WASHINGTON : 2019

AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

COMMITTEE ON THE BUDGET

MICHAEL B. ENZI, Wyoming, *Chairman*

CHARLES E. GRASSLEY, Iowa
MIKE CRAPO, Idaho
LINDSEY O. GRAHAM, South Carolina
PATRICK TOOMEY, Pennsylvania
RON JOHNSON, Wisconsin
BOB CORKER, Tennessee
DAVID A. PERDUE, Georgia
CORY GARDNER, Colorado
JOHN KENNEDY, Louisiana
JOHN BOOZMAN, Arkansas
TOM COTTON, Arkansas

BERNIE SANDERS, Vermont
PATTY MURRAY, Washington
RON WYDEN, Oregon
DEBBIE STABENOW, Michigan
SHELDON WHITEHOUSE, Rhode Island
MARK R. WARNER, Virginia
JEFF MERKLEY, Oregon
TIM KAINE, Virginia
ANGUS S. KING, JR, Maine
CHRIS VAN HOLLEN, Maryland
KAMALA D. HARRIS, California

ELIZABETH MCDONNELL, *Republican Staff Director*
WARREN GUNNELS, *Minority Staff Director*

LETTER OF TRANSMITTAL

December 21, 2018

UNITED STATES SENATE
COMMITTEE ON THE BUDGET
WASHINGTON, DC

To the Members of the Committee on the Budget:

The Congressional Budget and Impoundment Control Act of 1974 (as amended) requires the budget committees to examine tax expenditures while developing the congressional budget resolution. In response to this statutory directive, the Congressional Research Service (CRS) regularly prepares this committee print for the Senate Budget Committee.

CRS analysis relies on section 3(3) of the Budget Act of 1974, which defines tax expenditures as "those revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability." In the legislative history of the Budget Act, provisions classified as tax expenditures are contrasted with those provisions that are part of the "normal structure" of the individual and corporate income tax necessary to collect government revenues.

This CRS document incorporates not only a description and an estimated level for each provision, but also a discussion of its impact, a review of its underlying rationale, an assessment addressing the arguments for and against the provision, and a set of bibliographic references. Tax expenditures are presented in an order that generally parallels the budget functional categories used in the resolution. This format is consistent with the Budget Act's report requirement, which obligates the budget committees to present the estimated levels of tax expenditures "by major items and functional categories."

All tax code changes through December 12, 2018, are included. Nothing in this print should be interpreted as representing the views or recommendations of the Senate Budget Committee or any of its members.

Michael B. Enzi
Chairman

LETTER OF SUBMITTAL

CONGRESSIONAL RESEARCH SERVICE
THE LIBRARY OF CONGRESS
Washington, D.C., December 17, 2018

Honorable Michael B. Enzi
Chairman, Committee on the Budget
U.S. Senate
Washington, DC 20510

Dear Mr. Chairman:

I am pleased to submit a revision of the December 2016 Committee Print on Tax Expenditures.

As in earlier versions, each entry includes an estimate of each tax expenditure's revenue cost, its legal authorization, a description of the tax provision and its impact, the rationale at the time of adoption, an assessment, and bibliographic citations. The impact section includes quantitative data on the distribution of tax expenditures across income classes where such data are relevant and available. The rationale section contains some detail about the historical development of each provision. The assessment section summarizes major issues surrounding each tax expenditure.

The revision was written under the general direction of Jane Gravelle, Senior Specialist in Economic Policy, Steven Maguire, Section Research Manager, and Donald Marples, Specialist in Public Finance. Contributors of individual entries include Andrew Austin, Margot Crandall-Hollick, Grant Driessen, Jane Gravelle, Gary Guenther, Joseph Hughes, Mark Keightley, Sean Lowry, Donald Marples, and Molly Sherlock of the Government and Finance Division; Alexandra Hegji, William Morton, and Scott Szymendera of the Domestic Social Policy Division; and Jennifer Teefy of the Knowledge Services Group. Khalil Williams provided editorial review and prepared the document for publication.

Mary B. Mazanec
Director

Table of Contents

Letter of Transmittal ..... **III**
Letter of Submittal ..... **V**
Table of Contents ..... **VII**
Introduction **1**
National Defense **13**
Exclusion of Benefits and Allowances for Armed Forces Personnel 13
Exclusion of Military Disability Benefits 19
Deduction for Overnight-Travel Expenses of National Guard and Reserve Members 23
Exclusion of Combat Pay 27
International Affairs **31**
Base Erosion and Anti-Abuse Tax 31
Exclusion of Foreign Earned Income: Housing and Salary 37
Exclusion of Certain Allowances for Federal Employees Abroad 43
Reduced Tax Rate on Active Income of Controlled Foreign Corporations 47
Inventory Property Sales Source Rule Exception 55
Deferral of Active Financing Income 59
Deduction for Foreign Taxes Instead of a Credit 65
Deduction for Foreign-Derived Intangible Income Derived From Trade or Business Within The United States 67
Special Rule for Interest-Charge Domestic International Sales Corporations 73
Taxation of Real Property Gains of Foreign Persons 77
Tonnage Tax 81
General Science, Space, and Technology **85**
Expensing of Research and Experimental Expenditures 85
Tax Credit for Increasing Research Expenditures 91
Energy **107**
Deduction of Expenditures on Energy-Efficient Commercial Building Property 107
Depreciation Recovery Periods for Energy-Specific Items 113

Exceptions for Publicly Traded Partnerships with Qualified Income Derived from Certain Energy-Related Activities.....117
Excess of Percentage Over Cost Depletion: Oil, Gas, and Other Fuels.121
Exclusion of Energy Conservation Subsidies Provided by Public Utilities.....129
Expensing of Exploration and Development Costs: Oil, Gas, and Other Fuels.....133
Amortization of Geological and Geophysical Expenses Associated with Oil and Gas Exploration.....139
Exclusion of Interest on State and Local Government Qualified Private Activity Bonds for Energy Production Facilities.....141
Residential Energy-Efficient Property Credit 145
Credit for Energy-Efficient Improvements to Existing Homes.....151
Credit for Alternative Technology Vehicles: Other Alternative Fuel Vehicles 159
Credit for Plug-In Electric Vehicles.....165
Energy Credit For Renewable Energy Property (section 48).....171
Tax Credits for Alternative Fuel Vehicle Refueling Property 179
Credits for Electricity Production from Renewable Resources.....185
Credits for Investments In Clean Coal Facilities 193
Credit for Holders of Clean Renewable Energy Bonds 199
Credit for Holders of Qualified Energy Conservation Bonds 205
Amortization of air Pollution Control Facilities 211
Coal Production Credits: Refined Coal and Indian Coal 217
Credit for Carbon Oxide Sequestration.....223
Credit for Energy-Efficient New Homes 227
Credit for Investment in Advanced Energy Property.....231
Special Rule to Implement Electric Transmission Restructuring 237
Natural Resources and Environment.....241
Special Tax Rate for Nuclear Decommissioning Reserve Fund 241
Special Depreciation Allowance for Certain Reuse and Recycling Property.....245
Expensing of Timber-Growing Costs 249
Exclusion oF Earnings of Certain Environmental Settlement Funds.....253
Excess of Percentage Over Cost Depletion, Nonfuel Minerals.....257
Expensing of Exploration and Development Costs, Nonfuel Minerals ..263

Treatment of Income from Exploration and Mining of Natural Resources as Qualifying Income Under the Publicly Traded Partnership Rules 267
Amortization and Expensing of Reforestation Expenses 271
Special Rules for Mining Reclamation Reserves 275
Agriculture 279
Expensing of Soil and Water Conservation Expenditures 279
Exclusion of Cost-Sharing Payments 281
Exclusion of Cancellation of Indebtedness Income of Farmers 285
Cash Accounting for Agriculture 289
Income Averaging for Farmers and Fishermen 293
Expensing by Farmers for Fertilizer and Soil Conditioner Costs 297
Two-Year CarryBack Period for Net Operating Losses Attributable to Farming 299
Commerce and Housing 303
Exemption of Credit Union Income 303
Exclusion from UBTI of Certain Payments to Controlling Exempt Organizations 307
Special Treatment of Life Insurance Company Reserves 311
Special Deduction for Blue Cross and Blue Shield Companies 317
Tax-Exempt Status and Election to Be Taxed Only on Investment Income for Certain Small Property and Casualty Insurance Companies 323
Interest Rate and Discounting Period Assumptions for Reserves of Property and Casualty Insurance Companies 327
Pro-Ration for Property and Casualty Insurance Companies 331
Deduction for Mortgage Interest on Owner-Occupied Residences 335
Deduction for Premiums for Qualified Mortgage Insurance 343
Exclusion of Capital Gains on Sales of Principal Residences 347
Exclusion of Interest on State and Local Qualified Private Activity Government Bonds for Owner-Occupied Housing 351
Exclusion of Interest on State and Local Government Qualified Private Activity Bonds for Rental Housing 357
Depreciation of Rental Housing in Excess of Alternative Depreciation System 361
Credit for Low-Income Housing 367
Credit for Rehabilitation of Historic Structures 375
Credit for Rehabilitation of Structures, Other Than Historic Structures .383

Exclusion of Income Attributable to the Discharge of Principal Residence Acquisition Indebtedness 387
Reduced Rates of Tax on Dividends and Long-Term Capital Gains 391
Surtax on Net investment income 399
Exclusion of Capital Gains at Death 403
Deferral of Gain on Non-Dealer Installment Sales 409
Deferral of Gain on Like-Kind Exchanges 413
Depreciation of Buildings Other Than Rental Housing in Excess of Alternative Depreciation System 417
Limit NOL Deduction 423
Insurance Companies' Two-Year NOL Carryback 427
Limitation In Net Interest Deduction To 30 Percent of Adjusted Taxable Income 431
Depreciation on Equipment in Excess of Alternative Depreciation System 437
Expensing Under Section 179 of Depreciable Business Property 445
Amortization of Business Start-Up Costs 453
Exemptions from Imputed Interest Rules 459
Expensing of Magazine Circulation Expenditures 463
Special Rules for Magazine, Paperback Book, and Record Returns 467
Completed Contract Rules 471
Limitation on Active Passthrough Losses in excess of $500,000/$250,000 475
Cash Accounting, Other than Agriculture 481
Exclusion of Interest on State and Local Government Small-Issue Qualified Private Activity Bonds 485
Limitation on Deduction for FDIC Premiums 491
Carryover Basis of Capital Gains on Gifts 495
Credit for Employer-Paid FICA Taxes on Tips 497
Deduction for Income Attributable to Domestic Production Activities 503
20-Percent Deduction for Passthrough Business Income 509
Deduction of Certain Film and Television Production Costs 517
Credit for the Cost of Carrying Tax-Paid distilled Spirits in Wholesale Inventories 521
Expensing of Costs to Remove Architectural and Transportation Barriers to the Handicapped and Elderly 525
Exclusion for Gain from Certain Small Business Stock 531

Distributions in Redemption of Stock to Pay Various Taxes Imposed at Death 539
Inventory Accounting: LIFO, LCM, and Specific Identification 541
Exclusion of Gain or Loss on Sale or Exchange of Brownfield Property 547
Exclusion of Interest on State and Local Qualified Private Activity Bonds for Green Building And Sustainable Design Projects 551
Income Recognition Rule for Gain or Loss From Section 1256 Contracts 555
Transportation 559
Exclusion of Interest on State and Local Government Qualified Private Activity Bonds for Highway Projects and Rail–Truck Transfer Facilities 559
Tax Credit for Certain Railroad Track Maintenance 563
Deferral of Tax on Capital Construction Funds of Shipping Companies 567
Treatment of Employer-Paid Transportation Benefits 571
Exclusion of Interest on State and Local Government Bonds for High-Speed Intercity Rail Facilities 577
Exclusion of Interest on State and Local Government Qualified Private Acitivty Bonds for Private Airports, Docks, and Mass-Commuting Facilities 581
Community and Regional Development 585
Empowerment Zone Tax Incentives 585
District of Columbia Tax Incentives 589
Credit for Employment And Accelerated Depreciation, Indian Reservations 593
New Markets Tax Credit 595
Qualified Opportunity Zones 599
National Disaster Relief 603
Exclusion of Interest on State and Local Government Qualified Private Activity Bonds for Sewage, Water, and Hazardous Waste Facilities 611
Recovery Zone Economic Development Bonds 615
Education, Training, Employment and Social Services: Education and Training 621
Parental Personal Exemption for Students Age 19 to 23 621
Deduction for Teacher Classroom Expenses 627
Tax Credits for Tuition for Post-Secondary Education 633

Deduction for Interest on Student Loans.....643
Exclusion of Earnings of Coverdell Education Savings Accounts 649
Deduction for Higher Education Expenses 655
Exclusion of Tax on Earnings of Qualified Tuition Programs/529 Plans.....661
Exclusion of Interest on State and Local Government Qualified Private Activity Bonds for Student Loans.....667
Exclusion of Employer-Provided Tuition Reduction.....673
Exclusion of Scholarship and Fellowship Income 677
Exclusion of Interest on State and Local Government Bonds for Private Nonprofit and Qualified Public Educational Facilities.....681
Tax Credit for Holders of Qualified Zone Academy Bonds 685
Tax Credit for Holders or Issuers of Qualified School Construction Bonds 691
Exclusion of Income Attributable to the Discharge of Certain Student Loan Debt and NHSC and Certain State Educational Loan Repayments.....697
Deduction for Charitable Contributions to Educational Institutions.....705
Exclusion of Employer-Provided Education Assistance Benefits.....713
Special Tax Provisions for Employee Stock Ownership Plans (ESOPs) 717
Credit for Family and Medical Leave 725
Exclusion of Employee Awards.....733
Treatment of Employee Meals and Lodging (Other Than Military).....737
Deferral of Taxation on Spread on Acquisition of Stock Under Incentive Stock Option Plans.....743
Deferral of Taxation on Spread on Acquisition of Stock Under Employee Stock Purchase Plans 747
Exclusion of Benefits Provided Under Cafeteria Plans.....751
Exclusion of Housing Allowances for Ministers 757
Exclusion of Income Earned by Voluntary Employees' Beneficiary Associations.....763
Exclusion of Miscellaneous Fringe Benefits.....773
Treatment of Employee Moving Expenses 777
Exclusion of Employer-Provided (On-Site) Gyms 779
Treatment of Meals and Entertainment.....783
Disallowance of the Deduction for Excess Parachute Payments 787
Limits on Deductible Compensation.....791

Work Opportunity Tax Credit 795
Credit for Child and Dependent Care and Exclusion of Employer-Provided Child Care 805
Credit for Employer-Provided Dependent Care 817
Adoption Credit and Employee Adoption Benefits Exclusion 821
Exclusion of Certain Foster Care Payments 833
Deduction for Charitable Contributions, Other than for Education and Health 837
Credit for Disabled Access Expenditures 845
Credit for Children and Other Dependents 849
Health 859
Health Savings Accounts 859
Exclusion of Interest on State and Local Government Qualified Private Activity Bonds for Private Nonprofit Hospital Facilities 867
Deduction for Charitable Contributions to Health Organizations 871
Exclusion of Workers' Compensation Benefits (Medical Benefits) 881
Credit for Purchase of Health Insurance by Certain Displaced Persons 885
Deduction for Health Insurance Premiums and Long-Term Care Insurance Premiums Paid by the Self-Employed 891
Deduction for Medical Expenses and Long-Term Care Expenses 897
Exclusion of Employer Contributions for Health Care, Health Insurance Premiums, and Long-Term Care Insurance Premiums 905
Exclusion of Medical Care and Tricare Medical Insurance for Military Dependents, Retirees, and Retiree Dependents Not Enrolled In Medicare 915
Exclusion of Health Insurance Benefits for Military Retirees and Retiree Dependents Enrolled in Medicare 921
Credit for Orphan Drug Research 927
Tax Credit for Small Businesses Purchasing Employer Insurance 935
Subsidies for Insurance Purchased through Health Benefit Exchanges 939
Income Security 945
Exclusion of Disaster Mitigation Payments 945
Exclusion of Workers' Compensation Benefits (Disability and Survivors Payments) 949
Exclusion of Damages on Account of Personal Physical Injuries or Physical Sickness 955
Exclusion of Special Benefits for Disabled Coal Miners 959

Earned Income Credit 963
Additional Standard Deduction for the Blind and the Elderly 977
Deduction for Casualty and Theft Losses 981
Net Exclusion of Pension Contributions and Earnings: Plans Covering Partners and Sole Proprietors (Sometimes Referred to as "Keogh Plans").....985
Net Exclusion of Pension Contributions and Earnings: Defined Benefit Plans.....991
Net Exclusion of Pension Contributions and Earnings: Defined Contribution Plans 999
Individual Retirement Accounts: Traditional IRAS.....1007
Individual Retirement Arrangements: Roth IRAS 1013
Credit for Certain Individuals for Elective Deferrals and IRA Contributions.....1017
Exclusion of Other Employee Benefits: Premiums on Group Term Life Insurance 1021
Exclusion of Other Employee Benefits: Premiums on Accident and Disability Insurance 1025
Exclusion of Amounts Received Under Life Insurance Contracts.....1029
Phase out of the Personal Exemption for the Regular Income Tax and Disallowance of the Personal Exemption and the Standard Deduction Against the Alternative Minimum Tax 1031
Able Accounts.....1037
Exclusion of Survivor Annuities Paid to Families of Public Safety Officers Killed in the Line of Duty.....1047
Social Security and Railroad Retirement 1049
Exclusion of Untaxed Social Security and Railroad Retirement Benefits 1049
Veterans' Benefits and Services 1057
Exclusion of Interest on State and Local Government Qualified Private Activity Bonds for Veterans' Housing.....1057
Exclusion of Veterans' Disability Compensation 1061
Exclusion of Veterans' Pensions.....1065
Exclusion of Veterans' Readjustment Benefits.....1071
General Purpose Fiscal Assistance.....1073
Exclusion of Interest on Public Purpose State and Local Government bonds.....1073
Deduction of Nonbusiness State and Local Government Taxes 1081

Eliminate Requirement that Financial Institutions Allocate Interest Expense Attributable to Tax-Exempt Interest 1089
Build America Bonds 1091
Interest 1097
Deferral of Interest on Savings Bonds 1097
Appendix A: Forms of Tax Expenditures 1101
Appendix B: Tax Provisions Previously Classified as Tax Expenditures 1105
Exclusion of Investment Income on Life Insurance and Annuity Contracts 1107
Exclusion of Untaxed Medicare Benefits: Hospital Insurance (Part A) 1113
Exclusion of Medicare Benefits: Supplementary Medical Insurance (Part B) 1117
Exclusion of Medicare Benefits: Supplementary Medical Insurance (Part D Prescription Drug Benefit) 1121
Exclusion of Cash Public Assistance Benefits 1127
Appendix C: Relationship Between Tax Expenditures and Limited Tax Benefits Subject to Line Item Veto 1131
Index 1135

Introduction

This compendium gathers basic information concerning approximately 200 federal tax provisions currently treated as tax expenditures. They include those listed in Tax Expenditure Budgets prepared for fiscal years 2018-2022 by the Joint Committee on Taxation (JCT),[1] although certain separate items that are closely related and are within a major budget function may be combined. The JCT also lists 30 additional tax expenditures with de minimis revenue losses (i.e., less than $50 million over 5 years), that are not included in this compendium. Other provisions that have expired, are not in the JCT list, but may be extended, are included in this compendium. With respect to each tax expenditure, this compendium provides:

> The estimated federal revenue loss associated with the provision for individual and corporate taxpayers, for fiscal years 2018-2022 as estimated by the Joint Committee on Taxation;
>
> The legal authorization for the provision (e.g., Internal Revenue Code section, Treasury Department regulation, or Treasury ruling);
>
> A description of the tax expenditure, including an example of its operation where this is useful;
>
> A brief analysis of the impact of the provision, including information on the distribution of benefits where data are available;
>
> A brief statement of the rationale for the adoption of the tax expenditure where it is known, including relevant legislative history;
>
> An assessment, which addresses the arguments for and against the provision; and
>
> A selected bibliography.

[1] U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2018-2022*, October 4, 2018 (JCX-81-18).

The information presented for each tax expenditure is not intended to be exhaustive or definitive. Rather, it is intended to provide an introductory understanding of the nature, effect, and background of each provision. Useful starting points for further research are listed in the selected bibliography following each provision.

Defining Tax Expenditures

Tax expenditures are revenue losses resulting from tax provisions that grant special tax relief designed to encourage certain kinds of behavior by taxpayers or to aid taxpayers in special circumstances. These provisions may, in effect, be viewed as spending programs channeled through the tax system. They are, in fact, classified in the same functional categories as the U.S. budget.

Section 3(3) of the Congressional Budget and Impoundment Control Act of 1974 specifically defines tax expenditures as:

> … those revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability;

In the legislative history of the Congressional Budget Act, provisions classified as tax expenditures are contrasted with those provisions which are part of the "normal structure" of the individual and corporate income tax necessary to collect government revenues.

The listing of a provision as a tax expenditure in no way implies any judgment about its desirability or effectiveness relative to other tax or non-tax provisions that provide benefits to specific classes of individuals and corporations. Rather, the listing of tax expenditures, taken in conjunction with the listing of direct spending programs, is intended to allow Congress to scrutinize all federal programs relating to the same goals—both non-tax and tax—when developing its annual budget. Only when tax expenditures are considered will congressional budget decisions take into account the full spectrum of federal programs.

Because any qualified taxpayer may reduce tax liability through use of a tax expenditure, such provisions are comparable to entitlement programs under which benefits are paid to all eligible persons. Since tax expenditures are often enacted as permanent legislation, it is important that, as entitlement programs, they be given thorough periodic consideration to see whether they

are efficiently meeting the national needs and goals for which they were established.

Tax expenditure budgets that list the estimated annual revenue losses associated with each tax expenditure first were required to be published in 1975 as part of the Administration's budget for fiscal year 1976, and have been required to be published by the Budget Committees since 1976. The tax expenditure concept is still being refined, and therefore the classification of certain provisions as tax expenditures continues to be discussed. One recent change regarding classification pertains to Medicare-related items that have historically been classified as tax expenditures, but were not included in recent lists produced by JCT. These and other items are described in Appendix B. Nevertheless, there has been widespread agreement for the treatment as tax expenditures of most of the provisions included in this compendium.[2]

As defined in the Congressional Budget Act, the concept of tax expenditure refers to the corporate and individual income taxes. Other parts of the Internal Revenue Code—excise taxes, employment taxes, estate and gift taxes—also have exceptions, exclusions, refunds and credits (such as a gasoline tax exemption for non-highway uses) which are not included here because they are not parts of the income taxes.

Administration Fiscal Year 2019 Expenditure Budget

There are several differences between the tax expenditures shown in this publication and the tax expenditure budget found in the Administration's FY2019 budget document. In some cases tax expenditures are combined in one list, but listed separately in the other. In other cases, changes in economic conditions (such as forecast growth in GDP) result in differences in the magnitude of the tax expenditure estimates.

Major Types of Tax Expenditures

Tax expenditures may take any of the following forms:

---

[2] For a discussion of the conceptual problems involved in defining tax expenditures and some of the differences between the Administration's and Joint Committee on Taxation's approaches, see *The Budget of the United States Government, Fiscal Year 2019, Analytical Perspectives*, "Tax Expenditures," pp. 153-194. See also Linda Sugin, "What Is Happening to the Tax Expenditure Budget?" *Tax Notes*, August 16, 2004, pp. 763-766; and Thomas L. Hungerford, "Tax Expenditures: Good, Bad, or Ugly?" *Tax Notes*, October 23, 2006, pp. 325-334.

(1) exclusions, exemptions, and deductions, which reduce taxable income;

(2) preferential tax rates, which apply lower rates to part or all of a taxpayer's income;

(3) credits, which are subtracted from taxes as ordinarily computed; and

(4) deferrals of tax, which result from delayed recognition of income or from allowing deductions in the current year that are properly attributable to a future year.

The amount of tax relief per dollar of each exclusion, exemption, and deduction increases with the taxpayer's tax rate. A tax credit is subtracted directly from the tax liability that would otherwise be due; thus the amount of tax reduction is the amount of the credit—which does not depend on the marginal tax rate. (See Appendix A for further explanation.)

Largest Tax Expenditures

While JCT lists and estimates about 200 items in their tax expenditure publication, relatively few account for most of the aggregate cost. The following two tables list the top individual and corporate tax expenditures. The first table lists the 10 largest tax expenditures (in terms of revenue lost) directed to individuals. Overall, these 10 items account for a little over 65 percent of the total dollars of tax expenditures directed to individuals. Note that while the single largest individual tax expenditure is the exclusion of employer contributions for health care, the sum of the defined benefit and defined contribution pension plans is larger at $210.4 billion.

10 Largest Tax Expenditures, FY2018: Individuals

[In billions of dollars]

Tax Expenditure	Amount
Exclusion of employer contributions for health care	146.1
Reduced rates of tax on dividends and long-term capital gains	128.7
Exclusion of contributions to defined contribution retirement plans	122.5
Child tax credit	103.8
Exclusion of contributions to defined benefit retirement plans	87.9

Tax Expenditure	Amount
Earned income tax credit	70.1
Subsidies for insurance purchased through health benefit exchanges	49.2
Deduction for nonbusiness state and local taxes	43.1
Deduction for charitable contributions, other than for education and health	40.6
Exclusion of benefits provided under cafeteria plans	37.9

The next table reports the 10 largest tax expenditures (in terms of revenue lost) directed to corporations. Overall, these 10 tax expenditure items account for a little over 94 percent of the total dollars of tax expenditures directed to corporations, excluding bonus depreciation.

10 Largest Tax Expenditures, FY2018: Corporations

[In billions of dollars]

Tax Expenditure	Amount
Reduced tax rate on active income of controlled foreign corporations	73.9
Depreciation of equipment in excess of the alternative depreciation system	48.2
Deduction for foreign derived intangible income derived from trade or business within the United States	9.6
Credit for increasing research activities (Code section 41)	8.9
Expensing under section 179 of depreciable business property	8.7
Credit for low-income housing	8.6
Exclusion of interest on public purpose state and local government bonds	7.1
Credit for electricity produced from renewable resources (Section 45)	4.8
Deferral of gain on non-dealer installment sales	4.7
Deferral of active finance income	3.7

Order of Presentation

The tax expenditures are presented in an order which generally parallels the budget functional categories used in the congressional budget (i.e., tax expenditures related to “national defense” are listed first, and those related to

"international affairs" are listed next). In a few instances, two or three closely related tax expenditures derived from the same Internal Revenue Code provision have been combined in a single summary to avoid repetitive references even though the tax expenditures are related to different functional categories. This parallel format is consistent with the requirement of section 301(d)(6) of the Budget Act, which requires the tax expenditure budgets published by the Budget Committees as parts of their April 15 reports to present the estimated levels of tax expenditures "by major functional categories."

Impact (Including Distribution)

The impact section includes information on the direct effect of the provisions and, where available, the distributional effect across individuals. Unless otherwise specified, distributional tables showing the share of the tax expenditure received by income class are calculated from data in the Joint Committee on Taxation's committee print on tax expenditures for 2018-2022. This distribution uses an expanded income concept that is composed of adjusted gross income (AGI), plus (1) tax-exempt interest, (2) employer contributions for health plans and life insurance, (3) employer share of FICA tax, (4) workers' compensation, (5) nontaxable Social Security benefits, (6) insurance value of Medicare benefits, (7) alternative minimum tax preferences, (8) excluded income of U.S. citizens abroad, and (9) individuals' share of business taxes.

These estimates were made for 11 tax expenditures. For other tax expenditures, a distributional estimate or information on distributional impact is provided, when such information could be obtained.

The following table shows the estimated distribution of returns by income class, for comparison with those tax expenditure distributions:

Distribution by Income Tax Class of All Returns at 2018 Income Levels

Income Class (in thousands of $)	Percentage Distribution
Below $10	9.8
$10 to $20	10.6
$20 to $30	11.2
$30 to $40	10.0
$40 to $50	8.6
$50 to $75	16.0
$75 to $100	10.0
$100 to $200	17.3
$200 and over	6.5

Source: JCT 2018.

Note: The income concept used to place tax returns into classes is an expanded measure of income.

The Congressional Budget Office has examined how the 10 largest individual tax expenditures were distributed among households with different amounts of income in 2013.[3] The table shows the share of the benefits of different types of tax expenditures accruing to households in different income groups. Overall, tax expenditures tend to benefit higher-income taxpayers—they have an "upside down" distributional pattern. The distribution pattern, however, differs by the type of tax expenditure. Exclusions, preferential tax rates on capital gains and dividends, and itemized deductions benefit higher-income taxpayers, while tax credits benefit lower-income taxpayers.

[3] Congressional Budget Office, *The Distribution of Major Tax Expenditures in the Individual Income Tax System*, May 39, 2013, Table 2.

Shares (percent) of Selected Major Tax Expenditures, by Income Group, 2013

Type	Lowest Quintile	Middle Quintile	Highest Quintile	Top 1 Percent
Exclusions	5.0	16.0	45.0	7.0
Deductions	0.0	4.0	81.0	30.0
Capital gains, dividends	0.0	2.0	93.0	68.0
Credits	37.0	19.0	3.0	0.0
All	8.0	13.0	51.0	17.0

Source: CBO 2013.

Many tax expenditures are corporate and thus do not directly affect the taxes of individuals. Most analyses of capital income taxation suggest that the majority of such taxes are likely to be borne by capital given reasonable behavioral assumptions.[4] Capital income is heavily concentrated in the upper-income levels. For example, the Congressional Budget Office[5] reported for 2014 that the top 1 percent of taxpayers accounted for nearly 46 percent of corporate income tax liability, the top 5 percent accounted for 61 percent, the top 10 percent accounted for nearly 70 percent, and the top 20 percent accounted for roughly 78 percent. The distribution of corporate income tax liabilities across the first four quintiles was 1.3 percent, 3.0 percent, 5.7 percent, and 10.2 percent. Corporate tax expenditures would, therefore, tend to benefit higher-income individuals.

Rationale

Each tax expenditure item contains a brief statement of the rationale for the adoption of the expenditure, where it is known. They are the principal rationales publicly given at the time the provisions were enacted. The rationale includes a legislative history of the tax expenditure, which chronicles major changes in the provisions over time and the reasons for the changes.

---

[4] See Jane G. Gravelle, *Corporate Tax Reform: Issues for Congress*, Library of Congress, Congressional Research Service Report RL34229, September 22, 2017.

[5] U.S. Congress, Congressional Budget Office, *The Distribution of Household Income, 2014*, March 2018, Supplemental Table 12.

Assessment

The assessment section summarizes the arguments for and against the tax expenditures and the issues they raise. These issues include effects on economic efficiency, on fairness and equity, and on simplicity and tax administration. Further information can be found in the bibliographic citations.

Estimating Tax Expenditures

The revenue losses for all the listed tax expenditures are those estimated by the Joint Committee on Taxation.

In calculating the revenue loss from each tax expenditure, it is assumed that only the provision in question is deleted and that all other aspects of the tax system remain the same. In using the tax expenditure estimates, several points should be noted.

First, in some cases, if two or more items were simultaneously eliminated, the combination of changes would probably produce a lesser or greater revenue effect than the sum of the amounts shown for the individual items. Thus, the arithmetical sum of all tax expenditures (reported below) may be different from the actual revenue consequences of eliminating all tax expenditures.[6]

Second, the amounts shown for the various tax expenditure items do not take into account any effects that the removal of one or more of the items might have on investment and consumption patterns or on any other aspects of individual taxpayer behavior, general economic activity, or decisions regarding other federal budget outlays or receipts.

Finally, the revenue effect of new tax expenditure items added to the tax law may not be fully felt for several years. As a result, the eventual annual cost of some provisions is not fully reflected until sometime after enactment. Similarly, if items now in the law were eliminated, it is unlikely that the full revenue effects would be immediately realized.

---

[6] A 2008 study estimates that the sum of revenues lost under the separate tax expenditures is about 8 percent less than the revenue loss when the tax expenditures are taken as a group. See Leonard E. Burman, Christopher Geissler, and Eric J. Toder, "How Big Are Individual Income Tax Expenditures and Who Benefits from Them?" *American Economic Review, Papers and Proceedings,* v. 98, no. 2, May 2008, pp. 79-83.

These tax expenditure estimating considerations are, in many ways, similar to estimating considerations involving entitlement programs. First, like tax expenditures, annual budget estimates for each transfer and income-security program are computed separately. However, if one program, such as veterans' pensions, were either terminated or increased, this would affect the level of payments under other programs, such as welfare payments. Second, like tax expenditure estimates, the elimination or curtailment of a spending program, such as military spending or unemployment benefits, would have substantial effects on consumption patterns and economic activity that would directly affect the levels of other spending programs. Finally, like tax expenditures, the budgetary effect of terminating certain entitlement programs would not be fully reflected until several years later because the termination of benefits is usually only for new recipients, with persons already receiving benefits continued under "grandfather" provisions.

The table below shows tax expenditure estimates by year for individuals and corporations. All revenue loss estimates are based upon the tax law enacted through July 1, 2018. For a provision that has or was assumed to expire, its extension would typically add to its projected cost and the figures listed below.

Sum of Tax Expenditure Estimates by Type of Taxpayer, Fiscal Years 2018-2022

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1,266.6	209.0	1,475.6
2019	1,285.4	190.3	1,475.7
2020	1,345.0	192.2	1,537.2
2021	1,412.7	197.6	1,610.3
2022	1,485.0	192.3	1,677.3

Note: These totals are the mathematical sum of the estimated fiscal year effect of each of the tax expenditure items included in this publication as appearing in the Joint Committee on Taxation's October 2018 list.

Selected Bibliography

Altshuler, Rosanne and Robert D. Dietz. *Tax Expenditure Estimation and Reporting: A Critical Review*, NBER working paper 14263, August 2008.

Altshuler, Rosanne and Robert D. Dietz. "Reconsidering Tax Expenditure Estimation," *National Tax Journal*, v. 64, no. 2 (part 2), June 2011, pp. 459-490.

Bartlett, Bruce. "The Flawed Concept of Tax Expenditures." National Center for Policy Analysis (http://www.ncpa.org), February 13, 2002.

Brannon, Gerard M. "Tax Expenditures and Income Distribution: A Theoretical Analysis of the Upside-Down Subsidy Argument," *The Economics of Taxation*, Henry J. Aaron and Michael J. Boskin, eds. Washington, DC: The Brookings Institution, 1980, pp. 87-98.

Browning, Jacqueline M. "Estimating the Welfare Cost of Tax Preferences," *Public Finance Quarterly*, v. 7, no. 2. April 1979, pp. 199-219.

Buckley, John L. "Tax Expenditure Reform: Some Common Misconceptions," *Tax Notes*, v. 132, n. 3, July 18, 2011, pp. 255-270.

Burman, Leonard, Christopher Geissler, and Eric J. Toder. "How Big Are Total Individual Income Tax Expenditures, and Who Benefits from Them?" *American Economic Review, papers and proceedings*, v. 98, no. 2, May 2008, pp. 79-83.

Burman, Leonard and Marvin Phaup. "Tax Expenditures, the Size and Efficiency of Government, and Implications for Budget Reform," *Tax Policy and the Economy, Volume 26,* Jeffrey Brown ed., University of Chicago Press, 2012.

Congressional Budget Office, *The Distribution of Major Tax Expenditures in the Individual Income Tax System*, May 29, 2013.

Driessen, Grant. *Spending and Tax Expenditures: Distinctions and Major Programs*, Library of Congress, Congressional Research Service Report R44530, June 17, 2016.

Edwards, Kimberly K. "Reporting for Tax Expenditure and Tax Abatement," *Government Finance Review*, v. 4. August 1988, pp. 13-17.

Freeman, Roger A. *Tax Loopholes: The Legend and the Reality*, Washington, DC: American Enterprise Institute for Public Policy Research, 1973.

Fox, John O. "The Untold Story: Congress's Own Calculation of Its Revenue Losses from Special Provisions of the Tax Laws," Chapter 5 in *If Americans Really Understood the Income Tax*, Boulder, Colorado: Westview Press, 2001.

Gravelle, Jane G. "Tax Expenditures." *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds. Washington, DC: Urban Institute Press, 2005, pp. 379-380.

—. *Corporate Tax Reform: Issues for Congress*, Library of Congress, Congressional Research Service Report RL34229, September 22, 2017.

Harris, Benjamin H., Eugene Steuerle, and Caleb Quakenbush. *Evaluating Tax Expenditures: Introducing Oversight into Spending Through the Tax Code,* Tax Policy Center, 2018.

Howard, Christopher. *The Hidden Welfare State: Tax Expenditures and Social Policy in the United States*, Princeton, NJ: Princeton Univ. Press, 1997.

Hungerford, Thomas L. "Tax Expenditures: Good, Bad, or Ugly?" *Tax Notes*, October 23, 2006, pp. 325-334.

Kaplow, Lewis, "A Distribution-Neutral Perspective on Tax Expenditure Limitations," *Tax Policy and the Economy, Volume 31,* Jeffrey Brown ed., University of Chicago Press, 2017.

Kleinbard, Edward D. "Tax Expenditure Framework Legislation," *National Tax Journal*, v. 63, no. 2, June 2010, pp. 353-382.

Ladd, Helen. *The Tax Expenditure Concept after 25 Years,* Presidential Address to the National Tax Association, *Proceedings of the 86th Annual Conference 1994*, Columbus, Ohio: National Tax Association, 1995, 50-57.

Pechman, Joseph A., ed. *Comprehensive Income Taxation*, Washington, DC: The Brookings Institution, 1977.

— . *Federal Tax Policy: Revised Edition,* Washington, DC: The Brookings Institution, 1980.

— . *What Should Be Taxed: Income or Expenditures?* Washington, DC: The Brookings Institution, 1980.

Saez, Emmanuel. "The Optimal Treatment of Tax Expenditures," *Journal of Public Economics,* v. 88, no. 12, 2004.

Schick, Allen. "Controlling Nonconventional Expenditure: Tax Expenditures and Loans," *Public Budgeting and Finance*, v. 6. Spring 1986, pp. 3-19.

Schroeher, Kathy. *Gimme Shelters: A Common Cause Study of the Review of Tax Expenditures by the Congressional Tax Committees*. Washington, DC: Common Cause, 1978.

Sugin, Linda. "What Is Happening to the Tax Expenditure Budget?" *Tax Notes*, August 16, 2004.

Sunley, Emil M. "The Choice Between Deductions and Credits," *National Tax Journal*, v. 30, no. 3, September 1977, pp. 243-247.

Surrey, Stanley S. *Pathways to Tax Reform.* Cambridge, MA: Harvard University Press, 1973, p. 3.

Toder, Eric J., Joseph Rosenberg, and Amanda Eng. "Evaluating Broad-Based Approaches for Limiting Tax Expenditures," *National Tax Journal*, v. 66, no. 4, December 2013, pp. 807-831.

U.S. Government Accountability Office. *Tax Expenditures: Background and Evaluation Criteria and Questions*, GAO-13-167SP, Washington, DC: 2013.

National Defense

EXCLUSION OF BENEFITS AND ALLOWANCES FOR ARMED FORCES PERSONNEL

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	5.5	-	5.5
2019	5.7	-	5.7
2020	5.8	-	5.8
2021	6.2	-	6.2
2022	6.4	-	6.4

Authorization

Sections 112 and 134 and a federal court decision: *Jones v. United States*, 60 Ct. Cl. 552 (1925).

Description

Members of the armed forces and their dependents receive a variety of in-kind and cash benefits that are excluded from gross income for tax purposes. The armed forces in this case consist of the Army, Navy, Air Force, Marine Corps, Coast Guard, Commissioned Corps of the National Oceanic and Atmospheric Administration, and Commissioned Corps of the Public Health Service. The exclusions stem from a mix of law, regulation, or administrative practice and have been available since September 9, 1986.

Under current law, the following benefits received by members of the armed services and/or their dependents are exempt from the federal income tax:

- Combat zone pay,

- Other pay, including disability payments, group life insurance payments, uniform allowances, state bonus pay for serving in a combat zone, survivor and retirement protection plan premiums, defense counsel services, ROTC education and subsistence allowances, and professional education expenses,
- Death allowances, including burial costs, death gratuity payments to eligible survivors, and travel of dependents to burial sites,
- Family allowances, including certain education expenses for dependents, emergency assistance, evacuation allowances, and family counseling and separation allowances,
- Living allowances, including basic allowances for domestic housing and subsistence and housing and cost-of-living allowances for living abroad,
- Moving allowances: dislocation benefits, military base closure and realignment benefits, moving and storage allowances, and temporary lodging expenses,
- Travel allowances, including annual round-trip expenses for dependent students, leave between consecutive overseas tours, reassignment in a dependent-restricted status, and per-diem costs, and
- In-kind military benefits, including medical and dental care, dependent-care assistance, legal assistance, commissary and exchange discounts, and travel on government aircraft.

A member of the armed forces who dies while in active service in a combat zone, or as a result of wounds, disease, or injury incurred while serving in such a zone, is excused from all federal tax liability. This means that any unpaid income tax owed at the date of the member's death (including interest, additions to the tax, and additional amounts) is forgiven. In addition, families of the deceased receive a $100,000 death gratuity payment, all of which is tax-exempt.

Personal use of a military vehicle is not considered an excludable military benefit.

Impact

Many military benefits qualify for the sections 112 and 134 exclusions from gross income. As with deductions, the tax savings depend upon recipient's marginal tax rate. Since such savings rise with income, it is fair to say that the exclusions, in theory, undermine the progressivity of the federal income tax, which imposes higher tax rates as income increases. For example, the tax savings from $100 in excludable benefits is $10 for an individual in the 10-percent tax bracket and $35 for an individual in the 35-percent tax bracket. In this case, the higher-income recipient realizes a greater tax benefit from the exclusion than the lower-income recipient does. Such an effect runs counter to the progressive rate structure of the federal income tax.

Rationale

In 1925, the United States Court of Claims, in *Jones v. United States*, 60 Ct. Cl. 552 (1925), drew a distinction between the pay and the allowances and benefits provided to military personnel. The court ruled that housing and housing allowances were reimbursements similar to other non-taxable expenses authorized for the executive and legislative branches.

Before the decision, the Treasury Department treated the rental value of housing, subsistence payments, and monetary commutations as taxable income. This treatment was supported by the Tax Act of August 27, 1894 (no Public Law number), which imposed a two-percent tax "on all salaries of officers, or payments to persons in the civil, military, naval, or other employment of the United States."

The exemption for armed forces benefits and allowances evolved from the precedent set by *Jones v. United States* through a series of subsequent statutes, regulations, or long-standing administrative practices.

The Tax Reform Act of 1986 (P.L. 99-514) consolidated this tangle of rules in a new section of the federal tax code (section 134). Congress took this step so that members of the armed services and the Internal Revenue Service (IRS) could clearly understand and administer tax law in a manner consistent with the changes in the tax treatment of fringe benefits enacted as part of the Deficit Reduction Act of 1984 (P.L. 98-369).

The Military Family Tax Relief Act of 2004 (P.L. 108-121) solidified the IRS's authority to add dependent-care assistance programs to the list of qualified military benefits.

For some benefits, the rationale for an exclusion was a desire to reduce the tax burden of military personnel during wartime (e.g., the exclusion for combat pay). For other allowances, the exclusion was based on the belief that these benefits were not only compensatory but also intrinsic to the military way of life.

The Economic Growth and Tax Reconciliation Relief Act of 2001 (P.L. 107-16) simplified the definition of earned income by excluding non-taxable employee compensation (including combat zone pay). As a result, the earned income reported for tax purposes by many armed forces members decreased, leading to a net loss in tax benefits (e.g., child tax credit) for some.

To correct this unintended outcome, the Working Families Tax Relief Act of 2004 (P.L. 108-311) allowed members of the armed services to continue to exclude combat pay from gross income but to treat it as earned income in calculating the earned income tax credit and the child tax credit in 2004 and 2005. This provision was extended through 2006 by the Gulf Opportunity Zone Act of 2005 (P.L. 109-135), extended through 2007 by the Tax Relief and Health Care Act of 2006 (P.L. 109-432), and made permanent by the Heroes Earnings Assistance and Relief Tax Act of 2008 (P.L. 110-245).

The tax revision passed by Congress at the end of 2017 (P.L. 115-97) did not alter any of the exclusions available for military benefits, although it did repeal the tax deduction under prior law for out-of-pocket job-related moving expenses and the tax exclusion for employer reimbursements for such expenses, beginning in 2018.

Assessment

Some military benefits are akin to the "for the convenience of the employer" benefits available to private firms; these include allowances for housing, meals, moving and storage expenses, overseas cost-of-living, and uniforms. Other military benefits are equivalent to employer-provided fringe benefits such as medical and dental benefits, education assistance, group term life insurance, and disability and retirement benefits.

Some argue that the exclusion for military allowances and benefits is an unfair substitute for additional taxable compensation, since high-income military personnel derive greater benefits from this treatment than do low-income members.

One barrier to making such a substitution is the difficulties and complications that would arise in taxing some military benefits and

allowances. For example, placing a value on meals and lodging when the option to receive cash instead is not available could prove difficult. Another concern raised by substituting pay for certain tax-exempt allowances and benefits is the impact on the size of the armed forces. The elimination of exclusions could lead some service members to think their benefits were being cut, or provide an opportunity for Congress or the president to cut benefits, making it more difficult to recruit new military personnel and to retain existing personnel.

Then again, eliminating exclusions and adjusting military pay scales accordingly could simplify the determination of military pay levels and make "actual" salaries more transparent to military personnel. The upward adjustment of military pay scales that would result from the elimination of an exclusion for some military benefits and allowances might also increase the retirement income of military personnel.

Selected Bibliography

Grefer, James E., "Comparing Military and Civilian Compensation Packages," Center for Naval Analysis, March 2008.

Reilly, Peter J., "Military Housing Allowance Much More Limited than Clergy's," *Forbes*, June 30, 2014.

U.S. Congress, Congressional Budget Office, "Evaluating Military Compensation," Washington, D.C., April 2010.

U.S. Dept. of Defense, Undersecretary of Defense for Personnel and Readiness, "Military Compensation Background Papers: Compensation Elements and Related Manpower Cost Items Their Purposes and Legislative Backgrounds," Washington, D.C., November 2011.

U.S. Dept. of Defense, "Report of the Eleventh Quadrennial Review of Military Compensation," Washington, D.C., June 2012.

U.S. General Accounting Office, "Military Compensation: Active Duty Compensation and Its Tax Treatment," *GAO-04-721R*, Washington, D.C., April 2004).

U.S. Government Accountability Office, "Military and Civilian Pay Comparisons Present Challenges and Are One of Many Tools in Assessing Compensation," GAO-10-561R, Washington, D.C., April 1, 2010.

U.S. Dept. of the Treasury, Internal Revenue Service, "Publication 3: Armed Forces' Tax Guide," Washington, D.C., February 20, 2018

EXCLUSION OF MILITARY DISABILITY BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	-	0.2
2019	0.2	-	0.2
2020	0.3	-	0.3
2021	0.3	-	0.3
2022	0.3	-	0.3

Authorization

Section 104(a)(4) and (5) and 104(b).

Description

Most government pensions and retirement allowances are included in taxable income. But section 104(a)(4) allows individuals to exclude from gross income any amounts they receive as pensions, annuities, or other allowances for personal sickness or injury incurred while serving in the armed forces. The provision further restricts the exclusion to individuals who were members of the armed forces or reserves on or before September 24, 1975, or who suffered a combat-related injury or sickness, or are entitled to receive disability payments from the U.S. Veterans Administration. In addition, section 104(a)(5) allows individuals to exclude from gross income amounts they receive as disability income for injuries they suffered from a terrorist attack that occurred while performing their official duties as a U.S. government employee outside the United States in years before 2001.

Military disability pay is computed using either the percentage-of-disability method or the years-of-service method. Under the former, the annual

benefit is equal to the percentage of disability on the date of retirement multiplied by the applicable basic pay. Under the latter, the applicable basic pay is multiplied by 2.5 percent for each year of service. Only the amount paid under the percentage-of-disability method may be excluded from gross income.

Impact

The exclusion for disability pension payments gives beneficiaries more net income than they would receive from the same amount of taxable pension benefits. The boost in after-tax income from section 104 increases as a taxpayer's marginal tax rate increases. Consequently, higher-income veterans receive a larger benefit than their lower-income counterparts.

Rationale

Historically, the laws that established disability pensions for veterans also made them excludable from gross income. In 1942, the exclusion was broadened to include disability pensions furnished by other countries. Many Americans had joined the Canadian armed forces. It was argued that disability payments, whether provided by the U.S. or Canadian governments, were made for essentially the same reasons, and that the veteran's disability benefits were similar to compensation for injuries and sickness, which was already excludable from income under U.S. tax law in the early 1940s.

In the Tax Reform Act of 1976 (P.L. 94-455), Congress repealed the exclusion for military disability benefits under section 104, except in certain circumstances. In taking this action, Congress sought to eliminate abuses by armed forces personnel who were classified as disabled shortly before becoming eligible for retirement to obtain tax-exempt treatment for their pension benefits. After retiring from military service, some individuals had been earning income from other jobs while receiving tax-free military disability benefits. Since some armed forces personnel may have joined the armed forces or continued their service in the expectation of getting tax-exempt disability benefits, Congress limited the change in the tax treatment of disability payments to persons joining the armed services after September 24, 1975. Persons joining the armed forces after that date were allowed to exclude their military disability benefits from gross income only if the benefits were related to combat injuries or sickness.

The Victims of Terrorism Tax Relief Act of 2001 (P.L. 107-134) extended the section 104 exclusion to disability income received by civilian

employees of the U.S. government that is related to a terrorist or military action, regardless of where the attack occurred.

Assessment

In general, an exclusion from gross income, like a deduction or an exemption, favors higher-income individuals. Given the purpose of the exclusion for military disability benefits, its impact on the distribution of net income among beneficiaries may not be what Congress intended in creating the exclusion. Assuming that intent included a desire to lessen the potential financial hardships associated with living with a combat-related disability, it is difficult to justify a tax benefit that rewards higher-income veterans more than their lower-income counterparts

In addition, the exclusion serves as a form of spending through the tax code. As a result, the true cost of compensation for military personnel is understated in the federal budget.

Selected Bibliography

Kregel, John and Lucy Miller, "Disability Benefits for Veterans: Interactions Among Department of Defense, Department of Veterans Affairs, and Social Security Administration Programs," *DRC Brief Number 2016-07*, Mathematica, Center for Studying Disability Policy, June 2016.

Nash, Claire Y. and Tina Quinn, "Military Disability Payments," *Journal of Accountancy*, February 1, 2006.

Ogloblin, Peter K., *Military Compensation Background Papers: Compensation Elements and Related Manpower Cost Items, Their Purposes and Legislative Backgrounds* (Washington, DC: U.S. Government Printing Office, November 2011), pp. 611-626.

Orozco, Frank, "Tax Court Rules Veteran's Retirement Disability Income Not Taxable," *The Tax Adviser*, November 1, 2017.

U.S. Department of the Treasury, Internal Revenue Service, *Taxable and Nontaxable Income,* Publication 525, January 13, 2016, p. 18.

—, *Special Tax Considerations for Veterans*, January 16, 2016, https://www.irs.gov/individuals/military/special-tax-considerations-for-veterans.

U.S. General Accounting Office, *Military and Veterans' Benefits: Observations on the Concurrent Receipt of Military Retirement and VA Disability Compensation*, GAO-03-575T, March 27, 2003.

—, *VA Disability Compensation: Comparison of VA Benefits with those of Workers' Compensation Programs*, GAO/HEHS-97-5, February 14, 1997.

U.S. Government Accountability Office, *Disability Compensation: Review of Concurrent Receipt of Department of Defense Retirement,*

Department of Veterans Affairs Disability Compensation, and Social Security Disability Insurance, GAO-14-854R Disability Compensation, September 30, 2014.

DEDUCTION FOR OVERNIGHT-TRAVEL EXPENSES OF NATIONAL GUARD AND RESERVE MEMBERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	-	0.1
2019	0.1	-	0.1
2020	0.1	-	0.1
2021	0.1	-	0.1
2022	0.1	-	0.1

Authorization

Sections 162(p) and 62(a)(2)(E).

Description

An adjustment to gross income is available for the unreimbursed travel, meal, and lodging expenses of National Guard and Reserve members. To qualify for this above-the-line deduction, a member must travel more than 100 miles from home and stay overnight, while on official duty. The deduction applies to all qualified expenses paid or incurred after December 31, 2002. It may not exceed the federal government's per-diem allowance for food, lodging and incidental expenses in the applicable locale and the standard federal mileage rate for use of a car. Commuting expenses to and from drill meetings do not qualify for the deduction.

The deduction is available to taxpayers who claim the standard deduction or who itemize their deductions on their income tax return.

Impact

Like any deduction, the tax benefit from the above-the-line deduction for the overnight travel expenses of National Guard and Reserve members

depends on a taxpayer's marginal tax rate. As this rate increases, the tax savings from the deduction also rise. Consequently, the deduction has greater value for reservists and National Guard members with relatively high incomes than it does for those with relatively low incomes.

Furthermore, an above-the-line deduction lowers a taxpayer's adjusted gross income (AGI). This is potentially significant because decreases in someone's AGI can lead to increases in other deductions and credits. For example, the maximum child tax credit that may be claimed under section 26 is $2,000 per qualifying child in 2018; this amount is phased out when a single filer's income exceeds $200,000 and a joint filer's income exceeds $400,000. In this case, a large above-the-line deduction could increase the likelihood of a high-income taxpayer benefiting from the credit. So deductions that reduce AGI can provide a greater tax benefit than comparable below-the-line deductions, which have no effect on AGI.

Rationale

The deduction was added to the federal tax code by the Military Family Tax Relief Act of 2003 (MFTRA, P.L. 108-121). Under previous law, the overnight travel expenses that National Guard and Reserve members incurred while on duty were only deductible as an itemized deduction to the extent that they and other miscellaneous deductions exceeded 2 percent of a taxpayer's AGI. As a result, reservists who did not itemize were unable to deduct these expenses, and reservists who did itemize could deduct the expenses only in certain cases.

In enacting the deduction, Congress recognized the increasing role that Reserve and National Guard members were playing in national defense. During the debate in the Senate over the enactment of MFTRA, Senator Charles Grassley noted that more than 157,000 reservists and National Guard members were serving on active-duty status in 2003, mostly in Operation Iraqi Freedom.

The tax revision passed by Congress in 2017 (P.L. 115-97) did not alter the deduction.

Assessment

Some military benefits are akin to the "for the convenience of the employer" benefits provided by private enterprise, such as the allowances for housing, meals, moving and storage, overseas cost-of-living, and uniforms. Other benefits are equivalent to employer-provided fringe benefits, such as

medical and dental benefits, education assistance, group term life insurance, and disability and retirement benefits.

The above-the-line tax deduction for the overnight travel expenses of National Guard members and reservists is comparable to the section 162(a) deduction for the unreimbursed travel expenses of employees who are required to travel as part of their job: both deductions lower the net cost of undertaking required travel.

Selected Bibliography

Levin, Mark H., "Benefits for Servicemen and Women under the Military Family Tax Relief Act of 2003," *The CPA Journal*, v. 76, no. 1, (January 2006), pp. 34-36.

Ogloblin, Peter K., *Military Compensation Background Papers: Compensation Elements and Related Manpower Cost Items, Their Purposes and Legislative Backgrounds*, U.S. Department of Defense, Office of the Secretary of Defense, November 2011.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation of H.R. 3365, The "Military Family Tax Relief Act of 2003," as Passed by the House of Representatives and the Senate*, November 7, 2003, JCX-99-03, pp. 14.

U.S. Department of Defense, *Report of the 11th Quadrennial Review of Military Compensation*, 2 volumes: Main Report and Supporting Research Papers, June 2012.

U.S. Department of the Treasury, Internal Revenue Service, *Armed Forces' Tax Guide*, Publication 3, February 20, 2018, p. 9.

—, Internal Revenue Service, *Travel, Entertainment, Gift, and Car Expenses*, Publication 463, January 16, 2018, p. 35.

U.S. General Accounting Office, *Military Compensation: Active Duty Compensation and Its Tax Treatment*, GAO-04-721R, May 7, 2004, pp. 1-32.

U.S. Government Accountability Office, *Military Personnel: Reserve Component Service members on Average Earn More Income while Activated*, GAO-09-688R, June 23, 2009, pp. 1-41.

National Defense

EXCLUSION OF COMBAT PAY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.7	-	0.7
2019	0.6	-	0.6
2020	0.6	-	0.6
2021	0.6	-	0.6
2022	0.7	-	0.7

Authorization

Section 112.

Description

Much of the compensation (including basic, bonus, and incentive pay) received by active members of the Armed Forces is taxed. Under section 112, however, commissioned warrant officers, warrant officers, and enlisted members may exclude from their gross income the qualified compensation they receive for any month they serve in a combat zone. In this case, the excludable compensation has the following elements:

- Active-duty pay,
- Imminent danger/hostile fire pay,
- Pay for accrued leave earned during a period served in a combat zone,
- Any re-enlistment or retention bonus received while stationed in a combat zone,
- Pay received for duties in clubs, messes, post and station theaters, and other non-appropriated fund activities in a period served in combat,

- Awards for suggestions, inventions, or scientific achievements submitted when serving in combat, and
- Student loan repayments made during such a period.

Retirement pay and pensions do not qualify for the combat-zone exclusion. For a commissioned officer, the exclusion cannot exceed the highest rate of basic pay at the highest pay grade for enlisted personnel plus any imminent danger/hostile fire pay the officer receives.

The exclusion also applies to any month a service member is hospitalized because of wounds, injuries, or disease incurred while serving in a combat zone, up to two years after the cessation of combat.

Impact

The provision excludes from gross income certain compensation received by service members while serving in a combat zone. As with a deduction, the tax benefit from the exclusion hinges on a taxpayer's marginal tax rate: the benefit is greater for higher-income taxpayers than for lower-income taxpayers. For example, in 2018, if someone in the 24-percent tax bracket and another person in the 12-percent bracket were each to exclude $1,000 of active-duty pay as a result of serving in a combat zone, the tax savings for the former would be $240, while the latter would save $120 in income taxes.

Rationale

The exclusion for combat pay began during World War I, when compensation for eligible military personnel of up to $3,500 was exempt from the income tax. During World War II, the compensation of all active-duty military personnel and certain federal government agency employees was exempt from income taxes. Section 112 was enacted by the Revenue Act of 1945 (P.L. 79-214). During the Korean War, the exclusion applied without limit to qualified compensation received by active military personnel serving in combat, but no more than $200 of such compensation could be excluded for commissioned officers. Under the revision of the Internal Revenue Code in 1954 (P.L. 83-591), the exclusion was made permanent. P.L. 89-739 raised the excludable amount for commissioned officers to $500. This limit was changed to the highest rate of basic pay at the highest pay grade for enlisted personnel plus the amount of imminent danger/hostile fire pay an officer receives by P.L. 104-117.

Generally, the compensation paid to active military personnel in a combat zone is increased to reflect the hazards inherent in serving in such a place. Excluding combat pay from taxation may reflect a general public recognition that service members are entitled to some kind of reward for putting their lives at risk when they serve in a combat zone.

Assessment

The exclusion of combat pay can significantly reduce (or even eliminate) the tax burden for active-duty military personnel while serving in a combat zone. There has been some interest in recent Congresses in expanding the section 112 exclusion to cover income received by federal civilian employees while working in combat zones, but none of the proposals has been enacted.

Selected Bibliography

Kapp, Lawrence, *Military Pay and Benefits: Key Questions and Answers*, Library of Congress, Congressional Research Service Report RL33446, May 13, 2011.

Reilly, Peter J., "No Foreign Income Tax Exclusion for Army Civilian in Afghanistan," *Forbes*, January 6, 2016, https://www.forbes.com/sites/peterjreilly/2016/01/06/no-foreign-income-tax-exclusion-for-army-civilian-in-afghanistan/#15076fc52220.

Sullivan, Martin A., "Economic Analysis: There are no Tax Reformers in Foxholes," *Tax Notes Today*, vol. 98, March 3, 2003, p. 1312.

U.S. Department of the Treasury, Internal Revenue Service, *Armed Forces' Tax Guide*, Publication 3, February 20, 2018, pp. 12-14.

—, *U.S. Government Employees Stationed Abroad*, Publication 516, August 27, 2015.

U.S. General Accounting Office, *Military Personnel: Active Duty Compensation and Its Tax Treatment*, GAO-04-721R, May 2004.

U.S. Government Accountability Office, *Military Personnel: Actions Needed to Strengthen Management of Imminent Danger Pay and Combat Zone Tax Relief Benefits*, GAO-06-1011, September 2006.

—, *Military Personnel: DOD Needs to Improve the Transparency and Reassess the Reasonableness, Appropriateness, Affordability, and Sustainability of Its Military Compensation System*, GAO-05-798, July 2005.

International Affairs

BASE EROSION AND ANTI-ABUSE TAX

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-2.9	-2.9
2019	-	-12.0	-12.0
2020	-	-15.2	-15.2
2021	-	-15.7	-15.7
2022	-	-16.9	-16.9

Authorization

Section 59A.

Description

The base erosion and anti-abuse tax (BEAT) imposes a minimum tax of 10 percent of the sum of taxable income and base erosion payments on corporations with average annual gross receipts of at least $500 million over the past three tax years and with deductions attributable to outbound payments exceeding 3 percent of the taxpayer's overall deductions. This rate is slightly less than half the corporate statutory rate of 21 percent. The rate is 5 percent for payments in 2018, and 12.5 percent for taxable years beginning after December 31, 2025. Applicable taxpayers that are members of an affiliated group that includes a bank or registered securities dealer are subject to an additional increase of one percentage point in the tax rate and the tax applies when base erosion payments exceed 2 percent of deductions.

Base erosion payments include payments to related foreign parties for which a deduction is allowable under the Internal Revenue Code Chapter 1 (such as interest, rents, royalties, and services), the purchase of depreciable or amortizable property, certain reinsurance payments, and payments to inverted firms or foreign persons who are a member of an affiliated firm that includes

the inverted firm that became inverted after November 9, 2017 (but not firms that continue to be treated as U.S. firms). Cost of goods sold would not be included and cost of services would not be included if determined under the services cost method under the transfer pricing rules in Section 482. Disallowed interest under section 163(j) would be first allocated to unrelated parties.

A related person is a person who owns at least 25 percent of the taxpayer or parties controlled by the same interests. The constructive ownership rules treat as controlling 100 percent of the firm with 10 percent rather than 50 percent ownership. The research credit and 80 percent of three credits (the low income housing credit, the renewable electricity production credit in Section 45(a) of the code, and credits for renewable energy, such as wind) are allowed to reduce the BEAT tax.

Impact

The BEAT is a negative tax expenditure that increases tax liability of affected firms. BEAT applies to large firms. Because BEAT is effectively a lower tax rate on a broader base and is limited to firms that exceed floors, it will not apply to all taxpayers who have related party payments. Even among those taxpayers that meet the minimum requirements, only taxpayers with base erosion payments that are large relative to their taxable income will be affected.

BEAT can increase the cost of certain transactions between U.S. subsidiaries and their foreign parents by including interest payments and royalty payments to the foreign parent in their BEAT base. These payments are targeted because they are also used to shift profits out of the United States.

Although BEAT appears to be aimed at profit shifting out of the United States through royalty payments and interest payments, presumably to a foreign parent, a taxpayer falling under the BEAT minimum tax will not be eligible for foreign tax credits on foreign-source income. Thus a firm could have a higher tax liability under BEAT because it had large amounts of foreign tax credits relative to tax liability before credits.

Rationale

The BEAT was added to the tax system as part of a major revision of the tax treatment of foreign source income for the 2017 tax revision (P.L. 115-97, referred to as the Tax Cuts and Jobs Act). This revision moved to a territorial tax but added provisions to reduce profit shifting. Although BEAT applied to

all related parties it was particularly aimed at profit shifting by U.S. subsidiaries of foreign parents that were not affected by general revisions to the tax treatment of U.S. multinationals (see entries on Reduced Tax Rate on Active Income of Controlled Foreign Corporations, and Deduction for Foreign-Derived Intangible Income Derived from Trade or Business With the United States). BEAT was adopted rather than a measure proposed in the House that would have imposed an excise tax on related party payments.

Assessment

BEAT was aimed at profit shifting out of the United States via outbound payments and may be seen as particularly targeted to U.S. subsidiaries of foreign parents (although it applies to any related firm payments). For example, a U.S. subsidiary of a foreign parent might pay excessively large royalties for rights to use intangible assets as well as higher than arm's length prices for goods and services, while also having more of the debt and interest deductions, all with the objective of minimizing income subject to U.S. tax (which was perhaps a greater issue when the United States had a 35 percent corporate tax rate).

Many comments have been made about the lack of a credit for foreign taxes under BEAT. BEAT might therefore be triggered for companies that have a lot of foreign-source income from high-tax countries along with relatively modest base erosion payments (enough to trigger BEAT). In that case, BEAT acts primarily as a tax on foreign-source income rather than achieving the objective of limiting profit shifting through outbound payments.

BEAT also excluded cost of goods sold from its base (except for firms that inverted after November 9, 2017), along with the exclusion for services if valued at cost. Both treatments have led to some criticism. By completely excluding cost of goods sold, it is possible to effectively avoid including royalties in the base by embedding them in inventory. That is, when a U.S. firm is paying a foreign related firm for tangible property to sell and also paying a royalty for distribution rights or rights to use a logo, the royalty could be eliminated and the price of the goods increased. Thus, royalties will be taxed only if separated, or for firms that do not keep inventory. Other planning possibilities may be associated with the exclusion of costs of goods sold, including supply chain restructuring.

An issue of extensive debate is whether the cost component of services with a markup can be excluded. The statute states that services using the service cost method with no markup can be excluded as a base erosion

payment. Some see that and other relevant information from the legislative history as indicating that any service with a markup, whether eligible for the cost method or not, would be included in BEAT in its entirety. Others argue that only the markup would be included.

Because BEAT is imposed as a minimum tax, it will be only partially effective at addressing profit shifting. Profit shifting between related parties arises from transfer pricing and leveraging. Although the new legislation has some generic rules restricting the level of interest deductions, leveraging as an international profit shifting device could be directly addressed by allocating interest to related firms based on their share of profits.

Selected Bibliography

Corwin, Manal et al. "A Response to an Off-Beat Analysis," *Tax Notes*, February 12, 2018, pp. 933-939.

Cummings, Jasper L. "Selective Analysis: The BEAT," *Tax Notes*, March 26, 2018, pp. 1757-1771.

Gravelle, Jane G. and Donald J. Marples. *Issues in International Corporate Taxation: The 2017 Revisions (P.L. 115-97).* Library of Congress, Congressional Research Service Report R41586 (2018).

Kamin, David et al. "The Games They Will Play: Tax Games, Roadblocks, and Glitches Under the 2017 Tax Legislation," *Minnesota Law Review*, Forthcoming, vol. 103, 2018.

New York State Bar Association. *Report No. 1397 on Base Erosion and Anti-A\abuse Tax*, July 16, 2018.

Shaviro, Daniel. "The New Non-Territorial U.S. International Tax system, Part 2," *Tax Notes*, July 9, 2018, pp. 171-194, at

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3227004.

Sheppard, Lee. The Number of the BEAT," *Tax Notes*, Posted August 13, 2018.

Sullivan, Martin A. "10 Reasons Congress Should Revisit the BEAT," *Tax Notes*, June 18, pp. 1701-1707.

— . "Economic Analysis: Can Marked-Up Services Skip the BEAT?" *Tax Notes*, February 6, 2018, at

https://www.taxnotes.com/tax-reform/economic-analysis-can-marked-services-skip-beat.

— . "Economic analysis: Statutory Interpretation of the BEAT Services Exception is Bad News," *Tax Notes*,

— . "Marked-Up Services and the BEAT Part II," *Tax Notes*, February 26, 2018, pp. 1171-1175.

U.S. Congress, House of Representatives. *Tax Cuts and Jobs Act, Conference Report to Accompany H.R. 1*. H.Rept. 115-466, 115th Cong., 1st sess., December 15, 2017.

Wells, Bret. "Get With The Beat," *Tax Notes*, February 19, 2018, pp. 1023-1032.

EXCLUSION OF FOREIGN EARNED INCOME: HOUSING AND SALARY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals		Corporations	Total
	Housing	Salary		
2018	1.2	7.2	-	8.4
2019	1.2	7.5	-	8.7
2020	1.2	8.0	-	9.2
2021	1.3	8.5	-	9.8
2022	1.3	9.1	-	10.4

Authorization

Section 911.

Description

The United States generally taxes its citizens and permanent residents on their worldwide income. Worldwide income includes foreign-source income as well as domestic-source income. Section 911 of the tax code, however, permits U.S. taxpayers who live and work abroad a capped exclusion of their wage and salary income. The maximum amount of wage and salary income that can be excluded has been indexed for U.S. inflation since tax year 2006; the exclusion is $103,900 for 2018. Qualifying individuals can also exclude certain excess foreign housing costs. Section 911, however, does not apply to federal employees working abroad. (See the entry on "Exclusion of Certain Allowances for Federal Employees Abroad.") Foreign tax credits (section 901) cannot be claimed for foreign taxes paid on excluded income.

To qualify for either the income or housing cost exclusion, a person must be a U.S. citizen or permanent resident, must have their tax home in a foreign country, and must either be a bona fide resident of a foreign country or have

lived abroad for at least 330 days of any 12 consecutive months. Qualified income must be "earned" income rather than investment income. If a person qualifies for only part of the tax year, only part of the annual exclusion can be claimed. The housing cost exclusion is designed to offset higher housing costs of living abroad. According to the tax code, the housing cost amount that may be excluded is equal to the excess of foreign housing expenses over 16 percent of the applicable year's earned income exclusion amount. For purposes of computing the housing exclusion for foreign housing expenses, there is a limitation equal to 30 percent of the taxpayer's maximum foreign earned income exclusion (30 percent of $103,900 in 2018). In practice, however, the Treasury Department has the authority to raise the maximum housing exclusion to reflect actual housing costs in particular foreign cities. While a taxpayer can claim both the housing and income exclusions, the combined exclusions cannot exceed total foreign-earned income, including housing allowances.

Impact

U.S. taxpayers who work overseas benefit from section 911 if they can use it to reduce their U.S. tax liability. The impact of the exclusions on Americans working abroad depends partly on whether their foreign taxes are higher or lower than their U.S. taxes (before taking the exclusion into account). For expatriates who pay high foreign taxes, the exclusion holds little importance, because they can use the foreign tax credit to offset their U.S. tax liability. For expatriates who pay little or no foreign taxes, however, the exclusion can reduce or eliminate their U.S. tax liability.

Many employers offer their overseas employees "tax equalization" packages whereby the employer guarantees that the employees will not pay more taxes working overseas than they would pay if they were working in the U.S. The section 911 provisions relieve the employer from having to reimburse employees for U.S. tax on the amounts that are excluded under the income and housing exclusions. In this way, section 911 subsidizes employers sending employees overseas.

Data suggest that U.S. citizens who work abroad have higher real incomes, on average, than people working in the United States. If that is true, where it does reduce taxes, the exclusion reduces the progressivity of the income tax.

The effect of the exclusion on horizontal equity is more complicated. The U.S. tax liability of Americans working abroad can differ from the tax on

people with identical real income living in the United States, because of differences in the cost of living and corresponding differences in nominal income. A person working in a high-cost country needs a higher nominal income to match the real income of a person in the United States. In contrast, an expatriate in a low-cost country needs a lower nominal income than in the U.S. Because tax brackets, exemptions, and the standard deduction are expressed in nominal dollars in the tax code, people living in low-cost countries, who have low nominal incomes, would consequently have a lower tax bill than people with identical real income living in the United States. And, if not for the foreign-earned income exclusion, U.S. citizens working in high-cost countries, with high nominal incomes, would likely pay higher taxes than their U.S. counterparts.

The maximum income exclusion for a particular year is a set dollar amount for all taxpayers and is not linked to the actual cost of living in a particular geographic location. For low-cost foreign locations, it may overcompensate. In that case, the exclusion may have the unintended effect of increasing horizontal inequity in the tax system. Some point out that the tax code does not take into account variations in living costs within the United States; they argue that the appropriate equity comparison would be between an expatriate and a person living in the highest cost area within the United States.

The Internal Revenue Code sets the limit on the housing cost exclusion based on the formula discussed previously. However, legislation enacted in 2005 granted the Treasury Department authority to adjust the statutory housing expense limitation upward to reflect unusually high costs in particular foreign real estate markets.

Rationale

The Revenue Act of 1926 (P.L. 69-20) provided an unlimited exclusion for foreign earned income for persons residing abroad for an entire tax year. Supporters of the exclusion argued that the provision would bolster U.S. trade performance, since it would provide tax relief to U.S. expatriates engaged in trade promotion.

The subsequent history of the exclusion shows a continuing attempt by policymakers to find a balance between the provision's perceived beneficial effects on U.S. trade and economic performance and perceptions of tax equity. In 1962, the Kennedy Administration recommended eliminating the exclusion in some cases and scaling it back in others in order to "support the general

principles of equity and neutrality in the taxation of U.S. citizens at home and abroad." The final version of the Revenue Act of 1962 (P.L. 87-834) simply capped the exclusion in all cases at $20,000. The Tax Reform Act of 1976 (P.L. 94-455) would have pared the exclusion further (to $15,000), again for reasons of tax equity.

However, the Foreign Earned Income Act of 1978 (P.L. 95-615) completely revamped the exclusion such that the 1976 provisions never took effect. The 1978 Act sought to provide tax relief more closely tied to the actual costs of living abroad. It replaced the single exclusion with a set of separate deductions that were linked to various components of the cost of living abroad, such as the excess cost-of-living in general, excess housing expenses, schooling expenses, and home-leave expenses.

In 1981, the emphasis again shifted to the perceived beneficial effects of encouraging U.S. employment abroad; the Economic Recovery Tax Act of 1981 (ERTA, P.L. 97-34) provided a large flat income exclusion and a separate housing exclusion. ERTA's income exclusion was $75,000 for 1982, but was scheduled to increase to $95,000 by 1986. However, concern about the revenue consequences of the increased exclusion led Congress to temporarily freeze the exclusion at $80,000 under the Deficit Reduction Act of 1984 (P.L. 98-369); annual $5,000 increases were to resume in 1988. In 1986, as part of its general program of broadening the tax base, the Tax Reform Act (P.L. 99-514) fixed the exclusion at $70,000. The Taxpayer Relief Act of 1997 (P.L. 105-34) provided the gradual increase in the exclusion to $80,000 by 2002, as well as indexing for U.S. inflation, beginning in 2008.

The Taxpayer Increase Prevention and Reconciliation Act of 2006 (TIPRA, P.L. 109-222) contained new restrictions on both the housing and earned income exclusions as a revenue-raising element designed to partly offset unrelated revenue-losing items in the act. The Act contained four principal changes. First, it moved up from 2008 to 2006 the scheduled indexation of the exclusion. (While the combined, net impact of TIPRA's changes was expected to reduce the benefit's revenue loss, the indexation provision, taken alone, likely increases it.) Second, TIPRA changed the way tax rates apply to a taxpayer's income that exceeds the exclusion. Under prior law, if a person had income in excess of the maximum exclusion, tax rates applied to the additional income beginning with the lowest marginal rate. Under TIPRA, marginal rates apply beginning with the rate that would apply if the taxpayer had not used the exclusion. Third, TIPRA changed the "base amount" related to the housing exclusion. Under prior law, the housing

exclusion applied to housing expenses exceeding 16 percent of the salary level applicable to the GS-14 federal grade level; TIPRA set the base amount at 16 percent of the foreign earning income exclusion amount. In addition, TIPRA capped the housing exclusion at 30 percent of the maximum excludable income; there was no cap under prior law. TIPRA also gave the Treasury Department the authority to adjust the 30 percent housing cost cap upward for individual cities around the world with unusually high housing costs.

Assessment

The foreign-earned income and housing costs exclusions likely increase the number of Americans willing to work overseas in countries with high living costs (in particular, high housing costs) and in countries with low taxes. Without section 911 or a similar provision, U.S. taxes on Americans working abroad would generally be higher than taxes on domestic workers with equivalent real economic income. The higher taxes would discourage Americans from accepting employment overseas. While the uniformly applied income exclusion eases this distortion for some countries, it overcompensates in others, thereby introducing new distortions.

Historically, the foreign-earned income and housing cost exclusions have been defended on the grounds that they help increase U.S. exports, because Americans working abroad play an important role in promoting the sale of U.S. goods abroad. The impact of the provision is uncertain, however. U.S. citizens do not need to be employed by a U.S.-based corporation in order to qualify for the exclusions; they can be employed by foreign corporations. Self-employed Americans working abroad also qualify for the exclusions. Recently, scholars have argued that the exclusions may actually work against U.S. domestic economic interests by encouraging highly compensated U.S. citizens to work overseas, thereby both expatriating U.S. intellectual capital and reducing U.S. tax revenue.

Selected Bibliography

Bonache, Jaime, Juan I. Sanchez, and Celia Zarraga-Oberty. "The Interaction of Expatriate Pay Differential and Expatriate Inputs on Host Country Nationals' Pay Unfairness." *The International Journal of Human Resource Management*, vol. 20, no. 10 (October 2009), pp. 2135-2149.

Cluett, Ronald. "United States: Sound and Fury, Signifying What? The U.S. Foreign Earned Income Exclusion Debate." *Tax Notes International 51* (September 15, 2008), p. 943.

Dhanda, Michelle. "International Taxation: A Guide for Academics Abroad." *Suffolk Transnational Law Review*, vol. 32, no. 3, September 22, 2009.

Dulaney, David, and John Goodell. "Beyond the Reach: Understanding When a Civilian Contractor's Income is Excluded from Federal Taxation Due to Residing Abroad." *Army Lawyer,* no. 9 (September 2017), pp. 45-46.

Evans, Jeffrey. "911: The Foreign Earned Income Exclusion – Policy and Enforcement." *Virginia Journal of International Law* 37 (Summer 1997), pp. 891-918.

Hollenbeck, Scott, and Maureen Keenan Kahr. "Individual Foreign-Earned Income and Foreign Tax Credit. Internal Revenue Service," *Statistics of Income Bulletin*, vol. 28, no. 4 (Spring 2009), pp. 54-84.

U.S. Congress, Conference Committees, 2006. *Tax Increase Prevention and Reconciliation Act of 2005*. Conference report to accompany H.R. 4297. H.Rept. 109-455, 109th Cong., 2nd sess. Washington, U.S. Government Printing Office, 2006, pp. 307-310.

U.S. Congress, Senate, Committee on Finance. *Background Fact Sheet on Section 911 Prepared by Chairman Grassley's Finance Committee Staff.* Washington, May 25, 2006. Posted on the committee's web site at [http://finance.senate.gov/newsroom/chairman/release/?id=caab3c6c-81c1-4edb-b6f9-7af28c32b25c]. (Visited October 10, 2012.)

U.S. Congress, Joint Committee on Taxation. *Options to Improve Tax Compliance and Reform Tax Expenditures*. Prepared by the Staff of the Joint Committee on Taxation. Publication JCS-02-05, 109th Cong., 1st sess. Washington, January 27, 2005, pp. 174-177.

U.S. Department of the Treasury. *Taxation of Americans Working Overseas: the Operation of the Foreign Earned Income Exclusion in 1987*. Washington, DC, 1993.

EXCLUSION OF CERTAIN ALLOWANCES FOR FEDERAL EMPLOYEES ABROAD

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.4	-	1.4
2019	1.5	-	1.5
2020	1.5	-	1.5
2021	1.6	-	1.6
2022	1.6	-	1.6

Authorization

Section 912.

Description

U.S. federal civilian employees who work abroad are allowed to exclude from income certain special allowances they receive that are generally linked to the cost-of-living. These federal employees are not eligible for the foreign earned income or housing exclusion provided to private-sector individuals under section 911. (See the entry on section 911, "Exclusion of Income Earned Abroad by U.S. Citizens.") Like other U.S. citizens, federal employees working abroad are subject to U.S. taxes and can credit foreign taxes against their U.S. taxes. However, federal employees are usually exempt from foreign taxes.

Specifically, section 912 excludes certain amounts received under provisions of the Foreign Service Act of 1980 (P.L. 96-465), the Central Intelligence Act of 1949 (P.L. 81-110), the Overseas Differentials and Allowances Act (P.L. 86-707), and the Foreign Service Act of 1946 (P.L. 79-724). The allowances are primarily for the higher cost of living abroad, housing, education, and travel. Section 912 also excludes cost-of-living allowances received by federal employees stationed in U.S. possessions,

Hawaii, and Alaska. Travel, housing, food, clothing, and certain other allowances received by members of the Peace Corps also are excluded. However, special allowances for hardship posts are not eligible for the exclusion.

Impact

Federal employees abroad may receive a significant portion of their compensation in the form of housing allowances, cost-of-living differentials, and other allowances. The income exclusions permitted under section 912 can substantially reduce their taxes. Data suggest that real incomes for federal workers abroad are generally higher than real incomes in the United States. Consequently, section 912 exclusions probably reduce the progressivity of the income tax.

Section 912's impact on horizontal equity (the equal treatment of equals) is more ambiguous. Without section 912 or a similar provision, federal employees in high-cost countries would likely pay higher taxes than persons with identical real incomes who work in the United States. The higher nominal income needed to offset higher living costs abroad could place federal employees stationed abroad in a higher tax bracket. It could also reduce the value of personal exemptions and the standard deduction, which are set at the same nominal dollar amount, regardless of where the taxpayer lives or works.

The complete exclusion of cost-of-living allowances probably overcompensates for this effect. U.S. citizens employed abroad in the private sector are permitted to exclude up to $103,900 in 2018, rather than an amount explicitly linked to cost-of-living allowances. Given the flat amount, whether the tax treatment of federal workers is more or less favorable than that of private-sector workers depends on the size of the federal worker's cost-of-living allowance.

Some have argued that because no tax relief is provided for people who work in high-cost areas in the United States, horizontal equity requires only that persons abroad be taxed no more heavily than a person in the highest-cost area in the U.S. It might also be argued that the cost-of-living exclusion for employees in Alaska and Hawaii violates horizontal equity, since private-sector workers in those states do not receive a tax exclusion for cost-of-living allowances.

Rationale

The section 912 exclusions were first enacted by the Revenue Act of 1943, in response to rising costs of living abroad. Congress determined that federal personnel overseas were engaged in "highly important" duties and that the allowances merely offset the extra costs of working and living abroad. Congress determined that the government should bear the full burden of the excess living costs, including any income taxes that would otherwise be imposed on cost-of-living allowances.

The Foreign Service Act of 1946 expanded the list of excluded allowances beyond cost-of-living allowances to include housing, travel, and certain other allowances. In 1960, the exclusions were further expanded to include allowances received under the Central Intelligence Agency Act. In 1961, certain allowances received by Peace Corps members were added to the list of exclusions.

Assessment

The benefit from the section 912 exclusions is largest for federal employees abroad who receive a substantial part of their income as cost-of-living, housing, education, or other allowances. Beyond this, the effects of the exclusions are uncertain. The exclusions may encourage employees to request that a greater portion of their compensation be paid in the form of these tax-favored benefits.

It could be argued that the federal agency that employs a person who claims a section 912 exclusion does not directly bear the cost of the exclusion. That is, the exclusion reduces the income tax revenue of the federal government in general, but that revenue cost is not reflected in the budgets of the particular federal agencies with overseas employees. As a consequence, section 912 may enable individual federal agencies to employ more U.S. citizens abroad than they otherwise would or could if they were held accountable for the full cost of those employees, including the income tax forgiven on qualifying allowances.

Selected Bibliography

U.S. Internal Revenue Service. *U.S. Government Civilian Employees Stationed Abroad*. Publication 516. Washington, DC, Government Publishing Office, May 2018.

REDUCED TAX RATE ON ACTIVE INCOME OF CONTROLLED FOREIGN CORPORATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	73.9	73.9
2019	-	68.0	68.0
2020	-	76.3	76.3
2021	-	80.6	80.6
2022	-	84.3	84.3

Authorization

Sections 11(d), 91, 245A, 250, 882, and 951-964.

Description

The United States taxes firms incorporated in the United States on their worldwide income but taxes foreign-chartered corporations only on their U.S.-source income. Some firms that changed headquarters to foreign countries are treated as U.S. firms. These firms (called surrogate U.S. firms) are generally those where U.S. shareholders of the former U.S. firm retain 80 percent of more ownership. Firms where former U.S. shareholders retain 60 percent but less than 80 percent ownership are called inverted firms.

For U.S. persons (firms and individuals), some foreign source income (including branch income, certain dividends, and passive income such as royalties and interest) is subject to full U.S. taxes, and credits for foreign taxes are allowed to offset U.S. tax liability on that income.

There are, however, special rules for the profits of controlled foreign corporations (CFCs). A controlled foreign corporation is at least 50 percent owned by U.S. shareholders that each own at least 10 percent of the foreign corporation. CFC status is subject to so-called “downward attribution” rules

so that stock that is owned in a foreign corporation by a foreign person that is related to the U.S. person can be attributed to the U.S. person. This recently enacted change was aimed at inverted firms to prevent subsidiaries of the former U.S. parent that would still be U.S. CFCs from being removed from that status by decontrolling transactions (such as selling stock to the new foreign parents). The rule is, however, applied generally.

Dividends paid from CFCs are exempt for U.S. corporate shareholders who own at least 10 percent of the CFC, and foreign tax credits are not allowed for dividends. Some overall income of these subsidiaries is subject to tax. Income subject to tax falls into two types: Subpart F income (Sections 951-964) and other income.

Income subject to Subpart F is generally income related to passive investment rather than income from active business operations. Also, certain types of sales, services, and other income whose geographic source is easily shifted is included in Subpart F. Foreign tax credits associated with that income are allowed to offset U.S. tax on that income and are allowed on an overall basis (combining income and credits from different countries).

For other income a lower tax is imposed on what is referred to as global intangible low-taxed income (GILTI) and an exemption is provided for tangible investments. GILTI income is technically part of Subpart F but is subject to a separate foreign tax credit treatment and other rules. Two deductions are allowed in addition to deducting normal Subpart F income. First, a deemed return to tangible investments, 10 percent of the tax basis (cost less depreciation) for tangible assets net of interest deductions, is excluded so that no taxes are imposed on this income. Second, 50 percent of the remaining income is deducted for taxable years beginning after December 31, 2017, and through taxable years beginning before January 1, 2025. Thus, the tax rate on this income is 10.5 percent (half of the 21 percent corporate tax rate). After that period, a 37.5 percent deduction is allowed, resulting in a tax rate of 13.125 percent. This income is segregated into a separate foreign tax credit computation basket and 80 percent of foreign taxes paid are allowed, again on an overall basis. As a result, a residual U.S. tax is collected when overall foreign tax rates are below 13.125 percent in the initial years (0.105/0.80), and subsequently 16.406 percent (0.13125/0.80).

Foreign tax credits are limited to U.S. tax paid on foreign source income. Rules for computing foreign source income include allocating some deductions of the U.S. controlling shareholder to foreign sources (such as interest and research costs) which can reduce the amount of foreign source

income and therefore allowable foreign tax credits. If the source rules make foreign source income smaller than that as measured by foreign tax systems, a residual tax can apply at lower tax rates.

The tax expenditure measures the difference between taxing all income of CFCs at full rates (allowing foreign tax credits) and the current taxes which are reduced due to GILTI deductions and the GILTI foreign tax credit rules.

The deduction for GILTI and another provision, the deduction for intangible income derived from foreign sources (FDII) discussed in the section on "Deduction for Foreign-Derived Intangible Income Derived From Trade or Business Within the United States," is limited if the sum of these amounts exceeds taxable income excluding GILTI. The excess is not allowed as a deduction and is apportioned between GILTI and FDII according to their shares of the total amount of GILTI and FDII.

The revenue estimate also includes the taxation of income earned in prior years and not subject to tax due to the pre-existing deferral regime, where income of CFCs outside of Subpart F was taxed at normal rates but only when repatriated to the U.S. shareholder as a dividend. This income will be taxed at a 15.5 percent rate for cash and cash equivalent income and 8 percent for other income. This increased tax liability may be paid over an eight-year period.

Impact

The exemption from tax for tangible investments may increase an incentive to make tangible investments in lower-tax countries abroad rather than in the United States. The deduction for GILTI income also creates an incentive to hold intangible assets abroad in low-tax countries. These effects interact with the U.S. deduction for certain intangible income derived from FDII, which encourages intangibles to be located in the United States but discourages tangible investment.

The formulaic treatment of FDII and GILTI and the discrepancy between tax effects also means that there is an incentive to locate low-margin tangible assets in the United States (so as to increase the share of income eligible for the FDII deduction) and to locate high-margin tangible assets abroad, but this is likely to be a minor issue given the narrow differentials.

Since foreign tax credits are imposed in the GILTI basket on an overall basis, there is an incentive to make investments in low-tax countries for firms that would otherwise have excess foreign tax credits due to higher taxes in other countries, while firms that do not have enough foreign tax credits to

offset income would have an incentive to locate investments in high-tax countries as those foreign taxes would be offset by a reduction in U.S. tax.

Martin Sullivan (May 7, 2018) has estimated the share of earnings and profits that will be excluded from GILTI due to the exclusion for the return on tangible assets. For all industries, the percentage is 15 percent. The share varies widely by industry. Finance and management (holding) companies have 0 percent and 2 percent respectively; holding companies may be associated with firms with large intangible assets. Shares are also low for companies manufacturing electrical equipment (5 percent), computer and electronic products (7 percent), and beverages and tobacco (8 percent). At the other extreme, utilities, transportation and warehousing, and arts and entertainment have 100 percent or more excluded in the aggregate. Other industries that fell below the average were chemical manufacturing (probably because production of pharmaceuticals with intangible assets in the form of drug formulas is included in that category), miscellaneous manufacturing, and professional services.

Rationale

Prior to the tax changes in 2017, there was a significant tax expenditure for deferral, since, under the prior regime, income from abroad was taxed at ordinary rates but in the case of foreign incorporated subsidiaries was not taxed until income was repatriated to the U.S. shareholder. Foreign tax credits were allowed on an overall basis but were separated into several baskets, the primary ones being passive and active baskets. If income is in a separate basket then excess credits in that basket could not be used against lower-taxed income in the other basket. Thus most of the history of the treatment of income from CFCs has related to deferral.

Deferral had been part of the U.S. tax system since the origin of the corporate income tax in 1909. While deferral was subject to little debate in its early years, it later became controversial. In 1962, the Kennedy Administration proposed a substantial scaling-back of deferral to reduce outflows of U.S. capital. Congress, however, was concerned about the potential effect of such a step on U.S. multinationals and on U.S exports. Instead of repealing deferral, the Subpart F provisions were adopted in The Revenue Act of 1962 (P.L. 87-834), and were aimed at taxpayers who used deferral to accumulate funds in so-called “tax haven” countries. (Hence, Subpart F’s concern with income whose source can be easily manipulated.)

In 1975, Congress again considered eliminating deferral, and in 1978 President Carter proposed its repeal, but on both occasions the provision was left essentially intact. Subpart F, however, was broadened by the Tax Reduction Act of 1975 (P.L. 94-12), the Tax Reform Act of 1976 (P.L. 94-755), the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 87-248), the Deficit Reduction Act of 1984 (P.L. 98-369), the Tax Reform Act of 1986 (P.L. 99-514), and the Omnibus Budget Reconciliation Act of 1993 (OBRA93, P.L. 103-66). OBRA93 added section 956A to the tax code, which expanded Subpart F to include foreign earnings that firms retain abroad and invest in passive assets beyond a certain threshold.

In recent years, however, the trend has been incremental restrictions of Subpart F and expansions of deferral. For example, the Small Business Job Protection Act of 1996 repealed section 956A. In 2004, the American Jobs Creation Act (P.L. 108-357) relaxed Subpart F in the area of shipping income. Also while U.S. tax (less foreign tax credits) generally applies when tax-deferred income is repatriated to the United States, a provision of the American Jobs Creation Act of 2004 provided a temporary (one-year) 85 percent deduction for repatriated dividends. For a corporation subject to the top corporate tax rate of 35 percent, the deduction had an effect similar to a reduction in the tax rate on repatriations to 5.25 percent. The deduction applied to a one-year period consisting (at the taxpayer's election) of either the first tax year beginning on or after P.L. 108-357's date of enactment (October 22, 2004) or the taxpayer's last tax year beginning before the date of enactment.

The American Taxpayer Relief Act of 2012 (P.L. 112-40) extended, through 2013, a temporary exception from Subpart F income tax rules for active financing income. This exception was made permanent as part of the Consolidated Appropriations Act, 2016 (P.L. 114-113). The exception, which was originally enacted by the Taxpayer Relief Act of 1997 (P.L. 105-34), had been regularly extended. See the entry for "Deferral of Active Financing Income" for more information.

In 2017, P.L. 115-17, popularly referred to as the Tax Cuts and Jobs Act, substantially revised the international tax system, while at the same time reducing the corporate tax rate from 35 percent to 21 percent. In addition to GILTI and FDII it included other provisions that affected international tax rules. These provisions included BEAT (see entry on "Base Erosion and Anti-Abuse Tax,") and a number of revisions to various definitions and rules. It included a deemed repatriation that imposed a tax on accumulated earnings abroad that has not been repatriated; this tax was imposed at a lower rate of 8

percent on illiquid assets and 15.5 percent on liquid assets, which could be paid over a period of eight years. These rates were increased to 35 percent if a firm inverted (reorganized to have a foreign parent with former U.S. shareholders owning 60 percent of the new firm), but not firms that are treated as U.S. firms (80 percent ownership).

Assessment

The new international tax system under P.L. 115-97 ended deferral for CFCs and substituted a minimum tax on global intangible income. There were generally four issues surrounding the international tax debate: the location of investment in the United States or abroad, the accumulation of unrepatriated earnings abroad as a result of the deferral regime, concerns about the magnitude of artificial profit shifting both by U.S. and foreign multinationals which moved income outside of the U.S. tax jurisdiction, and the growth of inversions where firms changed headquarters to a foreign location to reduce taxes.

The lower tax rate in the United States and some other domestic revisions were the main reforms associated with concerns about investment in the United States, since the international regime continues to favor tangible investment abroad though CFCs in low-tax countries over domestic tangible investment. Under the new system, this income will never be subject to tax while under the old it would be taxed when repatriated. Thus, while the lower corporate tax rate may encourage more investment in the United States, the exclusion of tangible returns may encourage more investment abroad. Also, by netting the deemed return on tangible assets against interest, the system also discourages debt financing for investments in intangibles abroad. The system also maintains an overall limit on the foreign tax credit for GILTI income which provides distortions in the allocation of investment depending on the foreign taxes paid on a firm's other investments. These rules create distortions in the allocation of investment. At the same time, since tangible investment usually requires other economic conditions (such as a labor force, other resources, and markets), it may not be as influenced by the exemption from U.S. tax as would be the case for intangibles.

The concern that a tax triggered by a dividend payment was discouraging taxpayers from repatriating income earned abroad to the United States was addressed, as repatriation as a tax trigger was eliminated for CFCs (where it was the principal concern).

Concerns that moving to a pure territorial tax (with no tax on foreign source income of CFCs beyond Subpart F) would increase artificial profit shifting (largely of intangible assets) to low-tax jurisdictions, led to the GILTI, FDII, and BEAT regimes. Although the GILTI and FDII regimes, along with the lower corporate tax rate, create little or no tax advantage to locating intangibles abroad, and income from intangibles located abroad will be subject to a minimum global tax, how these provisions will work in practice is not yet clear. For example, the GILTI tax rate is below the FDII tax rate so that investment in zero-tax jurisdictions is still attractive, but in higher-tax jurisdictions, the tax on intangibles may be increased because of allocation of parent firm costs to foreign source income, thereby reducing the foreign tax credit limit.

New inversions will be discouraged by provisions to retroactively tax past earnings at 35 percent and by the downward attribution rules. The concerns about inversions were also addressed by some provisions of BEAT and by rules taxing dividends from these firms as ordinary income.

Selected Bibliography

Cummings, Jasper L. "The Foreign Dividends Received Deduction," *Tax Notes*, February 12, 2018, pp. 1487-1503.

— . "GILTI Puts Territoriality in Doubt," *Tax Notes*, April 9, 2018, pp. 161-178.

— . "Selective Tax Act Analysis: Subpart F and Foreign Tax Credits," *Tax Notes*, pp. 653-668.

Gravelle, Jane G. and Donald J. Marples. *Issues in International Corporate Taxation: The 2017 Revisions (P.L. 115-97)*. Library of Congress, Congressional Research Service Report R41586 (2018).

Kamin, David et al. "The Games They Will Play: Tax Games, Roadblocks, and Glitches Under the 2017 Tax Legislation." *Minnesota Law Review*, Forthcoming, vol. 103, 2018.

Shaviro, Daniel. "The New Non-Territorial U.S. International Tax system, Part 1." *Tax Notes*, July 2, 2018, pp. 57-72, at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3222660.

— . "The New Non-Territorial U.S. International Tax system, Part 2." *Tax Notes*, July 9, 2018, pp. 171-194, at

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3227004.

Sherlock, Molly F. and Donald J. Marples, Coordinators, *The 2017 Tax Revisions (P.L. 115-97): Comparison to 2017 Law*, Library of Congress, Congressional Research Service Report R45092, (2018).

Sullivan, Martin A. "Economic Analysis: GILTI and That Disappointing Deemed Tangible Return," *Tax Notes*, May 7, 2018, pp. 773-776.

— . "Economic Analysis: More GILTI than You Thought," *Tax Notes*, February 12, 2018, pp. 845-850, at https://www.taxnotes.com/tax-reform/economic-analysis-more-gilti-you-thought.

U.S. Congress, House of Representatives. *Tax Cuts and Jobs Act, Conference Report to Accompany H.R. 1*. H.Rept. 115-466, 115th Cong., 1st sess., December 15, 2017.

U.S. Department of the Treasury, Internal Revenue Service. Guidance Related to Section 951A (Global Intangible Low-Taxed Income), Notice of Proposed Rulemaking, Announcement IR-2018-186, REG-10430-18, September 13, 2018, https://www.irs.gov/pub/irs-drop/reg-104390-18.pdf.

INVENTORY PROPERTY SALES SOURCE RULE EXCEPTION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.5	0.5
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Authorization

Sections 861, 862, 863, and 865.

Description

The tax code's rules governing the source of inventory sales interacted, in the past, with its foreign tax credit provisions in a way that can effectively exempt a portion of a firm's export income from U.S. taxation. This provision has been repealed after 2017 and revenue losses are related to prior law.

In general, the United States taxes U.S. corporations on their worldwide income. The United States also permits firms to credit foreign taxes they pay against U.S. taxes they would otherwise owe.

Foreign taxes, however, are only permitted to offset the portion of U.S. taxes due on foreign-source income. Foreign taxes that exceed this limitation are not creditable and become so-called "excess credits." It is here that the source of income becomes important: firms that have excess foreign tax credits can use these credits to reduce U.S. taxes if they can shift income from the U.S. to the foreign operation. This treatment effectively exempts such income from U.S. taxes.

The tax code contains a set of rules for determining the source ("sourcing") of various items of income and deduction. In the case of sales of personal property, gross income is generally sourced on the basis of the residence of the seller. U.S. exports covered by this general rule thus generate U.S.—rather than foreign—source income.

The tax code provided an important exception, however, in the case of sales of inventory property. Inventory that was purchased and then resold was governed by the so-called "title passage" rule: the income was sourced in the country where the sale occurred. Since the country of title passage was generally quite flexible, sales governed by the title passage rules could be easily arranged so that the income they produced was sourced abroad.

Inventory that was both manufactured and sold by the taxpayer was treated as having a divided source. Unless an independent factory price could be established for such property, half of the income it produced was assigned a U.S. source and half was governed by the title passage rule. As a result of the special rules for inventory, up to 50 percent of the combined income from export manufacture and sale could be effectively exempted from U.S. taxes. A complete tax exemption applied to export income that was solely from sales activity.

Impact

When a taxpayer with excess foreign tax credits is able to allocate an item of income to foreign rather than domestic sources, the amount of foreign taxes that can be credited is increased and the effect is identical to a tax exemption for a like amount of income. The effective exemption that the source rule provides for inventory property thus increases the after-tax return on investment in exporting. In the long run, however, the burden of the corporate income tax (and the benefit of corporate tax exemptions) probably spreads beyond corporate stockholders to owners of capital in general.

Thus, the source-rule benefit was probably shared by U.S. capital in general, and therefore probably disproportionately benefited upper-income individuals. To the extent that the rule resulted in lower prices for U.S. exports, a part of the benefit probably accrued to foreign consumers of U.S. products.

Rationale

The tax code has contained rules governing the source of income since the foreign tax credit limitation was first enacted as part of the Revenue Act of 1921 (P.L. 67-98). Under the 1921 provisions, the title passage rule applied

to sales of personal property in general; income from exports was thus generally assigned a foreign source if title passage occurred abroad. In the particular case of property both manufactured and sold by the taxpayer, income was treated then, as now, as having a divided source.

The source rules remained essentially unchanged until the tax reform in the 1980s. In 1986, the Tax Reform Act's (P.L. 99–514) statutory tax rate reduction was expected to increase the number of firms with excess foreign tax credit positions and thus increase the incentive to use the title passage rule to source income abroad.

Congress was also concerned that the source of income be the location where the underlying economic activity occurs. The Tax Reform Act of 1986 thus provided that income from the sale of personal property was generally to be sourced according to the residence of the seller. Sales of property by U.S. persons or firms were to have a U.S. source.

Congress was also concerned, however, that the new residence rule would create difficulties for U.S. businesses engaged in international trade. The Act thus made an exception for inventory property, and retained the title passage rule for purchased-and-resold items and the divided-source rule for goods manufactured and sold by the taxpayer.

The Omnibus Budget Reconciliation Act of 1993 (P.L. 103–66) repealed the source rule exception for exports of raw timber.

The 2017 tax revision (P.L. 115-409) repealed this tax expenditure for taxable years beginning after December 31, 2017.

Assessment

Like other tax benefits for exporting, the inventory source-rule exception provided an incentive to increase exports. At the same time, however, exchange rate adjustments likely ensured that imports increased also. Thus, while the source rule may have increased the volume of U.S. trade, it was not expected to improve the U.S. trade balance. To the extent that the source rule increased the federal budget deficit, the provision could have actually expanded the U.S. trade deficit by generating inflows of foreign capital and their accompanying exchange rate effects. In addition, the source-rule exception probably reduced U.S. economic welfare by transferring part of its tax benefit to foreign consumers.

Selected Bibliography

Brumbaugh, David L. "Export Tax Subsidies," in Cordes et al., eds., *The Encyclopedia of Taxation and Tax Policy*, 2nd edition. Washington: Urban Institute, 2005. pp. 130-133.

Hammer, Richard M. and James D. Tapper. "The Foreign Tax Credit Provisions of the Tax Reform Act of 1986." *Tax Adviser* 18 (February 1987), pp. 76-80, 82-89.

Krugman, Paul R. and Maurice Obstfeld. "Export Subsidies: Theory," In *International Economics: Theory and Policy*, 3rd ed. New York: Harper Collins, 1994.

U.S. Congress, Joint Committee on Taxation. *Factors Affecting the International Competitiveness of the United States*. Joint Committee Print. 98th Congress, 2nd session. Washington, DC: May 30, 1991.

U.S. Congressional Budget Office. "Options to Increase Revenues: Eliminate the Source-Rules Exception for Exports," in *Budget Options*. Washington, DC: 2007.

U.S. Department of the Treasury. *Report to the Congress on Earnings Stripping, Transfer Pricing and U.S. Income Tax Treaties*. Washington, DC: 2007.

DEFERRAL OF ACTIVE FINANCING INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	3.7	3.7
2019	-	1.7	1.7
2020	-	1.8	1.8
2021	-	2.5	2.5
2022	-	2.5	2.5

Authorization

Sections 953 and 954.

Description

Under current law, dividends from controlled foreign corporations (CFCs) are exempt from tax for corporate shareholders, but earnings of these corporations are subject to two types of taxes: a tax on easily shifted income at full rates (called Subpart F income) and a minimum worldwide tax on a share of the overall remaining income, termed a tax on global intangible low-taxed income, or GILTI. CFCs are firms that are more than 50 percent owned by U.S. stockholders, each of whom own at least 10 percent of the CFC's stock. See entry on "Reduced Tax Rate on Active income of Controlled Foreign Corporations."

Under Subpart F, certain types of income earned by CFCs are taxed at full rates (21 percent for corporate shareholders). Subpart F subjects each 10 percent shareholder to U.S. tax on some (but not all) types of income earned by the CFC. In general, the types of income subject to Subpart Fare income from a CFC's passive investment—for example, interest, dividends, and gains from the sale of stock and securities—and a variety of types of income whose geographic source is thought to be easily manipulated. Credits are allowed against U.S. tax due for any foreign taxes paid on this income.

For other income, a lower tax is imposed on what is referred to as global intangible low-taxed income (GILTI) and an exemption is provided for tangible investments. GILTI income is technically part of Subpart F but is subject to a separate foreign tax credit treatment and other rules. Two deductions are allowed in addition to deducting normal Subpart F income. First, a deemed return to tangible investments, 10 percent of the tax basis (cost less depreciation) for tangible assets net of interest deductions, is excluded so that no taxes are imposed on this income. Second, 50 percent of the remaining income is deducted for taxable years beginning after December 31, 2017, and through taxable years beginning before January 1, 2025. Thus, the tax rate on this income is 10.5 percent (half of the 21 percent corporate tax rate). After that period, a 37.5 percent deduction is allowed, resulting in a tax rate of 13.125 percent. This income is segregated into a separate foreign tax credit computation basket and 80 percent of foreign taxes paid are allowed, again on an overall basis. As a result, a residual U.S. tax is collected when overall foreign tax rates are below 13.125 percent in the initial years (0.105/0.80), and subsequently 16.406 percent (0.13125/0.80).

Ordinarily, income from banking and insurance could in some cases be included in Subpart F. Much of banking income, for example, consists of interest; investment income of insurance companies could also ordinarily be taxed as passive income under Subpart F. Certain insurance income is also explicitly included in Subpart F, including income from the insurance of risks located outside a CFC's country of incorporation. However, Congress enacted a temporary exception from Subpart F for income derived in the active conduct of a banking, financing, or similar business by a CFC predominantly engaged in such a business with the Taxpayer Relief Act of 1997 (P.L. 105-34). Congress also enacted a temporary exception for investment income of an insurance company earned on risks located within its country of incorporation.

In short, Subpart F is an exception to the general rule taxing GILTI, and the tax expenditure at hand is an exception to Subpart F itself for a range of certain financial services income.

The revenue estimate also includes the taxation of income of this type earned in prior years and not subject to tax due to the pre-existing deferral regime, where income of CFC's outside of Subpart F was taxed at normal rates but only when repatriated to the U.S. shareholder as a dividend. This income will be taxed at a 15.5 percent rate for cash and cash equivalent income and 8 percent for other income. This increased tax liability may be paid over an eight-year period.

Impact

The exception poses an incentive in certain cases for firms to invest abroad, just as the general treatment of GILTI does. This incentive generally applies to low-tax countries and for some investments is partially offset by the U.S. incentive for foreign derived intangible income (see entry "Deduction for Foreign-Derived Intangible Income Derived from Trade or Business Within the United States"). In other countries, the high foreign tax rates generally negate the U.S. tax benefit provided by deferral. In addition, the provision is moot (and provides no incentive) even in low-tax countries for U.S. firms that pay foreign taxes at high rates on other banking and insurance income. In such cases, the firms have sufficient foreign tax credits to offset U.S. taxes that would be due in the absence of deferral. (In the case of banking and insurance income, creditable foreign taxes must have been paid with respect to other banking and insurance income. This may accentuate the importance of the exception to Subpart F.)

Rationale

Subpart F itself was enacted in 1962 (P.L. 87-834) as an effort to curtail the use of tax havens by U.S. investors who sought to accumulate funds in countries with low tax rates—hence Subpart F's emphasis on passive income and income whose source can be manipulated. At that time, income from foreign subsidiaries benefitted from deferral, that is, taxes were not imposed until income was repatriated to the U.S. shareholder as a dividend. The exception for banking and insurance was likewise in the original 1962 legislation (though not in precisely the same form as the current version). The stated rationale for the exception was that interest, dividends, and like income were not thought to be "passive" income in the hands of banking and insurance firms.

The exceptions for banking and insurance were removed as part of the broad Tax Reform Act of 1986 (P.L. 99-514). In removing the exception (along with several others), Congress believed they enabled firms to locate income in tax haven countries that have little "substantive economic relation" to the income. As passed by Congress, the Taxpayer Relief Act of 1997 (P.L. 105-34) generally restored the exceptions with minor modifications. In making the restoration, Congress expressed concern that without them, Subpart F extended to income that was neither passive nor easily movable. However, the Act provided for only a temporary restoration, applicable to 1998. Additionally, the Joint Committee on Taxation identified the exceptions' restoration as a provision susceptible to line-item veto under the

provisions of the 1996 Line-Item Veto Act (P.L. 104-130) because of its applicability to only a few taxpaying entities, and President Clinton subsequently vetoed the exceptions' restoration. The Supreme Court, however, ruled the line-item veto to be unconstitutional, thus making the temporary restoration effective for 1998, as enacted.

The banking and insurance exceptions to Subpart F were extended with a few modifications for one year by the Tax and Trade Relief Extension Act of 1998. (The Act was part of P.L. 105-277, the omnibus budget bill passed in October 1998.) The modifications include one generally designed to require that firms using the exceptions conduct "substantial activity" with respect to the financial service business in question and added a "nexus" requirement under which activities generating eligible income must take place within the CFC's home country. In 1999, the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170) extended the provision through 2001. In 2002, the Job Creation and Worker Assistance Act of 2002 (P.L.107-147) extended the provision for five additional years, through 2006. The American Jobs Creation Act of 2004 (P.L. 108-357) added rules permitting, in some circumstances, certain qualifying activities to be undertaken by related entities. The Tax Increase Prevention Act (P.L. 109-222) extended the provision for two years, through 2008, and the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the provision through the end of 2009. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act (P.L. 111-312) extended the provision through 2011. The American Taxpayer Relief Act of 2012 (P.L. 112-240) extended it through 2013. The Tax Increase Prevention Act of 2014 (P.L. 113-295) extended the provision through 2014. The exceptions under Subpart F for active financing income were made permanent by the Consolidated Appropriations Act of 2016 (P.L. 114-113).

The nature of the exception changed with the enactment of the 2017 tax changes, P.L. 115-97, popularly referred to as the Tax Cuts and Jobs Act, which replaced the deferral regime with GILTI and enacted a subsidy for intangible earnings derived from abroad for income earned in the United States.

Assessment

Subpart F attempts to deny the benefits of the lower tax on GILTI to income that is passive in nature or that is easily movable. It has been argued that the competitive concerns of U.S. firms are not as much an issue in such cases as they are with direct overseas investment. Such income is also thought

to be easy to locate artificially in tax haven countries with low tax rates. But banks and insurance firms present an almost insoluble technical problem; the types of income generated by passive investment and income whose source is easily manipulated are also the types of income financial firms earn in the course of their active business. The choice confronting policymakers, then, is whether to establish an approximation that is fiscally conservative or one that places most emphasis on protecting active business income from Subpart F. The exceptions' repeal by the Tax Reform Act of 1986 appeared to do the former, while the recent restoration of the exceptions appears to do the latter.

Some question the merits of the GILTI tax regime itself. Its tax incentive for investment abroad generally results in an allocation of investment capital that is inefficient from the point of view of both the capital exporting country (in this case the United States) and the world economy in general. Economic theory instead recommends a policy known as "capital export neutrality" under which marginal investments face the same tax burden at home and abroad. From that vantage, then, the exceptions to Subpart F likewise impair efficiency.

Selected Bibliography

Cummings, Jasper L. "The Foreign Dividends Received Deduction," *Tax Notes*, February 12, 2018, pp. 1487-1503.

— . "GILTI Puts Territoriality in Doubt," *Tax Notes*, April 9, 2018, pp. 161-178.

— . "Selective Tax Act Analysis: Subpart F and Foreign Tax Credits," *Tax Notes*, pp. 653-668.

Gravelle, Jane G. and Donald J. Marples. *Issues in International Corporate Taxation: The 2017 Revisions (P.L. 115-97)*, Library of Congress, Congressional Research Service Report R41586 (2018).

Hoffman, William. "Active Financing Helps Bring GE's Tax Rate to 2.3 Percent," *Tax Notes International*, Vol. 65 (March 5, 2012), p. 746.

Kamin, David et al. "The Games They Will Play: Tax Games, Roadblocks, and Glitches Under the 2017 Tax Legislation," *Minnesota Law Review*, Forthcoming, Vol. 103, 2018.

McLaughlin, Megan. "Truly a Wolf, Or Just a Sheep in Wolf's Clothing? The Active Finance Exception to Subpart F," *Virginia Tax Review*, Vol. 21 (Spring 2002), p. 649.

Shaviro, Daniel. "The New Non-Territorial U.S. International Tax system, Part 1." *Tax Notes*, July 2, 2018, pp. 57-72, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3222660.

— . "The New Non-Territorial U.S. International Tax System, Part 2," *Tax Notes*, July 9, 2018, pp. 171-194, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3227004.

Sherlock, Molly F. and Donald J. Marples, Coordinators, *The 2017 Tax Revision (P.L. 115-97): Comparison to 2017 Law*, Library of Congress, Congressional Research Service Report R45092, (2018).

Sullivan, Martin A. "Economic Analysis: GILTI and That Disappointing Deemed Tangible Return," *Tax Notes*, May 7, 2018, pp. 773-776.

— . "Economic Analysis: Large U.S. Banks Keeping More Profits in Tax Havens," *Tax Notes*, Vol. 14 (June, 2004), p. 1340.

— . "Economic Analysis: More GILTI than You Thought," *Tax Notes*, February 12, 2018, pp. 845-850, https://www.taxnotes.com/tax-reform/economic-analysis-more-gilti-you-thought.

U.S. Congress, House of Representatives. Tax Cuts and Jobs Act, Conference Report to Accompany H.R. 1. H.Rept. 115-466, 115th Cong., 1st sess., December 15, 2017.

DEDUCTION FOR FOREIGN TAXES INSTEAD OF A CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.2	0.2
2019	-	0.2	0.2
2020	-	0.2	0.2
2021	-	0.2	0.2
2022	-	0.2	0.2

Authorization

Section 901.

Description

For taxes paid on income earned abroad, taxpayers may elect to either claim a deduction against taxable income or a credit against taxes due. In general, the credit is more advantageous than the deduction, because a credit reduces taxes paid on a dollar-for-dollar basis, while a deduction only reduces income subject to tax. However, in cases where the taxpayer is facing the foreign tax credit limit claiming the deduction will result in a lower tax liability.

Foreign tax credits were limited in the recent 2017 tax revision (P.L. 115-97). For controlled foreign corporations only 80 percent of taxes paid on certain foreign source income can be credited, and no credits are allowed for dividends which are exempt going forward. These changes may make unused credits less likely. See entry on "Reduced Tax Rate on Active Income of Controlled Foreign Corporations." At the same time, the corporate tax rate was reduced from 35 percent to 21 percent, reducing the value of the deduction by 40 percent.

Impact

The deduction reduces the U.S. taxes due by some taxpayers who are either unable to claim the foreign tax credit or are constrained by the foreign tax credit limit.

Rationale

The opportunity to deduct foreign taxes paid was a feature in the original 1913 tax code. One possible motivation for the deduction could have been to recognize foreign taxes, like state taxes, as a possible cost associated with earning income. As such, the provision would help correct for mismeasurement of adjusted gross income and reflect on ability to pay or horizontal equity arguments.

Assessment

Deductibility of foreign taxes is consistent with the economic concept of national neutrality. Under this regime, foreign taxes are treated as a business expense and, thus, deductible from taxable income. This treatment results in the foreign return net of foreign tax equaling the domestic before tax return and a nationally efficient allocation of capital. While this provision maximizes the income or output in the domestic market, it also alters the division of income between capital and labor, shifting income towards labor and away from capital. Because national neutrality distorts the location of investment, it produces an inefficient "deadweight" reduction in world economic welfare.

Selected Bibliography

Feldstein, Martin S. and David Hartman, "The Optimal Taxation of Foreign Source Investment Income," *Quarterly Journal of Economics* 93 (1993).

Gravelle, Jane G., *Reform of U.S. International Taxation: Alternatives,* Library of Congress, Congressional Research Service Report RL34115, June 3, 2015.

Gravelle, Jane G. and Donald J. Marples, *Issues in International Corporate Taxation: The 2017 Revisions (P.L. 115-97)*, Library of Congress, Congressional Research Service Report R45186, May 1, 2018.

Keightley, Mark and Jeffrey Stupak, *U.S. International Corporate Taxation: Basic Concepts and Policy Issues*, Library of Congress, Congressional Research Service Report R41852, December 2, 2014.

Rousslang, Donald J., "Foreign Tax Credit," in Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle, eds., *The Encyclopedia of Taxation and Tax Policy* (Washington: The Urban Institute, 2005), pp.157-8.

DEDUCTION FOR FOREIGN-DERIVED INTANGIBLE INCOME DERIVED FROM TRADE OR BUSINESS WITHIN THE UNITED STATES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	9.6	9.6
2019	-	15.4	15.4
2020	-	19.3	19.3
2021	-	23.1	23.1
2022	-	27.4	27.4

Authorization

Section 250.

Description

The foreign derived intangible income (FDII) provision is aimed at providing a lower tax rate on intangible income produced in the United States but derived from abroad. FDII is based on a formulary measure of domestic intangible income (deemed intangible income), which is then multiplied by the estimated share of this income that is derived from foreign sales and use. "Deemed intangible income" is defined as deduction-eligible income in excess of 10 percent of tangible depreciable assets. Deduction-eligible income, in turn, is gross income minus excepted income minus deductions (including taxes) allocable to this income. Excepted income subtracted out is generally foreign-source income (Subpart F income, GILTI, dividends from CFCs, foreign branch income) as well as active financial services income, and domestic oil and gas extraction income. The purpose of all of these deductions is to estimate a reasonable measure of intangible domestic source income.

To determine the share of this deemed intangible income that is eligible for the deduction, it is multiplied by the ratio of foreign-derived deduction-

eligible income over the total deduction-eligible income. Foreign-derived deduction-eligible income is aimed at measuring income from the export of goods and services; it includes any deduction-eligible income that is from the sale of property for foreign use and the provision of services used abroad, including leases and licenses (and therefore royalties, both those in the active foreign tax credit basket and those from unrelated firms).

FDII is eligible for a deduction of 37.5 percent for taxable years beginning after December 31, 2017, and through taxable years beginning before January 1, 2025, resulting in a 13.125 percent rate (the 21 percent corporate tax rate multiplied by (1-0.375)). For taxable years beginning after December 31, 2025, the deduction declines to 21.875 percent, resulting in a rate of 16.406 percent (21 percent multiplied by (1-0.21875)).

The deduction for FDII and another provision, global low-taxed intangible income (GILTI), discussed in the section on "Reduced Tax Rate on Active Income of Controlled Foreign Corporations," is limited if the sum of GILTI and FDII exceeds taxable income excluding GILTI. The excess is not allowed as a deduction and is apportioned between GILTI and FDII according to their shares of the total amount of GILTI and FDII.

Impact

The FDII provision provides a lower tax rate for income from intangibles located in the United States and receiving foreign source income, and, thus, an incentive to locate intangibles in the United States. There are still incentives to locate intangibles abroad despite a tax on GILTI, because the GILTI tax is slightly lower and foreign intangible income might still be shielded by the foreign tax credit. If a firm operates only in countries without foreign taxes then income derived (earned) in the United States will be taxed at 13.125 percent while intangible income abroad will be taxed at 10.5 percent (16.406 percent compared to 13.125 percent after taxable years beginning after December 31, 2025). When a firm is subject to foreign taxes, in some jurisdictions it is possible to offset the GILTI tax in no-tax jurisdictions with unused credits from other countries. (See discussion in "Reduced Tax Rate on Active Income of Controlled Foreign Corporations.") FDII does not apply to intangibles with income derived from the U.S. market, whereas lower rates for intangible assets located abroad and selling to the U.S. market still apply.

The formulaic treatment of FDII and GILTI and the discrepancy between tax effects means that there is an incentive to locate low-margin tangible assets

in the United States (so as to increase the share of income eligible for the FDII deduction) and to locate high-margin tangible assets abroad.

Dowd and Landefeld find that the industries that are expected to benefit most are U.S. firms with significant exports and intangible income, including manufacturing; information, and professional, scientific and technical services.

Rationale

FDII was added to the tax system as part of a major revision of the tax treatment of foreign source income for the 2017 tax revision (P.L. 115-97, referred to as the Tax Cuts and Jobs Act). This revision moved to a territorial tax but added provisions to reduce profit shifting. FDII along with the tax on GILTI was introduced to reduce profit shifting through transfer pricing of intangibles that led to large amounts of U.S. profits of multinationals being realized in low- or no-tax jurisdictions.

Assessment

The 2017 tax revision moved the U.S. method of taxing overseas investment from one with a worldwide taxation with a credit for foreign taxes and deferral of tax until profits are repatriated to a territorial tax that eliminated tax on dividends received from foreign subsidiaries. One of the methods of profit shifting was to transfer intangible assets from the United States to subsidiaries in low- or no-tax foreign countries (such as the Cayman Islands or Bermuda, countries with no corporate tax). The new system provides a benefit (FDII) to income earned from intangible assets located in the United States deriving income from foreign sources. This change provides an incentive to locate intangible assets in the United States thereby reducing that profit shifting. The methods of profit shifting involve transferring assets at lower than arms-length prices and cost sharing arrangements that allow the foreign subsidiary to receive the right to new technology by providing part of the cost of research and development.

While FDII, in combination with GILTI, should reduce profit shifting there are still incentives to locate intangibles abroad, as noted in the "Impact" section above, due to the slight differences in rates, the ability to use excess foreign tax credits to offset tax on GILTI, and the allowance of FDII only for an estimate of foreign derived income. Commentary has also pointed to mechanisms for a firm to increase the benefits of FDII, such as round tripping (selling abroad to an independent firm and then reimporting products), selling

unfinished goods to foreign manufacturers, or buying goods from a foreign supplier for resale abroad. It might also be possible to sell to an unrelated foreign firm with advertising and marketing requirements and price restrictions to accomplish round tripping. A firm could also buy from a foreign supplier for resale abroad.

There are still some incentives for firms to shift intangible assets (and thus profits) to low- or no-tax jurisdictions because, while income from intangibles located abroad (GILTI) is taxed, it is also eligible for a deduction. A formula approach makes an estimate of this income (GILTI, described in the entry "Reduced Tax Rate on Active Income of Controlled Foreign Corporations") subject to tax but also allows a deduction. This deduction is slightly larger than the FDII deduction so that tax rates on income earned in foreign subsidiaries (without foreign tax credits) are lower than FDII tax rates. Also for firms operating in many locations, unused credits from high-tax jurisdictions may be used to shield profits from low-tax jurisdictions from the GILTI tax. In addition, FDII does not apply to income derived within the United States so there would be an advantage for firms to shift intangibles abroad but sell to the United States.

The movement of intangibles and their associated profits might take some time, as moving existing intangibles back to the United States would incur a tax (a provision allowing those assets tax-free status was in the Senate bill but was eliminated in conference).

FDII also encourages more high-margin tangible investment in the United States to increase the base for FDII (just as GILTI encourages low-margin manufacturing abroad). At the same time, FDII would be available to firms with no manufacturing or employees in the United States.

One of the major concerns about FDII is that it may violate the WTO rules against export subsidies. FDII might also be viewed abroad as a harmful tax regime (similar to some patent boxes), although it might be noted that its objective is to remove tax as a factor in locating intellectual property, as is the case of the OECD BEPS-compliant patent boxes. However, FDII has a mechanical rule rather than being based on transfer pricing and no nexus requirement (i.e., no direct connection against the cost of developing the intangible and revenue) and thus may be noncompliant. Germany also has a provision for a royalty barrier that disallows a deduction for royalties paid to related firms that benefit from noncompliant patent box regimes. Loss of a deduction for royalties would more than offset the benefit of FDII in that case.

The potential for FDII violating WTO as an export subsidy has already led some observers to argue that FDII should never have been enacted. Bringing together tax rates for U.S. and foreign locations could also be reached by eliminating both the FDII and GILTI deductions. If GILTI were also imposed on a per-country basis, the incentive for locating intangibles abroad for foreign operations rather than in the United States would largely be eliminated, especially now that the United States has tax rates at or below those of most developed countries.

Selected Bibliography

Avi-Yonah, Reuven S. and Martin Vallespinos. "The Elephant Always Forgets: US Tax Reform and the WTO." University of Michigan law and Economics Research Paper No. 18-006, April 19, 2018, at

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3113059##.

Corwin, Manal et al. "Consolidated Attribute Redetermination to the FDII Rescue." *Tax Notes*, March 12, 2018, pp. 1505-1510.

Cummings, Jasper L. "Foreign-Derived Intangible Income Deduction." *Tax Notes*, May 7, 2018, pp. 853-866.

Dowd, Tim and Paul Landefeld. "The Business Cycle and the Deduction for Foreign Derived Intangible Income: A Historical Perspective." May 2018, presented at the Spring Symposium of the National Tax Association, at

https://www.ntanet.org/wp-content/uploads/2018/05/The-Business-Cycle-and-the-Deduction-for-Foreign-presentation.pdf.

Gravelle, Jane G. and Donald J. Marples. *Issues in International Corporate Taxation: The 2017 Revisions (P.L. 115-97).* Library of Congress, Congressional Research Service Report R41586 (2018).

Kamin, David et al. "The Games They Will Play: Tax Games, Roadblocks, and Glitches Under the 2017 Tax Legislation." *Minnesota Law Review*, Forthcoming, vol. 103, 2018.

Sanchirico, Chris William. "The New US Tax Preference for 'Foreign-Derived Intangible Income.'" *Tax Law Review*, vol. 17, no. 4, May 24, 2018, at

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3171091.

Shaviro, Daniel. "The New Non-Territorial U.S. International Tax system, Part 2." *Tax Notes*, July 9, 2018, pp. 171-194, at

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3227004.

Yoder, Lowell D. et al. "The New Deduction for Foreign-Derived Intangible Income." McDermott Will & Emery, January 24, 2018, at

https://www.mwe.com/en/thought-leadership/publications/2018/01/the-new-deduction-for-foreign-derived-intangible.

SPECIAL RULE FOR INTEREST-CHARGE DOMESTIC INTERNATIONAL SALES CORPORATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.6	0.6
2019	-	0.7	0.7
2020	-	0.7	0.7
2021	-	0.7	0.7
2022	-	0.8	0.8

Authorization

Sections 991-997.

Description

An Interest-Charge Domestic International Sales Corporation (IC-DISC) is a domestic corporation, usually formed by parent shareholders (e.g., corporations, individuals, and trusts) to be a tax-exempt subsidiary, which exports U.S. products. The parent company pays the IC-DISC a tax deductible commission attributable to qualified export sales. Because the IC-DISC pays no tax, distributions (actual or "deemed") to IC-DISC shareholders are taxed only once, often at the lower individual dividend and capital gains tax rates. As a result, the after tax return to shareholders is enhanced.

IC-DISC shareholders may defer up to $10 million annually that is attributable to qualified export sales. An interest charge is imposed on shareholders, however, based on the distribution that would have occurred had deferral not been elected. The $10 million deferral restriction was intended to limit the benefit of IC-DISC activity to smaller businesses.

Impact

IC-DISC reduces the effective tax rate on export income. The benefit therefore accrues to the owners of export firms as well as IC-DISC shareholders.

Rationale

IC-DISC was intended to increase U.S. exports and provide an incentive for U.S. firms to operate domestically rather than abroad. Additionally, IC-DISC (and DISC in general) was adopted as a way to partially offset export subsidies offered by foreign countries.

The provision allowing the formation of Domestic International Sales Corporations (DISCs) was enacted as part of the Revenue Act of 1971 (P.L. 92-178). Shortly after enactment, several European countries argued that the DISC provision violated the General Agreement on Tariffs and Trade (GATT) by allowing unlimited tax deferral. A GATT panel concluded that DISC was a prohibited export subsidy. The United States never formally recognized the illegality of DISC.

In response to the GATT panel ruling on DISC, the Tax Reform Act of 1986 (TRA86, P.L. 99-514) enacted a provision allowing for the creation of Interest Charge Domestic International Sales Corporations (IC-DISC) and Foreign Sales Corporations (FSC). A FSC was similar to a DISC in that exporters were required to establish a specially qualified subsidiary corporation to which they sold their products. Unlike DISC, FSC was designed to provide a GATT compliant export benefit by classifying FSC income as foreign-source income not connected with U.S. trade or business, effectively exempting it from U.S. income tax. Although FSCs were foreign-chartered corporations, they were allowed a 100 percent dividends-received deduction, as well as having their income exempted from Subpart F's anti-deferral rules.

In early 2000, the WTO Appellate Body confirmed an earlier ruling that FSC were a prohibited export subsidy. As a result, the FSC provision was repealed and a provision excluding extraterritorial income (ETI) was included in the FSC Repeal and Extraterritorial Income Exclusion Act of 2000 (P.L. 106-519). The ETI provision provided U.S. exporters with a similar tax benefit offered by FSC, while no longer imposing the FSC foreign management requirement. The benefit, however, was based on "extraterritorial income," and therefore not based solely on exports, making the ETI provision WTO compliant.

Amid complaints from the European Union and another finding that the ETI provision violated WTO rules, the ETI provision was repealed by the American Jobs Creation Act of 2004 (P.L. 108-357). A year earlier, the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA, P.L. 108-27) had cut taxes on dividend and capital gains, re-establishing the attractiveness of IC-DISC, which had been introduced nearly two decades earlier.

Assessment

IC-DISC is a tax incentive that is intended to increase U.S. exports and discourage U.S. corporations from establishing subsidiaries in foreign countries. Proponents argue that IC-DISC stimulates exports and job creation. Economic theory suggests a less optimistic view. With flexible exchange rates, an increase in U.S. exports resulting from IC-DISC likely causes an appreciation of the U.S. dollar relative to foreign currencies. In response, U.S. citizens could be expected to increase their consumption of imported goods, possibly at the expense of domestically produced substitutes. As a result, no improvement in the balance of trade occurs and domestic employment could decrease.

Economic theory also highlights the inefficiencies that IC-DISC may introduce into the allocation of productive economic resources within the U.S. economy, as only domestic exporters may benefit from the subsidy. Additionally, because the tax benefit is related to the production of exported goods and services, domestic consumers receive no direct consumption benefit. Foreign consumers, on the other hand, benefit from lower-priced goods.

Selected Bibliography

Belmonte, Cynthia. "Interest-Charge Domestic Sales Corporations, 2000," Internal Revenue Service. *SOI Bulletin*, *Spring 2004*.

Brumbaugh, David L. *A History of Extraterritorial Income (ETI) and Foreign Sales Corporation (FSC) Export Tax-Benefit Controversy*. Library of Congress, Congressional Research Service Report RL31660. September 22, 2006.

Evans, Allison L., Jonathan Harris, and James H. Irving. "U.S. Exporters Leaving Tax Dollars on the Table," *Journal of Accountancy*, vol. 222, November 2016, pp. 66-70.

Gravelle, Jane, Kent Hughes, and Warren E. Farb. *The Domestic International Sales Corporation (DISC) and its Effect on U.S. Foreign Trade and Employment*. Library of Congress, Congressional Research Service Report 76-92. May 4, 1976.

U.S. Congress, Joint Committee on Taxation. "Foreign Sales Corporations," in *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*. Committee Print, 98th Cong., 2nd sess. Washington, DC: Government Printing Office (1984), pp. 1037-1070.

TAXATION OF REAL PROPERTY GAINS OF FOREIGN PERSONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: This provision was included in a 2008 tax expenditure list with a negative tax expenditure of less than $50 million, but was not included in the 2010, 2012, 2014, or 2015 lists.

Authorization

Sections 897, 1445, 6039C, and 6652

Description

The Foreign Investment in Real Property Tax Act of 1980 (FIRPTA) explicitly classifies the disposition of a U.S. real property interest as effectively connected with U.S. trade or business. Therefore, the net capital gain or loss from the disposition of US real property by a foreigner is subject to U.S. personal and/or corporate income taxes. U.S. real property interests include parcels of real property as well as certain shares in U.S. real property holding corporations.

FIRPTA also requires income tax withholding for the disposition of a U.S. real property interest by a foreign person. The withholding is a deposit towards expected taxes arising from the sale of U.S. real property. In general, the purchaser is responsible for withholding equal to 10 percent of the purchase price of the property. The 10 percent withholding is then paid to the Internal Revenue Service. Some foreign entities, for example, partnerships,

trusts, and estates, may be subject to a higher withholding. Failure to withhold the tax may result in the purchaser being liable for the tax.

A number of exemptions from the withholding requirement exist. The most common applies to U.S. buyers that purchase a principal residence with a sales price of less than $300,000.

Impact

FIRPTA effectively classifies realized real U.S. property appreciation as connected with U.S. business or trade. As a result, real property investment by foreigners is taxed. While the statutory tax incidence (burden) falls on the seller of the property, where the actual incidence of the tax falls will depend on the relative price elasticity of sellers and buyers. If buyers are less responsive to changes in the price of property, sellers may be able to raise prices to compensate for the tax. As a result, the actual burden of the tax will be split between buyers and sellers.

The quantitative impact on the budget of taxing the disposition of U.S. real property by foreigners appears to be small, as indicated by the estimated negative tax expenditures listed in the table above.

Rationale

Prior to the enactment of FIRPTA, foreign investors had used several methods to avoid taxation on the sale of appreciated U.S. real property. FIRPTA was enacted to prevent tax-free dispositions of U.S. real property by foreign investors. By treating real property interests as effectively involved in U.S. trade or business, FIRPTA taxes the capital gain realized by a foreign investor upon sale of U.S. real property. FIRPTA also prevents tax-free disposition through investment in a corporation with sufficient U.S. real property interests. The Consolidated Appropriations Act of 2016 (P.L. 114-13) increased from 5% to 10% the share of ownership that avoids taxation under FIRPTA. Additionally, the act exempts foreign pension funds from FIRPTA.

Assessment

The requirement under FIRPTA that foreign and domestic investors in U.S. property are subject to the same tax treatment increases equity between taxpayers. As a result, the preferential tax treatment provided to foreign investors prior to the enactment of FIRPTA has likely been reduced. Economic

theory suggests that, all else equal, the increased tax discourages investment in U.S. real property by foreigners.

The FIRPTA tax withholding requirement reduces the ability of foreign investors to avoid paying taxes on the sale of appreciated U.S. property. The required withholding amounts to a deposit on the expected tax liability. Prior to the passage of FIRPTA it was possible for foreign investors to avoid paying taxes through U.S. tax treaties, nonrecognition provisions, or by structuring investments through corporations.

Selected Bibliography

Brown, Fred B. "Wither FIRPTA?" *Tax Lawyer*, vol. 57, no. 2, Winter 2004, pp. 295-342.

Gravelle, Jane G. *Real Estate Investment Trusts (REITs) and the Foreign Investment in Real Property Tax Act (FIRPTA): Overview and Recent Tax Revisions*. Library of Congress, Congressional Research Service Report R44421 (March 2016).

Sakai, Marcia and James Mak. "Taxation of Foreign Real Property Investments in The U.S.: A State Perspective," University of Hawaii at Manoa, Working paper, no. 90-30, 1990.

U.S. Congress, Joint Committee on Taxation. *Description of Selected Federal Tax Provisions that Impact Land Use, Conservation, and Preservation*. JCX-68-99, Washington, DC, September 28, 1999.

TONNAGE TAX

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.1	0.1
2019	-	0.1	0.1
2020	-	0.1	0.1
2021	-	0.1	0.1
2022	-	0.1	0.1

Authorization

Sections 1352-1359.

Description

Domestic corporations in the United States are subject to tax on their worldwide income. To limit double taxation, U.S. firms with foreign-source income are allowed a credit against U.S. tax for foreign paid taxes. The U.S. also only taxes foreign corporate income sufficiently connected to trade or business in the U.S. Such foreign corporate income is subject to the same tax as domestic corporate income.

Corporations involved in shipping trade and business operations may, as an alternative to the conventional corporate income tax, elect to pay the "tonnage tax." The tonnage tax is a tax on a notional shipping income (rather than on corporate income); the tax rate is equal to the corporate income tax rate, which is currently 21 percent. Notional shipping income is calculated as daily notional shipping income multiplied by the number of days a vessel operates in U.S. foreign trade. Daily notional income is $0.40 per 100 tons of a ship's weight up to 25,000 net tons, and then $0.20 per 100 tons in excess of 25,000 tons. Corporations electing to pay the tonnage tax are allowed no deductions against notional shipping income, and no credits against tonnage taxes paid.

Impact

For corporations electing to pay the tonnage tax, the expected tax burden is smaller than under the conventional corporate income tax. The expected tax burden is reduced because taxes are no longer directly tied to profitability, but rather to a ship's fixed tonnage. Thus, as profitability increases, taxes remain constant.

While the expected tax burden is reduced under the tonnage tax, the actual tax burden may not be. Corporations that suffer losses or that are less profitable than expected may end up paying a tonnage tax that is higher than they would have under the corporate income tax. Again, this is because the tonnage tax is not directly related to profitability.

The direct benefit of a higher after-tax return to investment accrues to the owners and shareholders of domestic shipping operators involved in U.S. foreign trade. Owners and shareholders also benefit from increased certainty and clarity with respect to a company's future tax liabilities. U.S. consumers also benefit indirectly in the form of lower priced traded goods. The estimated revenue losses reported in the table above indicate a relatively small budgetary impact from this provision.

Finally, because notional shipping income per ton decreases above the 25,000 ton threshold, the tonnage tax is more beneficial to larger vessels.

Rationale

Enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357), the tonnage tax was intended to provide relief to U.S.-based shipping operators competing with foreign shipping operators registered in countries with tonnage tax regimes. Examples of other countries offering a tonnage based corporate tax include: Belgium, China, Greece, India, Ireland, and the United Kingdom. Proponents of the provision believed U.S. shippers to be at a disadvantage without a comparable tax subsidy. Aside from several small technical changes made by the Gulf Opportunity Zone Act of 2005 (P.L. 109-135), the tonnage tax as enacted remains unchanged.

Assessment

The tonnage tax is intended to assist U.S.-based shipping operators by reducing the effective U.S. corporate tax to that found in other countries. By reducing the effective tax rate, economic theory predicts a positive effect on the number of vessels that register within the U.S. In addition, any investment

in new vessels that occurs should be expected to also increase the number of U.S.-registered ships.

With respect to the tonnage tax's effect on employment, Section 46 of the United States Code (pertaining to manning requirements) generally requires the officers of U.S.-registered ships and most other crew members to be U.S. citizens. Therefore, any increase in the number of U.S. registered vessels resulting from the tonnage tax could have a positive effect on employment among corporations involved in shipping trade and business. The net effect on aggregate employment within the U.S. economy, however, will be determined by the amount to which the increase in shipping trade and business employment represents new job creation.

Selected Bibliography

Brownrigg, Mark, Geoff Dawe, Mike Mann, and Phillip Weston. "Developments in UK Shipping: The Tonnage Tax," *Maritime Policy and Management,* vol. 28, no. 3, 2001, pp. 213-223.

Marlow, Peter, and Kyriaki Mitrousssi. "EU Shipping Taxation: The Comparative Position of Greek Shipping," *Maritime Economics and Logistics,* vol. 10, issue 1-2, 2008, pp. 185-207.

Selkou, Evangela, and Michael Roe. "UK Tonnage Tax: Subsidy or Special Case?" *Maritime Policy and Management,* vol. 29, no. 4, 2002, pp. 393-404.

U.S. Congress, Conference Committees, *American Jobs Creation Act of 2004,* conference report to accompany H.R. 4520, 108th Cong. 2nd sess. H.Rept. 108-755 (Washington: GPO, 2004).

General Science, Space, and Technology

EXPENSING OF RESEARCH AND EXPERIMENTAL EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	2.0	2.0
2019	-	1.3	1.3
2020	-	1.3	1.3
2021	-	1.3	1.3
2022	-	1.4	1.4

Authorization

Sections 174 and 59(e).

Description

As a general rule, the cost of a depreciable capital asset with a useful life beyond a single year, such as a machine tool or a computer, must be capitalized and recovered through taking allowable depreciation deductions over the life of the asset (as specified in the federal tax code), or selling it.

But there are several exceptions to this rule in the current federal tax code. One such exception is section 174, which gives businesses investing in qualified domestic and foreign research three options for recovering the cost of the investment in tax years beginning before 2022. First, they may deduct the full amount of qualified R&D expenditures in the year when they are paid or incurred, an option known as expensing. Second, a firm may choose to treat the expenditures as a deferred expense and amortize the expenditures over a period of 60 or more months, beginning with the month when benefits from the expenditures are first realized. A business is deemed to realize such benefits when an asset it develops as a result of the expenditures begins to earn

income or reduce operating expenses. Third, a firm may choose to amortize the expenditures over ten years, beginning with the tax year when the expenditures are paid or incurred. Regardless of which option a taxpayer chooses, the deductions must be reasonable in amount, as determined by the Internal Revenue Service.

Treasury regulations define the expenditures that qualify for the section 174 deduction as "research and development costs in the experimental or laboratory sense." These include costs related to "the development of an experimental or pilot model, a plant process, a product, a formula, an invention, or similar property, and the improvement of existing property." Qualified expenditures must be related to activities intended to discover information that reduces or eliminates uncertainty in the development or improvement of a process or product. Some software development expenses are currently deductible even if they do not meet the requirements of section 174, according to a 2000 IRS ruling (Revenue Procedure 2000-50).

If a taxpayer does not account for qualified research expenditures with one of these options, the expenses must be capitalized. If the assets produced through the expenditures have no determinable useful life, then the expenditures cannot be recovered through depreciation. In this case, the company incurring the research expenses has two options for them: abandoning or selling the assets.

For tax years beginning in 2022 and thereafter, qualified research expenditures must be amortized ratably over five years for domestic research and over 15 years for foreign research. The other two options (including expensing) under current law will be eliminated. All software development expenses will have to be amortized as research expenditures over five years.

How a business is organized for tax purposes can also affect the tax treatment of its research expenditures. Subchapter C corporations are allowed to deduct qualifying research expenditures under Section 174(a) against the regular tax; they also were allowed to deduct such expenditures from the alternative minimum tax (AMT), which Congress repealed at the end of 2017. Businesses organized as a passthrough entity (e.g., partnership, sole proprietorship, and S corporations) may deduct qualified research expenditures under Section 174(a) against the regular tax, but they may do so against the AMT only if the owners "materially" (or directly) participate in qualified research activities. Without such participation, the expenses must be amortized over 10 years under the individual AMT. The election to expense any research expenditures under section 174 is made separately by each

partner in a partnership, or by each shareholder in an S corporation, according to the partner's or the shareholder's allocable share of those expenditures.

Not all of the costs associated with research projects may be deducted under section 174. Expenditures for the acquisition or improvement of land and for depreciable tangible property used in connection with research do not qualify. As a result, the cost of structures and equipment used in R&D cannot be expensed, but they can be recovered over 15 years and three years, respectively, using the appropriate depreciation schedules in section 167. In addition, the cost of determining the existence, location, extent, or quality of mineral deposits, including oil and gas, cannot be expensed or amortized under section 174.

To prevent businesses from receiving a double tax benefit from the same expenditures, a company that claims the section 174 deduction and the section 41 research tax credit is required to either, under section 41, reduce the deduction by the amount of the credit, or, under section 280C, claim a credit that is 35 percent smaller than the credit it could take for tax years beginning before 2022; for tax years beginning after 2021, the reduction in the credit is 21 percent. There is some overlap between the expenditures that qualify for the section 174 deduction and those that qualify for the section 41 credit.

In the case of retired, abandoned, or disposed property developed through qualified research, any remaining basis cannot be recovered in the year when the property is abandoned, disposed, or retired. Instead, the adjusted basis must continue to be amortized until the amortization period ends.

Impact

The expensing of certain R&D costs under section 174, like any form of expensing, has the effect of deferring taxes on the returns to R&D investments. Such a deferral yields tax savings for eligible businesses, reflecting the time value of money. To illustrate this point, suppose a corporation, whose profits under current law are taxed at a marginal rate of 21 percent, spends $1 million in the current tax year on wages and supplies related to research that qualifies for the section 174 deduction. This expenditure would decrease the firm's tax liability that year by $210,000 (0.21 x $1 million in deductible expenses). The net tax benefit to the corporation from taking the section 174(a) deduction is equal to the amount by which the $210,000 in current-year tax savings exceeds the present value of the tax savings that would arise from deducting those expenses over the useful life of any assets developed from the research expenditures.

Expensing is the most accelerated form of depreciation. In essence, it equalizes the after-tax and pre-tax rates of return for an investment, which has the effect of taxing the returns to an asset at a marginal effective rate of zero.

The main beneficiaries of the section 174 deduction are larger manufacturing corporations engaged in developing, producing, and selling technologically advanced products, such as producers of electronic equipment, transportation equipment, and new prescription drugs. They tend to invest more in R&D as a percentage of gross revenues than many other firms.

Section 174 is considered a tax expenditure because it allows owners of the assets created through qualified research expenditures to treat them for tax purposes as though they exhaust their economic value during the year when they are placed in service. Since these assets tend to be new technologies with useful lives extending beyond one year, the expensing allowance leads to foregone revenue in the short run that may or may not be recouped in the long run.

Rationale

Section 174 was enacted as part of a major revision of the Internal Revenue Code in 1954 (P.L. 83-591). The legislative history of the revision indicates that Congress was pursuing two related objectives in adding section 174 to the federal tax code. One was to encourage firms (especially smaller ones) to invest more in R&D than they otherwise would by reducing the marginal effective tax rate on the returns to such investment and boosting the cash flow of investing firms. The second objective was to curtail the delays, uncertainties, and litigation experienced by businesses seeking to write off their research expenditures under previous tax laws and regulations.

The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) modified the individual AMT to allow individuals to amortize research, mining exploration and development, and magazine circulation expenses over 10 years in computing their alternative minimum taxable income. Taxpayers who elect this option do not have to treat their research expenditures as an AMT preference item.

The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) clarified the requirement that deductions of research expenditures must be reasonable in amount. Under the act, such expenditures became subject to the same standard for reasonableness that applied to salaries and other compensation under section 162(a)(1). A primary reason for the change was to make it more

difficult for taxpayers to re-classify dividends, gifts, loans, and similar payments as qualified research expenditures to take advantage of the section 174 expensing option.

In July 2014, the Internal Revenue Service issued final regulations (T.D. 9680) to clarify the tax treatment of amounts paid or incurred in connection with the development of tangible property, including pilot models. Under the regulations, expenditures that qualify for the deduction under Section 174(a) may be deducted regardless of whether a resulting technology is ultimately sold by the taxpayer or used in his business. T.D. 9680 also modified the definition of a pilot model so that it was considered any representation of a product intended to evaluate and resolve uncertainties about the product during its development or improvement. While the final regulations clarified the general rule that costs incurred in developing a new technology after all uncertainty has been resolved are not eligible for the section 174 deduction, they do not clarify the meaning of uncertainty in this context.

Under the revision of the federal tax code enacted in 2017 (P.L. 115-97), the option to deduct qualified research expenses in full in the year when they are paid or incurred is scheduled to terminate starting with tax years beginning in 2022 and thereafter. Beginning that year, such expenses from domestic research must be capitalized and amortized over five years; the amortization period for qualified expenses from foreign research will be 15 years.

Assessment

The section 174(a) deduction has several benefits for companies investing in qualified research. First, it simplifies tax compliance and accounting for business taxpayers, mainly by minimizing the recordkeeping needed to identify qualified R&D expenditures, link them to specific sources of revenue, and determine the useful lives of assets developed from those expenditures. In addition, the provision is likely to stimulate more business R&D investment than otherwise would occur by lowering the cost of capital for such investment and increasing the cash flow of firms investing in R&D.

The latter benefit addresses an ongoing concern that firms in general invest too little in R&D, relative to its overall economic benefits, without government intervention. This propensity to underinvest reflects the inability of companies investing in R&D to capture all the returns on investment. A variety of economic studies have concluded that the social returns to R&D typically exceed the private returns, sometimes by large margins.

Nonetheless, while there may be a cogent theoretical argument for subsidizing business R&D investments, it is not clear from available evidence that a tax preference like the section 174 deduction is the optimal way to do so. One potential drawback to section 174 is that it does not target R&D investments (e.g., basic research) that might produce social returns far in excess of their private returns.

The scheduled shift from deduction to five-year amortization in 2022 is raising some concern that it might lead some companies to move their research activities from the United States to countries that allow a more generous tax treatment for research expenditures. Others argue that many small and medium-size companies could respond to the increase in tax compliance cost and the decrease in after-tax rates of return associated with such a shift by reducing their domestic R&D investments.

Selected Bibliography

Cordes, Jospeh J., Robert O. Ebel and Jane G. Gravelle, eds. "Expensing," *The Encyclopedia of Taxation and Tax Policy*, (Washington: Urban Institute Press, 2005), pp. 128-130.

Guenther, Gary, *Research Tax Credit: Current Law and Policy Issues for the 114th Congress*, CRS Report RL31181, June 18, 2016.

Hardesty, David E., "Tax Treatment of Website Development Costs: Not Exactly Point and Click," *Journal of Taxation*, March 2001, pp. 140-150.

Nevius, Alistair, "Proposed Regulations Change Definition of R&D Expenditures," *Journal of Accountancy*, September 5, 2013.

Sullivan, Martin A., "Do We Really Want to Cut Deductions for Research?" *Tax Notes*, October 19, 2015, pp. 334-336.

Lenjosek, Gordon and Mario Mansour, "Why and How Governments Support R&D," *Canadian Tax Journal*, vol. 47, no. 2, pp. 242-272.

McConaghy, Mark L. and Richard B. Raye, "Congressional Intent, Long-Standing Authorities Support Broad Reading of Section 174," *Tax Notes*, February 1, 1993, pp. 639-653.

Rashin, Michael. D., *Practical Guide to Research and Development Tax Incentives: Federal, State, and Foreign*, (Chicago: CCH, 2007), pp. 61-97.

Richman, Nathan J., "Amortization Could Cause Companies to Offshore Research Activities," *Tax Notes*, December 18, 2017, pp. 1695-1697.

U.S. Congress, Joint Committee on Taxation, *Tax Incentives for Research, Experimentation, and Innovation*, JCX-45-11, September 16, 2011, pp. 2-3.

U.S. Government Accountability Office, *The Research Tax Credit's Design and Administration Can Be Improved,* GAO-10-136, 2009.

General Science, Space, and Technology—

TAX CREDIT FOR INCREASING RESEARCH EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.0	8.9	9.9
2019	1.0	9.6	10.6
2020	1.2	10.6	11.8
2021	1.2	11.6	12.8
2022	1.4	12.6	14.0

Authorization

Sections 41

Description

Section 41 of the Internal Revenue Code allows companies to claim a non-refundable tax credit for qualified research expenditures (QREs) paid or incurred in connection with their trade or business. Though often thought of as a single credit, the research credit is actually composed of four discrete credits: an incremental regular credit, an alternative simplified incremental credit (ASC), an incremental credit for contract university basic research, and a flat credit for contract energy research. Taxpayers may claim either the incremental regular credit or the ASC, and both of the other credits. The section 41 credit may be claimed against both the regular income tax and the individual alternative minimum tax (AMT), and against the corporate AMT for tax years beginning before 2018. Under the 2017 tax revision (P.L. 115-97), the corporate AMT was repealed for tax years beginning in 2018 and thereafter.

The credit was extended permanently at the end of 2015, after having been temporary since its inception in July 1981.

The regular credit is equal to 20 percent of a company's current-year QREs above a base amount. The base amount depends in part on whether the company qualifies as an established firm or a startup firm under the rules governing the use of the credit. An established firm is one that had both taxable income and QREs in three of the four tax years between 1984 and 1988, while a startup firm is one that has its first year with taxable income and QREs after 1983. The base amount for an established firm is the product of its "fixed-base percentage" (FBP) and its average annual gross receipts in the past four tax years. An established firm's FBP is the ratio of its cumulative research expenditures to its cumulative gross receipts in its base period, expressed as a percentage. Such a firm's base amount cannot be less than 50 percent of its current-year QREs, nor can its FBP exceed 16 percent. Startup firms are assigned an FBP of 3 percent during their first five years with gross receipts and QREs. In subsequent tax years, their FBPs gradually adjust according to a formula specified in section 41(c)(3)(B)(ii). By a firm's 11th tax year with taxable income and QREs, its FBP is the ratio of its total QREs to total gross receipts in five of the previous six tax years, as chosen by the firm.

From 1997 through 2008, companies also had the option of claiming an alternative incremental research credit (AIRC), instead of the regular credit. When the AIRC was discontinued in 2009, it was equal to the sum of 3 percent of a firm's QREs above 1 percent but below 1.5 percent of its average gross receipts in the four previous years, 4 percent of its QREs above 1.5 percent but below 2 percent of the same receipts, and 5 percent of its QREs above 2 percent of the same receipts. Congress suspended the AIRC and has not reinstated it, heeding taxpayer complaints that it was too complicated and its incentive effect too weak. When the AIRC was available, companies were likely to benefit more from it than from the regular credit when their current-year QREs were only slightly larger than their base amount for the regular credit.

Under current law, companies have the option of claiming the ASC rather than the regular credit. The ASC is equal to 14 percent of QREs above 50 percent of a company's average annual QREs in the previous three tax years. If a company has no QREs in one or more of those years, it may claim an ASC equal to 6 percent of its current-year QREs. Companies using the ASC cannot switch to the regular credit without the permission of the Internal Revenue Service (IRS).

Payments for basic research conducted under a written contract by universities and certain non-profit scientific research organizations are eligible

for the basic research tax credit under section 41(e). The credit is equal to 20 percent of those payments above a company's "qualified organization base period amount (QOBPA)." For calendar-year taxpayers, the base period is 1981 to 1983 or the three years preceding a firm's first tax year if it began to operate after 1983. A company's QOBPA is equal to the sum of its "basic research amount" and its "maintenance-of-effort amount." The former is the greater of (1) the amount of basic research payments treated as contract research during the company's base period, or (2) one percent of its in-house and contract research spending in that period; the latter is equal to a company's average annual "non-designated" university contributions during its base period, adjusted for inflation, less the amount of the company's non-designated university donations in the current tax year. If the company's total current-year donations are less than its annual average donations during its base period, the company's QOBPA increases by the amount of the difference. Contract research expenditures above its QOBPA may not be taken into account when computing the company's regular credit or ASC, but expenditures below that amount may be used to compute either credit.

In addition, companies are allowed to claim a 20-percent credit for the entire amount of their payments for contract research to energy research consortia under section 41(a)(3). The research must be related to a taxpayer's trade or business. A company claiming the credit does not have to prove to the IRS that the consortium receiving its payments is engaged in qualified research, or that it paid or incurred QREs in conducting it. Any amounts used to compute the energy research credit may not also be used to claim the regular credit, ASC, or university basic research credit. However, if a payment does not qualify for the energy research credit, it may be treated as a contract research payment for the regular credit or the ASC if it qualifies.

The definition of qualified research has been a subject of some dispute since the credit entered the federal tax code in July 1981. As it now stands, research must satisfy each of the following criteria in order to qualify for the credit:

- It must involve activities whose costs can be recovered under section 174, which is to say that the research must be "experimental" in the laboratory sense.
- It must be done for the purpose of discovering information that is "technological in nature" and useful in the development of a new or improved product, process, computer software technique,

formula, or invention that is to be sold, leased, licensed, or used by the firm performing or financing the research.

- It must entail a process of experimentation whose goal is the development of a product or process with a "new or improved function, performance, or reliability or quality."

Moreover, the credit applies to some (but not all) of the expenses a company may incur in conducting qualified research. Specifically, the regular research credit and the ASC apply to the following expenses only:

(1) Wages and salaries of employees (including immediate supervisors) directly involved in performing the research,

(2) Materials and supplies used in performing in-house qualified research;

(3) Time-sharing for computers used in research; and

(4) 65 percent of any amounts paid for qualified research conducted by an eligible organization under a written contract, 75 percent of payments for qualified research done by not-for-profit scientific research consortia, and 100 percent of the amount paid for qualified research performed by eligible small firms, certain universities, or federal laboratories.

According to figures published by the IRS, in 2013, qualified wages accounted for 69 percent of QREs, followed by contract research (15 percent) and materials and supplies (16 percent).

Expenditures for equipment and structures, fringe benefits for employees directly engaged in research, and overhead costs related to research activities (e.g., rent, utility costs, leasing fees, administrative and insurance costs, and property taxes) do not qualify for the regular credit or the ASC. On average, spending on equipment and structures represents about 30 percent of the total direct cost of business R&D investments. In addition, the regular credit and the ASC cannot be claimed for costs related to research done after the start of commercial production; research aimed at adapting existing products to a specific customer's needs; research intended to duplicate existing products; surveys; routine testing; research to modify standardized computer software for a company's internal use; foreign qualified research; qualified research funded by others; and research in the social sciences, arts, or humanities.

A taxpayer that claims the research tax credit must reduce any deduction for research expenditures under section 174 it takes by the amount of the credit. This rule, known as a basis adjustment, is intended to keep companies from benefiting twice from the same expenditures.

Owners of partnerships or subchapter S corporations that claim the credit may apply the credit allocated to each of them to offset any tax on their business income only.

The research credit is a component of the general business credit (GBC) under section 38, and thus subject to the limitations on the GBC's use. The amount of the GBC a company may take in a tax year is limited to the excess (if any) of its net income tax over the greater of its tentative minimum tax for the year or 25 percent of the company's net regular tax liability above $25,000. A taxpayer's net income tax is defined as the sum of its regular tax liability and alternative minimum tax liability, less any non-refundable personal tax credits the taxpayer may take; a taxpayer's net regular tax liability denotes its regular tax liability reduced by the same credits. For tax years beginning after 2017, a company's tentative minimum tax is treated as $0. For tax years beginning before 2018, a company could not claim the GBC in a tax year when it had to pay the AMT because its tentative minimum tax always exceeded its net income tax. Even when a company was subject to the regular income tax, any GBC it claimed could not be larger than the amount by which its regular tax liability exceeded its tentative minimum tax liability. Any GBC that cannot be used in the current tax year may be carried forward 20 tax years or back one year. Companies that cannot use their accumulated GBCs after 20 years may deduct the full amount of unused credits in the following tax year.

Certain passthrough businesses can use the research tax credit to offset their AMT liability for tax years starting in 2016 and thereafter. More specifically, owners of non-publicly traded (or S) corporations, partnerships, and sole proprietorships with average annual gross receipts in the past three tax years of $50 million or less are allowed to use the full amount of their research tax credits to reduce or offset any individual AMT liability. The section 38 limitation on using the GBC still applies.

Also beginning in the 2016 tax year, qualified small businesses have the option of applying up to $250,000 of any research tax credit they may take against the employer share of their payroll tax liability. To qualify for this treatment, a business must have gross receipts in the current tax year of $5 million or less and no gross receipts in any tax year preceding the previous five tax years. So for a qualified taxpayer electing this treatment for the 2018

tax year, it must have had $0 gross receipts in the 2012 tax year and earlier years.

In addition, the research tax credit is the only business credit that may be used in full against any Base Erosion Anti-Abuse tax (BEAT) an eligible corporation with foreign parents may owe in tax years starting in 2018. The tax is equal to 10 percent of the sum of taxable income and base-erosion payments by corporations with average annual gross receipts of $500 million or above in the three previous tax years and with deductions for foreign payments exceeding 3 percent of their total deductions. The tax rate is 5 percent for tax years beginning in 2018 to 2025 and 12.5 percent for tax years beginning in 2026. Only firms with large base erosion payments relative to their taxable income are likely to pay the BEAT.

Impact

Although the research tax credit has four components, only two of them exert a significant influence over the investment behavior of companies: the regular credit and the ASC. Both credits lower the after-tax cost to a business of performing qualified research above a base amount intended to approximate how much the firm would spend on such research in the absence of the credit. While the statutory rates for the regular credit and ASC are 20 percent and 14 percent, respectively, their marginal effective rates (MER) are considerably lower. This is because of the rules governing the use of the two credits. Unless otherwise noted, the rules apply with equal force to both the regular credit and the ASC.

Section 280C(c) requires that no deduction is allowed for research expenditures deductible under section 174 that are equal to the amount of the credit. For corporations (which accounted for 98.4 percent of the total amount of claims for section 41 credit in 2013), which are taxed at a marginal rate of 21 percent, the reduction lowers the credit's MER for an additional dollar of QREs above the base amount to 15.8 percent for the regular credit ([0.20 x (1-0.21)]) and 11.1 percent for the ASC ([0.14 x (1-0.21)]). Companies have two options complying with this rule. One is to reduce the section 174 deduction by the amount of the credit for the same tax year. The second option is to claim a reduced credit by claiming the excess of any section 41(a) credit over the product of a firm's QREs and its maximum income tax rate, which is 21 percent for C corporations and 37 percent for passthrough entities in 2018.

There is an added consideration in the case of the ASC. Since the credit is determined on the basis of previous research expenses, each additional

dollar of R&D investment in the current tax year raises the base amount in each of the three succeeding years by $0.50 divided by 3, or $0.17. Such a design lowers the MER for the ASC by a factor equal to the sum of $1/(1+R)$, $1/(1+R)^2$, and $1/(1+R)^3$, where R is the discount rate.

A firm's base amount for the regular credit only cannot be less than 50 percent of its current-year QREs. As a result, the MER for the regular credit drops to 7.9 percent for current-year QREs greater than 200 percent of the base amount. For example, if a company has a base amount of $50 million for the current tax year and it incurs $150 million in QREs, the regular credit it could claim would be equal to 20 percent of $75 million, not 20 percent of $100 million. This is because the base amount cannot be less than 50 percent of $150 million, or $75 million. In this case, half of the company's current-year spending on qualified research over $100 million, or $25 million, is added to the base amount and thus not subject to the credit.

Yet another rule concerns the expenditures that qualify for the credit. As noted earlier, business R&D investments often include expenses that do not qualify for the credit, such as expenditures for structures and equipment and overhead expenses. Consequently, one can argue that the credit's MER is reduced further when purchases of structures and equipment are part of the overall cost of a qualified research project. For example, if structures and equipment account for half of that cost, then only 50 percent of the cost would qualify for the credit. As a result, the MER for the credit would be half of what it would be for QREs above the company's base amount if the full cost consisted of its QREs, all other things being equal.

The regular credit and ASC do not benefit all firms undertaking qualified research equally. The ratio of a company's research expenditures to its income is a measure of its research intensity. In the case of companies that invest less in R&D as a share of revenue today than they did during their base period, the regular credit is of no benefit. Such a decline in research intensity can result from a company's sales revenue growing faster than its R&D spending since its base period; the company's R&D spending shrinking while its sales revenue stays the same or increases; or some combination of the two. When the decline in research intensity is due to faster growth in sales revenue, the inability to use the regular credit acts as an implicit tax on sales growth.

Most of the benefits of the regular credit and the ASC go to large C corporations in manufacturing. In 2013, these firms accounted for nearly 61 percent of the total amount of claims for the credit, and C corporations with $250 million or more in business receipts accounted for 85 percent of that

amount. Claims for the ASC accounted for nearly two out of every three claims (64 percent) for the section 41 credit in 2013.

Rationale

Congress permanently extended the section 41 research tax credit at the end of 2015, ending 34 years of uncertainty over its longevity. Going back to its inception in July 1981, the credit was extended 15 times and significantly modified five times.

Section 41 entered the federal tax code through the Economic Recovery Tax Act of 1981 (P.L. 97-34). Under the act, the regular credit's rate was set at 25 percent, there was no basis adjustment, and the base amount was equal to a company's average annual research expenditures in the previous three tax years. Such a design was intended to give U.S.-based firms a robust incentive to invest more in R&D than they otherwise would by offsetting some of the key costs associated with initiating or expanding business R&D projects.

The original credit was set to expire at the end of 1985. Congress made the credit temporary to give itself an opportunity to evaluate the credit's effectiveness before deciding whether or not to extend and modify it. No such study was undertaken, however. Instead, Congress extended the credit through 1988, at a reduced rate of 20 percent, through the Tax Reform Act of 1986 (P.L. 99-514). The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) extended the credit for another year and a half and added a basis adjustment equal to 50 percent of the amount of the credit.

Additional changes were made to the credit by the Omnibus Reconciliation Act of 1989 (P.L. 101-239). Specifically, the act extended the credit through 1990, allowed the base amount to increase according to rises in gross receipts rather than research expenditures, expanded the scope of the credit so that it applied to research aimed at investigating future lines of business, and adopted a full basis adjustment.

The Omnibus Reconciliation Act of 1990 (P.L. 101-508) extended the credit through the end of 1991, and the Tax Extension Act of 1991 further extended it through June 1992. After the credit expired and remained unavailable for nearly a year, the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) retroactively extended it through June 30, 1995.

The credit again was allowed to expire, and Congress did not renew it until it passed the Small Business Job Production Act of 1996 (P.L. 104-188), which extended it from July 1, 1996 through May 31, 1997. This left a one-

year gap (July 1, 1995 to June 30, 1996) in coverage that still exists. The act also established a three-tiered alternative incremental credit (AIRC) and allowed 75 percent of payments to non-profit research consortia to qualify for the credit.

The Taxpayer Relief Act of 1997 P.L. 105-34) further extended the credit through June 1998, and the omnibus budget bill passed in 1998 (P.L. 105-277) reset the expiration date for the credit at the end of June 1999. After expiring yet again, the credit was extended to June 30, 2004 by the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170). In October 2004, President George W. Bush signed into law a tax bill (the Working Families Tax Relief Act of 2004, P.L. 108-311) that included an extension of the credit through December 31, 2005.

Under the Tax Relief and Health Care Act of 2006 (P.L. 109-432), the credit was made available through 2007. The act also increased the AIRC rates for 2007 and created the ASC, with an initial rate of 12 percent.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) retroactively extended the overall credit through 2009. It also increased the rate for the ASC to 14 percent and suspended the AIRC for the 2009 tax year.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the credit for two years, through 2011, and repealed the AIRC.

The American Taxpayer Relief Act of 2012 (P.L. 112-240) retroactively extended the credit through 2013. In addition, the act modified the rules regarding allocation of the credits among members of controlled groups and companies and clarified the use of the credit by parties involved in business acquisitions.

Under the Tax Increase Prevention Act of 2014 (P.L. 113-295), the credit was made available through 2014.

Congress made three significant changes in the credit in the Protecting Americans from Tax Hikes Act of 2015 (P.L. 114-113). First, the act permanently extended the credit, starting with the 2015 tax year. Second, it gave eligible small businesses the option of applying up to $250,000 of any research tax credit they claim but cannot use to the employer share of their payroll tax liability, starting in the 2016 tax year. Third, it allowed eligible small passthrough businesses subject to the AMT to apply the full amount of any research tax credit they claim against that tax liability.

Assessment

The economic rationale for the credit lies in a market failure associated with private investment in the discovery of new technical and scientific knowledge and its application in the development of new technologies. Under the right circumstances, this knowledge can lead to economic benefits that the entities undertaking the investments cannot fully capture. These benefits can be considerable: studies estimate that the public or social returns to investments in basic and applied research are two to four times greater than the private returns. Such a discrepancy constitutes a market failure because it deters companies in general from investing in R&D at socially optimal amounts, which is an inefficient outcome.

To address such a failure, governments worldwide provide financial support for private-sector R&D, in an effort to stimulate increased R&D investment. Among other things, the U.S. government offers both the option to write off eligible QREs as a current expense under section 174 and the incremental credit for QREs under section 41.

Since its enactment in 1981, the research tax credit has provided over $1 billion a year in subsidies for business R&D investment; in 2013, the most recent year for which data are available, companies claimed a total of $11.3 billion in research tax credits. (The actual amount they will receive that year hinges on the results of IRS audits of claims for the credit and legal challenges to IRS rulings by firms claiming the credit, which can take more than a few years to resolve.) The credit endeavors to boost this investment by lowering the cost of capital for qualified R&D investments and increasing a company's cash flow, relative to other investments it might make. In theory, by lowering the marginal cost of undertaking another unit of R&D, the credit allows companies to internalize the spillover benefits of their investments, encouraging them to invest more than they otherwise would.

There have been numerous studies of the credit's effectiveness in generating greater business R&D investment and its cost-effectiveness relative to other policies for boosting private R&D investment, such as government research grants. In both cases, a key indicator is the amount of additional research induced by $1 dollar of the credit.

The credit's effectiveness depends on two considerations: (1) the sensitivity (or responsiveness) of business R&D investment to a reduction in its after-tax cost, and (2) the credit's marginal effective rate. Multiplying one

by the other indicates the extent to which $1 of the credit reduces the after-tax cost of undertaking another $1 of qualified research.

Economists measure this sensitivity by estimating the tax price elasticity of R&D investments. This elasticity indicates the extent to which business R&D investment changes in response to a change in its tax price. So if the tax price elasticity were 1.0, then a 10-percent decline or rise in that price could be expected to trigger a 10-percent rise or fall in that investment, all other things being equal. There is considerable uncertainty about the actual tax-price elasticity for R&D investments. Studies of the economic effects of the U.S. research credit have suggested that the short-run elasticity falls in the range of 0.2 to 1.6, but none of these estimates is based on actual firm-level claims for the credit and R&D investments.

The credit's MER measures the extent to which it reduces the after-tax cost of undertaking qualified research. This rate is determined by applying the rules governing the use of the credit to its statutory rate. As noted earlier, one rule requires that the deduction for research expenditures under section 174 be reduced by the amount of any credit claimed. This lowers the MER for the regular credit by an amount equal to the product of its 20-percent statutory rate and a company's marginal tax rate; for a corporation, whose income is taxed at a rate of 21 percent, the MER drops to 15.8 percent: [.20 x (1 – 0.21) x 100].

Another rule requires that a company's base amount for the regular credit be equal to 50 percent or more of its current-year QREs. For a corporation with QREs more than double the base amount, the MER drops to 7.9 percent: [(0.50 x .13) x 100].

In addition, many R&D investments include the acquisition of structures and/or equipment. Companies making such investments of course include the cost of structures and equipment in their estimate of the cost of capital for the investments. Some studies of the section 41 credit have indicated that about 30 percent of domestic business R&D spending, on average, goes to expenditures for structures and equipment. Given that the decision to invest in a research project takes into consideration all relevant costs, it can be argued that the regular credit's MER ought to reflect those cost exclusions. So for corporations subject to the 50-percent-base-amount rule, the cost exclusion rule reduces the MER to 5.5 percent: [(0.70 x .079) x 100].

Among economists, the preferred method for determining the added business R&D investment stimulated by the credit is to use the credit's weighted average MER. But such an approach is difficult to carry out since

the needed data about claims for the credit are difficult to obtain. So they tend to take the next best approach, which is to use the credit's average effective rate (AER). This rate is the total amount of the credit claimed in a year divided by either total QREs, or total U.S. business R&D spending in that year. Based on total U.S. business R&D spending (as estimated by the National Science Foundation (NSF)), the AER for the credit was 3.5 percent in 2013. This signifies that the credit lowered the after-tax cost of domestic business R&D investment (including outlays for plant and equipment used in R&D) that year by 3.5 percent, on the whole.

Assuming that the AER for the credit is 3.5 percent and the tax-price elasticity of demand for R&D lies between 0.5 and 1.5, one could argue that the credit accounts for 1.75 percent to 5.25 percent of domestic business R&D investment in a given year. In 2013, domestic business R&D spending totaled $322.5 billion, according to the NSF; 3.5 percent of that amount is $11.3 billion. The Joint Committee on Taxation put the revenue loss from the credit that year at $6.8 billion. This suggested that $1 of the credit led to a $1.66 increase in R&D (including costs not covered by the credit) in 2013. Some studies have estimated that $1 of the credit can be expected to lead to a $1 increase in R&D investment, in the short run. The same ratio applies to $1 of a government research grant, to the extent that it does not displace domestic spending on R&D.

The credit has its critics, not because they think such a form of R&D subsidy is inappropriate but because they favor modifying the existing credit to enhance its incentive effect. They point to several issues that arguably undermine the credit's effectiveness. One issue, according to critics, is the complex method for determining the base amount for the regular credit and lingering uncertainties over the definition and measurement of QREs for the regular credit and the ASC. Another issue is the recordkeeping required to verify claims for the credit during IRS audits. These issues, in their view, deter some companies from claiming the credit and increase the cost of complying with the rules governing its use. In addition, critics say the credit's MER is too low to boost business R&D investment to levels consistent with its social benefits. Some lawmakers in recent years have proposed increasing the rate for the ASC to 20 or 25 percent and eliminating the regular credit. Critics also contend that the credit still does too little to support the innovative activities of small start-up companies at critical stages in their growth; in their view, more support is needed than the current option for using unused credits to offset a portion of a start-up firm's share of its payroll tax liability; one option is to make the credit refundable for firms under a certain size and age.

Some question whether the current credit is the best way to encourage increased investment in research that generates relatively high social returns. In their view, the credit is more likely to subsidize research that firms would undertake with no government support than to stimulate increased private investment in basic or some applied research. They would modify the credit so that provides a generous subsidy for basic research and no subsidy or a reduced subsidy for applied research and development.

The 2017 tax revision passed by Congress (P.L. 115-97) did not modify the section 41 credit. But owing to certain changes it made in the section 174 expensing allowance for research expenditures, some are concerned that the law could have the unintended effect of lowering the incentive to invest in R&D. Starting in 2022, all QREs under section 174 must be capitalized and amortized over five years; current-year expensing will no longer be possible. This change should increase the cost of capital for many of the projects eligible for the section 41 credit, all other things being equal.

Selected Bibliography

Atkinson, Robert D., *The Research and Experimentation Tax Credit: A Critical Policy Tool for Boosting Research and Enhancing U.S. Economic Competitiveness*, Information Technology and Innovation Foundation, September 4, 2006.

Billings, B. Anthony and Randolph Paschke, "Would H.R. 463 Improve the Competitiveness of U.S. R&D Tax Incentives?" *Tax Notes*, June 9, 2003, pp. 1509-1524.

—. "Permanent Research Tax Credit Could Reverse Offshoring of Jobs," *Tax Notes*, March 29, 2004, pp. 1655-1666.

Brossmer, Michael S., Edward J. Jankun, Tyrone Montague, Jaime Park, Ross Reiter, and Scott Vance, *Tax Reform: And the Winner Is … R&D*, Washington National Tax, KPMG, March 12, 2018.

Carroll, Robert, Gerald Prante, and Robin Quek, *The R&D Credit: An Effective Policy for Promoting Research Spending*, Ernst & Young, September 2011.

Citizens for Tax Justice, *Reform the Research Tax Credit ——Or Let It Die*, December 4, 2013.

Click, David L. and Ryan K. Carnes, "A Practical Research Tax Credit – Recent Developments in R&D," *Tax Notes*, September 21, 2015, pp. 1381-1390.

Cordes, Joseph J., "Research and Experimentation Tax Credit," *The Encyclopedia of Taxation and Tax Policy*, edited by Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle (Washington: Urban Institute Press, 2005), pp. 330-332.

Cuppersmith, Adam S., "R&D Tax Incentives around the World," *The Tax Adviser*, August 2012, pp. 498, 500-501.

Ernst & Young, *Supporting Innovation and Economic Growth: The Broad Impact of the R&D Credit in 2005*, prepared for the R&D Credit Coalition, April 2008.

Fichtner, Jason J. and Adam M. Michel, *Can A Research and Development Tax Credit Be Properly Designed for Economic Efficiency?* Mercatus Center, George Mason University, July 2015.

Hall, Bronwyn H. and John van Reenen, *How Effective Are Fiscal Incentives for R&D? A Review of the Evidence*, Working Paper 7098, National Bureau of Economic Research, April 1999.

Hoopes, Jeffrey L., "Financial Accounting Consequences of Temporary Tax Law: Evidence from the R&D Tax Credit" (Ph.D. diss., Ross School of Business, University of Michigan, January 11, 2013).

Kohler, Christian, Philippe Laredo and Christian Rammer, *The impact and Effectiveness of Fiscal Incentives for R&D*, Nesta Working Paper No. 12/01, Manchester University, January 2012.

Korniakov, Alexander, David Pauls, and Tom Hopkins, "Research and Orphan Drug Tax Credits: Base Period Adjustments," *Tax Notes*, June 2, 2014, pp. 1039-1045.

Lentile, Damien and Jacques Mairesse, "A Policy to Boost R&D: Does the R&D Tax Credit Work?" *EIB Papers*, vol. 14, no. 1 (2009), pp. 144-169.

Ohmes, Christopher J., David S. Hudson, and Monique J. Migneault, "Final Research Credit Regulations Expected to Immediately Affect IRS Examinations," *Tax Notes*, February 23, 2004, pp. 1015-1024.

Rao, Nirupama, "Do Tax Credits Stimulate R&D Spending? The Effect of the R&D Tax Credit in its First Decade," *Journal of Public Economics*, vol. 140, August 2016, pp. 1-12.

Rashkin, Michael D., *Practical Guide to Research and Development Tax Incentives: Federal, State, and Foreign* (Chicago: CCH, 2007).

Richman, Nathan J., "U.S. Research Credit Could Still Be Made More Competitive," *Tax Notes*, August 1, 2016, pp. 670-671.

Sadler, Alex E. and Jennifer A. Ray, "Navigating the Research Credit," *Tax Notes*, September 19, 2011, pp. 1253-1273.

—, and Douglas Norton, "Tax Reform Left the Research Credit Intact — or Did It?" *Tax Notes*, April 16, 2018, pp. 319-326.

Shay, Stephen E., J. Clifton Fleming, Jr., and Robert J. Peroni, "R&D Tax Incentives: Growth Panacea or Budget Trojan Horse?" *Tax Law Review*, vol.69, 2016, pp. 419-457.

Sullivan, Martin A., "Putting the Research Tax Credit to the Test." *Tax Notes*, March 17, 2014.

—. "The Rise of the Intangible Economy," *Tax Notes*, November 16, 2015, pp. 858-862.

Tyson, Laura and Greg Linden, *The U.S. Corporate R&D Tax Credit and U.S. Innovation and Competitiveness,* Center for American Progress, January 2012.

U.S. Congress, Joint Economic Committee, *Tax Incentives for Research, Experimentation, and Innovation*, September 16, 2011.

U.S. Department of the Treasury, Office of Tax Analysis, *Research and Experimentation (R&E) Credit*, October 12, 2016.

U.S. Government Accountability Office, *The Research Tax Credit's Design and Administration Can Be Improved*, GAO-10-136, 2009.

Zerbe, Dean, "Eight Myths That Keep Small Businesses from Claiming the R&D Tax Credit," *Forbes*, March 28, 2013.

Energy

DEDUCTION OF EXPENDITURES ON ENERGY-EFFICIENT COMMERCIAL BUILDING PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: This provision is not included in JCT's tax expenditure list. It was, however, extended through 2017 in P.L. 115-123. Extending this provision cost an estimated $79 million in FY2018, has an estimated revenue gain of $2 million in FY2019 and FY2020, and an estimated revenue gain of $1 million in FY2021.

Authorization

Section 179D.

Description

IRC section 179D provides a formula-based tax deduction for all or part of the cost of energy-efficient commercial building property (i.e., certain major energy-savings improvements made to domestic commercial buildings) placed in service after December 31, 2005, and before January 1, 2018. The maximum cost of energy-efficient commercial building property that may be deducted in any tax year is limited to the product of $1.80 and the square footage of the building, over deductions claimed for energy efficient commercial building property in any prior tax years (IRC section 179D(b)). In other words, the deduction is the lesser of: (1) the cost of the energy efficient commercial building property placed in service during the tax year; or (2) the

product of $1.80 and the square footage of the building, reduced by all deductions claimed with respect to the building in any prior tax years.

In order to qualify as "energy-efficient commercial building property," several criteria must be met. First, the costs must be associated with depreciable or amortizable property that is installed in a domestic building that is within the scope of Standard 90.1-2007 of the American Society of Heating, Refrigerating, and Air Conditioning Engineers and the Illuminating Engineering Society of North America (ASHRAE/IESNA). Second, the property in question must be installed as part of: (1) the interior lighting system; (2) the heating, cooling, ventilation and hot water systems; or (3) the building envelope. Third, the property must be installed pursuant to a plan intended to reduce the total annual energy and power costs of the building (with respect to interior lighting, heating, cooling, ventilation and hot water supply systems) by 50 percent or more in comparison to a reference building that meets the minimum requirements of Standard 90.1-2007.

Note, finally, that the basis or the depreciable cost of any property generating a deduction must be reduced by the amount deducted. Thus, depreciation may not be claimed on any amount that is deducted under the provision.

A qualified professional must certify that the property reduces the total annual energy and power costs of the building's heating, cooling, ventilation, hot water, and interior lighting systems by 50 percent or more when compared to a similar reference building that meets minimum specified energy standards described in Standard 90.1-2007. A limited deduction of up to 60¢ per square foot is available for improvements to one of the three energy-efficient commercial building property types described above, even if the overall 50 percent energy reduction standard is not satisfied. Energy savings percentage requirements for individual systems range from 10 percent to 25 percent, depending on the type of system being installed and the date of installation.

The taxpayer must receive a certificate with respect to the property before the deduction may be claimed. The required certification, which includes a statement that the applicable energy reduction requirement has been satisfied, must be provided by a professional engineer or contractor who is unrelated to the taxpayer and has represented in writing to the taxpayer that he or she has the qualifications necessary to provide the certification. The engineer or contractor must be licensed in the jurisdiction in which the building is located. The certification must also include a statement that field inspections conducted after the building was placed in service confirm that the building has met, or

will meet, the energy-savings targets. The certification must include a list identifying the components of the interior lighting systems, heating, cooling, ventilation, and hot water systems, and building envelope installed on or in the building, the energy efficiency features of the building, and its projected annual energy costs. This list may aid in the identification of the property that qualifies for the deduction. However, the list is not required to specify the cost of the property. This information may need to be obtained separately from the contractor or a cost segregation study. The certification need not be included with the taxpayer's return but should be retained.

Qualification for the deduction for energy efficiency improvements to commercial buildings also requires calculation of energy savings attributable to the interior lighting systems, heating, cooling, ventilation, and hot water systems, and building envelope. The energy savings calculations must be made using IRS approved software that utilizes the performance rating method. The energy-efficient commercial building deduction is claimed by the person who is entitled to depreciate the property (e.g., the owner of the building or a lessee who pays for and installs the property). Also, under IRS regulations, if more than one taxpayer installs qualifying property on or in the same building, the aggregate amount of deductions claimed by all taxpayers may not exceed the limit based on square footage. In the case of a federal, state, or local government building—in which case the owners of such buildings are tax-exempt entities and cannot therefore benefit from tax incentives—the person who designs the energy efficient commercial building property may claim the deduction. Improvements to a tax-exempt property (other than a government building), such as a church, which is not depreciable, do not qualify for the deduction. Improvements to a residential rental building qualify for the deduction if it has four or more stories above ground level.

Impact

In general, the types of commercial energy property that qualify for the deduction are part of a business's assets, and hence are depreciable in accordance with the guidelines established by law and regulation, which vary by type of business. Under current depreciation rules (the Modified Accelerated Cost Recovery System), structures and structural components—such as heating/cooling systems and lighting—are depreciated over 39 years using the straight line method. Allowing a current deduction for energy efficient capital goods that would otherwise be depreciated over such a long period of time—that is, allowing expensing of the costs of such property—greatly accelerates, and increases the present value of, the deductions. This

reduces effective tax rates and would normally encourage investment. However, given the (1) long lead time for constructing commercial buildings, and (2) complexity of determining the deduction, there is some question of its effectiveness in inducing investment in qualifying property. While lighting energy use in commercial buildings has been falling as a share of commercial buildings' fuel and energy consumption, it is difficult to know how much of this may be attributable to tax incentives as opposed to other federal programs, such as more stringent performance standards.

Rationale

This deduction was introduced by the Energy Policy Act of 2005 (P.L. 109-58) to encourage businesses to retrofit their commercial buildings with energy conserving components and equipment. The goal was to enhance the energy efficiency of commercial buildings. The Energy Tax Act of 1978 (P.L. 96-518) provided for a 10 percent investment tax credit for certain categories of property that conserved energy in industrial processes, which generally applied to the manufacturing and agricultural sectors. These types of property—there were actually 13 categories—were called specially defined energy property, but none included property for conserving energy in commercial buildings. These credits generally expired at the end of 1982.

The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the deduction first enacted in 2005 by one year. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended it through December 31, 2013. The Tax Increase Prevention Act of 2014 (P.L. 113-295) extended the deduction for one year, through 2014. The deduction was extended for two years, through December 31, 2016, as part of the Consolidated Appropriations Act, 2016 (P.L. 114-113). Provisions in P.L. 114-113 also increased the efficiency standards for property placed in service after December 31, 2015. After 2015, qualifying buildings are determined relative to the ASHRAE/IESNA 90.1-2007 Standard (as opposed to the previously applicable 90.1-2001 Standard).

The provision was extended through December 31, 2017, as part of the Bipartisan Budget Act of 2018 (P.L. 115-123).

Assessment

Commercial buildings include a wide variety of building types—such as offices, hospitals, schools, police stations, factories, places of worship, warehouses, hotels, and shopping malls. These different commercial activities

all have unique energy needs but, as a whole, commercial buildings use more than half their energy for heating and lighting. The commercial sector in the United States uses almost as much energy as the residential sector.

The business profit maximizing (and cost minimizing) objective is generally sufficient to promote an economically efficient level of investment in energy-saving capital when the rate of return on such investments is above the opportunity cost. From an economic perspective, allowing special tax benefits for certain types of investment or consumption can result in a misallocation of resources. There are, however, cases where the market outcome may result in an underinvestment in commercial building energy efficiency. Specifically, if consumption of energy results in negative effects on society, such as pollution, the deduction under IRC section 179D might be justified. In general, however, it would be more economically efficient to directly tax polluting energy fuels than to subsidize a particular method of achieving conservation.

Incentives designed to promote energy efficiency in the commercial building sector attempt to reduce capital market barriers to energy efficiency investments by reducing high up-front costs. If capital markets are functioning efficiently and businesses have access to capital, and thus are able to make positive net present value investments, high up-front costs should not pose a barrier to energy efficiency investment. Technological uncertainty does increase the risk associated with certain energy efficiency investments, particularly in the case of unproven technologies.

The commercial sector may also under-invest in energy efficiency in cases where the person choosing the energy equipment for the building is not the same as the person paying the energy bills. In the case where building owners are not responsible for energy bills, building owners may install less efficient building components to minimize up-front capital costs, since the owner does not realize the energy savings directly. If, however, the building owner is able to recoup the higher installation costs associated with energy-efficient building components through higher rents, the market should determine the economically efficient level of investment in commercial building energy efficiency. Recent empirical evidence suggests that energy-efficient commercial buildings do command higher rents and sell at higher prices.

Selected Bibliography

Deru, Michael and Kristen Field-Macumber. *Energy Savings Modeling and Inspection Guidelines for Commercial Building Federal Tax Deductions for Buildings in 2016 and Later*, National Energy Renewable Laboratory Technical Report NREL/TP-5500-66447, September 2016.

Eichholtz, Piet, Nils Kok, and John M. Quigley. "Doing Well by Doing Good? Green Office Buildings." *American Economic Review*, v. 100, December 2010, pp. 2492-2509.

Energy Information Administration. "Trends in Lighting in Commercial Buildings," May 17, 2017, available at https://www.eia.gov/consumption/commercial/reports/2012/lighting/.

Hassett, Kevin A. and Gilbert E. Metcalf. "Energy Conservation Investment: Do Consumers Discount the Future Correctly?" *Energy Policy*, v. 21, June 1993, pp. 710-716.

Gerarden, Todd D., Richard G. Newell, and Robert N. Stavins. "Assessing the Energy-Efficiency Gap," *Journal of Economic Literature*, v. 55, December 2017, pp. 1486-1525.

International Energy Agency. *Mind the Gap: Quantifying Principal-Agent Problems in Energy Efficiency*. 2007.

Kok, Nils, Marquise McGraw, and John M. Quigley. "The Diffusion of Energy Efficiency in Buildings." *American Economic Review: Papers and Proceedings*, v. 101, May 2011, pp. 77-82.

Metcalf, Gilbert E. "Economics and Rational Conservation Policy." *Energy Policy*, v. 22, October 1994, pp. 819-825.

National Science and Technology Council. *Net-Zero, High-Performance Green Buildings*. October 2008.

Peterman, Andrew, Arno Kourula, and Raymond Levitt. "A Roadmap for Navigating Voluntary and Mandated Programs for Building Energy Efficiency." *Energy Policy*, v. 43, April 2012, pp. 415-426.

Sherlock, Molly F., and Jeffrey R. Stupak. *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

U.S. Congress. House. Committee on Energy and Commerce. *National Energy Policy: Conservation and Energy Efficiency*. Hearings before the Subcommittee on Energy and Air Quality. Washington, DC: U.S. Government Printing Office, June 22, 2001.

U.S. Department of Energy. Energy Information Administration. "Commercial Buildings Energy Consumption Survey (CBECS)," May 2016.

DEPRECIATION RECOVERY PERIODS FOR ENERGY-SPECIFIC ITEMS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	0.1	0.1
2019	([1])	0.1	0.1
2020	([1])	0.1	0.1
2021	([1])	0.1	0.1
2022	([1])	0.1	0.1

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 168(e).

Description

Through a series of laws passed between 1986 and 2008, several types of equipment were given favorable tax status related to their depreciation under the Modified Accelerated Cost Recovery System (MACRS). Under MACRS, the cost of tangible depreciable property (capital goods) placed in service after 1986 is recovered (or "depreciated") using (1) the applicable depreciation method; (2) the applicable recovery period; and (3) the applicable convention. Certain energy-related expenditures, including expenditures on renewable energy property, smart electric distribution and certain electric transmission property, and natural gas distribution lines, are allowed reduced depreciation recovery periods.

Most electric generating capacity is depreciated over 20 years. The recovery period for certain renewable energy equipment, including solar, wind, geothermal, fuel cell, combined heat and power (CHP), and microturbine property is 5 years. The costs of renewable energy generation

property that is part of a "small electric power facility" and certain biomass property can also be recovered over 5 years. Costs of qualified smart meters or qualified smart electric grid systems (which are essentially energy monitoring and management devices) can be recovered over 10 years. Certain electric transmission property originally placed in service after April 11, 2005, is MACRS property recovered over 15 years. A natural gas distribution line placed in service after April 11, 2005, and before January 1, 2011, also is MACRS 15-year property.

Both the 200-percent declining balance method and the straight-line method are used as the depreciation method under MACRS for specific energy property. The 200-percent declining balance method is used to determine the amount of depreciation qualified for deductions initially. In subsequent tax years, the straight-line method is used when it would yield a greater deduction for the taxpayer.

The applicable convention used for the energy property is the half-year convention, meaning that the taxpayer claims half of a year's depreciation for the first taxable year and subsequently claims the full year's deduction. This convention simplifies the depreciation calculation as the taxpayer does not have to prove when the property was placed in service.

As is discussed elsewhere in this compendium, businesses may also be eligible for an investment tax credit (ITC) for qualified investments in renewable energy property or a production tax credit (PTC) for electricity production using a renewable resource.

General provisions that allow for depreciation of equipment in excess of the alternative depreciation system (e.g., bonus depreciation) are also discussed elsewhere in this compendium. With full and immediate expensing (100 percent bonus depreciation) for equipment available through 2022, as added in the 2017 tax revision (P.L. 115-97), accelerated depreciation recovery periods for energy-related equipment do not provide any added incentive for investment.

Impact

The accelerated nature of MACRS allows firms to increase their deductions in the early years of an asset's life, which reduces taxable income in those years. The initial use of the declining balance method in MACRS allows firms to take advantage of the time value of money. Accelerated depreciation deductions may be especially helpful for certain energy

industries, where there are substantial upfront costs associated with capital-intensive activities. Deferring income taxes until later in an asset's life reduces the after-tax cost of investing in certain energy property.

Rationale

The Tax Reform Act of 1986 (P.L. 99-514) assigned a 5-year recovery period to solar, wind, geothermal and ocean thermal, and biomass property that is part of a small electric power facility. This assignment was part of a major depreciation revision, and no specific justification for this change was provided, although it was presumably to encourage investment in alternative energy sources that are less polluting than conventional fuels. The Energy Policy Act of 2005 (P.L. 109-58) reduced the recovery period for certain electric transmission property and natural gas distribution lines from 20 years to 15 years. The Energy Policy Act of 2005 also classified fuel cells, microturbines, and solar hybrid lighting systems as ITC-eligible property, thereby making such property 5-year property under MACRS. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) shortened the depreciation recovery period for smart electric meters and smart electric grid equipment from 20 years to 10 years, and made other changes that resulted in geothermal heat pumps, combined heat and power, and small wind being classified as 5-year property.

Assessment

Economic theory suggests that economic efficiency is maximized when capital investments are treated equally. Permanent investment subsidies, such as accelerated depreciation, may distort the allocation of capital in the long run, possibly reducing overall efficiency in the allocation of economic resources.

Some justifications may exist for providing tax expenditures for renewable energy producers to correct for existing market failures in the energy sector. Negative external costs associated with conventional fossil fuels, such as pollution, are not incorporated into the cost of production. If producers produce more electricity from polluting energy resources than is optimal, reduced prices can lead to over consumption of goods generated from fossil fuels. Subsidizing investment in renewable energy products allows those industries to better compete with the fossil fuel industry, and increases consumption of electricity from renewable sources. When the full costs of energy production and consumption are not realized, markets may also result in too little investment in energy efficiency, thus providing a rationale for

subsidizing energy efficiency technologies. Generally, economic efficiency is better enhanced by taxing energy sources that produce negative externalities, rather than subsidizing renewable alternatives.

Currently, full and immediate expensing (100 percent bonus depreciation) for equipment available through 2022 makes irrelevant any acceleration in cost recovery provided through special provisions for energy-related equipment.

Selected Bibliography

Borenstein, Severin, "The Private and Public Economics of Renewable Electricity Generation," *Journal of Economic Perspectives,* vol. 26, no. 1 (2012), pp. 67-92.

Chirinko, Robert S., Steven M. Fazzarri, and Andrew P. Meyer, "How Responsive is Business Capital Formation to its User Cost? An Exploration with Micro Data." *Journal of Public Economics*, vol. 74 (1999), pp. 53-80.

Gravelle, Jane, "Economic Effects of Taxing Capital Income," *MIT Press*, 1994.

Hungerford, Thomas L. and Jane G. Gravelle, "Business Investment and Employment Tax Incentives to Stimulate the Economy," Library of Congress, Congressional Research Service Report R41034. Washington, DC: January 25, 2013.

Jager, David and Rathmann, Max, "Policy Instrument Design to Reduce Financing Costs in Renewable Energy Technology Projects," *Renewable Energy Technology Deployment*, October 2008.

Metcalf, Gilbert M., "Investment in Energy Infrastructure and the Tax Code," In *Tax Policy and the Economy, Vol. 24*, ed. Jeffery R. Brown. pp. 1-33. The University of Chicago Press. 2010.

Sherlock, Molly F. and Jeffrey M. Stupak, "Energy Tax Policy: Issues in the 114th Congress," Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

EXCEPTIONS FOR PUBLICLY TRADED PARTNERSHIPS WITH QUALIFIED INCOME DERIVED FROM CERTAIN ENERGY-RELATED ACTIVITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	-	0.2
2019	0.2	-	0.2
2020	0.4	-	0.4
2021	0.4	-	0.4
2022	0.5	-	0.5

Authorization

Section 7704.

Description

Under section 7704, firms that publicly trade their interests on financial markets are treated as corporations for tax purposes, and are therefore subject to both the corporate and individual income tax. Corporate shareholders also pay taxes on capital gains and dividends. Publicly traded partnerships (PTPs) trade their interests on financial markets, much like corporate stock, but are exempt from the corporate income tax provided that 90 percent of their income is considered qualifying passive-type income according to section 7704. Qualifying income sources include gains from interest, dividends, real property rents, disposition of real property, and mining and natural resource activities. Activities related to mining and natural resources include the exploration, development, mining or production, processing, refining, transportation, storage, and marketing of any depletable mineral or natural resource. Active income from qualifying natural resource related activities is treated as qualifying income under section 7704. Qualifying income also includes income from the transportation and storage of certain renewable and

alternative fuels, and activities involving industrial source carbon dioxide. The tax expenditures in the table above are for certain energy-related PTPs. Most energy-related PTPs are in the oil and gas sector, although some PTPs are in the coal industry. Natural resource related PTPs are discussed elsewhere in this compendium.

Impact

Firms that organize as PTPs receive a number of benefits, including increased access to capital and a lower tax burden. By publicly trading their interests, PTPs have greater access to capital and may be able to secure capital at a lower cost than other firms that organize differently. Access to capital has the potential to stimulate investment and growth in the energy sectors targeted within the definition of qualified income. The exemption from the corporate income tax also reduces a PTPs tax liability, which in turn can lead to increased profits and investment.

Rulings by the IRS, particularly in 2012 and 2013, spurred growth of firms organizing as PTPs. There were significant rulings supporting activities for hydraulic fracturing and the generation of real property rent. These decisions were perceived to have expanded which income streams could be considered as qualifying income under section 7704(d)(1)(e). Subsequent to these rulings, the number of PTPs increased. This growth was not sustained, and there was a sharp decline in the number of PTP initial public offerings (IPOs) by 2016.

The 2017 tax revision (P.L. 115-97) reduced the corporate tax rate from 35% to 21%. This change decreased the attractiveness of partnerships' tax attributes relative to corporations.

Rationale

The Revenue Act of 1987 (P.L. 100-203) established the general tax rules that classify PTPs as corporations, in part to address concerns about erosion of the corporate tax base through the use of partnerships. Congress's concern was that growth in PTPs signified that activities, which would otherwise be conducted by corporations and subject to both corporate and shareholder level taxation, were being done by PTPs purely for tax reasons.

The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) clarified the definition of qualified income to include income from the transportation of oil and gas and from depletable natural resources. Income from the marketing of oil and gas to retail customers was excluded from

qualified income. The American Jobs Creation Act of 2004 (P.L. 108-357) made additional changes which made PTPs more attractive for mutual funds to invest in, and may have increased the pool of capital able to invest in PTPs. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) then further expanded the definition of qualified income to include income or gains from the transport or storage of certain renewable and alternative fuels and from certain activities related to industrial source carbon dioxide.

Assessment

Before the 2017 tax revision (P.L. 115-97), pass-through business income generally faced lower tax rates than corporate income. Following the 2017 tax revision, it is less clear whether income in the corporate or non-corporate sector will face lower effective tax rates.

The fundamental issue, from a matter of tax policy, is whether some PTPs should be exempt from corporate level taxation, based upon the nature and type of their income. In general, Congress has enacted rules that limit the ability of untaxed entities to publicly trade their interests and/or restrict the entities' activities. Thus, the exemption of some PTPs from corporate level taxes may be seen as a departure from general congressional intent concerning passthrough entities. Others would argue that the industries targeted through the definition of qualified income have reason to be subsidized, and government policy should help spur investment and growth in the energy sector.

Selected Bibliography

Cooper, Michael, John McClelland, James Pierce, et al., "Business in the United States: Who Owns it and How Much Tax Do They Pay," *Tax Policy and the Economy*, National Bureau of Economic Research, vol. 30 (2016), pp. 99-128.

Elliott, Amy, "PTPs Expand After Favorable IRS Rulings on Qualifying Income," *Tax Notes*, September 24, 2012.

Fields, Deborah, Holly Belanger, Robert Swiech, and Eric Lee, "Triangles in a World of Squares: A Primer on Significant U.S. Federal Income Tax Issues for Natural Resources Publicly Traded Partnerships," *Taxes–The Tax Magazine*, Commerce Clearing House, December 2009, pp. 21-34.

Gentry, William M., "Taxes, Financial Decisions and Organizational Form: Evidence from Publicly Traded Partnerships," *Journal of Public Economics,* vol. 53, no. 2, (1994), pp. 223-244.

Internal Revenue Service, "Partnership's Income From Fracking Is Qualifying Income," *Department of the Treasury*, LTR 201322024, January, 2013.

Livingstone, Jane R. and Thomas C. Omer. "Publicly Traded Partnerships, Tax Cost, and Choice of Entity," *Tax Notes*, Special Report, July 27, 2009, pp. 365-378.

Marples, Donald J. *Taxation of Private Equity and Hedge Fund Partnerships: Characterization of Carried Interest,* Library of Congress, Congressional Research Service Report RS22717. Washington, DC: March 10, 2011.

Martin, John D., and John W. Kensinger, "Valuation Effects of Rollout Publicly Traded Partnerships in the Oil and Gas Industry," *Managerial and Decision Economics*, vol. 11, no. 3, (1990), pp. 143-153.

Master Limited Partnership Association, "Master Limited Partnerships 101: Understanding MLPs," August 2017.

Schisler, Dan L. and James M. Lukawitz. "The Impact of the Omnibus Budget Reconciliation Act of 1987 on Shareholders of Publicly Traded Partnerships," *Advances in Taxation,* vol. 7, (1995), pp.141-159.

Sherlock, Molly and Mark Keightly. *Master Limited Partnerships: A Policy Option for the Renewable Energy Industry*, Library of Congress, Congressional Research Service Report R41893, Washington, DC: June 28, 2011.

Thompson, Kristofer A., "Refining 'Qualifying Income' for Natural Resource Activities," *Tax Notes*, August 1, 2016.

U.S. Congress, House Committee on the Budget, "Omnibus Budget Reconciliation Act of 1987," 100th Congress, 1st Session., October 26, 1987 (Washington, GPO, 1987).

U.S. Congress, Joint Committee on Taxation, "Present Law and Analysis Relating to Tax Treatment of Partnership Carried Interest and Related Issues, Part I," JCX-62-07, 110th Congress, 1st Session (Washington, GPO, 1987).

EXCESS OF PERCENTAGE OVER COST DEPLETION: OIL, GAS, AND OTHER FUELS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals		Corporations		Total	
	Oil and Gas	Other Fuels	Oil and Gas	Other Fuels	Oil and Gas	Other Fuels
2018	([1])	([1])	0.5	0.1	0.5	0.1
2019	([1])	([1])	0.4	0.1	0.4	0.1
2020	([1])	([1])	0.4	0.1	0.4	0.1
2021	([1])	([1])	0.5	0.1	0.5	0.1
2022	([1])	([1])	0.5	0.1	0.5	0.1

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 611, 612, 613, 613A, and 291.

Description

Firms that extract oil, gas, or other minerals are permitted a deduction to recover their capital investment in a mineral reserve, which depreciates due to the physical and economic depletion or exhaustion as the mineral is recovered (section 611). Depletion, like depreciation, is a form of capital recovery: an asset, the mineral reserve itself, is being expended to produce income. Under an income tax, such costs are deductible.

There are two methods of calculating this deduction: cost depletion and percentage depletion. Cost depletion allows for the recovery of the actual capital investment—the costs of discovering, purchasing, and developing a mineral reserve—over the period during which the reserve produces income. Each year, the taxpayer deducts a portion of the adjusted basis (original capital investment less previous deductions) equal to the fraction of the estimated

remaining recoverable reserves that have been extracted and sold. Under this method, the total deductions cannot exceed the original capital investment.

Under percentage depletion, the deduction for recovery of capital investment is a fixed percentage of the gross income—i.e., revenue—from the sale of the mineral. Under this method, total deductions typically exceed, despite the limitations, the capital invested to acquire and develop the reserve.

Section 613 states that mineral producers must claim the higher of cost or percentage depletion. The difference between percentage depletion and cost depletion is considered a subsidy. The percentage depletion rate for oil and gas is 15 percent and is limited to average daily production of 1,000 barrels of oil, or its equivalent in gas, and only for wells located in the United States. For producers of both oil and gas, the limit applies on a combined basis. For example, an oil producing company with 2017 oil production of 100,000 barrels, and natural gas production of 1.2 billion cubic feet (the equivalent of 200,000 barrels of oil) has average daily production of 821.92 barrels (300,000 ÷ 365 days).

Percentage depletion is not available to major integrated oil companies; it is available only for independent producers and royalty owners. An independent producer is one that does not have refinery operations that refine more than 75,000 barrels of oil per day, and does not have retail oil and gas operations grossing more than $5 million per year.

Beginning in 1990, the percentage depletion rate on production from marginal wells—oil from stripper wells (those producing no more than 15 barrels per day, on average), and heavy oil—was raised. This rate starts at 15 percent and increases by one percentage point for each whole $1 that the reference price of oil for the previous calendar year is less than $20 per barrel (subject to a maximum rate of 25 percent). This higher rate is also limited to independent producers and royalty owners, and for up to 1,000 barrels, determined as before on a combined basis (including non-marginal production). However, since 2003, high market crude oil prices limited the percentage depletion rate to 15 percent. Small independents operate about 400,000 small stripper wells, which produce nearly 1,000,000 barrels of marginal oil/day (1.4 trillion cubic feet of annual gas production), about 12 percent of domestic production in the lower 48 states.

Percentage depletion is limited to 65 percent of the taxable income from all properties for each producer. However, for tax years beginning after December 31, 2008, and before January 1, 2012, this limitation was suspended

for marginal properties. A second limitation is the 50 percent net-income limitation (100 percent for oil and gas properties), which applies to each individual property rather than to all the properties. From 1998-2007 and 2009-2011, the 100 percent net-income limitation was also suspended for marginal production. Since 1990, transferred properties have been eligible for percentage depletion.

The percentage depletion allowance is available for many other types of fuel minerals, at rates ranging from 10 percent (coal, lignite) to 22 percent (uranium). (See the entry "Excess of Percentage Over Cost Depletion: Nonfuel Minerals," for percentage depletion allowances for nonfuel minerals.) The rate for regulated natural gas and gas sold under a fixed contract is 22 percent; the rate for geo-pressurized methane gas is 10 percent. Oil shale and geothermal deposits qualify for a 15 percent allowance. The net-income limitation to percentage depletion for coal and other fuels is 50 percent, as compared to 100 percent for oil and gas. Under code section 291, percentage depletion on coal mined by corporations is reduced by 20 percent of the excess of percentage over cost depletion.

Impact

Historically, generous depletion allowances and other tax benefits reduced effective tax rates in the fuel minerals industry significantly below tax rates on other industries, which provided additional incentives to increase investment, exploration, and output, especially of oil and gas. Oil and gas output, for example, rose from 16 percent of total U.S. energy production in 1920 to 71.1 percent in 1970 (the peak year). In 2017, oil and gas production accounted for roughly 60 percent of total U.S. energy production.

Under the percentage depletion allowance, a portion of gross revenues can be written off for the life of the investment. It was possible for cumulative depletion allowances to total many times the amount of the original investment.

The 1975 repeal of percentage depletion for the major integrated oil companies suggests that the value of this tax subsidy has been reduced in the last 30 years. The reduction in the depletion allowance to 15 percent in 1984 means that independent producers benefit from it much less than in the past. More recently, high oil and gas prices at the time estimates were made may have raised somewhat the subsidy value of percentage depletion to the independents. In addition, cutbacks in other tax benefits and additional excise

taxes have raised effective tax rates in the mineral industries, although independent oil and gas producers continue to be favored.

Percentage depletion has little, if any, effect on oil prices, which are determined by supply and demand in the world oil market. However, it may encourage higher prices for drilling and mining rights.

Rationale

Provisions for a mineral depletion allowance based on the value of a mine were made under a 1912 Treasury Department regulation (T.D. 1742) but were never implemented. A court case resulted in the enactment, as part of the Tariff Act of 1913, of a "reasonable allowance for depletion" not to exceed 5 percent of the value of mineral output. Treasury regulation No. 33 limited total deductions to the original capital investment.

This system was in effect from 1913 to 1918, although in the Revenue Act of 1916 (P.L. 64-271) depletion was restricted to no more than the total value of output, and in the aggregate no more than capital originally invested or fair market value on March 1, 1913 (the latter so that appreciation occurring before enactment of income taxes would not be taxed).

The 1916 depletion law marked the first time that the tax laws mentioned oil and gas specifically. On the grounds that the newer discoveries that contributed to the war effort were treated less favorably, discovery value depletion was enacted in 1918. Discovery depletion, which was in effect through 1926, allowed deductions in excess of capital investment because it was based on the market value of the deposit after discovery. Congress viewed oil and gas as a strategic mineral, essential to national security, and wanted to stimulate the wartime supply of oil and gas, compensate producers for the high risks of prospecting, and relieve the tax burdens of small-scale producers.

In 1921 (Revenue Act of 1921, P.L. 67-98), because of concern with the size of the allowances, discovery depletion was limited to net income; it was further limited to 50 percent of net income in 1924 (Revenue Act of 1924, P.L. 68-176). Due to the administrative complexity and arbitrariness of the method, and due to its tendency to establish high discovery values, which tended to overstate depletion deductions, discovery value depletion was replaced in 1926 by the percentage depletion allowance, at the rate of 27.5 percent (Revenue Act of 1926, P.L. 69-20).

In 1932, percentage depletion was extended to coal and most other minerals. In 1950, President Truman recommended that the depletion rate be

reduced to 15 percent, but Congress disagreed. In 1969, the top depletion rates were reduced from 27.5 percent to 22 percent, and in 1970 the allowance was made subject to the minimum tax.

The Tax Reduction Act of 1975 (P.L. 94-12) eliminated the percentage depletion allowance for major oil and gas companies and reduced the rate for independents to 15 percent for 1984 and beyond. This was in response to the Arab oil embargo of 1974, which caused oil prices to rise sharply. The continuation of percentage depletion for independents was justified by Congress on the grounds that independents had more difficulty in raising capital than the major integrated oil companies, that their profits were smaller, and that they could not compete with the majors.

The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) limited the allowance for coal and iron ore. The Tax Reform Act of 1986 (P.L. 99-514) denied percentage depletion for lease bonuses, advance royalties, or other payments unrelated to actual oil and gas production.

The Omnibus Budget and Reconciliation Act of 1990 (P.L. 101-508) introduced the higher depletion rates on marginal production, raised the net income limitation from 50 percent to 100 percent, and made the allowance available to transferred properties. These liberalizations were based on energy security arguments. The Energy Policy Act of 1992 (P.L. 102-486) repealed the minimum tax on percentage depletion.

The Taxpayer Relief Act of 1997 (P.L. 105-34) suspended the 100 percent taxable income limitation for marginal wells for two years, and further extensions were made by the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170) and the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147). The Working Families Tax Relief Act of 2004 (P.L. 108-311) retroactively suspended the 100 percent net-income limitation through December 31, 2005.

The Energy Policy Act of 2005 (P.L. 109-58) increased the per-day limitation on refining, for purposes of determining who is an independent producer, from 50,000 barrels per day to 75,000 barrels per day.

The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the suspension of the 100 percent net-income limitation through 2007. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the 100 percent net-income limitation for marginal properties for 2009. The Tax Relief, Unemployment Reauthorization, and Job Creation Act of 2010 (P.L.

111-312) extended the suspension of the 100 percent net-income limitation for marginal properties for an additional two years, through the end of 2011.

Assessment

Standard accounting and economic principles state that the appropriate method of capital recovery in the mineral industry is cost depletion adjusted for inflation. The percentage depletion allowance permits independent oil and gas producers, and other mineral producers, to continue to claim a deduction even after all the investment costs of acquiring and developing the property have been recovered. Thus it is a mineral production subsidy rather than an investment subsidy.

As a production subsidy percentage depletion is economically inefficient as it incorrectly measures the income of qualifying independent oil and gas producers. If percentage depletion affects production the provision encourages development of existing properties at the expense of exploration for new ones. To the extent that it stimulates oil production, it reduces dependence on imported oil in the short-run, but it contributes to a faster depletion of the nation's resources in the long-run.

Tax provisions that encourage investment in a specific industry may be justified in cases where they address a positive externality associated with either production or consumption of certain goods. However, oil and gas production is not associated with positive externalities. Rather, oil and gas production is associated with negative externalities. For example, oil and natural gas prices do not reflect the environmental harm caused by the release of greenhouse gases in the atmosphere associated with oil and gas production and consumption.

Percentage depletion for oil and gas subsidizes independent producers who are primarily engaged in exploration and production. However, the percentage depletion does not approximate cost depletion adjusted for inflation.

Percentage depletion has been justified on national security grounds and the volatile nature of oil and gas prices. In either case, it is likely the concerns could be more adequately addressed through other means. For example, to address national security concerns, one alternative is an oil stockpile program such as the Strategic Petroleum Reserve.

Selected Bibliography

Congressional Budget Office. Options for Reducing the Deficit: 2017 to 2026. Revenues—Option 28: Repeal Certain Tax Preferences for Energy and Natural Resource-Based Industries, December 8, 2016.

Edmunds, Mark A. "Economic Justification for Expensing IDC and Percentage Depletion Allowance," *Oil & Gas Tax Quarterly*, v. 36, September 1987, pp. 1-11.

Energy Information Administration. U.S. Energy Facts Explained. May 16, 2018.

Erickson, Peter, Adrian Down, Michael Lazarus, and Doug Koplow. "Effect of subsidies to fossil fuel companies on United States crude oil production," *Nature Energy,* 2017, pp. 891-898.

Fenton, Edmund D. "Percentage Depletion, RMFP, and the Exxon Cases," *Oil and Gas Tax Quarterly*, v. 52, September 2003, pp. 1-17.

Frazier, Jessica, and Edmund D. Fenton. "The Interesting Beginnings of the Percentage Depletion Allowance," *Oil and Gas Tax Quarterly*, v. 38, June 1990, pp. 697-712.

Ghiselin, Dick. "Drilling Economics," *Oil and Gas Investor,* December 2005, pp.13-22.

Gravelle, Jane G. "Effective Federal Tax Rates on Income from New Investments in Oil and Gas Extraction," *The Energy Journal*, v. 6, 1985, pp. 145-153.

Hennessee, Patrick A. "Percentage Depletion — How Natural Gas Producers Can Avoid the Retailer Exclusion of 613A." *The Journal of Taxation,* July 2005, pp. 39-46.

Lucke, Robert and Eric Toder. "Assessing the U.S. Federal Tax Burden on Oil and Gas Extraction," *The Energy Journal*, v. 8, October 1987, pp. 51-64.

Lyon, Andrew B. "The Effect of Changes in the Percentage Depletion Allowance on Oil Firm Stock Prices," *The Energy Journal*, v. 10, October 1989, pp.101-116.

Metcalf, Gilbert, "Taxing Energy in the United States: Which Fuels Does the Tax Code Favor?" Center for Energy Policy and the Environment, 2009.

Rook, Lance W. "The Energy Policy Act of 1992 Changes the Effect of the AMT on Most Oil Producers," *Tax Advisor*, v. 24, August 1993, pp. 479-484.

U.S. General Accounting Office. *Additional Petroleum Production Tax Incentives Are of Questionable Merit*, GAO/GGD-90-75. Washington, DC: July 1990.

U.S. Treasury Department. Internal Revenue Service. *Publication 535: Business Expenses,* March 16, 2018.

EXCLUSION OF ENERGY CONSERVATION SUBSIDIES PROVIDED BY PUBLIC UTILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	-	([1])
2019	([1])	-	([1])
2020	([1])	-	([1])
2021	([1])	-	([1])
2022	([1])	-	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 136.

Description

In general, this provision allows a customer to deduct from their gross income the value of any subsidy provided (directly or indirectly) by a public utility for the purchase or installation of any energy conservation measure. An energy conservation measure is any installation or modification primarily designed to reduce consumption of electricity or natural gas or to improve the management of energy demand with respect to a dwelling unit. To the extent that an energy conservation expenditure qualifies for this exclusion, the taxpayer cannot claim any other tax benefits on the same expenditure.

Impact

The exclusion of these energy subsidies from gross income reduces the total cost of energy-efficient devices provided under programs sponsored by public utilities to conserve energy. Absent this provision, the value of any rebates or other incentives provided by the utility could be included in the

taxpayer's gross income and subject to taxation. The tax savings generated by this provision depend on the marginal tax rate of the taxpayer. This tax provision is applicable to dwelling units such as houses, apartments, condominiums, mobile homes, boats, or similar properties.

Rationale

An exclusion for residential customers had originally been enacted as part of the National Energy Conservation Policy Act of 1978 (P.L. 95-619). This exclusion was amended by Title V of the Energy Security Act of 1980 (P.L. 96-294), and then expired in mid-1989. The current provision was adopted as part of the Energy Policy Act of 1992 (P.L. 102-486) to encourage residential and business customers of public utilities to participate in energy conservation programs sponsored by the utility. The goal was to enhance the energy efficiency of dwelling units and encourage energy conservation in residential and commercial buildings. The Small Business Job Protection Act of 1996 (P.L. 104-188) repealed the exclusion with respect to business property, effective on January 1, 1997 (unless a binding contract was in effect on September 13, 1995). The 1996 amendments also dropped a part of section 136 that allowed the exclusion to apply to industrial energy conservation devices and technologies.

Assessment

Utilities sometimes use rebates and other incentives to induce their customers to invest in more energy efficient heating and cooling equipment, and other energy-saving devices. Such a program might be justified on the grounds of conservation, if consumption of energy resulted in negative effects on society, such as pollution. In general, however, it would be more efficient to directly tax energy fuels than to subsidize a particular method of achieving conservation. From an economic perspective, allowing special tax benefits for certain types of investment or consumption can result in a misallocation of resources.

In rental housing, the tenant and the landlord lack strong financial incentives to invest in energy conservation equipment and materials because the benefits from such conservation may not entirely accrue to the party undertaking the cost of the energy-saving expenditure and effort. Tenants do not generally have motivation to improve the energy efficiency of a residence that does not belong to them unless the rate of return (or payback) is sufficiently large. However, most tenants do not occupy rental housing long enough to reap the full benefits of the energy conservation investments.

Alternatively, landlords may not be able to control the energy consumption habits of renters to sufficiently recover the full cost of the energy conservation expenditures.

If the units are individually metered and the tenant pays for electricity separately, the landlord may not undertake energy conservation investments since all the benefits would accrue to the renters unless higher rents could be charged on apartments with lower utility costs. If the units are under centralized control (rather than individually metered), the benefits of conservation measures may accrue largely to the landlord, but even here the tenants may have sufficient control over energy use to subvert the accrual of any gains to the landlord. In such cases, from the landlord's perspective, it may be easier and cheaper to forgo the conservation investments and simply pass on energy costs as part of the rents. Individual metering can be quite costly, and while it may reduce some of the distortions, it is not likely to completely eliminate them. Even if the landlord can charge higher rents, he may not be able to recover the costs of energy conservation efforts or investments.

These market failures may lead to underinvestment in conservation measures in rental housing and provide the economic rationale for this provision. Without such explicit exclusion, such subsidies would be treated as gross income and subject to tax. This exclusion, however, applies both to owner-occupied and to rental housing.

Selected Bibliography

Brown, Marilyn. "Market Failures and Barriers as a Basis for Clean Energy Policies." *Energy Policy*, v. 29, November 2001, pp. 1197-1207.

Hahn, Robert W. "Energy Conservation: An Economic Perspective." American Enterprise Institute, October 2005.

Howarth, Richard B. and Bo Anderson. "Market Barriers to Energy Efficiency." *Energy Economics,* October 1993, pp. 262-292.

Metcalf, Gilbert E. "Economics and Rational Conservation Policy." *Energy Policy*, v. 22, October 1994, pp. 819-825.

Pauley, Patricia, et al. "The Energy Policy Act of 1992: Provisions Affecting Individuals." *Taxes*, February 1993, pp. 91-96.

Sutherland, Ronald J. "Energy Efficiency or the Efficient Use of Energy Resources." *Energy Sources*, v. 16, pp. 257-268.

—. "The Economics of Energy Conservation Policy." *Energy Policy*, v. 24, April 1996, pp. 361-370.

U.S. Congress. House. Committee on Energy and Commerce. *National Energy Policy: Conservation and Energy Efficiency*. Hearings Before the

Subcommittee on Energy and Air Quality. Washington, DC: U.S. Government Printing Office, June 22, 2001.

U.S. Department of Energy. Lawrence Berkeley National Laboratory. "Energy Efficiency, Market Failures, and Government Policy." Levine, Mark D., et al. March 1994.

U.S. Department of the Treasury. Internal Revenue Service. *Gross Income v. Non-Gross Income: Energy Conservation Subsidies Provided by Utilities*. Letter Ruling 200717010. January 19, 2007.

EXPENSING OF EXPLORATION AND DEVELOPMENT COSTS: OIL, GAS, AND OTHER FUELS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals		Corporations		Total	
	Oil and Gas	Other Fuels	Oil and Gas	Other Fuels	Oil and Gas	Other Fuels
2017	0.4	([1])	1.2	([1])	1.6	([1])
2018	0.2	([1])	0.7	([1])	0.9	([1])
2019	0.1	([1])	0.4	([1])	0.5	([1])
2020	0.1	([1])	0.4	([1])	0.5	([1])
2021	0.1	([1])	0.6	([1])	0.7	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 263(c), 291, 616-617, 57(a)(2), 59(e) and 1254.

Description

Firms engaged in the exploration and development of oil, gas, or geothermal properties have the option of expensing (deducting in the year paid or incurred) rather than capitalizing (recovering such costs through depletion or depreciation) certain intangible drilling and development costs (IDCs). Expensing is an exception to general tax rules that provide for the capitalization of costs related to generating income from capital assets. In lieu of expensing, firms have the option of amortizing IDCs in equal amounts over a five-year period. This option may reduce or eliminate the alternative minimum tax on the IDCs, which, as discussed below, is a tax preference item.

IDCs are amounts paid by the operator for fuel, labor, and repairs to drilling equipment, materials, hauling, and supplies. They are expenditures incident to and necessary for drilling wells and preparing a site for the

production of oil, gas, or geothermal energy. IDCs include the cost to operators of any drilling or development work done by contractors under any form of contract, including a turnkey contract. Amounts paid for casings, valves, pipelines, and other tangible equipment that have a salvage value are capital expenditures and they cannot be expensed; they are recovered through depreciation.

The option to expense IDCs applies to domestic properties, which include certain off-shore wells (essentially those within the exclusive economic zone of the United States), including generally offshore platforms subject to certain restrictions. Except for IDCs incurred in the North Sea, IDCs on foreign properties must be either amortized (deducted in equal amounts) over 10 years or added to the adjusted cost basis and recovered through cost depletion. An integrated oil company, generally a large producer that also has refining and marketing operations, can expense only 70 percent of the IDCs; the remaining 30 percent must be amortized over a five-year period. Dry hole costs for either domestic or foreign properties may be expensed or capitalized at the discretion of the taxpayer.

For integrated producers, the excess of expensed IDCs over the amortizable value (over a 10-year period) is a tax preference item that is subject to the alternative minimum tax to the extent that it exceeds 65 percent of the net income from the property. (Note that the corporate AMT was repealed for tax years beginning after December 31, 2017.) Independent (non-integrated) producers include only 60 percent of their IDCs as a tax preference item. As noted above, instead of expensing, a taxpayer may choose to amortize IDCs over a five-year period and avoid the individual alternative minimum tax. (Again, the corporate alternative minimum tax was repealed by the 2017 tax revision.) The amortization claimed under IRC section 59(e) is not considered a tax preference item for individual alternative minimum tax purposes. Prior to 1993, an independent producer's intangible drilling costs were subject to the alternative minimum tax, and the producer was allowed a special "energy deduction" for 100 percent of certain IDCs, subject to some limitations. If an operator has elected to amortize IDCs on a well that proves later to be a dry hole, the operator may deduct such costs as an ordinary loss. The taxpayer is not required to include these costs as an IDC tax preference item in computing alternative minimum tax. If a property is disposed of prior to its exhaustion, any expensed IDCs are recaptured as ordinary income.

Impact

IDCs and other intangible exploration and development costs represent a portion of the costs of finding and developing a mineral reserve. In the case of oil and gas, which historically accounted for 99 percent of the revenue loss from this provision, IDCs typically account for about 66 percent of the total exploration and development costs—the cost of creating a mineral asset.

Historically, expensing of IDCs was a major tax subsidy for the oil and gas industry, and, combined with other tax subsidies such as the depletion allowance, reduced effective tax rates significantly below tax rates on other industries. These subsidies provided incentives to increase investment, exploration, and output, especially of oil and gas. The value of these subsidies has declined over time with reductions in corporate income tax rates, increased limits on expensing, and the alternative minimum tax

Unlike percentage depletion, which may only be claimed by independent producers, this tax expenditure is shared by both independents and by the integrated oil and gas producers. However, independent oil producers, many of which are large, drilled 87 percent of the wells and undertook the bulk of the expenditures for exploration and development, thus receiving the bulk of the benefits from this tax expenditure in 2012. The at-risk, recapture, and minimum tax restrictions that have since been placed on the use of the provision have primarily limited the ability of high-income taxpayers to shelter their income from taxation through investment in mineral exploration. However, the exemption for working interests in oil and gas from the passive loss limitation rules still creates opportunities for tax shelters in oil and gas investments.

Rationale

Expensing of IDCs was originally established in a 1916 Treasury regulation (T.D. 45, article 223), with the rationale that such costs were ordinary operating expenses.

In 1931, a court ruled that IDCs were capital costs, but permitted expensing, arguing that the 15-year precedent gave the regulation the force of a statute. In 1942, Treasury recommended that expensing be repealed, but Congress did not take action. A 1945 court decision invalidated expensing, but Congress endorsed it (on the basis that it reduced uncertainty and stimulated exploration of a strategic mineral) and codified it as section 263(c) in 1954 (P.L. 83-591). Continuation of expensing has been based on the perceived

need to stimulate exploratory drilling, which can increase domestic oil and gas reserves, and (eventually) production, reduce imported petroleum, and enhance energy security.

The Tax Reform Act of 1976 (P.L. 94-455) added expensing of IDCs as a tax preference item subject to the alternative minimum tax. Expensing of IDCs for geothermal wells was added by the Energy Tax Act of 1978 (P.L. 95-618). The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) limited expensing for integrated oil companies to 85 percent; the remaining 15 percent of IDCs had to be amortized over three years.

The Deficit Reduction Act of 1984 (P.L. 98-369) limited expensing for integrated producers to 80 percent of IDCs. The Tax Reform Act of 1986 (P.L. 99-514) established uniform capitalization rules for the depreciation of property, but IDCs (as well as mine development and other exploration costs) are exempt from those rules. The Tax Reform Act further limited expensing for integrated producers to 70 percent of costs, and also repealed expensing of foreign properties.

In 1990, a special energy deduction was introduced, against the alternative minimum tax, for a portion of the IDCs and other oil and gas industry tax preference items. For independent producers, the Energy Policy Act of 1992 (P.L. 102-486) limited the amount of IDCs subject to the alternative minimum tax to 60 percent (70 percent after 1993) and suspended the special energy deduction through 1998.

Assessment

IDCs are generally recognized to be capital costs, which, according to standard economic principles, should be recovered using depletion (cost depletion adjusted for inflation). Lease bonuses and other exploratory costs (survey costs, geological and geophysical costs) are properly treated as capital costs, although they may be recovered through percentage rather than cost depletion. From an economic perspective, dry hole costs should also be depleted, rather than expensed, as part of the costs of drilling a successful well.

Immediate expensing of IDCs provides a tax subsidy for capital invested in the mineral industry, especially for oil and gas producers, with a relatively larger subsidy for independent producers. Technological innovation has reduced the percentage of dry holes in both exploratory and development drilling, thus reducing the tax benefits from immediate expensing of dry hole costs.

Expensing rather than capitalizing IDCs allows taxes on income to be effectively eliminated. As a capital subsidy, however, expensing is economically inefficient because it promotes investment decisions that are based on tax considerations rather than inherent economic considerations.

To the extent that IDCs stimulate drilling of successful wells, they reduce dependence on imported oil in the short run, but contribute to a faster depletion of the nation's resources in the long run. Arguments have been made over the years to justify expensing on grounds of unusual risks, national security, uniqueness of oil as a commodity, the industry's lack of access to capital, and protection of small producers.

Selected Bibliography

Congressional Budget Office. Options for Reducing the Deficit: 2017 to 2026. Revenues—Option 28: Repeal Certain Tax Preferences for Energy and Natural Resource–Based Industries, December 2016.

Friske, Karyn Bybee. "Alternative Minimum Tax Credit and the Consolidated Regulations: Is Simplification Possible?" *The Oil and Gas and Energy Quarterly*, September 2001, pp. 139-145.

Ghiselin, Dick. "Drilling Economics," *Oil and Gas Investor,* December 2005, pp. 13-22.

Gravelle, Jane G. "Effective Federal Tax Rates on Income from New Investments in Oil and Gas Extraction," *The Energy Journal*, v. 6 (1985), pp. 145-153.

Lazzari, Salvatore. *Energy Tax Provisions in the Energy Policy Act of 1992*. Library of Congress, Congressional Research Service, Report 94-525, Washington, DC: June 22, 1994.

Lucke, Robert and Eric Toder. "Assessing the U.S. Federal Tax Burden on Oil and Gas Extraction," *The Energy Journal*, v. 8, October 1987, pp. 51-64.

Rook, Lance W. "The Energy Policy Act of 1992 Changes the Effect of the AMT on Most Oil and Gas Producers," *Tax Adviser*, v. 24, August 1993, pp. 479-484.

Sherlock, Molly. *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures*. Library of Congress, Congressional Research Service, CRS Report R41227, Washington, DC: May 2, 2011.

U.S Congress, *Present Law and Analysis of Energy-Related Tax Expenditures*, 112th Congress, 2nd session, Washington, DC: March 2012.

U.S. Department of Energy. Energy Information Administration. *Direct Federal Interventions and Subsidies in Energy in Fiscal Year 2016,* April 2018.

U.S. Treasury Department. *Tax Reform for Fairness, Simplicity, and Economic Growth*, v. 2, November 1984, Washington, DC: 1984, pp. 229-231.

U.S. Treasury Department. Internal Revenue Service. *Publication 535: Business Expenses*. March 2018.

AMORTIZATION OF GEOLOGICAL AND GEOPHYSICAL EXPENSES ASSOCIATED WITH OIL AND GAS EXPLORATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	0.1	0.1
2019	([1])	0.1	0.1
2020	([1])	0.1	0.1
2021	([1])	0.1	0.1
2022	([1])	0.1	0.1

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 167(h).

Description

Geological and geophysical (G&G) costs—exploratory costs associated with determining the precise location and potential size of a mineral deposit—are amortized by independent producers over two years and by major integrated oil companies over seven years.

Impact

Geological and geophysical costs represent a share of the costs of finding and developing an oil or gas reserve. This subsidy provides an incentive to undertake geological and geophysical costs.

Rationale

The Energy Policy Act of 2005 (P.L. 109-58) included a provision to amortize geological and geophysical (G&G) costs over two years. The Tax

Increase Prevention and Reconciliation Act of 2006 (P.L. 109-222) increased the amortization period for geological and geophysical costs to five years for major integrated oil companies. The Energy Independence and Security Act of 2007 (P.L. 110-140), enacted on December 19, 2007, further raised the amortization period for geological and geophysical expenditures incurred by major integrated oil companies from five to seven years.

Assessment

Geological and geophysical costs are normally treated as capital costs that should be recovered over the life of the well through cost depletion.

Amortization periods that are less than the life of the well provide a tax subsidy for capital invested in the mineral industry, especially for oil and gas producers, with a relatively larger subsidy for independent producers.

To the extent that subsidizing geological and geophysical costs stimulate drilling of successful wells, they reduce dependence on imported oil in the short run, but contribute to a faster depletion of the nation's resources in the long run. Arguments have been made to justify the subsidy on grounds of unusual risks, national security, uniqueness of oil as a commodity, the industry's lack of access to capital, and protection of small producers.

Selected Bibliography

Congressional Budget Office. Options for Reducing the Federal Deficit: 2017 to 2026. Revenues—Option 28: Repeal Certain Tax Preferences for Energy and Natural Resource–Based Industries, December 2016.

Ghiselin, Dick. "Drilling Economics," *Oil and Gas Investor,* December 2005, pp. 13-22.

Pirog, Robert. *Oil and Natural Gas Industry Tax Preferences,* Library of Congress, Congressional Research Service, CRS In Focus IF10512. Washington, DC: November, 2016.

U.S. Congress, Joint Committee on Taxation. *Present Law and Analysis of Energy-Related Tax Expenditures*, 112th Congress, 2nd session. Washington, DC: March 2012.

U.S. General Accounting Office. *Additional Petroleum Production Tax Incentives Are of Questionable Merit*, GAO/GGD-90-75, July 1990. Washington, DC: U.S. Government Printing Office, July 1990.

U.S. Treasury Department. Internal Revenue Service. *Publication 535: Business Expenses*. March 2018.

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT QUALIFIED PRIVATE ACTIVITY BONDS FOR ENERGY PRODUCTION FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 103, 141, 142(f), and 146.

Description

Interest income on state and local bonds used to finance the construction of certain private energy facilities for a city and one contiguous county, or two contiguous counties, is tax exempt. These energy facility bonds are classified as private-activity bonds, rather than as governmental bonds, because a substantial portion of their benefits accrues to individuals or business rather than to the general public. These bonds are subject to the state private-activity bond annual volume cap. The private-activity bond annual volume cap is equal to the greater of $105 per state resident or $311.38 million in 2018. The cap has been adjusted for inflation since 2003. Generally, only those entities that were operating such a facility on January 1, 1997, are eligible for this type of financing. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to provide the services of local energy facilities at lower cost, benefitting end users. Some, perhaps most of the benefits of the tax exemption, however, flow to bondholders. For a discussion of the factors that determine the shares of benefits going to users and bondholders as well as estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

There are a variety of tax preferences intended to encourage private entities to invest in energy infrastructure. Congress authorized the continued use of tax-exempt bonds to reduce the operating cost of electricity generating facilities for a limited number of facilities. The restrictions on the bonds, disallowing any new issuers after 1996, were part of the Small Business Job Protection Act of 1992, (P.L. 104-188). The rationale for grandfathering existing tax-exempt issuers was based on the original reason for allowing the tax-exempt financing: without the tax preference, local electricity generation may not have been viable in an open market for these producers. The entities cannot expand, however, without losing their authority to issue tax-exempt bonds. Thus, these local electric utilities are limited to their current size and service base. In addition, if a local entity wishes to expand or merge with a larger non-qualified entity, they must refinance all the outstanding tax-exempt debt with taxable debt.

Assessment

Any decision about changing the status of these entities would likely consider the nation's need for local energy production. Even if a case can be made for a federal subsidy of energy production facilities based on underinvestment at the state and local level, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for energy production facilities increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to lure investors. In addition, expanding the availability of tax-exempt bonds increases the range of assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhang Xing. "Taxes on Tax-Exempt Bonds." *The Journal of Finance,* vol. 65, no. 2, 2010, pp. 565-601.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Liu, Gao and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds." *National Tax Journal,* vol. 67, no. 3, September 2014, pp. 569-594.

Longstaff, Francis A. "Municipal Debt and Marginal Tax Rates: Is There a Tax Premium in Asset Prices?" *Journal of Finance*, vol. 66, no. 3, June 2011, pp. 721-751.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds." *National Tax Journal,* vol. 64, no. 2, June 2011, pp. 591-613.

U.S. Congress, Joint Committee on Taxation. *The Revenue Effect of Tax-Exempt and Direct-Pay Bond Provisions,* Joint Committee Print JCX-60-12, July 16, 2012.

— . *Present Law and Background Related to State and Local Government Bonds,* Joint Committee Print JCX-14-06, March 16, 2006.

— . *General Explanation of the Crude Oil Windfall Profits Tax Act of 1980*, 96th Congress, 2nd session, 1980.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2010, Statistics of Income*, Spring 2013, pp. 112-157.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

— . "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*. Washington, DC: The Urban Institute Press, 1991.

RESIDENTIAL ENERGY-EFFICIENT PROPERTY CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.8	-	1.8
2019	1.9	-	1.9
2020	1.7	-	1.7
2021	1.5	-	1.5
2022	0.4	-	0.4

Authorization

Section 25D

Description

The tax credit for residential energy-efficient property allows a taxpayer to deduct 30 percent of the costs of purchasing and installing qualifying energy property from their annual tax liability. Qualifying property includes: residential solar electric property, solar water heating property (used for purposes other than heating swimming pools or hot tubs), geothermal heat pumps, small wind energy property, and fuel cell power plants. For fuel cell property, the maximum credit amount is limited to $500 per half kilowatt (kW) of capacity. Additionally, labor costs associated with onsite preparation, assembly, and installation of the property are treated as qualifying expenditures for this tax credit.

The tax credit is available for property placed in service before January 1, 2022. However, the amount of the credit is reduced to 26 percent for property placed in service in 2020, and 22 percent for property placed in

service in 2021. The credit is not available for property placed in service after December 31, 2021.

To qualify for the tax credit, property must be installed inside the United States, and in a dwelling used as a residence by the taxpayer. Fuel cell power plants qualify if installed in connection with the taxpayer's principal residence.

The tax credit is nonrefundable, but unused credits may be carried forward to the following year. The credit may also be claimed against the alternative minimum tax.

Impact

The residential energy-efficient property tax credit reduces the costs of purchasing and installing qualifying energy property by reducing a taxpayer's tax liability. The credit encourages the use of cleaner and renewable energy sources, which should reduce demand for electricity generated using polluting fossil-based energy resources in the residential sector.

The installation of residential solar electric property, the primary technology for which the Section 25D tax credit is claimed, has increased rapidly in recent years. It is difficult to estimate what portion of this increase was due to federal tax incentives, as there are several other factors that may have helped spur the installation of solar panel systems. The cost of installing residential solar energy property has decreased substantially in recent years. Further, in addition to federal tax credits, there are other financial incentives and government programs supporting deployment of residential renewable energy property. Evidence suggests that federal tax credits are not often the sole factor driving solar panel purchases.

Residential energy efficiency tax credits are disproportionately claimed by higher-income households. The skew of solar adoption towards higher income households, while still pronounced, has lessened in recent years.

Rationale

The tax credit for residential energy-efficient property was introduced by the Energy Policy Act of 2005 (EPACT05, P.L. 109-58), and has always been a temporary credit. EPACT05 implemented a 30 percent credit for residential solar electric, solar water heating, and fuel cell property. Restrictions on the maximum credit allowed were implemented for all three types of property under EPACT05. The maximum credit allowed for photovoltaic property and solar water heating property was limited to $2,000, and the credit was limited

to $500 per half kW of capacity for fuel cell property. The credits established under EPACT05 were originally set to expire January 1, 2008.

The residential energy-efficient property tax credit has subsequently been extended. The credit was first extended by the Tax Relief and Health Care Act of 2006 (P.L. 109-432) through the end of 2008. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) then extended the credit through December 31, 2016, and added a 30 percent tax credit for small wind energy property and geothermal heat pump property to section 25D. This act also included provisions allowing the credit to be claimed against the alternative minimum tax.

The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) liberalized some of the restrictions placed on the credit, removing the maximum credit limit amounts for all property types under section 25D except fuel cell property. The credit available for fuel cell property remains limited to $500 per half kW of capacity.

The Consolidated Appropriations Act, 2016 (P.L. 114-113) extended the credit for solar electric and qualified solar water heating property for five years, through 2021. The credit rate is reduced to 26 percent for property placed in service in 2020, and 22 percent for property placed in service in 2021.

The Bipartisan Budget Act of 2018 (P.L. 115-123) extended the credit for fuel cells, small wind energy property, and geothermal heat pump property through 2021, with the credit rate reduced to 26 percent for property placed in service in 2020, and 22 percent for property placed in service in 2021.

Assessment

The goal of the residential energy-efficiency tax credit is to promote investment in energy-efficient and renewable-energy property. Investment in residential energy efficiency and renewable on-site generation may be below the socially optimal level. Market failures in the production and consumption of electricity lead consumers to consume more electricity derived from pollution-generating energy resources than they would otherwise. Individuals tend to consume more electricity than is socially optimal when external social costs, such as pollution, are not considered. Producers of electricity will produce more than the socially optimal level of electricity using polluting

resources if the costs of production do not reflect the total social costs, which include any costs imposed by pollution.

By providing a subsidy to taxpayers for the purchase of energy-efficient and renewable-energy property, taxpayers face a lower cost for energy produced from renewable sources. The reduced cost should lead to more electricity from clean and renewable sources, and reduce reliance on polluting fossil-based sources.

Subsidies for clean energy alternatives, however, are not the most economically efficient policy tool for addressing market failures in the production and consumption of energy. Providing for this tax expenditure means that tax revenue must be raised elsewhere to replace the revenue lost from this expenditure. Additional taxes often have distortionary effects, which reduce economic efficiency. Directly taxing energy produced from polluting sources, instead of subsidizing clean energy alternatives, could result in the socially optimal mix of energy produced from clean and polluting sources. Unlike a subsidy, which requires that all other taxes be higher to allow for the tax expenditure, a direct tax on polluting energy resources would raise revenue, potentially allowing for a reduction in other taxes.

The economic efficiency of a tax inventive can be evaluated based on how much additional investment is generated by the incentive. If, in this case, the tax credit goes to consumers that would have invested in energy-efficient property without the tax credit, the tax credit would be a windfall benefit to the taxpayer, and not result in additional energy efficiency. Recent empirical work suggests that this type of tax incentive increases energy efficiency investments, but the magnitude of the increase due to the tax incentive is uncertain.

Selected Bibliography

Ástmarsson, Björn, Per Anker Jensen, and Esmir Maslesa. "Sustainable Renovation of Residential Buildings and the Landlord/Tenant Dilemma." *Energy Policy*, v. 63. (December 2013): 355-362.

Boomhower, Judson, and Lucas Davis. "A Credible Approach for Measuring Inframarginal Participation in Energy Efficiency Programs." *Journal of Public Economics,* v. 113. (2014): 67-79.

Borenstein, Severin. "The Private Net Benefits of Residential Solar PV: The Role of Electricity Tariffs, Tax Incentives, and Rebates," *Journal of the Association of Environmental and Resource Economists,* v. 4. (September 2017): S85-S122.

Borenstein, Severin, and Lucas Davis. "The Distributional Effects of U.S. Clean Energy Tax Credits," *Tax Policy and the Economy,* v. 30. (2016): 191-234.

Burns, John Edward, and Jin-Su Kang. "Comparative Economic Analysis of Supporting Policies for Residential Solar PV in the United States: Solar Renewable Energy Credit (SREC) Potential." *Energy Policy,* v. 44, no. 1 (May 2012): 217-225.

Crandall-Hollick, Margot L., and Molly F. Sherlock. *Residential Energy Tax Credits: Overview and Analysis*. Library of Congress, Congressional Research Service Report R42089. Washington, DC: April 9, 2018.

Darghouth, Naim R., Galen Barbose, and Ryan H. Wiser. "Customer-Economics of Residential Photovoltaic Systems (Part 1): The Impact of High Renewable Energy Penetrations on Electricity Bill Savings with Net Metering." *Energy Policy,* v. 67 (April 2014): 290-300.

Dastrup, Samuel R., Joshua Graff Zivin, et al. "Understanding the Solar Home Price Premium: Electricity Generation and "Green" Social Status." *European Economic Review*, v. 56. (July 2012): 961-963.

Gillingham, Kenneth, Richard G Newell, and Karen Palmer. "Energy Efficiency Economics and Policy," *Annual Review of Resource Economics,* v. 1. (June 2009): 597-620.

Hassett, Kevin A. and Gilbert E. Metcalf. "Energy Conservation Investment: Do Consumers Discount the Future Correctly?" *Energy Policy*, v. 21. (June 1993): 710-716.

Hassett, Kevin A. and Gilbert E. Metcalf. "Energy Tax Credits and Residential Conservation Investment: Evidence From Panel Data," *Journal of Public Economics*, v. 57. (1995): 201 - 217.

Karytsas, Spyridon, and Helen Theodoropoulou. "Public Awareness and Willingness to Adopt Ground Source Heat Pumps for Domestic Heating and Cooling." *Renewable & Sustainable Energy Reviews*, v. 34 (June 2014): 49-57.

Metcalf, Gilbert E. and Kevin A. Hassett, "Measuring the Energy Savings from Home Improvement Investments: Evidence From Monthly Billing Data," *The Review of Economics and Statistics*, v. 81. (August 1999): 516-528.

Neveu, Andre R. and Molly F. Sherlock. "An Evaluation of Tax Credits for Residential Energy Efficiency." *Eastern Economic Journal,* v. 21. (2016): 63-79.

Sardianou, E. and P. Genoudi. "Which Factors Affect the Willingness of Consumers to Adopt Renewable Energies?" *Renewable Energy: An International Journal,* v. 57 (September 2013): 1-4.

Sarzynski, Andrea, Jeremy Larrieu, and Gireesh Shrimali. "The Impact of State Financial Incentives on Market Deployment of Solar Technology." *Energy Policy*, v. 46. (July 2012): 550-557.

Seel, Joachim, Barbose Galen, and Ryan Wiser. "An Analysis of Residential PV System Price Differences between the United States and Germany." *Energy Policy,* v. 69 (2014): 216-226.

Sherlock, Molly F. *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures*. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. and Jeffrey R. Stupak. *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

Zhao, Tingting, Lindsey Bell, Mark Horner, John Sulik, and Zhang Jinfeng . "Consumer Responses Towards Home Energy Financial Incentives: A Survey-Based Study." *Energy Policy,* v. 47 (2012): 291-297.

CREDIT FOR ENERGY-EFFICIENT IMPROVEMENTS TO EXISTING HOMES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	-	0.5
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Authorization

Section 25C.

Description

The tax credit for energy-efficient improvements to existing homes allows taxpayers to deduct 10 percent of their expenditures on qualifying energy-efficiency improvements from their annual tax liability (the credit is titled the "nonbusiness energy property credit" in the Internal Revenue Code). Qualifying energy efficiency improvements include certain improvements to a building's envelope, and heating, cooling, and water-heating equipment. The credit is subject to a lifetime maximum limitation of $500, with additional credit limits for specific property types, as noted below. During 2009 and 2010, the tax credit for energy-efficient improvements to existing homes was available at a rate of 30 percent tax, with a lifetime maximum credit limitation of $1,500. The credit is nonrefundable, and cannot be carried forward to subsequent tax years.

A building's envelope is the physical structure of the home that provides a barrier from the outside elements, including resistance to air, water, heat, light, and noise. Changes and improvements to a building's envelope, otherwise known as weatherization, often includes improvements to insulation or replacement of windows and doors. The labor costs associated with improvements to a building's envelope are not considered eligible expenditures for the purposes of claiming the tax credit.

Purchases of certain heating, cooling, and water-heating equipment is eligible for this tax credit, provided specific efficiency criteria set forth in statute are met. Qualifying equipment may include heat pumps, furnaces, central air conditioners, and water heaters. Labor and installation costs associated with qualifying heating, cooling, and water-heating equipment are treated as eligible expenditures for this tax credit.

Limitations on the maximum credit amount are imposed for different property types. The credit for advanced main air circulating fans cannot exceed $50. The credit for qualified natural gas, propane, or oil furnaces and hot water boilers cannot exceed $150. The credit for windows cannot exceed $200 over a taxpayer's lifetime. The maximum credit for any single piece of energy-efficiency building property is limited to $300.

The credit is available for property placed in service before January 1, 2018.

Impact

The tax credit for energy-efficient improvements to existing homes reduces the cost of improving the energy efficiency of a taxpayer's home. Specifically, this credit reduces the cost of installing energy-efficient residential property and making weatherization improvements, encouraging homeowners to undertake qualifying improvements. In 2015, roughly 2.2 million taxpayers claimed a total of $516.5 million in nonbusiness energy property tax credits.

Tax credits for residential energy efficiency are disproportionately claimed by higher income taxpayers. IRS Statistics of Income data by income group only provides aggregated data for the tax credit for energy-efficient improvements to existing homes (Section 25C) and the tax credit for residential energy-efficient property (Section 25D, discussed elsewhere in this compendium). Thus, the figures provided below include data for claims of both credits. In 2015, 12 percent of tax returns filed had adjusted gross income

(AGI) between $100,000 and $200,000. However, 31 percent of tax returns claiming residential energy credits were from the $100,000 to $200,000 income group, with this group accounting for 36 percent of total credits claimed. While 42 percent of tax returns filed in 2015 had an adjusted gross income of less than $30,000, 7 percent of the returns claiming residential energy credits were from this income group. Additionally, 3 percent of the total amount of residential energy credits claimed were from returns with an AGI of less than $30,000.

Rationale

Similar provisions to the current tax credit for energy-efficiency improvements to existing homes were first introduced in 1978 through the Energy Tax Act (P.L. 95-618). These incentives were later expanded in the Crude Oil Windfall Profit Tax Act of 1980 (P.L. 96-223). These early incentives for residential energy efficiency expired at the end of 1985.

New tax incentives for residential energy efficiency were enacted as part of the Energy Policy Act of 2005 (EPACT05, P.L. 109-58). EPACT05 allowed taxpayers to claim a 10 percent tax credit for expenditures related to weatherization improvements for their residence. Taxpayers could also claim specific credit amounts for different energy-efficiency property purchases. For example, a $50 credit was available for advanced main air circulating fans, and a $150 credit was available for efficient furnaces. For the tax years of 2006 and 2007, the tax credit was limited to a combined maximum of $500 over both years. Additional limits were placed on specific property types, such as a $200 limit for expenditures on windows. The tax credit was allowed to expire after 2007, and was not available in the 2008 tax year.

The Emergency Economic Stabilization Act of 2008 (EESA, P.L. 110-343) reinstated and modified the credit for residential energy efficient property for the 2009 tax year. Specifically, EESA added biomass fuel stoves to the list of eligible property for the credit. Geothermal heat pumps were removed from the list of eligible property under section 25C, but they were added to the list of eligible property under section 25D.

The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) made additional changes to the structure of the credit. While ARRA did not introduce additional tax credits for energy-efficient home improvements, ARRA expanded section 25C in a number of ways. The tax credit was increased from 10 percent to 30 percent, and the fixed dollar caps for certain property were removed. ARRA also increased the maximum credit

amount to a combined $1,500 for the 2009 and 2010 tax years, and changed the qualifying efficiency standards for the various types of energy property.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the section 25C tax credits for residential energy efficient property through 2011, but reduced the credit amount to 10 percent of qualifying expenditures. P.L. 111-312 also reinstated the rule that expenditures made from subsidized energy financing were not qualified expenditures, increased certain efficiency standards for boilers and furnaces, and modified the efficiency standards for windows and doors to be consistent with Energy Star criteria.

This tax credit for energy-efficient improvements to existing homes was extended again by the American Taxpayer Relief Act of 2012 (P.L. 112-240) with an expiration date of December 31, 2013. The Protecting Americans from Tax Hikes Act (P.L. 113-295) extended the provisions through December 31, 2014. The provision was extended through December 31, 2016, as part of the Consolidated Appropriations Act, 2016 (P.L. 114-113). Along with this extension, efficiency standards for windows, skylights, and doors were modified, with the new requirements being the Energy Star 6.0 standards, for property placed in service after December 31, 2015.

The provision was extended through December 31, 2017 as part of the Bipartisan Budget Act of 2018 (P.L. 115-123).

Assessment

Congress enacted the residential energy efficiency tax credits in 2005 to address concerns that many existing homes were not adequately insulated. Investment in energy efficiency improvements is likely below the socially optimal level. Market failures in the production and consumption of electricity lead consumers to over-consume electricity derived from pollution-generating energy resources. Consumers tend to consume more electricity than is socially optimal when external social costs, such as pollution, are not considered. Producers of electricity will produce more than the socially optimal level of electricity using polluting resources if the costs of production do not reflect the total social costs, which include any costs imposed by pollution.

By providing a subsidy to taxpayers for investments into energy-efficient property, taxpayers face a lower cost for improving the energy efficiency of their homes. These reduced costs should lead to more investment in energy-efficient property, improving energy efficiency in the residential sector.

Subsidies for energy-efficient investments, however, are not the most economically efficient policy tool for addressing these market failures. Providing for this tax expenditure means that tax revenue must be raised elsewhere to replace the revenue lost from this expenditure. Additional taxes often have distortionary effects, which reduce economic efficiency. Directly taxing energy produced from polluting sources would help correct market failures in the energy sector, reduce the under-valuation of benefits from increasing energy efficiency by individuals, and increase investment into energy efficiency improvements while limiting distortionary taxes.

There are additional market barriers that may prevent investment into residential energy efficiency improvements, and may help explain the so-called "energy paradox." The observation that individuals oftentimes pass on energy efficiency investments that have high expected rates of return is described as the energy paradox (although there is some uncertainty regarding how many high expected-rate-of-return energy efficiency investment opportunities exist). One barrier to energy-efficient investments is the high initial costs associated with such investments. If consumers are unable to obtain credit, or if there are credit market failures, the result may be an underinvestment in energy efficiency. Other barriers to energy efficiency investments include a lack of information about energy efficiency improvements or behavioral issues that lead consumers to choose inefficient technologies, as those technologies are what are most familiar to the consumer. Barriers to investment in residential energy efficiency may also exist when landlords make decisions about energy-efficiency property investments but tenants pay utility bills. While these market barriers may explain the low adoption levels of certain energy efficient products, they may not necessitate a tax policy solution. Further, subsidies delivered through the tax code may or may not address the barrier responsible for underinvestment. For example, if credit constraints are a barrier to residential energy-efficiency investment, then non-refundable tax credits that often are not available to lower-income households do not address this barrier.

The economic efficiency of a tax incentive can be evaluated based on how much additional investment is generated by the incentive. If, in this case, the tax credit goes to consumers that would have invested in energy-efficient property without the tax credit, the tax credit would be a windfall benefit to the taxpayer, and would not result in additional energy efficiency investments. Recent empirical work suggests that this type of tax incentive increases energy efficiency investments, but the magnitude of the increase due to the tax incentive is uncertain.

Selected Bibliography

Allcott, Hunt, Christopher Knittel, and Dmitry Taubinsky. "Tagging and Targeting of Energy Efficiency Subsidies," *The American Economic Review: Papers & Proceedings 2015*, v. 105. (2015): 187-191.

Allcott, Hunt, and Michael Greenstone. "Is There an Energy Efficiency Gap?" *Journal of Economic Perspectives*, v. 26. (2012): 3-28.

Boomhower, Judson, and Lucas Davis. "A Credible Approach for Measuring Inframarginal Participation in Energy Efficiency Programs," *Journal of Public Economics,* v. 113. (2014): 67-79.

Borenstein, Severin, and Lucas Davis. "The Distributional Effects of U.S. Clean Energy Tax Credits," *Tax Policy and the Economy,* v. 30. (2016): 191-234.

Brown, Marilyn. "Market Failures and Barriers as a Basis for Clean Energy Policies," *Energy Policy*, v. 29. (November 2001): 1197-1207.

Clinch, J. Peter, and John D. Healy. "Cost-Benefit Analysis of Domestic Energy Efficiency," *Energy Policy*, v. 29. (January 2000): 113-124.

Crandall-Hollick, Margot L., and Molly F. Sherlock. *Residential Energy Tax Credits: Overview and Analysis*. Library of Congress, Congressional Research Service Report R42089. Washington, DC, April 9, 2018.

Gillingham, Kenneth, Richard G Newell, and Karen Palmer. "Energy Efficiency Economics and Policy," *Annual Review of Resource Economics,* v. 1. (June 2009): 597-620.

Hassett, Kevin A. and Gilbert E. Metcalf. "Energy Conservation Investment: Do Consumers Discount the Future Correctly?" *Energy Policy*, v. 21. (June 1993): 710-716.

Hassett, Kevin A. and Gilbert E. Metcalf. "Energy Tax Credits and Residential Conservation Investment: Evidence From Panel Data," *Journal of Public Economics*, v. 57. (1995) 201-217.

Howarth, Richard B. and Bo Anderson. "Market Barriers to Energy Efficiency," *Energy Economic*s, v. 15, no. 4 (October 1993): 262-292.

Internal Revenue Service (IRS), Statistics of Income (SOI), *Individual Income Tax Returns Line Item Estimates, 2015*. Publication 4801 (Rev. 09-2017), available at https://www.irs.gov/statistics/soi-tax-stats-individual-income-tax-returns-publication-1304-complete-report.

Internal Revenue Service (IRS), Statistics of Income (SOI), *Individual Income Tax Returns 2015*. Publication 1304 (Rev. 09-2017), available at https://www.irs.gov/statistics/soi-tax-stats-individual-income-tax-returns-line-item-estimates.

Neveu, Andre R. and Molly F. Sherlock. "An Evaluation of Tax Credits for Residential Energy Efficiency," *Eastern Economic Journal,* v. 21. (2016): 63-79.

Pimental, D., A. Pleasant, et al. "U.S. Energy Conservation and Efficiency: Benefits and Costs." *Energy, Development, and Sustainability,* v. 6. (September 2004): 279-306.

Sherlock, Molly F. *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures*. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. and Jeffrey R. Stupak. *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

Stern, Paul C. "Blind Spots in Policy Analysis: What Economics Doesn't Say About Energy Use." *Journal of Policy Analysis and Management*, v. 5. (April 1986): 200-227.

Sutherland, Ronald J. "Energy Efficiency or the Efficient Use of Energy Resources," *Energy Sources*, v. 16, (1996): 257-268.

Sutherland, Ronald J. "The Economics of Energy Conservation Policy," *Energy Policy*, v. 24. (April 1996): 361-370.

CREDIT FOR ALTERNATIVE TECHNOLOGY VEHICLES: OTHER ALTERNATIVE FUEL VEHICLES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	--	([1])	([1])
2019	--	([1])	([1])
2020	--	([1])	([1])
2021	--	([1])	([1])
2022	--	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 30B.

Description

The credit for fuel cell vehicles ranges from $4,000 to $40,000, depending on vehicle weight. If the new qualified fuel cell motor vehicle is a passenger automobile or light truck, the amount of the credit is increased, by up to $4,000, if certain fuel efficiencies are met based on the 2002 model year city fuel economy for specified weight classes. Plug-in electric-drive motor vehicles also qualify for federal tax credits, and are discussed elsewhere in this compendium.

A new qualified fuel cell motor vehicle is defined as a motor vehicle that (1) is propelled by power derived from one or more cells that convert chemical energy into electricity by combining oxygen and hydrogen fuel that is stored on board the vehicle, and (2) in the case of a passenger automobile or light truck, receives an EPA certification.

Generally, vehicle credits are available to the taxpayer purchasing the vehicle for use. If the vehicle is purchased or leased by a tax-exempt organization, the seller of the vehicle may be able to claim the credit so long as the seller clearly discloses the amount of the allowable credit to the purchaser. For businesses, the portion of the credit attributable to vehicles of a character subject to depreciation allowances is treated as part of the general business credit.

The tax credit for fuel cell vehicles applies to purchases made between January 1, 2006, and December 31, 2017. In past years, tax credits were available for other types of alternative motor vehicles. Tax credits for advanced lean burn technology vehicles, hybrid motor vehicles, and certain other types of alternative fuel vehicles generally expired at the end of 2009 or 2010.

Impact

The market share of alternative technology vehicles has increased in recent years. Federal tax incentives may have been partially responsible for this increase. Additionally, numerous federal, state, and local government programs (such as fleet requirements) have stimulated the use of hybrids (and, in some cases, other types of alternative technology vehicles). Fuel cell vehicles are generally available in select markets in California where there is access to hydrogen fueling stations. Installing retail hydrogen fueling stations in other locations could help stimulate demand in new markets.

While government incentives may have been partially responsible for the increased prevalence of hybrids, plug-in electric, and other alternative technology vehicles, increasing gas prices, at times, have also played a significant role in increasing the demand for fuel efficient or non-gasoline powered vehicles.

Credits for alternative technology vehicles tend to be claimed by higher-income taxpayers. Given the evidence suggesting that tax incentives play a relatively small role in determining hybrid sales, it is likely that many of the tax credits for hybrids and other alternative technology vehicles go to individuals who would have purchased the vehicle without the tax incentive.

Economic theory suggests that it does not matter whether consumers or producers bear the statutory incidence of a tax incentive, since economic incidence depends on each party's relative responsiveness to changes in price. Producers can be expected to capture some of the tax benefit through higher prices. Some empirical evidence suggests that the economic incidence of the tax credit for hybrids was split between consumers and producers. There is also evidence that suggests that consumers were able keep more of the tax credit than economic theory would have predicted in the hybrid market.

Rationale

Section 30B was enacted as part of the Energy Policy Act of 2005 (P.L. 109-58) to stimulate the demand for more fuel-efficient and environmentally clean automobiles. Under Section 30B, the tax credit for new qualified hybrid motor vehicles was available for vehicles purchased after December 31, 2005, and before January 1, 2010. Qualifying advanced lean-burn technology motor vehicles and other alternative-fuel motor vehicles had to be placed in service before January 1, 2011, to qualify for credits. Credits for plug-in electric conversions also expired at the end of 2011. Credits for fuel cell motor vehicles were available for vehicles purchased between December 31, 2005, and January 1, 2015.

Congress believed that further investments in hybrids and alternative technology vehicles are necessary to transform the mode of transportation in the United States toward clean, fuel-efficient vehicles, reducing reliance on imported petroleum. In this regard, hybrids, plug-in electric, and alternative-fuel vehicles (e.g., ethanol-fueled vehicles) were viewed as short-term options; advanced lean-burn and fuel cell vehicles were viewed as long-term options.

The credits initially enacted in 2005 expanded upon previous incentives for hybrid and alternative-technology vehicles. The Energy Policy Act of 1992 (P.L. 102-486) introduced a $2,000 tax deduction for passenger vehicles that run on alternative fuels (up to a $50,000 for heavy-duty trucks), and also established a tax credit for electric vehicles. Under an administrative ruling by the Internal Revenue Service (Revenue Procedure 2002-42), purchasers of model year 2000-2006 hybrid vehicles were allowed to claim the clean-fuel vehicle deduction, which expired on January 1, 2006.

The credit for fuel cell vehicles was extended for two years, through 2016, in the Consolidated Appropriations Act, 2016 (P.L. 114-113). The credit for fuel cell vehicles was extended through 2017 in the Bipartisan Budget Act of 2018 (P.L. 115-123).

Assessment

Tax incentives for alternative technology vehicles may help address market failures in automobile markets. Specifically, since consumers fail to consider the negative environmental and potential energy security concerns associated with conventional gasoline- and diesel-fueled vehicles, the market may provide an inefficiently high level of such products. One way to address the negative externalities associated with fuel consumption through automobile use is to reduce the price of alternative technology vehicles.

There are other barriers to adoption of alternative-technology vehicles a tax credit might address. These include, for example, (1) the high up-front cost associated with alternative-technology vehicles, (2) the volatility of fuel prices, (3) technology risks associated with new, unfamiliar or unproven technologies, and (4) a lack of complementary infrastructure (such as electric charging stations or alternative-fuel refueling facilities).

Because tax credits for alternative technology vehicles reduce the price of such vehicles relative to gasoline- and diesel-powered alternatives, such tax credits are intended to address the previously noted market failures and market barriers. A tax credit approach, however, may not be the most economically efficient mechanism for addressing the negative externalities associated with gasoline consumption and market barriers to hybrid and alternative-technology vehicle adoption. Relative to tax credits, rising gas prices have played a larger role in increasing consumer demand alternative technology vehicles. Taxing gasoline directly—taxing the activity associated with the negative externality—is more economically efficient than subsidizing the purchase of select vehicles.

Further, research has found that tax incentives for certain plug-in electric vehicles are not expected to have long-term effects on fuel efficiency of the fleet, and that tax incentives for vehicles are not particularly effective as a policy option for reducing emissions.

Selected Bibliography

Beresteanu, Arie and Shanjun Li, "Gasoline Prices, Government Support, and the Demand for Hybrid Vehicles in the U.S.," *International Economic Review,* 52, no. 1 (February 2011), pp. 161-182.

Diamond, David, "The Impact of Government Incentives for Hybrid-Electric Vehicles: Evidence from US States," *Energy Policy*, 37 (2009) pp. 972-983.

Chupp, Andrew B., Katie Myles, and E. Frank Stephenson, "The Tax Incidence of Hybrid Automobile Tax Preferences," *Public Finance Review,* 38, no. 1 (January 2010), pp. 120-133.

Congressional Budget Office. *Effects of Federal Tax Credits for the Purchase of Electric Vehicles*. September, 2012.

Cunningham, Lynn J., Beth Cook, Bill Canis, and Brent D. Yacobucci. *Alternative Fuel and Advanced Vehicle Technology Incentives: A Summary of Federal Programs*. Library of Congress, Congressional Research Service Report R42566. Washington, DC: June 2, 2015.

Eppstein, Margaret J., David K Grover, Jeffrey S. Marshall, Donna M. Rizzo, "An Agent-Based Model to Study Market Penetration of Plug-In Hybrid Electric Vehicles," *Energy Policy*, 39 (2011) pp. 3789-3802.

Hardman, Scott, Eric Shiu, Robert Steinberger-Wilckens, and Thomas Turrentine, "Barriers to the Adoption of Fuel Cell Vehicles: A Qualitative Investigation into Early Adopters Attitudes," *Transportation Research Part A: Policy and Practice*, 95 (2017) pp. 166-182.

Sallee, James M., "The Surprising Incidence of Tax Credits for the Toyota Prius," *American Economic Journal: Economic Policy*, 3, no. 2 (2011) pp. 189-219.

Sallee, James M., "The Taxation of Fuel Economy," *Tax Policy and the Economy*, University of Chicago Press, 25, no. 1 (2011) pp. 1-38.

Sherlock, Molly F. *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures*. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. and Jeffrey R. Stupak. *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

Yacobucci, Brent. *Alternative Fuels and Advanced Technology Vehicles: Issues in Congress*. Library of Congress, Congressional Research Service Report R40168. Washington, DC: April 4, 2013.

CREDIT FOR PLUG-IN ELECTRIC VEHICLES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.6	0.6	1.2
2019	0.8	0.7	1.5
2020	0.9	0.8	1.7
2021	0.9	0.8	1.7
2022	0.7	0.8	1.6

Authorization

Section 30D.

Description

Beginning in 2009, a vehicle which meets certain emissions standards, draws propulsion from a battery, and is capable of being recharged is eligible for a base credit of $2,500. This credit increases for vehicles propelled by batteries with a higher capacity. Specifically, under current law, an additional $417 credit is awarded for each kilowatt-hour (kWh) of capacity above 5 kWh. The maximum credit amount is $7,500 (before 2010, the credit limit was higher, up to $15,000 for qualifying heavy vehicles). There is no carry forward or carryback for any unused portion of the credit.

Generally, vehicle credits are available to the taxpayer purchasing the vehicle for use. If the vehicle is purchased or leased by a tax-exempt organization, the seller of the vehicle may be able to claim the credit so long as the seller clearly discloses the amount of the allowable credit to the purchaser. For businesses, the portion of the credit attributable to vehicles of

a character subject to depreciation allowances is treated as part of the general business credit.

The plug-in electric-drive vehicle credit begins to phase out for a particular manufacturer once 200,000 qualifying vehicles have been sold. The credit begins to phase out in the second quarter after the quarter in which the manufacturer reaches the limit. The credit then phases out over four quarters, such that the credit is fully phased out by the sixth quarter after the manufacturer reaches the limit. Before 2010, there was a 250,000 credit-eligible vehicle limit. This was replaced with the per-manufacturer limit beginning in 2010.

A 10 percent credit, up to $2,500, was available for the cost of two- or three-wheeled plug-in electric vehicles acquired after December 31, 2011, and before January 1, 2014. Qualifying two- or three-wheeled vehicles included those propelled, to a significant extent, by an electric motor drawing from a battery that has a capacity of not less than 2.5 kWh, vehicles capable of achieving a speed of 45 miles per hour or greater, and vehicles manufactured primarily for use on public streets, roads, or highways. The credit lapsed for 2014. For 2015, 2016 and 2017, the 10 percent up to $2,500 credit is available for electric motorcycles (two-wheeled vehicles). The credit is not available for three-wheeled vehicles after 2013.

Tax incentives for other alternative fuel motor vehicles are discussed elsewhere in this compendium.

Impact

The market share for plug-in electric and other alternative-technology vehicles has increased in recent years. Federal tax incentives may have been partially responsible for this increase. While government incentives may have been partially responsible for the increased prevalence of plug-in electric vehicles, fluctuating gas prices may also play a role in determining demand for fuel efficient or non-gasoline powered vehicles. Another factor related to demand for plug-in vehicles is the prevalence of charging infrastructure. It is also possible that consumers choose vehicles for technological, performance, environmental, or symbolic features. If these other reasons, as opposed to financial reasons, are driving their decision making, then tax incentives do not cause additional purchases.

Tax credits for plug-in electric vehicles are disproportionately claimed by higher-income taxpayers. In 2014, more than half of the plug-in vehicle credits were claimed on tax returns with adjusted gross income (AGI) of $200,000 or more.

Rationale

Section 30D was added by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) to further stimulate the demand for a specific type of alternative-technology vehicle: the plug-in electric-drive vehicle, which is envisioned as a more fuel-efficient and environmentally clean automobile as compared with conventional vehicles. The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) modified the credit for plug-in electric vehicles, reducing the maximum credit amount to $7,500 for all vehicles (previously, higher credit amounts were available for heavy vehicles), modifying battery capacity requirements, and replacing a 250,000 total plug-in vehicle limitation with the 200,000 per-manufacturer limit. The act also created a temporary new credit (Section 30) for qualified low-speed and two- or three-wheeled plug-in vehicles.

The American Taxpayer Relief Act (ATRA; P.L. 112-240) extended the tax credit for two- or three-wheeled plug-in electric vehicles through 2013, in the process essentially moving the credit from Section 30 back to Section 30D of the code. The credit lapsed for 2014. The Consolidated Appropriations Act, 2016 (P.L. 114-113) reinstated the credit for two-wheeled electric motorcycles for 2015 and 2016. The credit for three-wheeled electric-drive motor vehicles was not extended. The credit for two-wheeled electric vehicles was extended in the Bipartisan Budget Act of 2018 (P.L. 115-123).

Before the Section 30D credit was enacted, the Energy Policy Act of 1992 (P.L. 102-486) had provided a 10 percent credit, up to $4,000, for electric vehicles. The credit was enacted with a phase-out starting in 2002, with no credits available after 2004. The Job Creation and Worker Assistance Act of 2002 (P.L. 107-147) provided that taxpayers could receive full credit amounts for electric vehicles in 2002 and 2003, with the phase-out beginning in 2004. The Working Families Tax Relief Act of 2004 (P.L. 108-311) eliminated the phase-out for 2004 and 2005, and extended the credit through 2006 with phase-out in that year. The credit was allowed to expire after 2006. When the Energy Policy Act of 2005 (P.L. 109-58) created tax credits for various types of alternative fuel vehicles, electric vehicles were not included.

Assessment

Tax incentives for plug-in electric vehicles may help address market failures in automobile markets. Specifically, since consumers fail to consider the negative environmental and potential energy security concerns associated with conventional gasoline- and diesel-fueled vehicles, the market may provide an inefficiently high level of such products. One way to address the negative externalities associated with fuel consumption through automobile use is to reduce the price of alternative technology or plug-in electric vehicles.

There are other barriers to adoption of plug-in electric vehicles a tax credit might address. These include, for example, (1) the high up-front cost, (2) the volatility of fuel prices, (3) technology risks associated with new, unfamiliar, or unproven technologies, and (4) a lack of complementary infrastructure (such as electric charging stations).

Because tax credits for plug-in electric vehicles reduce the price of such vehicles relative to gasoline- and diesel-powered alternatives, such tax credits are intended to address the previously noted market failures and market barriers. A tax credit approach, however, may not be the most economically efficient mechanism for addressing the negative externalities associated with gasoline consumption and market barriers to plug-in electric vehicle adoption. Gas prices also play a role in determining consumer demand for plug-in electric vehicles. Taxing gasoline directly—taxing the activity associated with the negative externality—is more economically efficient than subsidizing the purchase of select vehicles.

There are some questions about the effectiveness of tax credits for plug-in electric vehicles in achieving policy goals. Research suggests that tax incentives for certain plug-in electric vehicles are not expected to have long-term effects on fuel efficiency of the fleet, and that tax incentives for vehicles are not particularly effective as a policy option for reducing emissions. Additionally, evidence also suggests that tax incentives are not driving purchase decisions in markets for high-end plug-in electric vehicles.

Selected Bibliography

Borenstein, Severin, and Lucas Davis. "The Distributional Effects of U.S. Clean Energy Tax Credits," *Tax Policy and the Economy,* v. 30. (2016): 191-234.

Congressional Budget Office. *Effects of Federal Tax Credits for the Purchase of Electric Vehicles*. September, 2012.

Cunningham, Lynn J., Beth Cook, Bill Canis, and Brent D. Yacobucci. *Alternative Fuel and Advanced Vehicle Technology Incentives: A Summary of Federal Programs*. Library of Congress, Congressional Research Service Report R42566. Washington, DC: June 2, 2015.

Hardman, Scott, Amrit Chandan, Gil Tal, and Tom Turrentine. "The Effectiveness of Financial Incentives for Battery Electric Vehicles – A Review of the Evidence," *Renewable and Sustainable Energy Reviews*, v. 80. (2017): 1100-1111.

Narassimhan, Easwaran, and Caley Johnson. "The Role of Demand-Side Incentives and Charging Infrastructure on Plug-In Electric Vehicle Adoption: Analysis of US States," *Environmental Research Letters,* v. 13. (2018): 1-11.

Sherlock, Molly F. *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures*. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. and Jeffrey R. Stupak. *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

Yacobucci, Brent. *Alternative Fuels and Advanced Technology Vehicles: Issues in Congress*. Library of Congress, Congressional Research Service Report R40168. Washington, DC: April 4, 2013.

ENERGY CREDIT FOR RENEWABLE ENERGY PROPERTY (SECTION 48)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.3	2.5	2.8
2019	0.3	2.4	2.7
2020	0.3	2.4	2.7
2021	0.3	2.4	2.7
2022	0.3	2.4	2.7

Authorization

Section 48.

Description

As part of the investment tax credit (ITC), the energy credit provides taxpayers with a credit against the cost of investments in qualified renewable energy property. The energy credit is equal to 10 percent of the basis of certain energy property, including microturbines, combined heat and power (CHP) property, geothermal energy property, and geothermal heat pump systems. The credit is equal to 30 percent for qualifying small wind energy property, fuel cell property, and solar equipment. In addition to solar electric property (photovoltaic systems), qualifying solar equipment includes equipment that uses solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight and solar equipment that generates electricity to heat or cool a structure or that provides solar process heat. To qualify for the energy credit the property must be either depreciable or amortizable. There are certain limitations applied to the energy credit for both fuel cell and microturbine

property: the credit is limited to $1,500 per 0.5 kilowatt (kW) of capacity and $200 per kW of capacity, respectively.

Tax credits are available for property for which construction begins before January 1, 2022. For small wind, fuel cell, and solar property, the credit is reduced to 26 percent if construction begins in 2020, and 22 percent if construction begins in 2021. No credits are available for fiber optic solar, fuel cell, small wind, microturbine, CHP, or geothermal heat pump property that is placed in service after December 31, 2023. For solar or geothermal energy property for which construction begins after December 31, 2021, or for solar property that is not placed in service before January 1, 2024, the tax credit rate is 10 percent.

The energy credit is part of the general business credit, and as such unused credits may be carried back for one year and carried forward for up to 20 years. The taxpayer's basis in property eligible for the ITC must be reduced by one-half of the credit amount. For construction projects with durations of two or more years, credits may be claimed as construction progresses rather than at the time the property is placed in service.

Certain production tax credit (PTC) eligible facilities may elect to receive a 30 percent ITC in lieu of the PTC. Non-wind qualifying property must have been placed in service after 2008 and have started construction before January 1, 2018. Qualifying property includes facilities that produce electricity from the following sources: closed and open loop biomass, geothermal, small irrigation, landfill gas, trash, hydropower, and marine and hydrokinetic renewables. For wind, property under construction before January 1, 2017, can elect a 30 percent ITC in lieu of the PTC. For property that began construction in 2017, the credit amount is reduced by 20 percent. The credit is reduced by 40 percent and 60 percent for property beginning construction in 2018 and 2019, respectively. If a taxpayer elects to use this credit, they are not eligible to use the renewable energy PTC under section 45 (discussed elsewhere in this compendium).

Impact

The energy credit reduces the cost of installing renewable energy equipment and increases the rate of return on renewable energy system investments. Effective tax rates for ITC-eligible energy investments are lower than effective tax rates for investments in other forms of energy capital, which has likely increased investment in eligible technologies. Research also

indicates that the ITC contributes to reduced CO_2 emissions, although the magnitude of the effect is estimated to be small.

There are many factors that influence decisions to invest in renewable energy capacity. Falling costs for solar property in recent years have led to increased investment. Further, state-level policies, including renewable portfolio standards, have also been credited with increasing renewable energy capacity. Thus, it is difficult to isolate the effects of tax credits.

Rationale

The energy tax credit was established as part of the Energy Tax Act of 1978 (P.L. 95-618), which created a refundable, temporary, 10 percent tax credit for alternative and renewable energy property. The rationale behind the credits at the time of enactment was primarily to reduce U.S. consumption of oil and natural gas by encouraging the commercialization of renewable energy technologies.

The 1980 Windfall Profit Tax Act (P.L. 96-223) extended the credit for solar and geothermal equipment, raised credit rates from 10 percent to 15 percent, converted them to non-refundable credits for solar and wind energy equipment, and extended the credit beyond 1985 for certain long-term projects. The Tax Reform Act of 1986 (P.L. 99-514) retroactively extended the credits for solar, geothermal, ocean thermal, and biomass equipment through 1988 at lower rates.

The Miscellaneous Revenue Act of 1988 (P.L. 100-647) extended the solar, geothermal, and biomass credits at their 1988 rates—ocean thermal was not extended. The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) extended the credits for solar and geothermal and reinstated the credit for ocean thermal equipment, through December 31, 1991. The credit for biomass equipment was not extended, however. The Tax Extension Act of 1991 (P.L. 102-227) extended the credits for solar and geothermal through June 30, 1992. The Energy Policy Act of 1992 (P.L. 102-486) made the credits for solar and geothermal equipment permanent. After P.L. 102-486, the only tax credits remaining from the Energy Tax Act of 1978 (P.L. 95-618) were the solar and geothermal equipment credit.

The Energy Policy Act of 2005 raised the credit rate for solar equipment from 10 percent to 30 percent, and expanded it to fiber optic distributed sun lighting, fuel cells, and microturbines. The Tax Relief and Health Care Act of

2006 (P.L. 109-432) extended the 30 percent tax credit for solar and the 10 percent credit for microturbines by one year, through 2008.

The Emergency Economic Stabilization Act of 2008 (EESA; P.L. 110-343) extended the 30 percent investment tax credit for solar energy property and qualified fuel cell property, as well as the 10 percent investment tax credit for micro turbines, for eight years, through December 31, 2016. EESA added small commercial wind, geothermal heat pumps, and combined heat and power systems (at a 10 percent credit rate) as a category of qualified investment. EESA also increased the $500 per half kW of capacity cap for qualified fuel cells to $1,500 per half kW and allowed these credits to be used to offset the alternative minimum tax (AMT).

The American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5) made additional modifications to the ITC. First, credit limitations for entities receiving subsidized financing were removed. Second, dollar limitations for specific types of property were eliminated. Previously, the 30 percent credit for small wind property was capped at $4,000, the 30 percent credit for solar water heating property had been capped at $2,000, and the 10 percent credit for geothermal heat pumps had been capped at $2,000. Additionally under ARRA, ITC-eligible property was eligible for a Section 1603 grant from the Treasury in lieu of the ITC. This option was scheduled to expire at the end of 2010, but was extended through the end of 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). ARRA also contained provisions allowing PTC-eligible property to claim the ITC in lieu of the PTC. The American Taxpayer Relief Act of 2012 (ATRA; P.L. 112-240) extended the ITC in lieu of the PTC option for property under construction before January 1, 2014.

The Consolidated Appropriations Act, 2016 (P.L. 114-113) extended the 30 percent rate for solar and further modified the ITC for solar. The 30 percent rate was extended through 2019, with a 26 percent rate set for 2020, and a 22 percent rate set for 2021. Additionally, under P.L. 114-113, the tax credit rate for investments in solar energy property is determined in the year construction begins, with the credit claimed when property is placed in service. Solar property must be placed in service by December 31, 2023 to qualify for a tax rate in excess of 10 percent.

The Bipartisan Budget Act of 2018 (P.L. 115-123) extended the ITC for five years for fiber-optic solar, fuels cell, small wind, microturbine, CHP, and geothermal heat pump property. For property eligible for a 30 percent credit through 2019, the credit rate is reduced following the reduction schedule for

solar enacted in P.L. 114-113. All termination dates were changed to construction start deadlines.

Assessment

Generally, economic theory suggests that taxes and subsidies create distortions in markets, and reduce economic efficiency. However, market failures related to the energy sector result in inefficiencies that may be improved through public policy. The generation of electricity from conventional sources, mainly coal and natural gas, can have negative impacts, which may not be taken into consideration when individuals make consumption decisions. This market failure results in demand for electricity generated from fossil fuels beyond the socially optimum level.

The tax credits provided for renewable energy equipment help to correct this market failure by reducing the relative price of electricity production from renewable sources and increasing the rate of return to investments in renewable energy technology. Increased investment in renewable energy property could shift the balance of electricity production closer to the socially optimal level. However, tax benefits that reduce the average price of electricity, thereby increasing overall demand, counter energy efficiency objectives. Further, tax incentives reduce federal tax collections, and may require higher tax rates on other market activities to finance these tax benefits. A more economically efficient policy option to correct for energy-related market failures would be to tax the source of the negative impacts (i.e., pollution from conventional sources). This policy option could achieve a mix of electricity production between renewable and conventional sources closer to the socially optimal mix, while reducing federal tax expenditures.

The economic efficiency of investment tax credits for renewable energy is reduced if such credits fail to lead users to adopt targeted technologies. In states with renewable portfolio standards (RPS) mandates, federal tax benefits for renewable energy reduce the cost of complying with these state-level policies. If taxpayers would have invested in solar capacity, or other renewable technologies without the tax credit, then the tax credit provides a windfall benefit to the taxpayer without necessarily increasing renewable generation capacity.

Finally, high capital costs for renewable and alternative energy technologies and market uncertainty are not energy market failures. Nonetheless, high costs and technology uncertainty do act as barriers to the development and commercialization of renewable technologies. The ITC

might support growth in industries where future technological innovations could reduce the cost of subsidized technologies, ultimately making such technologies more competitive.

Selected Bibliography

Congressional Budget Office. "Federal Financial Support for the Development and Production of Fuels and Energy Technologies." Issue Brief. Washington, DC: March 2012.

Crago, Christine L. and Eric Koegler. "Drivers of Growth in Commercial-Scale Solar PV Capacity." *Energy Policy*, v. 120, September 2018, pp. 481-491.

Fisher, Anthony C. and Michael H. Rothkopf. "Market Failure and Energy Policy: A Rationale for Selective Conservation." *Energy Policy*, v. 17, August 1989, pp. 397-406.

Internal Revenue Service. "Beginning of Construction for the Investment Tax Credit under Section 48." Notice 2018-59, June 22, 2018.

Inyan, S., L. Sunganthi, and Anand A. Samuel. "Energy Models for Commercial Energy Production and Substitution of Renewable Energy Resources." *Energy Policy*, v. 34. November 2006, pp. 26-40.

Kobos, Peter H., Jon D. Erickson, and Thomas E. Drennen. "Technological Learning and Renewable Energy Costs: Implications for US Renewable Energy Policy." *Energy Policy*, v. 34, September 2006, pp. 16-45.

Metcalf, Gilbert E. "Federal Tax Policy Towards Energy." Tax Policy and the Economy, Volume 21, edited by James M. Poterba. National Bureau of Economic Research, 2007, pp. 145-184.

—. "Investment in Energy Infrastructure and the Tax Code." Tax Policy and the Economy, Volume 24, edited by Jeffery R. Brown. National Bureau of Economic Research, 2010, pp. 1-33.

Murray, Brian C., Maureen L. Cropper, Francisco C. De La Chesnaye, and John M. Reilly. "How Effective are US Renewable Energy Subsidies in Cutting Greenhouse Gas Emissions?" *American Economic Review: Papers & Proceedings*, v. 105, May 2014, pp. 569-574.

Nordhaus, William D., Stephen A. Merrill, and Paul T. Beaton, eds., "Effects of U.S. Tax Policy on Greenhouse Gas Emissions." (Washington, DC: The National Academies Press), 2013.

Sherlock, Molly F. "Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures." Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. and Jeffrey R. Stupak. "Energy Tax Policy: Issues in the 113th Congress." Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

Sherlock, Molly F. "The Energy Credit: An Investment Tax Credit for Renewable Energy." Library of Congress, Congressional Research Service In Focus IF10579. Washington, DC: July 10, 2018.

Sinaiko, Daniel. "Financing US Renewable Energy Projects in a Post-Subsidy World." *Natural Gas and Electricity*, v. 29, May 2013.

U.S. Congress. The Joint Committee on Taxation. Present Law and Analysis of Energy-Related Tax Expenditures. JCX-46-16. June 9, 2016.

TAX CREDITS FOR ALTERNATIVE FUEL VEHICLE REFUELING PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: This provision is not included in JCT's tax expenditure list. It was, however, extended through 2017 in P.L. 115-123. Extending this provision cost an estimated $49 million in FY2018, $4 million in FY2019, $3 million in FY2020, and $3 million in FY2021.

Authorization

Section 30C.

Description

A 30 percent tax credit is provided for the cost of any qualified alternative fuel vehicle refueling property installed by a business or at a taxpayer's principal residence. The credit is limited to $30,000 for businesses at each separate location, and $1,000 for residences.

Clean fuel refueling property is generally any tangible equipment (such as a pump) used to dispense a fuel into a vehicle's tank. Qualifying property includes fuel storage and dispensing units and electric vehicle recharging equipment. A clean fuel is defined as any fuel at least 85 percent of the volume of which consists of ethanol (E85) or methanol (M85), natural gas, compressed natural gas (CNG), liquefied natural gas, liquefied petroleum gas, and hydrogen, or any mixture of biodiesel and diesel fuel, determined without

regard to any use of kerosene and containing at least 20 percent biodiesel. For the purposes of the credit, electricity is also considered a clean fuel.

For business taxpayers, the taxpayer's basis in the property is reduced by the amount of the credit. The credit for business property is treated as a portion of the general business credit. As part of the general business credit, unused credits may be carried back for one year or carried forward for 20 years. For non-business property, the credit cannot exceed the excess of an individual's income tax liability over the sum of nonrefundable personal credits and the foreign tax credit over the taxpayer's tentative minimum tax. No credit is available for property used outside the United States. For property sold to a tax-exempt entity, the seller of the property may be able to claim the credit.

This credit is effective for property placed in service after December 31, 2005. The credit terminated on December 31, 2017.

Impact

Allowing a 30 percent investment tax credit for alternative fuel dispensing equipment reduces the after-tax cost, raises the pre-tax return, and reduces the marginal effective tax rate. Economic theory suggests this should increase investment in alternative fuel dispensing equipment and thus increase the availability of alternative fuels. The presence of alternative fueling stations may also stimulate the demand for alternative fuel vehicles. For example, the presence of hydrogen refueling stations is believed to increase demand for fuel cell vehicles.

To the extent that the credits are effective in increasing the availability of alternative fuels, and substitute for petroleum products (gasoline and diesel fuel), there is a decline in petroleum use and importation. Alternative fuel vehicles are also generally less polluting, producing lower total fuel cycle emissions when compared to equivalently sized conventional vehicles.

Rationale

The Energy Policy Act of 1992 (P.L. 102-486) introduced a $100,000 tax deduction for business investment in clean fuel refueling property. This tax deduction was set to expire on January 1, 2007, but the Energy Policy Act of 2005 accelerated the expiration date by one year and replaced the deduction with the 30 percent tax credit. Section 30C was enacted as part of the Energy Policy Act of 2005 (P.L. 109-58). Initially, the provision was set to terminate on December 31, 2014, for hydrogen, and December 31, 2009, in the case of other property. The provision complements tax credits for alternative

technology vehicles and alternative fuels (both discussed elsewhere in this compendium). Congress held that further investments in alternative fuel infrastructure are necessary to encourage consumers to invest in alternative fuel vehicles. This investment, in turn, is necessary to transform the mode of transportation in the United States toward cleaner, fuel-efficient vehicles. Ultimately, this could reduce reliance on petroleum, particularly imported petroleum, which endangers U.S. energy and economic security.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the 30 percent alternative refueling property credit (capped at $30,000) for one year, through 2010, for non-hydrogen property. The law also provided a tax credit to businesses (e.g., gas stations) that install alternative fuel pumps, such as fuel pumps that dispense fuels such as E85, compressed natural gas, and hydrogen. The law also added electric vehicle recharging property to the definition of alternative refueling property.

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) temporarily increased, for the 2009 and 2010 tax years, the credit amount to 50 percent for non-hydrogen related property. In addition, maximum credit amounts were increased to $50,000 for business property and $2,000 for non-business property. In the case of hydrogen-related property, the maximum credit amount was increased to $200,000.

The Tax Relief, Unemployment Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended this credit, at the lower credit rates and limits, through December 31, 2011 for non-hydrogen property. The credit was again extended through December 31, 2013, as part of the American Taxpayer Relief Act (P.L. 112-240). The Tax Increase Prevention Act of 2014 (P.L. 103-295) extended the provision for one year, through December 31, 2014. The provision was extended for two more years, through December 31, 2016, for all fuel types, as part of the Consolidated Appropriations Act, 2016 (P.L. 114-113). The provision was extended through December 31, 2017, in the Bipartisan Budget Act of 2018 (P.L. 115-123).

Assessment

The lack of alternative fuel infrastructure has been a market barrier to the expanded use of alternative fuels and alternative fuel vehicles. Lack of investment in alternative fuel supply is due, at least in part, to lack of consumer demand for the vehicles, which was in turn due to the lack of alternative fuel infrastructure. The section 30C tax credit for clean fuel refueling property was intended to address this obstacle to alternative fuel production and use.

For 2016, the U.S. Department of Energy's Alternative Fuels Data Center reported 3,090 E85 fueling stations, 42,011 electric vehicle charging units (a single location may have more than one unit), 3,665 propane (liquefied petroleum gas) stations, 1,725 compressed natural gas fuel stations, 697 biodiesel fuel stations, 54 hydrogen fuel stations, and 140 liquefied natural gas stations. Alternative fuel stations continue to represent a small share of fuel stations generally. Given the current state of development of E85 and other alternative fuel refueling infrastructure required for their use, and given the many technological and cost barriers to this development, the tax credit might stimulate additional investment leading to increased availability alternative fuels. Greater (and more convenient) supply of alternative fuels could reduce their price, stimulate demand for alternative fuels and alternative fuel vehicles, and reduce petroleum consumption and importation.

From an economic perspective, allowing special tax credits for selected technologies distorts the allocation of resources, and may create economic inefficiencies. Tax credits encourage investments in high cost technologies, ones that would not otherwise be economical at current and expected prices and rates of return. Economic theory suggests that taxes on conventional fuels and conventional fuel-using vehicles, such as the gas-guzzler tax of IRC section 4064, is more effective and efficient in stimulating the development of the least-cost alternatives to gasoline and diesel fuel. When conventional motor fuel prices are sufficiently high, many motorists have sufficient financial incentives to purchase more fuel efficient vehicles and alternative fuel vehicles, without tax credits.

Selected Bibliography

Beresteanu, Arie, and Shanjun Li, "Gasoline Prices, Government Support, and the Demand for Hybrid Vehicles in the U.S.," *International Economic Review,* February 2011, vol. 52, pp. 161-182.

Chirinko, Robert S., Steven M. Fazzarri, and Andrew P. Meyer. "How Responsive Is Business Capital Formation to Its User Cost? An Exploration with Micro Data." *Journal of Public Economics,* vol. 74 (1999), pp. 53-80.

Corts, Kenneth S. "Building Out Alternative Fuel Retail Infrastructure: Government Fleet Spillovers in E85," *Journal of Environmental Economics and Management*, May 2010, vol. 49, pp. 219-234.

Cunningham, Lynn J., et al. *Alternative Fuel and Advanced Vehicle Technology Incentives: A Summary of Federal Programs*. Library of Congress, Congressional Research Service Report R42566. Washington, DC: June 2, 2015.

Hardman, Scott, Eric Shiu, Robert Steinberger-Wilckens, and Thomas Turrentine, "Barriers to the Adoption of Fuel Cell Vehicles: A Qualitative Investigation into Early Adopters Attitudes," *Transportation Research Part A: Policy and Practice*, 95 (2017), pp. 166-182.

Sherlock, Molly F. *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures*. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. and Jeffrey R. Stupak, *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

Sierzchula, William, Sjoerd Bakker, Kees Maat, and Bert van Wee, "The Influence of Financial Incentives and Other Socio-Economic Factors on Electric Vehicle Adoption," *Energy Policy*, 2014, vol. 68, pp. 183-194.

U.S. Department of Energy. *U.S, Alternative Fueling Stations by Fuel Type*. Alternative Fuels and Advanced Vehicles Data Center. September 2016. Available at: https://www.afdc.energy.gov/data/categories/alternative-fueling-stations.

CREDITS FOR ELECTRICITY PRODUCTION FROM RENEWABLE RESOURCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.3	4.8	5.1
2019	0.3	5.0	5.3
2020	0.3	5.0	5.3
2021	0.3	4.9	5.2
2022	0.2	4.6	4.8

Authorization

Section 45.

Description

Taxpayers producing electricity from a qualified renewable energy resource may qualify for a tax credit. Qualified energy resources include wind, closed-loop biomass, open-loop biomass, geothermal energy, small irrigation power, municipal solid waste (trash combustion and landfill gas), qualified hydropower production, and marine and hydrokinetic renewable energy sources. The credit amount in 2018 for electricity produced using wind, closed-loop biomass, and geothermal energy resources is 2.4¢ per kilowatt hour (kWh). Other resources qualify for a credit equal to half the full credit amount, or 1.2¢ per kWh in 2018. The credit amount is based on the 1993 value of 1.5¢ per kWh, which is adjusted annually for inflation.

The production tax credit (PTC) is generally available for 10 years, beginning on the date the facility is placed in service. For wind facilities to qualify for the credit, construction must begin before January 1, 2020. The amount of the credit is reduced, however, for facilities that begin construction

after 2016. Specifically, for wind facilities that begin construction in 2017, the credit amount is reduced by 20 percent. For wind facilities that begin construction in 2018, the credit amount is reduced by 40 percent. For wind facilities that begin construction in 2019, the credit amount is reduced by 60 percent. For non-wind facilities to qualify for the credit, construction of the qualified facility must begin before January 1, 2018.

The PTC is phased out as the price of electricity exceeds a threshold level. Specifically, when the annual average contract price per kWh of electricity sold (the reference price) in the prior year exceeds 8¢ per kWh (adjusted annually for inflation), the credit phases out. To date, electricity prices have yet to exceed levels that would trigger phaseout.

Generally, the taxpayer must own the qualified facility and sell the electricity produced to an unrelated party to qualify for the tax credit. A lessee or operator may claim the credit in lieu of the owner for qualified open-loop biomass facilities. A lessee or operator may also claim the credit for qualified closed-loop biomass facilities modified to co-fire with coal, other biomass, or with a combination of the two.

The amount that may be claimed as a PTC may be reduced for projects receiving other federal tax credits, grants, tax-exempt bonds, or subsidized energy financing. In all cases, the reduction cannot exceed 50 percent of the otherwise allowable credit.

Certain cooperatives that are eligible for the PTC may elect to pass through any portion of the credit to their patrons. To be eligible for this election, the cooperative has to be more than 50 percent owned by agricultural producers or entities owned by agricultural producers. The election is made on an annual basis, and is irrevocable once made.

The PTC is a component of the general business credit and is subject to the rules and limitations associated with the credit under IRC Section 38. Under the general business credit, excess credits may be carried back for one year or carried forward for up to 20 years.

Certain property that was either placed in service or under construction between 2009 and 2011 may have been able to elect to receive a grant from the Treasury in lieu of tax benefits. Section 1603 of the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) allowed taxpayers eligible for the PTC to instead claim the renewable energy investment tax credit (ITC, discussed elsewhere in this compendium). Taxpayers eligible for the ITC

could have also applied to receive a cash payment in lieu of tax credits. Facilities eligible for the PTC qualified for a grant equal to 30 percent of a qualifying project's eligible basis.

Impact

The PTC was originally intended to encourage the generation of electricity using wind and biomass. While other technologies are now eligible for the PTC, the majority of revenue losses associated with this provision serve to benefit electricity production using wind. Between 2017 and 2021, about 94 percent of PTC tax expenditures are expected to benefit wind. Tax credits are also expected to be claimed for electricity produced using geothermal, qualified hydropower, municipal solid waste, and open-loop biomass.

Wind electricity generation capacity, while still a small share (approximately 6 percent) of total electricity generation, has increased in recent years. At the end of 2000, installed wind capacity was approximately 2.5 gigawatts (GW). By the end of 2005, installed wind capacity had more than tripled, to 9.1 GW. Installed wind capacity increased more than 4 fold between 2005 and the end of 2010, to 40.3 GW installed capacity. At the end of 2015, installed wind capacity was 74.5 GW. By the end of 2017, cumulative installed capacity had reached 89.0 GW. There is limited information on utility-scale electricity generation projects supported by the PTC, an issue the Government Accountability Office has identified as limiting evaluation of the PTC's effectiveness.

As of March 1, 2018, the Treasury had awarded $26.2 billion in grants under the Section 1603 grants in lieu of tax credit program. Roughly half (49 percent) of the funds awarded through March 2018 were for wind projects that would otherwise have qualified for the PTC.

Rationale

The PTC was adopted as part of the Energy Policy Act of 1992 (P.L. 102-486). Its purpose was to encourage the development and utilization of electric generating technologies that use specified renewable energy resources, as opposed to conventional fossil fuels. The Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106–170) extended the placed-in-service deadline from July 1, 1999, to January 1, 2002. It also added poultry waste as a qualifying energy resource. The Job Creation and Worker Assistance Act of 2002 (P.L. 107–147) extended the placed-in-service deadline to January 1, 2004. The Working Families Tax Relief Act of 2004 (P.L. 108-311) extended

the placed-in-service dates for wind, closed-loop biomass, and poultry waste facilities so that those placed into service after December 31, 2003, would also qualify for the tax credit. The American Jobs Creation Act of 2004 (P.L. 108-357) expanded the renewable electricity credit to open-loop biomass, geothermal, solar, small irrigation power, and municipal solid waste facilities.

The Energy Policy Act of 2005 (P.L. 109-58) extended the placed-in-service deadline for all facilities except for solar energy facilities described in § 45(d)(4) to December 31, 2007. In addition, P.L. 109-58 extended the credit period to 10 years for all qualifying facilities placed in service after the date of enactment (August 8, 2005), eliminating the five-year credit period to which some facilities had been subject. Also, the definition of qualified energy resources that can receive the credit was expanded to include qualified hydropower production, although a qualified hydroelectric facility would be entitled to only 50 percent of the usual credit. The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the placed-in-service date to the end of 2008. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the placed-in-service date through December 31, 2009, in the case of wind, and through December 31, 2010, in the case of other sources. The 2008 law also expanded the types of facilities qualifying for the credit to new biomass facilities and to those that generate electricity from marine renewables (e.g., waves and tides). The law also updated the definition of an open-loop biomass facility, the definition of a trash combustion facility, and the definition of a non-hydroelectric dam.

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) extended the placed-in-service deadline by three years for most technologies (the placed-in-service deadline for marine and hydrokinetic facilities was extended for two years). P.L. 111-5 also introduced the Section 1603 Treasury grant program, allowing facilities eligible for the PTC to instead elect to receive the ITC or apply to the Treasury for a cash grant. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the Section 1603 grant program for one year, through 2011.

The PTC for wind, which was scheduled to expire at the end of 2012, was extended for one year, through 2013, as part of the American Taxpayer Relief Act (ATRA; P.L. 112-240). In addition to extending the PTC for wind, provisions in ATRA changed the credit expiration date from a placed-in-service deadline to a construction start date for all qualifying electricity-producing technologies.

The PTC was extended through 2014 for all qualifying technologies as part of the Tax Increase Prevention Act of 2014 (P.L. 113-295). The Consolidated Appropriations Act, 2016 (P.L. 114-113) included an extension of the PTC for all qualifying non-wind technologies through 2016. The PTC for wind was extended through 2019, but with a phaseout. Under the phaseout, the PTC for wind facilities would be reduced by 20 percent for facilities beginning construction in 2017, 40 percent for facilities beginning construction in 2018, and 60 percent for facilities beginning construction in 2019.

The PTC construction start date for non-wind technologies was extended for one year, through 2017, in the Bipartisan Budget Act of 2018 (P.L. 115-123).

Assessment

Federal tax policy, and other federal energy policy, has played a role in the development of renewable electricity, particularly wind power. In the late 1970s and 1980s the investment tax credits established under the National Energy Act of 1978, along with California state tax credits, contributed to the first installations of wind power generation capacity. There was a slowdown in wind power investments after the sunset of these investment incentives, and the decline in real oil prices, and a lagged response after the enactment of the PTC in 1992. Evidence also suggests that terminations of the PTC for wind power on various occasions created policy uncertainty, and probably adversely affected (if only temporarily) investment in the technology.

In an empirical study evaluating the effect of the PTC on installed wind capacity, Metcalf (2009) concludes that the PTC strongly influences the amount of installed wind capacity. Specifically, the PTC reduces the user cost of capital for wind investment. Estimates suggest that reducing the user cost of capital by one percent increases investment in wind capacity by more than one percent. The research also finds that much of the current investment in wind capacity can be explained by the PTC. Other studies corroborate the research finding that the PTC has contributed to investment in wind energy capacity. Other research has found that production credits likely encourage more renewable electricity of production per tax-credit dollar than investment-based incentives.

As a production incentive, the PTC rewards production, as opposed to investment. In some instances, this can lead to producers supplying tax-credit generating electricity, even when wholesale electricity prices are negative.

Some are critical of the PTC for this reason. Subsidizing renewable electricity production reduces the price of electricity for all forms of electricity produced, making it harder for unsubsidized forms of electricity to be competitive in electricity markets.

In addition to the PTC, other policies may also be responsible for increased installation of renewable energy capacity. For example, renewable portfolio standards at the state level also encourage renewable generation installations. To the extent that future policies at the state and federal level mandate renewable energy use, or increase the relative price of non-renewable energy alternatives, the share of renewables in U.S. energy production is expected to increase. If renewable portfolio standards, or other policies, lead to additional investment in renewables, they can reduce the economic efficiency of the PTC. Taxpayers making investments in response to other incentives or mandates may be able to claim the PTC, even if the PTC did not change their behavior or cause additional investment.

Production subsidies for renewable electricity may promote an efficient allocation of economic resources. Electricity produced using renewable resources, in many cases, has limited negative environmental impacts. There are likely market failures in electricity production using coal and natural gas, as such resources are associated with pollution and carbon emissions. When electricity producers fail to fully account for negative environmental costs when making production decisions, the market produces an economically inefficient amount of energy using polluting resources. While subsidizing renewable energy resources is one policy option for increasing the share of renewables in the energy portfolio, taxing polluting energy resources directly may be a more economically efficient policy option.

A further concern with subsidizing renewables as opposed to taxing polluting energy resources is the potential effect on total emissions. While subsidizing renewables increases renewables share in the overall energy portfolio, such subsidies also reduce energy prices. As energy prices fall, overall energy consumption increases, potentially working against gains in carbon emissions reductions. Further, even with increases in renewable energy capacity supported by tax incentives, renewables are still a small share of the overall fleet of electricity generating units. While the PTC has likely contributed to increased use of renewable electricity resources, research suggests that its contribution to reducing greenhouse gas emissions is small.

Selected Bibliography

Aldy, Joseph E., Rodd D. Gerarden, and Richard L. Sweeney. *Investment Versus Output Subsidies: Implications of Alternative Incentives for Wind Energy*, NBER Working Paper 24378, March 2018.

Bolinger, Mark, Ryan Wiser, and Naim Darghouth. *Preliminary Evaluation of the Impact of the Section 1603 Grant Program on Renewable Energy Deployment in 2009,* Lawrence Berkeley National Laboratory Paper LBNL-3188E. July 9, 2010.

Bolinger, Mark, Ryan Wiser, Karlynn Cory, and Ted James. *PTC, ITC, or Cash Grant: An Analysis of the Choice Facing Renewable Power Projects in the United States*, National Renewable Energy Laboratory NREL/TP-6A2-45359. March 2009.

Brown, Phillip. *U.S. Renewable Electricity: How Does the Production Tax Credit (PTC) Impact Wind Markets?* Library of Congress, Congressional Research Service Report R42576. October 10, 2012.

Brown, Phillip and Molly F. Sherlock. *ARRA Section 1603 Grants in Lieu of Tax Credits for Renewable Energy: Overview, Analysis, and Policy Options*. Library of Congress, Congressional Research Service Report R41635. November 9, 2011.

Carlson, Curtis and Gilbert E. Metcalf. "Energy Tax Incentives and the Alternative Minimum Tax," *National Tax Journal*. v. 61, September 2008, pp. 477-492.

DeCarolis, Joseph F. and David W. Keith. "The Economics of Large-Scale Wind Power in a Carbon-Constrained World." *Energy Policy*, v. 34, March 2006, pp. 395-410.

Fisher, Anthony C. and Michael H. Rothkopf. "Market Failure and Energy Policy: A Rationale for Selective Conservation," *Energy Policy*, v. 17, August 1989, pp. 397-406.

Government Accountability Office. "Electricity Generation Projects: Additional Data Could Improve Understanding of the Effectiveness of Tax Expenditures," GAO-15-302, April 2015.

Hutchinson, Emma, Peter W. Kennedy, and Cristina Martinez. "Subsidies for the Production of Cleaner Energy: When Do They Cause Emissions to Rise?" *The B.E. Journal of Economic Analysis & Policy*. vol. 10, no. 1, 2010.

Metcalf, Gilbert M. "Investment in Energy Infrastructure and the Tax Code." In *Tax Policy and the Economy, Vol 24,* ed. Jeffery R. Brown, pp. 1-33. The University of Chicago Press. 2010.

Murray, Brian C., Maureen L. Cropper, Francisco C. De La Chesnaye, and John M. Reilly. "How Effective are US Renewable Energy Subsidies in Cutting Greenhouse Gas Emissions?" *American Economic Review: Papers & Proceedings*, v. 105, May 2014, pp. 569-574.

Nordhaus, William D., Stephen A. Merrill, and Paul T. Beaton, eds., *Effects of U.S. Tax Policy on Greenhouse Gas Emissions*, National Academy of Sciences, Washington, DC, 2013.

Owen, Anthony D. "Environmental Externalities: Market Distortions and the Economics of Renewable Energy Technologies." *The Energy Journal*, v. 25. Fall, 2004, pp. 127-156.

Roach, Travis. "The Effect of the Production Tax Credit on Wind Energy Production in Deregulated Electricity Markets," *Economics Letters*, v. 127, 2015, pp. 86-88.

Sherlock, Molly F. *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures*. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. and Jeffrey R. Stupak, *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

Sherlock, Molly F. *The Renewable Electricity Production Tax Credit: In Brief*. Library of Congress, Congressional Research Service Report R43453. Washington, DC: July 26, 2017.

U.S. Congress. The Joint Committee on Taxation. Present Law and Analysis of Energy-Related Tax Expenditures. JCX-46-16. June 9, 2016.

U.S. Department of Energy. Energy Efficiency & Renewable Energy. *Wind Technologies Market Report*. 2017.

Wiser, Ryan. "Wind Power and the Production Tax Credit: An Overview of Research Results." Testimony Prepared for a Hearing On Clean Energy by the U.S. Senate Finance Committee, March 29, 2007.

CREDITS FOR INVESTMENTS IN CLEAN COAL FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	([1])	([1])
2019	-	([1])	([1])
2020	-	([1])	([1])
2021	-	([1])	([1])
2022	-	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 48A and 48B.

Description

An investment tax credit is available for certain advanced coal technologies. The Energy Improvement and Extension Act of 2008 (P.L. 110-343) allocated $1.25 billion in credits for power generation projects that use integrated gasification combined cycle (IGCC) or other advanced coal-based electricity generation technologies. Qualifying taxpayers may be eligible for a 30 percent credit under section 48A. The Energy Improvement and Extension Act of 2008 also allocated $250 million in credits for qualified gasification projects. The credit rate for gasification projects is also 30 percent under section 48B.

Prior allocations were awarded under the Energy Policy Act of 2005 (P.L. 109-58). These first-round allocations provided $800 million in credits for IGCC projects and $500 million in credits for other advanced coal-based electricity generation technologies. The credit rate for IGCC projects was 20 percent, while the credit rate for other advanced coal-based electricity

generation projects was 15 percent. The Energy Policy Act of 2005 also allocated $350 million in credits for qualified gasification projects. The credit rate for qualified investments in gasification projects was 20 percent.

Credits are only available for projects certified by the Secretary of the Treasury in consultation with the Secretary of Energy. Certifications are issued in a competitive bidding process. Highest priority is given to applicants who have a research partnership with an eligible educational institution. For funds allocated under the Energy Improvement and Extension Act of 2008, the identity of taxpayers receiving credits and the amount of the award is publicly disclosed.

Under the Energy Improvement and Extension Act of 2008, credits are awarded to projects with the greatest separation and sequestration percentage of total carbon dioxide emissions. At a minimum, qualifying IGCC and other advanced coal projects must include equipment that separates and sequesters at least 65 percent of the project's total carbon emissions to qualify for the credit under section 48A. Qualifying gasification projects must separate and sequester at least 75 percent of total carbon dioxide emissions under section 48B.

Impact

In recent years, the use of coal-fired electricity and consumption of coal energy has decreased. Despite the recent decrease, coal remains an important domestic energy source. Further, the United States is one of the world's largest coal producers. Power plants that use coal are also a major source of greenhouse gas emissions in the United States. Continued use of this plentiful domestic energy resource, while minimizing long-term compromises to the environment, has been a policy priority.

Technological developments in coal-fired power generation promise improved efficiency and reduced greenhouse gas emissions (primarily carbon dioxide). Carbon capture technology for coal power generation includes pre-combustion IGCC that burns hydrogen gas synthesized from coal (syngas) and separates the CO_2 during synthesis; oxy-fuel combustion that burns coal in a concentrated stream of oxygen creating only CO_2 combustion gas; and post-combustion capture that separates CO_2 from other combustion gases at the smokestack flue gas using chilled ammonia separation.

Investment tax credits, coupled with accelerated depreciation allowances, reduce after-tax capital costs to attract investment. Additionally, non-tax

federal incentives, such as loan guarantees and research and development (R&D) grants, promote investment in clean coal technologies. While clean coal technologies are technologically feasible, uncertainty surrounding commercial viability remains a factor inhibiting investment.

Few U.S. electric utilities are currently building coal-gasification power plants. The lack of comprehensive carbon legislation, as well as increased supplies of low-cost natural gas, are factors contributing to slow deployment and commercialization of clean-coal power generating facilities.

In late 2006, the Internal Revenue Service announced that nearly $1 billion in tax credits had been awarded to nine clean coal projects, located in nine different states. Reportedly, 49 companies from 29 states had requested $5 billion in tax credits for projects totaling $58 billion in cost.

During the 2009-10 allocation round, three advanced coal projects were awarded more than $1 billion in tax credits under section 48A. The entire $250 million allocated for qualified gasification projects (48B) was awarded to two projects during the 2009-10 allocation round. After the 2009-10 allocation round, $241 million in credits under section 48A was available for projects seeking allocations during the 2010-11 allocation round. Ultimately, no allocations were made in the 2010-11 allocation round. Thus, a 2011-12 allocation was conducted, in which $103.6 million was allocated to a single project.

In 2012, the IRS announced that $658.5 million in section 48A tax credits were available for allocation. These credits were allocated to two projects. The funding available for the 2012-2013 allocation round included funding that had previously been allocated to projects that had their certification revoked.

Additional allocation rounds have been held to reallocate previously awarded credit amounts that were ultimately forfeited. In 2014, the IRS announced a reallocation of gasification credits (48B). A total of $309.3 million in 48B credits was available for reallocation. In 2015, the IRS announced that $1.1 billion in 48A credits were available for allocation or reallocation.

In 2016, the IRS announced $324.0 million in 48A tax credits was allocated to a single project. It was also announced in 2016 that $260.0 million in 48B tax credits were allocated to two projects.

The large amount 48A and 48B credits available for reallocation suggests that many of the projects allocated credits in the early allocation rounds were not completed as initially planned.

Rationale

The investment tax credits for clean coal technologies were established by the Energy Policy Act of 2005 (P.L. 109-58). As noted above, additional funds were allocated under the Energy Improvement and Extension Act of 2008 (P.L. 111-343). The investment tax credits for clean coal technologies are designed to encourage the burning of coal in a more efficient and environmentally friendly manner. The goal of clean-coal tax incentives is to promote technologies that allow the United States to use an abundant domestic energy resource while minimizing negative environmental effects.

Assessment

Despite some successful demonstrations, clean coal technologies are still generally economically unproven technologies in the sense that none have become commercially viable without significant subsidies. As a result, utilities may not have the confidence in them as compared to conventional systems. Even with reduced capital costs, the unpredictability of the clean coal systems increases risks and possibly operating and maintenance costs to the utility, which may inhibit investment. Thus, even if clean coal technologies become competitively priced, it is expected that market penetration will take some time.

While investment incentives may be an effective mechanism for promoting clean coal technologies, such subsidies are not an economically efficient tool for reducing greenhouse gas emissions. Economic efficiency could be enhanced by directly taxing energy sources associated with greenhouse gas emissions, rather than subsidizing the alternative.

Selected Bibliography

Congressional Budget Office. *Federal Efforts to Reduce the Cost of Capturing and Storing Carbon Dioxide*. Washington, DC: June 28, 2012.

Folger, Peter. *Carbon Capture and Sequestration: Research, Development, and Demonstration at the U.S. Department of Energy*. Library of Congress, Congressional Research Service Report R42496. Washington, DC: April 14, 2015.

Folger, Peter. *Recovery Act Funding for DOE Carbon Capture and Sequestration (CCS) Projects*. Library of Congress, Congressional Research Service Report R44387. Washington, DC: February 18, 2016.

Folger, Peter and Molly F. Sherlock. *Clean Coal Loan Guarantees and Tax Incentives: Issues in Brief*. Library of Congress, Congressional Research Service Report R43690. Washington, DC: August 19, 2014.

Metcalf, Gilbert E. "Federal Tax Policy Towards Energy," in *Tax Policy and the Economy,* vol. 21, ed. James M. Poterba (Cambridge, MA: The National Bureau of Economic Research and the MIT Press, 2007), pp. 145-184.

McCarthy, James E. *EPA Regulation of Greenhouse Gases: Congressional Responses and Options*. Library of Congress, Congressional Research Service Report R41212. Washington, DC: February 20, 2014.

Sherlock, Molly F. and Jeffrey M. Stupak. *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

U.S. Congress, Joint Committee on Taxation. "Present Law and Analysis of Energy-Related Tax Expenditures." JCX-46-16. June 9, 2016.

U.S. Department of Energy. Energy Information Administration. "Levelized Cost and Levelized Avoided Cost of New Generation Resources in the Annual Energy Outlook 2016." August 2016.

U.S. Treasury Department. Internal Revenue Service. "Establishing Qualifying Advanced Coal Project Program." IRS Notice 2006-24. Internal Revenue Bulletin. March 13, 2006.

U.S. Treasury Department. Internal Revenue Service. "Updating Procedure for Allocating Credits Under Advanced Coal Project Program of IRC Section 48A." IRS Notice 2007-52. Internal Revenue Bulletin. June 7, 2007.

U.S. Treasury Department. Internal Revenue Service. "Credit Allocations Under Qualifying Advanced Coal Program Section 48A." IRS Notice 2008-96. Internal Revenue Bulletin. October 8, 2008.

U.S. Treasury Department. Internal Revenue Service. "Special Allocation Round for Coal-Based Integrated Gasification Combined Cycle Projects Under Section 48A." IRS Notice 2008-26. Internal Revenue Bulletin. February 13, 2008.

U.S. Treasury Department. Internal Revenue Service. "Reallocation of Section 48A Credits under the Qualifying Advanced Coal Project Program." IRS Notice 2012-51. Internal Revenue Bulletin. February 27, 2012.

U.S. Treasury Department. Internal Revenue Service. "Announcement of the Results of the 2012-2013 Phase III Allocation Round of the Qualifying Advanced Coal Project Program." IRS Announcement 2013-43. Internal Revenue Bulletin. November 12, 2013.

U.S. Treasury Department. Internal Revenue Service. "Reallocation of Section 48B Credits under the Qualifying Gasification Project Program." IRS Notice 2014-81. Internal Revenue Bulletin. December 11, 2014.

U.S. Treasury Department. Internal Revenue Service. "Round 2 of Section 48A Phase III Program under the Qualifying Advanced Coal Project Program." IRS Notice 2015-14. Internal Revenue Bulletin. February 18, 2015.

U.S. Treasury Department. Internal Revenue Service. "IRS Announces Results of Allocation Round for Advanced Coal Program." IRS Announcement 2016-33. Internal Revenue Bulletin. September 26, 2016.

U.S. Treasury Department. Internal Revenue Service. "IRS Reissues Results of Allocation Round of Gasification Program." IRS Announcement 2017-6. Internal Revenue Bulletin. June 7, 2017.

CREDIT FOR HOLDERS OF CLEAN RENEWABLE ENERGY BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	([1])	([1])
2019	-	([1])	([1])
2020	-	([1])	([1])
2021	-	([1])	([1])
2022	-	([1])	([1])

Note: Estimates include outlay effects associated with the refundable portion of CREBs. These outlay effects are estimated to be less than $50 million for FY2017-FY2021. These outlays are to state and local governments and are attributed to individuals for purposes of this table.

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 54, 54C, and 54D.

Description

Clean renewable energy bonds (CREBs) were available to finance qualified energy production projects. These projects include: (1) wind facilities; (2) closed-loop bio-mass facilities; (3) open-loop bio-mass facilities; (4) geothermal or solar energy facilities; (5) small irrigation power facilities; (6) landfill gas facilities; (7) trash combustion facilities; and (8) refined coal production facilities. Holders of CREBs can claim a credit equal to the dollar value of the bonds held multiplied by a credit rate determined by the Secretary of the Treasury. Alternatively, *issuers* of "new" CREBs (explained below)

could choose to receive the credit, typically identified as the "direct payment option."

There are two types of CREBs. The original CREBs offered a credit rate equal to the percentage that will permit the bonds to be issued without discount and without interest cost to the issuer. The national limit on the original CREBs was $1.2 billion, of which a maximum of $750 million could be granted to governmental bodies (the remainder would go to utilities). The original CREBs must have been issued before January 1, 2010. The credit rate is equal to the rate that will permit the bonds to be issued without discount and without interest cost to the issuer (or 100 percent of the interest cost).

The "new" CREBs were created by the Emergency Economic Stabilization Act of 2008 (EESA, P.L. 110-343) for the same purpose with an $800 million capacity. The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) contained several bond provisions including an additional $1.6 billion of new CREB capacity. In contrast to the original CREBs, the credit rate on new CREBs is 70 percent of the credit rate offered on the old CREBs. Up to $2.4 billion of new CREBs could be issued up to three years after the allocation is approved. Not more than one-third of new CREBs could be allocated to any of the following: (1) public power providers, (2) governmental bodies, or (3) projects of cooperative electric companies. All authorized CREBs have been allocated, and the 2017 tax revision (P.L. 115-97) repealed issuing authority for all tax credit bonds beginning on January 1, 2018.

ARRA also created a new type of tax credit bond, Build America Bonds (BABs, see the entry *Build America Bonds*), that allowed issuers the option of receiving a direct payment from the U.S. Treasury instead of tax-exempt interest payments or tax credits for investors. Later in the 111th Congress, the Hiring Incentives to Restore Employment Act, (HIRE, P.L. 111-147) created the direct payment option for issuers of new CREBs and extended their issuance through 2010. Pursuant to the Budget Control Act (P.L. 112-25), as amended, the credit rate for direct payment CREBs and all other direct payment TCBs were subject to sequestration from FY2013 through FY2019. For FY2019, the sequestration reduced the direct payment CREB credit rate by 6.2 percent.

The maximum maturity of old and new CREBs is that which will set the present value of the obligation to repay the principal equal to 50 percent of the face amount of the bond issue. The discount rate for the calculation is the average annual interest rate on tax-exempt bonds issued in the preceding

month, having a term of at least 10 years. CREBs are subject to arbitrage rules that require the issuer to spend 95 percent of the proceeds within five years of issuance.

Impact

The interest income on bonds issued by state and local governments usually is excluded from federal income tax (see the entry *Exclusion of Interest on Public Purpose State and Local Debt*). Such bonds result in the federal government paying a portion (approximately 25 percent) of the issuer's interest costs. The original CREBs are structured to have the interest paid by the federal government in the form of a tax credit to the bond holders or later (bonds issued after March 18, 2010) a direct payment to the issuer. The new CREBs are structured such that 70 percent of the interest cost is paid by the federal government. The cost is limited by the value of federal tax credits generated by the $1.2 billion for the original CREBs and $2.4 billion for the new CREBs.

Rationale

Proponents of CREBs have argued that the federal subsidy is necessary because private investors (potential CREB buyers) are unwilling to accept the risk and relatively low return associated with renewable energy and energy conservation projects. Proponents argue that the market has failed to produce investment in renewable energy and conservation because the benefits of these projects extend well beyond the service jurisdiction to the surrounding community and to the environment more generally. The ratepayers of the utility are not compensated for these external benefits, and it is unlikely, proponents argue, that private investors would agree to provide them without some type of inducement.

CREBs were introduced in 2005 by the Energy Policy Act of 2005 (P.L. 109-58). In December 2006, the Tax Relief and Health Care Act of 2006 (P.L. 109-432) increased the capacity amount by $400 million and extended issuance authority through 2008. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended CREBs issuing authority through 2009 and added $800 million for a "new" CREB with a smaller federal subsidy (the credit is 70 percent of the credit amount on the original CREBs). P.L. 115-97 repealed issuing authority for all tax credit bonds beginning in tax year 2018.

Assessment

Evaluation of the CREB program can be viewed both in terms of the additional investment it induced and in terms of the greenhouse emissions reductions it achieved. Investors were induced to purchase these bonds if they received the same after-tax return from the credit that they would have from the purchase of tax-exempt bonds. The value of the credit is included in taxable income, but is used to reduce regular or alternative minimum tax liability. Assuming the taxpayer is subject to the regular corporate income tax, the credit rate should equal the ratio of the purchaser's forgone market interest rate on tax-exempt bonds divided by one minus the corporate tax rate. For example, if the tax-exempt interest rate is 6 percent and the corporate tax rate is 21 percent, the credit rate would have to be equal to 0.06/(1-0.21), or about 7.6 percent to induce investment. Thus, an investor purchasing a $1 million original CREB would need to receive a $76,000 annual tax credit each year. For new CREBs, the tax credit is 70 percent of that amount or about $53,200. The issuer would pay interest of at least $22,800 to match the taxable bond alternative (e.g., the $76,000). The Budget Control Act (P.L. 112-25), as amended, reduced the credit rate for direct payment new CREBs from FY2013 through FY2019 through sequestration. For FY2019, sequestration reduced the direct payment new CREB credit rate by 6.2 percent.

The direct payment option made available for new CREBs likely made the bonds more attractive to a broader investor pool. With the direct payment option, the *issuer* pays the investor the full taxable interest rate rather than the *investor* receiving a federal tax credit. This change likely made the bonds more attractive to non-taxed investors such as international investors and pension funds. As a result, the interest cost to the issuers was likely lower as the increased demand for the bonds put downward pressure on interest rates.

In contrast to tax-exempt bonds, where part of the federal revenue loss is a windfall gain for wealthy investors, the federal revenue loss matches more closely the benefit captured by the entity issuing tax credit bonds. According to analysis by Bloomberg (2014), as of 2014, CREB issuance represented just 17 percent of the allocation. The mechanism does not appear to have lured more investment though outside factors may have contributed to the muted success of the tax credit bond mechanism.

The second goal of the bond programs, reducing greenhouse emissions, has not been validated empirically. A study published by the National Research Council (2013) surmised that U.S. tax policy generally has had little to no effect on the amount of greenhouse gas emissions.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," *Journal of Fixed Income*, vol. 20, no. 1, 2010, p. 67.

Bloomberg New Energy Finance. *Green Bonds: Debt Capital Markets and the Low-Carbon Transition,* January 7, 2016.

— . *Green Bonds Market Outlook 2014: Blooming with New Varietals,* June 2, 2014.

Congressional Budget Office. *Testimony, Federal Support for State and Local Governments Through the Tax Code*. April 2012.

— . *Tax Credit Bonds and the Federal Cost Financing Public Expenditures*, July 2004.

Congressional Budget Office and Joint Committee on Taxation. *Subsidizing Infrastructure Investment with Tax-Preferred Bonds*, pub. no. 4005, October 2009.

Davie, Bruce. "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," Proceedings of the 91st Annual Conference on Taxation, National Tax Association, 1999.

Driessen, Grant A. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Driessen, Grant and Jeffrey M. Stupak. *Tax Credit Bonds: Overview and Analysis,* Library of Congress, Congressional Research Service Report RL31457, October 11, 2016.

Internal Revenue Service. *Update: Effect of Sequestration on State & Local Government Filers of Form 8038-CP,* June 2018.

Liu, Gao and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds." *National Tax Journal,* vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Nordhaus, William D., Stephen A. Merrill, and Paul T. Beaton, eds. "Effects of U.S. Tax Policy on Greenhouse Gas Emissions," National Research Council, National Academies Press, Washington, DC, 2013.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal,* vol. 64, no. 2, June 2011, pp. 591-613.

Molly F. Sherlock et al. *The 2017 Tax Revision (P.L. 115-97): Comparison to 2017 Tax Law*, Library of Congress, Congressional Research Service Report R45092, February 6, 2018.

Sherlock, Molly F. and Steven Maguire. *Tax-Favored Financing for Renewable Energy Resources and Energy Efficiency,* Library of Congress, Congressional Research Service Report R41573, January 10, 2011.

Sherlock, Molly F. and Jeffrey M. Stupak. *Energy Tax Incentives: Measuring Value Across Different Types of Energy Resources,* Library of Congress, Congressional Research Service Report R41593, March 19, 2015.

U.S. Congress, Joint Committee on Taxation. *The Revenue Effect of Tax-Exempt and Direct-Pay Bond Provisions*, Joint Committee Print JCX-60-12, July 16, 2012.

U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in 1997*, Joint Committee Print JCS-23-97, December 17, 1997, pp. 40-41.

— . *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

U.S. Department of the Treasury, Internal Revenue Service. Municipal Bonds, 2010, Statistics of Income, Spring 2013, pp. 112-157.

U.S. Office of Management and Budget. "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2018," April 6, 2018.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2017," May 12, 2017.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2016," January 4, 2016.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2015," January 20, 2015.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2014," February 7, 2014.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2013," April 9, 2013.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2012," January 18, 2012.

CREDIT FOR HOLDERS OF QUALIFIED ENERGY CONSERVATION BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2017	([1])	-	([1])
2018	([1])	-	([1])
2019	([1])	-	([1])
2020	([1])	-	([1])
2021	([1])	-	([1])

Note: Estimates include outlay effects associated with the refundable portion of QECBs. These outlay effects are estimated to be less than $50 million for FY2017-FY2021. These outlays are to state and local governments and are attributed to individuals for purposes of this table.

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 54, 54C, and 54D.

Description

Qualified Energy Conservation Bonds (QECBs) were created as a financing aid for certain energy production projects. These bonds are used for capital expenditures for the purposes of: (1) reducing energy consumption in publicly-owned buildings by at least 20 percent; (2) implementing green community programs; (3) rural development involving the production of electricity from renewable energy resources; (4) wind facilities; (5) closed-loop bio-mass facilities; (6) open-loop bio-mass facilities; (7) geothermal or solar energy facilities; (8) small irrigation power facilities; (9) landfill gas facilities; (10) trash combustion facilities; and (11) refined coal production facilities.

Also included are expenditures on research facilities and research grants, to support research in: (1) development of cellulosic ethanol or other nonfossil fuels; (2) technologies for the capture and sequestration of carbon dioxide produced through the use of fossil fuels; (3) increasing the efficiency of existing technologies for producing nonfossil fuels; (4) automobile battery technologies and other technologies to reduce fossil fuel consumption in transportation; and (5) technologies to reduce energy use in buildings. Energy saving mass commuting facilities and demonstration projects are also included in the list of qualified purposes.

QECBs were created by the Emergency Economic Stabilization Act of 2008 (EESA, P.L. 110-343), which established a national limit of $800 million for QECBs. That limit was increased by $2.4 billion through the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5). In the 111th Congress, the Hiring Incentives to Restore Employment Act, (HIRE, P.L. 111-147) created the direct payment option for issuers of QECBs and extended their issuance through 2010. Pursuant to the Budget Control Act (P.L. 112-25), as amended, the credit rate for direct payment QECBs and all other direct payment TCBs were subject to sequestration from FY2013 through FY2019. For FY2019, the sequestration reduced the direct payment QECB credit rate by 6.2 percent.

Holders of QECBs can claim a credit equal to the dollar value of the bonds held multiplied by a credit rate determined by the Secretary of the Treasury. These tax credit bonds offer a credit rate that is 70 percent of the credit rate offered on old Clean Renewable Energy Bonds (see the entry *Credit for Holders of Clean Renewable Energy Bonds*). Alternatively, *issuers* of QECBs (explained below) can choose to receive the credit, typically identified as the "direct payment option." The maximum maturity of QECBs is that which will set the present value of the obligation to repay the principal equal to 50 percent of the face amount of the bond issue. The discount rate for the calculation is the average annual interest rate on tax-exempt bonds issued in the preceding month, having a term of at least 10 years. QECBs are subject to arbitrage rules that require the issuer to spend 95 percent of the proceeds within five years of issuance. The QECB program is now fully subscribed, and the 2017 tax revision (P.L. 115-97) repealed issuing authority for all tax credit bonds beginning on January 1, 2018.

Impact

The interest income on bonds issued by state and local governments is typically excluded from federal income tax (see the entry *Exclusion of Interest on Public Purpose State and Local Debt*). Such bonds result in the federal government paying a portion (approximately 25 percent) of the issuer's interest costs. QECBs are structured such that 70 percent of the interest cost is paid by the federal government. The cost is limited by the value of federal tax credits generated by the $3.2 billion for QECBs.

Rationale

Proponents of QECBs have argued that the federal subsidy is necessary because private investors are unwilling to accept the risk and relatively low return associated with renewable energy and energy conservation projects. Proponents argue that the market has failed to produce investment in renewable energy and conservation because the benefits of these projects extend well beyond the service jurisdiction to the surrounding community and to the environment more generally. The ratepayers of the utility are not compensated for these external benefits, and it is unlikely, proponents argue, that private investors would agree to provide them without some type of inducement.

Assessment

Investors were induced to purchase these bonds if they received the same after-tax return from the credit that they would have from the purchase of tax-exempt bonds. The value of the credit is included in taxable income, but is used to reduce regular or alternative minimum tax liability. Assuming the taxpayer is subject to the regular corporate income tax, the credit rate should equal the ratio of the purchaser's forgone market interest rate on tax-exempt bonds divided by one minus the corporate tax rate. For example, if the tax-exempt interest rate is 6 percent and the corporate tax rate is 21 percent, the credit rate would have to be equal to 0.06/(1-0.21), or about 7.6 percent to induce investment. Thus, an investor purchasing a $1 million original CREB would need to receive a $76,000 annual tax credit each year. For new CREBs, the tax credit is 70 percent of that amount or about $53,200. The issuer would pay interest of at least $22,800 to match the taxable bond alternative (e.g., the $76,000).

The direct payment option made available for QECBs likely made the bonds more attractive to a broader investor pool. With the direct payment

option, the *issuer* pays the investor the full taxable interest rate rather than the *investor* receiving a federal tax credit. This change likely made the bonds more attractive to non-taxed investors such as international investors and pension funds. As a result, the interest cost to the issuers was likely lower as the increased demand for the bonds put downward pressure on interest rates.

In contrast to tax-exempt bonds, where part of the federal revenue loss is a windfall gain for wealthy investors, the federal revenue loss matches more closely the benefit captured by the entity issuing tax credit bonds. According to analysis by Bloomberg (2014), as of 2014, QECB issuance was just 31 percent of the allocation. The mechanism does not appear to have lured more investment though outside factors may have contributed to the muted success of the tax credit bond mechanism. The second goal of the bond programs, reducing greenhouse emissions, has not been validated empirically. A study published by the National Research Council (2013) surmised that U.S. tax policy generally has had little to no effect on the amount of greenhouse gas emissions.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," *Journal of Fixed Income*, vol. 20, no. 1, 2010, p. 67.

Bloomberg New Energy Finance. *Green Bonds: Debt Capital Markets and the Low-Carbon Transition,* January 7, 2016.

— . *Green Bonds Market Outlook 2014: Blooming with New Varietals,* June 2, 2014.

Congressional Budget Office. *Testimony, Federal Support for State and Local Governments Through the Tax Code,* April 2012.

— . *Tax Credit Bonds and the Federal Cost Financing Public Expenditures*, July 2004.

Congressional Budget Office and Joint Committee on Taxation. *Subsidizing Infrastructure Investment with Tax-Preferred Bonds*, Pub. No. 4005, October 2009.

Davie, Bruce. "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," Proceedings of the 91st Annual Conference on Taxation, National Tax Association, 1999.

Driessen, Grant A. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Driessen, Grant and Jeffrey M. Stupak. *Tax Credit Bonds: Overview and Analysis,* Library of Congress, Congressional Research Service Report RL31457, October 11, 2016.

Internal Revenue Service. *Update: Effect of Sequestration on State & Local Government Filers of Form 8038-CP,* June 2018.

Liu, Gao and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds." *National Tax Journal,* vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Nordhaus, William D., Stephen A. Merrill, and Paul T. Beaton, eds. "Effects of U.S. Tax Policy On Greenhouse Gas Emissions," National Research Council, National Academies Press, Washington, DC, 2013.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal,* vol. 64, no. 2, June 2011, pp. 591-613.

Molly F. Sherlock et al. *The 2017 Tax Revision (P.L. 115-97): Comparison to 2017 Tax Law*, Library of Congress, Congressional Research Service Report R45092, February 6, 2018.

Sherlock, Molly F. and Steven Maguire. *Tax-Favored Financing for Renewable Energy Resources and Energy Efficiency,* Library of Congress, Congressional Research Service Report R41573, January 10, 2011.

Sherlock, Molly F. and Jeffrey M. Stupak. *Energy Tax Incentives: Measuring Value Across Different Types of Energy Resources,* Library of Congress, Congressional Research Service Report R41593, March 19, 2015.

U.S. Congress, Joint Committee on Taxation. *The Revenue Effect of Tax-Exempt and Direct-Pay Bond Provisions*, Joint Committee Print JCX-60-12, July 16, 2012.

— . *General Explanation of Tax Legislation Enacted in 1997*, Joint Committee Print JCS-23-97, December 17, 1997, pp. 40-41.

— . *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2010, Statistics of Income*, Spring 2013, pp. 112-157.

U.S. Office of Management and Budget. "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2018," April 6, 2018.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2017," May 12, 2017.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2016," January 4, 2016.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2015," January 20, 2015.

— . “OMB Final Sequestration Report to the President and Congress for Fiscal Year 2014,” February 7, 2014.

— . “OMB Final Sequestration Report to the President and Congress for Fiscal Year 2013,” April 9, 2013.

— . “OMB Final Sequestration Report to the President and Congress for Fiscal Year 2012,” January 18, 2012.

AMORTIZATION OF AIR POLLUTION CONTROL FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	0.6	0.6
2019	([1])	0.4	0.4
2020	([1])	0.4	0.4
2021	([1])	0.4	0.4
2022	([1])	0.4	0.4

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 169(d)(5).

Description

This provision makes the pre-1976, 5-year option to amortize investments in pollution control equipment for coal-fired electric generation plants available to those plants placed in service on or after January 1, 1976. Before enactment of IRC section 169(d)(5), 5-year amortization of pollution control equipment applied only to older coal-fired power plants—those placed in service before January 1, 1976. However, investments in pollution control equipment made in connection with post-1975 power plants now qualify for amortization over seven years rather than five years. The 5-year amortization incentive for pre-1976 plants applies only to pollution control equipment with a useful life of 15 years or less. In that case 100 percent of the cost can be amortized over five years. If the property or equipment has a useful life greater than 15 years, then the proportion of the costs that can be amortized over five years is less than 100 percent.

Qualifying pollution control equipment means any technology that is installed in or on a qualifying facility to reduce air emissions of any pollutant regulated by the Environmental Protection Agency (EPA) under the Clean Air Act. This includes scrubber systems, particulate collectors and removal equipment (such as electrostatic precipitators), thermal oxidizers, vapor recovery systems, low nitric oxide burners, flare systems, bag houses, cyclones, and continuous emission monitoring systems. The pollution control equipment needs to have been placed in service after April 11, 2005.

Impact

In the federal tax code, amortization is a method of depreciation that recovers the total cost basis evenly (i.e., straight line depreciation) over the recovery period, in this case either five or seven years depending on the age of the power plant. In either case, however, because the two recovery periods are substantially less than the economic life of the assets, such amortization provides more accelerated depreciation deductions for pollution control equipment than would otherwise be the case under the Modified Accelerated Cost Recovery System (MACRS), in which the recovery period for the conventional type of electric generating equipment is either 15 or 20 years, depending on the type of equipment. The recovery period is 15 years for generating equipment that uses internal combustion, jet, or diesel engines; 20 years for most types of conventional electric utility tangible property such as steam or gas turbines, boilers, combustors, condensers, combustion turbines operated in a combined cycle with a conventional steam unit, and related assets. The shorter period for internal combustion engines is because this type of equipment typically deteriorates faster than conventional coal-fired equipment. Also the recovery method is one of the more accelerated types: either the double-declining balance method or the 150 percent declining balance method. Amortization in this way thus provides more accelerated depreciation deductions for pollution control equipment than does MACRS. Because of the time value of money, the earlier deduction is worth more in present value terms, which reduces the cost of capital and the effective tax rates on the investment returns. This should provide an incentive for power plant companies (primarily the tax paying investor-owned utilities, or IOUs) to invest in pollution control equipment.

This provision targets electric utilities, a major source of air pollution. While older coal plants still emit a disproportionate amount of pollution among all coal-fired plants, the provision complements prior law by also targeting emissions from newer plants. The incentive should facilitate utilities

in meeting a new suite of EPA mandates to reduce emissions of sulfur dioxide (SO_2), nitrous dioxide (NO_2), and mercury (Hg).

A temporary provision enacted in the 2017 tax revision (P.L. 119-17), popularly referred to as the Tax Cuts and Jobs Act, allows expensing for equipment through 2022, with that percentage reduced 20 percent per year starting in 2023. During the period of full expensing, electing amortization for pollution control facilities will not be beneficial compared to the general treatment of equipment.

Rationale

This provision was part of the Energy Policy Act of 2005 (P.L. 109-58). Before that, investments in pollution control equipment for pre-1976 coal-fired plants were amortizable over five years and pollution control equipment added to "newer" plants (those placed in service after 1975) was depreciated using the same MACRS methods that apply to other electric generating equipment on the date they are placed in service.

For installations in pre-1976 plants, the 5-year amortization of pollution control equipment was added by the Tax Reform Act of 1969 (P.L. 91-172) to compensate for the loss of the investment tax credit, which was repealed by the same act. Prior to 1987, pollution control equipment could be financed by tax-exempt bonds. This benefitted all types of electric utilities and not just public power companies, because although the state or local government would issue the bonds, the facilities were leased back to the IOUs or cooperatives. Billions of dollars of pollution control equipment were financed in this way until the safe-harbor leasing tax rules were repealed by the Tax Reform Act of 1986 (P.L. 99-514).

Assessment

Pollution control equipment used in connection with coal-fired power plants is a significant fraction of a plant's cost. Thus, the tax treatment of this type of equipment is important in determining the investment decisions of the electric utility. The Clean Air Act's "New Source Review" provisions require the installation of state-of-the-art pollution-control equipment whenever an air-polluting plant is built or when a "major modification" is made on an existing plant. By creating a more favorable (in some cases much more favorable) regulatory environment for existing facilities than new ones, grandfathering creates an incentive to keep old, grandfathered facilities up and running.

The federal tax code has also provided an unintended incentive to retain—a disincentive to scrap—equipment and other business assets. One of these tax provisions is the 5-year amortization of pollution control equipment connected with older (pre-1976) power plants. This, and other provisions under prior law (such as accelerated depreciation and investment tax credits), and current tax penalties for premature dispositions of capital equipment under the recapture provisions may have provided a disincentive to invest in new equipment and other new assets.

Selected Bibliography

Abel, Amy. *Energy Policy Act of 2005, P.L. 109-58: Electricity Provisions*. Congressional Research Service Report RL33248, January 24, 2006.

Hsu, Shi-Ling. "What's Old Is New: The Problem with New Source Review." *Regulation*. Spring 2006. v. 29. Washington: pp. 36-43.

Joskow, Paul L. "Competitive Electricity Markets and Investment in New Generating Capacity." *MIT Research Paper*. April 28, 2006.

— . *Transmission Policy in the United States*. AEI-Brookings Joint Center for Regulatory Studies. October 2004.

Lee, Amanda I. and James Alm. "The Clean Air Act Amendments and Firm Investment in Pollution Abatement Equipment." *Land Economics*. August 2004. v. 80. pp. 433.

McCarthy, James E. *EPA Standards for Greenhouse Gas Emissions from Power Plants: Many Questions, Some Answers*. Congressional Research Service Report R43127, November 15, 2013.

McCarthy, James E. and Larry Parker. *Costs and Benefits of Clear Skies: EPA's Analysis of Multi-Pollutant Clean Air Bills*. Congressional Research Service Report RL33165, November 23, 2005.

Meltz, Robert. *Key Historical Court Decisions Shaping EPA's Program Under the Clean Air Act*. Congressional Research Service Report R43699, August 22, 2014.

Parker, Larry and John Blodgett. *Air Quality and Electricity: Enforcing New Source Review*. Congressional Research Service Report RL30432, January 31, 2000.

Popp, David. "Pollution Control Innovations and the Clean Air Act of 1990." *Journal of Policy Analysis and Management*. Fall 2003. v. 22. pp. 641.

Sherlock, Molly, *Energy Tax Policy: Historical Perspective and Current Status of Energy Tax Expenditures*. Congressional Research Service Report R41227, May 5, 2011.

— . *The Value of Energy Tax Incentives for Different Types of Energy Resources: In Brief*. Congressional Research Service Report R44852, May 18, 2017.

Sterner, Thomas. *Policy Instruments for Environmental and Natural Resource Management*. Resources for the Future, Washington. 2003.

U.S. Congress, Joint Committee on Taxation. *Federal Tax Issues Relating to Restructuring of the Electric Power Industry*. Hearing before the Subcommittee on Long-Term Growth and Debt Reduction of the Senate Finance Committee, October 15, 1999. JCX 72-99.

COAL PRODUCTION CREDITS: REFINED COAL AND INDIAN COAL

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	([1])	([1])
2019	-	([1])	([1])
2020	-	([1])	([1])
2021	-	([1])	([1])
2022	-	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 45.

Description

Producers of refined coal and Indian coal may be eligible for a production tax credit (PTC).

Refined coal is a synthetic fuel produced from coal (including lignite) or high-carbon fly ash that when burned emits 20 percent less nitrogen oxide and 40 percent less sulfur dioxide or mercury compared to feedstock coal available in 2003.

The credit for production of refined coal is available for facilities placed in service after October 22, 2004, and before January 1, 2012. Refined coal producers may claim the credit for 10 years after a facility is placed in service. The credit for qualified refined coal in 2018 is $7.03 per ton ($4.375 per ton in 1992 dollars, adjusted annually for inflation). Qualifying coal must be sold to an unrelated party. The credit phases out as the reference price of the fuel

used as a feedstock exceeds 1.7 times the reference price for the feedstock fuel in 2002 (adjusted for inflation). There is no phase-out for 2018.

Qualified Indian coal facilities are those that produce coal from reserves owned by a federally recognized Indian tribe or held in trust by the United States for a tribe or its members. Qualifying facilities are those that produce coal from reserves that on June 14, 2005, were owned by an Indian tribe. The credit is for the sale of coal, and the coal does not necessarily need to be sold for the production of electricity. For coal produced and sold before January 1, 2016, an Indian coal production facility had to be placed in service before January 1, 2009. Currently, there is no placed-in-service deadline.

The taxpayer may claim a credit for sales of Indian coal produced by the taxpayer at an Indian coal production facility during the 12-year period beginning after 2005 and before 2018. The credit for 2017 is $2.423 per ton (the credit is adjusted annually for inflation).

The credits for refined coal and Indian coal are part of the general business credit. Unused credits may be carried back one year and carried forward for up to 20 years.

Impact

The tax credit for refined coal reduces the cost of producing refined coal which can then be used to generate electricity (the credit is not available for electricity produced from coal). Before 2008, production of coal-based synthetic fuel (a.k.a. refined coal) was eligible for a tax credit under Section 29 of the Internal Revenue Code. Under Section 29, coal that underwent a significant chemical change could be given a credit as a coal-based synthetic fuel. The credits previously available under Section 29 were generous relative to those awarded under the PTC. Further, the credit for refined coal under Section 45 requires that producers adhere to more stringent environmental standards than were imposed under Section 29. Currently, few producers meet the criteria under Section 45 to qualify for a tax credit for the production of refined coal.

The PTC for Indian coal is designed to encourage production of coal from resources owned by tribes. The credit is claimed by few taxpayers, and results in a small revenue loss.

Rationale

The PTC was expanded to include refined coal by the American Jobs Creation Act of 2004 (AJCA; P.L. 108-357). Under the AJCA, qualifying refined coal facilities had to be placed in service before the end of 2008. The Energy Policy Act of 2005 (P.L. 109-58) added Indian coal production facilities as production eligible for the PTC. When introduced, taxpayers could claim a credit for sales of coal for a 7-year period beginning on January 1, 2006, and ending after December 31, 2012.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the placed-in-service deadline for refined coal through December 31, 2009. This legislation also increased the emissions standards on the refined coal credit and removed the market value test. The changes made under the 2008 legislation effectively added steel industry fuel to the list of qualifying fuels. For facilities that were producing steel industry fuel on or before October 1, 2008, the credit was available for fuel produced and sold between October 1, 2008, and January 1, 2010. The Tax Relief, Unemployment Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the placed-in-service deadline for refined coal facilities, other than refined coal facilities producing steel industry fuel, through December 31, 2011.

The American Taxpayer Relief Act of 2012 (P.L. 112-240) extended the period during which Indian coal facilities could claim credits from seven to eight years. The Tax Increase Prevention Act of 2014 (P.L. 113-295) extended the credit for the production of Indian coal for an additional year (through December 31, 2014).

The credit for the production of Indian coal was extended and modified by provisions in the Protecting Americans from Tax Hikes (PATH) Act, enacted as Division Q of the Consolidated Appropriations Act, 2016 (P.L. 114-113). Specifically, the credit was extended for two years, through the end of 2016. The placed-in-service date was also removed, allowing facilities placed in service after 2008 to qualify for the credit. The provision was also modified to relax third-party sales requirements and exempt the Indian coal credit from the alternative minimum tax (AMT). For corporations, the AMT was repealed as part of the 2017 tax revision (P.L. 115-97).

The Bipartisan Budget Act of 2018 (P.L. 115-123) extended the period during which Indian coal facilities could claim credits from 11 to 12 years.

Assessment

The PTC for refined coal reduces the cost of this fuel relative to other fuel sources. Reducing the cost through a subsidy is intended to encourage the production of refined coal. Alternatively, if the cost of other liquid based fuels, such as petroleum, were to increase, coal to liquid technologies (including refined coal) would become more cost competitive. Since refined coal adheres to higher environmental standards, a tax on carbon-emitting fuels, which increases the cost of such fuels, would be an economically efficient mechanism for promoting the use of refined coal technologies. Taxing emissions directly, as opposed to subsidizing low-emissions technologies, would allow markets to select the optimal energy resources.

The PTC for Indian coal is designed to encourage the development of tribal coal reserves. Thus, unlike most other PTC-eligible technologies, the PTC for Indian coal is not designed to achieve an environmental objective. Proponents of the credit are in favor of support for tribal coal mining. Like other targeted tax provisions, the credit could reduce economic efficiency if it results in economic resources being diverted away from their most productive use.

Selected Bibliography

Internal Revenue Service, "Notice 2018-36," *Internal Revenue Bulletin 2018-20*, May 14, 2018.

Internal Revenue Service, "Notice 2018-50," *Internal Revenue Bulletin 2018-22*, May 29, 2018.

Carlson, Curtis and Gilbert E. Metcalf. "Energy Tax Incentives and the Alternative Minimum Tax," *National Tax Journal*, vol. 61. (September 2008). pp. 477-491.

Sherlock, Molly F. *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures*. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. and Jeffrey M. Stupak. *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

Sherlock, Molly F. *The Renewable Electricity Production Tax Credit: In Brief*. Library of Congress, Congressional Research Service Report R43453. April 7, 2014.

Sherlock, Molly F., Donald J. Marples, and Margot Crandall-Hollick. *Energy Tax Provisions that Expired in 2017 ("Tax Extenders")*. Library of

Congress, Congressional Research Service Report R44990. Washington, DC: March 8, 2018.

U.S. Congress, Joint Committee on Taxation. *Present Law And Analysis of Energy-Related Tax Expenditures*. JCX-28-12. March 23, 2012.

U.S. Department of Energy. *Analysis of Five Selected Tax Provisions of the Conference Energy Bill of 2003*. Energy Information Administration. Report SR-OIAF/2004-01. February 2004.

CREDIT FOR CARBON OXIDE SEQUESTRATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	([1])	([1])
2019	-	([1])	([1])
2020	-	([1])	([1])
2021	-	([1])	([1])
2022	-	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 45Q.

Description

The carbon oxide sequestration credit (previously the carbon dioxide sequestration credit) is the sum of four components: (1) $20 (adjusted to $22.87 for 2018) per metric ton of carbon oxide captured using carbon capture equipment placed in service before February 9, 2018 that is not used as a tertiary injectant; (2) $10 (adjusted to $11.44 for 2018) per metric ton of carbon oxide captured using carbon capture equipment placed in service before February 9, 2018 that is used as a tertiary injectant; (3) $25.70 in 2018 per metric ton of carbon oxide captured using carbon capture equipment placed in service on or after February 9, 2018 that is not used as a tertiary injectant, during the first 12 years following the facility being placed in service; and (4) $15.29 in 2018 per metric ton of carbon oxide captured using carbon capture equipment placed in service on or after February 9, 2019 that is used as a tertiary injectant, during the first 12 years following the facility being placed in service. Carbon oxide that is not used as a tertiary injectant must be disposed of in a secure geological facility.

For carbon dioxide captured at facilities placed in service before February 9, 2018, the credit applies until the IRS, in consultation with the Environmental Protection Agency, certifies that 75 million metric tons of carbon dioxide has been captured or used as a tertiary injectant. As of May 2018, the total amount of carbon oxide taken into account for the purposes of section 45Q was 59,767,924 metric tons.

For carbon oxide captured at facilities placed in service on or after February 9, 2018, for calendar years 2017 through 2026, the dollar amount of the credit is a linear interpolation between $22.66 and $50 for carbon oxide that is captured and stored, and $12.83 and $35 for carbon oxide that is used as a tertiary injectant. The $50 and $35 credit amounts will be adjusted for inflation for calendar years after 2026.

The credit was changed from the carbon dioxide to the carbon oxide credit in the Bipartisan Budget Act of 2018 (P.L. 115-123). Carbon oxide includes carbon dioxide, but also carbon monoxide. For the purposes of the credit, qualified carbon oxide includes carbon oxide captured from an industrial source that would otherwise be released into the atmosphere that is measured at the source of capture and verified at the point of disposal or injection. Qualified carbon oxide also includes the initial deposit of captured carbon oxide used as a tertiary injectant, but does not include carbon oxide that is re-captured, recycled, or re-injected. The credit may also be claimed for carbon dioxide captured directly from ambient air by a direct air capture facility. The credit can only be claimed for carbon oxide captured and disposed of or used within the United States or its possessions.

Several types of facilities may qualify for the credit. Generally, to qualify, an industrial or direct air capture facility's original design must have included carbon capture equipment, and construction of both the facility and carbon capture equipment must begin before January 1, 2024. Additionally, qualified facilities must also (1) in the case of a facility that emits no more than 500,000 metric tons of carbon oxide, capture at least 25,000 metric tons of carbon oxide that is either fixated through the growing of algae or bacteria, chemically converted into a material or chemical compound in which the carbon oxide is stored, or used for another commercial purpose (other than a tertiary injectant); (2) in the case of an electricity generating facility not described in (1), capture at least 500,000 metric tons of carbon oxide per year; or (3) in the case of a direct air capture facility not described in (1) or (2), capture at least 100,000 metric tons of carbon oxide.

Who can claim the tax credit depends on when the facility capturing the carbon was placed in service. If the carbon oxide capture equipment was placed in service before February 9, 2018, the credit is attributable to the person that captures and physically or contractually ensures the disposal or use of the carbon oxide (unless that person elects to allow the person who disposes of the captured carbon oxide to claim the credit). In the case of carbon oxide captured using equipment placed in service on or after February 9, 2018, the credit is attributable to the person that owns the carbon capture equipment and physically or contractually ensures the capture and disposal or use of the carbon oxide.

The credit is a component of the general business credit. As such, the credit may be carried forward for up to 20 years or carried back one year.

Impact

Carbon capture and sequestration (CCS) has the potential to reduce emissions generated by the use of coal and natural gas in the electric power sector. It is also possible that carbon capture and sequestration could reduce emissions from industrial applications, such as cement and steel.

As of 2018, the Petra Nova plant in Texas, which captures over one million tons of carbon dioxide annually, is the only commercial, large-scale, fossil-fueled power plant with CCS in the United States. This plant opened in 2016 and the captured carbon is used for enhanced oil recovery.

Rationale

The credit for carbon dioxide sequestration was introduced as part of the Energy Improvement and Extension Act of 2008, enacted as Division B of P.L. 110-343. The credit was enacted alongside several other provisions designed to encourage cleaner, more efficient, and environmentally responsible use of coal specifically and greenhouse gas emissions reductions more broadly.

The Bipartisan Budget Act of 2018 (P.L. 115-123) expanded and extended the 45Q tax credit. Specifically, the $10 per ton tax credit for carbon that is used as a tertiary injectant is to increase to $35 over time. The $20 per ton tax credit for carbon that is captured and not used as a tertiary injectant is to increase to $50 over time. The 75 million ton cap is eliminated for facilities placed in service on or after February 9, 2018. Qualifying carbon capture equipment must be under construction before the end of 2023 for carbon captured to qualify. Further, tax credits can be claimed for 12 years after a

carbon capture project is placed in service. This legislation also modified the credit to include other carbon oxides, not just carbon dioxide. The legislation also changed requirements for eligible taxpayers.

Assessment

Proponents of the CCS tax credits contend that the higher credit amounts enacted in 2018 will push more marginal projects to go forward, further advancing CCS technology. However, the high cost of CCS technologies continues to pose a barrier to broad commercial deployment.

Tax credits for low-carbon technologies are generally not an economically efficient policy mechanism for encouraging a lower carbon economy. Such tax credits reduce overall tax revenues by targeting selected technologies. A more economically efficient policy option for encouraging the adoption of low-carbon technologies would be a carbon tax or a carbon price. This policy would be technology neutral, and also raise revenue that could be used to reduce other distortionary taxes or reduce the deficit.

Selected Bibliography

Congressional Budget Office. *Federal Efforts to Reduce the Cost of Capturing and Storing Carbon Dioxide*. Washington, DC: June 28, 2012.

Folger, Peter. *Carbon Capture and Sequestration (CCS) in the United States*. Library of Congress, Congressional Research Service Report R44902. Washington, DC: August 9, 2018.

Internal Revenue Service. "Credit for Carbon Oxide Sequestration 2018 Section 45Q Inflation Adjustment Factor." Notice 2018-40. May 14, 2018.

McCarthy, James E. *EPA Regulation of Greenhouse Gases: Congressional Responses and Options*. Library of Congress, Congressional Research Service Report R41212. Washington, DC: February 20, 2014 (contact author for availability).

CREDIT FOR ENERGY-EFFICIENT NEW HOMES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: This provision is not included in JCT's tax expenditure list. It was, however, extended through 2017 in P.L. 115-123. Extending this provision cost an estimated $173 million in FY2018, $29 million in FY2019, $21 million in FY2020, $21 million in FY2021, and $21 million in FY2022.

Authorization

Section 45L.

Description

Contractors building energy-efficient new homes may be eligible for a tax credit of up to $2,000. Manufacturers of manufactured energy-efficient homes may be eligible for a tax credit of up to $1,000. Contractors and manufacturers claiming tax credits must submit certification from an eligible certifier before claiming the credit.

A certified energy-efficient new home qualifying for the tax credit must have annual heating and cooling energy consumption that is at least 50 percent below that of a comparable dwelling unit. The home must also be constructed in accordance with the standards of the 2006 International Energy Conservation Code, including supplements. Heating and cooling equipment

efficiencies must correspond to the minimum allowed under the regulations established by the Department of Energy (DOE) pursuant to the National Appliance Energy Conservation Act of 1987 (P.L. 100-12) in effect at the time construction is completed. Finally, qualified homes must be constructed such that building envelope components contribute at least 1/5 of the 50 percent in required energy consumption reduction. Manufactured homes must meet the requirements above, but must have an annual energy consumption that is at least 30 percent below that of a comparable dwelling unit. For manufactured homes, at least 1/3 of the reduction must come from building envelope components. Alternatively, Energy Star labeled homes may qualify for the tax credit.

The energy-efficient new homes tax credit is part of the general business credit. It may be carried back for one year and carried forward for 20 years.

The tax credit is not available for energy-efficient new homes acquired after December 31, 2017.

Impact

For the 2013 filing year, the credit for energy efficient new homes was claimed on 40,256 corporate income tax returns. About 77 percent of filers claiming the credit were in the construction sector. About 7 percent of filers were in the manufacturing sector. The remaining credits were claimed by firms classified as being in other economic sectors.

The credit reduces the cost of building or manufacturing energy efficient new homes. To the extent that the credit is passed forward to consumers, it could reduce the cost of this type of home. The credit is small, however, relative to the total cost of most new homes.

Rationale

The tax credit for energy-efficient new homes is designed to encourage contractors building new homes and manufacturers of homes to install energy efficient technologies in new homes. Generally, it is less expensive to install energy-efficient components in new residences than to retrofit existing property to incorporate energy-efficient upgrades.

The tax credit for energy-efficient new homes was introduced under the Energy Policy Act of 2005 (P.L. 109-58). Initially, the credit was set to expire at the end of 2007. The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the credit through December 31, 2008. The Emergency

Economic Stabilization Act of 2009 (P.L. 110-343) extended the deadline for claiming the credit through December 31, 2009. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312) extended the deadline for claiming the credit through December 31, 2011 and the American Taxpayer Relief Act of 2012 (P.L.112-240) extended the deadline through December 31, 2013 and adopted the 2006 International Energy Conservation Code. The Consolidated Appropriations Act, 2016 (P.L. 114-113) extended the deadline through December 31, 2016. The credit was extended through 2017 in the Bipartisan Budget Act of 2018 (P.L. 115-123).

Assessment

Oftentimes, tax incentives that promote specific types of investment are economically inefficient because they direct resources away from what would generally be their most productive use. Such interventions, however, may enhance economic efficiency if they address market failures.

There is a potential market failure in the market for energy-efficient new homes. Specifically, the potential market failure stems from the so-called principal-agent problem. In the case of a new home, builders make decisions regarding energy-efficient property. Since the builders are not the ultimate users of such property, and do not realize the energy savings associated with the property, they may not decide to incur the higher up-front costs typically associated with energy-efficient property. The problem is most likely to occur if the builder is not able to recoup the costs associated with energy-efficient installations when selling the home. It is not clear if market prices accurately reflect or capitalize the value of energy-efficient improvements. If energy efficiency is not accurately reflected in housing prices, builders may underinvest in efficiency. Over time, if market forces direct builders to build more energy efficient homes, the size of the principal-agent problem would diminish.

Selected Bibliography

Internal Revenue Service (IRS), Statistics of Income (SOI), 2013 Corporate Complete Report.

Murtishaw, Scott, and Jayant Sathaye. *Quantifying the Effect of the Principal-Agent Problem on U.S. Residential Energy Use*. Energy Analysis Department, Lawrence Berkeley National Laboratory. LBNL-59773. August 12, 2006.

Sherlock, Molly F., Donald J. Marples, and Margot Crandall-Hollick. *Energy Tax Provisions that Expired in 2017 ("Tax Extenders")*. Library of

Congress, Congressional Research Service Report R44990. Washington, DC: March 8, 2018.

CREDIT FOR INVESTMENT IN ADVANCED ENERGY PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	0.1	0.1
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 48C.

Description

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) established a 30 percent tax credit for qualified investments in advanced energy property. A total of $2.3 billion was allocated for advanced energy property investment tax credits. The tax credits were competitively awarded by the Department of Energy (DOE) and the Department of the Treasury.

Advanced energy projects that may qualify for the tax credit include those that re-equip, expand, or establish eligible manufacturing facilities. Facilities that produce the following types of property may qualify: (1) property designed to produce energy using a renewable resource (i.e., solar, wind, geothermal); (2) fuel cells, microturbines, or energy storage systems for use with electric or hybrid-electric vehicles; (3) advanced transmission technologies that support renewable generation (including storage); (4) carbon

capture and sequestration property; (5) property designed to refine or blend renewable fuels; (6) energy conservation technologies (i.e., energy-saving lighting or smart grid technologies); (7) plug-in electric vehicles and components; and (8) other advanced energy property designed to reduce greenhouse gas emissions.

Applications for the advanced energy manufacturing tax credit were accepted beginning August 14, 2009. It was required that final applications for the first allocation round be submitted by October 16, 2009. All available credits ($2.3 billion) were allocated in this first allocation round. In February 2013, the IRS announced that $150 million in credits were available for reallocation. Letters allocating the credits were mailed November 15, 2013.

Applications were evaluated jointly by the DOE and the Department of the Treasury. Projects were selected based on their commercial viability, potential for domestic job creation, net reduction in air pollution or greenhouse gas emissions, potential for technological innovation and commercial deployment, levelized cost for energy generation, storage, or conservation, and the project's expected time span.

Generally, the tax credit is awarded when a project is placed in service. For multi-year projects, taxpayers may claim credits based on the project's progress expenditures. All projects must be completed within four years of tax credit acceptance. Taxpayers receiving a credit under section 48C cannot claim the energy investment tax credit (ITC) (discussed elsewhere in this compendium). As of August 24, 2016, the IRS had awarded nearly $2.3 billion in tax credits to 139 recipients.

The credits can be carried forward for 20 years if the taxpayer does not have sufficient tax liability to use the credits.

Impact

The tax credits were designed to address the U.S. position in the global advanced energy manufacturing marketplace. As of 2008, the U.S. had 16 percent of global wind manufacturing capacity, 6 percent of global solar manufacturing capacity, and less than 1 percent of global battery manufacturing capacity. As a result, the domestically produced content of installed renewable generation facilities was relatively low.

On January 8, 2010, it was announced that 183 projects across 43 states had been selected to receive advanced energy manufacturing tax credits. In total, there were applications for $10.9 billion in credits. The DOE and IRS

determined that of these applications, $8.1 billion of the funds requested were for eligible projects. The projects receiving the $2.3 billion in tax credits awarded were selected using the criteria outlined above. The projects awarded tax credits under section 48C were expected to generate 17,000 jobs. As noted above, as of August 24, 2016, the IRS had awarded nearly $2.3 billion in tax credits to 139 recipients.

Rationale

The advanced energy manufacturing tax credit was established under the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). The purpose of the tax credit was to promote the domestic green energy manufacturing sector with a focus on domestic job creation.

Assessment

As is the case with any investment tax credit, the effectiveness of the tax credit depends on how much additional investment was caused by the tax credit. Taxpayers that already had planned, but not yet started, renewable energy manufacturing projects may have been awarded tax credits, even if their projects would have moved forward without the tax incentive. Under this scenario, the tax credit represents a windfall benefit to the taxpayer and does not induce any additional installation of advanced energy manufacturing capacity.

Investment tax credits for advanced energy manufacturing projects reduce the cost of investment for qualifying projects, relative to other types of investment. Generally, investment subsidies that reallocate capital are economically inefficient, as such policies direct capital away from what would otherwise be its most productive use.

Tax credits for renewable energy manufacturing may be justified to the extent such incentives address environmental and energy security concerns. Specifically, traditional energy technologies generate negative externalities such as pollution. Thus, subsidizing clean energy alternatives could help reduce reliance on fossil energy resources, possibly mitigating these negative externalities. Subsidizing clean energy alternatives, however, is less economically efficient than directly taxing activities and energy sources that have negative environmental consequences.

Finally, the advanced energy manufacturing tax credit could be relatively ineffective because it was enacted on a temporary basis. While temporary investment tax incentives may cause firms to act quickly to make investments

within the credit window, it can also lead to investment uncertainty. Firms that did not receive a tax credit allocation in the first round may put off projects, while other firms may wait before undertaking advanced energy manufacturing projects to see if additional tax credits will become available.

Selected Bibliography

Congressional Budget Office, *Federal Financial Support for the Development and Production of Fuels and Energy Technologies*, March 2012.

Hasset, Kevin A. and R. Glenn Hubbard. "Tax Policy and Business Investment." In *Handbook of Public Economics, Volume 3*, ed. Alan J. Auerbach and Martin Feldstein, pp. 1293-1343. New York: Elsevier Science. 2002.

Hungerford, Thomas L. and Jane G. Gravelle. *Business Investment and Employment Tax Incentives to Stimulate the Economy*. Library of Congress, Congressional Research Service Report R41034. Washington, DC, July 21, 2010.

Internal Revenue Service, "Qualifying Advanced Energy Project Credit," IRS Notice 2013-12, available at https://www.irs.gov/businesses/qualifying-advanced-energy-project-credit-section-48c.

Internal Revenue Service, *Qualifying Advanced Energy Project Credit (section 48C)*, available at https://www.irs.gov/businesses/qualifying-advanced-energy-project-credit-section-48c.

Metcalf, Gilbert M. "Investment in Energy Infrastructure and the Tax Code." In *Tax Policy and the Economy, Vol 24,* ed. Jeffery R. Brown, pp. 1-33. The University of Chicago Press. 2010.

Sherlock, Molly F. *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures*. Library of Congress, Congressional Research Service Report R41227. Washington, DC, May 2, 2011.

Sherlock, Molly F. and Steven Maguire. *Tax-Favored Financing for Renewable Energy Resources and Energy Efficiency*. Library of Congress, Congressional Research Service Report R41573. Washington, DC, January 10, 2011.

Sherlock, Molly F. and Jeff Stupak. *Energy Tax Policy: Issues in the 114th Congress*. Library of Congress, Congressional Research Service Report R43206. Washington, DC: June 15, 2016.

The White House. Office of the Press Secretary, "President Obama Awards $2.3 Billion for New Clean-Tech Manufacturing Jobs," press release, January 8, 2010.

U.S. Congress. Senate Finance Committee. *Statement of Henry Kelly Principal Deputy Assistant Secretary, Office of Energy Efficiency and Renewable Energy U.S. Department of Energy*. Hearing on Clean Technology Manufacturing Competitiveness: The Role of Tax Incentives, May 20, 2010.

U.S. Department of Energy: Energy Efficiency & Renewable Energy. *2009 Wind Technologies Report*. August 2010.

Wilson, Jonathan B. "Federal Tax Credits and Incentives for Renewable Energy Investments," *Infrastructure*, vol. 49, no. 2 (Winter, 2010), http://apps.americanbar.org/abastore/products/books/abstracts/5410036%20chapter%201_abs.pdf.

SPECIAL RULE TO IMPLEMENT ELECTRIC TRANSMISSION RESTRUCTURING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	([1])	([1])
2019	-	([1])	([1])
2020	-	([1])	([1])
2021	-	([1])	([1])
2022	-	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 451(i).

Description

Typically, gains from the sale of a capital asset are recognized in the tax year in which the gain is realized. Section 451(i) provides a deferral for certain gains from qualifying electric transmission transactions undertaken to implement Federal Energy Regulatory Commission (FERC) or State Electric Restructuring policy. Specifically, taxpayers may elect to recognize gain from qualified electric transmission transactions ratably over an eight-year period if the amount realized from the sale is used to purchase exempt utility property within four years. A qualifying electric transmission transaction is a sale or other disposition to an independent transmission company of property used in the trade or business of providing electric transmission services (or any stock or partnership interest in an entity providing such services). Qualifying sales must have occurred before January 1, 2008, or before January 1, 2018, in the case of a qualified electric utility (a utility that is vertically integrated on the electric transmission transaction date).

Impact

The recognition of gain over eight years, rather than in the year of sale, is a deferral, rather than a complete forgiveness, of tax liability. The economic benefit derives from the reduction in the present value of tax owed below what the tax would otherwise be if it were required to be recognized in the year of sale.

Rationale

The incentive was introduced as part of the energy tax provisions in comprehensive energy legislation; it was enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357). The Energy Policy Act of 2005 (P.L. 109-58) extended deferral treatment from December 31, 2006, to December 31, 2007. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the provisions through December 31, 2009. The provision was extended through December 31, 2011 as part of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312), and through December 31, 2013, as part of the American Taxpayer Relief Act of 2012 (P.L. 112-240). The provision was extended through December 31, 2014, as part of the Tax Increase Prevention Act of 2014 (P.L. 113-295), through December 31, 2016, as part of the Consolidated Appropriations Act, 2016 (P.L. 114-113), and through December 31, 2017, as part of the Bipartisan Budget Act of 2018 (P.L. 115-123).

Assessment

The deferral of gain on the sale of transmission assets was enacted to encourage energy transmission infrastructure reinvestment and assist those in the industry who are restructuring. It is intended to foster a more competitive industry by facilitating the unbundling of transmission assets held by vertically integrated utilities. Under restructuring, states and Congress have considered rules requiring the separate ownership of generation, distribution, and transmission assets. However, vertically integrated electric utilities still own transmission infrastructure. The tax provision encourages the sale of transmission assets by vertically integrated electric utilities—the unbundling of electricity assets—to independent system operators or regional transmission organizations, who would own and operate the transmission lines. The provision is intended to improve transmission management and service, and facilitate the formation of competitive electricity markets. Without this incentive, any gain from the forced sale of transmission assets, pursuant to a

FERC (or other regulatory body) restructuring policy would be taxed in the year of sale.

The restructuring of the electric power industry has resulted in reorganization of power assets. In particular, it may result in the disposition of transmission assets. Depending on the nature of the transaction, restructuring could result in an income tax liability. This provision reduces the cost of engaging in certain transmission restructuring transactions, and is consistent with policies that encourage unbundled ownership for electric power assets related to generation, transmission, and distribution. Reducing the effective tax rate on transactions involving electric transmission assets could encourage more of these transactions than would otherwise occur.

Selected Bibliography

Borenstein, Severin and James Bushnell. "The US Electricity Industry After 20 Years of Restructuring." *Annual Review of Economics*, v. 7, August 2015, pp. 437-463.

Campbell, Richard J. *Electricity Markets—Recent Issues in Market Structure and Energy Trading*. Congressional Research Service Report R43093. Washington, DC: March 21, 2016.

Campbell, Richard J. *Regulatory Incentives for Electricity Transmission—Issues and Cost Concerns*. Congressional Research Service Report R42068. Washington, DC: October 28, 2011.

Boyce, John R. and Aidan Hollis. "Governance of Electricity Transmission Systems." *Energy Economics,* v. 27, March 2005.

Griffin, James M. and Steven L. Puller, eds., *Electricity Deregulation: Choices and Challenges* (University of Chicago Press, 2005).

Joskow, Paul L. "Competitive Electricity Markets and Investment in New Generating Capacity." *MIT Research Paper,* April, 28, 2006.

U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 108th Congress*. JCS-5-05. May 2005.

Vogelsang, Ingo. "Electricity Transmission Pricing and Performance-Based Regulation." *Energy Journal*, v. 27, 2006, pp. 97-127.

Natural Resources and Environment

SPECIAL TAX RATE FOR NUCLEAR DECOMMISSIONING RESERVE FUND

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.1	0.1
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Authorization

Section 468A.

Description

Taxpayers who are responsible for the costs of decommissioning nuclear power plants (e.g., utilities) can elect to create reserve funds to be used to pay for decommissioning. The funds receive special tax treatment: amounts contributed to a reserve fund are deductible in the year made and are not included in the taxpayer's gross income until the year they are distributed, thus effectively postponing tax on the contributed amounts. Amounts actually spent on decommissioning are deductible in the year they are made. The fund's investment earnings, however, are subject to a 20 percent tax rate—a lower rate than that which applies to most other corporate income. The amount that can be contributed to an account is the amount the Internal Revenue Service (IRS) determines would provide funding for the actual decommissioning costs when they occur.

Impact

As noted above, amounts contributed to a qualified fund are deductible in the year contributed but are taxed when withdrawn to pay for decommissioning costs. By itself, such treatment would constitute a tax deferral. However, full taxation of the investment earnings of the tax-deferred funds would offset any benefit from the deferral. Accordingly, taken alone, only current law's reduced tax rate poses a tax benefit.

The likely economic effect of the reduced rates is to encourage outlays on nuclear decommissioning because the tax-saving funds are contingent on making such outlays. At the same time, however, to the extent that decommissioning costs are required by government regulations to be incurred with or without the special tax treatment, the reduced rates pose an incentive to invest in nuclear power plants. The benefit of the favorable tax treatment likely accrues to owners of electric utilities that use nuclear power and to consumers of the electricity they produce.

Rationale

The special decommissioning funds were first enacted by the Deficit Reduction Act of 1984 (P.L. 98-369), but the funds' investment earnings were initially subject to tax at the highest corporate tax rate (46 percent at the time). The funds were established because Congress believed that the establishment of segregated reserve funds was a matter of "national importance." At the same time, however, Congress "did not intend that this deduction should lower the taxes paid by the owners...in present value terms," and thus imposed full corporate taxes on funds' investment earnings.

The reduced tax rate was enacted by the Energy Policy Act of 1992 (P.L. 102-486). The rate was reduced to provide "a greater source of funds" for decommissioning expenses. Congress in 2000 approved a measure that would eliminate the "cost of service" limitation on contributions to funds (leaving intact, however, the limit posed by the IRS determination). The Energy Tax Incentives Act of 2005 (P.L. 109-58) modified the rules on the contribution limits to allow larger deductible contributions to a decommissioning fund.

Assessment

As noted above, the reduced tax rates may provide a tax benefit linked with amounts contributed to qualified funds. The impact of the resulting tax benefit on economic efficiency depends in part on the effect of non-tax regulations governing decommissioning. Nuclear power plants that are not

appropriately decommissioned might impose external pollution costs on the economy that are not reflected in the market price of nuclear energy. To the extent government regulations require plants to be shut down in a manner that eliminates pollution, this "market failure" may already be corrected and any tax benefit is redundant. To the extent regulations do not require effective decommissioning, the tax benefit may abet economic efficiency by encouraging decommissioning outlays. The equity effect of the tax benefit is distinct from regulatory fixes of pollution. It is likely that decommissioning costs required by regulation are borne by utility owners and consumers of nuclear energy. The tax benefit probably shifts a part of this burden to taxpayers in general. Note also, however, that the reduced rates may simply compensate for the delayed deduction of decommissioning costs.

Selected Bibliography

Holt, Mark. *Nuclear Energy Policy,* Library of Congress, Congressional Research Service Report RL33558, October 15, 2014.

Khurana, Inder K., Richard H. Pettway, and K.K. Raman. "The Liability Equivalence of Unfunded Nuclear Decommissioning Costs," *Journal of Accounting and Public Policy*, vol. 20, no. 2, Summer 2001.

U.S. Congress, Joint Committee on Taxation. *Federal Tax Issues Relating to Restructuring of the Electric Power Industry,* Joint Committee Print, 106th Congress, 1st session, Washington, DC: Government Printing Office, October 15, 1999, pp. 39-43.

— . *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, Joint Committee Print, 98th Congress, 2nd session. Washington, DC: Government Printing Office.

— . *General Explanation of Tax Legislation Enacted in the 109th Congress*. Joint Committee Print, 109th Congress, 2nd Session, Washington, DC: Government Printing Office, 2007, pp. 32-35.

U.S. General Accounting Office, *Nuclear Regulation: NRC Needs More Effective Analysis to Ensure Accumulation of Funds to Decommission Nuclear Power Plants,* GAO-04-32, October 2003.

Zimmerman, Raymond A. and Jeri Farrow. "Decommissioning Funds: Snagged on Tax Law?" *Public Utilities Fortnightly,* vol. 139, April 1, 2001, p. 34.

SPECIAL DEPRECIATION ALLOWANCE FOR CERTAIN REUSE AND RECYCLING PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 168.

Description

Certain reuse and recycling property is eligible for a special depreciation allowance that allows 50 percent of the cost to be expensed when incurred. The remainder is depreciated based on the regular class life. To qualify, the property must be machinery and equipment (not including buildings but including software necessary to operate the equipment) and used exclusively to collect, distribute, or recycle qualified reuse and recyclable materials. Recycling equipment includes property used for sorting. It does not include rolling stock or other equipment used to transport reuse and recyclable materials. Reuse and recyclable material means scrap plastic, scrap glass, scrap textiles, scrap rubber, scrap packaging, recovered fiber, scrap ferrous and nonferrous metals, or electronic scrap generated by an individual or business. Electronic scrap includes cathode ray tubes, flat panel screens or similar video display devices with a screen size greater than four inches measured diagonally, or central processing units. Property must have a useful life of at least five years. The provision applies to property placed into service

(or with construction begun in the case of self-constructed property) after August 31, 2008.

A temporary provision enacted in the 2017 tax revision, P.L. 119-17, popularly referred to as the Tax Cuts and Jobs Act, allows expensing for equipment through 2022, with that percentage reduced 20 percent per year starting in 2023. During the period of full expensing and during part of the phase-out, the special depreciation allowance for reuse and recycling property will not be beneficial compared to the general treatment of equipment.

Impact

Allowing half the cost to be expensed when incurred provides a benefit because a tax deduction today is worth more than a tax deduction in the future, due to the time value of money (interest). Expensing produces the same reduction in effective tax rate regardless of the durability of the asset as long as current depreciation reflects economic decline and thus is neutral. The effective tax rate is $u(1-x)/(1-ux)$, where x is the share expensed and u is the statutory tax rate. In the case of 50 percent expensing and a 35 percent tax rate the effective tax rate falls by 40 percent, to an effective 21 percent rate. Since most equipment assets are estimated to have depreciation more generous than economic depreciation, both beginning and effective tax rates are lower and the reduction is proportionally less. The deduction will not provide a benefit during the period when expensing or partial expensing is allowed, relative to the treatment of equipment in general.

Although they produce a relatively neutral reduction in the tax rate, reductions in tax burden reduce the cost of operating proportionally more for long-lived assets, because the rate of return is a more important part of the "user cost" or "rental price" for more durable facilities. The investment must earn enough to cover the return to capital, taxes, and the depreciation of the asset. One way to express this difference is in the rental price (or payment that would be required to rent an asset). It is closely related to an equivalent reduction in acquisition cost. For example, for five-year assets, the present value of depreciating the asset at a 5 percent real rate of return and a 2 percent inflation rate is 87 cents for each dollar of cost. Allowing half of the cost to be deducted immediately (with a value of $1) at a 35 percent tax rate would be the equivalent of a 2.3 percent reduction in acquisition cost. For seven-year property, the most common depreciation class for equipment, the present value is 83 cents for each dollar of investment and the expensing is equivalent to a 3 percent reduction in cost. Thus, the reduction in overall cost of recycling

(which also requires labor and material as well as the use of capital) is relatively small due to this provision.

Rationale

The recycling provision was adopted by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) which included a number of provisions relating to energy conservation. Although no specific rationale was provided, stand-alone bills introduced to provide this benefit referred to the energy savings from recycling.

Assessment

In the absence of external effects, it is efficient for investments to face the same effective tax rate. Subsidies to recycling would be justified if recycling reduces external effects such as pollution. Initial concerns about land use that were originally used to justify recycling have now been supplanted largely by benefits for energy use and pollution from recycling. While there was an initial debate about whether recycling was not only cost effective, but whether it actually reduced energy consumption, studies have indicated that it does. Energy saving is, however, greater for some commodities than others (e.g., aluminum as opposed to glass).

Another justification for subsidies to recycling is that many of the industries that produce virgin materials are eligible for tax subsidies as well (paper and mining). An alternative policy would be to reduce those existing subsidies rather than grant new ones for recycling. Certain industries (e.g., aluminum) also benefit from inexpensive hydroelectric power.

If a subsidy is justified for reuse and recycling property, it is not clear that a tax subsidy is the best alternative. Recycling issues are largely in the domain of local governments, and the cost effectiveness depends on many other factors (such as population density). Local governments have alternative methods of addressing recycling, such as requiring recycling and, in some cases, imposing taxes on trash by quantity (although the evidence does not suggest the latter approach is very successful). At the same time, some of the pollution effects of using energy are national (or even global). Providing a federal subsidy to lower costs might induce more localities to be involved in recycling. The subsidies should result in a greater demand and higher price for scrap. However, for communities already involved in recycling, these benefits would appear in lower costs for trash collection overall, with no specific incentive for recycling.

Selected Bibliography

Clement, Douglas. "Recycling: Righteous or Rubbish," *Fedgazette*. Federal Reserve Bank of Minneapolis, March 1, 2005.

Fullerton, Don and Thomas C. Kinaman. "Household Responses to Pricing Garbage by the Bag," *American Economic Review,* vol. 86, September 1996, pp. 971-984.

Hutchinson, Alex. "Is Recycling Worth It?" *Popular Mechanics,* December 1, 2008.

Kaffine, Daniel T. "Scrap Prices, Waste, and Recycling Policy," *Land Economics*, vol. 90, no. 1, February 2014, pp. 169-80.

National Recycling Coalition, Inc. *U.S. Recycling Economic Information Study,* July 2001, http://www.epa.gov/osw/conserve/rrr/rmd/rei-rw/pdf/n_report.pdf.

"The Truth About Recycling," *The Economist*, June 9, 2007.

United States Environmental Protection Agency. Advancing Sustainable Materials Management: 2016 Recycling Economic Information (REI) Report, October 2016, https://www.epa.gov/sites/production/files/2017-05/documents/final_2016_rei_report.pdf

EXPENSING OF TIMBER-GROWING COSTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	0.3	0.3
2019	([1])	0.3	0.3
2020	([1])	0.3	0.3
2021	([1])	0.3	0.3
2022	([1])	0.3	0.3

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 263A(c)(5).

Description

Under Section 263A(c)(5), most of the production costs of growing timber may be expensed (fully deducted in the year incurred). Production costs include indirect carrying costs, such as interest and property taxes, as well as direct costs, such as disease and pest control and clearing brush. Most other industries follow the uniform capitalization rules, under which production costs are capitalized (added to the basis), recovered through depreciation, and deducted when the product is sold.

Impact

Being able to expense production costs rather than capitalize them accelerates cost recovery. The time-value of taxes saved in earlier years lowers the average effective tax rate on timber-growing, calculated over the multi-year production period for timber. Most of the tax benefit goes to corporations, and is thereby likely to mostly benefit higher-income individuals.

Rationale

Permitting the costs of timber-growing to be expensed was apparently part of a general perception that these were maintenance costs, and thus deductible as ordinary costs of a trade or business. A series of revenue rulings and court cases over the years distinguished between which expenses could be deducted and which expenses had to be capitalized (for example, I. T. 1610 in 1923, an income tax unit ruling; Mim. 6030 in 1946, a mimeographed letter ruling; Revenue Ruling 55-412 in 1955; and Revenue Ruling 66-18 in 1966).

The Tax Reform Act of 1986 (P.L. 99-514) included uniform capitalization rules which required production expenses to be capitalized in most cases. Timber was among the few categories of property excepted from these rules. No specific reason was given for exempting timber, but the general reason given for exceptions to the uniform capitalization rules was that they were cases where its application "might be unduly burdensome." Although the 1986 act repealed the 10-percent investment tax credit for most property placed in service after 1985, it retained the credit for expenditures that qualify for 84-month amortization, which includes reforestation expenditures.

Assessment

Supporters of the tax subsidy argue that timber-growing provides benefits to society in general, such as an improved environment, recreational opportunities, and natural vistas (economists call these positive externalities). Because private investors are not compensated for these external benefits, they would tend to invest less in timber-growing and reforestation than may be socially desirable. A tax subsidy may encourage increased forestry investment. Still, some argue that the tax-incentive approach should be compared with alternatives such as direct subsidies or direct ownership of timber lands by the government.

Selected Bibliography

Society of American Foresters, Study Group on Forest Taxation. "Forest Taxation," *Journal of Forestry*, vol. 78, July 1980, pp. 1-7.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986*, May 4, 1987, pp. 508-509.

—, Joint Economic Committee. "The Federal Tax Subsidy of the Timber Industry," by Emil Sunley, in *The Economics of Federal Subsidy Programs*, 92nd Congress, 2nd session, July 15, 1972.

U.S. Department of Agriculture, Forest Service. *Tax Tips for Forest Landowners for the 2017 Tax Year*, FS-1101, Washington, DC, November 2017.

—. *Forest Landowner's Guide to the Federal Income Tax*, Agriculture Handbook No. 731, Washington, DC, U.S. Government Printing Office, February 2013.

—. *Federal Income Tax on Timber: A Quick Guide for Woodland Owners*, FS-1007, Washington, DC, U.S. Department of Agriculture, October 2012.

U.S. Department of the Treasury. *Special Expensing and Amortization Rules* in *Tax Reform for Fairness, Simplicity, and Economic Growth*, vol. 2, Nov. 1984, pp. 299-313.

U.S. General Accounting Office. *Selected Tax Provisions Affecting the Hard Minerals Mining and Timber Industries*, Fact Sheet for the Honorable John Melcher, United States Senate, June 1987.

EXCLUSION OF EARNINGS OF CERTAIN ENVIRONMENTAL SETTLEMENT FUNDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	([1])	([1])
2019	-	([1])	([1])
2020	-	([1])	([1])
2021	-	([1])	([1])
2022	-	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 468B.

Description

The cleanup of hazardous waste sites under the Superfund program sometimes is paid for out of environmental settlement funds, which serve the same purpose as escrow accounts. These funds arise out of consent decrees involving the Environmental Protection Agency (EPA) and parties held responsible for the site contamination. The consent decrees are issued by federal district courts. The EPA uses the funds in the accounts to resolve claims against responsible parties under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA, P.L. 96-510).

An environmental settlement fund will be exempt from taxation if the following conditions are satisfied: (1) it is established by a court order; (2) it is created to receive settlement payments as directed by a government entity for the sole purpose of resolving and satisfying one or more liability claims brought under CERCLA; (3) a government entity has the authority and control

over the expenditure of the fund; and (4) any remaining funds at termination will be disbursed to the government entity.

Impact

The tax expenditure tied to the provision lies in the fund income that escapes taxation. In effect, the provision lowers the after-tax cost to a taxpayer of reaching a settlement with the EPA to clean up hazardous waste sites identified through the Superfund program.

Rationale

The provision entered the tax code through the Tax Increase Prevention and Reconciliation Act of 2005 (P.L. 109-222). Proponents said it was needed to clarify the tax status of income earned by an environmental escrow account and to give parties deemed responsible for hazardous waste sites an incentive to enter promptly into an agreement with the EPA over cleaning up those sites. The funds in such an account are used to pay for the cost of cleanup operations. Further, because these environmental settlement funds are controlled by the government, and upon termination, any remaining balance belongs to the government, it was believed to be appropriate to treat funds as being beneficially owned by the United States, and thus not subject to tax.

When first enacted, the provision did not apply to accounts or funds established after December 31, 2010. The provision was later made permanent in the Tax Relief and Health Care Act of 2006 (P.L. 109-432).

Assessment

Many would agree that it is in the public interest for the parties responsible for hazardous waste sites to act quickly to clean up the sites at their own expense. The provision is intended to promote such a result. It is unclear, however, to what extent this provision has aided or expedited the cleanup of Superfund hazardous waste sites. Responsible parties end up paying for the cleanup of most of these sites. In cases where the EPA cannot locate responsible parties, the EPA may draw on funds in the Superfund trust fund to pay for cleanup. The provision may remove a barrier to increasing the proportion of contaminated sites cleaned up by responsible parties. If this proportion were to rise, less federal money might be needed to do the cleanup.

Selected Bibliography

Bearden, David M. *Comprehensive Environmental Response, Compensation, and Liability Act: A Summary of Superfund Cleanup Authorities and Related Provisions of the Act*. Congressional Research Service Report R41039. Washington, DC: June 14, 2012.

Jonathan L. Ramseur. *Superfund: Implementation and Selected Issues*. Congressional Research Service Report RL33426. Washington, DC: November 26, 2007.

U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 109th Congress*. Joint Committee Print JCS-1-07. Washington, DC: 2007, pp. 269-270.

U.S. Government Accountability Office. *Superfund: Funding and Reported Costs of Enforcement and Administration*. GAO-08-841R. Washington, DC: July 18, 2008.

EXCESS OF PERCENTAGE OVER COST DEPLETION, NONFUEL MINERALS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 611, 612, 613, and 291.

Description

Firms that extract minerals, ores, and metals from mines are permitted a deduction to recover their capital investment, which depreciates due to the physical and economic depletion of the reserve as the mineral is recovered (section 611).

There are two methods of calculating this deduction: cost depletion and percentage depletion. Cost depletion allows for the recovery of the actual capital investment—the costs of discovering, purchasing, and developing a mineral reserve—over the period during which the reserve produces income. Each year, the taxpayer deducts a portion of the adjusted basis (original capital investment less previous deductions) equal to the fraction of the estimated remaining recoverable reserves that have been extracted and sold. Under this method, the total deductions cannot exceed the original capital investment.

Under percentage depletion, the deduction for recovery of capital investment is a fixed percentage of the "gross income"—i.e., sales revenue — from the sale of the mineral. Under this method, total deductions typically exceed the capital invested.

Section 613 states that mineral producers must claim the higher of cost or percentage depletion. The percentage depletion allowance is available for many types of minerals, at rates ranging from 5 percent (for clay, sand, gravel, stone, etc.) to 22 percent (for sulphur, uranium, asbestos, lead, etc.).

Metal mines generally qualify for a 14-percent depletion, except for gold, silver, copper, and iron ore, which qualify for a 15-percent depletion. The percentage depletion rate for foreign mines is generally 14 percent.

Percentage depletion is limited to 50 percent of the taxable income from the property. For corporate taxpayers, section 291 reduces the percentage depletion allowance for iron ore by 20 percent. Allowances in excess of cost basis are treated as a preference item and taxed under the alternative minimum tax.

Impact

Historically, depletion allowances and other tax benefits reduced effective tax rates in the minerals industries below tax rates in other industries, providing incentives to increase investment, exploration, and output, especially for oil and gas. It is possible for cumulative depletion allowances to total many times the amount of the original investment.

Most analyses of percentage depletion have focused on the oil and gas industry, which—before the 1975 repeal of percentage depletion for major oil companies—accounted for the bulk of percentage depletion. There has been relatively little analysis of the effect of percentage depletion on other industries. The relative value of the percentage depletion allowance in reducing the effective tax rate of mineral producers is dependent on a number of factors, including the statutory percentage depletion rate, income tax rates, and the effect of the net income limitation.

Rationale

Provisions for a depletion allowance based on the value of the mine were made under a 1912 Treasury Department regulation (T.D. 1742), but this was never effectuated.

A court case resulted in the enactment, as part of the Tariff Act of 1913, of a "reasonable allowance for depletion" not to exceed 5 percent of the value of output. This statute did not limit total deductions; Treasury regulation No. 33 limited total deductions to the original capital investment.

This system was in effect from 1913 to 1918, although in the Revenue Act of 1916 (P.L. 64-271) depletion was restricted to no more than the total value of output, and, in the aggregate, to no more than capital originally invested or fair market value on March 1, 1913 (the latter so that appreciation occurring before enactment of income taxes would not be taxed).

On the grounds that the newer mineral discoveries that contributed to the war effort were treated less favorably, discovery value depletion was enacted in the Revenue Act of 1918 (P.L. 65-254). Discovery depletion, which was in effect through 1926, allowed deductions in excess of capital investment because it was based on the market value of the deposit after discovery. In 1921, because of concern with the size of the allowances, discovery depletion was limited to net income; it was further limited to 50 percent of net income in 1924.

For oil and gas, discovery value depletion was replaced in the Revenue Act of 1926 (P.L. 69-20) by the percentage depletion allowance, at the rate of 27.5 percent. This was due to the administrative complexity and arbitrariness, and due to its tendency to establish high discovery values, which tended to overstate depletion deductions.

For other minerals, discovery value depletion continued until 1932, at which time it was replaced by percentage depletion at the following rates: 23 percent for sulphur, 15 percent for metal mines, and 5 percent for coal.

From 1932 to 1950, percentage depletion was extended to most other minerals. In 1950, President Truman recommended a reduction in the top depletion rates to 15 percent, but Congress disagreed. The Revenue Act of 1951 (P.L. 82-183) raised the allowance for coal to 10 percent and granted it to more minerals.

In 1954, still more minerals were granted the allowance, and foreign mines were granted a lower rate. In 1969, the top depletion rates were reduced and the allowance was made subject to the minimum tax. The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) reduced the allowance for corporations that mined coal and iron ore by 15 percent. The Tax Reform Act

of 1986 (P.L. 99-514) raised the cutback in corporate allowances for coal and iron ore from 15 percent to 20 percent.

Assessment

Standard accounting and economic principles suggest that the appropriate method of capital recovery in the mineral industry is cost depletion adjusted for inflation. The percentage depletion allowance permits mineral producers to continue to claim a deduction even after all the investment costs of acquiring and developing the property have been recovered. Thus it is a mineral production subsidy rather than an investment subsidy. In cases where a taxpayer has obtained mining rights relatively inexpensively under the provisions of the Mining Law of 1872, it can be argued that such taxpayers should not be entitled to the additional benefits of the percentage depletion provisions. (The Mining Law of 1872 permits U.S. citizens and businesses to freely prospect for hard rock minerals on federal lands. If economically recoverable deposits are found, no federal rents or royalties are imposed on the sale of extracted minerals.)

As a production subsidy percentage depletion is economically inefficient, encouraging excessive development of existing properties rather than exploration of new ones. Although accelerated depreciation for non-mineral assets may lower effective tax rates by speeding up tax benefits, these assets cannot claim depreciation deductions in excess of investment.

Arguments have been made to justify percentage depletion on grounds of national security and to protect domestic producers. Other factors cited in favor of allowing percentage depletion include: unusual risks, price volatility, and the distortions in the corporate income tax. These factors are not typically thought to constitute market failures that can be mitigated through a subsidy, such as percentage depletion.

Percentage depletion may not be the most efficient way to increase mineral output. Percentage depletion may also have adverse environmental consequences, encouraging the use of raw materials rather than recycled substitutes.

Selected Bibliography

Anderson, Robert D., Alan S. Miller, and Richard D. Spiegelman. "U.S. Federal Tax Policy: The Evolution of Percentage Depletion for Minerals," *Resources Policy*, v. 3. September 1977, pp. 165-176.

Congressional Budget Office. Options for Reducing the Deficit: 2017 to 2026. Revenues—Option 28: Repeal Certain Tax Preferences for Energy and Natural Resource-Based Industries, December 8, 2016.

Conrad, Robert F. "Mining Taxation: A Numerical Introduction," *National Tax Journal*, v. 33. December 1980, pp. 443-449.

Crowson, Philip. *Inside Mining: The Economics of the Supply and Demand of Minerals and Metals*. London: Mining Journal Books, 1998.

Fenton, Edmund D. "Tax Reform Act of 1986: Changes in Hard Mineral Taxation," *Oil and Gas Tax Quarterly*, v. 36. September 1987, pp. 85-98.

Frazier, Jessica and Edmund D. Fenton. "The Interesting Beginnings of the Percentage Depletion Allowance," *Oil and Gas Tax Quarterly*, v. 38. June 1990, pp. 697-712.

Ward, Frank A. and Joe Kerkvliet. "Quantifying Exhaustible Resource Theory: An Application to Mineral Taxation Policy," *Resource and Energy Economics,* v. 15, June 1993, pp. 203-242.

U.S. Treasury Department. Internal Revenue Service. *Publication 535: Business Expenses,* March 16, 2018.

EXPENSING OF EXPLORATION AND DEVELOPMENT COSTS, NONFUEL MINERALS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 263, 291, 616-617, 56, 1254.

Description

Firms engaged in mining are permitted to expense (to deduct in the year paid or incurred) rather than capitalize (i.e., recover such costs through depletion or depreciation) certain exploration and development (E&D) costs. This provision is an exception to general tax rules.

In general, mining exploration costs are those (non-equipment) costs incurred to ascertain the existence, location, extent, or quality of any potentially commercial deposit of ore or other depletable mineral prior to the development stage of the mine or deposit.

Development costs generally are those incurred for the development of a mine or other natural deposits after the existence of ores in commercially marketable quantities has been determined. Development expenditures generally include those for construction of shafts and tunnels, and in some cases drilling and testing to obtain additional information for planning

operations. There are no limits on the current deductibility of such costs. Expensing of mine E&D costs may be taken in addition to percentage depletion, but it subsequently reduces percentage depletion deductions (i.e., is recaptured). The costs of tangible equipment must be depreciated.

Expensing of E&D costs applies only to domestic properties; E&D costs on foreign properties must be depreciated. The excess of expensing over the capitalized value (amortized over 10 years) is a tax preference item that is subject to the alternative minimum tax.

Impact

E&D costs for non-fuel minerals are not as large a portion of the costs of finding and developing a mineral reserve as is the case for oil and gas, where they typically account for over two-thirds of the costs of creating a mineral asset. Expensing of such costs is also less of a benefit than percentage depletion allowances.

Nevertheless, E&D costs are a capital expense which otherwise would be depleted over the income-producing life of the mineral reserve. Combined with other tax subsidies, such as percentage depletion, expensing reduces effective tax rates in the mineral industry below tax rates on other industries, thereby providing incentives to increase investment, exploration, and output. This cost reduction increases the supply of the mineral and reduces its price.

This tax expenditure is largely claimed by corporate producers. The at-risk, recapture, and minimum tax restrictions that have since been placed on the use of the provision have primarily limited the ability of high-income taxpayers to shelter their income from taxation through investment in mineral exploration.

Rationale

Expensing of mine development expenditures was enacted in the Revenue Act of 1951 (P.L. 82-183) to encourage mining and reduce ambiguity in its tax treatment. The provision for mine exploration was added in 1966.

Before the Tax Reform Act of 1969 (P.L. 91-172), a taxpayer could elect either to deduct without dollar limitation exploration expenditures in the United States (which subsequently reduced percentage depletion benefits), or to deduct up to $100,000 a year with a total not to exceed $400,000 of foreign and domestic exploration expenditures without recapture. The 1969 Act subjected all post-1969 exploration expenditures to recapture. The Tax Equity

and Fiscal Responsibility Act of 1982 (P.L. 97-248) added mineral exploration and development costs as tax preference items subject to the alternative minimum tax, and limited expensing for corporations to 85 percent. (The corporate alternative minimum tax has been repealed for taxable years after December 31, 2017.) The Tax Reform Act of 1986 (P.L. 99-514) required that all exploration and development expenditures on foreign properties be capitalized.

Assessment

E&D costs are generally recognized to be capital costs, which, according to standard economic principles, should be recovered through depletion (cost depletion adjusted for inflation).

Lease bonuses and other exploratory costs (survey costs, geological and geophysical costs) are properly treated as capital costs, although they may be recovered through percentage rather than cost depletion. Immediate expensing of E&D costs provides a tax subsidy for capital invested in the mineral industry with a relatively large subsidy for corporate producers.

By expensing rather than capitalizing these costs, the tax code effectively sets taxes on the return to such expenditures at zero. As a capital subsidy, however, expensing is inefficient because it makes investment decisions based on tax considerations rather than inherent economic considerations.

Arguments have been made over the years to justify expensing on the basis of unusual investment risks, the distortions in the corporate income tax, strategic materials and national security, and protection of domestic producers.

Expensing is a costly and inefficient way to increase mineral output. Expensing may also have adverse environmental consequences by encouraging the development of raw materials as opposed to recycled substitutes.

Selected Bibliography

Andrews-Speed, Philip, and Christopher Rogers. "Mining Taxation Issues for the Future." *Resources Policy*, v. 25, 1999, pp. 221-227.

Congressional Budget Office. Options for Reducing the Deficit: 2017 to 2026. Revenues—Option 28: *Repeal Certain Tax Preferences for Energy and Natural Resource–Based Industries*, December 2016.

Crowson, Philip. *Inside Mining: The Economics of the Supply and Demand of Minerals and Metals*. London: Mining Journal Books, 1998.

Lagos, Gustavo. "Mining Investment and Compensation—Mineral Taxation and Investment." *Natural Resources Forum,* v.17, August 1993.

Muzondo, Timothy R. "Mineral Taxation, Market Failure, and the Environment." *International Monetary Fund*. *Staff Papers*. International Monetary Fund, v.40, March 1993, Washington DC, pp. 152-178.

U.S. General Accounting Office. *Selected Tax Provisions Affecting the Hard Minerals Mining and Timber Industry*. GAO/GGD-87-77 FS, Washington, DC, June 1987.

Ward, Frank A., and Joe Kerkvliet. "Quantifying Exhaustible Resource Theory: An Application to Mineral Taxation Policy." *Resource and Energy Economics,* v. 15, June 1993, pp. 203-242.

Wilburn, D.R. "Exploration." *Mining Engineering,* v. 55, May 2003, pp. 30-43.

TREATMENT OF INCOME FROM EXPLORATION AND MINING OF NATURAL RESOURCES AS QUALIFYING INCOME UNDER THE PUBLICLY TRADED PARTNERSHIP RULES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	-	([1])
2019	([1])	-	([1])
2020	([1])	-	([1])
2021	([1])	-	([1])
2022	0.1	-	0.1

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 7704.

Description

Under section 7704, firms that publicly trade their interests on financial markets are treated as corporations for tax purposes, and are therefore subject to both the corporate and individual income tax. Corporate shareholders also pay taxes on capital gains and dividends. Publicly traded partnerships (PTPs) trade their interests on financial markets, much like corporate stock, but are exempt from the corporate income tax provided that 90 percent of their income is considered qualifying passive-type income according to section 7704. Qualifying income sources include gains from interest, dividends, real property rents, disposition of real property, and mining and natural resource activities. Activities related to mining and natural resources include the exploration, development, mining or production, processing, refining, transportation, storage, and marketing of any depletable mineral or natural resource. Active income from qualifying natural resource-related activities is

treated as qualifying income under section 7704. Qualifying income also includes income from the transportation and storage of certain renewable and alternative fuels, and activities involving industrial source carbon dioxide. The tax expenditures in the table above are for certain natural resource-related PTPs. Natural resource PTPs include those in the timber and other nonfuel mineral industries, for example. Energy-related PTPs are discussed elsewhere in this compendium.

Impact

Firms that organize as PTPs receive a number of benefits, including increased access to capital and a lower tax burden. By publicly trading their interests, PTPs have greater access to capital and may be able to secure capital at a lower cost than other firms that organize differently. Access to capital has the potential to stimulate investment and growth in the energy and natural resource sectors targeted within the definition of qualified income. The exemption from the corporate income tax also reduces a PTPs tax liability, which in turn can lead to increased profits and investment.

Rulings by the IRS, particularly in 2012 and 2013, spurred growth of firms organizing as PTPs. There were significant rulings supporting activities for hydraulic fracturing and the generation of real property rent. These decisions expanded which income streams could be considered as qualifying income under section 7704(d)(1)(e). Subsequent to these rulings, the number of PTPs has increased. This growth was not sustained, and there was a sharp decline in the number of PTP initial public offerings (IPOs) by 2016.

The 2017 tax revision (P.L. 115-97) reduced the corporate tax rate from 35% to 21%. This change decreased the attractiveness of partnerships' tax attributes relative to corporations.

Rationale

The Revenue Act of 1987 (P.L. 100-203) established the general tax rules that classify PTPs as corporations, in part to address concerns about erosion of the corporate tax base through the use of partnerships. Congress's concern was that growth in PTPs signified that activities, which would otherwise be conducted by corporations and subject to both corporate and shareholder-level taxation, were being done by PTPs purely for tax reasons and eroding the corporate tax base.

The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) clarified the definition of qualified income to include income from the transportation of oil and gas and from depletable natural resources. Income from the marketing of oil and gas to retail customers was excluded from qualified income. The American Jobs Creation Act of 2004 (P.L. 108-357) made additional changes which made PTPs more attractive for mutual funds to invest in, and may have increased the pool of capital able to invest in PTPs. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) then further expanded the definition of qualified income to include income or gains from the transport or storage of certain renewable and alternative fuels and from certain activities related to industrial source carbon dioxide.

Assessment

Before the 2017 tax revision (P.L. 115-97), pass-through business income generally faced lower tax rates than corporate income. Following the 2017 tax revision, it is less clear whether income in the corporate or non-corporate sector will face lower effective tax rates.

The fundamental issue, from a matter of tax policy, is whether some PTPs should be exempt from corporate level taxation, based upon the nature and type of their income. In general, Congress has enacted rules that limit the ability of untaxed entities to publicly trade their interests and/or restrict the entities' activities. Thus, the exemption of some PTPs from corporate level taxes may be seen as a departure from general congressional intent concerning passthrough entities. Others may argue that the industries targeted through the definition of qualified income have reason to be subsidized, and government policy should help spur investment and growth in the exploration and mining of natural resources.

Selected Bibliography

Cooper, Michael, John McClelland, James Pierce et al., "Business in the United States: Who Owns it and How Much Tax Do They Pay," *Tax Policy and the Economy*, National Bureau of Economic Research, vol. 30 (2016): 99-128.

Elliott, Amy, "PTPs Expand After Favorable IRS Rulings on Qualifying Income," *Tax Notes*, (September 2012): 1528.

Fields, Deborah, Holly Belanger, Robert Swiech, and Eric Lee, "Triangles in a World of Squares: A Primer on Significant U.S. Federal Income Tax Issues for Natural Resources Publicly Traded Partnerships," *Taxes–The Tax Magazine*, Commerce Clearing House, (December 2009): 21-34.

Gentry, William M., "Taxes, Financial Decisions and Organizational Form: Evidence from Publicly Traded Partnerships," *Journal of Public Economics,* vol. 53, no. 2, (1994): 223-244.

Internal Revenue Service, "Partnership's Income From Fracking Is Qualifying Income," *Department of the Treasury*, LTR 201322024, January, 2013.

Livingstone, Jane R. and Thomas C. Omer. "Publicly Traded Partnerships, Tax Cost, and Choice of Entity," *Tax Notes*, Special Report, (July 27, 2009): 365-378.

Marples, Donald J. *Taxation of Private Equity and Hedge Fund Partnerships: Characterization of Carried Interest*. Library of Congress, Congressional Research Service Report RS22717. Washington, DC: March 10, 2011.

Martin, John D. and John W. Kensinger, "Valuation Effects of Rollout Publicly Traded Partnerships in the Oil and Gas Industry," *Managerial and Decision Economics*, vol. 11, no. 3, (1990): 143-153.

Master Limited Partnership Association, "Master Limited Partnerships 101: Understanding MLPs," August 2017.

Schisler, Dan L. and James M. Lukawitz. "The Impact of the Omnibus Budget Reconciliation Act of 1987 on Shareholders of Publicly Traded Partnerships," *Advances in Taxation,* vol. 7, (1995): 141-159.

Sherlock, Molly and Mark Keightley. *Master Limited Partnerships: A Policy Option for the Renewable Energy Industry*, Library of Congress, Congressional Research Service Reports R41893. Washington, DC: June 28, 2011.

Thompson, Kristofer A., "Refining 'Qualifying Income' for Natural Resource Activities," *Tax Notes*, August 1, 2016.

U.S. Congress, House Committee on the Budget, *Omnibus Budget Reconciliation Act of 1987*, 100th Congress, 1st Session, October 26, 1987 (Washington, DC: GPO, 1987).

U.S. Congress, Joint Committee on Taxation, *Present Law and Analysis Relating to Tax Treatment of Partnership Carried Interest and Related Issues*, *Part I,* JCX-62-07, 110th Congress, 1st Session. (Washington, DC: GPO, 1987).

AMORTIZATION AND EXPENSING OF REFORESTATION EXPENSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	([1])	0.1
2019	0.1	([1])	0.1
2020	0.1	([1])	0.1
2021	0.1	([1])	0.1
2022	0.1	([1])	0.1

Authorization

Sections 194.

Description

Section 194(b) allows taxpayers to expense up to $10,000 per year ($5,000 if married filing separately) of reforestation costs per qualified timber property (QTP). Any excess amount, of more than the $10,000, without limit, may be deducted (amortized) over an 84-month period under Section 194(a); in the year of reforestation, the taxpayer can deduct one-fourteenth of the excess costs. In the second through seventh years, the taxpayer can deduct one-seventh of the excess costs, and in the eighth year, the taxpayer can deduct the final one-fourteenth.

This treatment has been available since October 23, 2004, and applies to all taxpayers, including trusts. The latter can amortize all eligible costs, not only those in excess of the annual $10,000 limit per QTP. To qualify, the costs in excess of the outright deduction limits must be capitalized in a separate reforestation account for each eligible QTP.

Reforestation expenses are direct costs incurred for reforestation by planting, artificial, or natural seeding. This includes costs for the preparation of the site, seeds or seedlings, labor and tools, tree planters, and similar machines and equipment used in seeding. Expenditures for timber stand improvement (TSI) practices in established stands do not qualify for either the deduction or amortization. In general, these expenses are incurred for maintenance of the stand, however, and thus are eligible for deduction as a current expense, subject to the passive loss rules. Alternatively, they may be capitalized and deducted when the timber is cut, sold, or disposed.

Impact

Being able to expense reforestation costs rather than capitalize them accelerates cost recovery. The time-value of taxes saved in earlier years lowers the average effective tax rate on reforestation, calculated over the multi-year production period for timber.

Rationale

Expensing of the first $10,000 of reforestation expenditures was introduced by the Recreational Boating Safety and Facilities Improvement Act of 1980 (P.L. 96-451). The expensing provision replaced an existing reforestation credit (Code Sec. 48). The change was made to simplify the treatment of reforestation costs. The basic purpose of the incentive was to encourage reforestation. The American Jobs Creation Act of 2004 (P.L. 108-357) provided for an election to claim the reforestation deduction effective in October 23, 2004. The 2004 act also granted taxpayers the ability to revoke an election made before the Act to treat the cutting of timber as a sale or exchange. The Gulf Opportunity Zone Act of 2005 (P.L. 109-135) temporarily raised the cap on the reforestation deduction from $10,000 to $20,000 for small timber producers for expenditures undertaken in the GO Zone through the end of 2007; taxpayers holding 500 or more acres of qualified timber property at any time during the taxable year were not eligible.

Assessment

Proponents of the tax subsidy also argue that timber-growing provides benefits to society in general, such as an improved environment, recreational opportunities, and natural vistas (economists call these positive externalities). Because private investors are not compensated for these external benefits, they would tend to invest less in timber-growing and reforestation than may be

socially desirable. A tax subsidy may encourage increased forestry investment. Still, some argue that the tax-incentive approach should be compared with alternatives such as direct subsidies or direct ownership of timber lands by the government. Economic analysis also indicates that the amendments to Section 194 enacted by P.L. 108-357 in 2004 provide the largest tax benefits to forest owners with high levels of non-timber income and large forest properties, and are least favorable to forest owners with small holdings. The tax savings from the $10,000 reforestation deduction and unlimited amortization provisions is greatest for owners in high marginal tax brackets.

Selected Bibliography

Bullard, Steven H. "Reforestation Timing Influences After-Tax Present Value of Costs," *Journal of Forestry*, vol. 83, September 1985, p. 561.

Straka, Thomas J., and John L. Greene. "Reforestation Tax Incentives Under the American Jobs Creation Act of 2004," Southern Journal of Applied Forestry, vol. 31, no. 1, February 2007, pp. 23-27.

U.S. Congress, House of Representatives. *Conference report 108-755 to accompany H.R. 4520, American Jobs Creation Act of 2004,* 108th Congress, 2nd session, October 7, 2004.

—, Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986,* May 4, 1987, pp. 508-509.

—, Joint Economic Committee. "The Federal Tax Subsidy of the Timber Industry," by Emil Sunley, in *The Economics of Federal Subsidy Programs*, 92nd Congress, 2nd session, July 15, 1972.

U.S. Department of Agriculture, Forest Service. *Tax Tips for Forest Landowners for the 2017 Tax Year*, FS-1101, Washington, DC, November 2017.

—. *Forest Landowner's Guide to the Federal Income Tax*, Agriculture Handbook No. 731, Washington, DC, U.S. Government Printing Office, February 2013.

—. *Federal Income Tax on Timber: A Quick Guide for Woodland Owners*, FS-1007, Washington, DC, U.S. Department of Agriculture, October 2012.

U.S. Department of the Treasury. *Special Expensing and Amortization Rules* in *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 2, Nov. 1984, pp. 299-313.

U.S. General Accounting Office. *Forest Service: Timber Harvesting, Planting, Assistance Programs and Tax Provisions*, Briefing Report to the Honorable Sander M. Levin, House of Representatives, April 1990.

SPECIAL RULES FOR MINING RECLAMATION RESERVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 468, 1274.

Description

Firms are generally not allowed to deduct a future service expense until "economic perfo8mance" occurs—that is, until the service they pay for is performed and the expense is actually paid. Electing taxpayers may, however, deduct the current-value equivalent of certain estimated future reclamation and closing costs for mining and solid waste disposal sites.

For federal income tax purposes, the amounts deducted before economic performance are deemed to earn interest at a specified interest rate. Upon election of Section 468, the taxpayer establishes a reserve account for the reclamation and closing costs of the mine or waste disposal site. In each year, the taxpayer may deduct the current year reclamation costs. In addition, the balance of the reserve is increased by an amount of interest computed under Section 1274. When the reclamation has been completed, any excess of the amounts deducted plus deemed accrued interest over the actual reclamation or closing costs is taxed as ordinary income.

Impact

Section 468 permits reclamation and closing costs to be deducted at the time of the mining or waste disposal activity that gives rise to the costs. Absent this provision, the costs would not be deductible until the reclamation or closing actually occurs and the costs are paid. Any excess amount deducted in advance (plus deemed accrued interest, as computed under Section 1274) is taxed at the time of reclamation or closing.

Rationale

This provision was introduced by the Deficit Reduction Act of 1984 (P.L. 98-369). Proponents argued that allowing current deduction of mine reclamation and similar expenses is necessary to encourage reclamation, and to prevent the adverse economic effect on mining companies that might result from applying the general tax rules regarding deduction of future costs.

Assessment

Reclamation and closing costs for mines and waste disposal sites that are not incurred concurrently with production from the facilities are capital expenditures. Unlike ordinary capital expenditures, however, these outlays are made at the end of an investment project rather than at the beginning.

Despite this difference, writing off these capital costs over the project life is appropriate from an economic perspective, paralleling depreciation of up-front capital costs. The tax code does not provide systematic recognition of such end-of-project capital costs. Hence they are treated under special provisions that provide exceptions to the normal rule of denying deduction until economic performance. Because the provisions align taxable income and economic incomes closer together, it is debatable whether the exceptions should be regarded as tax expenditures at all.

Selected Bibliography

Halperin, Daniel I. "Interest in Disguise: Taxing the 'Time Value of Money.'" *The Yale Law Journal*, vol. 95 (January 1986), pp. 506-552.

Kiefer, Donald W. "The Tax Treatment of a 'Reverse Investment.'" *Tax Notes*, March 4, 1985, pp. 925-932.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, Committee Print, 98th Congress, 2nd session, December 31, 1984, pp. 273-276.

Wise, Spence, and J. Ralph Byington. "Mining and Solid Waste Reclamation and Closing Costs," *Oil, Gas & Energy Quarterly,* vol. 50 (September 2001), pp. 47-55.

Yancey, Thomas H. "Emerging Doctrines in the Tax Treatment of Environmental Cleanup Costs." *Taxes*, December 1, 1992, pp. 948-973.

Agriculture

EXPENSING OF SOIL AND WATER CONSERVATION EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	([1])	0.1
2019	0.1	([1])	0.1
2020	0.1	([1])	0.1
2021	0.1	([1])	0.1
2022	0.1	([1])	0.1

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 175.

Description

Taxpayers in the business of farming can elect to expense soil and water conservation expenditures for land used in farming or to prevent the erosion of land used in farming. Improved land must be in the United States. The deduction is limited to 25 percent of the taxpayer's gross income from farming in the current year. Deductible expenses above the 25 percent limit can be carried forward into subsequent taxable years, but the total value of deductions under Section 175 is limited to 25 percent of gross farm income for any subsequent taxable year. Taxpayers cannot elect to deduct (1) soil and water conservation expenditures that are not consistent with an appropriate public agency conservation plan; or (2) any expenditures made to drain or fill wetlands or to prepare land for center-pivot irrigation systems.

Impact

Expensing is the most accelerated form of depreciation; the marginal effective tax rate on expensed capital asset investments is zero. The zero effective tax rate on soil and water conservation expenditures encourages taxpayers to make these types of investments.

Rationale

Specific regulations relating to soil and water conservation expenditures were adopted in the Internal Revenue Code of 1954. The Tax Reform Act of 1986 (P.L. 99-514) placed limits on soil and water conservation expenditures that could be expensed. Specifically, the law added the requirements that (1) expenses be consistent with a public agency conservation plan, and that (2) expenditures for draining or filling wetlands or for preparing land for the installation of central-pivot irrigation systems do not qualify.

Assessment

The effect of deducting costs before the associated income is realized understates income in the year of deduction and overstates income in the year of realization. The net result is that tax liability is deferred which results in an underassessment of tax. In addition, in certain instances when the income is finally taxed, it may be taxed at preferential capital gains rates.

The provisions allowing taxpayers to expense soil and water conservation expenditures reduce the effective tax rate on these investments relative to other types of investments. This may encourage farmers to devote additional resources to these tax-favored activities. If there are positive external benefits (benefits that do not accrue to the taxpayer farmer making the investment) associated with soil and water conservation, the provision could help promote economic efficiency.

Selected Bibliography

U.S. Congress, Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986*, Joint Committee Print, JCS-10-87, May 4, 1987, (Washington, DC: GPO, 1987). pp. 187-189.

U.S. Department of the Treasury, Internal Revenue Service, *Farmer's Tax Guide*, Publication 225 (2017), October 19, 2017, pp. 26-29.

Agriculture

EXCLUSION OF COST-SHARING PAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 126.

Description

There are a number of programs under which both the federal and state governments make payments to taxpayers which represent a share of the cost of certain improvements made to the land. These programs generally relate to improvements which further conservation, protect the environment, improve forests, or provide habitats for wildlife. Under Section 126, certain grants received under these programs are excluded from the recipient's gross income.

To qualify for the exclusion, the payment must be made primarily for the purpose of conserving soil and water resources or protecting the environment, and the payment must not produce a substantial increase in the annual income from the property with respect to which the payment was made.

Impact

The exclusion of these grants and payments from tax provides a general incentive for various conservation and land improvement projects that might not otherwise be undertaken. The tax benefit associated with the exclusion

increases with a taxpayer's marginal tax rate, and thus is greater for higher-income taxpayers.

Rationale

The income tax exclusion for certain cost-sharing payments was part of the tax changes made under the Revenue Act of 1978 (P.L. 95-600). The rationale for this change was that in the absence of an exclusion many of these conservation projects would not be undertaken. In addition, since the grants are to be spent by the taxpayer on conservation projects, the taxpayer would not necessarily have the additional funds needed to pay the tax on the grants if they were not excluded from taxable income.

Assessment

The partial exclusion of certain cost-sharing payments is based on the premise that the improvements financed by these grants benefit both the general public and the individual landowner. The portion of the value of the improvement financed by grant payments attributable to public benefit should be excluded from the recipient's gross income while that portion of the value primarily benefitting the landowner (private benefit) is properly taxable to the recipient of the payment.

A problem with this tax treatment is that there is no way to identify the true value of the public benefit. In those cases where the exclusion of cost-sharing payment is insufficient to cover the value of the public benefit, the project probably would not be undertaken.

On the other hand, on those projects that are undertaken, the exclusion of the cost-sharing payment probably exceeds the value of the public benefit and hence, the excess provides a subsidy primarily benefitting the landowner.

Selected Bibliography

Butler, Brett J. et al., "Effects of Federal, State, and Local Tax Policies on Family Forest Owners," Family Forest Research Center, December 29, 2010, at http://www.nrs.fs.fed.us/pubs/38332.

Godsey, Larry D., "Tax Considerations for the Establishment of Agroforestry Practices," University of Missouri Center for Agroforestry, AF1004, 2010.

Greene, John L. et al., "Family Forest Owners and Federal Taxes," *Forest Policy and Economics*, vol. 38, January 2014, pp. 219-226.

Hatcher, John et al., "Socioeconomic predictors of family forest owner awareness and use of U S federal income tax provisions," *Forests*, vol. 7, 2016.

U.S. Congress, Joint Committee on Taxation, *General Explanation of the Revenue Act of 1978*, Joint Committee Print, JCS-7-79, 96th Cong., 1st sess., March 12, 1979, pp. 314-315.

U.S. Department of Agriculture, U.S. Forest Service, "Effect of Taxes and Financial Incentives on Family-Owned Forest Land," *The Southern Forest Futures Project: technical report*, Gen. Tech. Rep. SRS-GTR-178, 2013.

U.S. Department of the Treasury, Internal Revenue Service, *Farmer's Tax Guide, Publication 225*, October 19, 2017, pp. 11-13.

Zhao, Ma et al., "Factors associated with landowner involvement in forest conservation programs in the U.S.: Implications for policy design and outreach," *Land Use Policy*, vol. 29, no. 1, January 2012, pp. 53–61.

EXCLUSION OF CANCELLATION OF INDEBTEDNESS INCOME OF FARMERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	-	0.1
2019	0.1	-	0.1
2020	0.1	-	0.1
2021	0.1	-	0.1
2022	0.1	-	0.1

Authorization

Sections 108 and 1017(b)(4).

Description

This provision allows farmers who are solvent to treat the income arising from the cancellation of certain indebtedness as if they were insolvent taxpayers. Under this provision, income that would normally be subject to tax, the cancellation of a debt, is excluded from tax if the discharged debt is "qualified farm debt" discharged or canceled by a "qualified person." Generally, this exclusion allows certain farmers to apply discharged indebtedness to reduce tax attributes and/or reduce the basis of property used in farming, rather than recognizing the canceled debt as income.

To qualify, farm debt must meet two tests: it must be incurred directly from the operation of a farming business, and at least 50 percent of the taxpayer's previous three years of gross receipts must come from farming.

To qualify, those canceling the qualified farm debt must participate regularly in the business of lending money, cannot be related to the taxpayer who is excluding the debt, cannot be a person from whom the taxpayer

acquired property securing the debt, and cannot be a person who received any fees or commissions associated with acquiring the property securing the debt. Qualified persons (or creditors) include federal, state, and local governments.

The amount of canceled debt that can be excluded from tax cannot exceed the sum of adjusted tax attributes and adjusted basis of qualified property. Any canceled debt that exceeds this amount must be included in gross income. Tax attributes include net operating losses, general business credit carryovers, capital losses, minimum tax credits, passive activity loss and credit carryovers, and foreign tax credit carryovers. Qualified property includes business (depreciable) property and investment (including farmland) property.

Taxpayers can elect to reduce the basis of their property before reducing any other tax benefits.

Impact

This exclusion allows solvent farmers to defer the tax on the income resulting from the cancellation of a debt.

Rationale

The exclusion for the cancellation of qualified farm indebtedness was enacted as part of the Tax Reform Act of 1986 (P.L. 99-514). At the time, the intended purpose of the provision was to avoid tax problems that might arise from other legislative initiatives designed to alleviate the credit crisis in the farm sector. Congressional intent was to allow a deferral of tax rather than a complete exclusion for solvent farmers.

For instance, Congress was concerned that pending legislation providing federal guarantees for lenders participating in farm-loan write-downs would cause some farmers to recognize large amounts of income when farm loans were canceled. As a result, these farmers might be forced to sell their farmland to pay the taxes on the canceled debt. This tax provision was adopted to mitigate that problem.

Assessment

The exclusion of cancellation of qualified farm income indebtedness does not constitute a forgiveness of tax but rather a deferral of tax. By electing to offset the canceled debt through reductions in the basis of property, a taxpayer can postpone the tax that would have been owed on the canceled debt until the basis reductions are recaptured when the property is sold or through reduced

depreciation in the future. Since money has a time value (a dollar today is more valuable than a dollar in the future), however, the deferral of tax provides a benefit in that it effectively lowers the tax rate on the income realized from the discharge of indebtedness.

Selected Bibliography

Armstrong, Monica D., "From the Great Depression to the Current Housing Crisis: What Code Section 108 Tells Us About Congress's Response to Economic Crisis," *Akron Tax Journal*, vol. 26, June 2011, pp. 69-105.

Harl, Neil E., "Discharge of Indebtedness-- A Source of Surprises: Part I," *Agricultural Law Digest*, vol. 26, no. 7, March 27, 2015, at: http://lib.dr.iastate.edu/aglawdigest/vol26/iss7/1.

—,"Discharge of Indebtedness-- A Source of Surprises: Part II," *Agricultural Law Digest*, vol. 26, no. 10, May 8, 2015, at: http://lib.dr.iastate.edu/aglawdigest/vol26/iss10/1.

—, "Discharge of Indebtedness for Farm and Ranch Debtors," *Agricultural Law Digest*, vol. 27, no. 7, April 1, 2016, at: http://lib.dr.iastate.edu/aglawdigest/vol27/iss7/1.

Kahn, Douglas A. and Kahn, Jeffrey H., "Cancellation of Debt and Related Transactions," *The Tax Lawyer*, vol. 69, no. 1, Fall 2015, pp. 161-211.

U.S. Congress, Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986*, Joint Committee Print, JCS-10-87, 100th Cong., 1st sess., May 4, 1987, pp. 193-194.

U.S. Department of the Treasury, Internal Revenue Service, *Canceled Debts, Foreclosures, Repossessions, and Abandonments*, Publication 4681, January 25, 2018, pp. 7-8, 11.

—, *Farmer's Tax Guide*, Publication 225, October 19, 2017 pp. 14-16.

—, *Farmers Audit Techniques Guide* (ATG), May 2011, at: http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Farmers-ATG (see "Cancellation of Indebtedness" in Chapter 11: Other Issues).

CASH ACCOUNTING FOR AGRICULTURE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 162, 446, 448, and 461.

Description

Most farm businesses (with the exception of certain farm corporations and partnerships or any tax shelter operation) may use the cash method of tax accounting, by which revenues are accounted for when they are received and expenses when they are paid ("Cash Accounting, Other Than Agriculture" is discussed elsewhere in this compendium). There are also provisions that allow businesses to expense some costs associated with developing certain agriculture-related assets that will produce income in future years. Both of these rules allow deductions to be claimed before the income associated with the deductions is realized.

Costs that may be deducted before income attributable to them is realized include livestock feed and the expenses of planting crops for succeeding years' harvests. Costs that otherwise would be considered capital expenditures but that may be deducted immediately by farmers include: (1) costs incurred for the purpose of soil or water conservation with respect to land used in farming,

or for the prevention of erosion of land used in farming as expenses not chargeable to a capital account; (2) costs of raising dairy and breeding cattle; and (3) costs of fertilizer, lime, ground limestone, marl, or other materials to enrich, neutralize, or condition land used in farming, or for the application of such materials to such land. For more information on these expensing provisions, see separate entries on each in this section of the compendium.

Impact

For income tax purposes, the cash method of accounting is less burdensome than the accrual method of accounting and also provides benefits in that it allows taxes to be deferred into the future. Expensing is the most accelerated form of depreciation; the marginal effective tax rate on expensed capital asset investments is zero. Farmers who use the cash method of accounting and the special expensing provisions receive tax benefits not available to taxpayers required to use the accrual method of accounting or standard depreciation schedules.

Rationale

The Revenue Act of 1916 established that a taxpayer may compute personal income for tax purposes using the same accounting methods used to compute income for business purposes. At the time, because accounting methods were less sophisticated and the typical farming operation was small, the regulations were apparently adopted to simplify record keeping for farmers.

The Tax Reform Act of 1976 (P.L. 94-455) required that certain farm corporations and some tax shelter operations use the accrual method of accounting rather than cash accounting. The Tax Reform Act of 1986 (P.L. 99-514) further limited the used of cash accounting by farm corporations and tax shelters and repealed the expensing rules for certain land clearing operations. The 1986 Act also limited the use of cash accounting for assets that had preproductive periods longer than two years. These restrictions, however, were later repealed by the Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647). The 2017 tax revision, P.L. 115-97, allowed cash accounting for farm corporations with less than $25 million in gross receipts on average in the last three years.

Assessment

The effect of deducting costs before the associated income is realized understates income in the year of deduction and overstates income in the year

of realization. The net result is that tax liability is deferred which results in an undersassessment of tax. In addition, in certain instances when the income is finally taxed, it may be taxed at preferential capital gains rates.

The cash method of accounting allows more control over the recognition of receipts and expenses for tax purposes. By shifting income or deductions, agriculture-related businesses using cash accounting may have more control over the timing of tax payments than businesses required to use the accrual method. Cash accounting is often simpler and thus may be associated with reduced compliance costs.

The provisions allowing taxpayers to expense soil and water conservation expenditures, fertilizer, and soil conditioner costs, and the costs of raising and breeding livestock reduce the effective tax rate on these investments relative to other types of investments. This may encourage farmers to devote additional resources to these tax-favored activities.

Selected Bibliography

Gnanarajah, Raj and Mark Keightley. *Cash Versus Accrual Accounting: Tax Policy Considerations*, Library of Congress, Congressional Research Service Report R44002, April 24, 2015.

Klinefelter, Danny A. *Farm and Ranch Financial Management: Cash vs. Accrual Accounting*, Texas A&M University System, AgriLife Extension, 1996.

Seger, Daniel J., and David A. Lins. "Cash Versus Accrual Measures of Farm Income." *North Central Journal of Agricultural Economics*, 1986, pp. 219-226.

Testimony of Sarah Windham, in U.S. Congress, House Committee on Small Business, Subcommittee on Economic Growth, Tax, and Capital Access, *Cash Accounting: A Simpler Method for Small Firms?* Hearing, 113th Cong., July 10, 2014.

U.S. Congress, Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1976*, Joint Committee Print, JCS-33-76, 94th Cong., 2nd sess., December 29, 1976, pp. 51-57.

—, Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986*, Joint Committee Print, JCS-10-87, 100th Cong., 1st sess., May 4, 1987, pp. 474-480.

—, Conference Committee, *Technical and Miscellaneous Revenue Act of 1988*, conference report to accompany H.R. 4333, 100th Cong., 2nd sess., H.Rept. 100-1104, pp. 145-152.

—, Joint Committee on Taxation, *Overview of Present Law and Selected Proposals Regarding the Federal Income Taxation of Small Business and Agriculture*, Joint Committee Print, JCX-45-02, May 31, 2002, pp. 37-39.

U.S. Department of the Treasury, Internal Revenue Service, *Farmer's Tax Guide*, Publication 225 (2017), October 19, 2017, pp. 5-8.

INCOME AVERAGING FOR FARMERS AND FISHERMEN

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	-	0.2
2019	0.2	-	0.2
2020	0.2	-	0.2
2021	0.2	-	0.2
2022	0.2	-	0.2

Authorization

Section 1301.

Description

For taxable years beginning after December 31, 1997, taxpayers have the option to calculate their current year income tax by averaging over the prior 3-year period all or a portion of their income from farming or commercial fishing. The taxpayer can designate all or a part of his current year income from farming business or fishing business as "elected farm income" to each of the prior 3 taxable years.

The current year income tax for a taxpayer making this election is calculated by taking the sum of his current year tax calculated without including the elected farm income and the extra tax in each of the three previous years that results from including 1/3 of the current year's elected farm income. Elected farm income can include the gain on the sale of farming or fishing assets with the exception of the gain on the sale of land.

The tax computed using income averaging for farmers and fisherman does not apply for the purposes of computing the regular income tax and subsequent determination of alternative minimum tax liability.

In addition, taxpayers who receive settlement or judgment-related income (after October 3, 2008) from the litigation surrounding the 1989 Exxon Valdez oil spill may use three-year income averaging for reporting such amounts to eligible retirement plans without having the income treated as taxable.

Impact

This provision provides tax relief primarily to taxpayers whose main source of income derives from agricultural production or commercial fishing. It allows these taxpayers to mitigate volatility of their taxable incomes and hence their tax liabilities in those years that they experience fluctuations in their incomes.

Rationale

Income averaging for farmers was enacted as part of the Taxpayer Relief Act of 1997 (P.L. 105-34). Congress recognized that the income from farming may fluctuate dramatically from year to year and that these fluctuations are outside the control of the taxpayers. To address these fluctuations, Congress voted to allow taxpayers who derive their income from farming business to elect to average farm income and mitigate the adverse tax consequences of fluctuating incomes under a progressive tax structure.

Under pre-1986 income tax law, income averaging provisions were designed to help avoid the over-assessment of tax that might occur under a progressive tax when a taxpayer's income fluctuated from year to year. These pre-1986 tax provisions were especially popular with farmers who, due to market or weather conditions, might experience significant fluctuations in their annual incomes.

The Tax Reform Act of 1986 (P.L. 99-514) repealed income averaging. At the time, it was argued that the reduction in the number of tax brackets and the level of marginal tax rates reduced the need for income averaging. Farmers argued that even though the tax brackets had been widened and tax rates reduced, the fluctuations in their incomes could be so dramatic that without averaging they would be subject to an inappropriately high level of income taxation.

As marginal income tax rates were increased in 1990 and 1993, Congress became more receptive to the arguments for income averaging and reinstated limited averaging in the Taxpayer Relief Act of 1997 (P.L. 105-34). Under this Act, income averaging for farmers was a temporary provision and was to

expire after January 1, 2001. The Tax and Trade Relief Extension Act of 1998 (part of the Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999, P.L. 105-277) made income averaging for farmers permanent.

The American Jobs Creation Act of 2004 (P.L. 108-357) expanded income averaging to include commercial fishermen. It also coordinated income averaging with the individual alternative minimum tax so that the use of income averaging would not cause farmers or fishermen to incur alternative minimum tax liability.

Assessment

Under an income tax system with progressive tax rates and an annual assessment of tax, the total tax assessment on an income that fluctuates from year to year will be greater than the tax levied on an equal amount of income that is received in equal annual installments.

It appears, however, that the current income averaging provisions fall short of the economic ideal on several fronts. For instance, from an economic perspective the source of income fluctuations should not matter when deciding whether or not income averaging is needed. Hence, limiting averaging to farm income or commercial fishing income may appear unfair to other taxpayers such as artists and writers who also may have significant fluctuations in their annual incomes.

A more significant theoretical problem is that these provisions only allow for upward income averaging. Under a theoretically correct income tax, income averaging would be available for downward fluctuations in income as well as upward fluctuations. Downward income averaging would mean that taxpayers who experienced major reductions in their annual incomes would also qualify for income averaging. This would allow them to mitigate sharp reductions in their current year incomes by reducing their current year taxes to reflect taxes that had already been prepaid in previous years when their incomes were higher.

Selected Bibliography

U.S. Congress, Joint Committee on Taxation, *General Explanation of the Tax Legislation Enacted in 1997*, JCS-23-97, Joint Committee Print, 105th Cong., 1st sess., December 17, 1997, pp. 130-131.

—, Joint Committee on Taxation, *General Explanation of the Tax Legislation Enacted in 1998*, JCS-6-98, Joint Committee Print, 105th Cong., 2nd sess., November 24, 1998, pp. 237-274.

—, Joint Committee on Taxation, *General Explanation of the Tax Legislation Enacted in the 108th Congress*, JCS-5-05, Joint Committee Print, 109th Cong., 1st sess., May 2005, p. 223.

—, Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986*, JCS-10-87, Joint Committee Print, 100th Cong., 1st sess., May 4, 1987, pp. 14-27.

U.S. Department of Agriculture, Economic Research Service, *Estimated Effects of the Tax Cuts and Jobs Act on Farms and Farm Households*, ERS Report 252, June 2018, p. 17.

U.S. Department of the Treasury, Internal Revenue Service, *Farmer's Tax Guide*, Publication 225 (2017), October 19, 2017, pp. 8-18.

Agriculture

EXPENSING BY FARMERS FOR FERTILIZER AND SOIL CONDITIONER COSTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	([1])	0.1
2019	0.1	([1])	0.1
2020	0.1	([1])	0.1
2021	0.1	([1])	0.1
2022	0.1	([1])	0.1

([1])Positive tax expenditure of less than $50 million.

Authorization

Section 180.

Description

Taxpayers in the business of farming (other than certain types of timber production) can expense, or deduct immediately, expenditures for fertilizer, lime, ground limestone, marl, or similar materials used to enrich, neutralize, or condition farming land. Taxpayers can also deduct the cost of applying these materials. The amount deductible for *prepaid* fertilizer and other soil conditioners is limited to 50 percent of all other deductible farm expenses for the taxable year.

Impact

Expensing is the most accelerated form of depreciation; the marginal effective tax rate on expensed capital asset investments is zero. The zero effective tax rate on fertilizer and soil conditioner expenditures encourages taxpayers to invest in fertilizing and conditioning land.

Rationale

Provisions governing the treatment of fertilizer costs were added to the Internal Revenue Code in 1960 (P.L. 86-779).

Assessment

The provision allows taxpayers to fully deduct fertilizer expenditures in the year costs are incurred. Since some fertilizer and lime applications may have multi-year effects, such expenditures would be subject to a more neutral tax treatment if they were treated as a capital investment. Expensing for fertilizer that has multi-year effects may encourage farmers to devote additional resources to this tax-favored activity. If excess fertilization raises environmental concerns, these concerns could be exacerbated by provisions that further encourage fertilizer use.

If it would be difficult for taxpayers or tax administrators to determine which types of fertilization activities should be treated as capital investments, as opposed to ordinary and necessary business expenses, allowing all fertilizer expenses to be deducted in the year incurred could simplify taxes for affected taxpayers.

Selected Bibliography

Benfield, F. Kaid, Justin R. Ward, and Anne E. Kinsinger. "Conservation Gains in the Tax Reform Act: An Analysis of the Implications of Tax Reform for Farmers and Natural Resources in Rural America, With a Policy Agenda for the Future," *Harvard Environmental Law Review*, vol 11. 1987, pp. 415-435.

U.S. Department of the Treasury, Internal Revenue Service, *Farmer's Tax Guide*, Publication 225 (2017), October 19, 2017, pp. 18-26.

TWO-YEAR CARRYBACK PERIOD FOR NET OPERATING LOSSES ATTRIBUTABLE TO FARMING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	0.1	([1])	0.1
2020	0.1	([1])	0.1
2021	0.1	([1])	0.1

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 172(b)(1)(B).

Description

A net operating loss is the amount by which business and certain other expenses exceed income for the year. Under previous law, losses could be generally carried forward and deducted from other income for 20 years following the loss year, or carried back to the previous two years (five years for farming losses). The 2017 tax revision (P.L. 115-97) eliminated carrybacks on most losses but allows taxpayers to carry losses forward indefinitely and offset 80 percent of taxable income. The law also replaced the five-year carryback on losses attributed to the trade or business of farming (as defined in section 263A(e)(4)) with a two-year carryback period. These new provisions apply to losses incurred in taxable years beginning after December 31, 2017. For more general information on changes made to the net operating loss deduction provision, see the section titled “Limit NOL Deduction” in this compendium.

Impact

For farm businesses that have paid taxes within the allowed carryback period, making use of the carryback rather than the carryforward option for operating losses means receiving an immediate refund rather than waiting for a future tax reduction. Although the special two-year carryback applies to losses incurred in a farming business, the losses may be used to offset taxes paid on any type of income. Thus the beneficiaries of this provision are farmers who have either been profitable in the past or who have had non-farm income on which they paid taxes.

Rationale

Some provision for deducting net operating losses from income in other years has been an integral part of the income tax system from its inception. The previous general rules (20-year carryforwards and two-year carrybacks) date from the Taxpayer Relief Act of 1997 (P.L. 105-34), which shortened the carryback period from three to two years (except for farmers and small businesses in federally declared disaster areas, which remained at three years).

The five-year carryback for farm losses was enacted as a part of the Tax and Trade Relief Extension Act of 1998 (P.L. 105-277). The committee reports state that a special provision for farmers was considered appropriate because of the exceptional volatility of farm income.

As described above, the 2017 tax revision (P.L. 115-97) eliminated the two-year carryback period on most losses, and changed the 20-year carryforward to an indefinite carryforward period limited to 80 percent of taxable income. The law also decreased the farm loss carryback from five to two years. These new provisions apply to losses incurred in taxable years beginning after December 31, 2017.

Assessment

In a pure income tax system, the government would refund taxes in loss years and collect them in profit years. Under such a system, a carryback of losses would not be considered a deviation from the normal tax structure. Since the current system deviates from a pure income tax in many ways, however, it is difficult to say whether the loss carryover rules bring it closer to or move it further away from the pure form.

The special rule for farmers is intended to compensate for the excessive fluctuations in income farmers are said to experience. This justification is

offered for many of the tax benefits farmers are allowed, but it is not actually based on evidence that farmers experience annual income fluctuations greater than other small business owners. The farm losses may offset taxes on non-farm income, so some of the benefit will accrue to persons whose income is not primarily from farming.

Selected Bibliography

U.S. Congress, Joint Committee on Taxation, *General Explanation of Tax Legislation Enacted in 1997*, Joint Committee Print, JCS-23-97, 105th Cong., 1st sess., December 17, 1997, (Washington, DC: GPO, 1997), pp. 267-268.

—, *General Explanation of Tax Legislation Enacted in 1998*, Joint Committee Print, JCS-6-98, 105th Cong., 2nd sess., November 24, 1998, (Washington, DC: GPO, 1998), pp. 276-277.

Commerce and Housing

EXEMPTION OF CREDIT UNION INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	1.8	1.8
2019	-	1.9	1.9
2020	-	2.0	2.0
2021	-	2.1	2.1
2022	-	2.2	2.2

Authorization

Section 501(c)(14)(A) of the Internal Revenue Code of 1986 and section 122 of the Federal Credit Union Act, as amended (12 U.S.C. 1768).

Description

Credit unions without capital stock, organized and operated as mutual cooperatives, do not issue common equity stock and are not subject to federal income tax.

Impact

Credit unions, which may accept federally insured deposits, are exempted from federal income taxes. If this exemption were repealed, both federally chartered and state chartered credit unions would become liable for payment of federal corporate income taxes on their retained earnings but not on earnings distributed to depositors. Depositors, however, would continue to pay taxes on the distribution (interest) paid on the checking and savings accounts.

For a given addition to retained earnings, this tax exemption may translate into higher dividends and lower interest rates on loans for credit union members relative to for-profit banks.

Rationale

Credit unions have never been subject to the federal income tax. Initially, the Attorney General of the United States ruled that credit unions were exempt from income tax because of their similarity to domestic building and loan associations—whose business was at one time confined to lending to members—and cooperative banks operated for mutual purposes, which were specifically exempt by Revenue Acts. The income tax exemption for mutual banks and savings and loan institutions was removed in the Revenue Act of 1951 (P.L. 82–183), but the Act, for the first time, designated credit unions by name as being exempt from federal income tax. No specific reason was given for continuing the exemption of credit unions.

Assessment

Supporters of the credit union exemption emphasize the uniqueness of credit unions compared to other depository institutions. Credit unions are directed by volunteers for the purpose of serving their members. Furthermore, supporters argue that credit unions are subject to certain regulatory constraints not required of other depository institutions and that these constraints reduce the competitiveness of credit unions. For example, credit unions may only accept deposits of members and lend only to members, other credit unions, or credit union organizations. Finally, studies have shown that in other countries where the tax exemption of credit unions was eliminated, consumers faced higher interest rates on consumer loans and lower interest rates on deposits.

Proponents of removing the taxation exemption argue that deregulation has led to increased competition among all depository institutions, including credit unions, and the tax exemption gives credit unions an unwarranted advantage over other depository institutions. Large credit unions may have tax advantages over similar sized banks as a result of the exemption. They argue that depository institutions should have a level playing field for market forces to allocate resources efficiently.

Finally, some banks meet the eligibility requirements to be taxed as S corporations (meaning that their income is taxed only at the individual income tax rates), thus shrinking the tax disadvantage relative to credit unions. Smaller institutions generally face greater cost disadvantages relative to larger institutions, which benefit from having greater volume of transactions and product lines. Hence, some may favor lessening (rather than completely eliminating) the tax exemption for those institutions of a minimum asset threshold that engage in non-traditional credit union activities.

Selected Bibliography

DeYoung, Robert, John Goddard, Donal G. McKillop, and John O. S. Wilson. *Who Consumes the Credit Union Tax Subsidy?* Presented at the American Economic Association Meeting, Chicago, 2017.

Feinberg, Robert M. and Douglas Meade. *Economic Benefits of the Credit Union Tax Exemption to Consumers, Businesses, and the U.S. Economy*. Prepared on behalf of the National Association of Federal Credit Unions. January 2017.

Getter, Darryl. *Policy Issues Related to Credit Union Lending*. Library of Congress, Congressional Research Service Report R43167. Washington DC: November 18, 2015.

Milikov, Emir, Shunan Zhao, and Subal C. Kumbhakar. *Economics of Diversification in the US Credit Union Sector*. *Journal of Applied Econometrics*, v. 32, no. 7, November/December 2017.

Marples, Donald. *Taxation of Credit Unions: In Brief*. Library of Congress, Congressional Research Service Report R44439. Washington DC: March 31, 2016.

Tatom, John. *Competitive Advantage: A Study of the Federal Tax Exemption for Credit Unions*. Washington, DC: Tax Foundation, 2005.

U.S. Government Accountability Office. *Issues Regarding the Tax-Exempt Status of Credit Unions*. Testimony before the House Committee on Ways and Means. GAO-06-220T. November 3, 2005.

—. *Greater Transparency Needed on Who Credit Unions Serve and on Senior Executive Compensation Arrangements*. GAO-07-29. November 2006.

Walter, John. "Not Your Father's Credit Union." *Economics Quarterly*, v. 92, no. 4, Federal Reserve Bank of Richmond, Fall 2006.

EXCLUSION FROM UBTI OF CERTAIN PAYMENTS TO CONTROLLING EXEMPT ORGANIZATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	([1])	([1])
2019	-	([1])	([1])
2020	-	([1])	([1])
2021	-	([1])	([1])
2022	-	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 512(b)(13)

Description

Tax-exempt organizations are required to pay taxes on unrelated business taxable income (UBTI), which is defined as income resulting from business activities that are unrelated to their charitable or tax-exempt purpose. UBTI is taxed at the corporate income tax rate, or 21 percent. Rents, royalties, interest, and annuities (passive income) are generally not considered business taxable income, except when such payments are received from a "controlled entity." A controlled entity is one that is more than 50 percent owned (or otherwise controlled) by the parent organization.

Special rules provide that certain payments, including rents and royalties received by a tax-exempt entity from a controlled entity or subsidiary pursuant to a binding written contract are not considered unrelated business income. Payments that are in excess of an arms-length (or fair market) price cannot be

excluded from UBTI. Further, payments in excess of an arms-length price are subject to a 20 percent penalty.

Impact

The special rule excludes from UBTI, and thus excludes from tax, payments received by controlling exempt organizations from controlled entities. The exclusion allows for flexibility with respect to inter-organizational transactions, by preventing arm's length transactions from generating UBTI.

Rationale

The Pension Protection Act of 2006 (P.L. 109-280) included special rules temporarily providing that certain payments, including rents and royalties received by a tax-exempt entity from a controlled entity or subsidiary, are not considered unrelated business income. When enacted, the special rules were effective for payments received or accrued before January 1, 2008. The provision was extended through 2009 in the Emergency Economic Stabilization Act (P.L. 110-343), through 2011 in the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312), through 2013 in the American Taxpayer Relief Act (P.L. 112-240), and through 2014 in the Tax Increase Prevention Act of 2014 (P.L. 113-295).

The provision was made permanent in the Consolidated Appropriations Act, 2016 (P.L. 114-113).

Assessment

Treating rent, royalty, interest, and annuity payments from controlled organizations as UBTI while similar types of payments from third parties are not taxed may raise questions related to fairness. Tax-exempt entities could claim that as long as tax-exempt parents' dealings with controlled subsidiaries are done at arm's length or fair market value, the scope for abuse should be limited. It is this logic that led to the enactment of the provision modifying the tax treatment of certain payments to controlling exempt organizations.

Including payments received from controlled entities in business taxable income could prevent tax-exempt organizations from using separate but controlled entities to avoid unrelated business income taxes. For example, one concern is that a 501(c)(3) charitable organization could set up a controlled subsidiary to engage in a profitable activity (e.g., selling merchandise). If the charity had sold the merchandise itself, the income would be subject to the

unrelated business income tax. To avoid the tax, the charity could set up a controlled subsidiary to sell the merchandise, which would pay royalties to the charity (lease the charity's logo, for example). The controlled subsidiary would deduct the royalty payments as a cost of doing business, and the charity would receive royalty income, which would not be considered unrelated business income. In this scenario, the charity would avoid paying tax on business activities.

Selected Bibliography

Gravelle, Jane G., Donald J. Marples, and Molly F. Sherlock. *Selected Recently Expired Business Tax Provisions ("Tax Extenders")*. Congressional Research Service Report R43510. January 7, 2016.

Joint Committee on Taxation. "General Explanation of Tax Legislation Enacted in the 109th Congress." JCS-1-00. January 17, 2007, pp. 571-572.

Lowenthal, David. "Transfers Between Controlled Entities Can Provide Surprises Under Sec. 512(b)(13)." *The Tax Advisor*. April 1, 2009.

SPECIAL TREATMENT OF LIFE INSURANCE COMPANY RESERVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	2.0	2.0
2019	-	2.0	2.0
2020	-	2.1	2.1
2021	-	2.1	2.1
2022	-	2.1	2.1

Authorization

Sections 803(a)(2), 805(a)(2), 807.

Description

Life insurance companies can deduct net additions to reserves used to pay future liabilities and must add net subtractions from reserves to their income, subject to certain requirements on reserves set out in Section 807. Deducting net additions to reserves allows life insurance companies to defer paying some taxes, thus reducing those companies' tax burden by allowing them to offset current income with future expenses. The match between the timing of taxable income and deductible expenses is, in general, closer for other businesses.

Special provisions govern the taxation of life insurance companies, which reflect the nature of the life insurance market. First, a life insurance company must count all premiums paid by insurance customers as income. Second, a company may deduct net additions to its life insurance reserves.

For example, once a customer signs an insurance contract and pays a one-time premium of $5,000, the company records that amount as income. If the policy promises the beneficiary a payment of $100,000 when the customer dies, then the company puts a portion of the premium aside into a reserve to

cover that payment, which is deducted from the insurer's income. The insurer performs an actuarial calculation to find the present value of the insurance benefit, which is the minimum investment needed to fund the expected costs of a $100,000 payout when the customer dies. If the firm calculates that the present value of the life insurance benefit is $3,000 then the firm earns an underwriting profit of $2,000, net of other expenses. If, when the customer dies, the portion of the insurance reserve tied to that contract were $95,000, the insurer would show a net deduction $5,000 (i.e., the $100,000 payout minus the $95,000 reserve).

If the insurer used more conservative actuarial assumptions, so that the present value of the life insurance benefit were calculated to be $4,000, then the underwriting profit would be only $1,000. Thus, using more conservative actuarial assumptions reduces the insurer's taxable income by $1,000 in the current tax year, and increases the size of the accumulated reserve at the time of the customer's death, which increases the insurer's taxable income in the future. Thus, more conservative actuarial assumptions reduce underwriting profits (taxable now) and increase the surplus of the accumulated reserves over payouts in the future, allowing firms to defer taxation by converting underwriting profits into reserves.

For that reason, Section 807 constrains levels of reserves that can be used to reduce income. In general, the allowable reserve is 92.81% of a reserve calculation specified by the National Association of Insurance Commissioners (NAIC). The allowable reserve level must be at least as much as the net surrender value of the policy—that is, the cash a policyholder would receive were the policy to be surrendered—but cannot exceed the level of statutory reserves, which state insurance regulators typically require to ensure solvency. NAIC provides different methods for calculating reserves for different lines of insurance.

Impact

Reserves are accounts recorded in the liabilities section of balance sheets to indicate a claim against assets for future expenses. When life insurance companies can deduct additions to the reserve accounts when computing taxable income, they can purchase assets using tax-free or tax-deferred income. Reserve accounting shelters both premium and investment income from tax because amounts added to reserves include both premium income and the investment income earned by the invested assets. A large part of the reserves of life insurance companies is credited to individual policyholders,

who also pay no tax on this investment income (see entry under "Exclusion of Investment Income on Life Insurance and Annuity Contracts").

Competition in the life insurance market could compel companies to pass along corporate tax reductions to policyholders. Thus, this tax expenditure may benefit life insurance consumers as well as shareholders of private stock insurance companies. For mutual life insurance companies, policyholders may benefit either through lower premiums, better service, or higher policyholder dividends. Changes enacted in 2017 (P.L. 115–97) may affect profits of foreign-owned insurers, which could affect competitive conditions.

Rationale

The 1909 corporate income tax (P.L. 61-5) allowed insurance companies to deduct additions to reserves required by law and sums (besides dividends) paid on claims and annuities within the year. Some form of reserve deduction has been allowed ever since. Originally, the accounting rules of most regulated industries were adopted for tax purposes, and reserve accounting was required by all state insurance regulations. The many different methods of taxing insurance companies used since 1909 have all allowed some form of reserve accounting.

Before the Deficit Reduction Act of 1984 (P.L. 98-369) life insurance reserves were those required by state law and generally computed by state regulatory rules. Congress, concluding that the conservative regulatory rules allowed a significant overstatement of deductions, set rules for tax reserves that specified what types of reserves would be allowed and what discount rates would be used.

Tax changes enacted in 2017 (P.L. 115–97) simplified some of the requirements for calculating reserves for tax purposes and allow for updating of reserve calculations, rather than tying calculations and assumptions to the date when a policy was issued. Those changes adapted federal tax rules to allow more modern methods of calculating reserves. The changes are estimated to reduce the value of insurance industry deductions.

Assessment

Reserve accounting allows the deduction of expenses relating to the future from current income. Reserve accounting—using statutory accounting methods—gives state insurance regulators a means of overseeing life insurance companies to ensure actuarial solvency: that is, ensuring that companies will be able to pay promised benefits. The conservative actuarial

assumptions embedded in statutory accounting were designed with that aim in mind. Under the federal income tax, however, understating current income provides a tax advantage. Combined with virtual tax exemption of life insurance product income at the individual level, this tax advantage makes life insurance a far more attractive investment vehicle than it would otherwise be and leads to the overpurchase of insurance and overinvestment in insurance products.

Selected Bibliography

Aaron, Henry J. *The Peculiar Problem of Taxing Life Insurance Companies*. Washington, DC: Brookings Institution, 1983.

Deloitte. "US Tax Reform: Impact on Insurance Companies." January 12, 2018.

EY. "President Signs Tax Reform Bill with Numerous Changes Affecting the Insurance Industry." Tax News Update 2018-0027, January 5, 2018, https://taxnews.ey.com/news/2018-0027-president-signs-tax-reform-bill-with-numerous-changes-affecting-the-insurance-industry.

Harman, William B., Jr. "Two Decades of Insurance Tax Reform," *Tax Notes* 57 (November 12, 1992), pp. 901-914.

Hough, Jessica A., Sally A. Thurston and Robert C. Stevenson. "Impact of US Tax Reform on Insurance Companies." Skadden, Arps, Slate, Meagher & Flom brief, February 20, 2018, https://www.skadden.com/insights/publications/2018/02/impact-of-us-tax-reform-on-insurance-companies.

Johnson, J. Walker and Alexis MacIvor. "Taxation of Life Insurance Companies." Steptoe & Johnson brief, January 2012, http://www.steptoe.com/assets/attachments/3343.pdf.

Kopcke, Richard W. "The Federal Income Taxation of Life Insurance Companies." *New England Economic Review*, March/April 1985, pp. 5-19.

Pike, Andrew D. *Taxation of Life Insurance Companies*. Library of Congress, Congressional Research Service Report RL32180, December 24, 2003.

Taylor, Jack. "Federal Taxation of the Insurance Industry." In *The Encyclopedia of Taxation and Tax Policy (2nd ed.)*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington DC: Urban Institute Press, 2005.

U.S. Congress, Joint Committee on Taxation. "Life Insurance Tax Provisions." In *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*. Joint Committee Print, 98th Cong., 2d sess, Washington, DC: Government Printing Office, December 31, 1984.

— . *Tax Reform Proposals: Taxation of Insurance Products and Companies*. Joint Committee Print, 99th Cong., 1st sess., Washington, DC: Government Printing Office, September 20, 1985.

— . *Taxation of Life Insurance Companies*. Joint Committee Print, 101st Cong., 1st sess., Washington, DC: Government Printing Office, October 16, 1989, pp. 8-11.

— . Joint Explanatory Statement of the Committee of Conference (H.R. 1, the "Tax Cuts and Jobs Act"). Washington, DC, December 17, 2017, pp. 320-321.

U.S. Department of the Treasury. *Final Report to the Congress on Life Insurance Company Taxation*. Washington, DC, 1989.

— . *Tax Reform for Fairness, Simplicity, and Economic Growth, Volume 2, General Explanation of the Treasury Department Proposals*. Washington, DC, November 1984, pp. 268-269.

U.S. General Accounting Office, *Tax Treatment of Life Insurance and Annuity Accrued Interest, Report to the Chairman of the House Ways and Means Committee and Senate Finance Committee*, GAO/GGD-90-31, January 1990, http://archive.gao.gov/d27t7/140600.pdf.

SPECIAL DEDUCTION FOR BLUE CROSS AND BLUE SHIELD COMPANIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.3	0.3
2019	-	0.4	0.4
2020	-	0.4	0.4
2021	-	0.4	0.4
2022	-	0.4	0.4

Authorization

Section 833.

Description

Blue Cross and Blue Shield and a number of smaller health insurance providers that existed on August 16, 1986, when the Tax Reform Act of 1986 (P.L. 99-514) was enacted, can benefit from a special tax deduction. Other nonprofit health insurers that meet certain community-service and medical loss ratio standards also receive special tax treatment. A medical loss ratio (MLR), also called a loss ratio or health benefit ratio, is total health benefits paid divided by premium income and is a common, albeit rough, indicator of profitability and administrative efficiency.

The Blue Cross and Blue Shield special deduction has two main features. First, eligible health insurers are treated in the tax law as stock property and casualty insurance companies. Eligible organizations, however, can fully deduct unearned premiums, unlike other property and casualty insurance companies. Second, eligible companies may take a special deduction of 25 percent of the year's health-related claims and expenses minus its accumulated surplus at the beginning of the year (if such claims and expenses exceed the accumulated surplus). For example, if an eligible health insurer had claims and

related expenses of $150 million and an accumulated surplus of $110 million during a tax year, it could take a special deduction of $10 million (i.e., 25 percent of the difference between $150 million and $110 million). The special deduction is also known as the "three-month" deduction because when an eligible insurer's health-related claims and expenses exceed its accumulated surplus, it may deduct a quarter of the difference for the year. The special deduction only applies to net taxable income for the year and cannot be used in alternative minimum tax calculations. Therefore, eligible organizations' net income is subject to a 20 percent minimum tax rate.

Impact

Blue Cross/Blue Shield organizations traditionally had provided community-rated health insurance. The special deduction for Blue Cross/Blue Shield plans may help offset costs of providing high-risk and small-group coverage. Blue Cross/Blue Shield affiliates had been barred from organizing as for-profits, but in 1994, Blue Cross/Blue Shield guidelines were amended to let affiliates reorganize as for-profit insurers. More than a dozen Blue Cross/Blue Shield affiliates then converted to for-profit status. Blue Cross/Blue Shield affiliates that reorganized after August 16, 1986, are ineligible for the special deduction. Investor-owned affiliates are also ineligible for the special deduction. Thus, the special deduction could also benefit either their subscribers or all health insurance purchasers (through reduced premiums), their managers and employees (through increased compensation), or affiliated hospitals and physicians (through increased fees). Some have raised concerns that management and investors involved in Blue Cross/Blue Shield conversions to for-profit organizations have gained enormous benefits from previous tax advantages, even as most conversions have included establishment of a foundation to fund civic interests in the area of health. In 2002, New York State absorbed an estimated $2 billion in social assets accumulated by Empire Blue Cross/Blue Shield and promised to use those resources to fund health programs.

Rationale

The "Blues" had been ruled tax-exempt by Internal Revenue regulations since their inception in the 1930s, apparently because they were regarded as community service organizations. The Tax Reform Act of 1986 (P.L. 99-514) removed Blue Cross/Blue Shield plans' tax exemption because Congress believed that "exempt charitable and social welfare organizations that engage in insurance activities are engaged in an activity whose nature and scope is inherently commercial rather than charitable," and that "the tax-exempt status

of organizations engaged in insurance activities provided an unfair competitive advantage." The 1986 Act, however, introduced the special deduction described above, in part because of their continuing, albeit more limited, role in providing community-rated health insurance. In particular, Section 833(c)(2)(C) links the special deduction for Blue Cross/Blue Shield plans to the provision of high-risk and small-group coverage.

The Patient Protection and Affordable Care Act (PPACA; P.L. 111-148, §9016) links special deduction tax benefits enjoyed by Blue Cross/Blue Shield organizations to a medical loss ratio (MLR) threshold. Blue Cross/Blue Shield organizations have to maintain a MLR of at least 85 percent for tax years starting after December 31, 2009. More generally, PPACA requires private health plans to meet minimum MLR requirements (80 percent in the individual and small group business, and 85 percent in large group) for plan years starting after September 2010. The IRS issued final regulations regarding the computation of MLRs in January 2014, which specified that if the 85 percent MLR requirement is not met in a given year then Section 833 benefits become inapplicable for that year. The Consolidated and Further Continuing Appropriations Act, 2015 (P. L. 113-235) allowed certain health quality improvement expenses in the MLR calculation and clarified the consequences of not meeting the MLR standard.

The December 2017 tax act (P.L. 115–97) left Section 833 tax preferences in place, although some eligible insurers benefit from lower corporate tax rates. In particular, the elimination of the corporate alternative minimum tax (AMT) may make the Section 833 deduction more valuable.

Assessment

Differences in price and coverage between the health insurance products offered by Blue Cross and Blue Shield plans and those offered by commercial insurers, in the view of Congress, have faded. Some plans have accumulated enough surplus to purchase unrelated businesses. Many receive a substantial part of their income from administering Medicare or self-insurance plans of other companies. These tax preferences may have benefitted their managers and their affiliated hospitals and physicians more than their communities.

Some Blue Cross and Blue Shield organizations, however, retain a commitment to offer high-risk and small-group insurance coverage in their charters. Some continue to offer policies with premiums based on community payout experience ("community rated"). The tax exemption previously

granted to the "Blues," as well as the current special deduction, presumably have helped support these community-oriented activities.

Selected Bibliography

Austin, D. Andrew and Thomas L. Hungerford. *The Market Structure of the Health Insurance Industry*. Library of Congress, Congressional Research Service Report R40834. Washington, DC: May 25, 2010.

John Commins. "Blue Cross Blue Shield Companies Saved Billions with Tax Cuts," *HealthLeaders*, June 18, 2018.

Conover, Christopher J. "Impact of For-Profit Conversion of Blue Cross Plans: Empirical Evidence," paper presented at the Conversion Summit, Princeton University, December 5, 2008.

Kirchhoff, Suzanne M. *Medical Loss Ratio Requirements Under the Patient Protection and Affordable Care Act (ACA): Issues for Congress*, Library of Congress, Congressional Research Service Report R42735. Washington, DC: August 26, 2014.

Robinson, James C. "The Curious Conversion of Empire Blue Cross," *Health Affairs* 22 (4), 2003, pp. 100-118.

Shill, Otto. "Revocation of Blue Cross and Blue Shield's Tax-Exempt Status: An Unhealthy Change?" *Boston University Journal of Tax Law* 6, 1988, pp. 147-176.

Starr, Paul. *The Social Transformation of American Medicine*. New York: Basic Books, 1983, pp. 290-310.

U.S. Congress, Joint Committee on Taxation. "Tax Exempt Organizations Engaged in Insurance Activities." In *General Explanation of the Tax Reform Act of 1986*. Joint Committee Print, 100th Congress, 1st session. Washington, DC: Government Printing Office, May 4, 1987, pp. 583-592.

—. *Description and Analysis of Title VII of H.R. 3600, S. 1757, and S. 1775 ("Health Security Act")*, Joint Committee Print, 103rd Congress, 1st session. Washington, DC: Government Printing Office, December 20, 1993, pp. 82-96.

U.S. General Accounting Office. *Health Insurance: Comparing Blue Cross and Blue Shield Plans with Commercial Insurers*, HRD-86-110, July 11, 1986, http://archive.gao.gov/d4t4/130462.pdf.

U.S. Internal Revenue Service. "Conversion of Nonprofit Organizations," coordinated issue paper LMSB-04-0408-024, June 4, 2008, http://www.irs.gov/businesses/article/0,,id=183646,00.html.

—. "Computation of, and Rules Relating to, Medical Loss Ratio." *Internal Revenue Bulletin* 2014-4, January 21, 2014. 79 F.R. 755 (January 7, 2014).

—. "Modification of Treatment of Certain Health Organizations." *Internal Revenue Bulletin* 2016-28, July 11, 2016. 81 F.R. 40518 (June 22, 2016).

Wolfe Research. "Exploring Blue Cross Blue Shield Tax Reform: Considerations and Potential Impacts to For-Profits," research note, March 2,

2018, https://wolferesearch.com/sites/default/files/attachments/x20180302_JL_Blues_Tax_Reform_0.pdf.

TAX-EXEMPT STATUS AND ELECTION TO BE TAXED ONLY ON INVESTMENT INCOME FOR CERTAIN SMALL PROPERTY AND CASUALTY INSURANCE COMPANIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.1	0.1
2019	-	0.1	0.1
2020	-	0.1	0.1
2021	-	0.1	0.1
2022	-	0.1	0.1

Authorization

Sections 831, 832, 834, 501(c)(15).

Description

Insurance companies not classified as life insurance companies, which for the most part are property and casualty insurers, enjoy tax-exempt status if their gross receipts for a tax year are $600,000 or less and if premiums account for 50 percent or more of those gross receipts. Mutual insurance companies may enjoy tax-exempt status if their gross receipts for a tax year are $150,000 or less, and if more than 35 percent of those gross receipts consist of premiums. This tax-exempt status under Section 501(c)(15) is subject to a controlled group rule. Legislation enacted in 2004 (P.L. 108-218) required that premium income flowing to members of the same controlled group as the insurance company must be aggregated, which limited certain tax sheltering strategies using 501(c)(15) insurers.

Slightly larger insurance companies not classified as life insurance companies may elect to be taxed only on their taxable investment income so long as net written premiums and direct written premiums each do not exceed

a limit set at $2.2 million for 2015 and indexed to inflation for later years. Small non-life insurance companies that elect to receive this tax treatment can reverse that decision only with a waiver from the Treasury Secretary. The small non-life insurance election provision is subject to a 50 percent controlled group rule and to a diversification test.

Impact

Some very small non-life insurance companies are exempted from taxation entirely, while slightly larger non-life insurance companies may choose a potentially advantageous tax status instead of being taxed at the regular corporate tax rate of 21 percent.

Determining how benefits of the small non-life insurance company deduction are distributed is difficult because ownership of some of these companies may be dispersed. Competitive pressures may force companies to pass some of these benefits on to insurance policyholders via lower premiums. In other cases, a group of companies may set up a "captive" or "minicaptive" insurance company, which provides insurance policies in exchange for premiums. In these cases, stakeholders in the parent companies benefit from the tax exemption. The insurance company, however, must accomplish bona fide "risk shifting" and "risk distribution" in order to qualify as an insurance company under tax law. Some business owners and professionals have created small insurance companies—so-called microcaptives—as part of a tax avoidance strategy.

Rationale

Early 20th century tax laws, such as the 1909 law (Corporation Excise *Tax Act;* P.L. 61-5, §38), excluded "fraternal beneficiary societies, orders, or associations operating under the lodge system," which according to some estimates, provided life insurance to about 30 percent of the adult population. Such groups typically now are classified as IRC 501(c)(8) organizations. Since that time, small insurance companies of all types have received various tax advantages. The Revenue Act of 1954 (P.L. 83-591) included mutual non-life and non-marine insurance companies with gross receipts of $150,000 or less among the tax-exempt institutions set out in section 501(c). These provisions may have been included to encourage formation of small insurance companies to serve specific groups of individuals or firms that could not easily obtain insurance through existing insurers.

The Tax Reform Act of 1986 (P.L. 99-514) broadened the exemption by allowing individuals and corporations to take advantage of the exemption, and increased the cap on gross receipts to $350,000. Congress held that previous provisions affecting small insurers were "inordinately complex" and the "small company provision [should be extended] to all eligible small companies, whether stock or mutual." After the 1986 change, several wealthy individuals and corporations were able to avoid large amounts of taxes by creating 501(c)(15) insurers that were used to hold reserves in excess of levels required to pay claims. Legislation enacted in 2004 (P.L. 108-218) changed the gross-receipts requirements for these 501(c)(15) insurance company tax sheltering strategies. A diversification test is also required. The Consolidated Appropriations Act, 2016 (P.L. 114-113) modified eligibility for non-life insurers to elect for alternative tax treatment by raising the 831(b) upper limit on premium income from $1.2 million to $2.2 million for 2015 and mandated that the limit be indexed to inflation for later years.

Assessment

The principle of basing taxes on the ability to pay, often put forth as a requisite of an equitable and fair tax system, provides no justification for reducing taxes on business income for firms below a certain size. Tax burdens are borne by persons, such as business *owners,* customers, employees, or other individuals. The burden that a business's taxes place on a person is not determined by the size of the business.

Imposing lower tax rates on smaller firms distorts the efficient allocation of resources, since it offers a cost advantage based on size and not economic performance. This tax reduction serves no simplification purpose, since it requires an additional set of computations and some complex rules to prevent abuses. The tax reduction may help newer insurance companies become established and build up the reserves required by state laws, although it may also help perpetuate inefficient insurance companies. In other lines of insurance such as auto coverage, however, new entrants have quickly achieved significant market shares without such tax advantages.

These special tax rules for small non-life insurance companies may expand strategies available to very wealthy individuals to avoid or reduce tax liabilities. The extent of these strategies, which reduce federal revenues and may raise equity issues, is unclear. In 2015, the IRS described some microcaptive insurance arrangements as abusive tax shelters.

Selected Bibliography

Adkisson, Jay. *Adkisson's Captive Insurance Companies: An Introduction to Captives, Closely-Held Insurance Companies, and Risk Retention Groups*, Bloomington, IN: iUniverse, 2006.

—. "Analysis of the IRS's Big Win Against Risk-Pooled Small Captives in Reserve Mechanical," *Forbes*, June 25, 2018, https://www.forbes.com/sites/jayadkisson/2018/06/25/analysis-of-the-irss-big-win-against-risk-pooled-small-captives-in-reserve-mechanical/.

Hirsh, Bobbe and Alan S. Lederman. "The Service Clarifies the Facts and Circumstances Approach to Captive Insurance Companies," *Journal of Taxation* 100 (3), March 2004.

Johnson, J. Walker and Alexis MacIvor. "Taxation of Property and Casualty Insurance Companies," manuscript, Steptoe & Johnson LLP, January 2012.

Mitra, Surja. "Changes to Elections by Small Captive Insurance Companies," American Institute of CPAs, *The Tax Advisor*, July 1, 2016.

Murray, John E. *Origins of American Health Insurance: A History of Industrial Sickness Funds*. New Haven, CT: Yale University Press, 2007.

Nowotny, Gerald. "Captive Insurance Companies Provide Tax and Economic Advantages for Hedge Funds," *Journal of Taxation of Investments* 25 (3), Spring 2008, pp. 3-18.

U.S. Congress, Joint Committee on Taxation. "Property and Casualty Insurance Company Taxation." In *General Explanation of the Revenue Provisions of the Tax Reform Act of 1986*. Joint Committee Print, 100th Congress, 1st session. Washington, DC: Government Printing Office, May 4, 1987, pp. 619-621.

—. *Tax Reform Proposals: Taxation of Insurance Products and Companies*. Joint Committee Print, 99th Congress, 1st session. Washington, DC: Government Printing Office, September 20, 1985.

U.S. Internal Revenue Service. "Abusive Tax Shelters Again on the IRS "Dirty Dozen" List of Tax Scams for the 2015 Filing Season," press release IR-2015-19, February 3, 2015.

—. *Audit Technique Guide: Small Insurance Companies or Associations IRC Section 501(c)(15)*, https://www.irs.gov/pub/irs-tege/atg_small_insurance_cos_assns.pdf.

—. "Determination of Gross Receipts for Purposes of Section 501(c)(15), Notice 2006-42.

INTEREST RATE AND DISCOUNTING PERIOD ASSUMPTIONS FOR RESERVES OF PROPERTY AND CASUALTY INSURANCE COMPANIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	1.6	1.6
2019	-	1.6	1.6
2020	-	1.6	1.6
2021	-	1.6	1.6
2022	-	1.7	1.7

Authorization

Sections 831, 832(b), 846

Description

How a property and casualty insurance company calculates present values of future losses may generate a tax advantage. A present value is the current equivalent value of a given cash flow and is calculated using interest rates or discount factors and information about the timing of income and losses. Most businesses calculate taxable income by deducting expenses when the business becomes liable for paying them. A significant portion of losses paid by property and casualty insurance companies are paid years after premiums were collected. Funds that an insurer holds between payment of premiums and disbursement of loss claims are known as "float" and investment earnings on those funds are an important source of revenue in some lines of insurance.

State regulators typically require insurers to maintain minimum levels of loss reserves to ensure solvency, that is, the ability to pay all future claims. On the other hand, if loss reserves exceed levels needed to ensure solvency, an

insurer thereby shifts current earnings into future years, thus deferring tax payments. In other words, some form of discounting is appropriate to ensure that premium income, received when a policy is written, is properly matched with associated losses that occur later. If losses in future years are not fully discounted, the insurer may enjoy a tax advantage through the ability to defer loss payments. Some research finds that insurers may manage reserve levels to smooth income.

In past years, insurers employed discount factors specified by the Treasury Secretary for various lines of property and casualty insurance that insurers use to compute present values of future losses for tax purposes. In some cases, property and casualty insurers could use discount rates reflecting their own claims experience. Tax changes enacted in 2017 (P.L. 115–97) require insurers to employ discount rates calculated by the IRS from a five-year average of yields of high-quality bonds. Insurers were also required to use loss profiles calculated by the IRS for various lines of business, rather than having the option to use firm-specific loss profiles as previously allowed. Those changes constrain insurers' ability to shift net earnings into the future, thus deferring and lowering its tax burden. Those changes are estimated to reduce the size of deductible reserves, which could increase some insurers' tax liabilities.

Impact

If the net present value of losses payable by property and casualty insurers calculated for tax purposes is greater than the true net present value of those losses based on efficient financial strategies, then those insurance companies may enjoy some managerial discretion on how net earnings are allocated over time. That discretion may allow management of insurers to reduce their federal tax burden, or to smooth earnings to make the insurer's stock more attractive to investors. Some argue, however, that current tax rules could discourage insurers from setting aside sufficient reserves for catastrophic losses.

Determining the distribution of benefits of this tax provision is difficult because ownership of most property and casualty insurance companies is widely dispersed, either among shareholders in stock companies or policyholders in mutual companies. Competitive pressures may force companies to pass some of these benefits on to property and casualty insurance policyholders via lower premiums.

Rationale

Property and casualty insurers' loss reserve deductions before the Tax Reform Act of 1986 (P.L. 99-514) were based on the simple sum of expected payments for claim losses. Congress determined that this practice did not accurately measure the costs of these insurers, because property and casualty insurance companies, unlike other taxpayers, could deduct losses before they were paid. Because the time value of money makes current dollars more valuable than future dollars, allowing insurers to deduct losses ahead of actual payment reduced insurers' tax burden.

Since 1987, the loss reserve deduction has been calculated using a discounted loss reserve. The allowable current-year deduction for loss reserves since 1987 has been the accident-year's discounted loss reserve at the beginning of the tax year plus the strengthening in all prior accident-year discounted loss reserves. While these discounting rules reduced insurers' tax advantages, the discounting methodology implemented by the Tax Reform Act of 1986 probably overstated the true market-based present value of future losses of these insurers. Requiring most property and casualty companies to calculate the present value of future losses using a methodology given by the Tax Reform Act of 1986 with discount rates specified by the Treasury simplified the tax liability calculation and helped ensure more uniform tax treatment of property and casualty companies.

Changes enacted in 2017 (P.L. 115–97) tied the discounting rules to yields of high-quality corporate bonds. In addition, insurers lost the option to use firm-specific loss experiences to compute allowable reserves. Standardizing loss reserve calculations may simplify calculations and prevent some insurers from gaining a competitive advantage by using idiosyncratic loss patterns.

Assessment

Allowing some firms, such as property and casualty insurance companies, to defer certain tax liabilities requires other taxpayers to bear higher burdens, or reduces federal revenues. A potential mismatch between simple tax rules and actual financial management practices may allow those insurers to attract economic resources from other sectors of the economy, thus creating economic inefficiencies.

Over time, Congress has narrowed the discretion allowed by insurers when calculating loss reserves. While determining how closely statutory

assumptions match true economic costs of maintaining loss reserves may be difficult, the standardizing discounting calculations and tying them to market interest rates may simplify calculations and promote a level playing field among firms.

Selected Bibliography

BDO. "How Tax Reform Will Impact Insurance Companies," issue brief, January 2018, https://www.bdo.com/insights/industries/insurance/how-tax-reform-will-impact-insurance-companies.

Burstein, Emmanuel. "Do P&C Insurer Tax Rules Penalize Catastrophe Loss Coverage?" *Tax Notes Today*, March 7, 2013.

Grace, M.F. and J. T. Leverty. "Property–Liability Insurer Reserve Error: Motive, Manipulation, or Mistake." *Journal of Risk and Insurance* 79, 2012, pp. 351-380.

Johnson, J. Walker and Alexis MacIvor. "Taxation of Property and Casualty Insurance Companies," Steptoe & Johnson LLP, January 2012, http://www.steptoe.com/assets/attachments/3344.pdf.

Pope, Nat and Yu-Luen Ma. "The Role of Loss Reserve Errors in the Smoothing of Policyholder Surplus," *Journal of Risk Management and Insurance* 20, 2016, pp. 1-18.

Randolph, David W., Gerald L. Salamon, and Jim A. Seida. "Quantifying the Costs of Intertemporal Taxable Income Shifting: Theory and Evidence from the Property-Casualty Insurance Industry," *Accounting Review*, vol. 80, no. 1, January 2005.

U.S. Congress, Joint Committee on Taxation. "Property and Casualty Insurance Company Taxation." In *General Explanation of the Revenue Provisions of the Tax Reform Act of 1986*. Joint Committee Print, 100th Congress, 1st session. Washington, DC: Government Printing Office, May 4, 1987, pp. 600-618.

U.S. Internal Revenue Service. Revenue Proc. 2007-9, *Internal Revenue Bulletin* 2007-3, January 16, 2007.

—. Revenue Proc. 2015–52, *Internal Revenue Bulletin* 2015-45, November 9, 2015.

—. National Office Technical Advice Memorandum 200115002, December 21, 2000.

PRO-RATION FOR PROPERTY AND CASUALTY INSURANCE COMPANIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.2	0.2
2019	-	0.2	0.2
2020	-	0.2	0.2
2021	-	0.2	0.2
2022	-	0.2	0.2

Authorization

Section 832(b).

Description

A property and casualty insurance company's taxable income during a tax year is its underwriting income (i.e., premiums minus incurred losses and expenses) plus investment income and certain other income items minus allowable deductions. Additions to loss reserves, held to pay future claims, can also be deducted from taxable income under certain conditions. The Tax Reform Act of 1986 (P.L. 99-514) imposed a 15 percent pro-ration provision, as Congress held that using tax-exempt investments to finance additions to loss reserves was "inappropriate." Therefore, the allowable deduction for additions to loss reserves was reduced by 15 percent of (i) the insurer's tax-exempt interest, (ii) the deductible portion of dividends received (with special rules for dividends from affiliates), and (iii) the increase for the taxable year in the cash value of life insurance, endowment or annuity contracts. Tax changes enacted in 2017 (P.L. 115–97) modified the 15 percent pro-ration provision to reflect a lowering of the corporate income tax rate. In particular, the pro-ration provision is now calculated as 5.25 divided by the highest

corporate tax rate, which was lowered to 21 percent. Thus, the current pro-ration provision is 25 percent.

Impact

The pro-ration provision does not remove all of the benefit of holding tax-exempt investment to property and casualty insurance companies. At the typical statutory corporate income tax rate of 21 percent, a property or casualty insurance company would in the simplest case pay an effective tax rate of 25 percent × 21 percent = 5.25 percent on income from tax exempt investments. The corporate alternative minimum tax, which was removed in 2017, may have capped the advantage of holding higher proportions of tax-exempt securities.

Rationale

The 15-percent pro-ration requirement was included in the Tax Reform Act of 1986 (P.L. 99-514) because Congress believed that "it is not appropriate to fund loss reserves on a fully deductible basis out of income which may be, in whole or in part, exempt from tax. The amount of the reserves that is deductible should be reduced by a portion of such tax-exempt income to reflect the fact that reserves are generally funded in part from tax-exempt interest or from wholly or partially deductible dividends." The Taxpayer Relief Act of 1997 (P.L. 105-34) expanded the 15-percent pro-ration rule to apply to the inside buildup on certain insurance contracts.

Various modifications of pro-ration rules have been considered since 1997. In 1999, the Clinton Administration proposed increasing pro-ration for insurance companies from 15 percent to 25 percent. A Senate version of the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA, H.R. 2; P.L. 108-27) included a change in the pro-ration treatment of life insurance subsidiaries of property and casualty firms. A January 2005 Joint Committee on Taxation report recommended substituting the allocation rule of section 265(b) for the 15% pro-ration rule. The Obama Administration also proposed modifications of pro-ration rules for life insurance companies in its budget submissions. Tax changes enacted in 2017 (P.L. 115–97), as noted above, adjusted the pro-ration rules so that the effective tax rate would stay the same when the corporate income tax changes.

Assessment

The pro-ration provision allows property and casualty insurance companies to fund a substantial portion of their deductible reserves with tax-

exempt or tax-deferred income. Life insurance companies, banks and brokerage firms, and other financial intermediaries, face more stringent proration rules that prevent or reduce the use of tax-exempt or tax-deferred investments to fund currently deductible reserves or deductible interest expense. Allowing property and casualty insurance companies an advantageous tax status, based on the ability to use tax-exempt income to reduce tax liabilities, may allow those insurers to attract economic resources from other sectors of the economy, thus creating economic inefficiencies.

A more stringent allocation rule, which would reduce the attractiveness of investing reserves in tax-preferred assets, could reduce insurance companies' demand for tax exempt bonds issued by state and local governments, which could raise financing costs for those governments. On the other hand, a more stringent allocation rule would allow Congress to target tax incentives for state and local governments more effectively.

Selected Bibliography

Testimony of Assistant Treasury Secretary Donald Lubick, in U.S. Congress, Senate Finance Committee, hearings, 106th Cong., 1st sess., April 27, 1999.

Nobles, Tsana. "Strategic Asset Allocation: Use of Tax-Exempt Securities," *Dwight Asset Management Company Market News and Analysis*, February 2008, http://www.dwight.com /pubs/dwight_strategic_asset_allocation_0208.pdf.

Strafford Publications. "Captive Insurance Companies: Risk Management Entity for Businesses," July 18, 2012.

U.S. Congress, Joint Committee on Taxation. "Property and Casualty Insurance Company Taxation." In *General Explanation of the Revenue Provisions of the Tax Reform Act of 1986*. Joint Committee Print, 100th Cong., 1st sess. Washington, DC: Government Printing Office, May 4, 1987, pp. 594-600.

— . Joint Explanatory Statement of the Committee of Conference (H.R. 1, the "Tax Cuts and Jobs Act"). Washington, DC, December 17, 2017, pp. 324-326.

— . *Tax Reform Proposals: Taxation of Insurance Products and Companies.* Joint Committee Print, 99th Cong., 1st sess. Washington, DC: Government Printing Office, September 20, 1985.

— . *Options to Improve Tax Compliance and Reform Tax Expenditures*. Joint Committee Print JCS-02-05, 109th Cong., 1st sess. Washington, DC: Government Printing Office, January 27, 2005.

— . H.Rept. 108-126, *Jobs and Growth Tax Relief Reconciliation Act of 2003: Conference Report to Accompany H.R. 2,* 108th Cong., 1st sess., May 22, 2003, pp. 155-156.

U.S. Internal Revenue Service, *Revenue Proc. 2007-61*.

— . Office of Chief Counsel Memorandum 200234013, May 9, 2002, https://www.irs.gov/pub/irs-wd/0234013.pdf.

DEDUCTION FOR MORTGAGE INTEREST ON OWNER-OCCUPIED RESIDENCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	33.7	-	33.7
2019	27.4	-	27.4
2020	30.9	-	30.9
2021	34.3	-	34.3
2022	36.8	-	36.8

Authorization

Section 163(h).

Description

A taxpayer may claim an itemized deduction for "qualified residence interest," which includes interest paid on a mortgage secured by a principal residence and a second residence. The amount of interest that may be deducted is limited to the interest incurred on the first $750,000 ($375,000 for married filing separately) of combined mortgage debt for taxable years 2018 through 2025. For mortgage debt incurred on or before December 15, 2017, the combined mortgage limit is $1 million ($500,000 for married filing separately) during the same time period. Mortgage debt includes home equity loans secured by a principal or second residence that are used to buy, build, or substantially improve a taxpayer's home. Refinanced mortgage debt will be treated as having been incurred on the date of the original mortgage for purposes of determining which mortgage limit applies ($750,000 or $1 million). After 2025, the mortgage limit for all qualifying mortgage interest will be $1 million, plus $100,000 in home equity indebtedness regardless of its use.

Impact

The deduction is considered a tax expenditure because homeowners are allowed to deduct their mortgage interest even though the implicit rental income from the home (comparable to the income they could earn if the home were rented to someone else) is not subject to tax.

Renters and the owners of rental property do not receive a comparable benefit. Renters may not deduct any portion of their rent under the federal income tax. Landlords may deduct mortgage interest paid for rental property, but they are subject to tax on the rental income.

For taxpayers who can itemize, the home mortgage interest deduction may encourage home ownership by reducing the cost of owning compared with renting. Because a minority of taxpayers itemize, and because the mortgage interest deduction does not address the biggest barrier to homeownership—the down payment—its impact on the homeownership rate is likely small. The deduction, however, may encourage individuals to spend more on housing (measured before the income tax offset), and to borrow more than they would in the absence of the deduction.

The mortgage interest deduction primarily benefits upper-income households. Higher-income taxpayers are more likely to itemize deductions. As with any deduction, a dollar of mortgage interest deduction is worth more the higher the taxpayer's marginal tax rate. Higher-income households also tend to have larger mortgage interest deductions because they can afford to spend more on housing and can qualify to borrow more.

Distribution by Income Class of Tax Expenditure for Mortgage Interest Deduction, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.1
$30 to $40	0.3
$40 to $50	0.5

$50 to $75	3.4
$75 to $100	6.9
$100 to $200	28.8
$200 and over	60.0

Rationale

The income tax code instituted in 1913 contained a deduction for all interest paid, with no distinction between interest payments made for business, personal, living, or family expenses. There is no evidence in the legislative history that the interest deduction was intended to encourage home ownership or to stimulate the housing industry at that time. In 1913 most interest payments represented business expenses. Home mortgages and other consumer borrowing were much less prevalent than in later years.

Before the Tax Reform Act of 1986 (TRA86, P.L. 99-514), there were no restrictions on either the dollar amount of mortgage interest deduction or the number of homes on which the deduction could be claimed. The limits placed on the mortgage interest deduction in 1986 and 1987 were part of the effort to limit the deduction for personal interest.

Under the provisions of TRA86, for home mortgage loans settled on or after August 16, 1986, mortgage interest could be deducted only on a loan amount up to the purchase price of the home, plus any improvements, and on debt secured by the home but used for qualified medical and educational expenses. This was an effort to restrict tax-deductible borrowing of home equity in excess of the original purchase price of the home. The interest deduction was also restricted to mortgage debt on a first and second home.

The Omnibus Budget Reconciliation Act of 1987 (P.L. 100-203) placed new dollar limits on mortgage debt incurred after October 13, 1987, upon which interest payments could be deducted. An upper limit of $1 million ($500,000 for married filing separately) was placed on the combined "acquisition indebtedness" for a principal and second residence. Acquisition indebtedness includes any debt incurred to buy, build, or substantially improve the residence(s). The ceiling on acquisition indebtedness for any residence is reduced to zero as the mortgage balance is paid down, and can only be increased if the amount borrowed is used for improvements.

The 1987 Omnibus also replaced the exception for qualified medical and educational expenses included in TRA86 with an explicit provision for home

equity indebtedness: in addition to interest on acquisition indebtedness, interest can be deducted on loan amounts up to $100,000 ($50,000 for married filing separately) for other debt secured by a principal or second residence, such as a home equity loan, line of credit, or second mortgage. The sum of the acquisition indebtedness and home equity debt cannot exceed the fair market value of the home(s). There is no restriction on the purposes for which home equity indebtedness can be used.

The 2017 tax revision (P.L. 115-409) temporarily modified the mortgage interest deduction from 2018 through 2025. The 2017 tax revision limits the deduction to interest incurred on the first $750,000 ($375,000 for married filing separately) of combined mortgage debt for a principal and second residence. For mortgage debt incurred on or before December 15, 2017, the combined mortgage limit is $1 million ($500,000 for married filing separately) during the same time period. The mortgage limits include home equity loans secured by a principal or second residence that are used to buy, build, or substantially improve a taxpayer's home. Refinanced mortgage debt will be treated as having been incurred on the date of the original mortgage for purposes of determining which mortgage limit applies ($750,000 or $1 million). After 2025, the mortgage interest deduction is scheduled to revert to the pre-2017 tax revision limits.

Assessment

Major justifications for the mortgage interest deduction have been the desire to encourage homeownership and to stimulate residential construction. Homeownership is alleged to encourage neighborhood stability, promote civic responsibility, and improve the maintenance of residential buildings. Homeownership is also viewed as a mechanism to encourage families to save and invest in what for many will be their major financial asset.

A major criticism of the mortgage interest deduction has been its distribution of tax benefits in favor of higher-income taxpayers. As shown in the table above, it is estimated that 88.3 percent of the benefit accrues to taxpayers with incomes greater than $100,000 in 2018.

The preferential tax treatment of owner-occupied housing relative to other assets is also criticized for encouraging households to invest more in housing and less in other assets that might contribute more to increasing the nation's productivity and output.

Efforts to limit the deduction of some forms of interest more than others typically address the ability of taxpayers to substitute one form of borrowing for another. For those who can make use of it, the home equity interest deduction can substitute for the deductions phased out by TRA86 for consumer interest and investment interest in excess of investment income. This alternative is not available to renters or to homeowners with little equity buildup.

Analysts have pointed out that the rate of homeownership in the United States is not significantly different than in countries such as Canada that do not provide a mortgage interest deduction under their income tax. The value of the U.S. deduction may be at least partly capitalized into higher prices at the middle and upper end of the housing market.

Additionally, two other changes included in the 2017 tax revision will likely reduce the number of homeowners claiming the mortgage interest deduction and, therefore, the deduction's scope for the years 2018 to 2025. First, the 2017 tax revision limits the deduction for state and local property and income taxes (SALT) to $10,000 until the end of 2025. The SALT deduction is a primary reason why taxpayers choose to itemize. As a result, limiting the deduction will reduce the number of homeowners who itemize their deductions and, therefore, the number claiming the mortgage interest deduction. Additionally, the 2017 tax revision increases the standard deduction to $12,000 (single) and $24,000 (married), which will further reduce the number of taxpayers who itemize and claim the mortgage interest deduction.

Selected Bibliography

Binner, Amy and Brett Day. "Exploring Mortgage Interest Deduction Reforms: An Equilibrium Sorting Model with Endogenous Tenure Choice," *Journal of Public Economics,* vol. 122, February 2015, pp. 40-54.

Brady, Peter, Julie-Anne Cronin, and Houser, Scott. "Regional Differences in the Utilization of the Mortgage Interest Deduction," *Public Finance Review*, vol. 31, July 2003, pp. 327-366.

Capozza, Dennis R., Richard K. Green, and Patric H. Hendershott. "Taxes, Mortgage Borrowing and Residential Land Prices," in *Economic Effects of Fundamental Tax Reform*, eds. Henry H. Aaron and William G. Gale. Washington, DC: Brookings Institution Press, 1996, pp. 171-210.

Cecchetti, Stephen G. and Peter Rupert. "Mortgage Interest Deductibility and Housing Prices," *Economic Commentary,* Federal Reserve Bank of Cleveland, February 1, 1996.

Gale, William G., Jonathan Gruber, and Seth Stephens-Davidowitz. "Encouraging Homeownership Through the Tax Code," Tax Notes, vol. 115, no. 12. June 18, 2007, pp. 1171-1189.

Glaeser, Edward L. and Jesse M. Shapiro. "The Benefits of the Home Mortgage Interest Deduction," *Tax Policy and the Economy*, vol. 17, August 2003, pp. 37-82.

Gyourko, Joseph and Todd Sinai. "The Spatial Distribution of Housing-Related Ordinary Income Tax Benefits," *Real Estate Economics*, vol. 31, Winter 2003, pp. 529-531.

Hanson, Andrew, "Size of Home, Homeownership, and the Mortgage Interest Deduction," *Journal of Housing Economics,* vol. 2, September 2012, pp. 195-210.

_. "The Incidence of the Mortgage Interest Deduction: Evidence from the Market for Home Purchase Loans," *Public Finance Review,* vol. 40, May 2012, pp. 339-359.

Hanson, Andrew and Hal Martin. "Housing Market Distortions and the Mortgage Interest Deduction," *Public Finance Review,* vol. 42, no. 5, September 2014, pp.582-607.

Hilber, Christian A. L. and Tracy M. Turner. "The Mortgage Interest Deduction and its Impact on Homeownership Decisions," *The Review of Economics and Statistics,* vol. 96, no. 4, September 2014, pp. 618-637.

Keightley, Mark. *The Mortgage Interest and Property Tax Deductions: Analysis and Options*, Library of Congress, Congressional Research Service Report R41596, March 18, 2014.

_. *An Analysis of the Geographic Distribution of the Mortgage Interest Deduction*, Library of Congress, Congressional Research Service Report R43385, July 19, 2017.

Poterba, James and Todd Sinai. "Tax Expenditures for Owner-Occupied Housing: Deductions for Property Taxes and Mortgage Interest and the Exclusion of Imputed Rental Income," *American Economic Review: Papers & Proceedings,* vol. 98, no. 2, May 2008, pp. 84-89.

_. "Revenue Costs and Incentive Effects of the Mortgage Interest Deduction for Owner-occupied Housing," *National Tax Journal,* vol. 64, June 2011, pp. 531-564.

Rosen, Harvey S. "Housing Subsidies: Effects on Housing Decisions, Efficiency, and Equity," *Handbook of Public Economics,* vol. I, eds. Alan J. Auerbach and Martin Feldstein. The Netherlands, Elsevier Science Publishers B.V. (North-Holland), 1985, pp. 375-420.

Sinai, Todd, and Joseph Gyourko. "The (Un)Changing Geographical Distribution of Housing Tax Benefits: 1980 to 2000," in *Tax Policy and the Economy, 2003 Conference Report*, ed. James Poterba. National Bureau of Economic Research, November 4, 2003.

Sommer, Kamila, and Paul Sullivan. "Implications of US Tax Policy for House Prices, Rents, and Homeownership," *American Economic Review*, vol. 108, no. 2, February 2018, pp. 241-74.

U.S. Department of the Treasury, Internal Revenue Service, Publication 936, *Home Mortgage Interest Deduction*.

Commerce and Housing:
Housing

DEDUCTION FOR PREMIUMS FOR QUALIFIED MORTGAGE INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.8	-	0.8
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: This provision expired at the end of 2016 but was extended retroactively through 2017.

Authorization

Section 163.

Description

Qualified mortgage insurance premiums paid with respect to a qualified residence can be treated as residence interest and is therefore tax deductible. The deduction is phased out for married taxpayers with adjusted gross income from $100,000 to $110,000, and is phased out for single taxpayers with adjusted gross income from $50,000 to $55,000. For the purposes of this deduction, qualified mortgage insurance means mortgage insurance obtained from the Department of Veterans Affairs (VA), the Federal Housing Authority (FHA), the Rural Housing Administration (RHA), and private mortgage insurance as defined by the Homeowners Protection Act of 1988.

Impact

For a number of reasons, the mortgage insurance premium deduction primarily benefits young middle-income households. First, most lenders require mortgage insurance if a borrower's down payment is less than 20 percent of the home's assessed value. Young households are more likely to lack the wealth needed to meet this requirement and will therefore purchase mortgage insurance. Second, the deduction is only beneficial to households who itemize their deductions. Lower-income households generally do not itemize as they find the standard deduction to be more valuable. Finally, while higher-income households are more likely to itemize, income eligibility limits for this provision exclude higher-income households from benefitting from this additional deduction.

As with any deduction, a dollar of mortgage insurance premium deduction is worth more the higher the taxpayer's marginal tax rate. Thus, within the group of middle-income households that are eligible for this deduction, higher income earners will find it more beneficial.

Rationale

The deduction was added, for 2007, by the Tax Relief and Health Care Act of 2006 (P.L. 109-432) and initially extended through 2010 by the Mortgage Forgiveness Debt Relief Act of 2007 (P.L. 110-142). The deduction was extended several more times: through 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312); through 2013 by the American Taxpayer Relief Act of 2012 (P.L. 112-240); through 2014 by the Tax Increase Prevention Act of 2014 (P.L. 113-295); through 2016 by Division Q of P.L. 114-113, the Protecting Americans from Tax Hikes Act (or "PATH" Act). Most recently, the deduction was extended through 2017 by the Bipartisan Budget Act of 2018 (P.L. 115-123).

Proponents believe that allowing for the deduction of mortgage insurance premiums fosters home ownership. Most lenders will demand that a household purchase mortgage insurance if a down payment of less than 20 percent is made. By reducing the cost associated with the purchase of such insurance, more households—particularly younger middle-income households unable to meet the 20 percent down payment criterion—may be encouraged to own a home.

Assessment

A justification for the mortgage insurance premium deduction has been the desire to encourage homeownership. Homeownership is believed to encourage neighborhood stability, promote civic responsibility, and improve the maintenance of residential buildings. Homeownership is also viewed as a mechanism to encourage families to save and invest in what for many will be their major asset.

It is not clear that the deduction promotes homeownership to the degree proponents argue it does. Economists have identified the high transaction costs associated with a home purchase—mostly resulting from the down payment requirement, but also closing costs—as the primary barrier to homeownership. The ability to deduct insurance premiums does not lower this barrier—most lenders will require mortgage insurance if the borrower's down payment is less than 20 percent regardless of whether the premiums are deductible. The deduction may allow a buyer to borrow more, however, because they can deduct the higher associated premiums and therefore afford a higher housing payment.

Economists have also noted that owner-occupied housing in the United States is already heavily subsidized. By increasing the subsidy, resources are likely further directed away from other uses in the economy, such as investment in productive physical capital.

Selected Bibliography

Gale, William G., Jonathan Gruber, and Seth Stephens-Davidowitz. "Encouraging Homeownership Through the Tax Code," *Tax Notes*, v. 115, no. 12. June 18, 2007.

Poterba, James, and Todd Sinai. "Tax Expenditures for Owner-Occupied Housing: Deductions for Property Taxes and Mortgage Interest and the Exclusion of Imputed Rental Income," *American Economic Review: Papers & Proceedings,* v. 98, no. 2, 2008, pp. 84-89.

Rosen, Harvey S. "Housing Subsidies: Effects on Housing Decisions, Efficiency, and Equity," *Handbook of Public Economics,* vol. I, eds. Alan J. Auerbach and Martin Feldstein. The Netherlands, Elsevier Science Publishers B.V. (North-Holland), 1985, pp. 375-420.

Sherlock, Molly F. *Recently Expired Individual Tax Provisions ("Tax Extenders"): In Brief,* Library of Congress, Congressional Research Service Report R44925 (March 2018).

Commerce and Housing:
Housing

EXCLUSION OF CAPITAL GAINS ON SALES OF PRINCIPAL RESIDENCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	34.6	-	34.6
2019	35.8	-	35.8
2020	36.9	-	36.9
2021	38.5	-	38.5
2022	40.6	-	40.6

Authorization

Section 121.

Description

A taxpayer may exclude from federal income tax up to $250,000 of capital gain ($500,000 in the case of married taxpayers filing joint returns) from the sale or exchange of his or her principal residence. To qualify, the taxpayer must have owned and occupied the residence for at least two of the previous five years. The exclusion is limited to one sale every two years. Special rules apply in the case of sales necessitated by changes in employment, health, and other circumstances.

Impact

Excluding the capital gains on the sale of principal residences from tax primarily benefits middle- and upper-income taxpayers. At the same time, however, this provision avoids putting an additional tax burden on taxpayers, regardless of their income levels, who have to sell their homes because of changes in family status, employment, or health. It also provides tax benefits

to elderly taxpayers who sell their homes and move to less expensive housing during their retirement years. This provision simplifies income tax administration and record keeping.

Rationale

Capital gains arising from the sale of a taxpayer's principal residence have long received preferential tax treatment. The Revenue Act of 1951 (P.L. 82-183) introduced the concept of deferring the tax on the capital gain from the sale of a principal residence if the proceeds of the sale were used to buy another residence of equal or greater value. This deferral principal was supplemented by the Revenue Act of 1964 (P.L. 88-272) and the introduction of the tax provision that allowed elderly taxpayers a one-time exclusion from tax for some of the capital gain derived from the sale of their principal residence. Over time, the one-time exclusion provision was modified such that all taxpayers aged 55 years and older were allowed a one-time exclusion for up to $125,000 gain from the sale of their principal residence.

By 1997, Congress had concluded that these two provisions, tax-free rollovers and the one-time exclusion of $125,000 in gain for elderly taxpayers, had created significant complexities for the average taxpayer with regard to the sale of their principal residence. To comply with tax regulations, taxpayers had to keep detailed records of the financial expenditures associated with their homeownership. Taxpayers had to differentiate between those expenditures that affected the basis of the property and those that were for maintenance or repairs. In many instances these records had to be kept for decades.

In addition to record keeping problems, Congress calculated that the prior law rules promoted an inefficient use of taxpayers' resources. Because deferral of tax required the purchase of a new residence of equal or greater value, prior law may have encouraged taxpayers to purchase more expensive homes than they otherwise would have.

Finally, Congress assessed that prior law may have discouraged some elderly taxpayers from selling their homes to avoid possible tax consequences. Elderly taxpayers who had already used their one-time exclusion and those who might have realized a gain in excess of $125,000, may have held on to their homes longer than they otherwise would have.

As a result of these concerns, Congress repealed the rollover provisions and the one-time exclusion of $125,000 of gain in the Taxpayer Relief Act of 1997 (P.L. 105-34). In their place, Congress enacted the current tax rules

which allow a taxpayer to exclude from federal income tax up to $250,000 of capital gain ($500,000 in the case of married taxpayers filing joint returns) from the sale or exchange of his or her principal residence.

Assessment

This exclusion from income taxation gives homeownership a competitive advantage over other types of investments, since the capital gains from investments in other assets are generally taxed when the assets are sold. Moreover, when combined with other provisions in the tax code such as the deductibility of home mortgage interest, homeownership is an especially attractive investment. As a result, savings are diverted out of other forms of investment and into housing.

Viewed from another perspective, many see the exclusion on the sale of a principal residence as justifiable because the tax law does not allow the deduction of personal capital losses, because much of the profit from the sale of a personal residence can represent inflationary gains, and because the purchase of a principal residence is less of a profit-motivated decision than other types of investments. Taxing the gain on the sale of a principal residence might also interfere with labor mobility.

Selected Bibliography

Biehl, Amelia M. and William H. Hoyt. "The Taxpayer Relief Act of 1997 and Homeownership: Is Smaller Now Better?" *Economic Inquiry,* v. 52, no 2, February 2014, pp. 646-658.

Burman, Leonard E., Sally Wallace, and David Weiner. "How Capital Gains Taxes Distort Homeowners' Decisions," Proceedings of the 89th Annual Conference, 1996, Washington, DC: National Tax Association, 1997.

Cunningham, Christopher R. and Gary V. Engelhardt. "Housing Capital-Gain Taxation and Homeowner Mobility: Evidence from the Taxpayer Relief Act of 1997," *Journal of Urban Economics*, v. 63, no. 3, May 2008, pp. 803-815.

Hoyt, William H. and Stuart S. Rosenthal. "Owner-occupied Housing, Capital Gains, and the Tax Reform Act of 1986," *Journal of Urban Economics,* v. 32, no. 2 September 1992, pp. 119-139.

Shan, Hui. "The Effect of Capital Gains Taxation on Home Sales: Evidence from the Taxpayer Relief Act of 1997," *Journal of Public Economics,* v. 95, no. 1-2, 2011, pp. 177-188.

U.S. Department of the Treasury, Internal Revenue Service. *Selling Your Home,* Publication 523, 2018.

U.S. Congress, Joint Committee on Taxation. *Description of Revenue Provisions Contained in the President's Fiscal Year 2001 Budget Proposal,* March 6, 2000.

— . *General Explanation of Tax Legislation Enacted in 1997,* December 17, 1997.

U.S. Congress, Congressional Budget Office. *Perspectives on the Ownership of Capital Assets and the Realization of Capital Gains,* May 1997.

EXCLUSION OF INTEREST ON STATE AND LOCAL QUALIFIED PRIVATE ACTIVITY GOVERNMENT BONDS FOR OWNER-OCCUPIED HOUSING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.0	0.3	1.3
2019	1.0	0.3	1.3
2020	1.0	0.2	1.2
2021	1.0	0.2	1.2
2022	1.1	0.2	1.3

Authorization

Sections 103, 141, 143, and 146.

Description

Interest income on qualified bonds issued to provide mortgages at below-market interest rates on owner-occupied principal residences of first-time homebuyers is tax exempt. The issuer of mortgage bonds typically uses the bond proceeds to purchase mortgages made by a private lender. The homeowners make their monthly payments to the private lender servicing the loan. The lender then passes the payments along to the issuer to make interest and principal payments to the bondholders.

These mortgage revenue bonds (MRBs) are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Numerous limitations have been imposed on state and local MRB programs, among them restrictions on the purchase prices of houses that can be financed, on the income of homebuyers, and on the portion of bond proceeds that must be expended for mortgages in targeted (i.e., lower- income) areas.

A portion of capital gains on an MRB-financed home sold within 10 years must be rebated to the Treasury. Housing agencies may trade in bond authority for authority to issue equivalent amounts of mortgage credit certificates (MCCs). MCCs take the form of nonrefundable tax credits for interest paid on qualifying home mortgages.

MRBs are subject to the private-activity bond annual volume cap that is equal to the greater of $105 per state resident or $311.38 million in 2018. The cap has been adjusted for inflation since 2003. Housing agencies must compete for cap allocations with bond proposals for all other private activities subject to the volume cap.

In response to the housing market crisis in 2008, Congress included two provisions in the Housing and Economic Recovery Act of 2008 (HERA, P.L. 110-289) that were intended to assist the housing sector. First, HERA provided that interest on qualified private-activity bonds issued for (1) qualified residential rental projects, (2) qualified mortgage bonds, and (3) qualified veterans' mortgage bonds, would not be subject to the alternative minimum tax (AMT). In addition, HERA also created an additional $11 billion of volume cap space for bonds issued for qualified mortgage bonds and qualified bonds for residential rental projects. The cap space was designated for 2008 but unused capacity could be carried forward through 2010.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to offer mortgages on owner-occupied housing at reduced mortgage interest rates. In 2016, according to the Council of Development Finance Agencies, roughly $4.5 billion of MRBs and $6.7 billion of MCCs were issued.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and homeowners, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General*

Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

The first MRBs were issued without any federal restrictions during the high-interest-rate period of the late 1970s. State and local officials expected reduced mortgage interest rates arising from the tax exemption to increase the incidence of homeownership. The Mortgage Subsidy Bond Tax Act of 1980 (P.L. 96-499) imposed several targeting requirements, most importantly restricting the use of MRBs to lower-income first-time purchasers. The annual volume of bonds issued by governmental units within a state was capped, and the amount of arbitrage profits (the difference between the interest rate on the bonds and the higher mortgage rate charged to the home purchaser) was limited to one percentage point.

Depending upon the state of the housing market, targeting restrictions have been relaxed and tightened over the decade of the 1980s. MRBs were included under the unified volume cap on private-activity bonds by the Tax Reform Act of 1986 (P.L. 99-514).

MRBs had long been an "expiring tax provision" with a sunset date. MRBs first were scheduled to sunset on December 31, 1983, by the Mortgage Subsidy Bond Tax Act of 1980 (P.L. 96-499). Additional sunset dates have been adopted five times when Congress has decided to extend MRB eligibility for a temporary period. The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) made MRBs a permanent provision.

The Tax Increase Prevention and Reconciliation Act (P.L. 109-222) required that payors of state and municipal bond tax-exempt interest begin to report those payments to the Internal Revenue Service after December 31, 2005. The manner of reporting is similar to reporting requirements for interest paid on taxable obligations. Additionally in the 109th Congress, the program was expanded temporarily to assist in the rebuilding efforts after the Gulf Region hurricanes in 2005.

In the 110th Congress, the Housing and Economic Recovery Act of 2008 (P.L. 110-289) made several permanent and temporary changes to the bonds. First, the interest on MRBs became permanently exempt from the AMT. Second, eligible MRBs use was temporarily expanded to include the refinancing of qualified subprime mortgages. Third, states' volume caps were increased for 2008 (which could have been carried forward through 2010).

Fourth, changes enacted in the 109th Congress to assist victims of the Gulf Region hurricanes were extended. Also in the 110th Congress, the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) waived certain program requirements, enabling disaster victims to benefit from MRB financing.

Assessment

Income, tenure status, and house-price-targeting provisions imposed on MRBs make them more likely to achieve the goal of increased homeownership than other housing tax subsidies that make no targeting effort, such as is the case for the mortgage-interest deduction. Nonetheless, it has been suggested that most of the mortgage revenue bond subsidy goes to families that would have been homeowners even if the subsidy were not available.

Even if a case can be made for this federal subsidy for homeownership, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, MRBs increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to lure investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Cooperstein, Richard L. "Economic Policy Analysis of Mortgage Revenue Bonds," In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning, Boston, MA: Kluwer Academic Publishers, 1992.

— . "The Economics of Mortgage Revenue Bonds: A Still Small Voice," In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning, Boston, MA: Kluwer Academic Publishers, 1992.

Congressional Budget Office. Testimony, *Federal Support for State and Local Governments Through the Tax Code*. April 2012.

Council of Development Finance Agencies. "CDFA Annual Volume Cap Report," September 2017.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Galper, Harvey, Kim Rueben, Richard Auxier, and Amanda Eng. "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 67, no. 4, December 2014, p. 901.

Greulich, Erica and John M. Quigley. "Subsidies and Tax Expenditures: The Case of Mortgage Credit Certificates," *Regional Science and Urban Economics*, vol. 39, no. 6, Nov. 2009, pp. 647-57.

Hellerstein, Walter, and Eugene W. Haper. "Discriminatory State Taxation of Private Activity Bonds After Davis," *State Tax Notes*, April 27, 2009, p. 295.

Liu, Gao, and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal,* vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven, and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal,* vol. 64, no. 2, June 2011, pp. 591-613.

U.S. Department of the Treasury, Internal Revenue Service. "Municipal Bonds, 2010," Statistics of Income, Spring 2013, pp. 112-157.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity,* Washington, DC: The Urban Institute Press, 1991.

Commerce and Housing:
Housing

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT QUALIFIED PRIVATE ACTIVITY BONDS FOR RENTAL HOUSING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.8	0.2	1.0
2019	0.8	0.2	1.0
2020	0.8	0.2	1.0
2021	0.8	0.2	1.0
2022	0.9	0.2	1.1

Authorization

Sections 103, 141, 142, and 146.

Description

Interest income on state and local bonds used to finance the construction of multifamily residential rental housing units for low- and moderate-income families is tax exempt. These rental housing bonds are classified as private-activity bonds rather than as governmental bonds because a substantial portion of their benefits accrue to individuals or business, rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

These residential rental housing bonds are subject to the state private-activity bond annual volume cap. The private-activity bond annual volume cap is equal to the greater of $105 per state resident or $311.38 million in 2018. The cap has been adjusted for inflation since 2003. Several additional requirements have been imposed on these projects, primarily on the share of

the rental units that must be occupied by low-income families and the length of time over which the income restriction must be satisfied.

In response to the housing market crisis in 2008, Congress included two provisions in the Housing and Economic Recovery Act of 2008 (HERA, P.L. 110-289) that are intended to assist the housing sector. First, HERA provided that interest on qualified private activity bonds issued for (1) qualified residential rental projects, (2) qualified mortgage bonds, and (3) qualified veterans' mortgage bonds, would not be subject to the AMT. In addition, HERA also created an additional $11 billion of volume cap space for bonds issued for qualified mortgage bonds and qualified bonds for residential rental projects. The cap space was designated for 2008, but issuers had the option to carry forward unused capacity through 2010.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to offer residential rental housing units at reduced rates. Some of the benefits of the tax exemption also flow to bondholders. In 2016, according to the Council of Development Finance Agencies, roughly $14.0 billion of multifamily-housing qualified private activity bonds were issued.

For a discussion of the factors that determine the shares of benefits going to bondholders and renters, and for estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

Before 1968, state and local governments were allowed to issue tax-exempt bonds to finance multifamily rental housing without restriction. The Revenue and Expenditure Control Act of 1968 (RECA, P.L. 90-364) imposed tests that restricted the issuance of these bonds. However, the act also provided a specific exception which allowed unrestricted issuance for multifamily rental housing.

Most states issue these bonds in conjunction with the Leased Housing Program under section 8 of the United States Housing Act of 1937 (P.L. 75-412). The Tax Reform Act of 1986 (TRA86, P.L. 99-514) restricted eligibility for tax-exempt financing to projects satisfying one of two income-targeting requirements: 40 percent or more of the units must be occupied by tenants

whose incomes are 60 percent or less of the area median gross income, or 20 percent or more of the units are occupied by tenants whose incomes are 50 percent or less of the area median gross income. TRA86 subjected these bonds to the state volume cap on private-activity bonds.

The Tax Increase Prevention and Reconciliation Act (P.L. 109-222) required that payors of state and municipal bond tax-exempt interest begin to report those payments to the Internal Revenue Service after December 31, 2005. The manner of reporting is similar to reporting requirements for interest paid on taxable obligations. Additionally in the 109th Congress, the program was expanded temporarily to assist in the rebuilding efforts after the Gulf Region hurricanes of the fall of 2005.

Most recently, the Housing and Economic Recovery Act of 2008 (P.L. 110-289) coordinated certain rules pertaining to the low-income housing tax credit program and the tax exempt rental program when a project received both sources of financing. In addition, a hold-harmless policy for computing area median income limits was enacted to ensure that the annual income limits in a given year do not fall below the limits in the previous year.

Assessment

This tax expenditure was provided because it was believed that subsidized housing for low- and moderate-income families provided benefits to the nation, and provided equitable treatment for families unable to take advantage of the substantial tax incentives available to those able to invest in owner-occupied housing.

Even if a case can be made for a federal subsidy for multifamily rental housing due to underinvestment at the state and local level, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for multifamily rental housing increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to lure investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Council of Development Finance Agencies. “CDFA Annual Volume Cap Report,” September 2017.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Galper, Harvey, Kim Rueben, Richard Auxier, and Amanda Eng. "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 67, no. 4, December 2014, p. 901.

Hellerstein, Walter and Eugene W. Haper. "Discriminatory State Taxation of Private Activity Bonds After Davis," *State Tax Notes*, April 27, 2009, p. 295.

Liu, Gao, and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal,* vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven, and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal,* vol. 64, no. 2, June 2011, pp. 591-613.

U.S. Congress, Congressional Budget Office. *Tax-Exempt Bonds for Multi-Family Residential Rental Property*, 99th Congress, 1st session. June 21, 1985.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Tax Reform Act of 1986,* May 4, 1987, pp. 1171-1175.

U.S. Government Accountability Office. *Information on Selected Capital Facilities Related to the Essential Governmental Function Test*. GAO-06-1082, 2006.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*. Washington, DC: The Urban Institute Press, 1991.

DEPRECIATION OF RENTAL HOUSING IN EXCESS OF ALTERNATIVE DEPRECIATION SYSTEM

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	3.6	0.6	4.2
2019	3.2	0.5	3.7
2020	2.4	0.2	2.6
2021	1.7	0.2	1.9
2022	0.8	0.1	0.9

Authorization

Sections 167 and 168.

Description

Taxpayers are allowed to deduct the costs of acquiring depreciable assets (assets that wear out or become obsolete over a period of years) as depreciation deductions. The tax code currently allows new rental housing to be written off over 27.5 years, using a "straight-line" method where equal amounts are deducted in each period. This rule was adopted in 1986. There is also a prescribed 40-year write-off period for rental housing under the alternative minimum tax (also based on a straight-line method).

The tax expenditure measures the revenue loss from current depreciation deductions in excess of the deductions that would have been allowed under this longer 40-year period.

Prior to 1981, taxpayers were generally offered the choice of using the straight-line method or accelerated methods of depreciation, such as double-declining balance and sum-of-years digits, in which greater amounts are

deducted in the early years. (Used buildings with a life of 20 years or more were restricted to 125-percent declining balance methods.) The period of time over which deductions were taken varied with the taxpayer's circumstances.

Beginning in 1981, the tax law prescribed specific write-offs which amounted to accelerated depreciation over periods varying from 15 to 19 years. Since 1986, all depreciation on residential buildings has been on a straight-line basis over 27.5 years.

Example: Suppose a building with a basis of $10,000 was subject to depreciation over 27.5 years. Depreciation allowances would be constant at 1/27.5 x $10,000 = $364. For a 40-year life the write-off would be $250 per year. The tax expenditure in the first year would be measured as the difference between the tax savings of deducting $364 or $250, or $114.

Impact

Given that depreciation methods faster than straight-line allow for larger deductions in the early years of the asset's life and smaller depreciation deductions in the later years, and because shorter useful lives allow quicker recovery, accelerated depreciation results in a deferral of tax liability.

It is a tax expenditure to the extent it is faster than economic (i.e., actual) depreciation, and evidence indicates that the economic decline rate for residential buildings is much slower than that reflected in tax depreciation methods.

The direct benefits of accelerated depreciation accrue to owners of rental housing. Benefits to capital income tend to concentrate in the higher-income classes (see discussion in the Introduction).

Rationale

Prior to 1954, depreciation policy had developed through administrative practices and rulings. The straight-line method was favored by IRS and generally used. Tax lives were recommended for assets through "Bulletin F," but taxpayers were also able to use a facts-and-circumstances justification.

A ruling issued in 1946 authorized the use of the 150-percent declining balance method. Authorization for it and other accelerated depreciation methods first appeared in legislation in 1954 (Internal Revenue Code of 1954, P.L.83-591) when the double declining balance and other methods were enacted. The discussion at that time focused primarily on whether the value of

machinery and equipment declined faster in their earlier years. When the accelerated methods were adopted, however, real property was included as well.

By the 1960s, most commentators agreed that accelerated depreciation resulted in excessive allowances for buildings. The first restriction on depreciation was to curtail the benefits that arose from combining accelerated depreciation with lower capital gains taxes when the building was sold. That is, while taking large deductions reduced the basis of the asset for measuring capital gains, these gains were taxed at the lower capital gains rate rather than the ordinary tax rate.

In 1964 (Revenue Act of 1964, P.L. 88-272), 1969 (Tax Reform Act of 1969, P.L. 91-172), and 1976 (Tax Reform Act of 1976, P.L. 94-455) various provisions to "recapture" accelerated depreciation as ordinary income in varying amounts when a building was sold were enacted.

In 1969, depreciation on used rental housing was restricted to 125-percent declining balance depreciation. Low-income housing was exempt from these restrictions.

In the Economic Recovery Tax Act of 1981 (P.L. 94-34), residential buildings were assigned specific write-off periods that were roughly equivalent to 175-percent declining balance methods (200 percent for low-income housing) over a 15-year period under the Accelerated Cost Recovery System (ACRS).

These changes were intended as a general stimulus to investment. Taxpayers could elect to use the straight-line method over 15 years, 35 years, or 45 years. The Deficit Reduction Act of 1984 (P.L. 98-369) increased the 15-year life to 18 years; in 1985, it was increased to 19 years. The recapture provisions would not apply if straight-line methods were originally chosen. The acceleration of depreciation that results from using the shorter recovery period under ACRS was not subject to recapture as accelerated depreciation.

The current treatment was adopted as part of the Tax Reform Act of 1986 (P.L. 99-514), which lowered tax rates and broadened the base of the income tax.

Assessment

Evidence suggests that the rate of economic decline of residential structures is much slower than the rates allowed under current law, and this

provision causes a lower effective tax rate on such investments than would otherwise be the case. This treatment in turn tends to increase investment in rental housing relative to other assets, although there is considerable debate about how responsive these investments are to tax subsidies.

At the same time, the more rapid depreciation roughly offsets the understatement of depreciation due to the use of historical cost-basis depreciation, assuming inflation is at a rate of approximately two percent. Moreover, many other assets are eligible for accelerated depreciation as well, and the allocation of capital depends on relative treatment.

Much of the previous concern about the role of accelerated depreciation in encouraging tax shelters in rental housing has faded because the current depreciation provisions are less rapid than those previously in place, and because there is a restriction on the deduction of passive losses. (Restrictions, however, were eased somewhat in 1993.)

Selected Bibliography

Alpanda, Sami and Sarah Zubairy. "Housing and Tax Policy," *Journal of Money, Credit, and Banking*, v. 48. March/April 2016, pp. 485-512.

Auerbach, Alan and Kevin Hassett. "Investment, Tax Policy, and the Tax Reform Act of 1986," *Do Taxes Matter: The Impact of the Tax Reform Act of 1986*, ed. Joel Slemrod. Cambridge, Mass.: MIT Press, 1990, pp. 13-49.

Brazell, David W. and James B. Mackie III. "Depreciation Lives and Methods: Current Issues in the U.S. Capital Cost Recovery System," *National Tax Journal*, v. 53, September 2000, pp. 531-562.

Burman, Leonard E., Thomas S. Neubig, and D. Gordon Wilson. "The Use and Abuse of Rental Project Models," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 307-349.

Deloitte and Touche. *Analysis of the Economic Depreciation of Structures*, Washington, DC: June 2000.

Follain, James R., Patric H. Hendershott, and David C. Ling. "Real Estate Markets Since 1980: What Role Have Tax Changes Played?" *National Tax Journal,* v. 45, September 1992, pp. 253-266.

Fullerton, Don, Robert Gillette, and James Mackie. "Investment Incentives Under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of the Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 131-172.

Fullerton, Don, Yolanda K. Henderson, and James Mackie. "Investment Allocation and Growth under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of the Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 173-202.

Gallin, Joshua and Randal J. Verbrugge. "Panel Data Estimates of Age-Rent Profiles for Rental Housing," Federal Reserve Bank of Cleveland, Working paper 1630, 2016.

Gravelle, Jane G. "Differential Taxation of Capital Income: Another Look at the Tax Reform Act of 1986," *National Tax Journal*, v. 63, December 1989, pp. 441-464.

— . *Depreciation and the Tax Treatment of Real Estate*, Library of Congress, Congressional Research Service Report RL30163. Washington, DC: October 25, 2000.

— . *Economic Effects of Taxing Capital Income*, Chapters 3 and 5. Cambridge, MA: MIT Press, 1994.

— . "Whither Tax Depreciation?" *National Tax Journal*, v. 54, September 2001, pp. 513-526.

Harberger, Arnold. "Tax Neutrality in Investment Incentives," *The Economics of Taxation,* eds. Henry J. Aaron and Michael J. Boskin. Washington, DC: The Brookings Institution, 1980, pp. 299-313.

Hulten, Charles, ed. *Depreciation, Inflation, and the Taxation of Income from Capital*. Washington, DC: Urban Institute, 1981.

Hulten, Charles R. and Frank C. Wykoff. "Issues in Depreciation Measurement." *Economic Inquiry*, v. 34, January 1996, pp. 10-23.

Jorgenson, Dale W. "Empirical Studies of Depreciation," *Economic Inquiry*, v. 34, January 1996, pp. 24-42.

Mackie, James. "Capital Cost Recovery," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005, pp. 43-45.

Poterba, James M. "Taxation and Housing Markets: Preliminary Evidence on the Effects of Recent Tax Reforms," *Do Taxes Matter: The Impact of the Tax Reform Act of 1986,* ed. Joel Slemrod. Cambridge, Mass: The MIT Press, 1990, pp. 13-49.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986*, May 4, 1987, pp. 89-110.

U.S. Department of the Treasury. *Report to the Congress on Depreciation Recovery Periods and Methods*, Washington, DC: June 2000.

CREDIT FOR LOW-INCOME HOUSING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.4	8.6	9.0
2019	0.4	9.0	9.4
2020	0.4	9.6	10.0
2021	0.4	10.0	10.4
2022	0.4	10.3	10.4

Authorization

Section 42.

Description

The Low Income Housing Tax Credit (LIHTC) was created by the Tax Reform Act of 1986 (TRA86, P.L. 99-514) to provide an incentive for the development or rehabilitation of affordable rental housing. Developers may receive one of two types of LIHTCs, depending on the nature of the construction project. The so-called 9 percent credit is generally reserved for new construction, while the so-called 4 percent credit is typically used for rehabilitation projects and new construction that is financed with tax-exempt bonds. Each year, for 10 years, a tax credit equal to roughly 4 percent or 9 percent of a project's qualified basis (cost of construction) is claimed. The applicable credit rates have historically not actually been 4 percent and 9 percent. Instead, the credit rates have fluctuated in response to market interest movements so that the program has delivered a subsidy equal to 30 percent of the present value of a project's qualified basis in the case of the 4 percent credit, and 70 percent in the case of the 9 percent credit. Since 2008, however, there has been a floor under the 9 percent credit below which the new construction credit rate cannot fall.

The credit is allowed only for the fraction of units serving low-income tenants, which are subject to a maximum rent. The "income test" for a qualified low-income housing project requires project owners to irrevocably elect one of three income level tests; the 20-50 test; 40-60 test; or the income averaging test. To satisfy the first test, at least 20 percent of the units must be occupied by individuals with income of 50 percent or less of the area's median gross income, adjusted for family size. To satisfy the second test, at least 40 percent of the units must be occupied by individuals with income of 60 percent or less of the area's median gross income, adjusted for family size. The third income test option allows owners to average the income of tenants. Specifically, under the income averaging option, the income test is satisfied if at least 40 percent of the units are occupied by tenants with an average income of no greater than 60 percent of AMI, and no individual tenant has an income exceeding 80 percent of AMI. Thus, for example, renting to someone with an income equal to 80 percent of AMI would also require renting to someone with an income no greater than 40 percent of AMI, so the tenants would have an average income equal to 60 percent of AMI.

In addition to the income test, a qualified low-income housing project must meet the "gross rents test" by ensuring rents do not exceed 30 percent of the elected income test level of income. An owner's required time commitment to keep units available for low-income use was originally 15 years, but the Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) extended this period to 30 years for projects begun after 1989. States may make longer commitments.

The credits are allocated in a competitive process by state housing agencies to developers, most of whom then sell their 10-year stream of tax credits to investors to raise capital for projects. The original law established an annual per-resident limit of $1.25 for the state's total credit authority. Under the Community Renewal Tax Relief Act of 2000 (P.L 106-554), this limit was increased to $1.50 in 2001, $1.75 in 2002, and thereafter, adjusted for inflation (originally, $2.00 for 2008). In 2018, states were originally scheduled to receive a LIHTC allocation of $2.40 per person, with a minimum small population state allocation of $2,765,000. The 2018 Consolidated Appropriations Act (P.L. 115-141) increased the amount of credits states will receive by 12.5 percent through 2021. The state allocation limits do not apply to the 4 percent credits that are automatically packaged with tax-exempt bond financed projects.

The tax credits are subject to passive loss restrictions. The amount of the credit that can be offset against unrelated active income is limited to the equivalent of $25,000 in deductions. This limitation stems from TRA86, which in part attempted to curb the use of tax shelters.

Impact

This provision substantially reduces the cost of investing in qualified units. Proponents of the credit argue that competitive sale of tax credits by developers to investors and the oversight requirements by housing agencies should prevent excess profits from occurring, and direct much of the benefit to qualified tenants of the housing units. However, some critics have argued that the syndication process (the forming of a partnership between a developer and investors) results in a nontrivial portion of LIHTC funding being diverted away from subsidizing construction costs.

Rationale

The tax credit for low-income housing was adopted in the Tax Reform Act of 1986 to provide a subsidy directly linked to the addition of rental housing with limited rents for low-income households. It replaced less targeted subsidies in the law, including accelerated depreciation, five-year amortization of rehabilitation expenditures, expensing of construction-period interest and taxes, and general availability of tax-exempt bond financing. The credit was scheduled to expire at the end of 1989, but was temporarily extended a number of times until made permanent by the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66).

The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) required states to regulate tax-credit projects more carefully to insure that investors were not earning excessive rates of return and introduced the requirement that new projects have a long-term plan for providing low-income housing. Legislation in 1988, (the Technical and Miscellaneous Revenue Act of 1988, P.L. 100-647), in 1989 (noted above), and in 1990 (the Omnibus Budget Reconciliation Act of 1990, P.L. 101-508) made technical and substantive changes to the provision. As noted above, the Community Renewal Tax Relief Act of 2000 increased the annual tax credit allocation limit, indexed it to inflation, and made minor amendments to the program.

The tax credit has also been used to assist victims of recent natural disasters. For example, the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) allowed states harmed by Hurricane Ike and the severe weather

and flooding in the Midwest to allocate additional credits to affected areas for the years 2009, 2010, and 2011. Similar changes were enacted as part of the Gulf Opportunity Zone Act of 2005 to assist victims of Hurricanes Katrina, Rita, and Wilma.

The Housing and Economic Recovery Act of 2008 (P.L. 110-289) temporarily changed the credit rate formula used for new construction. The act effectively placed a floor equal to 9 percent on the new construction tax credit rate. The 9 percent credit rate floor originally only applied to new construction *placed in service* before December 31, 2013. The American Taxpayer Relief Act of 2012 (P.L. 112-240) extended the 9 percent floor for *credit allocations* made to housing developers before January 1, 2014. The Tax Increase Prevention Act of 2014 (P.L. 113-295) extended the 9 percent credit floor for one year. The 9 percent floor was permanently extended by Division Q of P.L. 114-113, the Protecting Americans from Tax Hikes Act (or "PATH" Act). The 4 percent tax credit rate applied to rehabilitation construction has remained unaltered through the various iterations of the 9 percent floor. Most recently, the 2018 Consolidated Appropriations Act (P.L. 115-141) increased the amount of credits states will receive by 12.5 percent through 2021.

Assessment

The low-income housing credit is more targeted to lower-income individuals than the general tax provisions it replaced. Moreover, by allowing state authorities to direct its use, the credit can be used as part of a general neighborhood revitalization program. To this end, the LIHTC program today gives states about $9.0 billion in annual budget authority for federal tax credits.

The most comprehensive database of tax credit units, compiled by the Department of Housing and Urban Development (HUD), revised as of June 6, 2018, shows that 46,554 projects and 3.05 million housing units were placed in service between 1987 and 2014. More complete HUD data shows that between 1995 and 2016 more than 1,435 projects and nearly 108,810 units are placed in service each year. Fifty-five percent of LIHTC construction is new construction, roughly one-quarter of the projects have a nonprofit sponsor, about 23 percent of projects also use tax-exempt bonds as a financing source, and nearly 97 percent of all units in a LIHTC development are occupied by low-income residents.

Much less is known about the financial aspects of tax credit projects and how much it actually costs to provide an affordable rental unit under this program when all things are considered. Many tax credit projects receive other

federal subsidies, and some tax credit renters receive additional federal rental assistance. HUD's Federal Housing Administration (FHA) program is insuring an increasing number of tax credit projects.

There are a number of criticisms that can be made of the credit. The credit is unlikely to have a substantial effect on the total supply of low-income housing, based on both microeconomic analysis and some empirical evidence. There are significant overhead and administrative costs, especially if there are attempts to insure that investors do not earn excess profits. And, in general, many economists would argue that housing vouchers, or direct-income supplements to low-income individuals, are more direct and fairer methods of providing assistance to lower-income individuals. However, others argue that because of landlord discrimination against low-income people, minorities, and those with young children (and sometimes an unwillingness to get involved in a government program, particularly in tight rental markets), a mix of vouchers and project-based assistance like the tax credit might be necessary.

Selected Bibliography

Baum-Snow, Nathaniel, and Justin Marion. "The Effects of Low-Income Housing Developments on Neighborhoods," *Journal of Public Economics,* v. 93, no. 5, 2007, pp. 654-666.

Burman, Leonard. "Low Income Housing Credit," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Burge, Gregory S. "Do Tenants Capture the Benefits from the Low-Income Housing Tax Credit Program?" *Real Estate Economics*, v. 39, no 1, 2011, pp. 71-96.

Deng, Lan. "The Cost-Effectiveness of the Low-Income Housing Tax Credit Relative to Vouchers: Evidence From Six Metropolitan Areas," *Housing Policy Debate,* v. 16, no. 3/4, 2005, pp. 469-511.

Eriksen, Michael. "Difficult Development Areas and the Supply of Subsidized Housing," *Regional Science and Urban Economics,* v. 64, 2017, pp. 68-80.

Eriksen, Michael and Stuart Rosenthal. "Crowd Out Effects of Place-Based Subsidized Rental Housing: New Evidence from the LIHTC Program," *Journal of Public Economics,* v. 94, no. 11/12, 2010, pp. 953-966.

Freeman, Lance. *Siting Affordable Housing: Location and Neighborhood Trends of Low Income Housing Tax Credit Developments in the 1990s,* The Brookings Institution, March 2004.

Gale, William G., Jonathan Gruber, and Seth Stephens-Davidowitz. "Encouraging Homeownership Through the Tax Code," *Tax Notes*, v. 115, no. 12. June 18, 2007.

Horn, Keren, and Katherine M. O'Regan. "What Can We Learn About the Low-Income Housing Tax Credit Program by Looking at the Tenants?" *Housing Policy Debate,* v. 23, no. 3, May 2013, pp. 597-613.

Introduction to Low-Income Housing Tax Credits. Novogradac & Company LLP, 2012.

Joint Center for Housing Studies of Harvard University. *The Disruption of the Low-Income Housing Tax Credit Program: Causes, Consequences, Responses, and Proposed Correctives,* December, 2009.

Keightley, Mark P. *An Introduction to the Design of the Low-Income Housing Tax Credit*, Library of Congress, Congressional Research Service Report RS22389, March 2018.

Lang, Bree J. "Input Distortions in the Low-Income Housing Tax Credit: Evidence from Building Size," *Regional Science and Urban Economics,* v. 52, 2015, pp. 119-128.

Office of the Comptroller of the Currency. *Low-Income Housing Tax Credits: Affordable Housing Investment Opportunities for Banks,* March, 2014.

Olsen, Edgar O. "Fundamental Housing Policy Reform," working paper from the University of Virginia, January 2006.

Schwartz, Alex and Edwin Melendez. "After Year 15: Challenges to the Preservation of Housing Financed with Low-Income Housing Tax Credits," *Housing Policy Debate*, v. 19, no. 2, 2008, pp. 261-294.

Sinai, Todd, and Joel Waldfogel. "Do Low-Income Housing Subsides Increase the Occupied Housing Stock?" *Journal of Public Economics,* v. 89, no. 11/12, December 2005, pp. 2137-2164.

U.S. Congress, House Committee on Ways and Means. *Tax Provisions Related to Housing,* 2004 Green Book, 108th Congress, 2nd session, March 2004, pp. 13-58.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986,* May 4, 1987, pp. 152-177.

U.S. Department of Housing and Urban Development. *HUD's National Low Income Housing Tax Credit Database: Projects Placed in Service through 2015,* June 2018.

__.*Understanding Whom the LIHTC Program Serves: Data on Tenants in LIHTC Units as of December 31, 2015*. March 2018.

U.S. Department of the Treasury, Comptroller of the Currency, *Low-Income Housing Tax Credits: Affordable Housing Investment Opportunities for Banks,* February 2008.

U.S. Government Accountability Office. *Low-Income Housing Tax Credit: Actions Needed to Strengthen Oversight and Accountability,* GAO-17-784T, August 2017.

_.*Low-Income Housing Tax Credit: The Role of Syndicators,* GAO-17-285R, February 2017.

_.*Low-Income Housing Tax Credit: Some Agency Practices Raise Concerns and IRS Could Improve Noncompliance Reporting and Data Collection,* GAO-16-360, May 2016.

_.*Low-Income Housing Tax Credit: Joint IRS-HUD Administration Could Help Address Weaknesses in Oversight,* GAO-15-330, July 2015.

_.*Community Reinvestment Act: Challenges in Quantifying Its Effect on Low-Income Housing Tax Credit Investment,* GAO-12-869R, August, 2012.

_.*Costs and Characteristics of Federal Housing Assistance,* GAO-01-901R, July 2001.

Woo, Ayoung, Kenneth Joh, and Shannon Van Zandt. "Impacts of the Low-Income Housing Tax Credit Program on Neighborhood Housing Turnover," *Urban Affairs Review*, v. 52, no. 2, March 2016, pp. 247-279.

CREDIT FOR REHABILITATION OF HISTORIC STRUCTURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.3	1.1	1.4
2019	0.2	0.9	1.1
2020	0.2	0.7	0.9
2021	0.2	0.8	1.0
2022	0.2	0.8	1.0

Authorization

Section 47.

Description

Certified expenditures used to substantially rehabilitate certified historic structures qualify for a 20-percent tax credit. The building must be depreciable. That is, it must be used in a trade or business, or held for the production of income. It may be used for offices, for commercial, industrial or agricultural enterprises, or for rental housing. The building may not serve exclusively as the owner's private residence.

The costs of acquiring an historic building, or an interest in such a building, such as a leasehold interest, are not qualifying expenditures. The costs of facilities related to an existing building, such as a parking lot, also are not qualifying expenditures. Expenditures incurred by a lessee do not qualify for the credit unless the remaining lease term on the date the rehabilitation is completed is at least as long as the applicable recovery period under the general depreciation rules (generally, 27.5 years for residential property and 39 years for nonresidential property). Straight-line depreciation must be used.

The basis (the cost for purposes of depreciation) of the building is reduced by the amount of the rehabilitation credit.

The rehabilitation must be substantial. During a 24-month period selected by the taxpayer, rehabilitation expenditures must exceed the greater of $5,000 or the adjusted basis of the building and its structural components. For phased rehabilitations, completed in two or more distinct stages, the measuring period is 60 months. Before 2018, the rehabilitation tax credit was generally allowed in the taxable year that the rehabilitated property is placed in service. Beginning in tax year 2018, the credit is taken ratably over five years (i.e., 20 percent per year) commencing in the taxable year that the property is placed into service.

There is no upper limit on the amount of rehabilitation expenditures that can be claimed. However, under the passive-loss rules, there is a limit on the amount of deductions and credits from rental real estate investment that can be used to offset tax on unrelated income in a single tax year. The limit is the equivalent of $25,000 in deductions. This special deduction is phased out above specified income thresholds. The ordering rules for the phaseout are provided in Section 469 of the Internal Revenue Code.

Certified historic structures are either individually registered in the National Register of Historic Places, or they are structures certified by the Secretary of the Interior as having historic significance that are located in a registered historic district. State Historic Preservation Officers, who are designated by the governor of their respective state or territory, review applications and forward recommendations for historic designation to the U.S. Department of the Interior.

The credit has a recapture provision. Before legislative changes to the credit were enacted in 2017, the owner must have held the building for five full years after completing the rehabilitation, or pay back the credit. If the owner disposed of the building within a year after it is placed in service, 100 percent of the credit is recaptured. For properties held between one and five years, the tax credit recapture amount was reduced by 20 percent per year. As of the publication date of this entry, transition rules have not been issued on how the recapture provision might be affected by the new requirement that the tax credit be taken ratably over five years. The National Park Service or the State Historic Preservation Office may inspect a rehabilitated property at any time during the five-year period. The National Park Service may revoke certification if the building alterations do not conform to the plans specified in the application.

Section 47 also provided a 10-percent tax credit for the rehabilitation of commercial structures that were built before 1936 but are not historically certified. (See the entry on "Credit for Rehabilitation of Structures, Other Than Historic Structures.") This 10-percent credit is repealed, effective with the 2018 tax year.

Impact

The credit reduces the taxpayer's cost of restoring historic buildings. The availability of the credit may raise the prices offered for certified historic structures in need of rehabilitation. Before 1986, historic preservation projects had become a popular, rapidly growing tax shelter. To help restrain this, the Tax Reform Act of 1986 (P.L. 99-514) imposed at-risk rules and passive-loss limits on deductions and credits from investments in rental real estate.

Both historic and non-historic rehabilitation projects proliferated after the introduction of the tax credits in 1981. Following the introduction of the passive-loss rules on individual investors in 1986, however, there was a steep decline in rehabilitation projects sponsored by limited partnerships and other syndication structures that linked individual investors to developers. Rehabilitation activity continued to decline through 1993. During the second half of the 1990s, historic rehabilitation rebounded, but in a new form. Corporations that had become regular investors under the Low-Income Housing Tax Credit (LIHTC) program began "twinning" or combining the historic tax credit (HTC) with the LIHTC by rehabilitating historic properties for affordable housing, sometimes also including retail or office space in the building. Subsequently, developers began twinning the HTC with the federal New Markets Tax Credit (NMTC), enacted in 2000. (See the entries on "Credit for Low-Income Housing" and "New Markets Tax Credit and Renewal Community Tax Incentives.")

In addition to these federal tax credits, developers may receive tax credits on their state income taxes. As of 2018, the National Trust for Historic Preservation counts 35 states as having historic preservation tax credits. Some states also have their own LIHTC and NMTC programs.

According to the National Park Service, the 20-percent tax credit for rehabilitation of certified historic places and the 10-percent tax credit for rehabilitation of all other historic structures were approved for $9.07 billion in new investment in fiscal year 2017. (See the next entry on "Credit for Rehabilitation of Structures, Other than Historic Places"). The credits have supported $90 billion in rehabilitation investments, from their inception in

fiscal year 1977 through fiscal year 2017. The 10-percent credit for non-historic structures is repealed effective with the 2018 tax year.

Rationale

Congress identified the preservation of historic structures and neighborhoods as an important national goal. But achieving that goal depended on enlisting private funds in the preservation movement. It was argued that prior law encouraged the demolition and replacement of old buildings instead of their rehabilitation and re-use.

The Tax Reform Act of 1976 (P.L. 94-455) introduced rapid depreciation (amortization over a 60-month period) for capital expenditures incurred in the rehabilitation of certified historic structures. In addition, the 1976 act provided that in the case of a substantially altered or demolished certified historic structure, the amount expended for demolition, or any loss sustained on account of the demolition, is to be charged to the capital account with respect to the land; it is not to be included in the depreciable basis of a replacement structure. Further, the act prohibited accelerated depreciation for a replacement structure.

The Economic Recovery Tax Act of 1981 (P.L. 97-34) provided a 25-percent tax credit for income-producing certified historic rehabilitation, a 15-percent credit for the rehabilitation of non-historic buildings at least 30 years old, and a 20-percent credit for renovation of existing commercial properties at least 40 years old.

The Tax Reform Act of 1986 (P.L. 99-514) simplified the structure from three to two tiers and lowered the credit rates, in keeping with the lowered tax rates on income under the act. The credit for certified historic rehabilitation was reduced from 25 percent to 20 percent. The 15-percent and 20-percent credits for the rehabilitation of non-historic buildings were combined into one credit of 10 percent for rehabilitating older qualified buildings first placed in service before 1936. The 1986 act also imposed limits on the use of credits and deductions from rental real estate investments, in the form of at-risk rules and passive-loss limitations.

In 2002, tax simplification proposals noted the numerous limitations and qualifications under the passive-loss rules. In response, the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147) clarified the ordering rules in the Internal Revenue Code (section 469(i)(3)(E)).

The Gulf Opportunity Zone Act of 2005 (GO Zone, P.L. 109-135) temporarily increased the rate of the 20-percent tax credit to 23 percent, and the 10-percent credit to 13 percent. The 23-percent credit applied to the rehabilitation of certified historic structures located in specific areas of the Gulf Region that had been adversely affected by Hurricanes Katrina, Rita, and Wilma in the fall of 2005. It was effective for expenditures made from August 28, 2005, through December 31, 2008. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended this temporary rate increase for one year, through December 31, 2009.

The 2017 tax revision (P.L. 115-97) retains the 20-percent credit for historic structures, but requires that the credit be taken over five years, rather than when the properties were placed in service, among other modifications. In contrast, P.L. 115-97 repealed the 10-percent credit for non-historic structures. These changes are effective with the 2018 tax year.

Assessment

The 20-percent tax credit is available for substantial rehabilitation expenditures approved by the National Park Service. The credit encourages the renovation of historic buildings. Opponents argue that the credit leads to economic inefficiency by encouraging investment in historic renovation projects that would not be profitable without the credit, and that the tax credit is duplicative of other federal grant programs that can be used for the promotion of historic preservation (e.g., Community Development Block Grants).

Proponents of the tax credit say that investors may otherwise fail to consider the positive externalities from renovating historic buildings, such as the value to society at large from preserving social and aesthetic assets. Proponents of the tax credit commonly cite the number of jobs in the rehabilitated building as jobs created by the tax credit. While the tax credit may influence the decision to locate jobs in a rehabilitated historic building rather than elsewhere, that does not necessarily mean that the rehabilitation created new jobs—other than the construction jobs involved in rehabilitating the building. Proponents also claim that the credit has a benefit-cost ratio of 5-to-1 (that it generates $5 in investment for every $1 of tax-revenue cost); but that ratio would be expected from a 20-percent tax credit.

The rehabilitation tax credit receives more administrative oversight than most other tax provisions. To qualify for the credit, the rehabilitation expenditures must be certified by the U.S. National Park Service both when

they are proposed and after the project is completed. Furthermore, the credit has recapture provisions.

Selected Bibliography

Alperin, Kenneth A. "What You Should Know About The Historic Rehabilitation Tax Credit," *The Practical Tax Lawyer*, vol. 19, no. 2, 2005, pp. 31-39.

Kamerick, Megan. "Framers Get a History Lesson: Historic Tax Credits Can Help Framers Secure the Shops of Their Dreams," *Art Business News*, vol. 31 (April 2003), p. S1.

Mann, Roberta F. "Tax Incentives for Historic Preservation: An Antidote for Sprawl?" *Widener Law Symposium Journal*, vol. 8, 2002, pp. 207-236.

National Trust for Historic Preservation. "State Historic Tax Credits," (updated February 2018), https://savingplaces.org/historic-tax-credits.

Oliver-Remshefski, Rebecca N. "Washington Slept Here: Protection and Preservation of Our Architectural Heritage," *Rutgers Law Review*, vol. 55 (Winter 2003), pp. 611-640.

Ryberg-Webster, Stephanie. "Preserving Downtown America: Federal Rehabilitation Tax Credits and the Transformation of U.S. Cities," *Journal of the American Planning Association* (JAPA), vol. 79, no. 4, 2013, pp. 266-279.

Ryberg-Webster, Stephanie and Kelly L. Kinahan. "Historic Preservation in Declining City Neighbourhoods: Analysing Rehabilitation Tax Credit Investments in Six U.S. Cities," *Urban Studies*, February 10, 2016, pp. 1-19.

Swaim, Richard. "Politics and Policymaking: Tax Credits and Historic Preservation," *Journal of Arts Management, Law, and Society*, vol. 33, no. 1 (Spring 2003), pp. 32-40.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Economic Recovery Tax Act of 1981 (H.R. 4242, 97th Congress; Public Law 97-34)*. Washington, DC, U.S. Government Printing Office, December 31, 1981, pp. 111-116.

—. *General Explanation of the Revenue Act of 1978 (H.R. 13511, 95th Congress; Public Law 95-600)*. Washington, DC, U.S. Government Printing Office, March 12, 1978, pp. 155-158.

—. *General Explanation of the Tax Reform Act of 1986 (H.R. 3838, 99th Congress; Public Law 99-514)*. Washington, DC, U.S. Government Printing Office, May 4, 1987.

U.S. Department of the Interior, National Park Service. *Federal Tax Incentives for Rehabilitating Historic Buildings, Annual Report for Fiscal Year 2017,* Washington, DC.

—. Technical Preservation Services. *Historic Preservation Tax Incentives*. Washington, DC, 2012.

U.S. Government Accountability Office. *Limited Information on the Use and Effectiveness of Tax Expenditures Could Be Mitigated through Congressional Attention*, GAO-12-262. Washington, DC, February 2012.

CREDIT FOR REHABILITATION OF STRUCTURES, OTHER THAN HISTORIC STRUCTURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 47.

Description

Before 2018, qualified expenditures made to substantially rehabilitate a non-historic, non-residential building were eligible for a 10-percent tax credit. Only expenditures on buildings placed in service before 1936 were eligible. A building that was moved after 1935 was ineligible. Expenditures made during any 24-month period must have exceeded the greater of $5,000 or the adjusted basis (cost less depreciation taken) of the building. There was no upper limit on the rehabilitation expenditures that could be claimed. The property must have been depreciable. The basis must have been reduced by the full amount of the credit. The tax credit was allowed to be claimed for the tax year in which the rehabilitated building is placed in service.

Beginning in 2018, though, the 10-percent credit is repealed. A transition rule provides relief to owners of either a certified historic structure or a pre-1936 building by allowing owners to use the prior law if the project meets

these conditions: (1) the taxpayer owns or leases the building on January 1, 2018 and at all times thereafter; and (2) the 24- or 60-month period selected for the substantial rehabilitation test begins by June 19, 2018.

For a building to have been eligible, at least 50 percent of the external walls must have been retained as external walls, at least 75 percent of the exterior walls must have been retained as internal or external walls, and at least 75 percent of the internal structural framework of the building must have been retained. While rental housing does not qualify for the credit, hotels do, because hotels are considered to be a commercial rather than a residential use.

Section 47 provides a 20-percent tax credit for the substantial rehabilitation of certified historic structures. (See entry on "Tax Credit for Rehabilitation of Historic Structures.") The two credits are mutually exclusive. Unlike historic rehabilitation, there was no formal administrative review process for the rehabilitation of non-historic buildings.

Impact

The tax credit encouraged businesses to renovate property rather than relocate by reducing the cost of building rehabilitation. The availability of the tax credit could have turned an unprofitable rehabilitation project on the margins into a profitable one, and might have made rehabilitating a building more profitable than new construction.

Rationale

In 1978 there was concern about the declining usefulness of older buildings, especially in older neighborhoods and central cities. In response, the Revenue Act of 1978 (P.L. 95-600) introduced an investment tax credit for rehabilitation expenditures for non-residential buildings in use for at least 20 years. The purpose was to promote stability in and restore economic vitality to deteriorating areas.

The Economic Recovery Tax Act of 1981 (P.L. 97-34) provided a 25-percent tax credit for income-producing certified historic rehabilitation, a 15-percent credit for the rehabilitation of non-historic buildings at least 30 years old, and a 20-percent credit for renovation of existing commercial properties at least 40 years old. The purpose was to counteract the tendency of significantly shortened depreciation recovery periods to encourage firms to relocate and build new plants. Concerns were expressed that investment in new structures in new locations does not promote economic recovery if it

displaces older structures, and that relocating a business can cause hardship for workers and their families.

The Tax Reform Act of 1986 (P.L. 99-514) simplified the structure of the rehabilitation credits from three to two tiers and lowered the credit rates, in keeping with the lowered tax rates on income under the act. The credit for certified historic rehabilitation was reduced from 25 percent to 20 percent. The 15-percent and 20-percent credits for the rehabilitation of non-historic buildings were combined into one 10-percent credit for rehabilitating older qualified buildings first placed in service before 1936.

The Gulf Opportunity Zone Act of 2005 (P.L. 109-135) temporarily increased the rate of the non-historic rehabilitation credit from 10 percent to 13 percent. The 13-percent credit applied to the rehabilitation of non-residential structures located in specific areas of the Gulf Region that had been adversely affected by Hurricanes Katrina, Rita, and Wilma in the fall of 2005. It was effective for expenditures made from August 28, 2005, through December 31, 2008. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended this temporary rate increase for one year, through December 31, 2009.

The 2017 tax revision (P.L. 115-97) repeals the 10-percent credit for non-historic structures. In contrast, the 20-percent credit for historic structures was retained, with modifications. These changes are effective with the 2018 tax year.

Assessment

The main criticism of the tax credit is that it caused economic inefficiency by encouraging investment projects—restoring older buildings—that would not be profitable without the credit. A defense of the tax subsidy is that there may be external benefits to society that investors would not take into account, such as preserving the aesthetic attributes of older buildings, or stabilizing neighborhoods by promoting the re-use of existing buildings rather than having the buildings abandoned. In 2001, the Joint Committee on Taxation recommended eliminating the 10-percent credit based on simplification arguments.

Proponents of retaining and modifying the credit point out that when the fixed cutoff date of 1936 was set in 1976, the credit was available for buildings 40 or more years old. They argue that if buildings at least 40 years old are considered worth saving, then the law should provide for a rolling qualification

period, rather than the fixed date, which disqualifies buildings built after 1936 that may now be well over 40 years old.

Selected Bibliography

Kamerick, Megan. "Framers get a History Lesson: Historic Tax Credits Can Help Framers Secure the Shops of Their Dreams," *Art Business News*, vol. 31 (April 2003), p. S1.

Mann, Roberta F. "Tax Incentives for Historic Preservation: An Antidote for Sprawl?" *Widener Law Symposium Journal*, vol. 8, 2002, pp. 207-236.

Oliver-Remshefski, Rebecca N. "Washington Slept Here: Protection and Preservation of Our Architectural Heritage," *Rutgers Law Review*, vol. 55 (Winter 2003), pp. 611-640.

U.S. Congress, Congressional Budget Office. *Budget Options*. "Reduce Tax Credits for Rehabilitating Buildings and Repeal the Credit for Nonhistoric Structures." Washington, DC, February 2001, p. 427.

—, Joint Committee on Taxation. *Study of the Overall State of the Federal Tax System and Recommendations for Simplification, Pursuant to Section 8022(3)(B) of the Internal Revenue Code of 1986, Volume II: Recommendations of the Staff of the Joint Committee on Taxation to Simplify the Federal Tax System*. Washington, DC, U.S. Government Printing Office, April 2001, pp. 307-309.

—. *General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress, Public Law 99-514*. Washington, DC, U.S. Government Printing Office, May 4, 1987, pp. 148-152.

—. *General Explanation of the Economic Recovery Tax Act of 1981, H.R. 4242, 97th Congress, Public Law 97-34*. Washington, DC, U.S. Government Printing Office, December 31, 1981, pp. 111-116.

—. *General Explanation of the Revenue Act of 1978, H.R. 13511, 95th Congress, Public Law 95-600*. Washington, DC: U.S. Government Printing Office, March 12, 1979, pp. 155-158.

U.S. Department of the Interior, National Park Service, Technical Preservation Services. *Historic Preservation Tax Incentives*. Washington, DC, 2012.

U.S. Government Accountability Office. *Limited Information on the Use and Effectiveness of Tax Expenditures Could Be Mitigated through Congressional Attention*, GAO-12-262. Washington, DC, February 2012.

Commerce and Housing:
Housing

EXCLUSION OF INCOME ATTRIBUTABLE TO THE DISCHARGE OF PRINCIPAL RESIDENCE ACQUISITION INDEBTEDNESS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Authorization

Section 108.

Description

Mortgage debt cancellation can occur when lenders either (1) restructure loans, reducing principal balances; or (2) sell properties, either in advance, or as a result, of foreclosure proceedings. Historically, if a lender forgives or cancels such debt, tax law has treated it as cancellation of debt (COD) income subject to tax. Exceptions, however, have been available for certain taxpayers who are insolvent or in bankruptcy — these taxpayers may exclude canceled mortgage debt income under existing law.

An additional exception allows for the exclusion of discharged qualified residential debt from gross income. Qualified indebtedness is defined as debt, limited to $2 million ($1 million if married filing separately), incurred in acquiring, constructing, or substantially improving the taxpayer's principal residence that is secured by such residence. It also includes refinancing of this debt, to the extent that the refinancing does not exceed the amount of

refinanced indebtedness. The taxpayer is required to reduce the basis in the principal residence by the amount of the excluded income.

The provision does not apply if the discharge was on account of services performed for the lender or any other factor not directly related to a decline in the residence's value or to the taxpayer's financial condition. The additional exclusion of discharged qualified residential debt applies to discharges that are made on or after January 1, 2007, and before January 1, 2018. Debt discharged after 2018 may be eligible for the exclusion if the taxpayer had entered into a binding written agreement before January 1, 2018.

Impact

The benefits stemming from the exclusion of discharged qualified residential debt from gross income will be concentrated among middle- and higher- income taxpayers, as these households have likely incurred the largest residential debt and are subject to higher marginal tax rates. To a lesser extent, the benefits also extend to lower-income new homeowners who are in financial distress. The residential debt of lower-income households, however, is relatively small, thus limiting the overall benefit accruing to these taxpayers.

According to economic theory, discharged debt qualifies as income. As a result, the impact of the exclusion differs across taxpayers with identical income. Specifically, a household who has no forgiven debt can be expected to pay more taxes, all else equal, than a household who has the same amount of income, a part of which constitutes canceled debt.

Rationale

A rationale for excluding canceled mortgage debt income has focused on minimizing hardship for households in distress. Policymakers have expressed concern that households experiencing hardship and in danger of losing their home, presumably as a result of financial distress, should not incur an additional hardship by being taxed on canceled debt income. Some analysts have also drawn a connection between minimizing hardship for individuals and consumer spending; reductions in consumer spending, if significant, can restrain overall economic activity.

This provision, as originally included in the Mortgage Forgiveness Debt Relief Act of 2007 (P.L. 110-142), was set to expire on January 1, 2011. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) initially extended the exclusion through December 31, 2012. The exclusion was extended several more times: through 2013 by the American Taxpayer Relief

Act of 2012 (P.L. 112-240); through 2014 by the Tax Increase Prevention Act of 2014 (P.L. 113-295). The exclusion was extended again through the end of 2016 by Division Q of P.L. 114-113—the Protecting Americans from Tax Hikes Act (or "PATH" Act). Most recently, the Bipartisan Budget Act of 2018 (P.L. 115-123) retroactively extended the exclusion through the end of 2017. The extension also allowed for debt discharged after 2017 to be excluded from income if the taxpayer had entered into a binding written agreement before January 1, 2018.

Assessment

By reducing the amount of taxes a homeowner would otherwise be required to pay, this provision provides relief to those who have qualified residential debt canceled by their lender. The exclusion also likely helps to support consumer spending among distressed borrowers by providing them with an income tax cut. Allowing canceled debt to be excluded from taxable income, however, does not guarantee that a distressed homeowner will retain their home — such outcome is determined in the loss mitigation process.

Opponents argue that an exclusion for canceled mortgage debt income increases the attractiveness of debt forgiveness for homeowners, and could encourage homeowners to be less responsible about fulfilling debt obligations. Some also question why the exclusion is not permanent. If the objective of the exclusion is to provide relief for distressed borrowers, then allowing the exclusion for all borrowers regardless of the overall default rate would be consistent with this objective.

Selected Bibliography

Keightley, Mark P. and Erika Lunder. *Analysis of the Tax Exclusion for Canceled Mortgage Debt Income*. Library of Congress, Congressional Research Service Report RL34212, February 2018.

Sherlock, Molly F. *Recently Expired Individual Tax Provisions ("Tax Extenders"): In Brief*. Library of Congress, Congressional Research Service Report R44925, March 2018.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation of Title III (Tax Provisions) of Division A of H.R. 1424, The Emergency Economic Stabilization Act of 2008,* JCX-79-08, Washington, DC, October 1, 2008.

REDUCED RATES OF TAX ON DIVIDENDS AND LONG-TERM CAPITAL GAINS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	128.7	-	128.7
2019	127.0	-	127.0
2020	129.3	-	129.3
2021	133.1	-	133.1
2022	137.5	-	137.5

Authorization

Sections 1(h), 631, 1201-1256.

Description

Dividends on corporate stock and gains on the sale of capital assets held for more than a year are subject to lower tax rates under the individual income tax. These reduced rates vary based on the taxpayer's taxable income and filing status. The rates were not altered by the 2017 tax revision (P.L. 115-97) and the break points remain linked to prior-law income levels. Taxpayers whose income would have fallen in the 15 percent or lower tax rate under the prior system pay no tax on capital gains and dividends. Taxpayers otherwise will pay a 15 percent tax rate except for those whose income would have fallen in the 39.6 percent bracket (under 2017 law), who pay 20 percent. For married couples in 2018, the 15 percent rate applies at $77,400 of taxable income and the 20 percent rate applies at $480,050 of taxable income. Gain arising from prior depreciation deductions is taxed at ordinary rates, but gain arising from straight line depreciation on real estate is taxed at a maximum rate of 25 percent. Also, gain on the sale of property used in a trade or business is treated as a long-term capital gain if all gains for the year on such property exceed all

losses for the year on such property. Qualifying property used in a trade or business generally is depreciable property or real estate that is held more than a year, but not inventory.

The tax expenditure is the difference between taxing gains and dividends at the lower rates and taxing them at the rates that apply to other income. To be eligible for the lower dividend rate, stock must be held for 60 out of 120 days that begin 60 days before the ex-dividend day. Only stock paid by domestic corporations and qualified foreign corporations is eligible. For passthrough entities, RICs (regulated investment companies, commonly known as mutual funds), and real estate investment trusts (REITs), payments to shareholders are eligible only to the extent they were qualified dividends to the passthrough entities.

Impact

Since higher-income individuals receive most capital gains, benefits accrue to high-income taxpayers. Dividends are also concentrated among higher-income individuals, although not to as great a degree as capital gains. Estimates of the benefit for 2017 provided in the table below are based on data provided by the Urban Brookings Tax Policy Center.

Estimated Distribution of Tax Expenditure by Income Group, 2017

(as a percent of the total tax expenditure)

Income Class	Preferential Rate for Capital Gains and Dividends
Lowest Quintile	0.1%
Second Quintile	0.5%
Middle Quintile	2.3%
Forth Quintile	4.8%
Highest Quintile	92.5%
80st Percentile to 90th Percentile	4.2%
90st Percentile to 95th Percentile	4.3%
95st Percentile to 99th Percentile	11.0%

Income Class	Preferential Rate for Capital Gains and Dividends
Top 1%	73.0%
Top 0.1%	*55.7%*

The primary assets that typically yield capital gains are corporate stock and business and rental real estate. Corporate stock accounts for 20 percent to 50 percent of total realized gains, depending on the state of the economy and the stock market. There are also gains from assets such as bonds, partnership interests, owner-occupied housing, timber, and collectibles, but all of these are relatively small as a share of total capital gains.

Rationale

Although the original 1913 Act (the Revenue Act of 1913) taxed capital gains at ordinary rates, the Revenue Act of 1921 provided for an alternative flat-rate tax for individuals of 12.5 percent for gain on property acquired for profit or investment. This treatment was intended to minimize the influence of the high progressive rates on market transactions. The Committee Report for the 1921 Act noted that these gains are earned over a period of years, but are nevertheless taxed as a lump sum. Over the years, many revisions in this treatment have been made.

From 1913 to 1935 a portion of dividends were generally exempted from the income tax. The Revenue Act of 1936 (P.L. 74-740) modified the system by subjecting dividends to both the ordinary income tax and the surtax on high-income taxpayers. These modifications expired at the end of 1939 and through 1954 there was no special tax on dividends.

In 1934, a sliding-scale treatment was adopted for capital gains (where lower rates applied the longer the asset was held). This system was revised in 1938.

In 1942, the sliding-scale approach was replaced by a 50-percent exclusion for all but short-term gains (held for less than six months), with an elective alternative tax rate of 25 percent. The alternative tax affected only individuals in tax brackets above 50 percent. The Revenue Act of 1942 (P.L. 77-753) also extended special capital gains treatment to property used in the trade or business, and introduced the alternative tax for corporations at a 25-percent rate, the alternative tax rate then in effect for individuals. This tax

relief was premised on the belief that many wartime sales were involuntary conversions which could not be replaced during wartime, and that resulting gains should not be taxed at the greatly escalated wartime rates.

The 1954 Act (P.L. 83-591) recodifying the income tax provided for the taxation of dividends at ordinary tax rates after excluding the first $50 in dividends for each spouse or individual. The Revenue Act of 1964 (P.L. 88-272) increased the exclusion to $100 and the Crude Oil Windfall Profits Tax Act (P.L. 96-223) again doubled the exclusion, but for only 1981.

In 1969, the alternative tax for individuals was repealed, and the alternative rate for corporations was reduced to 30 percent. The minimum tax on preference income and the maximum tax offset, enacted in 1969, raised the capital gains rate for some taxpayers.

In 1976 the minimum tax was strengthened, and the holding period lengthened to one year. The effect of these provisions was largely eliminated in 1978, which also saw the introduction of a 60-percent exclusion for individuals and a lowering of the alternative rate for corporations to 28 percent. The alternative corporate tax rate was chosen to apply the same maximum marginal rate to capital gains of corporations as applied to individuals (since the top rate was 70 percent, and the capital gains tax was 40 percent of that rate due to the exclusion).

The Tax Reform Act of 1986 (P.L. 99-514), which lowered overall tax rates and provided for only two rate brackets (15 percent and 28 percent), provided that capital gains and dividends would be taxed at the same rates as ordinary income. This rate structure included a “bubble” due to phase-out provisions that caused effective marginal tax rates to go from 28 percent to 33 percent and back to 28 percent.

In 1990 (P.L. 101-508), this bubble was eliminated, and a 31-percent rate was added to the rate structure. There had, however, been considerable debate over proposals to reduce capital gains taxes. Since the new rate structure would have increased capital gains tax rates for many taxpayers from 28 percent to 31 percent, the separate capital gains rate cap was introduced. The 28-percent rate cap was retained when the 1993 Omnibus Budget Reconciliation Act (P.L. 103-66) added a top rate of 36 percent and a 10-percent surcharge on very high incomes, producing a maximum rate of 39.6 percent.

The Taxpayer Relief Act of 1997 (P.L. 105-34) provided lower rates; its objective was to increase saving and risk-taking, and to reduce lock-in.

Individuals subject to the 15-percent rate paid a 10-percent rate, and individuals in the 28-, 31-, 36-, and 39.6-percent rate brackets paid a 20-percent rate. Gain arising from prior depreciation deductions was taxed at ordinary rates but with a maximum of 28 percent. Eventually, property held for five years or more would be taxed at 8 percent and 18 percent, rather than 10 percent and 20 percent. The 8-percent rate applied to sales after 2000; the 18-percent rate applied to property *acquired* after 2000 (and, thus, to such property sold after 2005). The holding period was increased to 18 months, but cut back to one year in 1998.

The Jobs and Growth Tax Relief Reconciliation Act of 2003 (P.L. 108-27) provided for lower tax rates on capital gains and qualified dividends, with a sunset after 2008 (extended to 2010 by the Tax Increase Prevention and Reconciliation Act of 2005 (P.L. 109-222) and then to 2012 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-152)). The current rate structure (with a new higher rate) was made permanent under the American Taxpayer Relief Act of 2012 (P.L. 112-240).

Assessment

The original rationale for allowing a capital gains exclusion or alternative tax benefit—the problem of bunching of income under a progressive tax—is relatively unimportant under the current flatter rate structure.

A primary rationale for reducing the tax on capital gains is to mitigate the lock-in effect. Since the tax is paid only on a realization basis, an individual is discouraged from selling an asset. This effect causes individuals to hold a less desirable mix of assets, causing an economic efficiency loss. This loss could be quite large relative to revenue raised if the realizations response is large.

Some have argued, based on certain statistical studies, that the lock-in effect is, in fact, so large that a tax cut could actually raise revenue. Others have argued that the historical record and other statistical studies do not support this view, and that capital gains tax cuts will cause considerable revenue loss. This debate about the realizations response has been a highly controversial issue, although the weight of the evidence suggests that capital gains tax cuts lead to revenue losses.

Although there are efficiency gains from reducing lock-in, capital gains taxes can also affect efficiency through other means, primarily through the reallocation of resources between types of investments. Lower capital gains taxes may disproportionately benefit real estate investments, and may cause

corporations to retain more earnings than would otherwise be the case, causing efficiency losses. At the same time lower capital gains taxes reduce the distortion that favors corporate debt over equity, which produces an efficiency gain.

Another argument in favor of capital gains relief is that much of gain realized is due to inflation. On the other hand, capital gains benefit from deferral of tax in general, and this deferral can become an exclusion if gains are held until death. Moreover, many other types of capital income (e.g., interest income) are not corrected for inflation.

The particular form of this capital gains tax relief also results in a greater concentration towards higher-income individuals than would be the case with an overall exclusion.

The extension of lower rates to dividends in 2003 significantly reduced the pre-existing incentives to corporations to retain earnings and finance with debt, and reduced the distortion that favors corporate over non-corporate investment. It is not clear that the lower tax rates will induce increased saving, another stated objective of the 2003 dividend relief, if the tax cuts are financed with deficits.

Selected Bibliography

Amromin, Gene, Paul Harrison, Nellie Liang, and Steven Sharpe. *How Did the 2003 Dividend Tax Cut Affect Stock Prices and Corporate Payout Policy*? Board of Governors of the Federal Reserve System, Finance and Economic Discussion Series 2005-57, 2005.

Auerbach, Alan J. "Capital Gains Taxation and Tax Reform," *National Tax Journal*, v. 42. September 1989, pp. 391-401.

—, Leonard E. Burman and Jonathan Siegel. "Capital Gains Taxation and Tax Avoidance," in *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, ed. Joel B. Slemrod. New York: Russell Sage, 2000.

Auten, Gerald. "Capital Gains Taxation," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

—, Leonard E. Burman, and William C. Randolph. "Estimation and Interpretation of Capital Gains Realization Behavior: Evidence from Panel Data," *National Tax Journal*, v. 42. September 1989, pp. 353-374.

Auten, Gerald E. and Joseph J. Cordes. "Cutting Capital Gains Taxes," *Journal of Economic Perspectives*, v. 5. Winter 1991, pp. 181-192.

Bogart, W.T. and W.M. Gentry. "Capital Gains Taxes and Realizations: Evidence from Interstate Comparisons," *Review of Economics and Statistics*, v. 71, May 1995, pp. 267-282.

Burman, Leonard E. and Peter D. Ricoy. "Capital Gains and the People Who Realize Them," *National Tax Journal*, v. 50, September 1997, pp. 427-451.

Burman, Leonard E. and William C. Randolph. "Measuring Permanent Responses to Capital Gains Tax Changes In Panel Data," *American Economic Review*, v. 84, September 1994.

Burman, Leonard E.—, Kimberly Clark and John O'Hare. "Tax Reform and Realization of Capital ns in 1986," *National Tax Journal*, v. 41, March 1994, pp. 63-87.

Carroll, Robert, Kevin A. Hassett, and James B. Mackie. "The Effect of Dividend Tax Relief on Investment Incentives," *National Tax Journal,* v. 56, September 2003, pp. 629-651.

Chetty, Raj and Emmanuel Saez. "Dividend and Corporate Taxations in an Agency Model of the Firm," *American Economic Journal: Economic Policy*, v. 2, no. 3, 2010.

—."Dividend Taxes and Corporate Behavior: Evidence from the 2003 Dividend Tax Cut," *Quarterly Journal of Economics*, v. 120, August 2005, pp. 791-833.

Dai, Zhonglan, Edward Maydew, Douglas A. Shackelford, and Harold H. Zhang. "Capital Gains Taxes and Asset Prices: Capitalization or Lock-in?" *Journal of Finance*, v. 63, no. 2, April 2008, pp. 709-742.

Desai, Mihir. "Taxing Corporation Capital Gains," *Tax Notes*, March 6, 2006, pp. 1079-1092.

Dowd, Tim, Robert McClelland, and Athiphat Muthitacharoen. "New Evidence on the Tax Elasticity of Capital Gains," *National Tax Journal*, v. 68(3), September 2015.

Edgerton, Jesse. "Four Facts about Dividend Payouts and the 2003 Tax Cuts," *International Tax and Public Finance*, v. 20. October 2013, pp.769-784.

Gordon, Roger and Martin Dietz. "Dividends and Taxes," in *Institutional Foundations of Public Finance: Economic and Legal Perspectives*, eds. Alan J. Auerbach and Daniel N. Shaviro. Cambridge: Harvard University Press, 2008.

Gravelle, Jane G. *Indexing Capital Gains for Inflation*. Library of Congress, Congressional Research Service Report R45229. Washington, DC: June 24, 2018.

—. *Capital Gains Taxes: An Overview*. Library of Congress, Congressional Research Service Report 96-769. Washington, DC: March 16, 2018.

—. "Effects of Dividend Relief on Economic Growth, the Stock Market, and Corporate Tax Preferences," *National Tax Journal*, v. 56, September 2003, pp. 653-668.

—. *Economic Effects of Taxing Capital Income*, Chapters 4 and 6, Cambridge, MA: MIT Press, 1994.

— and Molly F. Sherlock. *The Taxation of Dividends: Background and Overview*. Library of Congress, Congressional Research Service Report R43418. Washington, DC: March 10, 2014.

Holt, Charles C. and John P. Shelton, "The Lock-In Effect of the Capital Gains Tax," *National Tax Journal*, v. 15. December 1962, pp. 357-352.

Kawano, Laura. "The Dividend Clientele Hypothesis," *American Economic Journal: Economic Policy,* vol. 6(1), Feb. 2014.

Minarik, Joseph. "Capital Gains," *How Taxes Affect Economic Behavior*, eds. Henry J. Aaron and Joseph A. Pechman. Washington, DC: Brookings Institution, 1983, pp. 241-277.

U.S. Congress, Congressional Budget Office. *Indexing Capital Gains*, prepared by Leonard Burman and Larry Ozanne, Washington, DC: U.S. Government Printing Office, August 1990.

Urban-Brookings Tax Policy Center, *Tax Benefit of the Preferential Rates on Long-Term Capital Gains and Qualified Dividends,* Table T17-0137, April 18, 2017.

Yagan, Danny. "Capital Tax Reform and the Real Economy: The Effects of the 2003 Dividend Tax Cut," *American Economic Review,* v. 105(12), 2015.

Zhang, Yi, Kathleen A. Farrell, and Todd A. Brown. "Ex-dividend Day Price and Volume: The Case of 2003 Dividend Tax Cut," *National Tax Journal*, v. 61, no. 1, March 2008, pp. 105-127.

Zodrow, George R. "Economic Analysis of Capital Gains Taxation: Realizations, Revenues, Efficiency and Equity," *Tax Law Review*, v. 48, no. 3, Spring 1993, pp. 419-527.

SURTAX ON NET INVESTMENT INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-30.1	-	-30.1
2019	-30.6	-	-30.6
2020	-31.7	-	-31.7
2021	-33.0	-	-33.0
2022	-34.5	-	-34.5

Authorization

Section 1411.

Description

Single taxpayers with a modified adjusted gross income (MAGI) in excess of $200,000 and married taxpayers with a MAGI in excess of $250,000 may be subject to a 3.8 percent surtax on net investment income. MAGI includes wages, salaries, tips, and other compensation, dividend and interest income, business and farm income, realized capital gains, and income from a variety of other passive activities and certain foreign earned income. For those who must pay the tax, the amount of tax owed will be equal to 3.8 percent multiplied by the lesser of (1) net investment income, or (2) the amount by which their MAGI exceeds the $200,000/$250,000 thresholds.

Net investment income includes interest, dividends, annuities, royalties, certain rents, and certain other passive business income. Net investment income also includes the amount of capital gain on a home sale that exceeds the amount that can be excluded from taxation. Currently, when taxpayers sell their principal residences, they may exclude from taxation up to $250,000 in capital gain if single, and $500,000 in capital gain if married. If taxpayers sell

a second home (vacation home, rental property, etc.), they must pay taxes on the entire capital gain.

Impact

The primary impact of the tax is to increase the tax burden on upper-income taxpayers. This is due to the relatively high income thresholds, below which the tax is not levied, and the fact that the majority of investment income is earned by those toward the upper-end of the income distribution. The tax may also negatively impact certain investment choices, although since the tax rate is relatively small compared to current dividend and capital gain tax rates, it is not likely to be the primary factor affecting investment choices.

Rationale

The Patient Protection and Affordable Care Act (P.L. 111-148), as amended by the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152), was signed into law on March 23, 2010. This comprehensive health care reform legislation is intended to expand health care coverage through a variety of provisions and mandates, such as the requirement that most U.S. residents obtain health insurance. The 3.8 percent surtax on net investment income was enacted as a revenue raiser to help finance the expansion of health care coverage.

Assessment

The tax is estimated to raise a significant amount of revenue and thus it appears that it will likely be successful in achieving its objective of partly financing the health care reform enacted by P.L. 111-148. At the same time, the surtax will increase the tax burden on upper-income taxpayers, and could potentially negatively impact saving and thus investment.

Selected Bibliography

Auten, Gerald, David Splinter, and Susan Nelson. "Reactions of High-Income Taxpayers to Major Tax Legislation," *National Tax Journal*, vol. 69, December 2016, pp. 935-964.

Brose, Jon P. "An Overview of the Unearned Income Medicare Contribution Tax," *Tax Notes*, vol. 139, no. 9, May 27, 2013, pp. 1035-1049.

Dees, Richard L. "20 Questions (and 20 Answers!) on the New 3.8 Percent Tax," *Tax Notes*, vol. 140, no. 7. August 12, 2013, pp. 683-700.

Dees, Richard L. "20 Questions (and 20 Answers!) on the New 3.8 Percent Tax, Part 2," *Tax Notes*, vol. 140, no. 8. August 19, 2013, pp. 785-803.

Keightley, Mark P. *The 3.8% Medicare Contribution Tax on Unearned Income, Including Real Estate Transactions*. Library of Congress, Congressional Research Service Report R41413, Washington, DC, May, 2012.

U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 111th Congress*. 112th Congress, 1st session, March, 2011, JCS-2-11, pp. 363-365.

U.S. Congress, Joint Committee on Taxation. *Technical Explanation of the Revenue Provisions of the "Reconciliation Act of 2010, As Amended, in Combination with the "Patient Protection and Affordable Care Act," Congress*. 111th Congress, 2nd session, March 21, 2010, JCX-18-10, pp. 134-136.

EXCLUSION OF CAPITAL GAINS AT DEATH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	37.4	-	37.4
2019	39.3	-	39.3
2020	40.7	-	40.7
2021	42.4	-	42.4
2022	44.6	-	44.6

Authorization

Sections 1001, 1014, 1023, 1040, 1221, and 1222.

Description

A capital gains tax generally is imposed on the increased value of a capital asset (the difference between sales price and original cost of the asset) when the asset is sold or exchanged. This tax is not, however, imposed on the appreciation in value when ownership of the property is transferred as a result of the death of the owner or as a gift during the lifetime of the owner.

In the case of assets transferred at death, the heir's cost basis in the asset (the amount that he subtracts from sales price to determine gain if the asset is sold in the future) is generally the fair market value as of the date of decedent's death. Thus no income tax is imposed on appreciation occurring before the decedent's death, since the cost basis is increased by the amount of appreciation that has already occurred.

Assets transferred at death or by *inter vivos* gifts (gifts between living persons) may be subject to the federal estate and gift taxes, respectively, based upon their value at the time of transfer. Gain on the asset is taxed if the donees sell during their lifetime and the benefit is deferral of tax rather than exclusion.

Impact

The exclusion of capital gains at death is most advantageous to individuals who need not dispose of their assets to achieve financial liquidity. Generally speaking, these individuals tend to be wealthier. The deferral of tax on the appreciation involved, combined with the exemption for the appreciation before death, is a significant benefit for these investors and their heirs.

Failure to tax capital gains at death encourages lock-in of assets, which in turn means less current turnover of funds available for investment. In deciding whether to change his portfolio, an investor, in theory, takes into account the higher pre-tax rate of return he might obtain from the new investment, the capital gains tax he might have to pay if he changes his portfolio, and the capital gains tax his heirs might have to pay if he decides not to change his portfolio.

Often an investor in this position decides that, since his heirs will incur no capital gains tax on appreciation prior to the investor's death, he should transfer his portfolio unchanged to the next generation. The failure to tax capital gains at death and the deferral of tax tend to benefit high-income individuals (and their heirs) who have assets that yield capital gains.

Some insight into the distributional effects of this tax expenditure may be found by considering the distribution of the tax expenditure for reduced rates on capital gains, based on data provided by the Urban-Brookings Tax Policy Center (2017). The benefits of these tax expenditures are heavily concentrated among high-income individuals. Of course, the distribution of capital gain and dividend tax expenditures could be different from the distribution of taxes not paid because they are passed on at death, but the provision would always accrue largely to higher-income individuals who tend to hold most wealth.

Estimated Distribution of the Reduced Rate on Capital Gains and Qualified Dividends, 2017

Income Class	Percentage
Lowest Quintile	0.1%
Second Quintile	0.5%
Middle Quintile	2.3%
Fourth Quintile	4.8%
Top Quintile	92.5%

The primary assets that typically yield capital gains are corporate stock, real estate, and owner-occupied housing.

Rationale

The original rationale for nonrecognition of capital gains on *inter vivos* gifts or transfers at death is not indicated in the legislative history of any of the several interrelated applicable provisions. One current justification given for the treatment, however, is that death and *inter vivos* gifts are considered as inappropriate events to result in the recognition of income.

The Tax Reform Act of 1976 (P.L. 94-455) provided that the heir's basis in property transferred at death would be determined by reference to the decedent's basis. This carryover basis provision was not permitted to take effect and was repealed in 1980. The primary stated rationale for repeal was the concern that carryover basis created substantial administrative burdens for estates, heirs, and the Treasury Department.

Assessment

Failure to tax gains transferred at death is likely a primary cause of lock-in and its attendant efficiency costs; without the possibility of passing on gains at death without taxation, the lock-in effect would be greatly reduced.

The lower capital gains taxes that occur because of failure to tax capital gains at death can also affect efficiency through other means, primarily through the reallocation of resources between types of investments. Lower capital gains taxes may disproportionally benefit real estate investments and may cause corporations to retain more earnings than would otherwise be the case, thus resulting in efficiency losses. At the same time, lower capital gains

taxes reduce the distortion that favors corporate debt over equity, which produces an efficiency gain.

Several problems have been associated with taxing capital gains at death. Among these are administrative problems, particularly for assets held for a very long time when heirs do not know the basis. In addition, taxation of capital gains at death could cause liquidity problems for some taxpayers, such as owners of small farms and businesses. Therefore, most proposals for taxing capital gains at death combine substantial averaging provisions, deferred tax payment schedules, and a substantial deductible floor in determining the amount of gain to be taxed.

Selected Bibliography

Auerbach, Alan J. "Capital Gains Taxation and Tax Reform," *National Tax Journal*, v. 42, September 1989, pp. 391-401.

—. Leonard E. Burman and Jonathan Siegel. "Capital Gains Taxation and Tax Avoidance," in *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, ed. Joel B. Slemrod. New York: Russell Sage, 2000.

Bogart, W.T. and W.M. Gentry. "Capital Gains Taxes and Realizations: Evidence from Interstate Comparisons," *Review of Economics and Statistics*, v. 71, May 1995, pp. 267-282.

Burman, Leonard E. *The Labyrinth of Capital Gains Tax Policy*, Washington, DC: Brookings Institution, 1999.

Burman, Leonard E. and Peter D. Ricoy. "Capital Gains and the People Who Realize Them," *National Tax Journal*, v. 50, September 1997, pp.427-451.

David, Martin. *Alternative Approaches to Capital Gains Taxation*, Washington, DC: The Brookings Institution, 1968.

Hoerner, J. Andrew, ed. *The Capital Gains Controversy: A Tax Analyst's Reader*, Arlington, VA: Tax Analysts, 1992.

Holt, Charles C. and John P. Shelton. "The Lock-In Effect of the Capital Gains Tax," *National Tax Journal*, v. 15. December 1962, pp. 357-352.

Gravelle, Jane G. *Recent Changes in the Estate and Gift Tax Provisions*, Library of Congress, Congressional Research Service Report R42959, January 11, 2018.

Minarik, Joseph. "Capital Gains," *How Taxes Affect Economic Behavior*, eds. Henry J. Aaron and Joseph A. Pechman. Washington, DC: Brookings Institution, 1983, pp. 241-277.

Urban-Brookings Tax Policy Center. *Tax Benefit of the Preferential Rates on Long-Term Capital Gains and Qualified Dividends,* Table T17-0137, April 18, 2017.

Wetzler, James W. "Capital Gains and Losses," *Comprehensive Income Taxation*, ed. Joseph Pechman, Washington, DC: The Brookings Institution, 1977, pp. 115-162.

Zodrow, George R. "Economic Analysis of Capital Gains Taxation: Realizations, Revenues, Efficiency and Equity," *Tax Law Review*, v. 48, no. 3, Spring 1993, pp. 419-527.

DEFERRAL OF GAIN ON NON-DEALER INSTALLMENT SALES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.2	4.7	5.9
2019	1.2	4.0	5.2
2020	1.2	4.0	5.2
2021	1.2	4.1	5.3
2022	1.2	4.2	5.3

Authorization

Sections 453 and 453A(b).

Description

An installment sale is a sale of property in which at least one payment will be received in a tax year later than the year in which the sale took place. Some taxpayers are allowed to report some sales of this kind for tax purposes under a special method of accounting, called the installment method, in which the gross profit from the sale is prorated over the years during which the payments are received.

This treatment conveys a tax advantage compared to being taxed in full in the year of the sale, because the taxes that are deferred to future years have a time value (the amount of interest they could earn).

Use of the installment method was once widespread, but it has been severely curtailed in recent years. Under current law, it can be used only by persons who do not regularly deal in the property being sold (except for the sellers of farm property, timeshares, and residential building lots who may use

the installment method but must pay interest on the deferred taxes). In 2004, a provision of the American Jobs Creation Act of 2004 (P.L. 108-357) denied the installment sale treatment to readily tradeable debt.

For sales by non-dealers, interest must be paid to the government on the deferred taxes attributable to the portion of the installment sales that arise during that year and remain outstanding at the end of the tax year of more than $5,000,000. Transactions where the sales price is less than $150,000 do not count towards the $5,000,000 limit. Interest payments offset the value of tax deferral, so this tax expenditure represents only the revenue loss from those transactions that give rise to interest-free deferrals.

Impact

Installment sale treatment constitutes a departure from the normal rule that gain is recognized when the sale of property occurs. The deferral of taxation permitted under the installment sale rules essentially furnishes the taxpayer an interest-free loan equal to the amount of tax on the gain that is deferred.

The benefits of deferral are currently restricted to those transactions by non-dealers in which the sales price is no more than $150,000 and to the first $5,000,000 of installment sales arising during the year, to sales of personal-use property by individuals, and to sales of farm property. (There are other restrictions on many types of transactions, such as in corporate reorganizations and sales of depreciable assets.)

Thus the primary benefit probably flows to sellers of farms, small businesses, and small real estate investments.

Rationale

The rationale for permitting installment sale treatment of income from disposition of property is to match the time of payment of tax liability with the cash flow generated by the disposition. It has usually been considered unfair, or at least impractical, to attempt to collect the tax when the cash flow is not available, and some form of installment sale reporting has been permitted since at least the Revenue Act of 1921 (P.L. 67-98). It has frequently been a source of complexity and controversy, however, and has sometimes been used in tax shelter and tax avoidance schemes.

Installment sale accounting was greatly liberalized and simplified in the Installment Sales Revision Act of 1980 (P.L. 96-471). It was significantly

restricted by a complex method of removing some of its tax advantages in the Tax Reform Act of 1986 (P.L. 99-514), and it was repealed except for the limited uses in the Omnibus Budget Reconciliation Act of 1987 (P.L. 100-203). Further restrictions applicable to accrual method taxpayers were enacted in the Work Incentives Improvement Act of 1999 (P.L. 106-170). The 1999 Act prohibited most accrual basis taxpayers from using the installment method of accounting. Concern, however, in the small business community over these changes led to the passage, in December 2000, of the Installment Tax Correction Act of 2000 (P.L. 106-573). The 2000 Act repealed the restrictions on the installment method of accounting imposed by the 1999 Act. The repeal was made retroactive to the date of enactment of the 1999 change. The American Jobs Creation Act of 2004 (P.L. 108-357) denied installment sale treatment to readily tradeable debt.

Assessment

The installment sales rules have always been pulled between two opposing goals: taxes should not be avoidable by the way a deal is structured, but they should not be imposed when the money to pay them is not available. Allowing people to postpone taxes by taking a note instead of cash in a sale leaves obvious room for tax avoidance.

Trying to collect taxes from taxpayers who do not have the cash to pay is administratively difficult and strikes many as unfair. After having tried many different ways of balancing these goals, lawmakers have settled on a compromise that denies the advantage of the method to taxpayers who would seldom have trouble raising the cash to pay their taxes (retailers, dealers in property, investors with large amounts of sales) and permits its use to small, non-dealer transactions (with "small" rather generously defined).

Present law results in modest revenue losses and probably has little effect on economic incentives.

Selected Bibliography

U.S. Congress, Joint Committee on Taxation. *Overview of the Issues Relating to the Modification of the Installment Sales Rules by the Ticket to Work Incentives Improvement Act of 1999*, JCX-15-00, February 2000.

— . *General Explanation of Tax Legislation Enacted in the 106th Congress*. JCS-2-01, April 2001, p. 176.

U.S. Congress, House. *Omnibus Budget Reconciliation Act of 1987*, Conference Report to Accompany H.R. 3545, 100th Congress, 1st session, H.Rept. 100-495, pp. 926-931.

— . Committee on Ways and Means. *Installment Sales Revision Act of 1980*, Report to Accompany H.R. 6883, 98th Congress, 2nd session, H.Rept. 96-1042.

U.S. Congress, Joint Committee on Taxation. *Comparison of Certain Provisions of H.R. 4520 As Passed by The House of Representatives and As Amended by The Senate: Revenue Provisions*, Report JCX-64-04, September 2004, p. 57.

U.S. Department of the Treasury, Internal Revenue Service. *Installment Sales*. Publication 537, December 22, 2017.

DEFERRAL OF GAIN ON LIKE-KIND EXCHANGES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	6.7	2.1	8.8
2019	7.0	2.6	9.6
2020	6.8	2.8	9.6
2021	6.7	2.7	9.4
2022	6.6	2.7	9.3

Authorization

Section 1031.

Description

When business or investment real property is exchanged for real property of a "like-kind," no gain or loss is recognized on the exchange and therefore no tax is paid at the time of the exchange on any appreciation. This treatment is in contrast to the general rule that any sale or exchange for money or property is a taxable event.

It is also an exception to the rules allowing tax-free exchanges when the real property is "similar or related in service or use," the much stricter standard applied in other areas, such as replacing condemned property (section 1033). The latter is not considered a tax expenditure, but the postponed tax on appreciated property exchanged for "like-kind" property is.

Impact

The like-kind exchange rules have been liberally interpreted by the courts to allow tax-free exchanges of property of the same general type but of very different quality and use. All real estate, in particular, is considered "like-

kind," allowing a retiring farmer from the Midwest to swap farm land for a Florida apartment building or a right to pump water tax free.

The provision is very popular with real estate interests, some of whom specialize in arranging property exchanges. It is useful primarily to persons who wish to alter their real estate holdings without paying tax on their appreciated gain. Vehicle rental companies also used this provision, before it was restricted to real estate.

Stocks and financial instruments are generally not eligible for this provision, so it is not useful for rearranging financial portfolios. However, shares in a qualified mutual ditch, reservoir, or irrigation company are eligible under Sec. 1031.

Rationale

The general rationale for allowing tax-free exchanges is that the investment in the new property is merely a continuation of the investment in the old. A tax-policy rationale for going beyond this, to allowing tax-free adjustments of investment holdings to more advantageous positions, does not seem to have been offered. It may be that this was an accidental outgrowth of the original rule.

A provision allowing tax-free exchanges of like-kind property was included in the first statutory tax rules for capital gains in the Revenue Act of 1921 (P.L. 67-98) and has continued in some form until today. Various restrictions over the years took many kinds of property and exchanges out of its scope, but the rules for real estate, in particular, were broadened over the years by court decisions. In moves to reduce some of the more egregious uses of the rules, the Deficit Reduction Act of 1984 (P.L. 98-369) set time limits on completing exchanges, and the Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) outlawed tax-free exchanges between related parties.

Among more recent legislative changes was a provision of the American Jobs Creation Act of 2004 (P.L. 108-357), as amended in the Gulf Opportunity Zone Act of 2005 (P.L. 109-135), affecting the recognition of a gain on a principal residence acquired in a like-kind exchange. The exclusion for gain on the sale of a principal residence no longer applies if the principal residence was acquired in a like-kind exchange within the past five years. In effect, this requires the taxpayer to hold the exchanged property for a full five years before it would qualify as a principal residence.

The Food, Conservation, and Energy Act of 2008 (P.L. 110-246) provides that the general exclusion from section 1031 treatment for stocks shall not apply to shares in a qualified mutual ditch, reservoir, or irrigation company.

The 2017 tax revision (P.L. 115-97) restricted the use of like-kind exchanges to real property.

Assessment

From an economic perspective, the failure to tax appreciation in property values as it occurs defers tax liability and thus offers a tax benefit. (Likewise, the failure to deduct *declines* in value is a tax penalty.) Continuing the "nonrecognition" of gain, and thus the tax deferral, for a longer period by an exchange of properties adds to the tax benefit.

This treatment does, however, both simplify transactions and make it less costly for businesses and investors to replace property. Taxpayers gain further benefit from the loose definition of "like-kind," because they can also switch their property holdings to types they prefer without tax consequences. This might be justified as reducing the inevitable bias a tax on capital gains causes against selling property, but it is difficult to argue for restricting the relief primarily to those taxpayers engaged in sophisticated real estate transactions.

Selected Bibliography

Sowell, James B. and Jon G. Finkelstein. "Tax Reform and Investment in U.S. Real Estate." *Tax Notes,* April 16, 2018.

Sullivan, Martin A. "Economic Analysis: The Simple Economics of Like-Kind Exchanges." *Tax Notes,* August 3, 2015.

U.S. Congress, House Committee on Ways and Means. *Omnibus Budget Reconciliation Act of 1989*. Conference Report to Accompany H.R. 3299, H.Rept. 101-386, November 21, 1989, pp. 613-614.

U.S. Congress, Joint Committee on Taxation. *Study of the Overall State of the Federal Tax System and Recommendations for Simplification, Pursuant to Section 8022(3)(B) of the Internal Revenue Code of 1986, Volume II*. JCS-3-01, April 2001, pp. 300-305.

— . *Description of Possible Options to Increase Revenues Prepared for the Committee On Ways and Means*. JCS-17-87, June 25, 1987, pp. 240-241.

— . *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*. JCS-41-84, December 31, 1984, pp. 243-247.

Woodrum, William L. Jr. "Structuring an Exchange of Property to Defer Recognition of Gain." *Taxation for Accountants*. November 1986, pp. 334-339.

U.S. Department of the Treasury, Internal Revenue Service. *Sales and Other Dispositions of Assets*. Publication 544, March 13, 2018.

Commerce and Housing:
Other Business and Commerce

DEPRECIATION OF BUILDINGS OTHER THAN RENTAL HOUSING IN EXCESS OF ALTERNATIVE DEPRECIATION SYSTEM

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	0.3	0.5
2019	0.2	0.3	0.5
2020	0.2	0.2	0.4
2021	0.2	0.2	0.4
2022	0.2	0.2	0.4

Authorization

Sections 167 and 168.

Description

Taxpayers are allowed to deduct the costs of acquiring depreciable assets (assets that wear out or become obsolete over a period of years) as depreciation deductions. The tax code currently allows new buildings other than rental housing to be written off over 39 years, using a "straight line" method where equal amounts are deducted in each period. There is also a prescribed 40-year write-off period for these buildings under the alternative minimum tax (also based on a straight-line method).

Motorsports complexes (tracks and other land improvements and support facilities) are depreciated over seven years using a double declining balance method (where a rate twice as large as straight line is applied to the un-depreciated balance, with a switch to straight line midway through the period). The alternative treatment for motorsports complexes expired at the end of

2016, but was retroactively extended through 2017 by the Bipartisan Budget Act of 2018 (P.L. 115-123).

The tax expenditure measures the revenue loss from current accelerated depreciation deductions in excess of the deductions that would have been allowed under the longer 40-year period. The current revenue effects also reflect different write-off methods and lives prior to the 1993 revisions, which set the 39-year life, since some buildings pre-dating that time are still being depreciated. Prior depreciation methods imposed various types of accelerated depreciation on buildings other than rental housing, as discussed further in the "Rationale" section below.

For example, suppose a building with a basis of $10,000 was subject to depreciation over 39 years. Depreciation allowances would be constant at $257 (1/39 x $10,000). For a 40-year life the write-off would be $250 per year (1/40 x $10,000). The tax expenditure in the first year would be measured as the difference between the tax savings of deducting $250 instead of $257, or $7.

Impact

Accelerated depreciation provides a tax incentive to the extent it is faster than economic (i.e., actual) depreciation. Evidence indicates that the economic decline rate for non-residential buildings is slower than that reflected in tax depreciation methods. The present value of tax depreciation deductions, however, is reduced because deductions are not indexed for inflation, although that effect varies by type of building. Most estimates suggest that buildings are taxed at close to the statutory rate at current rates of inflation.

The direct benefits of accelerated depreciation accrue to owners of buildings, particularly to corporations. The benefit is estimated as the tax saving resulting from the depreciation deductions in excess of straight-line depreciation. Benefits to capital income tend to concentrate in the higher-income classes (see discussion in the Introduction).

Rationale

Before 1954, administrative practices and rulings dictated depreciation policy. The straight-line method was favored by IRS and generally used. Tax lives (i.e., write-off periods) were recommended for assets through "Bulletin F," but taxpayers were also able to use a facts and circumstances justification.

A ruling issued in 1946 authorized the use of the 150-percent declining balance method (where a rate 1.5 times as large as straight line is applied to the un-depreciated balance, with a switch to straight line when the straight line method produces more depreciation). Authorization for it and other accelerated depreciation methods first appeared in legislation in 1954 when the double declining balance and other methods were enacted. The discussion at that time focused primarily on whether the value of machinery and equipment declined faster in their earlier years. When the accelerated methods were adopted, however, real property was included as well.

By the 1960s, a general consensus emerged that accelerated depreciation resulted in excessive allowances for buildings. The first restriction on depreciation was to curtail the benefits that arose from combining accelerated depreciation with lower capital gains taxes when the building was sold.

In 1964, 1969, and 1976 various provisions were enacted with the intent to treat accelerated depreciation as ordinary income in varying amounts when a building was sold. In 1969, depreciation for nonresidential structures was restricted to 150-percent declining balance methods (straight-line for used buildings).

In the Economic Recovery Tax Act of 1981 (P.L. 97-34), buildings were assigned specific write-off periods that were roughly equivalent to 175-percent declining balance methods (200 percent for low-income housing) over a 15-year period under the Accelerated Cost Recovery System (ACRS). These changes were intended as a general stimulus to investment.

Taxpayers could elect to use the straight-line method over 15 years, 35 years, or 45 years. The Deficit Reduction Act of 1984 (P.L. 98-369) increased the 15-year life to 18 years; in 1985, it was increased to 19 years. The acceleration of depreciation that results from using the shorter recovery period under ACRS was not subject to recapture as accelerated depreciation.

The current straight-line treatment was adopted as part of the Tax Reform Act of 1986 (P.L. 99-514), which lowered tax rates, broadened the base of the income tax and imposed a 31.5-year tax life. The tax life was increased to 39 years by the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66).

In the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147), certain qualified leasehold improvements in non-residential buildings were made eligible for a temporary bonus depreciation (expiring after 2004) allowing 30 percent of the cost to be deducted when incurred. The percentage

was increased to 50 percent in the Jobs and Growth Tax Relief Reconciliation Act of 2003 (P.L. 108-27). Leasehold improvements were also included in the temporary one-year 50 percent bonus depreciation for 2008, enacted by Emergency Economic Stabilization Act of 2008, the fiscal stimulus bill passed in February 2008 (P.L. 110-185).

A provision allowing a 15-year recovery period for qualified leasehold improvements and restaurant improvements was adopted in the American Jobs Creation Act of 2004 (P.L. 108-357) but suspended after 2005. The arguments made for this treatment were that such investments had a shorter useful life than buildings in general. The Tax Relief and Health Care Act of 2006 (P. L. 109-432) extended the provision through 2007 and the Emergency Economic Stabilization Act (P.L.110-343), enacted in October 2008, extended it through 2009. The Protecting Americans from Tax Hikes Act (PATH), enacted as part of the Consolidated Appropriations Act, 2016 (P.L. 114-113), made this provision a permanent part of the tax code. The allowance of a 15-year recovery period for qualified leasehold improvements and restaurant improvements was eliminated by the 2017 tax revision (P.L. 115-97).

The seven-year life for the motorsports complex had been in the regulations for some time, assigning these assets to the category of amusement park assets. When the Treasury reconsidered the appropriateness of this classification, Congress in 2004 made the seven-year treatment mandatory through 2007. The provision was then extended through 2009 by the Emergency Economic Stabilization Act of 2008 (P.L. 110-143), which also included retail improvement property in the 15-year life. Both provisions were extended through 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312), and through 2013 by the American Taxpayer Relief Act (P.L. 112-240). The PATH Act (P.L. 114-113) further extended each provision through tax year 2016. The 2017 tax revision (P.L. 115-97) eliminated the modified treatment of retail improvement property, while the Bipartisan Budget Act of 2018 (P.L. 115-123) retroactively extended the seven-year treatment for motorsports complexes through 2017.

Assessment

In present value terms, current depreciation rates provide values close to economic depreciation, so that most buildings receive little or no subsidy. Much of the previous concern about the role of accelerated depreciation in encouraging tax shelters in commercial buildings has faded because the

current depreciation provisions are less rapid than those previously in place and because there is a restriction on the deduction of passive losses.

The tax authorities presumably estimated motorsports racing facilities to have slower depreciation rates than the seven-year life that applies to amusement park facilities. If so, this temporary provision constitutes a subsidy to the auto racing industry that does not appear to have an obvious justification. The treatment may, however, make racing more competitive with sports facilities that are often subsidized by state and local governments.

Selected Bibliography

Auerbach, Alan, and Kevin Hassett. "Investment, Tax Policy, and the Tax Reform Act of 1986," *Do Taxes Matter: The Impact of the Tax Reform Act of 1986*, ed. Joel Slemrod. Cambridge, Mass: The MIT Press, 1990, pp. 13-49.

Gravelle, Jane G. "Differential Taxation of Capital Income: Another Look at the Tax Reform Act of 1986," *National Tax Journal*, v. 63, December 1989, pp. 441-464.

— . "Economic Effects of Investment Subsidies," In *Tax Reform in Open Economies: International and Country Perspectives,* ed. Iris Claus, Norman Gemmell, Michelle Harding, and David White, Northhampton, MA: Edgar Elgar, 2010.

— . *Economic Effects of Taxing Capital Income*, Chapter 6. Cambridge, MA: MIT Press, 1994.

Gravelle, Jane G. and Donald J. Marples. *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations for Tax Reform*, Library of Congress, Congressional Research Report R44242, October 22, 2015.

Gravelle, Jane G., Donald J. Marples, and Molly F. Sherlock. *Recently Expired Business Tax Provisions ("Tax Extenders")*, Library of Congress, Congressional Research Report R43510, January 7, 2016.

Guenther, Gary. *The Section 179 and Bonus Depreciation Expensing Allowances: Current Law and Economic Effects*, Library of Congress, Congressional Research Service Report RL31852, May 1, 2018.

Harberger, Arnold. "Tax Neutrality in Investment Incentives," *The Economics of Taxation*, eds. Henry J. Aaron and Michael J. Boskin. Washington, DC: The Brookings Institution, 1980.

Jorgenson, Dale W. "Empirical Studies of Depreciation," *Economic Inquiry*, v. 34, January 1996, pp. 24-42.

Keightley, Mark. *Key Issues in Tax Reform: The Business Interest Deduction and Capital Expensing,* Library of Congress, Congressional Research Service In Focus IF10696, September 27, 2017.

Mackie, James. "Capital Cost Recovery," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

U.S. Congress, Joint Committee on Taxation. *Estimated Budget Effects of the Conference Agreement for H.R. 1, the "Tax Cuts and Jobs Act",* Joint Committee Print JCX-67-17, December 18, 2017.

—. *Estimates of Budget Effects of the Revenue Provisions Contained in Senate Amendment H.R. 5297, The Small Business Jobs Act of 2010*, JCX-48-10, September 16, 2010.

—. *General Explanation of the Tax Reform Act of 1986*, May 4, 1987, pp. 89-110.

U.S. Department of the Treasury. *Report to The Congress on Depreciation Recovery Periods and Methods*, Washington DC; July 28, 2000.

LIMIT NOL DEDUCTION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-0.1	-1.2	-1.3
2019	-0.1	-0.9	-1.0
2020	-0.1	-1.0	-1.1
2021	-0.1	-1.0	-1.1
2022	-0.1	-1.0	-1.1

Authorization

Section 172.

Description

A business incurs a net operating loss (NOL) when its deductions exceed its gross income. The year in which the NOL is realized is referred to as a "loss year." A business has no tax liability in a loss year. Additionally, a business is allowed to carryforward losses indefinitely and use the losses to offset future taxable income. Businesses, however, are prohibited from carrying losses back and receiving a refund for previously paid taxes. Losses may also not be used to offset more than 80 percent of taxable income. The limitation to 80 percent of taxable income is a departure from normal tax law as specified by the JCT, and results in a negative tax expenditure.

Slightly different restrictions apply to insurance companies (see, *Insurance Companies' Two-Year NOL Carryback*) and farming (see, *Two-year Carryback Period for Net Operating Losses Attributable to Farming*).

Impact

The NOL limitation primarily impacts businesses that are most likely to experience losses, such as younger businesses, businesses with financial problems, and businesses that undertake risky investments. The number of businesses impacted can be naturally expected to increase during economic downturns.

Rationale

The ability to use losses to offset income earned in other years can be traced back to the Revenue Act of 1918, which first allowed for a one-year carryback and one-year carryforward. The carryback and carryforward periods have varied since then, with the longest carryback period, outside of temporary changes or special exceptions previously mentioned, being three years and the longest carryforward period being the current policy of 20 years. Until 2017, the general NOL regime instituted by the Taxpayer Relief Act of 1997 (P.L. 105-34) allowed for a two-year carryback and 20-year carryforward. Most recently, the 2017 tax revision (P.L. 115-409) disallowed carrybacks, extended the carryforward period indefinitely, and limited the NOL deduction to 80 percent of taxable income.

The NOL rules have also been modified in the past to temporarily assist during economic downturns or in response to natural disasters. For example, in response to the Great Recession, the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) provided business taxpayers with $15 million or less in gross receipts an opportunity to extend the NOL carryback period for up to five years. Later that same year, the Worker, Homeownership, and Business Assistance Act of 2009 (P.L. 111-92) extended the provision to all business taxpayers except those who had received certain federal assistance relating to the financial crisis. The NOL carryback period was also temporarily extended to five years for losses incurred in 2001 and 2002 as part of the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147). The extension was intended to assist businesses through the 2001 recession.

In response to the destruction caused by Hurricanes Katrina, Rita, and Wilma, the Gulf Opportunity Zone Act of 2005 (P.L. 109-135) extended the carryback period from two to five years for qualified losses occurring in the Gulf Opportunity Zone (or GO Zone) and suspended the 90-percent AMT offset limitation. In addition, the act expanded the list of acceptable deductions used for determining NOLs in the GO Zone, effectively increasing the amount of losses a taxpayer could recover.

Assessment

Businesses prefer to fully offset taxable income earned in non-loss years. Limiting the allowable offset amount diminishes the ability of businesses to smooth out fluctuations in income and taxes, and address cash-flow problems over the business cycle, which could negatively impact some firms during periods of economic weakness. Full-loss offset also helps to minimize the distorting effects taxation has on risky investment decisions. As a result, limiting the NOL offset amount may deter certain investments.

Selected Bibliography

Auerbach, Alan. “The Dynamic Effects of Tax Law Asymmetries,” *The Review of Economics Studies,* vol. 53, issue 2, April 1986, pp. 205-225.

Edgerton, Jesse. “Investment Incentives and Corporate Tax Asymmetries,” *Journal of Public Economics,* vol. 94, issue 11-12, December 2010, pp. 936-952.

Evsey D. Domar and Richard A. Musgrave. "Proportional Income Taxation and Risk-Taking," *The Quarterly Journal of Economics*, vol. 58, May 1944, pp. 388-422.

Keightley, Mark. *Tax Treatment of Net Operating Losses: In Brief.* Library of Congress, Congressional Research Service Report R44976, Washington, DC, October, 2017.

Zwick, Eric and James Mahon. “Tax Policy and Heterogeneous Investment Behavior,” *American Economic Review,* vol. 107, no. 1, January 2017, pp. 217-248.

INSURANCE COMPANIES' TWO-YEAR NOL CARRYBACK

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	2.0	2.2
2019	0.4	3.2	3.6
2020	0.4	3.2	3.6
2021	0.3	3.1	3.4
2022	0.3	2.9	3.2

Authorization

Section 172(b)(1)(C).

Description

A business incurs a net operating loss (NOL) when its deductions exceed its gross income. Before enactment of the 2017 tax revision, (P.L. 115-97, often referred to as the Tax Cuts and Jobs Act), losses could be carried back to the previous two years (five years for farming losses) and deducted from income, and then carried forward for 20 years if any unused losses remained. P.L. 115-97 eliminated the carrybacks of losses for most businesses, but allows taxpayers to carry losses forward indefinitely and offset 80 percent of taxable income. Insurance companies, other than life insurance companies, however, are still allowed a two-year carryback and 20-year carryforward, and they are exempt from the 80 percent limitation. The two-year carryback for insurance companies results in a tax expenditure.

Losses attributed to the trade or business of farming are also allowed a two-year carryback. For more on the tax treatment of losses incurred while farming, see the section titled "*Two-year Carryback Period for Net Operating Losses Attributable to Farming*" in this compendium. For more information

on changes to the net operating loss deduction provision more generally, see the section titled "*Limit NOL Deduction*."

Impact

This provision impacts non-life insurance companies experiencing losses and that have had a positive tax liability within the last two years. The ability of these firms to carryback their losses allows them to receive an immediate tax refund rather than waiting to reduce future taxes.

Rationale

A provision for deducting net operating losses from income in other years has been an integral part of the income tax system from its inception. The general two-year carryback and 20-year carryforward rules that existed until the enactment of P.L. 115-97 date from the Taxpayer Relief Act of 1997 (P.L. 105-34), which shortened the carryback period from three to two years (except for farmers and small businesses in federally declared disaster areas, which remained at three years).

As described above, P.L. 115-97 eliminated the two-year carryback period for most businesses, and changed the 20-year carryforward to an indefinite carryforward period with a limitation that losses may not offset more than 80 percent of taxable income. However, the Act left in place the two-year carryback and 20-year carryforward rules for non-life insurance companies. Presumably, non-life insurers are still allowed to carryback losses because of the volatility of their income.

Assessment

Allowing non-life insurance companies a two-year carryback period improves their ability to smooth out fluctuations in income and taxes, as well as address cash-flow problems over the business cycle. However, because non-insurance businesses also experience fluctuations in income and taxes, and can experience cash-flow problems over the business cycle, it is not clear why these businesses are also not provided a two-year carryback period.

Selected Bibliography

Auerbach, Alan. "The Dynamic Effects of Tax Law Asymmetries," *The Review of Economics Studies,* vol. 53, issue 2, April 1986, pp. 205-225.

Edgerton, Jesse. "Investment Incentives and Corporate Tax Asymmetries," *Journal of Public Economics,* vol. 94, issue 11-12, December 2010, pp. 936-952.

Evsey D. Domar and Richard A. Musgrave. "Proportional Income Taxation and Risk-Taking," *The Quarterly Journal of Economics*, vol. 58, May 1944, pp. 388-422.

Keightley, Mark. *Tax Treatment of Net Operating Losses: In Brief.* Library of Congress, Congressional Research Service Report R44976, Washington, DC, October, 2017.

Zwick, Eric and James Mahon. "Tax Policy and Heterogeneous Investment Behavior," *American Economic Review,* vol. 107, no. 1, January 2017, pp. 217-248.

LIMITATION IN NET INTEREST DEDUCTION TO 30 PERCENT OF ADJUSTED TAXABLE INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-0.9	-8.8	-9.7
2019	-1.2	-12.4	-13.6
2020	-1.3	-12.8	-14.1
2021	-1.4	-11.2	-12.6
2022	-1.4	-19.3	-20.7

Authorization

Section 163(j).

Description

The deduction of business interest is limited for any tax year beginning after December 31, 2017, to the sum of the taxpayer's business interest income, floor plan financing, and 30 percent of adjusted taxable income.

Business interest income is the amount of interest includible in the taxpayer's gross income for the tax year that is properly allocable to a trade or business. It does not include any investment income. Investment interest and investment income in this context has the same meaning as for the limitation on the deduction of interest by taxpayers other than corporations.

Floor plan financing interest is interest paid or accrued on debt used to finance the acquisition of motor vehicles held for sale or lease to retail customers and secured by the inventory. A motor vehicle for this purpose includes any self-propelled vehicle designed for transporting people or

property on a public street, highway, or road, as well as a boat, and farm machinery or equipment.

The adjusted taxable income of a taxpayer for purposes of the limitation is the taxpayer's regular taxable income computed without regard to: any item of income, gain, deduction, or loss that is not properly allocable to a trade or business; any business interest or business interest income; the amount of any net operating loss (NOL) deduction; the 20-percent deduction for qualified business income of a passthrough entity under Code Sec. 199A; and allowable deductions for depreciation, amortization, or depletion (commonly referred to as EBITDA) in tax years beginning before January 1, 2022. For tax years starting after that date, the definition of adjusted taxable income is the same, except that it does not allow for a deduction for depreciation, amortization, or depletion (commonly referred to as EBIT).

The limitation on the deduction of business interest does not apply to any taxpayer that meets the $25 million gross receipts test for a corporation or partnership. A taxpayer meets the small business test for the tax year if its average annual gross receipts for the three tax years ending with the prior tax year do not exceed $25 million, adjusted for inflation after 2018.

Taxpayers in select industries may elect to exclude from the limitation. In particular, real estate trade or business and farm businesses may elect to be excluded from the limitation. The election is made at a time and manner as provided by the IRS. Once made, the election is irrevocable.

Any disallowed interest generally may be carried forward indefinitely. In the case of a partnership or S corporation, the deduction limitation applies at the entity level, except that disallowed interest of the entity is allocated to each partner or shareholder as excess business interest.

Impact

The limitation on net interest deductions is a negative tax expenditure that increases tax liability of affected businesses. Because the provision is targeted at large businesses with interest expense that exceeds a ceiling and exempts some industries, it will not apply to all businesses with interest expenses. According to a 2015 study, between 11 and 14 percent of public companies may face the limitation initially, with the percentage of firms subject to the limitation expected to increase for tax years beginning in 2022.

Rationale

The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) limited the deductibility of certain cross-border related party interest expenses. The deduction for net interest was limited to 50 percent of adjusted taxable income using an EBITDA income concept for firms with a debt-to-equity ratio above 1.5. Interest paid above the limitation was allowed to be carried forward indefinitely. The Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) modified the provision to exempt transactions entered into prior to the enactment of P.L. 101-239. The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) limited the applicability of the provision to corporations. The Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170) exempted Real Estate Investment Trusts from the provision.

The 2017 tax revision (P.L. 115-97) replaced the prior provision with the current limitation on the deductibility of net interest expense.

Assessment

The limitation on net interest expense deductions replaces prior rules limiting related party interest expenses designed to limit earnings-stripping. While the prior rules focused on cross-border transactions, the current provision does not distinguish between cross-border transactions and other transactions. (For a discussion of restrictions on cross-border transactions, see the entry on the Base Erosion and Anti-Abuse Tax.) Further, the prior rules were less restrictive because they permanently used an EBITDA concept income; allowed a higher ceiling of 50 percent; and had a safe harbor debt-to-equity ratio of 1.5.

Some concern has been raised that the 30 percent ceiling may be too high. Citing a 2015 study, Doug Poms, Treasury acting deputy international tax counsel, stated that a ratio of 10 percent would be supported by the data. At that ratio, roughly one-third of large companies would face the limitation. The ratio of firms facing the limitation would also be expected to increase with the shift to an EBIT concept of income for tax years beginning after 2021.

Some commentators have expressed concern that the floor stock exception is written too narrowly and, as a result, fails to allow non-motorized RV dealers access to the exception, potentially raising their after-tax cost of doing business. In addition, it has been noted that the limitation may become more restrictive, if interest rates rise from their current historically low levels.

Others have suggested that the current formulation of the interest limitation may be easily avoidable. For example, substituting variable rate debt (with a hedge built-in against interest rate increases) for fixed rate debt could be used to work around the interest limitation. Similarly, interest (potentially subject to limit) could be converted to fees, or to other deductible payments.

Finally, interactions between the interest limitation and other provisions, such as expensing, Global Intangible Low Taxed Income (GILTI), and the Base Erosion and Anti-Abuse Tax (BEAT) may introduce excessive complexity to the tax system. For example, the interest limitation may disallow interest prior to the application of BEAT. As BEAT applies only to related party cross-border transactions, determining which interest to disallow under the interest limitation, so BEAT can work as intended, will require regulatory, business, and enforcement resources. Similar concerns apply to the interaction of the interest limitation and GILTI.

Selected Bibliography

Blanchard Jr., Jerred G. "Consolidated Returns and the New Limitation on Interest Deductions." *Tax Notes,* April 23, 2018, p. 463.

Cumings, Stefanie. "Consent Fee Guidance Will Likely Follow Past Rulings," *Tax Notes*, Mar. 19, 2018, p. 1720.

Cummings Jr., Jasper L. "The Interest Deduction Limitation." *Tax Notes,* May 21, 2018. p. 1105.

Durst, Michael C. "The Historical Evolution of Base Erosion and Profit Shifting." *Tax Notes International,* March 19, 2018.

Gravelle, Jane G. *Base Erosion and Profit Shifting (BEPS): OECD Tax Proposals*. Library of Congress, Congressional Research Service Report R44900 (2017).

--. and Donald J. Marples. *Issues in International Corporate Taxation: The 2017 Revisions (P.L. 115-97).* Library of Congress, Congressional Research Service Report R45186 (2018).

Martin, Julie. "US disappointed with BEPS plan guidance, Treasury officials say." *MNE Tax,* June 12, 2015.

Sheppard, Lee A. "New Analysis: Corporate Borrowing After Tax Reform." *Tax Notes,* January 29, 2018, p. 565.

The Business and Industry Advisory Committee (BAIC). *BIAC Comments on the OECD Discussion Draft on BEPS Action 4: Interest Deductions and Other Financial Payments*. February 6, 2015, http://biac.org/wp-content/uploads/2015/03/2015-Final-BIAC-comments-interest-deductibility1.pdf.

Velarde, Andrew. "GILTI Regs Signal Business Interest Limits Might Apply." *Tax Notes International,* October 1, 2018, p. 116.

DEPRECIATION ON EQUIPMENT IN EXCESS OF ALTERNATIVE DEPRECIATION SYSTEM

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	19.8	48.2	68.0
2019	20.7	50.5	71.2
2020	19.1	46.7	65.8
2021	17.6	43.0	60.6
2022	16.2	39.5	55.7

Authorization

Sections 167 and 168.

Description

Taxpayers are allowed to deduct the cost of acquiring depreciable assets (assets that wear out or become obsolete over a period of years) as depreciation deductions. How quickly the deductions are taken depends on the method and length of the recovery period. Straight-line methods allow equal deductions in each year; accelerated methods, such as declining balance methods, allow larger deductions in the earlier years. For tax years 2018 through 2022, the cost may be deducted immediately and then phased out; subsequently property is subject to the standard depreciation rates. This period is extended one year, through 2023, for longer-lived equipment and certain transportation equipment.

Equipment is currently divided into six categories to be depreciated over 3, 5, 7, 10, 15, and 20 years. Double declining balance depreciation is allowed for all but the last two classes, which are restricted to 150 percent declining balance. A double declining balance method allows twice the straight-line rate

to be applied in each year to the remaining undepreciated balance; a 150-percent declining balance rate allows 1.5 times the straight-line rate to be applied in each year to the remaining undepreciated balance. At some point, the taxpayer can switch to straight-line and write off the remaining undepreciated cost in equal amounts over the remaining life.

The law also prescribes a depreciation system for the alternative minimum tax (which applies to individuals), which applies to a broader base. The alternative depreciation system requires recovery over the midpoint of the Asset Depreciation Range, using straight-line depreciation. The Asset Depreciation Range was the set of tax lives specified before 1981, which are longer than the lives allowed under the regular tax system.

This tax expenditure measures the difference between regular (straight-line) tax depreciation and the alternative depreciation system.

For example, consider a $10,000 piece of equipment that falls in the five-year class (with double declining balance depreciation) with an eight-year midpoint life. In the first year, depreciation deductions would be 2/5 times $10,000, or $4,000. In the second year, the basis of depreciation is reduced by the previous year's deduction to $6,000, and depreciation would be $2,400 (2/5 times $6,000).

Depreciation under the alternative system would be 1/8th in each year, or $1,250. Thus, the tax expenditure in year one would be the difference between $4,000 and $1,250, multiplied by the tax rate. The tax expenditure in year two would be the difference between $2,400 and $1,250 multiplied by the tax rate.

Revenue estimates reflect bonus depreciation, which was most recently modified by the 2017 tax revision (P.L. 115-97). P.L. 115-97 allowed 100 percent of the cost of equipment placed into service from 2018 through either 2022 (for property with shorter production periods) or 2023 (for property with longer production periods and certain transportation equipment), and gradually phased out bonus depreciation through 2026 (for property with shorter production periods) and 2027 (for property with longer production periods and certain transportation equipment).

Impact

Accelerated depreciation methods are faster than straight-line methods, allowing for larger deductions in early years and smaller deductions in later years. This reduction in the useful tax life of the asset leads to quicker recovery, so that accelerated depreciation results in a deferral of tax liability.

This represents a tax expenditure because the depreciation methods are faster than economic (*i.e.*, actual) depreciation. Existing evidence indicates that the economic decline rate for equipment is much slower than that reflected in tax depreciation methods.

Expensing (immediate deduction) results in a zero effective tax rate for the marginal investment, as the value of the deduction offsets the present value of taxes on the income. The direct benefits of accelerated depreciation accrue to owners of assets and particularly to corporations. The benefit is estimated as the tax saving resulting from the depreciation deductions in excess of straight-line depreciation under the alternative minimum tax. Benefits to capital income tend to concentrate in the higher-income classes (see discussion in the Introduction).

Rationale

Prior to 1954, depreciation policy had developed through administrative practices and rulings. The straight-line method was favored by IRS and generally used. Tax lives were recommended for assets through "Bulletin F," but taxpayers were also able to use a facts and circumstances justification.

A ruling issued in 1946 authorized the use of the 150-percent declining balance method. Authorization for accelerated depreciation methods first appeared in legislation in 1954 with the enactment of double-declining balance and other methods. The discussion at that time focused primarily on whether the value of machinery and equipment declined faster in its earlier years.

In 1962, new tax lives for equipment assets were prescribed that were shorter than the lives existing at that time. In 1971, the Asset Depreciation Range System was introduced by regulation and confirmed through legislation. This system allowed taxpayers to use lives up to 20 percent shorter or longer than those prescribed by regulation.

In the Economic Recovery Act of 1981 (P.L. 97-34), equipment assets were assigned fixed write-off periods which corresponded to 150-percent declining balance over five years (certain assets were assigned three-year lives). These changes were intended to stimulate general investment and to simplify the tax law by providing for a single write-off period. The method was initially scheduled to be phased into a 200-percent declining balance method, but the 150-percent method was made permanent by the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248). The current treatment

was adopted as part of the Tax Reform Act of 1986 (P.L. 99-514), which lowered tax rates and broadened the base of the income tax.

A temporary provision allowed a write-off of 30 percent of the cost in the first year (for 36 months beginning September 10, 2001), adopted in the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147) as an economic stimulus. The percentage was increased to 50 percent in the Jobs and Growth Tax Relief Reconciliation Act of 2003 (P.L. 108-27) and expired in 2004. This provision, referred to as bonus depreciation, was also adopted as part of the Economic Stimulus Act of 2008 (P.L. 110-185) in February 2008, and was effective for 2008. Bonus depreciation was extended through 2009 by the American Recovery and Reinvestment Act (P.L. 111-5), through 2010 by the Small Business Jobs Act of 2010 (P.L.111-240), and through 2012 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). The 2010 Act increased the rate of bonus depreciation to 100 percent from September 8, 2010, through the end of tax year 2011. It reverted to 50 percent in tax year 2012. Bonus depreciation was extended through 2013 by the American Taxpayer Relief Act (P.L. 112-240). The Consolidated Appropriations Act, 2016 (P.L. 114-113) further extended the 50 percent equipment cost deduction through 2017, and allowed for a 40 percent deduction in 2018 and a 30 percent deduction in 2019.

The 2017 tax revision (P.L. 115-97) allowed 100 percent of the cost of equipment in the 3-, 5-, and 7-year categories to be deducted when incurred (expensed) for property; 80 percent of equipment costs are eligible for immediate deduction in 2023; 60 percent of costs are eligible in 2024; 40 percent of costs are eligible in 2025; and 20 percent of costs are eligible in 2026. For property in the 10-, 15-, and 20-year categories and certain transportation equipment, P.L. 115-97 allowed: 100 percent of expensing to be deducted in tax years 2018 through 2023; 80 percent in 2024; 60 percent in 2025; 40 percent in 2026; and 20 percent in tax year 2027. P.L. 115-97 also repealed the corporate alternative minimum tax.

The provision allowing expensing of advanced mine safety equipment was enacted in the Tax Relief and Health Care Act (P. L. 109-432) in December 2006. This provision was extended in the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) enacted in October 2008. The provision was further extended through 2012 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312), and through 2013 by the American Taxpayer Relief Act (P.L. 112-240).

Assessment

Evidence suggests that the rate of economic decline of equipment is much slower than the rates allowed under current law, and this provision causes a lower effective tax rate on such investments than would otherwise be the case. The effect of these benefits on investment in equipment is uncertain, although more studies find that equipment tends to be somewhat more responsive to tax changes than do structures. Kitchen and Knittel (2016) found that takeup of the accelerated depreciation option ranged from 40 to 60 percent of eligible firms in 2002-2004 and 2008-2014, and varied by firm type, profit status, lifespan of the equipment, and industry. Equipment did not, however, appear to be very responsive to the temporary expensing provisions adopted and expanded in 2003.

If inflation is at a rate of roughly two percent for most assets, the accelerated depreciation more than offsets the understatement of depreciation due to the use of historical cost basis depreciation. Under these circumstances the effective tax rate on equipment is below the statutory tax rate, and the tax rates of most assets are relatively close to the statutory rate. Thus, equipment tends to be favored relative to other assets and the tax system causes a misallocation of capital.

Some arguments are made that investment in equipment should be subsidized because it is more "high tech." Conventional economic theory suggests, however, that tax neutrality is more likely to ensure that investment is allocated to its most productive use.

Selected Bibliography

Auerbach, Alan, and Kevin Hassett. "Investment, Tax Policy, and the Tax Reform Act of 1986," *Do Taxes Matter: The Impact of the Tax Reform Act of 1986,* ed. Joel Slemrod. Cambridge, Mass: MIT Press, 1990, pp. 13-49.

Brazell, David W. and James B. Mackie III. "Depreciation Lives and Methods: Current Issues in the U.S. Capital Cost Recovery System," *National Tax Journal*, v. 53, September 2000, pp. 531-562.

Congressional Budget Office, "Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options," Washington, D.C.: December 18, 2014.

Fullerton, Don, Robert Gillette, and James Mackie. "Investment Incentives Under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 131-172.

Fullerton, Don, Yolanda K. Henderson, and James Mackie. "Investment Allocation and Growth Under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 173-202.

Gravelle, Jane G. *Bonus Depreciation: Economic and Budgetary Issues*, Library of Congress, Congressional Research Service Report R43432, October 17, 2014.

— . "Differential Taxation of Capital Income: Another Look at the Tax Reform Act of 1986," *National Tax Journal*, v. 63, December 1989, pp. 441-464.

— . "Economic Effects of Investment Subsidies," In *Tax Reform in Open Economies: International and Country Perspectives,* eds. Iris Claus, Norman Gemmell, Michelle Harding, and David White. Northhampton, MA, Edgar Elgar, 2010.

— . "Whither Tax Depreciation?" *National Tax Journal*, v. 54, September, 2001, pp. 513-526.

Gravelle, Jane G. and Donald J. Marples. *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations for Tax Reform*, Library of Congress, Congressional Research Report R44242, October 22, 2015.

— . *Issues in International Corporate Taxation: The 2017 Revision (P.L. 115-97)*, Library of Congress, Congressional Research Service Report R45186, May 1, 2018.

Gravelle, Jane G., Donald J. Marples, and Molly F. Sherlock. *Select Recently Expired Business Tax Provisions ("Tax Extenders")*, Library of Congress, Congressional Research Service Report R43510, January 7, 2016.

Guenther, Gary, *The Section 179 and Bonus Depreciation Expensing Allowances: Current Law and Economic Effects*, Library of Congress, Congressional Research Service Report RL31852, May 1, 2018.

Harberger, Arnold. "Tax Neutrality in Investment Incentives," *The Economics of Taxation,* eds. Henry J. Aaron and Michael J. Boskin. Washington, DC: The Brookings Institution, 1980, pp. 299-313.

House, Christopher and Matthew Shapiro. "Temporary Investment Tax Incentives: Theory With Evidence from Bonus Depreciation," *American Economic Review,* v. 98, June 2008, pp. 737-768.

Jorgenson, Dale W. "Empirical Studies of Depreciation." *Economic Inquiry*, v. 34, January 1996, pp. 24-42.

Kitchen, John and Matthew Knittel. "Business Use of Section 179 Expensing and Bonus Depreciation, 2002-2014," U.S. Department of the Treasury, Office of Tax Analysis Working Paper 110, October 2016.

Keightley, Mark. *Key Issues in Tax Reform: The Business Interest Deduction and Capital Expensing,* Library of Congress, Congressional Research Service Report IF10696, September 27, 2017.

Mackie, James. "Capital Cost Recovery," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Park, Jongsang. "The Impact of Depreciation Savings on Investment: Evidence from the Corporate Alternative Minimum Tax," *Journal of Public Economics*, v. 135, March 2016, pp. 87-104.

U.S. Congress, *House Conference Report to Accompany H.R. 1, Tax Cuts and Jobs Act*, H.Rept. 115-466, December 15, 2017.

U.S. Congress, Joint Committee on Taxation. *Estimated Budget Effects of the Conference Agreement for H.R. 1, the "Tax Cuts and Jobs Act"*, Joint Committee Print JCX-67-17, December 18, 2017.

—. *Estimates of Budget Effects of the Revenue Provisions Contained in Senate Amendment H.R. 5297, The Small Business Jobs Act of 2010*, JCX-48-10. September 16, 2010.

—. *General Explanation of the Tax Reform Act of 1986*. May 4, 1987, pp. 89-110.

EXPENSING UNDER SECTION 179 OF DEPRECIABLE BUSINESS PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	13.1	8.7	21.8
2019	9.7	6.5	16.2
2020	7.6	5.0	12.6
2021	5.9	4.0	9.9
2022	4.4	2.9	7.3

Authorization

Section 179.

Description

Under Section 179, firms have the option, within certain limits, of expensing part or all of the cost of new and used qualified property (or assets) they acquire in the year when the assets are placed in service, rather than over time according to other depreciation schedules. Under permanent law, business taxpayers that cannot or choose not to claim the allowance may recover capital costs over longer periods by claiming the appropriate depreciation deductions under the Modified Accelerated Cost Recovery System (MACRS) or Alternative Depreciation System (ADS). Under current law, though, business taxpayers that do not expense under Section 179 may still be able to fully expense qualified property or accelerate the cost recovery of their capital investments through 2026.

For the most part, qualifying property is new and used machinery and equipment, and off-the-shelf computer software for business use. Aside from

some exceptions for qualified improvement property, real property such as buildings and their structural components do not qualify for the allowance.

The maximum expensing allowance under Section 179 is set at $1,000,000, and the phaseout threshold at $2.5 million. These statutory amounts are indexed for inflation beginning in 2019. For 2018, firms cannot claim a Section 179 deduction for more than $1,000,000 ($1,035,000 if in qualified enterprise and empowerment zones or renewal community) of the cost of assets placed in service that year. Once a firm's investment reached at least $2,010,000 the amount eligible is reduced one dollar for each dollar of investment in excess of $2,500,000. Thus, for 2018, once a firm's investment reached $3,500,000, no deduction is allowed.

Section 179 also is subject to an income limitation, in which the expensing allowance cannot exceed a taxpayer's taxable income from the active conduct of the trade or business in which the qualifying property is used. Any expensing allowance lost because of the investment limitation may not be carried forward, but the opposite is true if an allowance is lost because of the income limitation.

The special exemptions for enterprise and empowerment zones or renewal communities expired at the end of 2017.

Taxpayers unable to expense the costs of qualified property under Section 179, due to income limitations, may still be able to fully expense qualified property through 2022 under current law. After 2022, full expensing is then replaced by a "bonus depreciation" treatment, which is phased out by 20 percent over four years: 80 percent for 2023, 60 percent for 2024, 40 percent for 2025, 20 percent for 2026 and terminated beginning with the 2027 tax year. See "Depreciation of Equipment in Excess of the Alternative Depreciation System." However, under current law, "qualified improvement property" eligible for Section 179 is not eligible for temporary expensing or bonus depreciation.

Impact

In the absence of Section 179 (and temporary expensing), the cost of qualified assets would have to be recovered over longer periods. Thus, the provision accelerates the depreciation of relatively small purchases of those assets. This effect has significant implications for business investment. All other things being equal, expensing boosts the cash flow of firms able to take advantage of it, as the present value of the taxes owed on the stream of income

earned by a depreciable asset is smaller under expensing than other depreciation schedules. Expensing also is equivalent to taxing the income earned from affected assets at a marginal effective tax rate of zero.

The allowance offers the additional benefit of simplifying tax accounting by reducing the record keeping for qualified investments.

Because the allowance has a phase-out threshold, its benefits are confined to firms that are relatively small in asset, employment, or revenue size. Businesses in excess of the phase-out threshold, though, may still be able to fully expense or claim bonus depreciation through 2026 under current law.

Benefits to capital income tend to concentrate in the higher-income classes (see discussion in the Introduction).

Rationale

The expensing allowance originated as a special first-year depreciation deduction established by the Small Business Tax Revision Act of 1958 (P.L. 85-866). The deduction was equal to 20 percent of the first $10,000 of spending ($20,000 in the case of a joint return) on new and used business equipment and machinery with a tax life of six or more years. It was intended to reduce the tax burden on small firms, give them an incentive to invest more, and simplify their tax accounting.

The deduction remained unchanged until the Economic Recovery Tax Act of 1981 (ERTA; P.L. 97-34) replaced it with a maximum expensing allowance of $5,000. ERTA also established an investment tax credit and a timetable for increasing the allowance in incremental amounts to $10,000 by 1986. Business taxpayers were not permitted to claim the allowance and the credit for acquisitions of the same assets. As a result, relatively few firms took advantage of the allowance until the credit was repealed by the Tax Reform Act of 1986 (P.L. 99-514).

The Deficit Reduction Act of 1984 (P.L. 98-369) postponed the scheduled rise in the maximum allowance to $10,000 from 1986 to 1990. The allowance did reach that amount in 1990.

It remained at $10,000 until 1993, when President Clinton proposed a temporary investment credit for equipment for large firms and a permanent one for small firms. The credits were not adopted, but the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) raised the expensing allowance to $17,500, starting January 1, 1993.

With the enactment of the Small Business Job Protection Act of 1996 (P.L. 104-188), the size of the allowance embarked on an accelerated upward path: it rose to $18,000 in 1997, $18,500 in 1998, $19,000 in 1999, $20,000 in 2000, $24,000 in 2001 and 2002, and $25,000 in 2003.

Seeking to give a boost to the economy and lower the tax burden on small business owners at the same time, Congress made several notable changes in the expensing allowance by passing the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA; P.L. 108-27). First, the act raised the maximum allowance to $100,000 and the phase-out threshold to $400,000 for qualifying assets placed in service from 2003 through 2005. Second, JGTRRA indexed both amounts for inflation in 2004 and 2005, the first time such a step had been taken. Finally, it added purchases of off-the-shelf computer software for business use to the list of qualified assets from 2003 through 2005.

Under the American Jobs Creation Act of 2004 (P.L. 108-357), all the changes in the allowance made by JGTRRA were extended through 2007.

The Tax Increase Prevention and Reconciliation Act of 2005 (P.L. 109-222) extended the changes through 2009.

In passing the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (P.L. 110-28), Congress raised the maximum allowance to $125,000 and the phaseout threshold to $500,000 for assets placed in service from 2007 through 2010. The act also indexed both amounts for inflation for 2008 through 2010.

The Economic Stimulus Act of 2008 (P.L. 110-185) increased the allowance to $250,000 and the phaseout threshold to $800,000 in 2008 only. These amounts were extended through 2009 by the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5), and through 2010 by the Hiring Incentives to Restore Employment Act of 2010 (P.L. 111-147).

Under the Small Business Jobs Act of 2010 (P.L. 111-240), the maximum allowance rose to $500,000 and the phaseout threshold to $2,000,000 for qualifying property placed in service in 2010 and 2011. The act also created a maximum allowance of $250,000 for qualified leasehold and restaurant and retail property improvements made in the same period and extended through 2011 the eligibility of purchases of off-the-shelf software for the Section 179 allowance.

In the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312), Congress set the maximum allowance at

$125,000 and the phaseout threshold at $500,000 for 2012, and indexed those amounts for inflation. The eligibility of off-the-shelf computer software for the allowance was also extended for 2012.

The American Taxpayer Relief Act of 2012 (P.L. 112-240) increased the maximum expensing allowance to $500,000 and the phaseout threshold to $2,000,000 for the 2012 (retroactively) and 2013 tax years. It also made purchases of off-the-shelf software eligible for the allowance in 2013 and extended through 2013 the $250,000 expensing allowance for leasehold property improvements that first became available in 2010.

The Consolidated Appropriations Act, 2016 (P.L. 114-113) made permanent the $500,000 expensing allowance and $2,000,000 phaseout threshold for the 2014 and 2015 tax years, and indexed both of these amounts for inflation after 2015. Off-the-shelf computer software for business purposes and qualified leasehold property were both permanently classified as property eligible for Section 179 treatment.

The 2017 tax revision (P.L. 115-97) permanently sets the Section 179 expensing allowance to $1,000,000; sets the phaseout threshold at $2.5 million; and indexes both amounts for inflation beginning in 2019. It also expands the definition of qualified property to include "qualified improvement property," which includes improvements to the interior of any non-residential real property, as well as roofs; heating, ventilation, and air conditioning (HVAC) systems; fire protection and alarm systems; and security systems installed on such property. P.L. 115-97 also eliminates the exclusion for tangible personal property used in connection with lodging facilities and indexes for inflation the $25,000 expensing limit for sport utility vehicles starting in 2019. These changes apply to property placed into service in 2018 or later.

Assessment

The expensing allowance under Section 179 has implications for tax administration and economic efficiency. With regard to the former, it simplifies tax accounting by permitting some taxpayers to write off the entire cost of qualified assets in the year in which they are placed in service. With regard to the latter, the provision encourages greater investment in certain capital assets than otherwise would be likely to occur by smaller firms in a way that could divert financial capital away from more productive uses. Nonetheless, its overall influence on tax administration and the allocation of investment is probably modest. Large firms normally are unable to use the

allowance, for the most part, and Section 179 property is a small share of overall gross domestic investment.

Even among smaller firms, though, the take-up rate for Section 179 has not been universal. For example, a study by the Department of the Treasury found that corporations, pass-through entities, and individuals elected to use Section 179 expensing in the 60 percent to 80 percent range, both in terms of the numbers of firms and relative to total allowed investment amounts annually over the 2002 to 2014 period.

Some argue that investment by smaller firms should be supported by government subsidies because they create more jobs and develop and commercialize more new technologies than larger firms. The evidence on this issue is inconclusive. In addition, economic analysis offers no clear justification for targeting investment tax subsidies at such firms. In theory, taxing the returns to investments made by all firms at the same effective rate does less harm to social welfare than granting preferential tax treatment to the returns earned by many small firms.

Some question the efficacy of expensing as a policy tool for encouraging higher levels of business investment. A more fruitful approach, in the view of these skeptics, would be to enact permanent reductions in tax rates and purge the tax code of most business tax preferences for simplicity purposes.

Selected Bibliography

Alexander, Raquel Meyer. "Expensing," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle, eds., Washington, DC: Urban Institute Press, 2005, p. 129.

Billings, B. Anthony, Buagu Musazi, and Melvin Houston. "Bonus Depreciation Tax Incentives May Not Work for Needy Firms," *Tax Notes*, February 11, 2008, pp. 735-737.

Cohen, Darrel and Jason Cummings. *A Retrospective Evaluation of the Effects of Temporary Partial Expensing*, Finance and Economics Discussion Series report 2006-19, Federal Reserve Board, Washington, DC.

Gravelle, Jane G. *Using Business Tax Cuts to Stimulate the Economy,* Library of Congress, Congressional Research Service, Report RL31134, Washington, DC, January 13, 2013 (contact author for availability).

Guenther, Gary. *Small Business Tax Benefits: Current Law and Arguments For and Against Them,* Library of Congress, Congressional Research Service, Report RL32254, Washington, DC, July 5, 2018.

—. *The Section 179 and Section 168(k) Expensing Allowances: Current Law and Economic Effects,* Library of Congress, Congressional Research Service, Report RL31852, Washington, DC, May 1, 2018.

Holtz-Eakin, Douglas. "Should Small Business Be Tax-Favored?" *National Tax Journal*, vol. 48, no. 3, September 1995, pp. 447-462.

House, Christopher L. and Matthew D. Shapiro. "Temporary Investment Tax Incentives: Theory with Evidence from Bonus Depreciation," *American Economic Review*, vol. 98, no. 3, June 2008, pp. 737-768.

Hulse, David S. and Jane R. Livingstone. "Incentive Effects of Bonus Depreciation," *Journal of Accounting and Public Policy*, vol. 29, December 2010, pp. 578-603.

Kitchen, John and Matthew Knittel. *Business Use of Section 179 Expensing and Bonus Depreciation, 2002-2014*, OTA Working Paper 110, Office of Tax Analysis, U.S. Department of the Treasury, Washington, DC: October 2016.

Knittel, Matthew. *Corporate Response to Accelerated Tax Depreciation: Bonus Depreciation for Tax Years 2002-2004*, OTA Working Paper 98, Office of Tax Analysis, U.S. Department of the Treasury, Washington, DC: May 2007.

Neubig, Thomas. "Where's the Applause? Why Most Corporations Prefer a Lower Rate," *Tax Notes,* April 24, 2006, pp. 483-486.

Sherlock, Molly and Donald J. Marples, coordinators. *The 2017 Tax Revision (P.L. 115-97): Comparison to 2017 Tax Law*, Library of Congress, Congressional Research Service, Report R45092, Washington, DC, February 6, 2018.

Zwick, Eric, and James Mahon. "Tax Policy and Heterogeneous Investment Behavior," *American Economic Review*, vol. 107, no. 1, 2017, pp. 217-248.

AMORTIZATION OF BUSINESS START-UP COSTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	0.1	0.2
2019	0.1	0.1	0.2
2020	0.1	0.1	0.2
2021	0.2	0.1	0.3
2022	0.2	0.1	0.3

Authorization

Section 195.

Description

In general, business taxpayers are allowed to deduct all ordinary and necessary expenses they incur in conducting their trade or business. This rule implies that costs incurred before a business begins to operate should not be deducted as a current expense because they were not incurred in connection with the actual conduct of a trade or business. If anything, this rule suggests that start-up costs should be capitalized and added to a taxpayer's basis in the business.

Under section 195, however, a business taxpayer may deduct up to $5,000 in qualified start-up expenditures. This limit is reduced, dollar-for-dollar, when such expenses exceed $50,000. As a result, no start-up expenses may be deducted as a current expense once a taxpayer's total start-up expenses reach or exceed $55,000. Any remaining start-up expenses may be amortized over a period of 15 or more years, beginning with the month in which the business begins to operate. If a business owner disposes of a trade or business

before the end of this 15-year period, any remaining deferred expenses can be deducted as a loss under section 165.

Start-up expenditures must satisfy two requirements to qualify for the deduction. First, they must be paid or incurred with respect to one or more of the following activities: (1) looking into the creation or acquisition of an active trade or business; (2) creating an active trade or business; or (3) engaging in what the Internal Revenue Service (IRS) deems "a profit-seeking or income-producing activity" before a trade or business commences. Examples of these expenses are the cost of an analysis or survey of potential markets, products, workers, and transportation facilities. Second, the expenditures must be similar to costs that would be deductible if they were paid or incurred in connection with an existing trade or business. These include advertising costs, wages and salaries, travel expenses, and consultant fees. Qualifying start-up expenditures exclude interest payments on debt, tax payments, and spending on research and development, which is amortized under section 174.

Impact

The election to deduct and amortize business start-up costs shrinks a barrier to the formation of new businesses by permitting the immediate deduction or recovery over 15 years of expenses that otherwise could be recovered when the owner sells his or her interest in the business. This acceleration in the recovery of start-up expenses somewhat reduces the cost of capital for investment in a new business with $55,000 or more in such expenses.

Tax preferences for capital income such as section 195 tend to benefit higher-income individuals (see the discussion in the Introduction).

Rationale

Before the enactment of section 195 in 1980, the question of whether a business start-up expense could be deducted as a current expense or should be capitalized had been a recurrent source of controversy and litigation between taxpayers and the IRS. Taxpayers had the option of treating certain organizational expenditures for the formation of a corporation or partnership as deferred expenses and amortizing them over a period of not less than 60 months (Code sections 248 and 709).

Section 195 entered the federal tax code through the Miscellaneous Revenue Act of 1980 (P.L. 96-605). The original provision allowed business taxpayers to amortize start-up expenditures over a period of not less than 60

months. It defined start-up expenditures as any expense "paid or incurred in connection with investigating the creation or acquisition of an active trade or business, or creating an active trade or business." In addition, the expense had to be one that would have been immediately deductible if it were paid or incurred in connection with the expansion of an existing trade or business. Congress added section 195 to facilitate the creation of new businesses and reduce the frequency of protracted legal disputes over the tax treatment of start-up expenditures.

Nevertheless, numerous disputes continued to flare up over whether certain business start-up costs should be expensed under section 162, capitalized under section 263, or amortized under section 195. In an attempt to curtail the litigation surrounding the interpretation of section 195, Congress added a provision to the Deficit Reduction Act of 1984 (P.L. 98-369) that clarified the definition of start-up expenditures. It required taxpayers to treat start-up expenditures as deferred expenses, which meant that they were to be capitalized unless a taxpayer elected to amortize them over 60 or more months. It also broadened the definition of start-up expenditures to include expenses incurred in anticipation of entering a trade or business.

Section 195 remained unchanged until the enactment of the American Jobs Creation Act of 2004 (P.L. 108-357). The act permitted businesses to deduct up to $5,000 in eligible start-up costs in the tax year when their trade or business began to operate. This amount had to be reduced (but not below zero) by the amount by which these costs exceeded $50,000. Any remaining amount had to be amortized over 15 or more years, beginning with the month in which the conduct of the trade or business commenced. The definition of start-up costs was left unchanged. In making these changes, Congress had two intentions. One was to encourage the formation of new firms with low start-up costs by allowing a large share of those costs to be deducted in the tax year when they begin to operate. The second aim was to make the amortization period for start-up costs consistent with that for intangible assets under section 197, which is 15 or more years.

In order to promote faster rates of new business formation during the U.S. economy's slow recovery from the severe recession of 2007 to 2009, the Small Business Jobs and Credit Act of 2010 (P.L. 111-240) temporarily increased the amount of start-up expenditures a taxpayer can elect to deduct from $5,000 to $10,000 and increased to $60,000 the threshold amount beyond which start-up expenditures begin to be reduced. These changes applied to qualified start-up costs incurred in 2010 only.

Assessment

In principle, business start-up costs should be written off over the life of a business on the grounds that they are a capital expense. Such a view, however, does pose the difficult analytical challenge of determining the useful life of a business at its outset.

Section 195 has three advantages as a means of addressing this challenge. First, it lowers the likelihood of costly and drawn-out legal disputes involving businesses and the IRS over the tax treatment of start-up costs. Second, it does so at a small revenue cost. Third, it simplifies tax accounting for small business owners who can take advantage of the deduction.

It is unclear from the existing literature on new business formation to what extent the section 195 deduction has affected the rate of new business formation.

Selected Bibliography

Beesley, Caron. "Startup Cost Tax Deductions — How to Write off the Expenses of Starting Your Business," Small Business Administration Blog, updated September 29, 2017, https://www.sba.gov/blogs/startup-cost-tax-deductions-how-write-expense-starting-your-business.

Campbell, Alan D. and Beverly J. Strachan. "Startup Costs: Book vs. Tax Treatment," *Journal of Accountancy*, November 1, 2015, https://www.journalofaccountancy.com/issues/2015/nov/startup-costs-book-vs-tax-treatment.html.

Castellon, Mario C. "Tax Treatment of Drug Development Company Startup Costs," *Journal of Accountancy*, August 1, 2015, https://www.journalofaccountancy.com/issues/2015/aug/sec-195-drug-development-company-costs.html.

Ellentuck, Albert, B. "Deducting Startup and Expansion Costs," *The Tax Adviser*, September 1, 2017, https://www.thetaxadviser.com/issues/2017/sep/deducting-startup-expansion-costs.html.

Fiore, Nicholas J. "IRS Issues Guidance on Amortizable Start-Up Cost," *Tax Adviser*, July 1999, pp. 527-532.

Gale, William and Samuel Brown. *Small Business, Innovation, and Tax Policy: A Review*, Tax Policy Center, April 8, 2013.

Guenther, Gary. *Small Business Tax Benefits: Overview and Economic Rationales*, CRS Report RL32254, July 5, 2018.

Raby, Burgess J.W. and William L. Raby. "Start-up Costs," *Tax Notes*, vol. 114, February 12, 2007, pp. 661-664.

Schnee, Edward J. "Speed Up the Deduction of Business Expansion Costs," *Practical Tax Strategies*, vol. 63, no. 1 (July 1999), pp. 4-11.

U.S. Congress, House Committee on Ways and Means. *Miscellaneous Revenue Act of 1980,* on H.R. 7956, 96th Cong., 2nd sess., H.Rept. 96-1278 (Washington, DC: GPO, 1980), pp. 9-13.

U.S. Department of the Treasury, Revenue Service. *Business Expenses*, Publication 535, March 16, 2018.

—, Internal Revenue Service. "Elections Regarding Start-Up Expenditures, Corporation Organizational Expenditures, and Partnership Organizational Expenses" (T.D. 9542), *76 Federal Register* 50887, August 17, 2011.

—, Internal Revenue Service, *Starting a Business and Keeping Records*, Publication 583, January 14, 2015.

EXEMPTIONS FROM IMPUTED INTEREST RULES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.7	([1])	0.7
2019	0.7	([1])	0.7
2020	0.8	([1])	0.8
2021	0.8	([1])	0.8
2022	0.9	([1])	0.9

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 163(e), 483, 1274, and 1274A.

Description

The tax code generally requires that debt instruments bear a market rate of interest at least equal to the average rate on outstanding Treasury securities of comparable maturity. If an instrument does not, the Internal Revenue Service imputes a market rate for the instrument. The imputed interest must be included as income to the recipient and is deducted by the payer. The failure to report interest as it accrues can allow the deferral of taxes. The tax expenditure is the revenue loss in the current year from the deferral of taxes caused by certain exceptions allowed by law.

There are several exceptions to the general rules for imputing interest on debt instruments, including debt associated with the sale of property when the total sales price is no more than $250,000, the sale of farms or small businesses by individuals when the sales price is no more than $1 million, or the sale of a personal residence. Debt instruments for amounts not exceeding an inflation-adjusted maximum (about $4.6 million or $3.3 million, depending on the kind

of the debt instrument), given in exchange for real property, may not have imputed to them an interest rate greater than 9 percent. A temporary suspension was also given to high-yield discount obligations issued between August 30, 2008, and December 31, 2009.

Impact

The exceptions to the imputed interest rules are generally directed at "seller take-back" financing, in which the seller of the property receives a debt instrument (note, mortgage) in return for the property. This is a financing technique often used in selling personal residences, small businesses, and farms, especially in periods of tight credit conditions and high interest rates, both to facilitate the sales and to provide the sellers with continuing income.

This financing mechanism can also be used, however, to shift taxable income between tax years and thus delay the payment of taxes. When interest is fully taxable but the gain on the sale of the property is taxed at reduced capital gains rates, as in current law, taxes can be eliminated, not just deferred, by characterizing more of a transaction as gain and less as interest (that is, the sales price could be increased and the interest rate decreased).

With only restricted exceptions to the imputation rules, and other recent tax reforms, the provisions now cause only modest revenue losses and have limited economic impact.

Rationale

Restrictions were placed on the debt instruments arising from seller-financed transactions beginning with the Revenue Act of 1964 (P.L. 88-272), to assure that taxes were not reduced by manipulating the purchase price and stated interest charges. These restrictions still allowed considerable creativity on the part of taxpayers, however, resulting in more comprehensive rules included in the Deficit Reduction Act of 1984 (P.L. 98-369).

The 1984 rules were regarded as detrimental to real estate sales and they were modified almost immediately (temporarily in 1985 (P.L. 98-612) and permanently in 1986 (P.L. 99-121)). The exceptions to the imputed interest rules described above were introduced in 1984 (P.L. 98-369) and 1986 (P.L. 99-121) to allow more flexibility in structuring sales of personal residences, small businesses, and farms by the owners, and to avoid the administrative problems that might arise in applying the rules to other smaller sales. Since that time, several other pieces of legislation have clarified rules or issued limited additional exemptions.

Assessment

The imputed interest and related rules dealing with property-for-debt exchanges were important in restricting unwarranted tax benefits before the Tax Reform Act of 1986 (P.L. 99-514) eliminated the capital gains exclusion and lengthened the depreciable lives of buildings.

Under pre-1986 law, the seller of commercial property would prefer a higher sales price with a lower interest rate on the associated debt, because the gain on the sale was taxed at lower capital gains tax rates. The buyer would at least not object to, and might prefer, the same allocation because it increased the cost of property and the amount of depreciation deductions (i.e., the purchaser could deduct the principal, through depreciation deductions, as well as the interest). It was possible to structure a sale so that both seller and purchaser had more income at the expense of lower government revenue.

Under current depreciation rules and low interest rates, this allocation is much less important. In addition, the 9 percent cap on imputed interest for some real estate sales has no effect when market interest rates are well below that level.

Selected Bibliography

Internal Revenue Service. *Installment Sales: For Use in Preparing 2017 Returns*, Publication 537, December 26, 2016.

U.S. Congress, Joint Committee on Taxation. *Description of the Tax Treatment of Imputed Interest on Deferred Payment Sales of Property*, JCS-15-85, May 17, 1985.

— . *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, JCS-41-84, December 31, 1984, pp.108-127.

EXPENSING OF MAGAZINE CIRCULATION EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 173.

Description

In general, current federal tax law allows publishers of newspapers, magazines, and other periodicals to deduct their expenditures to maintain, establish, or increase circulation in the year when they are made.

Deductions of these expenditures as current expenses are permitted, even though expenditures to establish or increase circulation would otherwise be treated as capital expenditures under section 263. The expenditures eligible for this preferential treatment do not include purchases of land and depreciable property, or the expansion of circulation through the purchase of another publisher or its list of subscribers.

The tax expenditure in section 173 arises from the difference between the deduction of costs as current expenses and the present value of the depreciation deductions that would be taken if the costs were capitalized.

Impact

Deducting circulation costs as a current expense speeds up the recovery of those costs. This acceleration in turn increases cash flow and reduces the cost of capital for publishers. Investment in maintaining and expanding circulation is a key element of the competitive strategies for publishers of newspapers and magazines. Readers obviously are an important source of revenue, and the advertising rates publishers charge typically are based on the volume of sales and readership.

Like many other business tax expenditures, the benefit likely accrues to high-income individuals (see Introduction for a discussion).

Rationale

Section 173 was added to the federal tax code through the Revenue Act of 1950 (P.L. 81-814). In taking this step, Congress wanted to eliminate some of the difficulties associated with distinguishing between expenditures to maintain circulation, which had been treated as currently deductible, and those to establish or develop new circulation, which had to be capitalized. Numerous legal disputes between publishers and the Internal Revenue Service (IRS) over the application and interpretation of this distinction had arisen as far back as the late 1920s.

The treatment of circulation expenses under section 173 remained unchanged until the passage of the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248). Among other things, P.L. 97-248 made the expensing of circulation expenditures a preference item under the alternative minimum tax (AMT) for individuals and required individuals paying the AMT to amortize any such expenditures over 10 years. Congress lowered the recovery period to three years in the Deficit Reduction Act of 1984 (P.L. 98-369), where it now stands. The Tax Reform Act of 1986 (P.L. 99-841) further clarified the treatment of circulation expenditures under the AMT: it allowed taxpayers who recorded a loss on the disposition of property related to such expenditures (e.g., a newspaper) to claim as a deduction against the AMT all circulation expenditures that had not already been deducted against the tax.

Assessment

Section 173 provides a significant tax benefit for publishers in that it allows them to expense the acquisition of an asset (i.e., costs associated with maintaining or developing lists of subscribers) that seems to yield returns in more years than one. At the same time, it simplifies tax compliance and

accounting for them and tax administration for the IRS. Without such treatment, it would be necessary for the IRS or Congress to clarify how to distinguish between expenditures for establishing or expanding circulation and expenditures for maintaining circulation.

Selected Bibliography

Commerce Clearing House, "'50 Act Clarified Tax Treatment of Circulation Expenses of Publishers," *Federal Tax Guide Reports*, vol. 48, September 9, 1966, p. 2.

Cowan, Geoffrey and David Westphal, *Public Policy and Funding the News*, Center on Communication Leadership and Policy Research Series, Annenberg School for Communication and Journalism, University of Southern California, January 2010.

Davidson, James H., "A Publisher's Guide to Tax Reform," *Folio: The Magazine for Magazine Management*, vol. 16, February 1987, p. 112.

Hilinski, Chester C., "Some Comments on the Revenue Act of 1950," *University of Pennsylvania Law Review*, vol. 99, no. 4, January 1951, pp. 455-475.

U.S. Congress, Joint Committee on Taxation, *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, Joint Committee Print, 98th Cong., 2nd sess., December 31, 1984, JCS-41-84 (Washington, DC: GPO, 1984), p. 986.

—, Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986*, Joint Committee Print, 100th Cong., 1st sess., May 4, 1987, JCS-10-87 (Washington, DC: GPO, 1987), p. 445.

—, Joint Committee on Internal Revenue Taxation, *Summary of H.R. 8920, "The Revenue Act of 1950," as Agreed to by the Conferees*, September 1950 (Washington, DC: GPO, 1950), p. 12.

U.S. Department of the Treasury, Internal Revenue Service, *Business Expenses*, Publication 535, March 16, 2018, p. 25.

SPECIAL RULES FOR MAGAZINE, PAPERBACK BOOK, AND RECORD RETURNS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 458.

Description

In general, if a buyer returns goods to the seller, the seller's income is reduced in the year in which the items are returned. If the goods are returned after the tax year in which the goods were sold, the seller's income for the previous year is not affected.

An exception to the general rule has been granted to publishers and distributors of magazines, paperbacks, and records or similar items with pre-recorded music, spoken or sounds (i.e., not blank records), who may elect to exclude from gross income for a tax year the income from the sale of goods that are returned after the close of the tax year. The exclusion applies to magazines that are returned within two months and fifteen days after the close of the tax year, and to paperbacks and records that are returned within four months and fifteen days after the close of the tax year.

To be eligible for the special election, a publisher or distributor must be under a legal obligation, at the time of initial sale, to provide a refund or credit for unsold copies.

Impact

Publishers and distributors of magazines, paperbacks, and records who make the special election are not taxed on income from goods that are returned after the close of the tax year. The special election mainly benefits large publishers and distributors.

Rationale

The purpose of the special election for publishers and distributors of magazines, paperbacks, and records is to avoid imposing a tax on accrued income when goods that are sold in one tax year are returned after the close of the year.

The special rule for publishers and distributors of magazines, paperbacks, and records was enacted by the Revenue Act of 1978 (P.L. 95-600).

Assessment

For goods returned after the close of a tax year in which they were sold, the special exception allows publishers and distributors to reduce income for the previous year. Therefore, the special election is inconsistent with the general principles of accrual accounting.

The special tax treatment granted to publishers and distributors of magazines, paperbacks, and records is not available to producers and distributors of other goods. On the other hand, publishers and distributors of magazines, paperbacks, and records often sell more copies to wholesalers and retailers than they expect will be sold to consumers.

One reason for the overstocking of inventory is that it is difficult to predict consumer demand for particular titles. Overstocking is also used as a marketing strategy that relies on the conspicuous display of selected titles. Knowing that unsold copies can be returned, wholesalers and retailers are more likely to stock a larger number of titles and to carry more copies of individual titles.

For business purposes, publishers generally set up a reserve account in the amount of estimated returns. Additions to the account reduce business

income for the year in which the goods are sold. For tax purposes, the special election for returns of magazines, paperbacks, and records is similar, but not identical, to the reserve account used for business purposes.

Selected Bibliography

Castellanos, Anthony R. and Karen R. Ryan, "The Special Return Rule for Magazines, Books, and Records - When Section 458 is Worth the Hassle," *Journal of Taxation*, March 1998, vol. 88, no. 3, p. 156.

U.S. Congress, Joint Committee on Taxation, *General Explanation of the Revenue Act of 1978*, Joint Committee Print, 96th Cong., 1st sess., March 12, 1979 (Washington, DC: GPO, 1979), pp. 235-41.

—, Joint Committee on Taxation, *Tax Reform Proposals: Accounting Issues*, Joint Committee Print, 99th Cong., 1st sess., September 13, 1985, JCS-39-85 (Washington, DC: GPO, 1985), pp. 75-82.

U.S. Department of the Treasury, Internal Revenue Service, "Certain Returned Magazines, Paperbacks or Records," 57 *Federal Register* 38595, August 26, 1992.

COMPLETED CONTRACT RULES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.4	0.8	1.2
2019	0.6	0.8	1.4
2020	0.3	0.7	1.0
2021	0.1	0.7	0.8
2022	0.1	0.7	0.8

Authorization

Section 460.

Description

Some taxpayers with construction or manufacturing contracts extending for more than one tax year are allowed to report some or all of the profit on the contracts under special accounting rules rather than the normal rules of tax accounting. Many such taxpayers use the "completed contract" method.

A taxpayer using the completed contract method of accounting reports income on a long-term contract only when the contract has been completed. All costs properly allocable to the contract are also deducted when the contract is completed and the income reported, but many indirect costs may be deducted in the year paid or incurred. This mismatching of income and expenses allows a deferral of tax payments that creates a tax advantage in this type of reporting.

Most taxpayers with long-term contracts are not allowed to use the completed contract method and must capitalize indirect costs and deduct them

only when the income from the contract is reported. There are exceptions, however. Home construction contracts may be reported according to the taxpayer's "normal" method of accounting and allow current deductions for costs that others are required to capitalize.

Other real estate construction contracts may also be subject to these more relaxed rules if they are of less than two years' duration and the contractor's gross receipts are $25 million or less the year the contract is signed.

Impact

Use of the completed contract rules allows the deferral of taxes through mismatching income and deductions because they allow some costs to be deducted from other income in the year incurred. This is true, even though the costs actually relate to the income that will not be reported until the contract's completion, and because economic income accrues to the contractor each year he works on the contract but is not taxed until the year the contract is completed. Tax deferral is the equivalent of an interest-free loan from the government of the amount of the deferred taxes. Because of the restrictions now placed on the use of the completed contract rules, most of the current tax expenditure relates to real estate construction, especially housing.

Rationale

The completed contract method of accounting for long-term construction contracts has been permitted by Internal Revenue regulations since 1918, on the grounds that such contracts involved so many uncertainties that profit or loss was undeterminable until the contract was completed.

In regulations first proposed in 1972 and adopted in 1976, the Internal Revenue Service extended the method to certain manufacturing contracts (mostly defense contracts), at the same time tightening the rules as to which costs must be capitalized. Perceived abuses, particularly by defense contractors, led Congress to question the original rationale for the provision and eventually led to a series of ever more restrictive rules. The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) further tightened the rules for cost capitalization.

The Tax Reform Act of 1986 (P.L. 99-514) for the first time codified the rules for long-term contracts and also placed restrictions on the use of the completed contract method. Under this act, the completed contract method could be used for reporting only 60 percent of the gross income and capitalized costs of a contract, with the other 40 percent reported on the "percentage of

completion" method, except that the completed contract method could continue to be used by contractors with average gross receipts of $10 million or less to account for real estate construction contracts of no more than two years' duration. It also required more costs to be capitalized, including interest.

The Omnibus Budget Reconciliation Act of 1987 (P.L. 100-203) reduced the share of a taxpayer's long-term contracts that could be reported on a completed contract basis from 60 percent to 30 percent. The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) further reduced the percentage from 30 to 10, (except for residential construction contracts, which could continue to use the 30 percent rule) and also provided the exception for home construction contracts.

The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) repealed the provision allowing 10 percent to be reported by other than the percentage of completion method, thus repealing the completed contract method, except as noted above.

More recently the American Jobs Creation Act of 2004 (P.L. 108-357), later amended in the Gulf Opportunity Zone Act of 2005 (109-135), extended the use of the completed contract method to naval shipbuilders.

The Small Business Jobs Act of 2012 (P.L. 111-240) allowed for the allocation of bonus depreciation to the costs allocated to the contract for property place in service after December 31, 2009, and before January 1, 2011 for most property (2012 for certain longer-lived and transportation property). This provision was extended through the end of 2014 (for most property) by the American Taxpayer Relief Act of 2012 (P.L. 112-240); through the end of 2015 by the Tax Increase Prevention Act of 2014 (P.L. 113-295); through the end of 2016 by the Protecting Americans from Tax Hike Act of 2015 (Division Q of P.L. 114-113); and through the end of 2019 by a subsequent amendment in P.L. 114-113.

The 2017 tax revision (P.L. 115-97) allowed the completed contract method for construction contracts that are expected to be completed within two years if the company has gross receipts of $25 million or less in the year the contract is signed.

Assessment

Use of the completed contract method of accounting for long-term contracts was once the standard for the construction industry. Extension of the method to defense contractors, however, created a perception of wide-spread

abuse of a tax advantage. The Secretary of the Treasury testified before the Senate Finance Committee in 1982 that "virtually all" defense and aerospace contractors used the method to "substantially reduce" the taxes they would otherwise owe.

The principal justification for the method had always been the uncertainty of the outcome of long-term contracts, an argument that lost a lot of its force when applied to contracts in which the government bore most of the risk. It was also noted that even large construction companies, who used the method for tax reporting, were seldom so uncertain of the outcome of their contracts that they used it for their own books; their financial statements were almost always presented on a strict accrual accounting basis comparable to other businesses.

Since the use of the completed contract rules is now restricted to a very small segment of the construction industry, it produces only small revenue losses for the government and probably has little economic impact in most areas. One area where it is still permitted, however, is in the construction of single-family homes, where it adds some tax advantage to an already heavily tax-favored sector.

Selected Bibliography

Knight, Ray A. and Lee G. Knight. "Recent Developments Concerning the Completed Contract Method of Accounting," *The Tax Executive*, v. 41, Fall 1988, pp. 73-86.

Internal Revenue Service. *Accounting for Construction Contracts–Construction Tax Tips*, IRS.gov, March 14, 2012.

—. *Industry Director Directive on Super Completed Contract Method*, IRS.gov, August 13, 2012.

U.S. Congress, House of Representatives, Committee on the Budget. *Omnibus Budget Reconciliation Act of 1989*. September 1989, pp. 1, 347.

—, Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Tax Equity and Fiscal Responsibility Act of 1982*. JCS-38-82, December 31, 1982, pp. 148-154.

—. *General Explanation of the Tax Reform Act of 1986*. JCS-10-87, May 4, 1987, pp. 524-530.

—. *Tax Reform Proposals: Accounting Issues*. JCS-39-85, September 13, 1985, pp. 45-49.

U.S. General Accounting Office. *Congress Should Further Restrict Use of the Completed Contract Method*. Report GAO/GGD-86-34, January 1986.

LIMITATION ON ACTIVE PASSTHROUGH LOSSES IN EXCESS OF $500,000/$250,000

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-0.7	-	-0.7
2019	-1.5	-	-1.5
2020	-1.5	-	-1.5
2021	-1.5	-	-1.5
2022	-1.5	-	-1.5

Authorization

Section 461(l)

Description

In tax years beginning before 2018, owners of non-corporate (or passthrough) businesses in which they actively participated were allowed to use net operating losses (NOLs) to offset taxable income from non-business sources such as wages, dividends, and interest payments. Excess NOLs could be carried back two tax years or forward 20 tax years to offset taxable income. Such a rule made it possible for the owners to derive an immediate tax benefit from the NOLs. Under section 172 of the federal tax code, an NOL occurs when a firm's total deductions exceed its gross income in a tax year.

Under current law, however, there is a cap on the amount of an NOL an active passthrough business owner may use to offset any non-business taxable income in tax years beginning in 2018 to 2025. Starting in 2026, the treatment of NOLs held by non-corporate businesses reverts to the rules in effect before 2018. Section 461(l), as added by the tax law revision enacted in late 2017 (P.L. 115-97), prohibits owners of passthrough entities (i.e., partnerships, S corporations, sole proprietorships and limited liability companies) who are

actively involved in the operation of a trade or business from deducting a so-called "excess business loss" (EBL) for the tax year in which the loss occurs. An EBL arises when a passthrough business's aggregate deductions exceed the sum of (1) its "gross income or gain" for the year, and (2) $500,000 in the case of joint filers and $250,000 in the case of all other filers. Both amounts will be adjusted for inflation starting in 2019.

The excess is treated as a NOL under section 172. NOLs incurred in 2018 and later years may be carried forward indefinitely but not carried back to a previous tax year. In addition, the losses may offset no more than 80 percent of a company's taxable income in a carryforward tax year.

Passthrough businesses are required to apply the passive activity loss (PAL) rules under section 469 before they apply the new EBL rules. The PAL rules are designed to prevent a passthrough business owner who has little or no involvement in the operation of the trade or business from using operating losses from the business to offset taxable income from other sources, an activity known as tax sheltering. Net income from a passive activity is added to an owner's taxable income from all sources, whereas net losses from the same activity can be used only to offset net income from that activity in future tax years. Unused PALs from passive activities may be carried forward indefinitely but not carried back.

For partnerships and S corporations, the EBL limit is applied at the partner or shareholder level. This means that each partner's distributive share or each S corporation shareholder's pro rata share of items of a business's income, gain deduction, or loss is taken into account by the partner or shareholder in applying the EBL rules to determine their tax liability.

During the period (2018 to 2025) when EBLs are disallowed, the limit on excess farm losses for non-corporate taxpayers under section 461(l)(A) is suspended.

Impact

The provision is likely to increase the tax liability of some active passthrough business owners. Married couples filing jointly are allowed to use no more than $500,000 of an NOL to offset other sources of income in the same tax year, while all other filers are limited to $250,000 in losses. It is not clear how many active passthrough businesses are likely to be subject to the EBL limits. Passthrough business losses that do not exceed the threshold

amounts but do exceed a taxpayer's other sources of income are added to that individual's NOL.

Rationale

There is no stated rationale for the section 461(i) limitation in the conference agreement for H.R. 1, the bill that become P.L. 115-97, apart from raising revenue to offset part of the law's revenue cost. In addition, there is no reason to conclude that the limitation is intended to remedy a market failure involving non-corporate businesses, most of which are relatively small in employment or asset size. A possible rationale is to further restrict the ability of individuals to use current-year business losses to shelter income from other sources from taxation.

The restrictions on the deduction for EBLs were added by P.L. 115-97.

Assessment

The provision modifies the tax treatment of NOLs incurred by passthrough businesses whose owners actively participate in the trade or business. Specifically, it requires NOLs incurred in 2018 and thereafter that are greater than $500,000 for joint filers and $250,000 for all other filers to be treated as an NOL under section 172. This means that joint filers (or all other filers) who own and actively participate in a passthrough business may use up to $500,000 (or $250,000) of the NOL to offset taxable income from other sources in the same tax year. It also means that the earliest an active non-corporate business owner could use this "excess" loss to offset taxable income is the following tax year. Such a change could have implications for an affected firm's capacity to invest, at least in the short run.

There is a basic asymmetry in how the federal income tax treats passthrough business profits and losses. Profits are taxed in the tax year when they are earned, but NOLs (at least those incurred in 2018 and later years) can be deducted against taxable income from all sources only in a future tax year, with the carryforward period capped at 20 years. In theory, symmetrical treatment of NOLs would require that the tax-value of an NOL be refunded in the year when it is incurred.

The section 461(l) limitation on the use of business losses by active owners of non-corporate businesses could affect the survival and growth prospects of some firms by restricting the ability of owners to use such losses

to offset part or all of their taxable income from other sources. This is a particular concern in the case of start-up firms, since they typically lose money during the first few years of operation. In effect, the EBL limit forces an affected business owner to wait at least one year to get a tax refund for a current-year NOL. Given the time value of money and the effects of inflation, such a rule could increase the present value of an active owner's expected tax burden for an investment, relative to what it would be if there were no loss disallowance under section 461(l). Net losses that shelter other income from tax provide a benefit in the form of a positive cash flow from the reduction in taxes on that income. Adding to that tax burden are the limits on the use of NOLs incurred in 2018 and thereafter. To the extent that the EBL rules decrease the cash flow of an affected business in the short run, they could lead the firm to invest less than it otherwise would.

In addition, the EBL limit, combined with the decrease in the corporate tax rate to 21 percent beginning in 2018, could increase the appeal of operating a business as a C corporation rather than a passthrough entity, even though the profits of C corporations are taxed twice (at the entity level and the individual level of shareholders) and the profits of a passthrough business are taxed once (at the individual level of owners).

Selected Bibliography

Bloomberg Tax, A Deep Dive into New Limitations on Loss and Business Interest Reveals Complexity, Uncertainty, and Need for Correction, February 19, 2018, https://www.bipc.com/assets/PDFs/News-Events/2New-Limitations-on-Loss-and-Business-Interest-Complexity-Uncertainty-Correction_Starczewski-Booken-TMM_Feb-2018.pdf.

Crumbley, D. Larry and James R. Hasselback, "Attractiveness of S Corporations after 2017," Tax Notes, February 26, 2018, pp. 1207-2014.

Keightley, Mark P., The Tax Treatment of Net Operating Losses: In Brief, Congressional Research Service Report R44976, October 4, 2017.

Ferguson, Bradford L. and Frederick W. Hickman, "Passive Activity Losses," Encyclopedia of Taxation & Tax Policy, (Washington: Urban Institute Press, 2005), pp. 291-292.

KPMG, New Tax Law: Issues for Partnerships, S Corporations, and Their Owners, January 18, 2018, https://home.kpmg.com/content/dam/kpmg/us/pdf/2018/01/tnf-passthroughs-new-law-book.pdf.

Li, Huaqun, A Quick Overview of the Asymmetric Taxation of Business Gains and Losses, Tax Foundation, May 31, 2017.

U.S. Congress, House of Representatives, Tax Cuts and Jobs Act: Conference Report to accompany H.R. 1, Rpt. 115-466 (Washington: GPO), December, 15, 2017, pp 238-240.

U.S. Department of the Treasury, Internal Revenue Service, Passive Activity and At-Risk Rules, Publication 925, February 15, 2018, pp. 2-12.

Yauch, Eric, "New Loss Limitation Hard to Calculate, Interpret with Other Rules," Tax Notes, September 3, 2018, pp. 1457-1459.

CASH ACCOUNTING, OTHER THAN AGRICULTURE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	5.0	1.3	6.3
2019	4.5	1.5	6.0
2020	2.9	0.9	3.8
2021	2.5	0.7	3.2
2022	2.4	0.6	3.0

Authorization

Sections 446 and 448.

Description

In general, companies are allowed to compute their taxable income with the same method of accounting that they use to compute net income in keeping their books, provided that the method clearly reflects income for tax purposes and is consistently applied. This means that the chosen accounting method for tax purposes must clearly determine the timing of when a business reports income and deductible expenses on its tax return.

Section 446 of the federal tax code states that several methods of accounting may be used to compute taxable income. They can be described as (1) the "cash receipts and disbursements" (or cash) method, (2) the accrual method, or (3) any other method permitted by tax rules, such as a long-term contract method or a hybrid method drawing on a combination of these methods.

The two most important methods for tax accounting are the cash-basis and accrual-basis methods. Under the former, a business recognizes income

when it receives cash payments for goods or services it provides, and it recognizes expenses when it makes payments for those goods and services, regardless of when the revenues were earned and the expenses incurred. Financial statements created with cash-basis accounting typically postpone or accelerate the recognition of revenues and expenses. Such statements also do not reflect all of a company's assets and liabilities on a particular date.

By contrast, the accrual method of accounting requires a business to recognize income and expenses when the transaction that gives rise to them occurs. The transaction does not necessarily depend on the exact timing of cash payments as income or expenses. Rather, under the accrual method, a business is required to recognize income when it is earned and expenses when they are incurred. As a result, a company recognizes expenses in the same period when it earns income from the delivery of a good or service.

On the whole, the cash method is simpler and less costly to use, while the accrual method yields a more accurate picture of a taxpayer's financial condition at a specific moment, as it matches income and expenses with greater precision and rigor.

Not all businesses, however, are permitted to use the cash method for tax purposes. Companies that maintain inventories as an essential component of their business generally must use the accrual method; for the most part, these are companies that produce, buy, or sell merchandise in earning income. In addition, under Section 448, C corporations, partnerships that have a C corporation as a partner, trusts that are subject to tax on unrelated trade or business income, and tax shelters must use the accrual method of accounting for income, regardless of whether they maintain inventories.

But there are a few exceptions to this rule. Section 448 allows the following businesses to use the cash method of accounting for tax purposes, regardless of whether they maintain inventories: (1) non-corporate companies engaged in farming or tree-raising, (2) qualified personal service corporations (PSCs), and (3) C and S corporations and partnerships with average annual gross receipts in the three previous tax years of $25 million or less. PSCs are businesses owned by one or more partnerships or S corporations that provide the following services: health, law, engineering, architecture, accounting, actuarial science, the performing arts, or consulting. (The use of cash accounting in computing taxable income in agriculture is discussed in a separate entry in the compendium.) The $25 million limit applies to tax years beginning in 2018 and thereafter. Businesses meeting this gross receipts test are also not required to maintain inventories, apply the uniform capitalization

rules under section 263A, or use the percentage-of-completion method of accounting for small construction contracts.

Impact

Most self-employed individuals and other smaller businesses use the cash method of accounting for tax purposes because it is less burdensome and can yield temporary tax savings relative to the accrual method. Yet the accrual method provides a more accurate measure of a firm's income, assets, and liabilities. The tax expenditure from use of the cash method arises from the opportunity to defer the recognition of income and expenses for tax purposes. Owners of eligible small businesses and PSCs of all sizes capture most of the benefit from the expenditure.

Rationale

Individuals and many small businesses prefer to use the cash method of accounting for tax purposes because it requires keeping fewer records than does accrual-basis accounting.

Under the Revenue Act of 1916, a business could calculate its income for tax purposes using the same accounting method that it used to compute its income for financial reporting purposes. The revision of the Internal Revenue Code in 1954 (P.L. 83-591) modified this rule by allowing taxpayers to use a combination of accounting methods in calculating their tax liabilities. Additional changes in the use of the cash method for tax purposes were introduced by the Tax Reform Act of 1986 (P.L. 99-514). Among other things, it prohibited tax shelters, C corporations, partnerships with C corporations as partners, and certain trusts from using the method. The tax revision of 2017 (P.L. 115-97) raised the limit for the gross-receipts test for exempting a business from using the rules preventing it from using the cash method to an average annual amount of $25 million in the three previous tax years.

Assessment

The choice of accounting method can affect the timing of a business's income tax payments from one year to the next. Relative to the cash method, the accrual method more precisely matches income with the expenses incurred in producing it during a certain period. For the purpose of financial reporting, the accrual method is preferred because it paints a more accurate picture of a firm's financial condition at a particular moment.

By contrast, the cash method gives businesses greater control over the recognition of receipts and expenses for tax purposes. By shifting income or deductions from the current tax year to a future one, a business can defer the payment of taxes on income that would have to be recognized sooner under the accrual method, or take advantage of credits or net operating losses that otherwise would expire. In addition, the cash-basis method of accounting entails lower tax compliance costs for businesses. For these the reasons, some professional organizations (like the American Institute of Certified Public Accountants) have long opposed imposing stricter limits on the use of the cash method for tax accounting.

Selected Bibliography

Arora, Jamie, "Limiting Cash Method Could Hit Wide Swath of Passthroughs," *Tax Notes*, March 17, 2014, pp. 1164-1166.

Brown, James R., "Imposing Accrual Accounting on Large Professional Partnerships," *Tax Notes*, July 7, 2014, pp. 47-67.

Gnanarajah, Raj, *Cash versus Accrual Accounting: Tax Policy Considerations*, CRS Report R44002, April 24, 2015.

Graham, John R., Jana S. Raedy, and Douglas A. Shackleford, "Research in Accounting for Income Taxes," *Journal of Accounting and Economics*, 2011.

Guenther, Gary, *Small Business Tax Benefits: Overview and Economic Rationales*, CRS Report RL32254, July 5, 2018.

Russell, Roger, "Crazy for Cash," *Accounting Today*, September 2014, p. 16.

Testimony of Donald T. Williamson, in U.S. Congress, House Committee on Small Business, Subcommittee on Economic Growth, Tax, and Capital Access, *Cash Accounting: A Simpler Method for Small Firms?* hearing, 113th Cong., 2nd sess., July 10, 2014.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation of the "Economic Security and Worker Assistance Act of 2002,"* JCX-6-02, February 13, 2002, p. 62.

—, *General Explanation of Tax Legislation Enacted in the 107th Congress*, JCS-1-03, January 2003, pp. 240-242.

U.S. Department of the Treasury, Internal Revenue Service, *Revenue Procedure 2018-40,* August 20, 2018.

Weinstein, Gerald P. and William J. Cenker, "Tax Accounting Methods and Entity Choice," *Taxes*, vol. 86, no. 8, August 2008, pp. 23-32.

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT SMALL-ISSUE QUALIFIED PRIVATE ACTIVITY BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.3	0.1	0.4
2019	0.3	0.1	0.4
2020	0.3	0.1	0.4
2021	0.3	0.1	0.4
2022	0.3	0.1	0.4

Authorization

Sections 103, 141, 144, and 146.

Description

Interest income on state and local bonds used to finance business loans of $1 million or less for construction of private manufacturing facilities is tax exempt. These small-issue industrial development bonds (IDBs) are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

The $1 million loan limit may be raised to $10 million if the aggregate amount of related capital expenditures (including those financed with tax-exempt bond proceeds) made over a six-year period is not expected to exceed $10 million. Aggregate borrowing is limited to $40 million for any one borrower. The bonds are subject to the state private-activity bond annual

volume cap. The private-activity bond annual volume cap is equal to the greater of $105 per state resident or $311.38 million in 2018. The cap has been adjusted for inflation since 2003.

The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) expanded the definition of manufacturing facilities to include facilities that manufacture, create, or produce tangible property or intangible property. Intangible property means any patent, copyright, formula, process, design, knowhow, format, or other similar item. This expanded definition applied to bonds issued after February 17, 2009, and before January 1, 2011.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to offer loans to manufacturing businesses at reduced interest rates.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and business borrowers, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

The first bonds for economic development were issued without any federal restrictions. State and local officials expected that reduced interest rates on business loans would increase investment and jobs in their communities. The Revenue and Expenditure Control Act of 1968 (P.L. 90-364) imposed several targeting requirements, limiting the tax exempt bond issue to $1 million and the amount of capital spending on the project to $5 million over a six-year period. The Revenue Act of 1978 (P.L. 95-600) increased the $5 million limit on capital expenditures to $10 million, and to $20 million for projects in certain economically distressed areas. The American Jobs Creation Act of 2004 (P.L. 108-357) effectively increased the related expenditures limit to $20 million for bonds issued after September 30, 2009, but the $10 million limit would still apply to the amount of the bond issuance. The Tax Increase Prevention and Reconciliation Act of 2005 (P.L. 109-122) moved the eligible date for the bonds up to December 31, 2006.

The Deficit Reduction Act of 1984 (P.L. 98-369) restricted use of the bonds to manufacturing facilities, and limited any one beneficiary's use to $40 million of outstanding bonds. The annual volume of bonds issued by governmental units within a state first was capped in 1984, and then included by the Tax Reform Act of 1986 (P.L. 99-514) under the unified volume cap on private-activity bonds.

Small-issue IDBs long had been an "expiring tax provision" with a sunset date. IDBs first were scheduled to sunset on December 31, 1986 by the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248). Revised sunset dates were adopted three separate times when Congress extended small-issue IDB eligibility for a temporary period. The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66), however, made small-issue IDBs permanent.

Since then, small-issue IDB capacity has gradually expanded reflecting congressional desire to encourage investment in manufacturing. As noted above, the American Jobs Creation Act of 2004 (P.L. 108-357) increased the total capital expenditure limitation from $10 million to $20 million, but the $10 million limit would still apply to the amount of the bond issuance. Congress, at the time, thought it was appropriate because the $10 million limit had not been changed for many years. More recently, as noted earlier, the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) expanded the definition of manufacturing facilities to include facilities that manufacture, create, or produce tangible property or intangible property. The ARRA provision expired January 1, 2011.

Assessment

It is not clear that the nation benefits from these bonds. Any increase in investment, jobs, and tax base obtained by communities from their use of these bonds likely is offset by the loss of jobs and tax base elsewhere in the economy. National benefit could arise from relocating jobs and tax base to achieve social or distributional objectives. The use of the bonds, however, is not targeted to specific geographic areas that satisfy explicit federal criteria such as median income or unemployment; all jurisdictions are eligible to benefit from the bonds.

As one of many categories of tax-exempt private-activity bonds, small-issue IDBs have increased the financing costs of bonds issued for public capital. With a greater supply of public bonds, the interest rate on bonds necessarily increases to lure investors. In addition, expanding the availability

of tax-exempt bonds also increases the assets available to individuals and corporations to shelter their income from taxation.

Bibliography

Anderson, John E. and Robert W. Wassmer. *Bidding for Business: The Efficacy of Local Economic Development Incentives in a Metropolitan Area*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2000, pp. 1-24.

Congressional Budget Office. Testimony, *Federal Support for State and Local Governments Through the Tax Code,* April 2012.

Coogan-Pushner, Diane and Josh Keller. "Risk and Return of Industrial Development Bonds," *Municipal Finance Journal*, Summer 2016, vol. 37, no. 2, p. 73.

Council of Development Finance Agencies. "CDFA Annual Volume Cap Report," September 2017.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Galper, Harvey, Kim Rueben, Richard Auxier, and Amanda Eng. "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 67, no. 4, December 2014, p. 901.

Internal Revenue Service. *Update: Effect of Sequestration on State & Local Government Filers of Form 8038-CP,* June 2018.

Liu, Gao, and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal*, vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven, and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal*, vol. 64, no. 2, June 2011, pp. 591-613.

Stutzer, Michael J. "The Statewide Economic Impact of Small-Issue Industrial Development Bonds," *Federal Reserve Bank of Minneapolis Quarterly Review*, vol. 9. Spring 1985, pp. 2-13.

U.S. Congress. Congressional Budget Office. *The Federal Role in State Industrial Development Programs*, 1984.

— . *Small Issue Industrial Revenue Bonds*, April 1981.

U.S. Congress, Congressional Budget Office. Statement of Donald B. Marron before the Subcommittee on Select Revenue Measures, Committee on Ways and Means, U.S. House of Representatives. "Economic Issues in the Use of Tax-Preferred Bond Financing," March 16, 2006.

U.S. Congress, Joint Committee on Taxation. *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2010, Statistics of Income*, Spring 2013, pp. 112-157.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity,* Washington, DC: The Urban Institute Press, 1991.

— . "Federal Tax Policy, IDBs and the Market for State and Local Bonds," National Tax Association — Tax Institute of America Symposium: Agendas for Dealing with the Deficit, *National Tax Journal*, vol. 37, September 1984, pp. 411-420.

LIMITATION ON DEDUCTION FOR FDIC PREMIUMS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-0.7	-0.7
2019	-	-1.5	-1.5
2020	-	-1.5	-1.5
2021	-	-1.5	-1.5
2022	-	-1.5	-1.5

Authorization

Section 162(r)

Description

In general, taxpayers are allowed a deduction for ordinary and necessary expenses they incur or pay in the conduct of a for-profit trade or business under section 162(a). These expenses include most insurance premiums paid by companies as part of their trade or business.

In the case of banks and credit unions of all asset sizes, those premiums included the semi-annual payments they make into the Deposit Insurance Fund (DIF) managed by the Federal Deposit Insurance Corporation (FDIC). These payments were authorized under section 7(b) of the Federal Deposit Insurance Act (P.L. 81-797) and intended to maintain the institutions' status as insured depository institutions. The FDIC was created as an independent government corporation through the Banking Act of 1933 (P.L. 73-66) for the purpose of insuring bank deposits. It is funded through insurance premiums collected from member depository institutions and held in the DIF. Proceeds from the DIF are used to pay depositors up to the depository insurance limit of $250,000 for a checking account, savings account, and individual retirement account when a member institution fails.

Up to 2018, member institutions were allowed to deduct the full amount of those payments if they passed a test known as the "all events test," as specified in Revenue Ruling 80-230. The payments were considered an ordinary and necessary business expense for tax purposes. But beginning in 2018, banks over a certain size no longer are allowed to deduct the full amount of their FDIC premium payments under newly enacted section 162(r). Specifically, no deduction is allowed for the "applicable percentage" of any FDIC premium paid or incurred by a member institution. For banks with consolidated assets of $50 billion or more, the applicable percentage is 100 percent, which means that they cannot deduct any of their FDIC premiums in 2018 and thereafter. Otherwise the applicable percentage is determined by subtracting $10 billion from an institution's consolidated assets and dividing the remainder by $40 billion. For example, in the case of a bank with $26 billion in consolidated assets in a tax year, no deduction may be claimed for 40% of its FDIC premium: $26 billion - $10 billion/ $40 billion = 40 percent. Member institutions with less than $10 billion in consolidated assets may still deduct the full amount of FDIC premiums.

The term "consolidated assets" has the same meaning as it does in section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (P.L. 111-203). In determining a taxpayer's consolidated assets, members of an expanded affiliated group are treated as a single taxpayer.

Impact

The newly enacted limitation on the deduction for FDIC premiums has the potential to boost the tax burden of large banks that are members of the federal deposit insurance system.

Rationale

There is no stated rationale for the section 162(r) limitation in the conference agreement for H.R. 1, the bill that become P.L. 115-97, apart from raising revenue to offset part of the law's revenue cost.

Assessment

The limitation on the deduction for FDIC premium payments by banks with $10 billion or more in consolidated assets appears to be inconsistent with the general principle in taxing business income of allowing a deduction for any ordinary and necessary expense incurred or paid in the conduct of a for-

profit trade or business. This principle is embodied in section 162 of the federal tax code.

At the same time, the loss of the full deduction is mitigated, relative to previous tax law, by the reduction of the top corporate tax rate from 35 percent to 21 percent under P.L. 115-97. Banks organized under the laws of any of the 50 states and the District of Columbia are taxed as C corporations. Because the corporate tax rate is 40 percent lower under current law, the loss of the deduction by itself should not prevent a large bank from earning a greater after-tax profit under current law, relative to previous law, for the same taxable income. For example, say a bank with $70 billion in consolidated assets in 2018 has a gross income of $1 billion and its only expense is a $100 million FDIC premium. Under current law, the bank would owe a federal income tax of $210 million: $1 billion x 0.21. If previous law were still in effect in 2018, the bank's tax liability would total $315 million: ($1 billion - $100 million) x (0.35). This means that the revenue gain from the loss of the full deduction is likely to be more than offset by the revenue loss from the reduction in the corporate tax rate for large banks affected by the limitation on the deduction.

To the extent that large banks realize greater profits under current law, they could increase their lending, pay down debt, increase dividend payments to shareholders, or buy back their stock, among other things.

Selected Bibliography

Bloomberg Tax, *Bid Banks Would Lose Tax Break for Deposit*, November 2, 2017, https://www.bna.com/big-banks-lose-n73014471648/.

Congressional Research Service, *Federal Deposit Insurance for Banks and Credit Unions*, R41718, by Darryl E. Getter.

EY Global Tax Alert, *US House tax reform bill would affect banking and capital markets*, November 9, 2107, www.ey.com/taxalerts.

KPMG, *Tax Reform and the Potential Impacts to the Banking Industry*, March 9, 2018, www.kpmg.com.

U.S. Congress, House of Representatives, *Tax Cuts and Jobs Act: Conference Report to accompany H.R. 1*, H.Rept. 115-466 (Washington: GPO), December, 15, 2017, pp. 410-413.

CARRYOVER BASIS OF CAPITAL GAINS ON GIFTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.6	-	0.6
2019	0.7	-	0.7
2020	2.3	-	2.3
2021	2.6	-	2.6
2022	3.4	-	3.4

Authorization

Sections 1015, 1023, 1040, 1221, and 1222.

Description

A capital gains tax generally is imposed on the increased value of a capital asset (the difference between sales price and original cost of the asset) when the asset is sold or exchanged. This tax is not, however, imposed on the appreciation in value when ownership of the property is transferred as a gift during the lifetime of the owner.

In the case of assets transferred as a gift, the donee's basis (the amount that he subtracts from sales price to determine gain if the asset is sold in the future) is generally the same as the donor's (usually the original cost of the asset). Thus, if the donee disposes of the property in a sale or exchange, the capital gains tax will apply to the pre-transfer appreciation. Tax on the gain is deferred, however, and may be forgiven entirely if the donee in turn passes on the property at death.

One caveat to this general rule occurs if the donor paid federal gift taxes related to the gift of the asset. In this case, the donee's basis is increased by the share of the gift tax paid on the asset's appreciation prior to transfer.

Impact

The use carryover basis on gifts provides a deferral of taxation on the appreciation of *inter vivos* gifts (i.e., a gift made by one living person to another).

Rationale

The original rationale for nonrecognition of capital gains on *inter vivos* gifts is not indicated in the legislative history of any of the several interrelated applicable provisions. One current justification given for the treatment, however, is that *inter vivos* gifts are considered as inappropriate events to result in the recognition of income.

The Technical Amendments Act of 1958 (P.L. 85-866) provided for an adjustment of basis for a portion of the gift taxes paid. The Tax Reform Act of 1976 (P.L. 94-455) modified this calculation for gifts made after December 31, 1976, and limited the adjusted basis to the asset's fair market value. The Deficit Reduction Act of 1984 (P.L.98-369) specified that the basis of assets transferred between spouses is not adjusted for gift taxes paid.

Assessment

Carryover basis for *inter vivos* gifts prevents the avoidance of tax when mutual or sequential gifts are made between relatives. This may result in additional compliance costs to the donee.

Selected Bibliography

Auerbach, Alan J. "Capital Gains Taxation and Tax Reform," *National Tax Journal*, v. 42, September 1989, pp. 391-401.

—. Leonard E. Burman and Jonathan Siegel. "Capital Gains Taxation and Tax Avoidance," in *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, ed. Joel B. Slemrod. New York: Russell Sage, 2000.

Burman, Leonard E. *The Labyrinth of Capital Gains Tax Policy*, Washington, DC: Brookings Institution, 1999.

David, Martin. *Alternative Approaches to Capital Gains Taxation*, Washington, DC: The Brookings Institution, 1968.

Surrey, Stanley S. et al., eds. "Taxing Capital Gains at the Time of a Transfer at Death or by Gift," *Federal Tax Reform for 1976*. Washington, DC: Fund for Public Policy Research, 1976, pp. 107-114.

U.S. Congress, Senate Committee on Finance Hearing. *Estate and Gift Taxes: Problems Arising from the Tax Reform Act of 1976*, 95th Congress, 1st session, July 25, 1977.

CREDIT FOR EMPLOYER-PAID FICA TAXES ON TIPS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.9	0.5	1.4
2019	0.9	0.6	1.5
2020	0.9	0.6	1.5
2021	1.0	0.6	1.6
2022	1.0	0.6	1.6

Authorization

Section 45B.

Description

Tips received by employees providing, serving, or delivering food and beverages are treated as wages under the Federal Unemployment Tax Act (FUTA) and the Federal Insurance Contributions Act (FICA). Employers are required to report tips received to the Internal Revenue Service (IRS), and tip income is subject to both the employer and employee portions of Social Security and Medicare taxes. In the case of tipped employees, the Fair Labor Standards Act (FLSA) allows employers to lower the minimum wage to $2.13 per hour, provided the combination of tips and cash wages equals the applicable federal minimum wage, $7.25 per hour in 2018.

Employers of tipped employees may claim a non-refundable tax credit for a portion of the employer-paid FICA taxes. Specifically, the credit is equal to the employer's FICA tax obligation on employee tip income in excess of tips treated as wages for the purpose of meeting the minimum wage requirements of the FLSA. The credit is available regardless of whether an employee reports tips received. Under the Small Business and Work

Opportunity Tax Act of 2007 (enacted as part of P.L. 110-28), the minimum wage for determining the credit was fixed at the minimum wage in effect on January 1, 2007, or $5.15 per hour. As a result, the credit is available for FICA taxes paid on tip income received by an employee in excess of $5.15 per hour.

The credit is one of the components of the general business credit (GBC) under section 38. Thus, the credit is subject to general business credit carryback and carryforward rules. Unused FICA credits may be carried back one year or carried forward up to 20 years. The credit is not refundable. An employer may also elect to not use the credit in any given tax year. To avoid a double benefit, employers cannot deduct wages for any amount taken into account when computing the credit.

In a decision announced on June 17, 2002, the U.S. Supreme Court ruled that the IRS may use an aggregate estimation method to calculate a restaurant's FICA tax liability for unreported tip income. The decision rested on whether tax law authorized the IRS to base the FICA assessment upon an aggregate estimate of all tips paid to a restaurant's employees, or whether the law required the IRS to determine total tip income by estimating each individual employee's tip income separately and summing the individual amounts. The Supreme Court held that the IRS could use an aggregate estimate, provided it was based on a reasonable method.

Impact

Section 45B reduces labor costs for firms with tipped employees. It also boosts tax compliance in the industry by encouraging employers to provide complete and accurate reports of employee tip income to the IRS. Some believe that before the enactment of section 45B, FICA and FUTA created an incentive for employers to reduce their FICA taxes by encouraging or requiring their employees to not report all of their tip income. Current tax law imposes no additional burdens on food and beverage employers for complete reporting of tip income. To the extent that all tips are reported and all FICA taxes paid, employees may be eligible for larger payments from the Social Security system when they retire.

In the 2012 tax year, 66,400 firms claimed a total of $1.3 billion in FICA tip credits. Most of the firms claiming the credit were S corporations (55%). Another 26% of firms claiming the credit were structured as partnerships, 12% were C corporations, and 7% were sole proprietorships. On average, the dollar value of credits claimed is larger for C corporations than for other types of firms. About 40% of credits claimed were claimed by C corporations, while

that figure was 30% for partnerships, 28% for S corporations, and 2% for sole proprietorships. Fifty C corporations with total income in excess of $1 billion claimed 18% of the total FICA tip credits.

Rationale

The credit for employer-paid FICA taxes on tips originated with the Omnibus Budget Reconciliation Act of 1993 (P.L. 101-508). Although it was not included in either the House-passed version of the bill or the amended version passed by the Senate, the credit was inserted in the conference committee report without an explanation. Some news reports indicated that it was added at the last minute to mitigate the impact on restaurant industry sales and revenue of another provision that reduced the deductible portion of the cost of business meals from 80 percent to 50 percent.

The Small Business Job Protection Act of 1996 (P.L. 104-188) clarified two aspects of the credit. First, it specified that the credit was available regardless of whether employees reported the tips on which an employer paid the FICA tax, and that the credit applied to all FICA taxes paid on tips after December 31, 1993, even if some of the tip income was received before that date. The act also stated that tips received by employees delivering food or beverages were eligible for the credit (prior law provided the credit only for tips received on the premises of a food or beverage establishment). According to the legislative history of the credit, Congress intended that the effective date be set at January 1, 1994, but it deemed the Treasury Department's interpretation of that date to be inconsistent with the provision as enacted. The Ways and Means committee report on the bill noted there was no good reason not "to apply the credit to all persons who provide food and beverages, whether for consumption on or off the premises."

As a result of the Small Business and Work Opportunity Act of 2007 (enacted as part of P.L. 110-28), employers may calculate their credit for FICA taxes paid on tip income by using a fixed federal minimum wage of $5.15 per hour, instead of the current minimum wage, which stands at $7.25 per hour. As a result of this change, any future increases in the minimum wage would not affect the amount of the tip credit for employers.

Assessment

Many would agree that tips are income that should be treated for tax purposes the same way as other forms of compensation. Waiters, waitresses, and delivery persons are not self-employed individuals; hence their tip income

should be considered part of their total compensation. When seen from this perspective, tips can be thought of as a surrogate wage that employers might have to pay in their absence. In addition, many would argue that all employers should share equally the costs of providing future benefits for retirees under the Social Security program.

Because Social Security taxes are determined on the basis of an employee's total compensation (including tip income), current law provides a benefit only to food and beverage employers whose employees receive part of their compensation in the form of tips. Other businesses whose employees receive a portion of their compensation in the form of tips (such as cab drivers, hairdressers, etc.) are barred from using the tax credit. Thus, section 45B may violate the principle of horizontal equity by treating businesses that employ tipped employees differently. Further, since all other employers pay Social Security taxes on the entire earnings of their employees, the provision may result in different tax treatment for taxpayers in different industries. For example, a carry-out food establishment where tipping is not customary pays the full amount of applicable Social Security taxes, while a sit-down restaurant does not.

The restaurant industry has some objections to the current design of the credit. First, it maintains that tip income is not a cash wage, but a gift to employees from the customers they serve. Second, industry representatives contend that if the tip income is treated as compensation, employers should be able to count all tip income in determining the minimum wage (current law allows only a portion of the federal minimum wage to consist of tip income). In addition, the industry argues that the mandatory reporting of tip income forces employers to bear large and unreasonable administrative costs. The credit does, however, help defray some of these costs.

Selected Bibliography

Crowson, Christopher. "Service with a Chagrin: The Problem of Aggregate Estimates of Unreported Tips in the United States v. Fior D'Italia, Inc.," *The Campbell Law Review,* vol. 25, no. 93 (2002), pp. 93-114.

Erickson, Jennifer M. "Fior D'Italia: The "Taxing" Problem of Unreported Tip Income," *Iowa Law Review,* vol. 88, no. 655 (March 2003), pp. 655-679.

Gallaway, Lowell and Vedder, Richard, "The Employment Effects of Social Security Tax Changes and Minimum Wage Regulations: A Case Study of the American Restaurant Industry," *Journal of Labor Research,* vol. 14, no. 3, (Summer 1993), pp. 367-374.

Hennig, Cherie J., William A. Raabe, and John O. Everett. "Small Business and Work Opportunity Tax Act of 2007: Analysis and Tax Planning Opportunities," *Taxes,* (November 2007), pp. 45-47.

Laffie, Lesli S. "Got Tips? Better Report Them." *Journal Of Accountancy,* vol. 190, no. 1 (July 2000), pp. 75.

Mills, John, and Richard Mason. "Points to Consider on Tip-Reporting Agreements." *CPA Journal,* vol. 74, no. 7 (July 2004), pp. 42-44.

Peckron, Harold S. "The Tip Police: Aftermath of the Fior D'Italia Rule," *Catholic University Law Review,* vol. 52, no. 1 (Fall 2002), pp. 1-36.

Raby, Burgess J.W. and William L. Raby. "The War on Unreported Cash Tips," *Tax Notes,* vol. 81, (November 2, 1998), pp. 605-609.

Robertson, John, Tina Quinn, and Rebecca C. Carr. "Unreported Tip Income: A Taxing Issue." *CPA Journal,* vol. 76, no. 12 (2006), pp. 30-39.

Slemrod, Joel. "Cheating Ourselves: The Economics of Tax Evasion." *The Journal of Economic Perspectives,* vol. 21, no. 1 (Winter, 2007), pp. 25-48.

Sollee, William L., and Paul J. Schneider. "FICA Tax Rules Clarified in Connection with Tip Income." *Journal of Taxation,* vol. 82, no. 3 (March 1995), pp. 144-145.

U.S. Congress, Congressional Budget Office. *Budget Options*. "Replace the Income Tax Credit with a Business Deduction for Employer FICA on Certain Tip Income." Washington, DC: February 2001, p. 436.

U.S. Congress, Joint Committee on Taxation. "Present Law and Background Relating to the Tax Treatment of Tip Income." Washington, DC: July 13, 2004, pp. 1-7.

U.S. Department of the Treasury, Internal Revenue Service, *Credit for Employer Social Security and Medicare Taxes Paid on Certain Employee Tips*, Form 8846 with General Instructions, 2017.

———, *Credit for Portion of Employer Social Security Paid with Respect to Employee Cash Tips (IRC 45 B Credit)*, July 23, 2018.

U.S. Department of the Treasury, Office of Tax Analysis, "Federal Insurance Contributions Act (FICA) Tip Credit," February 3, 2016.

DEDUCTION FOR INCOME ATTRIBUTABLE TO DOMESTIC PRODUCTION ACTIVITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.2	3.3	4.5
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: This provision expired for taxable years beginning after December 31, 2017.

Authorization

Section 199.

Description

Businesses can deduct 9 percent of qualified production activities. The deduction cannot exceed total taxable income of the firm and is limited to 50 percent of wages related to the qualified activity.

Production property is property manufactured, produced, grown or extracted within the United States. Eligible property includes domestic film, energy, and construction, and engineering and architectural services. For the latter, the services must be produced in the United States for construction projects located in the United States. The law specifically excludes the sale of food and beverages prepared at a retail establishment, the transmission and distribution of electricity, gas, and water, and receipts from property leased, licensed, or rented to a related party. The benefits are also allowed for activities based in Puerto Rico for 2007 through 2016. Oil extraction is permanently limited to a 6 percent deduction. Several special modifications

are made for films including a broader definition of wages and some other revisions.

There are rules that allow the allocation of the deduction to passthrough entities and cooperatives. The provision also allows the revocation without penalty of a prior election to treat timber cutting as the sale of a capital asset. The deduction is also allowed under the alternative minimum tax. The tax expenditure is the tax savings due to the deduction.

Impact

This provision lowers the effective tax rate on the favored property, from the top corporate tax rate of 35 percent in 2017 to 31.85 percent. The deduction is available to both corporations and unincorporated businesses, but primarily benefits corporations. For the many proprietorships that have few or no employees, the benefit will be limited or absent, because of the wage requirement, unless the firm incorporates.

Internal Revenue Service data (2013) indicate that corporations were responsible for 75 percent of deductions, and within that amount, 66 percent went to manufacturing. Assuming that most unincorporated business is not manufacturing, only half of the production activities deduction goes to manufacturing. Based on corporate taxable income and the deduction in 2013, a third of corporate income was eligible. According to Lester and Rector (2016), over 90 percent of the deduction is claimed by multinational corporations.

The beneficial treatment given to income from these activities encourages more investment in manufacturing and other production activities and less in sales and services. It also encourages more equity investment in the affected sectors.

Rationale

This provision was enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357), an act that repealed the Extraterritorial Income provision that was found to be an unacceptable export subsidy by the World Trade Organization. The stated purpose was to enhance the ability of firms to compete internationally and to create and preserve manufacturing jobs. The deduction was phased in, at 3 percent in 2005-2006, 6 percent in 2007-2009, and 9 percent thereafter.

The Tax Increase Prevention and Reconciliation Act of 2006 (P.L. 109-222) modified the provision by clarifying that wages for purposes of the deduction limit were those relating to domestic production activities. The Tax Relief and Health Care Act (P.L. 109-432) added the benefit for production activity in Puerto Rico. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the Puerto Rico treatment through 2009, restricted the deduction for oil extraction, and expanded the treatment of films (P.L. 110-343). The Tax Relief, Unemployment Insurance Authorization, and Job Creation Act of 2010 (P.L. 111-312) extended the benefit for Puerto Rico through 2011. This benefit for Puerto Rico was subsequently extended through 2013 by the American Taxpayer Relief Act (P.L. 112-240), through 2014 by the Tax Increase Prevention Act of 2014 (P.L. 113-295), and through 2016 by the Consolidated Appropriations Act (P.L. 114-113).

The production activities deduction was repealed by the 2017 tax revision, P.L. 115-97, popularly referred to as the Tax Cuts and Jobs Act.

Assessment

The provision likely expanded the sector qualifying for the benefit and contracted other sectors. It likely introduced some inefficiency into the economy by diverting investment into qualifying sectors. The provision also lowered the burden on corporate equity investment, which is more heavily taxed than other forms of investment, and among qualifying firms, reduced the incentive for debt finance. This latter effect likely produced an efficiency gain. It also targeted a sector (primarily manufacturing) that is involved in international trade and investment and might have made equity investment in the United States more attractive than a general rate reduction of the same aggregate size.

Economists in general do not expect that there is a need to use tax incentives to create jobs in the long run because job creation occurs naturally in the economy. Nor can tax provisions permanently affect the balance of trade, since exchange rates would adjust.

There has been concern about the difficulty in administering a tax provision that provides special benefits for a particular economic activity. Firms will have an incentive to characterize their activities as eligible and to allocate as much profit as possible into the eligible categories. A number of articles written by tax practitioners and letters written to the Treasury indicate

that many issues of interpretation have arisen relating to the definition of qualified activity, treatment of related firms, and specific products such as computer software, films and recording. Canada adopted a similar provision several years ago, but later repealed it because of the administrative complications.

Selected Bibliography

Blouin, Jennifer, Linda Krull, and Casey Schwab. "The Effect of the Domestic Production Activities Deduction on Corporate Payout Behavior," Working Paper, May 31, 2014, available at SSRN, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1092222.

Deloitte Tax LLP. "Producing Results: An Analysis of the New Production Activities Deduction," *Tax Notes*, February 21, 2005, pp. 961-984.

Dilley, Steven C. and Fred Jacobs. "The Qualified Production Activities Deduction: Some Planning Tools," *Tax Notes*, July 4, 2005, pp. 87-98.

Gravelle, Jane G. *Comparison of Tax Incentives for Domestic Manufacturing: 108th Congress*. Library of Congress, Congressional Research Service Report RL32103, Washington, DC: January 1, 2005.

— . *The Tax Reduction and Reform Act of 2007: An Overview*, Congressional Research Service Report RL34249, Washington, DC: June 20, 2008.

Johnston, David Cay. "Manufacturing Tax Break Gone Wild," *Tax Notes*, August 5, 2013, pp. 622-623.

Jenks, Carl M. "Domestic Production Deduction: FAQs and a Few Answers," *Tax Notes*, August 28, 2006, pp. 751-757.

Lester, Rebecca. "Made in the U.S.A.? A Study of Firm Responses to Domestic Production Incentives," Working Paper, February 23, 2018, available at SSRN, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2831698

Lester, Rebecca and Ralph Rector. "The Section 199 Deduction: Which Corporations Benefit," *Tax Notes,* August 29, 2016, pp. 1269-1292.

McClellan, John. "Five Things an Economist Thinks are Important in Analyzing the Domestic Production Deduction: What Accountants and Lawyers Should Know About Economists," *National Tax Journal*, vol. 59, September, 2006, pp. 579-584.

Mills, Lillian. "Five Things Economists and Lawyers Can Learn From Accountants: An Illustration Using the Domestic Production Activities Deduction," *National Tax Journal*, vol. 59, September, 2006, pp. 585-598.

Ohrn, Eric. The Corporate Investment Response to the Production Activities Deduction, Working Paper 1526, Oxford University Center for Business Taxation, 2015.

Rojas, Warren. "New Manufacturing Deduction Presents Many Open Questions," *Tax Notes*, October 18, 2004, pp. 279-280.

Sapirie, Marie. "Can Tax Policy Bring U.S. Manufacturing Back?" *Tax Notes*, January 7, 2013, pp. 47-49.

Sherlock, Molly. *The Section 199 Production Activities Deduction: Background and Analysis,* Library of Congress, Congressional Research Service Report R41988. Washington, DC: July 6, 2017.

U.S. Congress, House, *Conference Report on the American Jobs Creation Act*, H.Rept. 108-77, Washington, DC: U.S. Government Printing Office, 2004.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation of H.R. 7060, The Renewable Energy and Job Creation Act of 2008*, JCX-75-08, September 25, 2008, at http://www.house.gov/jct/x-75-08.pdf.

White, George. "Dead Space 2: Tax Rip-Off?" *Tax Notes*, October 3, 2011, pp. 101-103.

20-PERCENT DEDUCTION FOR PASSTHROUGH BUSINESS INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	33.2	-	33.2
2019	48.6	-	48.6
2020	56.3	-	56.3
2021	59.0	-	59.0
2022	61.9	-	61.9

Authorization

Section 199A.

Description

The taxation of business income depends, in part, on how a business is organized for legal and tax purposes. Basically, a firm has two choices: it can be organized as a C corporation or as a passthrough entity, a category that consists of partnerships, S corporations, or sole proprietorships. Profits earned by the former are taxed twice: once at the entity level, and a second time at the individual level of shareholders when profits are distributed to them as dividends and capital gains. All items of gain, loss, income, deduction, and credit are accounted for by the corporation in determining its tax liability.

By contrast, passthrough business profits are taxed once: at the individual level of owners. In effect, the profits are passed through to the owners, who include them in their taxable income under the individual income tax. A partner takes into account the partnership's items of income, gain, loss, deduction, and credit, based on the entity's accounting method and regardless

of whether its income is distributed to the partners. Similarly, an S corporation shareholder takes into account the same items for the entity, based on its accounting method and whether or not the S corporation's income is distributed to its shareholders. An unincorporated sole proprietorship is treated for tax purposes as being inseparable from the owner, which means that the owner is taxed directly on the business's profits.

Under current law, the tax rate for corporate income is 21 percent (regardless of the size of taxable income) for tax years beginning in 2018 and beyond. The tax rates for individual income in 2018 to 2025 range from 10 percent to 37 percent and are scheduled to return to their 2017 levels beginning in 2026.

Section 199A of the federal tax code, which applies to tax years beginning in 2018 through 2025, allows taxpayers with qualified income from certain passthrough businesses to deduct up to 20 percent of that income in determining their individual income tax liability on Form 1040. Owners of agricultural or horticultural cooperatives, as well as trusts and estates, may also claim the deduction. The deduction does not affect someone's adjusted gross income (AGI), and it may not be claimed as an itemized deduction. But the deduction may be taken by individuals who claim the standard deduction, or who itemize their deductions.

The value of the section 199A deduction for a passthrough business depends largely on three considerations: (1) the total taxable income of taxpayers with qualified passthrough business income (QBI), (2) the nature of the business activity, and (3) the total W-2 wages paid by the business and the total value of tangible, depreciable assets used in the business. Taxable income in this case is a passthrough business owner's AGI less other allowable deductions, except for the section 199A deduction. W-2 wages are a passthrough business's total wages subject to withholding, elective deferrals, and deferred compensation paid to employees during a tax year. The value of tangible, depreciable assets refers to the unadjusted basis of such property at the time a passthrough business acquired the assets for use in the production of qualified business income.

A taxpayer's QBI is the net amount of qualified items of income, gain, loss, and deduction for each qualified trade or business of the taxpayer. A qualified item must be connected to the conduct of a qualified trade or business in the United States. If a taxpayer owns more than one qualified trade or business, then the QBI must be determined separately for each of them and combined to determine his/her total QBI in a tax year. QBI does not include

capital gains or losses, dividends, interest income not related to a qualified trade or business, amounts received from an annuity (unless related to a trade or business), certain items described in section 954, reasonable compensation paid to an S corporation shareholder by his/her qualified trade or business for services rendered to the trade or business, and any guaranteed payment described in section 707(c) paid to a partner for services rendered to the qualified trade or business. This latter restriction is intended to reduce the likelihood of S corporation shareholders and partners benefiting from the deduction as a result of their labor income.

Calculation of the deduction for QBI can be complicated, depending on a taxpayer's taxable income. A passthrough business owner whose taxable income is less than $157,500 for single filers and $315,000 for joint filers in 2018 is eligible to claim a deduction equal to 20 percent of his/her QBI. There is no limit on the business activities that qualify for the deduction in this range of taxable income, provided the activity does not involve the performance of services as an employee.

When taxable income in 2018 ranges from $157,500 to $207,500 for single filers and from $315,000 to $415,000 for joint filers, the deduction becomes the smaller of two calculations: (1) 20-percent of a taxpayer's QBI from a qualified business, or (2) the larger of two limits: 50 percent of a business's W-2 wages or 25 percent of those wages plus 2.5 percent of the business's tangible, depreciable assets. In the case of unqualified businesses, the deduction phases out in that income range.

For passthrough business owners with taxable incomes in 2018 greater than $207,500 for single filers and $415,000 for joint filers, certain limits apply to the use of the deduction. First, no deduction may be claimed for income from a "specified service and trade business." Second, for qualified business activities, the deduction is limited to the greater of 50-percent of a business's W-2 wages or 25-percent of those wages plus 2.5 percent of the unadjusted basis of the business's tangible, depreciable assets.

More specifically, the deduction for passthrough business income is equal to the sum of two considerations:

- The smaller of (1) a taxpayer's "combined qualified business income amount," or (2) 20 percent of any excess of the taxpayer's taxable income over any net capital gain plus any aggregate qualified cooperative dividends, and

- The lower of (1) 20 percent of a taxpayer's aggregate qualified cooperative dividends, or (2) his/her taxable income minus any net capital gain.

An individual's "combined qualified business income amount" is equal to the sum of the "deductible amount" for each qualified business he or she owns, plus 20 percent of the sum of any qualified real estate investment trust (REIT) dividends, qualified publicly traded partnership income, and real estate rental income. The "deductible amount" for a qualified business is the lesser of (1) 20 percent of a taxpayer's QBI from the business, or (2) the W-2/qualified asset limit. As noted above, this limit is equal to the greater of (1) 50 percent of W-2 wages for the business, or (2) the sum of 25 percent of those wages and 2.5 percent of the unadjusted basis of the business's tangible depreciable assets. A passthrough business owner's personal capital gains, interest income not related to a trade or business, and dividends may not be used to calculate the deduction.

The W-2/qualified assets limit does not apply if a taxpayer's taxable income in 2018 does not exceed $157,500 for single filers and $315,000 for joint filers. Nor does the limit apply when a taxpayer's taxable income is greater than $157,500 ($315,000) but not more than $207,500 ($415,000), and the amount of the limit is less than 20 percent of the taxpayer's business income from a qualified trade or business. In this case, the amount equal to 20 percent of the taxpayer's qualified business income is reduced by an amount equal to the difference between the amount of the qualified trade or business's W-2/qualified asset limit and 20 percent of the taxpayer's qualified business income, multiplied by a fraction whose numerator is the amount by which the taxpayer's taxable income exceeds $157,500 ($315,000), and whose denominator is $50,000 ($100,000). These income thresholds will be indexed for inflation starting in 2018.

Not all business activity qualifies for the deduction. Specifically, the deduction cannot be claimed for income arising from the performance of services as an employee. In addition, passthrough business owners with taxable incomes above $207,500 for single filers and $415,000 for joint filers may not claim the deduction for income from a "specified service and trade business (SSTB)." An SSTB is (1) any trade or business involving the performance of services in accounting, actuarial science, athletics, brokerage services, consulting, financial services, health, law, the performing arts, (2) any business involved in investing and investment management, and trading or dealing in securities, partnership interests, or commodities, or (3) any trade

or business whose principal asset is the reputation or skill of one or more of its employees or owners. Excluded from the list of SSTBs are the services provided by engineers and architects.

Impact

The section 199A deduction is intended to reduce the tax burden of owners of qualified passthrough businesses. Assuming a taxpayer is able to take the maximum deduction of 20 percent of qualified business income, the provision lowers marginal individual income tax rates for that income as follows:

Federal Marginal Individual Income Tax Rates, by Source of Income, 2018

Marginal Tax Rate on Ordinary Income	Marginal Tax Rate on Business Income Eligible for the 20-percent Passthrough Deduction	Tax Bracket Income Thresholds for Single Filers	Tax Bracket Income Thresholds for Joint Filers
10.0 percent	8.0 percent	$0 to $9,525	$0 to $19,050
12.0	9.6	9,526 to $38,700	19,051 to 77,400
22.0	17.6	38,701 to 82,500	77,401 to 165,000
24.0	19.2	82,501 to 157,500	165,001 to 315,000
32.0	25.6	157,501 to 200,000	315,001 to 400,000

35.0	28.0	200,001 to 500,000	400,001 to 600,000
37.0	29.6	Above $500,000	Above $600,000

Source: Tax Foundation

According to the Joint Committee on Taxation (JCT), an estimated 17.4 million households could benefit from the section 199A deduction in 2018. The JCT estimated that the revenue cost of the deduction will total $414.5 billion from FY2018 to FY2027.

There is some evidence that the deduction could benefit upper-income households more than lower-income households. A 2018 analysis by the Tax Policy Center (TPC) shows that households with incomes above $1 million will receive an estimated 49.1 percent of the total benefit in 2018, while households with incomes of $100,000 or less will receive 4.5 percent of the benefit.

Rationale

Section 199A was added to the federal tax code by the tax revision enacted in December 2017 (P.L. 115-97).

Assessment

The provision was intended to provide tax relief to passthrough businesses comparable in magnitude to the reduction in the top income tax rate from 35 percent to 21 percent for C corporations. The 20-percent deduction for qualified passthrough business income was also intended to allow small business owners to invest more in their businesses and hire and train more workers by reducing the tax burden on the returns to investment.

It is too soon to evaluate the impact of the deduction on the performance of passthrough businesses. But the deduction's implications for taxpayer compliance costs and economic equity and efficiency can be examined.

A concern about equity, in addition to the distributional effects noted above, is that the deduction is inconsistent with equity between individuals with the same income because it applies to some business income and not to other business income or wages.

Taxes in general affect the allocation of resources in an economy. An efficient tax code is one that has virtually no effect on consumer or business decisions regarding a range of economic activities, such as saving, consumption, and investment. In the case of business investment, an efficient tax code is basically neutral with regard to the returns on investment for the different capital assets firms acquire to earn an income.

How is the deduction likely to affect the investment decisions of passthrough businesses? In general, a deduction tied to business profits has the potential to spur increased investment and hiring because it lowers the cost of capital and boosts cash flow for all eligible firms. But the stimulus imparted by the section 199A deduction may be limited at the margin because of the phaseouts.

Complexity is another criterion used to evaluate the desirability and economic effects of a tax system or provision. Given the complicated design of the deduction, some may argue that the deduction adds another layer of complexity to the taxation of non-corporate business income. It also creates opportunities for gaming, including the ability of low-to-moderate income individuals to change their work status from employee to independent contractor to claim the deduction. Other possible actions are "cracking" (splitting businesses in order to qualify part of the business income) and "packing" (combining businesses to qualify for tax benefits).

The provision may reduce, however, the current incentive to allocate too little income to wages for Subchapter S corporation high-income shareholders to avoid paying the additional 3.8 percent Medicare tax imposed on high-earners. The advent of the deduction offers an incentive to reverse this practice. By allocating more income to wages, an S corporation would increase its W-2 wage/qualified property limit, potentially boosting the deduction each shareholder could claim.

A number of unresolved issues could have an impact on the use of the deduction. Their resolution can be accomplished through an act of Congress or possibly final IRS regulations. The IRS issued proposed regulations (REG-107892-18) for the section 199A deduction on August 8, 2018. Comments on the regulations were due by October 1, 2018, and a public hearing was held on October 16, 2018. The proposed regulations address a range of issues, including the definition of a trade or business, loss carryovers, the determination of W-2 wages and the unadjusted basis of eligible property immediately after its acquisition, and rules for calculating QBI and aggregating QBI from multiple lines of business.

Selected Bibliography

Bailey, William A., "Mechanics of the new Sec. 199A deduction for qualified business income," *Journal of Accountancy*, May 1, 2018, https://www.journalofaccountancy.com/issues/2018/may/sec-199a-deduction-for-qualified-business-income.html.

Center on Budget and Policy Priorities, *Pass-Through Deduction Benefits Wealthiest, Loses Needed Revenue, and Encourages Tax Avoidance* (Washington, DC: May 10, 2018).

Erb, Kelly Phillips, "IRS Issues Proposed Regulations on Section 199A Deduction for Solos & Pass-through Businesses," *Forbes*, August 8, 2018, https://www.forbes.com/sites/kellyphillipserb/2018/08/08/irs-issues-proposed-regulations-on-section-199a-deduction-for-solos--pass-through-businesses/#790e2330755b.

EY, "Proposed Regulations Released on Computing TCJA's Pass-Through Deduction," *Tax News Update*, 2018-1634, August 15, 2018.

Gleckman, Howard, *Navigating the TJCA's Pass-Through Deduction*, Tax Policy Center (Washington, DC: February 1, 2018).

—, *The TCJA's Pass-Through Deduction Was Misguided From the Beginning* (Washington, DC: August 15, 2018).

Greenberg, Scott and Nicole Kaeding, *Reforming the Pass-Through Deduction*, fiscal fact No. 593, Tax Foundation (Washington, DC: June 2018).

KMPG, *New Tax Law: Issues for Partnerships, S Corporations, and Their Owners*, January 18, 2018, pp. 5-8.

Nitti, Tony, "5 Passthrough Deduction Questions the IRS Must Answer," *Tax Notes*, June 11, 2018, pp. 1595-1600.

—, "Proposed 199A Regulations: Three Big Questions Remain," *Tax Notes*, September 10, 2018, pp. 1557-1561.

Rosenthal, Steven M., *Treasury's New Pass-Through Rules Double Down on the Deduction's Regressivity* (Washington, DC: August 14, 2018).

Sullivan, Martin A., "Economic Analysis: The Market for Passthrough Deduction Tax Advice," *Tax Notes*, July 9, 2018, pp. 165-169.

Susswein, Donald B., "Understanding the New Passthrough Rules," *Tax Notes*, January 22, 2018, pp. 497-506.

Thornton, Alexandra, *11 Ways the Wealthy and Corporations Will Game the New Tax Law*, Center for American Progress (Washington, DC: July 2018), pp. 3-7.

Yauch, Eric, "Taxpayers Could Challenge IRS on 199A Business Income," *Tax Notes*, October 29, 2018, pp. 613-614.

DEDUCTION OF CERTAIN FILM AND TELEVISION PRODUCTION COSTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: This provision expired at the end of 2017 and was estimated to cost less than $50 million per year, but may be extended.

Authorization

Section 181.

Description

The cost of producing films and television programs must be depreciated over a period of time using the income forecast method (which allows deductions based on the pattern of expected earnings). This provision allows production costs for qualified film and television shows to be deducted when incurred. Eligible costs are limited to $15 million ($20 million if produced in certain designated low income areas) and in which at least 75 percent of the compensation is for services performed in the United States. The provision expired at the end of 2017. Only the first 44 episodes of a television series qualify, and sexually explicit productions are not eligible.

The provision also applies to certain live theatrical productions beginning after 2015. The provision is limited to an audience size of no more than 3,000; a limit that is increased to 6,500 for plays that run no more than 10 weeks.

Impact

Expensing provides a benefit because deductions can be taken earlier. For example, at a 7 percent interest rate, the value of taking a deduction currently is 40 percent greater than taking a deduction five years from now $(1+.07)^5$. The benefit is greatest per dollar of investment for those productions whose expected income is spread out over a long period of time and whose production period is lengthy. This provision encourages film and television producers to locate in the United States and is intended to counter growth in so-called "runaway" production.

The provision originally was limited to productions with costs of $15 million or less ($20 million in certain areas) which targeted the benefit to smaller productions. The average cost of producing a movie for theatrical release in 2003 (by members of the Motion Picture Association of America) when it was first proposed was $63.8 million, so that many of these movie productions would not have qualified. A revision in 2008 that allowed any otherwise-eligible film to qualify for the deduction up to the dollar limit meant the benefit was extended to larger productions, although the limit still focuses the provision to smaller ones, compared to a provision with no dollar cap. One study found that made-for-television movies and mini-series, in particular, have experienced relocation abroad, and that most of this business has gone to Canada. Many countries, including Canada, provide subsidies for production.

The provision for live theater would cover most theatrical productions since the largest of the Broadway theaters has a seating capacity of 1,938 (see Elliott, 2015). Radio City Music Hall has a seating capacity of just over 6,000; its performance with the Rockettes over the Christmas season lasts seven weeks.

Rationale

This provision was enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357) to extend through 2008. The purpose was to discourage the "runaway" production of film and television to other countries, where tax and other incentives are often offered. The provision adopted at that time was restricted to productions costing $15 million or less ($20 million or less if in certain designated areas). The Emergency Economic Stabilization Act (P.L.

110-343), adopted in October of 2008, allowed the first $15 million ($20 million) of any otherwise qualified production to be expensed and extended the qualifying period through 2009. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312) extended the provision through 2011, the American Taxpayer Relief Act (P.L. 112-240) extended it through 2013 and the Tax Increase Prevention Act (P.L.113-295) extended it through 2014. The Consolidated Appropriations Act, 2916 (P.L.114-113) expanded the provision to include theatrical productions and extended the provision through 2016. The Bipartisan Budget Act of 2018 (P.L. 115-123) retroactively extended this provision through 2017.

Since live theater is tied to audience location, the runaway production argument does not apply. Factors cited by the sponsors include difficulty in raising capital for live productions and parity with film and television.

Assessment

This provision provided an incentive to remain in the United States, at least for firms that are profitable enough to have tax liability. The magnitude of the benefit depended on the average lag time from production to earning income. If that lag is five years and the discount rate is 7 percent, for example, the value of the deduction is increased by 40 percent, and with a 35-percent tax rate, the reduction in cost would be about 14 percent. If the average lag is only a year, the reduction is slightly over two percent.

In general, special subsidies to industries and activities tend to lead to inefficient allocation of resources. Moreover, in the long run, providing subsidies to counter those provided by other countries will not necessarily improve circumstances, unless they induce both parties to reduce or eliminate their subsidies. At the same time, individuals who have specialized in film and television production are harmed when production shifts to other countries, and the disruption can be significant when caused through provision of large subsidies or tax incentives.

Given that tax subsidies cannot benefit firms that do not have tax liability, the scope of this provision may be narrower than would be the case with a direct subsidy.

Selected Bibliography

Beer, Steen C. and Maria Miles. "Relief Effort," *Filmmaker Magazine*, Winter 2005, at: http://www.filmmakermagazine.com/winter2005/line_items/relief_effort.php

Crespi, Chery, and Marie Kulesza, "Considerations to Extend or Expand Film Tax Credits and Incentives: An Exploratory Study," *Journal of Applied Financial Research*. 2015, Vol. 2, pp. 45-56.

Elliott, Amy. "Broadway Finds Way to Secure New Live Theater Tax Break," *Tax Notes*, August 31, 2015, p. 933.

Gravelle, Jane G. Tax Reform Options: Incentives for Capital Investment and Manufacturing. Statement before the U.S. Senate Finance Committee, March 6. 2012, at:

http://www.finance.senate.gov/imo/media/doc/Testimony%20of%20Jane%20Gravelle.pdf.

Menaker, Mitchell E. "Hollywood Wins Congressional Award," *Tax Notes*, December 15, 2008, pp. 1277-1280.

Monitor Corporation. *U.S. Runaway Film and Television Production Study Report*, Prepared for the Screen Actors Guild and Directors Guild of America, Cambridge MA, 1999.

Moore, Schuyler M. "Film-Related Provisions of the American Jobs Creation Act," *Tax Notes*, December 20, 2204, pp. 1667-1671.

Motion Picture Association of America. *Worldwide Market Research, U.S. Entertainment Industry: 2003 MPA Market Statistics*, 2004.

Sherlock Molly F., Coordinator, *Business Tax Provisions that Expired in 2018*, Congressional Research Service Report R44930, March 29, 2018.

U.S. Congress, House, *Conference Report on the American Jobs Creation Act*, Report 108-77, Washington, DC: U.S. Government Printing Office, 2004.

U.S. Department of Commerce. *The Migration of U.S. Film and Television Production: Impact of "Runaways" on Workers and Small Business in the U.S. Film Industry*, January 18, 2001.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation of H.R. 7060, The Renewable Energy and Job Creation Act of 2008*, JCX-75-08, September 25, 2008, Posted at: http://www.house.gov/jct/x-75-08.pdf.

CREDIT FOR THE COST OF CARRYING TAX-PAID DISTILLED SPIRITS IN WHOLESALE INVENTORIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 5011.

Description

This credit applies to domestically bottled distilled spirits purchased directly from the bottler. Distilled spirits that are imported in bulk and then bottled domestically also qualify for the credit. The credit is calculated by multiplying the number of cases of bottled distilled spirits by the average tax-financing cost per case for the most recent calendar year ending before the beginning of the taxable year. A case is 12, 750-milliliter bottles of 80-proof alcohol. The average tax-financing cost per case is the amount of interest that would accrue at corporate overpayment rates during an assumed 60-day holding period, on an assumed tax rate of $25.68 per case set in statute.

Impact

The excise tax on distilled spirits is imposed when distilled spirits are removed from the plant where they are produced. In the case of imported

distilled spirits that are bottled, the excise tax is imposed when they are removed from a U.S. customs bonded warehouse. For distilled spirits imported in bulk containers for bottling in the United States, the excise tax is imposed in the same way as for domestically produced distilled spirits – when the bottled distilled spirits are removed from the bottling plant.

In 2017, the federal excise tax rate on distilled spirits was $13.50 per proof gallon (ppg). This rate is in permanent law. For 2018 and 2019, the excise tax rate schedule is temporarily modified into a three-tier system: $2.70 ppg on the first 100,000 proof gallons, $13.34 ppg for proof gallons in excess of that amount but less than 22,130,000 proof gallons, and $13.50 ppg for amounts thereafter.

Assuming an annual interest rate of six percent, the tax credit would save wholesalers approximately $0.25 a case or $0.02 per bottle of distilled spirits. That calculation per case is based on $\$25.68*[(1.06)^{(2/12)}-1]$. At an interest rate of two percent, it would save approximately $0.08 per case or than $0.007 per bottle. That calculation per case is based on $\$25.68*[(1.02)^{(2/12)}-1]$.

Rationale

The tax credit, created in 2005 by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (P.L. 109-59), is intended to help equalize the differential costs associated with wholesaling domestically produced distilled spirits compared with imported distilled spirits. Under current law, wholesalers are not required to pay the federal excise tax on bottled imported spirits until the spirits are removed from a bonded warehouse and sold to a retailer. It is assumed that the federal excise tax on domestically produced distilled spirits is passed forward as part of the purchase price when the distiller transfers the product to the wholesaler. If so, this raises the cost to wholesalers of domestically distilled spirits relative to bottled imported spirits. The credit is designed to compensate the wholesaler for the foregone interest that could have been earned on the funds that were used to pay the excise taxes on the domestically produced distilled spirits being held in inventory (the opportunity cost of the excise tax payment).

The 2017 tax revision (P.L. 115-97) enacted several temporary changes to federal excise taxes on distilled spirits and alcoholic beverages, more generally, for 2018 and 2019. The three-tier excise tax rate schedule under Section 5001 was one of these changes. Additionally, P.L. 115-97 temporarily allows the transfer of spirits in approved containers other than bulk containers without payment of excise tax under Section 5212.

Assessment

Under current law, tax credits are not allowed for the costs of carrying products in inventory on which an excise tax has been levied. Normally, the excise tax that is included in the purchase price of an item is deductible as a cost when the item is sold.

Allowing wholesalers a tax credit for the interest costs (or float) of holding excise-tax-paid distilled spirits in inventory confers a tax benefit on the wholesalers of distilled spirits that is not available to other businesses that also carry tax-paid products in inventory. For instance, wholesalers of beer and wine also hold excise-tax-paid products in their inventories and are engaged in similar income-producing activities similar to wholesalers of distilled spirits. But beer and wine wholesalers are not eligible for this tax credit.

Given its relatively small size, the credit is unlikely to have much effect on price differentials between domestically produced distilled spirits and imported bottled distilled spirits. The credit is also unlikely to produce much tax savings for small wholesalers. Most of the tax benefits from this credit likely accrue to large-volume wholesalers of distilled spirits.

Selected Bibliography

Lowry, Sean. *Alcohol Excise Taxes: Current Law and Economic Analysis*. Library of Congress, Congressional Research Service Report R43350, December 23, 2015.

U.S. Congress, House of Representatives. *Conference Report 115-466 to Accompany H.R. 1, Tax Cuts and Jobs Act,* 115th Cong., 1st sess., December 15, 2017, pp. 202-205.

—, Joint Committee on Taxation. *Summary Description of the "Highway Reauthorization and Excise Tax Simplification Act of 2005," Title V of H.R. 3, as Passed by the Senate on May 17, 2005*. JCX-41-05, June 13, 2005, pp. 9-10.

—, Committee of Conference. *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users*. Report 109-203, July 28, 2005, pp. 1132-1133.

EXPENSING OF COSTS TO REMOVE ARCHITECTURAL AND TRANSPORTATION BARRIERS TO THE HANDICAPPED AND ELDERLY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 190.

Description

Generally, an improvement to a depreciable asset such as a building or motor vehicle is treated for tax purposes as a capital expense. In most cases, taxpayers recover the amount spent on these improvements through depreciation. Depreciation allows a taxpayer to deduct *part of the cost* of a capital expense each year.

Under section 190, however, a business taxpayer may deduct in *a single tax year* (or expense) up to $15,000 of the expenses incurred for *removing existing physical barriers* to handicapped or elderly individuals in qualified facilities or public transportation vehicles. (None of the costs associated with constructing a *new* facility or vehicle, or undertaking a *complete renovation* of an existing facility to make it more accessible to those individuals, qualifies for the deduction.) Qualified expenses in excess of $15,000 must be

capitalized. In other words, excess expenses above $15,000 can be depreciated according to the appropriate schedule. Finally, in the case of partnerships, the $15,000 limit applies separately to a partnership and its individual partners.

A qualified facility is broadly defined to include any or all portions of a building, structure, equipment, road, walkway, parking lot, or similar real or personal property. A vehicle qualifies for the $15,000 expensing allowance if it offers transportation services to the public; it may be a bus, train, or other mode of public transportation. For example, the modification of a vehicle used to transport a business taxpayer's customers to make it more accessible to or usable by the elderly and handicapped could qualify for the expensing allowance. In addition, the taxpayer claiming this deduction must own or lease the qualified facility or public transportation vehicle.

To qualify for the expensing allowance, barrier removal projects have to meet design standards approved by the Architectural and Transportation Barriers Compliance Board. These standards apply to projects involving buses, rail cars, grading, walkways, parking lots, ramps, entrances, doors and doorways, stairs, floors, toilet facilities, water fountains, public telephones, elevators, light switches and similar electrical controls, the identification of rooms and offices, warning signals, and the removal of hanging lights, signs, and similar fixtures.

Besides the expensing allowance, eligible small firms may claim a non-refundable disabled access tax credit under section 44 for expenses they incur to make their facilities more accessible to disabled individuals. The credit applies to a wider range of expenses than the expensing allowance: all amounts paid for the cost of enabling the taxpayer to comply with applicable requirements under the Americans with Disabilities Act of 1990 (ADA, P.L. 101-336) can be used to compute the credit. A firm claiming the credit may also use the section 190 expensing allowance, but the expenses eligible for the allowance must be reduced by the amount of the credit. (See the entry on "Tax Credit for Disabled Access Expenditures.")

Impact

Expensing allows a taxpayer to fully deduct a business expense in the first year of investment, in comparison to depreciation whereby the taxpayer deducts the expense over many years according to a depreciation schedule. Expensing will generally provide additional tax savings (in comparison to depreciation) to taxpayers, since the full cost of the property (or improvements to the property) is recovered in the first year, rather than in future years when

the value of any associated tax savings will fall. This latter concept—that money today is worth more the sooner it is received— is known as the "time value of money." A stylized example may help illustrate the economic benefits of expensing versus depreciation in light of the time value of money.

Assume (1) a business taxpayer buys a machine for $10,000; (2) the machine is used for four years; (3) the machine is depreciated according to a "straight line" schedule whereby a fixed amount ($2,500) is deducted every year for four years; (4) the machine generates $4,000 of net cash flow annually; and (5) the taxpayer's tax rate is 35 percent. Finally, assume that money in the present can earn 5 percent interest annually in the future. This final assumption is generally referred to as the "discount rate." The discount rate implies $100 in a year is worth $95.24 today ($100 divided by 1.05). (For simplicity, the discounting in these examples is calculated assuming that nominal dollars are paid in taxes at the end of each year and by discounting these nominal dollars back to when the machine was purchased which was the beginning of year one.)

Table 1. A Stylized Example of Taxes Owed Using Depreciation

Year	Net Cash Flow	Cost Recovery (Depreciation)	Taxable Income	Tax Liability (35%)	Present Value of Tax Liability
Year 1	$4,000	$2,500	$1,500	$525	$500
Year 2	$4,000	$2,500	$1,500	$525	$476
Year 3	$4,000	$2,500	$1,500	$525	$454
Year 4	$4,000	$2,500	$1,500	$525	$432
Total	$20,000	$10,000	$6,000	$2,100	$1,862

Table 2. A Stylized Example of Taxes Owed Using Expensing

	Net Cash Flow	Cost Recovery (Expensing)	Taxable Income	Tax Liability (35%)	Present Value of Tax Liability
Year 1	$4,000	$10,000	-$6,000	-$2,100	-$2,000
Year 2	$4,000	$0	$4,000	$1,400	$1,270
Year 3	$4,000	$0	$4,000	$1,400	$1,209
Year 4	$4,000	$0	$4,000	$1,400	$1,152
Total	$20,000	$10,000	$6,000	$2,100	$1,631

As illustrated in these two tables, while the nominal cash flow, cost recovery, taxable income and nominal tax liability are the same after four years regardless of the recovery method, expensing reduces the taxpayer's present value tax liability in comparison to depreciation. Hence, expensing of these improvement expenses (as opposed to depreciating them) gives firms an incentive to modify their facilities and transport vehicles to make them more accessible to the elderly and handicapped by lowering the cost of capital for such an investment.

Rationale

The expensing allowance under section 190 originated with the Tax Reform Act of 1976 (P.L. 94-455). The act set the maximum allowance at $25,000 for a single tax year and specified that it would expire at the end of 1979. P.L. 96-167 extended the allowance through 1982, without modifying it. Congress permitted the allowance to expire at the end of 1982. The Deficit Reduction Act of 1984, (P.L. 98-369) reinstated the allowance from January 1, 1984 through December 31, 1985, and raised the maximum deduction to $35,000. The Tax Reform Act of 1986 (P.L. 99-514) permanently extended the allowance for tax years after 1985. The Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) lowered the maximum allowance to its present amount of $15,000.

Assessment

By establishing the expensing allowance under section 190, Congress was using the tax code to promote certain social and economic goals. In this case, the likely goal was to engage the private sector in expanding employment opportunities and improving access to goods and services for the elderly and disabled. Supporters of the provision have long contended that without it, firms would be less likely to remove physical barriers to the elderly and disabled from their facilities and transport systems.

This rationale raises some questions about the efficacy and desirability of the provision. Lawmakers may want to know if firms increased spending on the removal of physical barriers to the elderly and the handicapped in response to this provision when considering retaining or modifying the expensing allowance. Congress may further want to know if increased spending increased employment and access to goods and services among the elderly and handicapped since the provision was enacted nearly 40 years ago. Congress may also be interested in comparing the cost-effectiveness of the expensing allowance with other approaches to achieving similar policy goals. These

approaches include a government mandate that all firms remove barriers to the elderly and disabled in their operations or tax credits for the same types of expenses that are eligible for the allowance. Lawmakers may also want to investigate how these tax approaches to increasing business investment in improving accommodations for the disabled interact with federal spending programs to support the same purposes.

Because the allowance covers only a fraction of the expenses a firm incurs in accommodating the needs of disabled employees, it can be argued that its incentive effect is too small to have much of an impact on employment levels for the disabled. Further investigation of the link between tax incentives like the section 190 expensing allowance or the section 44 tax credit and hiring rates for the disabled may yield useful findings for lawmakers.

Selected Bibliography

Bollman, Andy and E.H. Pechan & Associates. *Evaluation of Barrier Removal Costs Associated with 2004 American with Disabilities Act Accessibility Guidelines*. Small Business Administration, Office of Advocacy, Washington, DC, November 2007.

Bruyere, Susanne M., William A. Erickson, and Sara A. VanLooy. "The Impact of Business Size on Employer ADA Response." *Rehabilitation Counseling Bulletin*, vol. 49, no. 4 (Summer 2006), pp. 194-207.

Cook, Ellen D, Anne K. Judice and J. David Lofton. "Tax Aspects of Complying with the Americans with Disabilities Act." *The CPA Journal,* March 1996.

Internal Revenue Service. Business Expenses. IRS Publication 535, Washington, D.C. March 16, 2018.

McLaughlin, Thomas D. "The Americans With Disabilities Act." *The Tax Adviser*, vol. 23, no. 9 (September 1992), pp. 598-602.

National Council on Disability. *The Impact of the Americans with Disabilities Act: Assessing the Progress Toward Achieving the Goals of the ADA*. Washington, DC, July 26, 2007.

Nelsestuen, Linda and Mark Reid. "Coordination of Tax Incentives Associated with Compliance with the Americans with Disabilities Act." *Taxes: The Tax Magazine*, February 1, 2003, pp. 37-42.

Stapleton, David C., Richard V. Burkhauser, and Andrew J. Houtenville. *Has the Employment Rate of People with Disabilities Declined? Policy Brief.* Cornell University, Employment and Disability Institute, December 2004.

U.S. Congress, Joint Committee on Taxation, *Present Law and Data Related to the Taxation of Business Income*, 115th Cong., 1st sess., September 15, 2017, JCX-42-17.

U.S. Congress, Joint Committee on Taxation, *Background and Present Law Relating to Cost Recovery and Domestic Production Activities*, 112th Cong., 2nd sess., February 27, 2012, JCX-19-12.

U.S. Department of Justice, Civil Rights Division. *Tax Incentives for Business*. December 20, 2006. Posted on the Department of Justice website at http://www.ada.gov/taxincent.htm, visited July 3, 2018.

U.S. Department of Labor, Bureau of Labor Statistics. *Persons with a Disability: Labor Force Characteristics–2017*. News Release USDL-18-1028, June 21, 2018.

EXCLUSION FOR GAIN FROM CERTAIN SMALL BUSINESS STOCK

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.3	-	1.3
2019	1.3	-	1.3
2020	1.3	-	1.3
2021	1.4	-	1.4
2022	1.4	-	1.4

Authorization

Sections 1202 and 1045.

Description

For tax purposes, a capital gain occurs when a taxpayer sells a capital asset (e.g., stock, bond, home, or work of art) for more than his or her adjusted basis in the asset. Generally, an asset's basis is the amount someone pays to acquire it. Under current federal tax law, capital gains (or losses) can be long-term or short-term. A short-term capital gain arises when a taxpayer sells for a gain an asset that he/she held for one year or less; the gain is taxed as ordinary income. By contrast, gains on the sale of capital assets held longer than one year generally are taxed at rates below ordinary income tax rates.

In 2018, individuals with adjusted gross incomes (AGIs) under $77,200 for joint filers and $38,600 for single filers pay no tax on realized long-term capital gains; the tax rate increases to 15 percent for long-term capital gains realized by joint filers with AGIs between $77,200 and $479,000 and single filers with AGIs between $38,600 and $425,800; long-term capital gains are

taxed at 20 percent for joint filers with AGIs above $479,000 and single filers with AGIs above $425,800.

Section 1202 allows non-corporate taxpayers (including passthrough entities like partnerships and subchapter S corporations) to exclude from their gross income the full amount of any gain from the sale or exchange of qualified small business stock (QSBS) acquired after September 27, 2010. For QSBS acquired between August 11, 1993 and February 17, 2009, 50 percent of any gain on its sale can be excluded. The exclusion percentage is 75 percent for QSBS acquired from February 18, 2009 to September 27, 2010. The portion of a gain that is included in a taxpayer's taxable income is taxed at a maximum rate of 28 percent, which was the top long-term capital gains rate when the section 1202 exclusion was enacted in 1993.

Several conditions must be met before a taxpayer can benefit from the QSBS gain exclusion. First, an eligible taxpayer must acquire the stock at its original issue in exchange for money or property, or as compensation for services performed for the issuing firm, and hold the stock for a minimum of five years. As a result, purchases of stock issued by eligible firms through an initial public offering could qualify for the exclusion. Second, the stock must be issued by a C corporation with no more than $50 million in gross assets up to the date the stock is issued. Third, the issuing corporation must use at least 80 percent of its assets in a qualified trade or business during "substantially all" of the required five-year holding period for the exclusion. A qualified trade or business in this case is defined as a specialized small business investment company (SSBICs) licensed under the Small Business Investment Act of 1958 and all lines of business except the following: health care, law, engineering, architecture, food service, lodging, farming, insurance, finance, or mining. Third, the QSBS must be issued after August 10, 1993.

A taxpayer's total benefit from the gains exclusion for a single corporation is limited to the greater of ten times the taxpayer's basis in the QSBS or $10 million.

Taxpayers have the option of rolling over any capital gain from the sale of QSBS they have held for more than six months under section 1045 of the federal tax code. To do so, a taxpayer must use the proceeds from a sale of QSBS to purchase a different company's QSBS within 60 days of the transaction. A capital gain is recognized only to the extent that the proceeds exceed the cost of the replacement stock. Any unrecognized capital gain from the sale lowers the taxpayer's basis in the new QSBS.

Separate rules apply to QSBS issued by corporations located in empowerment zones (EZs). In this case, non-corporate taxpayers may exclude 60 percent of any gain from the sale or exchange of such stock. (The special 75-percent and 100-percent exclusions do not apply to the sale or exchange of qualified EZ stock.) To take advantage of this exclusion, a taxpayer must acquire the stock after December 21, 2000 and hold it for more than five years. In addition, the business issuing the stock has to derive at least 50 percent of its gross income from business activities conducted within the EZ and at least 35 percent of its employees must reside in the EZ, among other requirements. The 60-percent exclusion does not apply to EZ QSBS acquired after December 31, 2018.

For QSBS acquired after September 27, 2010, the exclusion is no longer considered a preference item for the individual alternative minimum tax (AMT), which means that none of the exclusion is added to a taxpayer's AMT taxable income. This has not always been the case. Under section 57(a)(7), seven percent of any excluded gain was added to a taxpayer's AMT taxable income for QSBS acquired after May 5, 2003 and before September 28, 2010. (The corporate AMT was repealed beginning in 2018.)

Impact

The exclusion for gains on the sale or exchange of QSBS is intended to increase the flow of equity capital to new or young small firms and SSBICs in certain industries that may have difficulty raising needed capital from other sources. It does this by boosting the risk-adjusted after-tax rate of return a taxpayer could earn by buying and selling QSBS, relative to alternative investments.

The exclusion constitutes a tax expenditure because the capital gains tax rate (0 percent) that applies to sales or exchanges of QSBS is lower than the maximum capital gains tax rate (20 percent), under both the regular income tax and the AMT, on the sale or exchange of other capital assets.

Most of the benefits from the exclusion are captured by small business owners and high-income individuals with relatively high tolerances for risk.

Rationale

The exclusion for capital gains on the sale or exchange of QSBS originated with the Omnibus Budget Reconciliation Act of 1993 (OBRA93,

P.L. 103-66) as a 50-percent exclusion. In 1993, the maximum long-term capital gains tax rate for individuals was 28 percent; so the 50 percent of the gain subject to tax was taxed at a maximum rate of 28 percent. While the legislative history of the act does not explicitly substantiate such a view, the design of the exclusion suggested that it was targeted at new small research-intensive manufacturing firms. OBRA93 specified that half of the excluded gain was to be treated as an AMT preference item.

Under the Taxpayer Relief Act of 1997 (TRA, P.L. 105-34), individuals holding QSBS for more than six months gained the option of deferring the recognition of any gain from the sale or exchange of the stock by reinvesting (or rolling over) the proceeds in another QSBS within 60 days of the transaction. The act also reduced the portion of the excluded gain treated as an AMT preference item from 50 percent to 42 percent for sales or exchanges after May 7, 1997 and before January 1, 2001.

The IRS Restructuring and Reform Act of 1998 (P.L. 105-206) extended the rollover option to non-corporate taxpayers besides individuals, such as partnerships and S corporations. It also reduced the portion of the excluded gain regarded as an AMT preference item from 42 percent to 28 percent for sales or exchanges of QSBS occurring after December 31, 2000.

Under the Community Renewal Tax Relief Act of 2000 (P.L. 106-554), 60 percent of the gain from the sale or exchange of QSBS issued by qualified corporations with a substantial economic presence in EZs could be excluded from gross income. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended this law through December 31, 2011, and it was further extended through December 31, 2013 by the American Taxpayer Relief Act of 2012 (P.L. 112-240).

The Jobs and Growth Tax Relief Reconciliation Act of 2003 (P.L. 108-27) reduced the share of the excluded gain considered an AMT preference item to seven percent for sales or exchanges of QSBS after May 6, 2003. As this change was subject to a sunset provision included in the act, it did not apply to sales or exchanges of qualified stock occurring after December 31, 2010. Beginning in 2011, 42 percent of the amount excluded from capital gains taxation was considered an AMT preference item.

In a bid to expand access to equity capital for new ventures, the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) raised the gains

exclusion to 75 percent for QSBS purchased after February 17, 2009 and before January 1, 2011.

The exclusion was further increased to 100 percent for QSBS acquired after September 27, 2010 and before January 1, 2011 by the Small Business Jobs Act of 2010 (P.L. 111-240). The Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the 100-percent exclusion through 2011. The American Taxpayer Relief Act of 2012 (P.L. 112-240) extended the 100-percent exclusion to QSBS acquired in 2012 and 2013.

Under the Protecting Americans from Tax Hikes Act of 2015 (PATH Act, P.L. 114-113), Congress permanently extended the 100-percent gains exclusion that had been available for QSBS acquired after September 27, 2010. The act also extended the 60-percent gain exclusion for QSBS issued by EZ businesses through December 31, 2018, and permanently removed the gain exclusion from the list of AMT preference items.

The corporate AMT was repealed by P.L. 115-97 for tax years beginning in 2018 and thereafter.

Assessment

Section 1202 is intended to facilitate the formation and growth of small C corporations involved in certain lines of business, such as manufacturing. It does this by encouraging increased equity investment in such companies through a full exclusion for capital gains on original stock issued by the companies. Angel investors and venture capital funds organized as partnerships are among the taxpayers that can benefit from the gains exclusion, which represents a significant reduction in the tax burden on the returns to investment in QSBS relative to the tax burden on the returns to alternative investments.

The design and purpose of the provision raise at least two policy questions. One concerns the rationale for the exclusion and the other its efficacy.

Proponents of section 1202 have argued that it is needed to address the funding gaps that prevent or hamper the formation and growth of small firms seeking to develop new technologies. In their view, these gaps result from the failure of investors and banks and other lenders to provide sufficient financing for business ventures pursuing untested new products and services. According to proponents, established firms of all sizes are more likely, on average, to

have greater access to the financial capital they require than small independent start-up firms seeking to enter the same lines of business.

Such a disparity, say proponents, constitutes a market failure based on information asymmetries. The asymmetries arise when entrepreneurs know more about the nature of and prospects for a new business venture than lenders or investors. In theory, such a difference can lead to conflicts of interest that can affect the amount and price of equity and debt available to new businesses.

Proponents argue that small start-up firms involved in developing new technologies are especially vulnerable to such capital market imperfections. Their growth potential may be difficult to evaluate for several reasons. First, the potential rests largely on innovative intellectual property. Second, new businesses dependent on research for their survival typically lack tangible assets that could serve as collateral to finance the early stages of their growth. Third, their innovative technologies are untested in markets and may be subject to relatively rapid rates of obsolescence. Thus, say proponents, the exclusion is a remedy for the imperfections that prevent capital markets from providing efficient amounts of funding to small start-up firms.

Not everyone agrees that the section 1202 gains exclusion is a suitable remedy for the failure of financial markets to provide more funding for young innovative firms. Some argue that there is no conclusive evidence that too few small start-up firms are being formed, or that too many small start-up firms fail to grow into large thriving enterprises, or that imperfections in financial markets systematically prevent the typical small start-up firm from getting the financing it needs. As a result, say these skeptics, a policy initiative like the exclusion might do more harm than good. A main concern is the impact of the exclusion on the domestic allocation of economic resources. More specifically, some contend that the exclusion is likely, in some cases, to steer capital toward eligible start-up businesses and away from more productive uses.

There is no conclusive evidence that the provision has had the intended effect of increasing the flow of equity capital to eligible firms. In the 20 or so years that have passed since holders of QSBS were first able to take advantage of the exclusion (August 12, 1998), there has been a lack of research on the provision's impact on the cash flow, capital structure, employment, and investment of companies issuing the stock.

Others see the potential value of the section 1202 gains exclusion as a means of attracting patient equity investment in small innovative start-up

companies. But they find some of the rules governing the use of the exclusion burdensome and counterproductive. Critics of the exclusion say that it entails considerable paperwork, has a size limit for eligible C corporations that is too restrictive, and leads to economically inefficient outcomes by excluding certain types of businesses.

The reduction in the top corporate income tax rate from 35 percent to 21 percent under the 2017 tax revision (P.L. 115-97) has renewed interest among some investors in QSBS. Private equity buyers in particular could realize a significant tax savings by acquiring such an asset, holding it for at least five years to take advantage of the 100 percent gains exclusion, and having any corporate profits during the five-year holding period taxed at a historically low rate. A lack of data on investment in QSBS could make it difficult to assess the impact of the 2017 tax law on purchases and sales or exchanges of such stock.

Selected Bibliography

Brierly, Peter, "The Financing of Technology-Based Small Firms: A Review of the Literature." *Quarterly Bulletin*, Bank of England, spring 2001, pp. 64-83.

Cantley, Beckett G., "The New Section 1202 Tax-Free Business Sale: Congress Rewards Small Businesses That Survived the Great Recession." *Fordham Journal of Corporate and Financial Law*, Vol. 17, No. 4, 2012.

Cohen, Sam, Tim Curt, and Sandy Grippo, "How to Make the QSBS Work for the Entrepreneurial Ecosystem." *Venture Capital Journal*, July 2016.

Cole, Rebel A., *What Do We Know about the Capital Structure of Privately held Firms? Evidence from the Surveys of Small Business Finances*. Small Business Administration, Office of Advocacy. Washington, DC: May 2008.

D'Avico, T. Christopher, "Qualified Small Business Stock's Fourth Act," *Tax Notes*, August 20, 2018, pp. 1093-1097.

Garrison, Larry R., "Tax Incentives for Businesses in Distressed Communities: Businesses in Designated Distressed Areas Are Entitled to Various Tax Incentives." *Tax Adviser*, Vol. 38, No. 5, May 1, 2007, pp. 276-283.

Gentry, William M., *Capital Gains and Entrepreneurship*. March 2016, https://www.law.upenn.edu/live/files/5474-capital-gains-taxation-and-entrepreneurship-march.

Gravelle, Jane G., *Capital Gains Taxes: An Overview*. Library of Congress, Congressional Research Service Report 96-769, Washington, DC: March 16, 2018.

Guenther, David A. and Michael Willenborg, "Capital Gains Tax Rates and the Cost of Capital for Small Business: Evidence from the IPO Market." *Journal of Financial Economics*, Vol. 53, No. 3, September 1999, pp. 385-408.

Guenther, Gary L., *Small Business Tax Benefits: Overview and Economic Justification*. Library of Congress, Congressional Research Service, Report RL32254, Washington, DC: July 5, 2018.

Holtz-Eakin, Douglas, "Should Small Businesses be Tax-Favored?" *National Tax Journal*, Vol. 48, No. 3, September 1995, pp. 387-395.

Levy, Melanie Warfield, "Exclusion of Capital Gain on Sale of QSB Stock." *Business Entities*, Vol. 7, No. 4, July/August 2005, pp. 18-35.

Poterba, James M., "Capital Gains Tax Policy toward Entrepreneurship." *National Tax Journal*, Vol. 42, No. 3, September 1989, pp. 375-389.

Shane, Scott, *The Importance of Angel Investing in Financing the Growth of Entrepreneurial Ventures*. Small Business Administration, Office of Advocacy, Washington, DC: September 2008.

White, John B., Jill M. Lockwood, and Morgan P. Miles, "The Access to Capital for Entrepreneurs Act of 2007: an Extension of the Impact of Tax Policy on Informal Venture Investing." *Entrepreneurial Executive*, Vol. 14, January 1, 2009, pp. 25-31.

Wood, Robert W., "Number Crunching and Qualified Small-Business Stock Gains." *Tax Notes*, April 23, 2007, pp. 343-348.

DISTRIBUTIONS IN REDEMPTION OF STOCK TO PAY VARIOUS TAXES IMPOSED AT DEATH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	-	0.1
2019	0.1	-	0.1
2020	0.1	-	0.1
2021	0.1	-	0.1
2022	0.1	-	0.1

Authorization

Section 303.

Description

When a shareholder in a closely held business dies, a partial redemption of stock (selling stock back to the corporation) is treated as a sale or exchange of an asset eligible for long-term capital gain treatment. With step-up in basis there will be no gain or loss on the redemption—this treatment essentially means that no federal income tax will be due on the redemption. At least 35 percent of the decedent's estate must consist of the stock of the corporation. The benefits of this provision are limited in amount to estate taxes and expenses (funeral and administrative) incurred by the estate.

Impact

Most of the benefits of this provision accrue to estates with small business interests that are subject to estate and inheritance taxes. For 2018, the estate tax exemption was $11.2 million.

Rationale

This provision was added to the tax code by the Revenue Act of 1950 (P.L. 81–814). The primary motivation behind it was congressional concern that estate taxes would force some estates to liquidate their holdings in a family business. There was further concern that outsiders could join the business, and the proceeds from any stock sales used to pay taxes would be taxable income under the income tax.

Assessment

The idea of the provision is to keep a family business in the family after the death of a shareholder. There are no special provisions in the tax code, however, for favorable tax treatment of other needy redemptions, such as to pay for medical expenses. To take advantage of this provision the decedent's estate does not need to show that the estate lacks sufficient liquid assets to pay taxes and expenses. Furthermore, the proceeds of the redemption do not have to be used to pay taxes or expenses.

Selected Bibliography

Abrams, Howard E. and Richard L. Doernberg. *Federal Corporate Taxation, 6th Edition*. New York: Foundation Press, 2008.

Kess, Sidney and Steven G. Siegel. *The CPA's Guide to Financial and Estate Planning*, vol. 3, 2013, pp. 95-102.

INVENTORY ACCOUNTING: LIFO, LCM, AND SPECIFIC IDENTIFICATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	0.8	1.0
2019	0.2	0.7	0.9
2020	0.2	0.7	0.9
2021	0.2	0.8	1.0
2022	0.2	0.8	1.0

Authorization

Sections 475, 491, and 492.

Description

A taxpayer who sells goods must generally maintain inventory records to determine the cost of goods sold. Individuals can account for inventory on an item-by-item basis, but may also use conventions, which include FIFO (first-in, first-out, assuming the most recent good sold is the earliest one purchased) and LIFO (last-in, first-out, assuming the most recent good sold is the last one purchased). LIFO can only be used if it is also used for financial reporting, although it is not available to securities dealers. In connection with FIFO, a taxpayer may choose the LCM method, or lower of cost or market. This method allows the taxpayer a tax deduction for losses on goods whose value have fallen below cost while in inventory.

The provisions included in the tax expenditure are the allowance of LIFO, which accounts for over 90 percent of the revenue cost for 2017-2021, the LCM method, which accounts for the remainder, and the specific

identification method for homogeneous commodities, which has a negligible effect.

The tax expenditure is based on the notion that basic FIFO is the appropriate method of accounting for costs (unless heterogeneous goods are specifically identified). This view is consistent with the expectation that firms would sell their oldest items first. It is also based on the notion that costs should be allowed only when goods are sold. LIFO allows the appreciation in value to be excluded from income when prices are rising. LCM allows recognition of losses when inventory declines in value (but there is no recognition of gain for rise in value). Allowing specific identification of homogeneous goods permits firms to select higher-cost items and minimize taxable income.

Impact

The LIFO, LCM and specific identification methods of inventory accounting allow taxpayers to reduce the tax burden on the difference between the sales price and cost of inventories. Thus, it encourages taxpayers to carry more inventories than would otherwise be the case, although the magnitude of this effect is unclear. Use of LIFO for accounting purposes also results in a valuation of the existing stock of inventory that is smaller than market value, while use of FIFO leads to a valuation more consistent with market value.

According to Plesko (2006) the use of LIFO increased in the 1970s (a period of high inflation) and peaked in the early 1980s when 70 percent of large firms used LIFO for some part of their inventory. That figure declined to 40 percent by 2004. LIFO was most heavily used by the chemicals, furniture, general merchandisers, and metal industries. Most firms are small, however, and most firms use FIFO. Neubig and Dauchy (2007) found that over 90 percent of the increased corporate sector tax from the repeal of LIFO and LCM would come from manufacturing and over half would fall on petroleum and coal products. (These projections depend, however, on forecasts of prices.) Knittel (2009) found that 10 percent of firms used LIFO to value some portion of their inventories in 2006 and LIFO inventories accounted for 31 percent of inventories. The method was most prevalent in the petroleum industry and in motor vehicle, food and beverage, and general merchandise retailers. Kostolansky and Polnaszek (2013) found that only 6.5 percent of publicly traded firms used LIFO and that LIFO was associated with larger firms. Harrison et al (2017) indicate that one third of LIFO inventories are in energy companies (oil and gas). Tinkelman (2017) reports that use of LIFO is predominantly in large companies, has been declining in usage, and that LIFO

reserves, especially among oil companies, have declined significantly. He explains this decline may be traced to several factors, including a decline in inflation, lower tax rates, and economizing on inventory levels. The recent reduction in the corporation tax rate from 35 percent to 21 percent as enacted in the 2017 tax revision (P.L. 115-97) may further reduce use of LIFO.

LIFO allows tax-planning opportunities to firms that do not exist with FIFO. For example, for firms expecting a high tax liability, purchasing inventory at year end under LIFO can increase costs and reduce taxable income, while firms expecting losses can reduce taxable income by shrinking inventory.

Rationale

As early as 1918, the Treasury Department regulations allowed FIFO and LCM, which were used in financial accounts. LCM was considered a conservative accounting practice which reflected the loss in value of inventories. LIFO, however, was not allowed. The Revenue Act of 1938 (P.L. 75-554) allowed LIFO for a small number of narrowly defined industries, and the scope was liberalized by the Revenue Act of 1939 (P.L. 76-1). The reason for adopting it was to allow a standard accounting practice. A financial conformity requirement was imposed. Since this period was not one with rising prices, the effects on revenue were minimal. Treasury regulations restricted the application to industries where commodities could be measured in specific units (e.g., barrels), and thus use was limited. In 1942, a dollar value method that could be applied to pools of inventory was introduced for limited cases, and a court case (Hutzler Brothers, 8th Tax Court 14) in 1947, and 1949 Treasury regulations (T.D. 5756, 1949-2 C.B. 21), extended it to all taxpayers.

The Economic Recovery Tax Act of 1981 (P.L. 97-34) simplified LIFO by allowing a simplified dollar value method that could be applied to all inventory by small businesses and allowed the use of external indexes. The reason was to make the method that most effectively mitigates the effects of inflation more accessible to all businesses.

Assessment

The principal argument currently made for LIFO is that it more closely conforms to true economic income by deferring, and for firms that operate indefinitely, effectively excluding, income that arises from inflation. There are two criticisms of this argument. The first is that the method also allows the deferral and exclusion of real gains. For example, when oil prices increased

during the first half of 2008, firms using LIFO that had gains from oil in inventory would not recognize these gains. The second is that other parts of the tax code are not indexed. In particular, firms are allowed to deduct the inflation portion of the interest rate. As a result, debt financed investments in LIFO inventory are subject to a negative effective tax rate. Another criticism of LIFO is that it facilitates tax planning to minimize tax liability over time.

It is more difficult to find an argument for using LCM for tax purposes (although it may be desirable for financial purposes). For small firms, using the same inventory system for financial purposes as for tax purposes may simplify tax compliance.

The International Financial Reporting Standards (IFRS) accounting method that is used by most other countries and is being considered for adoption in the United States does not permit LIFO accounting; if this system is adopted, and no other changes are made, LIFO would not be available because of the financial conformity requirement. The LIFO issue may, however, present a barrier to adoption. On July 22, 2015, the Financial Accounting Standards Board (FASB), in a move to simplify inventory accounting, ultimately exempted LIFO from guidance. The guidance made some changes in the calculation of LCM, restricting the measurement of market value to net realizable value (excluding consideration of market replacement cost and net realizable value less a profit margin).

There is little discussion about the specific identification for homogeneous products, but the revenue associated with that effect is small.

Selected Bibliography

Abell, Chester. "International Financial Reporting Standards: Tax Must be Involved," *Tax Notes,* September 15, 2008, pp. 1057-1058.

Bloom Robert, and William J. Cenker. "The Death of LIFO?" *Journal of Accountancy*, Vol. 27, January 2009, pp. 44-49.

Ernst and Young. To the Point: FASB — Final Guidance, FASB Simplifies the Subsequent Measurement of Inventory, No. 2015-49, July 23, 2015.

Frankel, Micah and Robert Trezevant. "The Year-End LIFO Inventory Purchasing Decision: An Empirical Test," *The Accounting Review*, Vol. 69, April 1994, pp. 382-398.

Harrison, Jennifer, Chelsea Dye, and Dara Hoffa. "The Uncertain Future of LIFO," *Journal of the Utah Academy of Sciences, Arts & Letters*, Vol. 94, 2017, pp. 151-166.

Jaworski, Thomas. "FASB Now Excludes LIFO from Simplified Inventory Guidance," *Tax Notes*, May 18, 2015, 734-436

— . "Will LIFO Repeal Revenue Be Worth Corporate Resistance?" *Tax Notes*, April 19, 2010, pp. 253-257.

Kleinbard, Edward D., George A. Plesko, and Corey M. Goodman. "Is it Time to Liquidate LIFO?" *Tax Notes,* October 16, 2006, pp. 237-253.

Knittel, Matthew. "How Prevalent is LIFO? Evidence From Tax Data," *Tax Notes,* March 30, 2009, pp. 1587-1589.

Kostolansky, John and Ethan Polnaszek. "New Perspectives On The Use Of LIFO And Firm Size," *The Journal of Applied Business Research*, Vol. 29, No. 5, September-October 2013, pp. 1501-1508.

Lessard, Stephen. "Giving Life to LIFO: Adoption of the LIFO Method of Inventory Valuation," *Tax Lawyer,* Vol. 60, Spring 2007, pp. 781-806.

Mock, Rodney P. and Andreas Simon. "The LIFO, IFRS Conversion: An Explosive Concoction," *Tax Notes,* May 11, 2009, pp. 741-746.

Mosebach, Janet E. and Michael Mosebach. "Does Repealing LIFO Really Matter?" *Tax Notes*, May 25, 2010, pp. 901-906.

Neubig, Tom and Estelle Dauchy. "Rangel's Business Tax reforms: Industry Effects by Sector," *Tax Notes*, November 26, 2007, pp. 873-878.

Plesko, George. Testimony before the Committee on Finance, United States Senate, Tune Up on Corporate Tax Issues: What's Going on Under the Hood? S.Hrg. 109-116, June 13, 2006, pp. 14-16.

Tinkelman, Daniel. "Who Benefits from LIFO?" *Tax Notes*, December 18, 2017, pp. 1783-1789.

U.S. Congress, Joint Committee on Taxation. *Description of Revenue Provisions Contained in the President's Fiscal Year 2001 Budget Proposal, JCS-2-00*, Washington, DC: March 6, 2000.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Economic Recovery Tax Act of 1981, JCS-71-8*, Washington, DC, December 29, 1981.

U.S. Congress, Congressional Budget Office. *Options for Reducing the Deficit: 2017 to 2026*, December 8, 2016, https://www.cbo.gov/publication/52142.

U.S. Congress, Senate, Hearings before the Committee on Finance, Revenue Act of 1938, Washington, DC: U.S. Government Printing Office, 1938.

White, George. "LIFO and IFRS: How Closely Linked?" *Tax Notes*, July 13, 2009, pp. 175-177.

EXCLUSION OF GAIN OR LOSS ON SALE OR EXCHANGE OF BROWNFIELD PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	([1])	([1])
2019	-	([1])	([1])
2020	-	([1])	([1])
2021	-	([1])	([1])
2022	-	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 512, 514.

Description

Tax-exempt organizations are subject to tax under the unrelated business income tax (UBIT) for activities that are not part of their tax-exempt purpose. Gains on the sale of property are not generally taxed, unless the property is inventory or stock in trade. Gains from the sale of assets that were debt-financed in part are, however, subject to the UBIT in proportion to the debt. Qualifying brownfield property that is acquired from an unrelated party, subject to remediation, and sold to another unrelated party, is exempt from this tax.

The exclusion for brownfield property applies to property certified as a brownfield site. Documentation is also required to illustrate the presence of a hazardous substance, pollutant, or contaminant on the property that is complicating the property's use and development.

This provision applies to gain or loss on property acquired after December 31, 2004, and before January 1, 2010. Property acquired during this period does not need to be disposed of by the termination date (December 31, 2009) to qualify for the exclusion.

Impact

The exclusion from the UBIT reduces the cost of remediating and reselling brownfields by tax-exempt organizations using debt finance. Most tax-exempt organizations are taxed as corporations for the purposes of the UBIT, and thus the saving would typically be 21 percent of the gain in value. When the gain in value is large relative to the acquisition cost, the cost is reduced by 21 percent due to the tax exclusion. Thus, this provision reduces the cost of remediating environmentally-damaged property.

Rationale

This provision was initially added by the American Jobs Creation Act of 2004 (P.L. 108-357). In 2003, when Senator Baucus, ranking member of the Senate Finance Committee, introduced this provision as a separate bill, he indicated that the UBIT had unintentionally interfered with the use of a tax-exempt entity's ability to invest and redevelop environmentally contaminated real estate because of the possibility of becoming subject to the UBIT.

Assessment

The purpose of the UBIT is to prevent tax-exempt entities from competing unfairly with taxable firms. Since taxable firms were previously allowed to expense their investment in brownfield remediation, their effective tax rate could be lowered substantially, particularly in the case where the remediation costs were large relative to the acquisition cost of the property. Thus, to some extent, restoring tax-exempt status for gains from debt-financed purchases may have led to a more equitable treatment. Both the provision allowing taxable firms to expense their investment in brownfield remediation (IRC Section 198), and the exclusion of gain or loss on the sale of brownfield areas, have now expired.

The effectiveness of this subsidy has been questioned by those who view the main disincentive to development of brownfield sites as the potential liability under current environmental regulation, not the accounting cost. Barring such regulatory disincentives, the market system ordinarily creates its own incentives to develop depressed areas, as part of the normal economic cycle of growth, decay, and redevelopment. However, if the benefits of

cleanup are not captured by those bearing the cost of cleanup, there may be an economic justification for government intervention to encourage cleanup efforts that would otherwise be underprovided by the market.

Selected Bibliography

Carroll, Deborah A. and Robert J. Eger III. "Brownfields, Crime, and Tax Increment Financing." *American Review of Public Administration,* December 1, 2006, v. 36, pp. 455-477.

Greenberg, Michael R., and Justin Hollander. "The Environmental Protection Agency's Brownfields Pilot Program." *American Journal of Public Health,* February 2006, v. 96, pp. 277-282.

Haninger, Kevin, Lala Ma, and Christopher Timmins. "The Value of Brownfield Remediation." *Journal of the Association of Environmental and Resource Economists,* March 2017, v. 4, pp. 197-241.

Longo, Alberto and Anna Alberini. "What Are the Effects of Contamination Risks on Commercial and Industrial Properties? Evidence from Baltimore, Maryland," *Journal of Environmental Planning and Management,* September 2006, v. 49, pp. 713-751.

Reisch, Mark. *Superfund and the Brownfields Issue*. Library of Congress, Congressional Research Service Report 97-731 ENR, Washington, DC, 2001.

Reisch, Mark. *The Section 198 Brownfield Tax Incentive: 2007 CRS Survey*. Library of Congress, Congressional Research Service Report RL34184, Washington, DC, 2007.

Sterner, Thomas. *Policy Instruments for Environmental and Natural Resource Management*. Resources for the Future, Washington, DC, 2003.

U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 108th Congress*, Washington, DC, U.S. Government Printing Office, May 2005, pp. 319-326.

U.S. Environmental Protection Agency. Brownfields, http://www.epa.gov/brownfields (accessed August 31, 2018).

EXCLUSION OF INTEREST ON STATE AND LOCAL QUALIFIED PRIVATE ACTIVITY BONDS FOR GREEN BUILDING AND SUSTAINABLE DESIGN PROJECTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 103, 142(l), and 146(g).

Description

Interest income on state and local bonds used to finance the construction of "green building and sustainable design projects," as designated by the U.S. Environmental Protection Agency (EPA), is tax exempt. Green buildings are evaluated based on these criteria: (1) site sustainability; (2) water efficiency; (3) energy use and atmosphere; (4) material and resource use; (5) indoor environmental quality; and (6) innovative design. The program is designed as a "demonstration" program, and requires that at least one designated project shall be located in or within a 10-mile radius of an empowerment zone and at least one shall be located in a rural state. These bonds are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds

and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Bonds issued for green building and sustainable design projects are not, however, subject to the state volume cap on private-activity bonds. This exclusion arguably reflects a belief that the bonds have a larger component of benefit to the general public than do many of the other private activities eligible for tax exemption. The bonds are subject to an aggregate face amount of $2 billion and must have been issued before October 1, 2012.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to finance green building projects at reduced interest rates.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of both the factors that determine the shares of benefits going to bondholders and users of the green buildings and associated projects, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

The legislation that created these bonds, the American Jobs Creation Act of 2004 (P.L. 108-357), was enacted on October 22, 2004. The program was to expire October 1, 2009, but the authority to issue green bonds was extended through October 1, 2012, by the Energy Improvement and Extension Act of 2008 (P.L. 110-343). The intent of the provision is to encourage building that promotes energy conservation as outlined by the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system.

Assessment

Proponents of green bonds argue that the federal subsidy is necessary because private investors are unwilling to accept the risk and relatively low return associated with green building projects. Proponents argue that the market has failed to produce green buildings because the benefits of these projects extend well beyond the actual building to the surrounding community and to the environment more generally. The owner of the green building is not compensated for these external benefits, and it is unlikely, proponents argue,

that a private investor would agree to provide them without some type of government subsidy.

Before the legislation was enacted creating green bonds, some developers reportedly were voluntarily adhering to green building standards to attract tenants. If so, the market failure described earlier to justify the use of federal subsidy may be less compelling. In addition, as one of many categories of tax-exempt private-activity bonds, green bonds will likely increase the financing costs of bonds issued for other public capital stock and increase the supply of assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Boise State University, Office of Sustainability and the Public Policy Center. "Green Building in the Pacific Northwest: Next Steps for an Emerging Trend," February 2010.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Ho, Cathy Lang. "Eco-fraud: 'Green Buildings' Might Not Be all They're Made Out to Be," *Architecture*, vol. 92, July 2003, pp. 31-32.

International City-County Management Association. "Green Buildings," *Public Management,* vol. 82, May 2000, p. 36.

Johansson, Ola. "The Spatial Diffusion of Green Building Technologies: The Case of Leadership in Energy and Environmental Design (LEED) in the United States," *International Journal of Technology Management & Sustainable Development,* December 2011, vol. 10, issue 3, pp. 251-266.

Liu, Gao and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal*, vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds." *National Tax Journal*, vol. 64, no. 2, June 2011, pp. 591-613.

U.S. Congress. "American Jobs Creation Act of 2004, Conference Report to accompany H.R. 4520." H.Rept. 108-755, October 7, 2004.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2010, Statistics of Income*, Spring 2013, pp. 112-157.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activities*. Washington, DC: The Urban Institute Press, 1991.

INCOME RECOGNITION RULE FOR GAIN OR LOSS FROM SECTION 1256 CONTRACTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.0	([1])	1.1
2019	1.1	([1])	1.1
2020	1.1	([1])	1.1
2021	1.1	([1])	1.1
2022	1.2	([1])	1.2

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 1256.

Description

A Section 1256 contract is any regulated futures contract, foreign currency contract, nonequity option, dealer equity option, or dealer securities futures contract that is traded on a qualified board of exchange with a mark-to-market accounting system. Under this mark-to-market rule, the gains and losses must be reported on an annual basis, for tax purposes. Section 1256 does not apply to certain derivatives contracts (e.g., credit default swaps).

The capital gain or loss of applicable contracts is treated as consisting of 40 percent short-term and 60 percent long-term gain or loss. This is true regardless of how long the contract is held. This favorable tax treatment generates a tax expenditure. The 60-40 rule does not apply to hedging transactions or limited partnerships. A hedging transaction is a transaction done by a business in its normal operation with the primary purpose of reducing certain risks.

Impact

The application of mark-to-market accounting to Section 1256 contracts eliminates deferral that would result under traditional realization principles and taxes accrued gain, which may mean paying income tax on income that was not received. The 60-40 rule, however, simplifies tax calculations and removes the one-year holding period requirement for long-term capital gains tax treatment.

Rationale

The Economic Recovery Tax Act of 1981 (P.L. 97-34) established that all regulated futures contracts must be valued on an annual basis using a mark-to-market method. Using mark-to-market overcomes the tax sheltering impact of certain commodity futures trading strategies and harmonizes the tax treatment of commodities futures contracts with the realities of the marketplace.

The Deficit Reduction Act of 1984 (P.L. 98-369) and the Tax Reform Act of 1986 (P.L. 99-514) extended the mark-to-market rule to non-equity listed options and dealers' equity options, and increased the information required for banks to qualify for the exemption for hedging. Rules were provided to prevent limited partners (or entrepreneurs) of an options dealer from recognizing gain or loss from equity options as 60 percent long-term capital gain or loss and 40 percent short-term capital gain or loss. These changes have been motivated by Congress's wanting consistent tax treatment for economically similar contracts—or horizontal equity concerns, at least when pricing was readily available.

The Dodd-Frank Wall Street Reform and Consumer Protection Act (P.L. 111-203) clarified that Section 1256 does not apply to certain derivatives contracts (e.g., credit default swaps).

Assessment

The taxation of accrued gains moves the tax system toward taxing economic income (i.e., the Haig-Simons definition of income—consumption plus additions to wealth). It eliminates the benefits of taxing realized gains—taxes cannot be deferred until the taxpayer decides to realize the gains by selling the asset. But, by taxing 60 percent of the accrued gains at the lower long-term capital gains rate, assets held for less than one year receive favorable tax treatment, which often results in lower taxes for traders.

Selected Bibliography

Feder, Michael J., L.G. "Chip" Harter, and David H. Shapiro. "Notice 2003-81: Are OTC Currency Options Section 1256 Contracts?" *Tax Notes,* Dec. 23, 2003, pp.1470-1472.

Keinan, Yoram. "Book Tax Conformity for Financial Instruments," *Florida Tax Review,* vol. 6, no. 7, (2004), pp. 678-756.

Miller, David S. "A Progressive System of Mark-to-Market Taxation," *Tax Notes*, Oct. 13, 2008, pp. 213-218.

Scarborough, Robert H. "Different Rules for Different Players and Products: The Patchwork Taxation of Derivatives," *Taxes*, December 1994, pp. 1031-1049.

Sheppard, Lee A. "Rethinking Derivatives Taxation," *Tax Notes International,* June 6, 2016, pp.930-935.

Testimony of William M. Paul in U.S. Congress, House Committee on Ways and Means, *Hearing on the Tax Treatment of Derivatives,* 110th Cong., 2nd sess., March 5, 2008.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation of the Tax Provisions of H.R. 4541, the "Commodities Futures Modernization Act of 2000*," (Washington, DC: GPO, 2000), pp. 2-9.

U.S. Department of the Treasury, Internal Revenue Service. *Investment Income and Expenses*, Publication 550, Jan. 13, 2016.

Zelnick, John, and Dale Collinson. "IRS Clears Uncertainty for Over-the-Counter Currency Options," *Tax Notes,* Dec. 17, 2007, pp. 1152-1154.

Transportation

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT QUALIFIED PRIVATE ACTIVITY BONDS FOR HIGHWAY PROJECTS AND RAIL–TRUCK TRANSFER FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	([1])	0.1
2019	0.1	([1])	0.1
2020	0.1	([1])	0.1
2021	0.1	([1])	0.1
2022	0.1	([1])	0.1

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 103, 141, 142(m), and 146.

Description

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (P.L. 109-59), enacted on August 10, 2005, created a new class of tax-exempt, qualified private-activity bonds for the financing of qualified highway or surface freight transfer facilities. Qualified facilities include: (1) any surface transportation project which receives federal assistance under title 23; (2) any project for an international bridge or tunnel for which an international entity authorized under federal or state law is responsible and which receives federal assistance under title 23; and (3) any facility for the transfer of freight from truck to rail or rail to truck (including any temporary storage facilities directly related to such transfers) which receives federal assistance under title 23 or title 49. The bonds used to finance these facilities are classified as private-activity bonds rather than

governmental bonds because a substantial portion of the benefits generated by the project(s) accrue to individuals or business rather than to the government. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Bonds issued for qualified highway or surface freight transfer facilities are not subject to the federally imposed annual state volume cap on private-activity bonds. The bonds are capped, however, by a national limitation of $15 billion to be allocated at the discretion of the Secretary of Transportation.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low-interest rates allow issuers to construct highway or surface freight transfer facilities at lower cost. Some of the benefits of the tax exemption and federal subsidy also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the highway or surface freight transfer facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

Before 1968, state and local governments were allowed to act as conduits for the issuance of tax-exempt bonds to finance privately owned and operated facilities. The Revenue and Expenditure Control Act of 1968 (RECA, P.L. 90-364), however, imposed tests that restricted the issuance of these bonds. The act provided a specific exception which allowed issuance for specific projects such as nongovernment-owned docks and wharves. Intermodal facilities are similar in function to docks and wharves, yet were not included in the original list of qualified facilities. The addition of truck-to-rail and rail-to-truck intermodal projects to the list of qualified private activities in 2005 (P.L. 109-59) is intended to enhance the efficiency of the nation's long-distance freight transport infrastructure. With more efficient intermodal facilities, proponents suggest that long-distance truck traffic will shift from government financed interstate highways to privately owned long-distance rail transport.

Assessment

Generally, there are two reasons cited for federal subsidy of these facilities. First, state and local governments tend to view these projects as potential economic development tools. Second, the federal subsidy may correct a potential market failure. The value of the projects in encouraging new economic development depends on the economic conditions in each location. In some cases, the project may encourage new development, whereas in others the public (or even private) investment would have occurred even without the federal subsidy. The latter observation reduces the target efficiency of the subsidy.

The value of allowing these bonds to be eligible for tax-exempt status hinges on whether only the users of such facilities should pay the full cost, or whether sufficient social benefits exist to justify federal taxpayer subsidy. Economic theory suggests that to the extent these facilities provide social benefits that extend beyond the boundaries of the state or local government, then federal support is merited. The facilities might be underprovided because state and local taxpayers may be unwilling to finance benefits for nonresidents.

According to the Federal Highway Administration, as of August 1, 2018, $8.38 billion of bonds have been issued under this provision for 23 projects. Another $2.63 billion has been allocated, but bonds have yet to be issued for these projects. Thus, approximately three-quarters of the $15 billion allowance has been subscribed since its inception.

Even if a case can be made for a federal subsidy arising from underinvesting at the state and local level, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for transfer facilities increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to lure investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Congressional Budget Office and Joint Committee on Taxation, "Subsidizing Infrastructure Investment with Tax-Preferred Bonds," Pub. No. 4005, October 2009.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Liu, Gao and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal*, vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Mallett, William J. *Public-Private Partnerships (P3s) in Transportation*, Library of Congress, Congressional Research Service Report R45010, November 2, 2017.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds." *National Tax Journal*, vol. 64, no. 2, June 2011, pp. 591-613.

U.S. Department of Transportation, Federal Highway Administration. *Tools and Programs: Federal Debt Financing Tools: Private Activity Bonds*, Web document, accessed October 1, 2018.

U.S. Department of Treasury, Internal Revenue Service. *Municipal Bonds, 2010, Statistics of Income*, Spring 2013, pp. 112-157.

U.S. Government Accountability Office. *Highway Infrastructure: Federal-State Partnership Produces Benefits and Poses Oversight Risks*, GAO Report 12-474, April 2012.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

— . "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity,* Washington, DC: The Urban Institute Press, 1991.

TAX CREDIT FOR CERTAIN RAILROAD TRACK MAINTENANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: This provision expired at the end of 2017, but may be extended in the future. The cost was previously estimated at $0.1 billion in FY2018.

Authorization

Section 45G.

Description

Qualified railroad track maintenance expenditures paid or incurred in a taxable year by eligible taxpayers are eligible for a 50 percent business tax credit. The credit is limited to $3,500 times the number of miles of railroad track owned or leased by an eligible taxpayer. Railroad track maintenance expenditures are amounts, which may be either repairs or capitalized costs, spent to maintain railroad track (including roadbed, bridges, and related track structures) owned or leased as of January 1, 2005, by a Class II or Class III railroad. Eligible taxpayers are smaller (Class II or Class III) railroads and any person who transports property using these rail facilities or furnishes property or services to such a person.

The taxpayer's basis in railroad track is reduced by the amount of the credit allowed (so that any deduction of cost or depreciation is only on the cost

net of the credit). The credit cannot be carried back to years before 2005. The credit expired at the end of 2017 and can be taken against the individual alternative minimum tax.

The amount eligible is the gross expenditures not taking into account reductions such as discounts or loan forgiveness.

Impact

This provision substantially lowers the cost of track maintenance for the qualifying short line (regional) railroads, with tax credits covering half the costs for those firms and individuals with sufficient tax liability. According to the American Association of Railroads, these railroads account for 31 percent of the nation's rail miles. These regional railroads are particularly important in providing transportation of agricultural products.

Rationale

This provision was enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357), effective through 2007. While no official rationale was provided in the bill, sponsors of earlier free-standing legislation and industry advocates indicated that the purpose was to encourage the rehabilitation, rather than the abandonment, of short line railroads, which were spun off in the deregulation of railroads in the early 1980s. Advocates also indicated that this service is threatened by heavier 286,000-pound cars that must travel on these lines because of inter-connectivity. They also suggested that preserving these local lines will reduce local truck traffic. There is also some indication that a tax credit was thought to be more likely to be approved by Congress than grants.

The provision relating to discounts was added by the Tax Relief and Health Care Act (P.L. 109-432) enacted December 2006. The provision was extended through 2009, and the credit was allowed against the alternative minimum tax by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) enacted in October 2008. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312) extended the credit through 2011, the American Taxpayer Relief Act (P.L.112-240) extended it through 2013, and the Tax Increase Prevention Act (P.L.113-295) extended it through 2014. The Consolidated Appropriations Act (P.L.114-113) extended the provision through 2016. The Bipartisan Budget Act of 2018 (P.L. 115-123) extended the provision through 2017.

Assessment

The arguments stated by industry advocates and sponsors of the legislation are also echoed in assessments by the Federal Railroad Administration (FRA), which indicated the need for rehabilitation and improvement, especially to deal with heavier cars. The FRA also suggested that these firms have particular difficulty with access to bank loans.

In general, special subsidies to industries and activities tend to lead to inefficient investment allocation since in a competitive economy businesses should earn enough to maintain their capital. Nevertheless it may be judged or considered desirable to subsidize rail transportation in order to reduce the congestion and pollution of highway traffic. At the same time, a tax credit may be less suited to remedy the problem than a direct grant since firms without sufficient tax liability cannot use the credit.

Selected Bibliography

American Association of Railroads, Types of Railroads, visited September 26, 2018, https://www.aar.org/todays-railroads/our-network?t=typesofrailroads.

Darr, Linda, 45G Permanence: The Right Thing to Do, *Railway Age*, April 1, 2016.

Prater, Marvin, *The Long Term Viability of Short Line and Regional Railroad,* U.S. Department of Agriculture, Agricultural Marketing Services, Washington, DC, July 1998.

Shreve, Meg, "I Hear the Train A-Comin': The Railroad Maintenance Track Credit," *Tax Notes*, Vol. 119, April 7, 2008, pp. 11-13.

U.S. Congress, House, *Conference Report on the American Jobs Creation Act*, H.Rept. 108-77, Washington, DC: U.S. Government Printing Office, 2004.

DEFERRAL OF TAX ON CAPITAL CONSTRUCTION FUNDS OF SHIPPING COMPANIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.1	0.1
2019	-	0.1	0.1
2020	-	0.1	0.1
2021	-	0.1	0.1
2022	-	0.1	0.1

Authorization

Section 7518.

Description

U.S. operators of vessels in foreign, Great Lakes, or noncontiguous domestic trade, or in U.S. fisheries, may establish a capital construction fund (CCF) into which they may make certain deposits. CCF accounts are jointly administered by the National Marine Fisheries Service (NMFS) and the Internal Revenue Service (IRS). Such deposits are deductible from taxable income, and income tax on the earnings of the deposits in the CCF is deferred.

When tax-deferred deposits and their earnings are withdrawn from a CCF, no tax is paid if the withdrawal is used for qualifying purposes, such as to construct, acquire, lease, or pay off the indebtedness on a qualifying vessel. A qualifying vessel must be constructed or reconstructed in the United States, and any lease period must be at least five years.

The tax basis of the vessel (usually its cost to the owner), with respect to which the operator's depreciation deductions are computed, is reduced by the amount of such withdrawal. Thus, over the life of the vessel, tax depreciation

will be reduced, and taxable income will be increased by the amount of such withdrawal, thereby reversing the effect of the deposit. However, since gain on the sale of the vessel and income from the operation of the replacement vessel may be deposited into the CCF, the tax deferral may be extended.

CCF withdrawals for non-qualified purposes are taxed at the top marginal income tax rate. This rule prevents firms from withdrawing funds in loss years and escaping tax entirely.

Monies may remain in a fund without being withdrawn for qualified purposes for up to 25 years. Deposits not withdrawn after a 25-year period are treated as non-qualified withdrawals, in which the owner is treated as having withdrawn 20 percent of the remaining deposits annually over five years.

Impact

The allowance of tax deductions for deposits can, if funds are continually rolled over, amount to a complete forgiveness of tax. Even when funds are eventually withdrawn and taxed, there is a substantial deferral of tax that leads to a very low effective tax burden. The provision makes investment in U.S.-constructed ships and registry under the U.S. flag more attractive than it would be otherwise. Despite these benefits, however, there is very little (in some years, no) U.S. participation in the worldwide market supplying large commercial vessels.

The incentive for construction is perhaps less than it would be otherwise, because firms engaged in international shipping have the benefits of deferral of tax through other provisions of the tax law, regardless of where the ship is constructed. This provision is likely to benefit higher-income individuals who are the primary owners of capital (see Introduction for a discussion).

Rationale

The special tax treatment originated in 1936 to ensure an adequate supply of shipping in the event of war. Although tax subsidies of various types have been in existence since 1936, the coverage of the subsidies was expanded substantially by the Merchant Marine Act of 1970 (P.L. 91-469).

Before the Tax Reform Act of 1976 (P.L. 94-455) it was unclear whether any investment tax credit was available for eligible vessels financed in whole or in part out of funds withdrawn from a CCF. The 1976 Act specifically provided (as part of the Internal Revenue Code) that a minimum investment

credit equal to 50 percent of an amount withdrawn to purchase, construct, or reconstruct qualified vessels was available in 1976 and subsequent years.

The Tax Reform Act of 1986 (P.L. 99-514) incorporated the deferral provisions directly into the Internal Revenue Code. It also extended benefits to leasing, provided for the 25-year limit for withdrawals for qualified for qualified purposes, and required payment of the tax at the top rate.

The Tax Increase Prevention Act of 2014 (P.L. 113-295) included a technical correction to the text of section 7518. This technical correction does not change the substance of the law.

Assessment

Not taxing income from the services of shipping normally misallocates resources into less efficient uses, although it appears that the effects on U.S. large commercial shipbuilding are relatively small.

There are two possible arguments that could be advanced for maintaining this tax benefit. The first is the national defense argument—that it is important to maintain a shipping and shipbuilding capability in time of war. This justification may be in doubt today, since U.S. firms control many vessels registered under a foreign flag and many U.S. allies control a substantial shipping fleet and have substantial ship-building capability that might be available to the United States.

There is also an argument that subsidizing domestic ship-building and flagging offsets some other subsidies—both shipbuilding subsidies that are granted by other countries, and the deferral provisions of the U.S. tax code that encourage foreign flagging of U.S.-owned vessels. Economic theory suggests, however, that economic efficiency is not necessarily enhanced by introducing further distortions to counteract existing ones.

Selected Bibliography

Finnecy, William, and Kurt V. Crytzer. "Capital Construction Funds Program," *The Tax Adviser*, December 1, 2011.

Internal Revenue Service (IRS). *Capital Construction Fund for Commercial Fishermen*, Publication 595.

Jantscher, Gerald R. Chapter VI—"Tax Subsidies to the Maritime Industries," *Bread Upon The Waters: Federal Aids to the Maritime Industries*. Washington, DC: The Brookings Institution, 1975.

Madigan, Richard E. *Taxation of the Shipping Industry*. Centreville, MD: Cornell Maritime Press, 1982.

U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 113th Congress,* Joint Committee Print, JCS-1-15, 114th Congress, 1st session. April 1, 2015, p. 217.

—. *General Explanation of the Tax Reform Act of 1986*, Committee Print, JCS-10-87, 99th Congress, 2nd Session. May 4, 1987, pp. 174-176.

U.S. Department of the Treasury. *Tax Reform for Fairness, Simplicity, and Economic Growth,* Volume 2, General Explanation of the Treasury Department Proposals. November, 1974, pp. 128-129.

TREATMENT OF EMPLOYER-PAID TRANSPORTATION BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2017	6.3	-1.5	4.8
2018	6.4	-2.1	4.2
2019	6.6	-2.2	4.4
2020	6.8	-2.2	4.6
2021	7.0	-2.3	4.7

Authorization

Section 132(f).

Description

Some transportation benefits employers provide employees are tax exempt within certain limits. Qualified transportation benefits may include transit passes, vanpool transportation, and parking. The value of transit passes or parking costs provided directly by the employer can be excluded from employees' income, subject to a monthly limit. The value of employer-provided parking facilities can be excluded from employee's income, subject to a monthly limit. Transportation provided by employers (as opposed to transportation benefits paid for by employers) is also subject to qualified tax exclusion. A limit applies to the total of vanpool costs, transit passes, and parking. Tax legislation (P.L. 115-97) enacted in 2017 disallows the employer deduction for costs of providing qualified transportation fringe benefits to employees, except as necessary for ensuring the safety of an employee. That legislation also suspended the exclusion of bicycle commuting benefits for tax years starting after December 31, 2017, and before January 1, 2026.

In 2018, the limit for the parking benefit is set at $260 per month. Initially, the parking benefit limit was set at $175 per month in 1998 and was

adjusted for inflation in later years. Bicycle commuters had been able to receive up to $20 per month, an amount not subject to inflation adjustment, before that exclusion was suspended.

An employee taking the parking tax benefit can also receive a vanpool or transit benefit. Thus, an employee could receive up to $260 in qualified transportation benefits and $260 in parking benefits, for a total of up to $520 per month. Employees can use pretax dollars, if their employer allows, to pay for transit passes, vanpool fares and parking.

Employers may provide benefits as a credit on a transit pass or "smartcard" used on some transit systems. Employers may provide these benefits in cash, subject to a compensation reduction arrangement, only if the benefits cannot be provided readily through a transit pass or a voucher. These measures were imposed in part to prevent employees from reselling transportation vouchers for cash. Cash payments or giving cash-equivalent items (e.g., debit cards) by employers to employees is generally treated as taxable income.

Impact

Exclusion from taxation of transportation fringe benefits provides a subsidy to employment in those businesses and industries in which such fringe benefits are common and feasible. The subsidy benefits employees by raising their effective compensation. This exemption arguably induces employees to use mass transportation, which reduces traffic congestion and lowers commuting costs to all urban workers. About 7 percent of the civilian workforce receives subsidized commuting benefits.

Higher-income individuals are more likely to benefit from the parking exclusion than the mass transit and vanpool subsidies as the propensity to drive to work is correlated with income. The effective value of the transit benefits rise with the marginal tax rate of a recipient. The value of the benefit also depends on the location of the employer: the provision is targeted towards taxpayers working in the highly urbanized areas or other places where transit is available or parking space is limited.

Rationale

An exclusion for the value of parking was formalized in 1984 (P.L. 98-369), along with exclusions for several other fringe benefits. Some employers had provided one or more of these fringe benefits for many years, and

employers, employees, and the Internal Revenue Service had not considered those benefits to be taxable income.

Many employers used fringe benefits during World War II to attract workers because wage and price controls limited their ability to compete for labor. A generation later, Congress sought to limit the use of tax-free fringe benefits such as employer-provided transportation benefits. After the U.S. Treasury proposed and then withdrew regulations regarding the tax treatment of certain fringe benefits, Congress in 1978 (P.L. 95-600) imposed a moratorium on such regulations, which was extended in 1981. In the Deficit Reduction Act of 1984 (P.L. 98-369), Congress introduced new rules governing the tax treatment of fringe benefits. At that time, Congress expressed concern that without clear boundaries on the use of these fringe benefits, new approaches could emerge that would further erode the tax base and increase inequities among employees in different businesses and industries.

The Comprehensive Energy Policy Act of 1992 (P.L. 102-486) placed a dollar ceiling on the exclusion of parking facilities and introduced the exclusions for mass transit facilities and van pools in order to encourage mass commuting, which would in turn reduce traffic congestion and pollution. In 1998, the Transportation Equity Act for the 21st Century (P.L. 105-178) raised the benefit limits and modified their phase-in periods and inflation adjustment rules. Employees at that time could also choose to receive cash instead of transit benefits.

The Emergency Economic Stabilization Act of 2008 (EESA; P.L. 110–343 §211) added a bicycle commuting reimbursement. Until that exclusion was suspended at the end of 2017, an employee who regularly biked to work could receive a tax-free $20 per month reimbursement from the employer to cover documented costs of a bicycle, repair, maintenance, or storage.

In 2018, the transportation benefit limit is $260 per month for vanpool transportation and transit passes. The limit had been set at $100 per month for 2001 and had been adjusted each year for inflation, with the adjustment being rounded to the nearest $5. Starting in March 2009, however, following passage of the American Recovery and Reinvestment Tax Act of 2009 (ARRA; P.L. 111-5), the limit was raised to $230 per month, to match the level of the parking benefit limit from March 2009 until January 1, 2011. That limit was extended through the end of 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). The American Taxpayer Relief Act of 2012 (ATRA; P.L. 112-240) extended the parity

between transit and parking benefits until January 1, 2014. That limit was again extended by the Tax Increase Prevention Act of 2014 (P.L. 113-295) for an additional year. The Consolidated Appropriations Act, 2016 (P. L. 114–113) made technical changes that also resulted in a transportation benefit limit at the same level as the parking benefit limit.

Employer costs of providing qualified transportation fringe benefits in general had been deductible as a cost of business until changes enacted in 2017 (P.L. 115-97) limited the deduction to costs needed to ensure employee safety. The 2017 act (26 U.S.C. 512(a)(7)) also requires non-profit organizations to include the value of transportation and parking benefits to employees in their unrelated business income tax calculations.

Assessment

The exclusion subsidizes employment in those businesses and industries located where transportation fringe benefits are feasible and commonly used. Businesses and workers located where mass transportation alternatives are lacking gain little benefit from this provision. Workers in more highly paid occupations and employed at larger firms are more likely to enjoy commuting benefits. Among workers in the top 10 percent of occupations ranked by average wages, 15 percent received commuting benefits, while three percent in the lowest decile did. Fourteen percent of workers in firms with more than 500 employees received commuting benefits, while in firms with fewer than 50 employees, four percent did.

Subsidies for mass transit and vanpools encourage use of mass transportation and may reduce congestion and pollution. Some studies have found that transportation benefit programs can spur non-users of public transportation to become occasional users, and occasional users to become more regular users. Motivating commuters in highly urbanized areas to use mass transportation can reduce commuting costs generally. All commuters in an area may enjoy spillover benefits from reduced traffic congestion such as lower transportation costs, shorter waiting times in traffic, and improved air quality.

Subsidies or favorable tax treatment of parking may encourage more employees to drive to work, which may increase traffic congestion and air pollution. One study found that when employees in California firms were allowed to opt for a cash benefit instead of employer-provided parking benefits, the proportion of employees driving to work fell significantly. Another study found that employer provision of free parking increased

driving, while benefits related to mass transit or cycling decreased driving. Subsidized employee parking may also make finding parking spaces harder, which can affect quality of life in residential neighborhoods near work areas and the flow of customers for retail businesses.

Determining fair market values for fringe benefits such as free or reduced price parking may be difficult in some places. Commercial parking lots are common in most highly urbanized areas, however, so that calculating comparable value of parking benefits in those areas is straightforward in principle.

Fringe benefits are part of the compensation package that employees receive and that employers provide to compete in labor markets. If some fringe benefits, such as transportation benefits, are not considered taxable income, then both employers and firms may wish to reduce taxable wages and salaries in order to increase untaxed fringe benefits. The tax exclusion of such fringe benefits may motivate employees and employers to design compensation packages that increase consumption of goods and services linked to tax-favored fringe benefits relative to goods and services bought with taxable ordinary income. Removing the deductibility of transportation fringe benefits may induce some employers to redesign benefits packages.

Selected Bibliography

Baker, Stuart M., David Judd, and Richard L. Oram. "Tax-Free Transit Benefits at 30: Evolution of a Free Parking Offset," *Journal of Public Transportation* 13 (2), 2010, pp. 1-22.

Basso, Leonardo J. and Hugo E. Silva. "Efficiency and Substitutability of Transit Subsidies and Other Urban Transport Policies," *American Economic Journal: Economic Policy* 6 (4), November 2014, pp. 1–33.

Gazur, Wayne M. "Assessing Internal Revenue Code Section 132 After Twenty Years," *Virginia Tax Review* 25, 2006, pp. 977-1046.

Hackney, Philip. "GOP 2017 Tax Act Forces Nonprofits to Pay UBIT on Some Fringe Benefits," Surly Group Tax Blog, January 8, 2018, https://surlysubgroup.com/2018/01/08/nonprofits-must-pay-ubit-on-some-fringe-benefits-now/.

Hartman, Shane. "Credit Where Credit is Due: Why Congress' Long-Awaited Equalization of the Transit Pass and Qualified-Parking Exclusions, While Laudable, Does Not Go Far Enough," *Seton Hall Legislative Journal* 33, 2008-2009, pp. 565-608.

Hamre, Andrea and Ralph Buehler. "Commuter Mode Choice and Free Car Parking, Public Transportation Benefits, Showers/Lockers, and Bike Parking at Work: Evidence from the Washington, DC Region," *Journal of Public Transportation* 17 (2), 2014.

Inci, Eren. "Who Pays for Free Parking?" *Milken Institute Review*, 1st quarter, 2016, pp. 67-74.

Shoulberg, Jennifer L. "Pedaling toward a More Equitable Tax-Ride for Cyclists," *St. Louis U. Law Journal* 55 (2010-2011), pp. 423-456.

Shoup, Donald. "Evaluating the Effects of Cashing Out Employer-Paid Parking: Eight Case Studies," *Transport Policy* 4 (4), October 1997, pp. 201-216.

U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey, Table 40 (Quality of Life benefits), March 2017; http://www.bls.gov/ncs/ebs/benefits/2017/ownership/civilian/table40a.htm.

U.S. Government Accountability Office. *Federal Transit Benefits Program: Ineffective Controls Result in Fraud and Abuse by Federal Workers*, GAO-07-724T, April 24, 2007, http://www.gao.gov/new.items/d07724t.pdf.

U.S. Internal Revenue Service. *Employer's Tax Guide to Fringe Benefits For Benefits: For Use in 2018*. Publication 15-B, https://www.irs.gov/pub/irs-pdf/p15b.pdf.

—. Final Regulation (T.D. 8933) on Qualified Transportation Fringe Benefits, January 11, 2001.

U.S. Congress, House. *Comprehensive National Energy Policy Act*, Report 102-474, 102nd Cong., 2d sess., May 5, 1992.

—. Joint Explanatory Statement of the Committee of Conference (H.R. 1, the "Tax Cuts and Jobs Act"). Washington, DC, December 17, 2017, pp. 107-108, 249-251.

—. Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*. Committee Print, 98th Cong., 2nd sess., December 31, 1984, pp. 838-866.

—. House Committee on Ways and Means. *Tax Reform Act of 2014: Discussion Draft*. February 26, 2014.

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR HIGH-SPEED INTERCITY RAIL FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 103, 141, 142(i), and 146.

Description

The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) enacted on November 10, 1988, created a new class of tax-exempt, qualified private activity bonds for the financing of high-speed intercity rail projects. Seventy-five percent of the bonds issued for high-speed rail projects are exempt from the federally imposed annual state volume cap on private-activity bonds. High-speed rail projects will qualify if vehicles are capable of traveling at 150 miles per hour.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates allow issuers to construct high-speed rail facilities at lower cost. Some of the benefits of the tax exemption and federal subsidy also flow to bondholders.

For a discussion of the factors that determine the shares of benefits going to bondholders and users of the highway or surface freight transfer facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

Before 1968, state and local governments were allowed to act as conduits for the issuance of tax-exempt bonds to finance privately owned and operated facilities. The Revenue and Expenditure Control Act of 1968 (RECA, P.L. 90-364), however, imposed tests that restricted the issuance of these bonds. The act provided a specific exception which allowed issuance for specific projects such as non-government-owned docks and wharves. High-speed rail projects are similar in function to other public transportation related projects, yet were not included in the original list of qualified projects. The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) created the provision for high-speed rail projects with the stipulation that just 25 percent of the project financing would be subject to the state volume cap. Before enactment of the American Recovery and Reinvestment Act (ARRA, P.L. 111-5), qualified projects must have used vehicles that were reasonably expected to operate at speeds in excess of 150 miles per hour. After ARRA enactment, high-speed rail projects qualify if vehicles are *capable* of operating at 150 miles per hour.

Assessment

High-speed rail is intended to enhance the efficiency of the nation's long distance, intercity rail transport infrastructure. With faster and possibly more efficient intercity rail infrastructure, proponents suggest that long distance travel will shift from government financed interstate highways to privately owned high-speed rail transport. This shift, it is argued, would reduce carbon emissions and reduce travel times.

The change offered in ARRA, requiring that the vehicles must have the *capacity* to travel 150 miles per hour, would seem to provide more certainty for investors. The modification of the speed requirement was likely an acknowledgment that the *operational* speed is dependent on some external factors over which the project planners have little control. Or, achieving the operational speed requirement could, in many cases, be cost prohibitive. If a project did not meet the operational speed requirements, the bonds issued for the project would then lose their tax-exempt status. In turn, investors would

likely need a significant premium on the bonds to account for the perceived riskiness.

Ultimately, however, the value of allowing these bonds to be eligible for tax-exempt status hinges on whether only the users of such high-speed rail corridors should pay the full cost, or whether sufficient social benefits exist to justify federal taxpayer subsidy. Economic theory suggests that to the extent these projects provide social benefits that extend beyond the users, high speed-rail might be underprovided because users may be unwilling to finance benefits accruing to nonusers.

Even if a case can be made for a federal subsidy arising from underinvestment, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for high-speed rail projects increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to attract investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Congressional Budget Office and Joint Committee on Taxation. "Subsidizing Infrastructure Investment with Tax-Preferred Bonds," pub. no. 4005, October 2009.

Council of Development Finance Agencies. "CDFA Annual Volume Cap Report," September 2017.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Liu, Gao, and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal*, vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven, and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal*, vol. 64, no. 2, June 2011, pp. 591-613.

U.S. Department of the Treasury, Internal Revenue Service. "Municipal Bonds, 2010," Statistics of Income, Spring 2013, pp. 112-157.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

— . "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity,* Washington: The Urban Institute Press, 1991.

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT QUALIFIED PRIVATE ACITIVTY BONDS FOR PRIVATE AIRPORTS, DOCKS, AND MASS-COMMUTING FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.7	0.2	0.9
2019	0.7	0.2	0.9
2020	0.7	0.2	0.9
2021	0.7	0.2	0.9
2022	0.8	0.2	1.0

Authorization

Sections 103, 141, 142, and 146.

Description

Interest income on state and local bonds used to finance the construction of publicly accessible airports, docks, wharves, and mass-commuting facilities, such as bus depots and subway stations, is tax exempt. These airport, dock, and wharf bonds are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Because private-activity *mass-commuting facility* bonds are subject to the private-activity bond annual volume cap, they must compete for cap allocations with bond proposals for all other private activities subject to the volume cap. The private-activity bond annual volume cap is equal to the

greater of $105 per state resident or $311.38 million in 2018. The cap has been adjusted for inflation since 2003. Bonds issued for *airports, docks, and wharves* are not, however, subject to the annual federally imposed state volume cap on private-activity bonds. The cap is forgone because government ownership requirements restrict the ability of the state or local government to transfer the benefits of the tax exemption to a private operator of the facilities.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low-interest rates enable issuers to provide the services of airport, dock, and wharf facilities at lower cost. Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the airport, dock, and wharf facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

Before 1968, state and local governments were allowed to issue tax-exempt bonds to finance privately owned airports, docks, and wharves without restriction. The Revenue and Expenditure Control Act of 1968 (RECA, P.L. 90-364) imposed tests that restricted the issuance of bonds for private purposes. However, the Act also provided a specific exception which allowed unrestricted issuance for airports, docks, and wharves.

The Economic Recovery Tax Act of 1981 (P.L. 97-34) extended the tax exemption to mass-commuting vehicles (bus, subway car, rail car, or similar equipment) that private owners leased to government-owned mass transit systems. This provision allowed both the vehicle owner and the government transit system to benefit from the tax advantages of tax-exempt interest and accelerated depreciation allowances. This vehicle exemption expired on December 31, 1984.

The Deficit Reduction Act of 1984 (P.L. 98-369) allowed bonds for private airports, docks, wharves, and mass-commuting facilities to be tax-exempt, but required the bonds to be subject to the volume cap that applies to several private activities. The volume cap, however, did not apply if the facilities were governmentally owned.

The Tax Reform Act of 1986 (TRA86, P.L. 99-514) restricted issuance further, allowing tax exemption only if the facilities were government owned, but excluded the bonds for airports, wharves, and docks from the private-activity bond volume cap. This act also denied tax exemption for bonds used to finance related facilities such as hotels, retail facilities in excess of the size necessary to serve passengers and employees, and office facilities for nongovernment employees.

Assessment

State and local governments tend to view these facilities as economic development tools. The desirability of allowing these bonds to be eligible for tax-exempt status hinges on one's view of whether the users of such facilities should pay the full cost, or whether sufficient social benefits exist to justify federal taxpayer subsidy. Economic theory suggests that to the extent these facilities provide social benefits that extend beyond the boundaries of the state or local government, the facilities might be underprovided due to the reluctance of state and local taxpayers to finance benefits for nonresidents.

Even if a case can be made for a federal subsidy due to underinvestment at the state and local level, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for airports, docks, wharves, and mass commuting facilities increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to attract investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Congressional Budget Office and Joint Committee on Taxation. *Subsidizing Infrastructure Investment with Tax-Preferred Bonds*, Pub. No. 4005, October 2009.

Council of Development Finance Agencies. "CDFA Annual Volume Cap Report," September 2017.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Liu, Gao and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal*, vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Mallett, William J. *Public-Private Partnerships (P3s) in Transportation*. Library of Congress, Congressional Research Service Report R45010, November 2, 2017.

U.S. Congress, Congressional Budget Office. "Issues and Options in Infrastructure Financing," May 2008.

U.S. Congress, Congressional Budget Office. Statement of Donald B. Marron before the Subcommittee on Select Revenue Measures, Committee on Ways and Means, U.S. House of Representatives, "Economic Issues in the Use of Tax-Preferred Bond Financing," March 16, 2006.

U.S. Congress, Joint Committee on Taxation. *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2010, Statistics of Income,* Spring 2013, pp. 112–157.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

— . "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, Working paper no. 11-10, April 2011.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity,* Washington, DC: The Urban Institute Press, 1991.

Community and Regional Development

EMPOWERMENT ZONE TAX INCENTIVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	0.1	0.2
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

(1) Positive tax expenditure of less than $50 million.

Authorization

Sections 38(b), 39(d), 280C(a), 1391-1397D.

Description

Tax incentives are offered to residents and businesses located within Empowerment Zones (EZ). There are currently authorized 40 EZs (30 urban and 10 rural). Designated areas must satisfy eligibility criteria including poverty rates and population and geographic size limits.

Communities designated as EZs were eligible for a combination of tax and grant incentives to encourage economic development and preferences. (The District of Columbia EZ was afforded the same tax incentives as the other EZs.) Since the initial authorizing legislation was enacted, the number of tax incentives offered has grown, while the value of grant incentives has declined.

For EZs, the tax incentives included a 20 percent employer wage credit for the first $15,000 of wages for zone residents who work in the zone, $35,000 in expensing of equipment in investment (in addition to the amount allowed generally) in qualified zone businesses, the nonrecognition of gains on

rollovers of EZ investments, and expanded tax exempt financing for certain zone facilities, primarily qualified zone businesses.

Impact

Both businesses and employees within the designated areas may benefit from these provisions. Wage credits given to employers can increase the wages of individuals if not constrained by the minimum wage, and these individuals tend to be lower-income individuals. If the minimum wage is binding (so that the wage does not change) the effects may show up in increased employment and/or in increased profits to businesses.

Benefits for capital investments may be largely received by business owners initially, although the eventual effects may spread to other parts of the economy. Eligible businesses are likely to be smaller businesses because they must operate within the designated area.

Rationale

The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) authorized the creation of 9 EZs, subsequently expanded to 11 by executive order 13005 (May 21, 1996), and the Taxpayer Relief Act of 1997 (P.L. 105-34) authorized the creation of an additional 20 EZs. These designations were originally set to expire after 10 years.

EZ designations have subsequently been extended through the end of 2011 by the Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312); the end of 2013 by the American Taxpayer Relief Act of 2012 (P.L. 112-240); the end of 2014 by the Tax Increase Prevention Act of 2014 (P.L. 113-295); the end of 2016 by the Protecting Americans from Tax Hikes Act of 2015 (P.L. 114-113); and through the end of 2017 by the Bipartisan Budget Act of 2018 (P.L. 115-123).

Assessment

The geographically targeted tax provisions may encourage increased employment and income of individuals living and working in the zones and increased incentives to businesses operating in the zones.

A number of studies have evaluated the effectiveness of the geographically targeted programs. Government-sponsored studies by the Government Accountability Office (GAO) and the Department of Housing and Urban Development (HUD) have failed to link EZ and Enterprise

Community (EC) designation with improvement in community outcomes. These studies examined the Round I EZs and ECs, which received significant grant funding for community organizations. If designation is an important catalyst for economic development, then these studies may represent an upper bound for the effectiveness of the programs. In addition, economic literature has evaluated the effectiveness of zone incentives. Overall, these studies have found modest, if any, effects and call into question the cost-effectiveness of these programs.

If the main target of these provisions is an improvement in the economic status of individuals currently living in these geographic areas, it is not clear to what extent these tax subsidies will succeed in that objective. None of the subsidies are given directly to workers; rather they are received by businesses. Capital subsidies may not ultimately benefit workers; it is possible that they may encourage more capital-intensive businesses and make workers worse off. In addition, workers cannot benefit from higher wages resulting from an employer subsidy if the wage is determined by regulation (the minimum wage) and already artificially high. Wage subsidies are more likely than capital subsidies to be effective in benefitting low-income zone or community residents.

Another reservation about the economic development zone approach is that they may make surrounding communities, which may also be poor, worse off by attracting businesses away from them. And, in general, questions have been raised about the efficiency of provisions that target all beneficiaries in a low-income area rather than specifically the low-income residents.

Selected Bibliography

Bondino, Daniele and Robert T. Greenbaum. "Do Tax Incentives Affect Local Economic Growth? What Means Impacts Miss in the Analysis of Enterprise Zone Policies," *Regional Science and Urban Economics,* v. 37, no. 1. 2007, pp.121-136.

Cordes, Joseph J. and Nancy A. Gardner. "Enterprise Zones and Property Values: What We Know (Or Maybe Don't)," *National Tax Association Proceedings, 94th Annual Conference on Taxation*. Washington, DC: National Tax Association, 2002, pp. 279-287.

Fisher, Peter S. and Alan H. Peters. "Tax and Spending Incentives and Enterprise Zones," *New England Economic Review* (March-April 1997), pp. 109-130.

Freedman, Matthew. "Targeted Business Incentives and Local Labor Markets," *The Journal of Human Resources*, v. 48, no. 2 (Spring 2013). pp. 311-344.

Glaeser, Edward L. and Joshua D. Gottlieb. "The Economics of Place-Making Policies," *Brookings Papers on Economic Activity*, v. 1 (2008), pp. 155-253.

Hanson, Andrew. "Local Employment, Poverty, and Property Value Effects of Geographically-Targeted Tax Incentives: An Instrumental Variables Approach," *Regional Science and Urban Economics*, v. 39, no. 6 (November 2009), pp. 721-731.

Hanson, Andrew. "Do Spatially Targeted Redevelopment Programs Spillover?" *Regional Science and Urban Economics*, v. 43, no. 1, (January 2013), pp. 86-100.

— and Shawn Rohlin. "Do Spatially Targeted Redevelopment Incentives Work? The Answer Depends on How You Ask the Ouestion," (December 2017) available at SSRN: https://ssrn.com/abstract=3169603.

Papke, Leslie. "Enterprise Zones," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert W. Ebel, and Jane G. Gravelle (Washington, D.C.: The Urban Institute, 2005).

Neumark, David and Jed Kolko. "Do Enterprise Zones Create Jobs? Evidence from California's Enterprise Zone Program," *Journal of Urban Economics*, v. 68, no. 1, July 2010, pp. 1-19.

Oakley, Deirdre and Hui-Shein Tsao. "A New Way of Revitalizing Distressed Urban Communities? Assessing the Impact of the Federal Empowerment Zone Program," *Journal of Urban Affairs*, v. 28, no. 5, November 2006, pp. 443-471.

Smith, Richard. "Did the Community Renewal Tax Incentives Pirate Businesses from Other Places?" *Economic Development Quarterly*, v. 30, no. 1 (February 1, 2016), pp. 46-61.

U.S. Congress, House Committee on Banking, Finance and Urban Affairs, Subcommittee on Economic Growth and Credit Formation. *The Administration's Empowerment Zone and Enterprise Community Proposal*. Hearing, 103rd Congress, 1st Session, May 27 and June 8, 1993.

U.S. Government Accountability Office. *Federal Revitalization Programs Are Being Implemented, but Data on the Use of Tax Benefits Are Limited*, GAO-04-306, March 2004.

—. *Empowerment Zone and Enterprise Community Program: Improvements Occurred in Communities, but the Effect of the Program is Unclear*, GAO-06-727, September 2006.

—. *Revitalization Programs: Empowerment Zones, Enterprise Communities, and Renewal Communities,* GAO-10-464R, March 2010.

U.S. Department of Housing and Urban Development. *Interim Assessment of the Empowerment Zones and Enterprise Community (EZ/EC) Program: A Progress Report and Appendices*, November 2001.

DISTRICT OF COLUMBIA TAX INCENTIVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

(1) Positive tax expenditure of less than $50 million.

Authorization

Sections 1400-1400B.

Description

Residents and businesses located within the District of Columbia (DC) may be eligible for tax incentives offering a zero-percent capital gains rate for selected DC assets held at least five years and sold prior to the end of 2016. Other DC tax incentives (an employment subsidy, expanded business expensing of equipment, and expanded availability of tax exempt finance) expired at the end of 2011.

Impact

Benefits for capital investments may be largely received by business owners initially, although the eventual effects may spread to other parts of the economy. Eligible businesses are likely to be smaller businesses because they must operate within the designated area.

Rationale

The District of Columbia tax incentives were created by the Taxpayer Relief Act of 1997 (P.L. 105-34) and authorized through the end of 2003 (2008 for the non-recognition of capital gains) to encourage economic development in designated portions of the District of Columbia. The tax incentive authorizations were subsequently extended through the end of 2005 (2010) by the Working Families Tax Relief Act of 2004 (P.L. 108-311); through the end of 2007 (2012) by the Tax Relief and Health Care Act of 2006 (P.L. 109-432); through the end of 2009 (2014) by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343); and through the end of 2011 (2016) by the Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312).

Assessment

The geographically targeted tax provisions may encourage increased employment and income of individuals living and working in the zones and increased incentives to businesses operating in the zones.

A number of studies have evaluated the effectiveness of the geographically targeted programs. Overall, these studies have found modest, if any, effects and call into question the cost-effectiveness of these programs, though none of the assessments reviewed focused on the DC incentives.

Selected Bibliography

Bondino, Daniele and Robert T. Greenbaum, "Do Tax Incentives Affect Local Economic Growth? What Means Impacts Miss in the Analysis of Enterprise Zone Policies," *Regional Science and Urban Economics,* v. 37, no. 1, 2007, pp.121-136.

Fisher, Peter S. and Alan H. Peters, "Tax and Spending Incentives and Enterprise Zones," *New England Economic Review* (March-April 1997), pp. 109-130.

Freedman, Matthew, "Targeted Business Incentives and Local Labor Markets," *The Journal of Human Resources*, v. 48, no. 2 (Spring 2013), pp. 311-344.

Glaeser, Edward L. and Joshua D. Gottlieb, "The Economics of Place-Making Policies," *Brookings Papers on Economic Activity*, v. 1 (2008), pp. 155-253.

Hanson, Andrew, "Do Spatially Targeted Redevelopment Programs Spillover?" *Regional Science and Urban Economics*, v. 43, no. 1 (January 2013), pp. 86-100.

Hirasuna, Don and Joel Michel, "Enterprise Zones: A Review of the Economic Theory and Empirical Evidence," Policy Brief, Minnesota House of Representatives Research Department, January 2005.

Papke, Leslie, "Enterprise Zones," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert W. Ebel, and Jane G. Gravelle (Washington, DC: The Urban Institute, 2005).

Oakley, Deirdre and Hui-Shein Tsao, "A New Way of Revitalizing Distressed Urban Communities? Assessing the Impact of the Federal Empowerment Zone Program," *Journal of Urban Affairs*, v. 28, no. 5, November 2006, pp. 443-471.

Smith, Richard, "Empowerment for Whom? The Impact of Community Renewal Tax Incentives on Jobs and Businesses," *Urban Studies*, v. 52, no. 4. 2015, pp. 702-720.

U.S. Department of Housing and Urban Development, *Interim Assessment of the Empowerment Zones and Enterprise Community (EZ/EC) Program: A Progress Report and Appendices*, November 2001.

CREDIT FOR EMPLOYMENT AND ACCELERATED DEPRECIATION, INDIAN RESERVATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

(1) Positive tax expenditure of less than $50 million.

Authorization

Sections 38(b), 39(d), 45A, 168(j), 280C(a).

Description

Businesses on Indian reservations were eligible for accelerated depreciation and for a credit for 20 percent of the cost of the first $20,000 of wages and health benefits paid by the employer to tribal members and their spouses earning $30,000 or less, in excess of eligible qualified wages and health insurance cost payments made in 1993. Employers can't claim the Work Opportunity Tax Credit for the same employee.

Impact

Benefits for capital investments may be largely received by businesses initially, although the eventual effects may spread to other parts of the economy. Businesses affected tend to be small because of the geographic limitation. Wage credits given to employers can increase the wages of individuals, who tend to be lower-income individuals, if not constrained by the minimum wage. If the minimum wage is binding (so that the wage does

not change) the effects may show up in increased employment and/or in increased profits to businesses.

Rationale

The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) created the provisions to encourage businesses to invest in Indian reservations and to hire certain individuals who live on or near an Indian reservation. The provisions were originally set to expire at the end of 2003.

The provision were subsequently extended through the end of 2004 by the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147); through the end of 2005 by the Working Families Tax Relief Act of 2004 (P.L. 108-311); through the end of 2007 by the Tax Relief and Health Care Act of 2006 (P.L. 109-432); through the end of 2009 by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343); through the end of 2011 by the Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312); through the end of 2013 by the American Taxpayer Relief Act of 2012 (P.L. 112-240); through the end of 2014 by the Tax Increase Prevention Act of 2014 (P.L. 113-295); through the end of 2016 by the Protecting Americans from Tax Hikes Act of 2015 (P.L. 114-113); and through the end of 2017 by the Bipartisan Budget Act of 2018 (P.L. 115-123).

Assessment

These subsidies may encourage increased employment and income of tribal members and increased incentives for businesses' investment, although the effect on wages may be constrained by the minimum wage.

Selected Bibliography

Dalton, Matthew. "Tax Court Decision Highlights Difficulties for Tribal Businesses." *Tax Notes,* June 17, 2013, p. 1367.

Freedman, Matthew. "Targeted Business Incentives and Local Labor Markets." *The Journal of Human Resources*, v. 48, no. 2 (Spring 2013), pp. 311-344.

Garrison, Larry R. "Tax Incentives for Doing Business on Indian Reservations." *Taxes — The Magazine* (May 2002), pp. 39-44.

Glaeser, Edward L. and Joshua D. Gottlieb. "The Economics of Place-Making Policies." *Brookings Papers on Economic Activity*, v. 1 (2008), pp. 155-253.

NEW MARKETS TAX CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	1.3	1.3
2019	([1])	1.3	1.3
2020	([1])	1.2	1.2
2021	([1])	1.2	1.2
2022	([1])	1.0	1.0

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 45D.

Description

The New Markets Tax Credit (NMTC) is designed to stimulate investment in low- and moderate-income rural and urban communities nationwide. NMTCs are allocated by the Community Development Financial Institutions (CDFI) Fund, a bureau within the United States Department of the Treasury, under a competitive application process. Investors who make qualified equity investments reduce their federal income tax liability by claiming a credit equal to 39 percent of their investment, over a seven-year period. The NMTC program, enacted in 2000, is currently authorized to allocate $61 billion through the end of 2019.

Impact

The NMTC is an investment credit. Thus investors, who are likely in higher-income brackets, are the direct beneficiaries. Nevertheless, the tax incentives may encourage investment spending in economically distressed communities. The additional investment could indirectly benefit the workers

and residents of these communities. A more direct means of providing assistance to individuals in distressed communities would be direct aid to individuals.

Rationale

The NMTC was enacted by the Community Renewal Tax Relief Act of 2000 (P.L. 106-554). The NMTC is designed to provide tax relief to investors in economically distressed communities through providing a more certain rate of return with fixed credit rates. The Gulf Opportunity Zone Act of 2005 (P.L. 109-135) targeted an additional $1 billion in NMTC's towards investment in areas affected by Hurricane Katrina. The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the NMTC through 2008, the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the NMTC through 2009, both with $3.5 billion in allocation authority, and the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) increased the allocation authority in both 2008 and 2009 to $5.0 billion. The NMTC was further extended through 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312); through 2013 by the American Taxpayer Relief Act of 2012 (P.L. 112-240); through 2014 by the Tax Increase Prevention Act of 2014 (P.L. 113-295), and through 2019 by the Protecting Americans from Tax Hikes (PATH) Act (Division Q of P.L. 114-113).

Assessment

Evaluations of the NMTC program's effectiveness are difficult. The CDFI Fund, which operates the NMTC program, reports that as of April 2018, New Markets Tax Credit allocatees had raised nearly $48.1 billion in private equity to invest in low-income communities. The potential new investment must be assessed against the fact that the potential target area includes approximately 35 percent of the U.S. population and 40 percent of the land area. In addition, the fixed credit rate, 5 percent for the first three years and 6 percent for the four final years, may not be enough to compensate investors for the underlying risk of the principal investment.

The most comprehensive evaluation of the NMTC, to date, was conducted by the Urban Institute under contract from the CDFI Fund. While the Evaluations Final Report found project-level activity consistent with the NMTC achieving program goals, it was unable to generalize its findings to the broader universe of NMTC activity or census tract-level outcomes due to

evaluation design limitations. The report noted it was an initial effort to a more robust research plan that has not yet been implemented.

The NMTC is primarily intended to encourage private capital investment in eligible low-income communities. However, the source of the investment funds has implications for the effectiveness of the program in achieving its objective. From an economic perspective, the impact of the NMTC would be greatest in the case where the investment represents new investment in the U.S. economy that would not have occurred in the absence of the program. Gurley-Calvez et al. (2009) empirically assessed whether NMTC investment is funded through shifted investment or whether it represents new investment, finding mixed results. Freeman (2012) found small effects on poverty and unemployment in areas that received NMTC investment. Abravanel et al. (2013) estimated that early NMTC investments generated one job per $53,162 of investment (on average).

Selected Bibliography

Abravanel, Martin D. et al. "New Markets Tax Credit (NMTC) Program Evaluation: Final Report," prepared for U.S. Department of the Treasury Community Development Financial Institutions (CDFI) Fund, Urban Institute, April 2013.

Armistead, P. Jefferson. "New Markets Tax Credits: Issues and Opportunities," prepared for the Pratt Institute Center for Community and Environmental Development, April 2005.

Cohen, Ann Burstein. "Community Renewal Tax Relief's Act's Incentives for Investors — Form over Substance?" *The Tax Adviser*, v. 32, no. 6, June 2001.

Freedman, Matthew. "Place-Based Programs and the Geographic Dispersion of Employment," *Regional Science and Urban Journal,* v. 53, July 2015.

—."Teaching New Markets Old Tricks: The Effects of Subsidized Investment on Low-Income Neighborhoods," *Journal of Public Economics,* v. 9, no. 11-12, December 2012, pp.1000-1014.

Gurley-Calvez, Tami, Thomas J. Gilbert, Katherine Harper, Donald J. Marples, and Kevin Daly. "Do Tax Incentives Affect Investment? An Analysis of the New Markets Tax Credit," *Public Finance Review*, vol. 37, iss. 4, July 2009, pp. 371-398.

Hicks, Michael J. and Dagney Faulk. "The Effect of State-Level Add-On Legislation to the Federal New Markets Tax Credit Program," Ball State University Center for Business and Economic Research, February 2012.

Hula, Richard C. and Marty P. Jordan. "Private Investment and Public Redevelopment: The Case of the New Markets Tax Credits," *Poverty and Public Policy,* v. 10, no. 1, March 2018, pp. 11-38.

Leichner, Kevin. "Enhancing New Markets Tax Credit Pipeline Flow: Maintaining a Continuous Deal Flow in Spite of Funding Gaps and Market Volatility," Federal Reserve Bank of San Francisco Working Paper 2010-06, October 2010.

Lowry, Sean and Donald J. Marples. "New Markets Tax Credit: An Introduction," Library of Congress, Congressional Research Service Report RL34402, August 2016.

Rubin, Julia Sass and Gregory M. Stankiewicz. "The New Markets Tax Credit Program: A Midcourse Assessment," *Federal Reserve Bank of San Francisco*, vol. 1, iss. 1, 2005, pp. 1-11.

Stoker, Robert P. and Michael J. Rich. "Lessons and Limits: Tax Incentives and Rebuilding the Gulf Coast After Katrina," *The Brookings Institution, Survey Series*, August 2006.

U.S. Congress, House Ways and Means Committee, Manager's Statement on Community Renewal Tax Relief Act of 2000, statement to accompany H.R. 5662 as incorporated in H.R. 4577, December 15, 2001.

U.S. Congress, Joint Committee on Taxation. *Description of Present Law Regarding Tax Incentives for Renewal Communities and Other Economically Distressed Areas*, (JCX 40-02), May 20, 2002.

—. *Summary of Provisions Contained in the Community Renewal Tax Relief Act of 2000*, (JCX 112-00), December 15, 2000.

U.S. Government Accountability Office. *New Markets Tax Credit: The Credit Helps Fund a Variety of Projects on Low-Income Communities, but Could be Simplified*, GAO-10-334, January 29, 2011.

—. *New Markets Tax Credit Appears to Increase Investment by Investors in Low-Income Communities, but Opportunities Exist to Better Monitor Compliance*, GAO-07-296, January 31, 2007.

U.S. General Accounting Office. *New Markets Tax Credit Program: Progress Made in Implementation, But Further Actions Needed to Monitor Compliance*, GAO-04-326, January 30, 2004.

QUALIFIED OPPORTUNITY ZONES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.4	1.1	1.5
2019	0.5	1.5	2.0
2020	0.5	1.5	2.0
2021	0.5	1.5	2.0
2022	0.5	1.4	1.9

Authorization

Sections 1400Z-1, 1400Z-2.

Description

Three tax incentives are associated with qualified Opportunity Zones. First, tax due on capital gains may be temporarily deferred if the gains are reinvested in a qualified opportunity fund (QOF) within 180 days after the sale or disposition of the related asset. Second, if the investment in the QOF is held for at least five years, the basis on the original gain is increased by 10 percent of the original gain. If the asset or investment is held for at least seven years, the basis on the original gain is increased by an additional 5 percent of the original gain. Third, QOF investments held for at least 10 years and until at least December 31, 2026, are to be eligible for permanent exclusion of capital gains tax on any gains from the qualified portion of their investment earned within the Opportunity Zone when the QOF investment is sold or disposed. For more information on the tax treatment of capital gains, see "Reduced Rates of Tax on Dividends and Long-Terms Capital Gains."

A QOF is an investment vehicle organized as a corporation or a partnership for the purpose of investing in qualified opportunity zone property that holds at least 90 percent of its assets in qualified opportunity zone property

or another QOF. Qualified opportunity zone property includes any qualified opportunity zone stock, qualified opportunity zone partnership interest, and qualified opportunity zone business property. QOFs may self-identify on their income tax returns, and do not require federal certification in advance of claiming Opportunity Zone-related tax benefits.

Certain low-income community population census tracts were eligible to be designated as qualified opportunity zones by the chief executive officer of each state (i.e., the governor) and the District of Columbia. The economic criteria and caps on the number of potentially-eligible low-income census tracts that could have been designated by the chief executive officer are defined in statute. State nominations for Opportunity Zone designation were due by March 21, 2018. The official list of all census tracts designated and certified as Opportunity Zones was published in IRS Notice 2018-48, 2018–28 Internal Revenue Bulletin 9 (July 9, 2018).

Opportunity Zone tax incentives are in effect from December 22, 2017, through December 31, 2026. There is no gain or deferral available with respect to any sale or exchange made after December 31, 2026, and there is no exclusion available for investments in qualified Opportunity Zones made after December 31, 2026.

Impact

Opportunity Zone tax incentives are designed to be broad incentives to retain investment in or shift investment toward specific geographic areas. Thus investors, who are likely in higher-income and long-term capital gains tax brackets, are the direct beneficiaries. The benefits accrued from investments in QOFs are staggered over time, which could encourage long-term, "patient" capital for development projects in areas that could be classified as higher risk by lenders and financers.

The tax incentives may encourage investment spending in economically distressed communities. The additional investment could indirectly benefit the workers and residents of these communities. A more direct means of providing assistance to individuals in distressed communities would be direct aid to individuals.

Rationale

Opportunity Zone tax incentives were first enacted by the 2017 tax revision (P.L. 115-97). Under current law, the tax incentives are in effect from December 22, 2017, through December 31, 2026.

Assessment

The Internal Revenue Code occasionally has provided several incentives aimed at encouraging economic growth and investment in distressed communities by providing federal tax benefits to businesses and investment located within designated boundaries.

A number of studies have evaluated the effectiveness of the geographically targeted programs. Overall, these studies have found modest, if any, effects and call into question the cost-effectiveness of these programs. For example, see the bibliographies under "Empowerment Zone Tax Incentives" and "New Markets Tax Credit."

Selected Bibliography

Looney, Adam. "The Early Results of States' Opportunity Zones are Promising, but There's Still Room for Improvement." Brookings Institution, Wednesday, April 18, 2018.

Lowry, Sean and Donald J. Marples. *Tax Incentives for Opportunity Zones: In Brief*. Library of Congress, Congressional Research Service Report R45152, November 20, 2018.

Theodos, Brett, Brady Meixell, and Carl Hedman. *Did States Maximize Their Opportunity Zone Selections?* Urban Institute, May 21, 2018.

Zhang, Libin. "Qualified Opportunity Zones: Hot Tubs and Other Hot Topics." *Tax Notes*, August 6, 2018.

NATIONAL DISASTER RELIEF

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: The JCT score does not break out the full cost of these provisions separately. Estimates for this provision are contained in other provisions.

Authorization

Sections 24, 32, 38, 61, 72, 123, 139, 143, 151, 165, 1033, and 1400.

Description

Internal Revenue Code (IRC) Section 139 exempts qualified disaster relief payments from taxable income. The JCT tax expenditure estimates associated with qualified disaster relief payments are contained in other entries in this compendium, while the disaster relief elements of various tax expenditure provisions are discussed below. Disaster relief provisions include tax expenditures created following the 9/11 attacks, Hurricanes Katrina, Rita, Wilma, and Ike, the Midwest floods of 2008, and the hurricanes and wildfires of 2017. Many of the provisions specifically related to these disasters have expired or are no longer claimed in significant amounts. The Internal Revenue Code also contains permanent tax relief provisions that apply to taxpayers affected by a disaster.

Several laws have been enacted following specific disasters to facilitate the economic recovery of the affected regions. Tax incentives provided among these provisions have included increased private-purpose tax-exempt bond

capacity, a special depreciation allowance for certain real property, and tax relief to individuals and businesses affected by disasters. Individuals can deduct housing and insurance related recovery expenditures from gross income and may access certain tax-favored retirement income without penalty, while employers are provided with tax credits to encourage them to resume operations and retain employees. Other business related provisions include allowances for bonus depreciation, expensing of certain property, and a 5-year carryback of net operating losses. Additional provisions increased the rehabilitation credit for historic property and expanded the number of tax-exempt bonds. Tax-exempt bond provisions allowed the states to increase financing to help the localities in the counties and parishes with the construction and renovation of housing stock and public utility property.

Impact

Generally, these tax benefits will reduce the tax burden on individuals and businesses in areas affected by disasters. Below is a more detailed discussion of the effect of these provisions.

Housing directed provisions. Taxpayers receiving various types of housing assistance may deduct these expenses from their gross income meaning that these individuals will pay lower taxes than other taxpayers with the same or smaller economic incomes, all else equal. Employers may also receive tax benefits if they provide temporary housing for disaster victims, reducing their Social Security, Medicare, and unemployment compensation tax base.

The mortgage revenue bond modifications offer low-interest loans available to homeowners for financing rehabilitation and rebuilding of disaster affected property. Lower interest rates may induce more residents to remain in disaster areas and rebuild. While short-term advantages are clear, the long-term impact of encouraging homeowners to remain in disaster stricken areas is less certain.

Business directed provisions. The expensing, bonus depreciation, and carryback provisions allow businesses to utilize tax benefits earlier than they would otherwise. These provisions encourage firms to make investments and restore property in disaster areas and provide financial relief for businesses with disaster-related losses. Bonus depreciation is more valuable for long-lived assets, such as buildings. The carryback provision can be particularly useful for local businesses in the local disaster area, where profits are likely to decline.

Employee retention tax credits worth up to 40 percent of qualified employee wages are provided to eligible employers in areas affected by Hurricanes Harvey, Irma, and Maria whose businesses were inoperable for periods immediately following natural disasters. These tax credits encourage employers to keep employees on the payroll who cannot perform their jobs because the business is not operating as a result of the disaster. The Work Opportunity Tax Credit (WOTC) has also been used to encourage employee retention following natural disasters.

Rationale

Disaster relief provisions increase revenue loss to the government at a time when investment in disaster stricken regions is desired. The rationale for such aid is that the short- and long-term benefits of this investment outweighs the short-term revenue loss, which may have long-term implications on economic recovery and growth.

Several provisions were enacted following recent disasters to facilitate the economic recovery of the affected regions, including the "Liberty Zone" in lower Manhattan; the Gulf Opportunity (GO) Zone throughout the area affected by Hurricane Katrina; the Midwestern disaster area, which includes Arkansas, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, and Wisconsin; and the area affected by Hurricane Ike. The provisions for the Midwestern disaster area are applicable to the floods, severe storms, and tornadoes declared from May 20, 2008 through August 1, 2008.

The Liberty Zone was created by the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147) after the September 11, 2001 terrorist attacks. Congress designated a portion of lower Manhattan in New York as the Liberty Zone. The tax incentives included increased private-purpose tax-exempt bond capacity for New York (Liberty Bonds and special one-time advance refunding) and a special depreciation allowance for certain real property. In 2004, P.L. 108-311 extended the Liberty Bond program through January 1, 2010. The Job Creation and Tax Cuts Act of 2010 (JCTCA; P.L. 111-312) extended these tax incentives through the end of 2010, and the Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) further extended the incentives through 2011.

Following Hurricane Katrina, the Katrina Emergency Tax Relief Act of 2005 (KETRA; P.L. 109-73) provided tax relief to individuals and businesses affected by the disaster. This was followed by the Gulf Opportunity Zone Act of 2005 (GOZA; P.L. 109-135), which established the Gulf Opportunity Zone

to provide relief to those affected by Hurricanes Rita and Wilma and assist in economic recovery. KETRA and GOZA included provisions allowing individuals to deduct housing and insurance-related recovery expenditures from gross income and offered tax credits to employers to encourage them to resume operations and retain employees. KETRA and GOZA also included other business-related provisions allowing for bonus depreciation, expensing of certain property, and a 5-year carryback of net operating losses. Other provisions increased the rehabilitation credit for historic property and expanded the number of tax-exempt bonds.

Subsequent legislation extended these provisions to continue recovery efforts. For example, the Tax Relief and Health Care Act of 2006 (P.L. 109-432), Emergency Economic Stabilization Act of 2008 (EESA, P.L. 110-343), and the JCTCA have all extended some of these benefits. The JCTCA extended the work opportunity tax credit through August 28, 2010, the rehabilitation credit for historic structures in the Gulf Opportunity Zone through the end of 2010, and the Gulf Opportunity Zone low-income housing placed-in-service date through the end of 2012. The Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended tax-exempt bond financing for the Liberty zone and four provisions for the Gulf Opportunity Zone (the increase in rehabilitation credit, the placed-in-service deadline for the low-income housing credits, tax-exempt bond financing, and bonus depreciation) through 2011.

National disaster relief for all disasters occurring between December 31, 2007, and January 1, 2010, was also included in EESA. The EESA provisions allow: (1) an additional itemized deduction beyond the $500 per casualty threshold; (2) disaster victims to deduct immediately demolition and repair expenses as well as environmental remediation; and (3) five-year carryback of net operating losses attributable to disasters. EESA also allows the issuance of tax-exempt mortgage revenue bonds to finance low-interest loans to taxpayers in declared disaster areas whose principal residence was damaged by a disaster. Two additional provisions directed to business investment allow for special bonus depreciation and expensing of property.

EESA included tax relief for victims of the Midwestern disasters and Hurricane Ike. EESA also extended the Work Opportunity Tax Credit (WOTC), originally included in KETRA for Hurricane Katrina employees. The WOTC allows businesses to claim a credit for qualified wages for employees retained in the Hurricanes Katrina, Rita, and Wilma zone areas, during the period a business is inoperable.

The Hurricane Ike disaster relief allows Texas and Louisiana to allocate additional low-income housing tax credits (LIHTC). Tax-exempt bond provisions allowed the states to increase financing to help the localities in the counties and parishes with the construction and renovation of housing stock and public utility property.

Natural disaster relief from Hurricanes Harvey, Irma, and Maria was included in the Disaster Tax Relief and Airport and Airway Extension Act of 2017 (P.L. 115-63). This law: (1) established disaster zones for areas affected by each hurricane; (2) provided an employee retention credit for employers worth up to 40 percent of qualified wages for firms who retain employees during a period where the business is otherwise inoperable; and (3) waived penalties associated with the early access of certain income from tax-preferred retirement accounts. The 2017 tax revision (P.L. 115-97) extended and modified the relief provided by P.L. 115-63, and the Bipartisan Budget Act of 2018 (P.L. 115-123) extended a similar set of tax benefits to areas affected by the 2017 California wildfires.

Assessment

Generally, disaster-related geographic benefits are intended to induce shifts in investment spending rather than generate new investment spending. Thus, the localized tax incentives redistribute tax revenue and investment from all federal taxpayers to taxpayers and investors in the designated area. The aggregate national economic benefit of geographically based incentives is unclear, as it depends on the relative increase in targeted area investment and the decreased revenue and the opportunity cost of alternative investments.

Evidence of the effectiveness of the housing tax provisions in increasing employment and business activity in the affected areas is limited. The evidence is based on previous studies of provisions targeting low-income areas. These studies do not indicate that tax incentives are very successful in increasing employment or economic activity. However, the studies may not provide sufficient evidence to gauge the effects on a much larger geographic area composed of both higher- and lower-income individuals affected by a major disaster.

In general, tax provisions aiding specific activities or types of investment lead to a misallocation of resources. However, one can make the case that all taxpayers should assist in recovery of an area affected by such a large-scale disaster, as a part of national risk-spreading and thus some inefficiency may be warranted.

Businesses that use the bonus depreciation reduce their present tax burden in exchange for slightly higher future tax payments (as depreciation in those periods will be smaller than they otherwise would have been). The tax benefit, therefore, is the present value of the tax deferred. Accelerated depreciation may induce some firms to invest in new capital; however, the magnitude of the impact of the incentive is uncertain. All equipment investment will be eligible to be expensed (deducted) immediately for tax years 2018 through 2025, so this incentive will no longer be available. For more on accelerated depreciation for business property, see the entry in this volume titled: "Expensing of Depreciable Business Property."

Expanding the employee retention tax credits and the WOTC eases the tax burden on employers. The effectiveness of these credits, however, may be limited by the relative cost and complexity of administrative compliance. For more on the WOTC, see the entry in this volume titled: "Work Opportunity Tax Credit."

Selected Bibliography

Bram, Jason. "New York City's Economy Before and After September 11," *Federal Reserve Bank of New York: Current Issues in Economics and Finance*, February 2003.

Chernick, Howard and Andrew F. Haughwout. "Tax Policy and the Fiscal Cost of Disasters: NY and 9/11," *National Tax Journal*, vol. 59, September 2006, pp. 561-578.

Collins, Benjamin and Sarah A. Donovan. *The Work Opportunity Tax Credit*, Library of Congress, Congressional Research Service, Report R43729, March 2016.

Driessen, Grant A. and Jeffrey M. Stupak. *Tax Credit Bonds: Overview and Analysis*, Library of Congress, Congressional Research Service, Report R40523, October 2016.

Driessen, Grant A. and Joseph S. Hughes. *Disaster Assistance and Federal Subsidies for Municipal Bonds*, Library of Congress, Congressional Research Service, Report IF10739, September 2017.

Glaeser, Edward L. and Jesse M. Shapiro. "Cities and Warfare: The Impact of Terrorism on Urban Form." *Journal of Urban Economics,* vol. 51, March 2002, pp. 205-224.

Gravelle, Jane G. "Tax Incentives in the Aftermath of Hurricane Katrina," *Municipal Finance Journal*, vol. 26, Fall 2005, pp. 1-13.

Internal Revenue Service, *Information for Taxpayers Affected by the May 4, 2007, Kansas Storms and Tornadoes*, Publication 4492-A, July 1, 2008.

— , *Information for Taxpayers Affected by Hurricanes Katrina, Rita, and Wilma*, Publication 4492, January 1, 2006.

Keightley, Mark P. *Tax Treatment of Net Operating Losses: In Brief*, Library of Congress, Congressional Research Service, Report R44976, October 2017.

Lunder, Erika. *The Gulf Opportunity Zone Act of 2005*, Library of Congress, Congressional Research Service, Report RS22344, February 2006.

Lunder, Erika K., Carol A. Pettit, and Jennifer Teefy. *Tax Provisions to Assist with Disaster Recovery*, Library of Congress, Congressional Research Service, Report R42839, February 2013.

Maguire, Steven and Jeffrey M. Stupak. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service, Report RL31457, March 2016.

Richardson, James A. "Katrina/Rita: The Ultimate Test for Tax Policy?" *National Tax Journal*, vol. 59, September 2006, pp.551-560.

Sherlock, Molly F. *Tax Policy and Disaster Recovery*. Library of Congress, Congressional Research Service, Report IF10730, September 2017.

Stoker, Robert P. and Michael J. Rich. *Lessons and Limits: Tax Incentives and Rebuilding the Gulf Coast After Katrina, Metropolitan Policy Program*, Washington, DC: The Brookings Institution, August 2006.

Tolan Jr, Patrick E. *Questioning Tax Expenditures for Economic Recovery*. Tax Notes – Special Report, April 2010, pp. 67-92.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation of the Revenue Provisions of H.R. 4440, The "Gulf Opportunity Zone Act of 2005," as Passed by The House Of Representatives And The Senate*, JCX-88-05, December 16, 2005.

—, Joint Committee on Taxation. *Technical Explanation of the Job Creation and Worker Assistance Act of 2002*, JCX 12-02, March 6, 2002.

—, Joint Committee on Taxation, *Technical Explanation of the Revenue Provisions of H.R. 3768, The Katrina Emergency Relief Act of 2005, As Passed by the House of Representatives and the Senate*, JCX-69-05, Washington, DC, September 21, 2005.

U.S. Government Accountability Office, *Tax Administration: Information is Not Available to Determine Whether $5 Billion in Liberty Zone Tax Benefits Will be Realized*. Report GAO-03-1102, October 2003.

Vigdor, Jacob. "The Economic Aftermath of Hurricane Katrina." *Journal of Economic Perspectives,* vol. 22, Fall 2008, pp. 135-154.

Westly, Christopher, Robert P. Murphy, and William L. Anderson. "Institutions, Incentives, and Disaster Relief," *International Journal of Social Economics*, vol. 35, no. 7, 2008, pp. 501-511.

Wildasin, David. "Local Public Finance in the Aftermath of September 11." *Journal of Urban Economics*, vol. 51 (March 2002), pp. 225-237.

Williamson, James M. and John L. Pender. "Economic Stimulus and the Tax Code: The Impact of the Gulf Opportunity Zone," *Public Finance Review*, vol. 44, no. 4, 2014, pp. 415-445.

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT QUALIFIED PRIVATE ACTIVITY BONDS FOR SEWAGE, WATER, AND HAZARDOUS WASTE FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.3	0.1	0.4
2019	0.4	0.1	0.5
2020	0.4	0.1	0.5
2021	0.4	0.1	0.5
2022	0.4	0.1	0.5

Authorization

Sections 103, 141, 142, and 146.

Description

Interest income from state and local bonds used to finance the construction of sewage facilities, facilities for the furnishing of water, and facilities for the disposal of hazardous waste is tax exempt.

Some of these bonds are classified as private-activity bonds rather than as governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Bonds*.

The bonds classified as private activity for these facilities are subject to the state private-activity bond annual volume cap. The private-activity bond

annual volume cap is equal to the greater of $105 per state resident or $311.38 million in 2018. The cap has been adjusted for inflation since 2003.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to finance the facilities at reduced interest rates.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the sewage, water, and hazardous waste facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Bonds*.

Rationale

Before 1968, no restriction was placed on the ability of state and local governments to issue tax-exempt bonds to finance sewage, water, and hazardous waste facilities. The Revenue and Expenditure Control Act of 1968 (RECA, P.L. 90-364) imposed tests that would have restricted issuance of these bonds. However, it provided a specific exception for sewage and water (allowing continued unrestricted issuance).

To qualify for tax-exempt bond financing, a water-furnishing facility must be made available to the general public (including electric utility and other businesses) and must be either operated by a governmental unit or have its rates approved or established by a governmental unit. A hazardous waste exception was adopted by the Tax Reform Act of 1986 (TRA86, P.L. 99-514). The portion of a hazardous waste facility that can be financed with tax-exempt bonds cannot exceed the portion of the facility to be used by entities other than the owner or operator of the facility. In other words, a hazardous waste producer cannot use tax-exempt bonds to finance a facility to treat its own waste.

Assessment

Many observers suggest that sewage, water, and hazardous waste treatment facilities will be under-provided by state and local governments because the benefit of the facilities extends beyond state and local government boundaries. In addition, there are significant costs, real and perceived, associated with siting an unwanted hazardous waste facility. The federal

subsidy through this tax expenditure may encourage increased investment as well as spread the cost to more potential beneficiaries (i.e., federal taxpayers).

Alternatively, subsidizing hazardous waste treatment facilities reduces the cost of producing waste if the subsidy is passed through to waste producers. When the cost of producing waste declines, then waste emitters may in turn increase their waste output. Thus, subsidizing waste treatment facilities may actually increase waste production. Recognizing the potential effect of subsidizing private investment in waste treatment, Congress eliminated a general subsidy for private investment in waste and pollution control equipment in TRA86.

Even if a subsidy for sewage, water, and hazardous waste facilities is considered appropriate, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, bonds for these facilities increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest cost on the bonds necessarily increases to attract investors. In addition, expanding the availability of tax-exempt bonds increases the range of assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Congressional Budget Office and Joint Committee on Taxation. *Subsidizing Infrastructure Investment with Tax-Preferred Bonds*, pub. no. 4005, October 2009.

Council of Development Finance Agencies. "CDFA Annual Volume Cap Report," September 2017.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Fredriksson, Per G. "The Siting of Hazardous Waste Facilities in Federal Systems: The Political Economy of NIMBY [Not In My Back Yard]," *Environmental and Resource Economics,* vol. 15, no. 1, January 2000, pp. 75-87.

Galper, Harvey, Kim Rueben, Richard Auxier, and Amanda Eng. "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 67, no. 4, December 2014, p. 901.

Government Accountability Office. *Rural Water Infrastructure: Additional Coordination Can Help Avoid Potentially Duplicative Application Requirements*, GAO-13-111, October 16, 2012.

Liu, Gao, and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build

America Bonds," *National Tax Journal*, vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven, and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Ramseur, Jonathan L. and Mary Tiemann. *Water Infrastructure Financing: The Water Infrastructure Finance and Innovation Act (WIFIA) Program*, Library of Congress, Congressional Research Service Report R43315, June 11, 2018.

U.S. Congress, Joint Committee on Taxation. *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2010*, *Statistics of Income*, Spring 2013, pp. 112-157.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

— . "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. *Environmental Infrastructure and the State-Local Sector: Should Tax-Exempt Bond Law Be Changed?* Library of Congress, Congressional Research Service Report 91-866 E, Washington, DC: December 16, 1991.

— . *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activities*, Washington, DC: The Urban Institute Press, 1991.

RECOVERY ZONE ECONOMIC DEVELOPMENT BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	([1])	0.1
2019	0.2	([1])	0.1
2020	0.2	([1])	0.1
2021	0.2	([1])	0.1
2022	0.2	([1])	0.1

Note: Estimates include outlay effects associated with the refundable portion of RZEDBs. These outlay effects are estimated to be a combined $0.6 billion from FY2017-FY2021. These outlays are to state and local governments and are attributed to individuals for purposes of this table.

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 54A, 54AA, 1400U, and 6431.

Description

In the 111th Congress, the American Recovery and Reinvestment Act (ARRA, P.L. 111-5) created a new type of tax credit bond, the Build America Bond (BAB). These bonds allow issuers the option of (1) receiving a direct payment from the U.S. Treasury, or (2) tax credits for bond investors instead of the traditional tax-exempt interest payments (see the entry *Build America Bonds*). The legislation also provided for a version of BABs with a deeper subsidy called Recovery Zone Economic Development Bonds (RZEDBs) for economically distressed areas. This tax expenditure entry covers Recovery Zone Economic Development Bonds.

RZEDBs proceeds were targeted to economically distressed areas. Specifically, these bonds were for any area designated by the state government (1) as having significant poverty, high unemployment, high rate of home foreclosures, or general distress; (2) as economically distressed by reason of the closure or realignment of a military installation pursuant to the Defense Base Closure and Realignment Act of 1990 (P.L. 101-510); or (3) as an empowerment zone or renewal community. The purpose of the bonds was, as the name implies, economic development. The bonds were used for:

(1) capital expenditures paid or incurred with respect to property located in such zone [recovery zone],
(2) expenditures for public infrastructure and construction of public facilities, and
(3) expenditures for job training and educational programs.

The RZEDB offers a tax credit equal to 45 percent of the interest rate established between the buyer and issuer of the bond. The issuer and investor agreed on terms either as a result of a competitive bid process or through a negotiated sale. For example, if the negotiated taxable interest rate was 8 percent, on $100,000 of bond principal, then the federal tax credit amount was $3,600 (8 percent times $100,000 times 45 percent). The issuer had the option of receiving a direct payment from the Treasury equal to the tax credit amount or allowing the investor to claim the tax credit. The issuers chose the direct payment option for all RZEDBs issued because the net interest cost was less than traditional tax-exempt debt of like terms. In this example, the interest cost to the issuer choosing the direct payment was $4,400 ($8,000 less the $3,600 credit amount). If the tax-exempt rate was greater than 4.40 percent (requiring an interest payment of greater than $4,400) then the direct payment RZEDB would have been a better option for the issuer. Note that the direct payment option means the bond proceeds must have been used for capital expenditures.

The statutory volume limit for RZEDBs was set at $10 billion. The bond authority was allocated to states (including the District of Columbia and the U.S. territories) based on the state's employment decline in 2008. Every state that experienced an employment decline in 2008 received an allocation that bore the same ratio as the state's share of the total employment decline in those states. All states and U.S. territories, regardless of employment changes, were guaranteed a minimum of 0.90 percent of the $10 billion.

Large municipalities and counties were also guaranteed a share of the state allocations based on a jurisdiction's share of the aggregate employment decline in its state for 2008. A large jurisdiction is defined as one with a

population greater than 100,000. For counties with large municipalities receiving an allocation, the county population was reduced by the municipal population for purposes of the 100,000 threshold. The authority to issue RZEDBs expired on December 31, 2010, thus the tax expenditure represents the tax credits generated by the outstanding bonds. The 2017 tax revision (P.L. 115-97) repealed issuing authority for all tax credit bonds beginning on January 1, 2018.

The requirements of the Balanced Budget and Emergency Deficit Control Act of 1985 (P.L. 99-177), as amended, reduced the credit payments by 6.9 percent for FY2017; 6.6 percent for FY2018; and 6.2 percent for FY2019. The cuts applied to all direct pay tax credit bonds. With these percentage reductions, the 45 percent direct payments were reduced to 41.90 percent for FY2017, 41.94 percent for FY2018, and 42.21 percent in FY 2019.

Impact

The impact of RZEDBs is unclear because the potential issuance was capped and limited to specific, state-defined economically distressed areas. The authority to issue RZEDBs expired after December 31, 2010, which may further diminish the impact of the program because some authority may have gone unused. For 2009, the IRS reported that $471 million of RZEDBs had been issued. For 2010, the IRS reported $6,131 million of RZEDBs had been issued.

Rationale

The American Recovery and Reinvestment Act, (ARRA, P.L. 111-5), created BABs and RZEDBs. These bonds offer a federal subsidy larger than that provided by tax-exempt bonds and were intended to spur more infrastructure spending and to aid state and local governments. Proponents also cited the possible stimulative effect of additional public infrastructure spending arising from this program during the economic downturn in 2009 and 2010.

Assessment

There are three principal stakeholders in the tax-preferred bond market: (1) state and local government issuers; (2) investors; and (3) the federal government. For issuers, RZEDBs are best assessed against the most common alternative mechanism for financing public infrastructure: tax-exempt bonds. With direct-payment RZEDBs, the federal government subsidizes the issuer directly, unlike with tax-exempt bonds which provide an indirect subsidy

through lower interest rates. Either way, issuers receive an interest rate subsidy. In theory, if the demand for RZEDBs exceeded that for traditional tax-exempt bonds issued for the same purpose, then interest costs for the issuer would have been further reduced. Also, if the credit rate were set such that the bonds were more attractive relative to other taxable instruments, issuers might have realized an additional interest cost savings.

When RZEDBs are evaluated against tax-exempt bonds, the market clearing credit rate should equal the ratio of the investor's forgone market interest rate on tax-exempt bonds divided by one minus the investor's tax rate. Investors in higher-tax marginal income tax brackets would need a higher rate to equate the return on RZEDBs to that of tax-exempt bonds. Thus, high-income investors may prefer tax-exempt bonds to RZEDBs. In contrast, non-taxable investors, international investors, and lower marginal tax rate investors would find RZEDBs more attractive than tax-exempt bonds.

For the federal government, the tax credit mechanism is a more economically efficient subsidy than the mechanism for tax-exempt bonds, particularly in cases where the issuer claims the direct payment. The direct payment to the issuer mechanism, which is modeled after the "taxable bond option," was first considered in the late 1960s. Later, in 1976, the following was posited by the then-President of the Federal Reserve Bank in Boston, Frank E. Morris:

> The taxable bond option is a tool to improve the efficiency of our financial markets and, at the same time, to reduce substantially the element of inequity in our income tax system which stems from tax exemption [on municipal bonds]. It will reduce the interest costs on municipal borrowings, but the benefits will accrue proportionally as much to cities with strong credit ratings as to those with serious financial problems.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," *Journal of Fixed Income*, vol. 20, no. 1, 2010, p. 67.

Cestau, Dario, Richard C. Green, and Norman Schurhoff. "Tax-Subsidized Underpricing: The Market for Build America Bonds," *Journal of Monetary Economics*, vol. 60, no. 5, July 2013, p. 593.

Congressional Budget Office. *Tax Credit Bonds and the Federal Cost Financing Public Expenditures*, July 2004.

— . Testimony, *Federal Support for State and Local Governments Through the Tax Code*. April 2012.

Congressional Budget Office and Joint Committee on Taxation. *Subsidizing Infrastructure Investment with Tax-Preferred Bonds*, pub. no. 4005, October 2009.

Davie, Bruce. "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," *Proceedings of the 91st Annual Conference on Taxation*, National Tax Association.

Driessen, Grant A. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Driessen, Grant and Jeffrey M. Stupak. *Tax Credit Bonds: Overview and Analysis,* Library of Congress, Congressional Research Service Report RL31457, October 11, 2016.

Galper, Harvey, Kim Rueben, Richard Auxier, and Amanda Eng. "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 67, no. 4, December 2014, p. 901.

Internal Revenue Service. *Update: Effect of Sequestration on State & Local Government Filers of Form 8038-CP,* June 2018.

Joint Committee on Taxation. *Present Law and Issues Related to Infrastructure Finance,* Joint Committee Print JCX-83-08, October 29, 2008.

— . *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

— . *General Explanation of Tax Legislation Enacted in 1997*, Joint Committee Print JCS-23-97, December 17, 1997, pp. 40-41.

Liu, Gao and Dwight V. Denison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal*, vol. 67, no. 3, September 2014, p. 569.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Morris, Frank E. "The Taxable Bond Option," *National Tax Journal*, vol. 29, no. 3, September 1976, p. 356.

Molly F. Sherlock et al. *The 2017 Tax Revision (P.L. 115-97): Comparison to 2017 Tax Law*, Library of Congress, Congressional Research Service Report R45092, February 6, 2018.

U.S. Office of Management and Budget. "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2018," April 6, 2018.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2017," May 12, 2017.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2016," January 4, 2016.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2015," January 20, 2015.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2014," February 7, 2014.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2013," April 9, 2013.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2012," January 18, 2012.

U.S. Treasury Department. "Treasury Analysis of Build America Bonds and Issuer Net Borrowing Costs," April 2, 2010.

U.S. Treasury Department. Internal Revenue Service, Statistics of Income Division, "Table 12. Direct Payment Bonds Allowed Under the American Recovery and Reinvestment Act (ARRA), by Bond Type, 2009." July 2011.

— . "Table 12. Taxable Direct Payment Bonds Allowed Under the American Recovery and Reinvestment Act (ARRA) and Specified Tax Credit Bonds Allowed Under the Hiring Incentives to Restore Employment Act (HIRE), by Bond Type, 2010." November 2012.

Education, Training, Employment and Social Services: Education and Training

PARENTAL PERSONAL EXEMPTION FOR STUDENTS AGE 19 TO 23

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.1	-	1.1
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Authorization

Sections 151, 152.

Description

Taxpayers may claim dependency exemptions for children 19 through 23 years of age who are full-time students at least five months, possibly non-consecutive, during the year, even if the children have gross income in excess of the personal exemption amount ($4,050 in 2016 and 2017) that normally would be a disqualifying factor. Other standard dependency tests must be met, however, including the taxpayer's provision of one-half of the dependents' support. The dependents cannot claim personal exemptions on their own returns and their standard deduction may be lower. (Personal exemptions are temporarily repealed for tax years 2018 through 2025.) In 2016 and 2017, with some exceptions, the standard deduction for dependents is equal to the greater of $1,050 or their earned income plus $350 provided the sum does not exceed the standard deduction amount of $6,300 for single taxpayers ($6,350 for 2017). A scholarship or similar income that is not excludable from the dependent's income is considered earned income for standard deduction

purposes. Most of the dollar amounts listed in this entry were adjusted annually due to indexation for inflation.

Impact

Taxpayers benefit for two primary reasons. First, the total sum of deductions and exemptions claimed by parents and students may be larger than it would be without this provision. Second, parents are often subject to a higher marginal tax rate than their children attending college. Thus, a given amount of deductions and exemptions may reduce parents' tax liability more than it would reduce the student's potential tax liability, if the student were not claimed as a dependent.

In 2017, parents may have lost some or all of the student dependency exemption if their adjusted gross income (AGI) was greater than the inflation-adjusted threshold for the personal exemption phaseout (PEP). PEP reduces personal exemption amounts by 2 percent for each $2,500 (joint taxfilers; $1,250 for single taxfilers) of AGI that exceeds the threshold.

Personal Exemption Phaseout (PEP) Ranges, by Adjusted Gross Income (AGI), Tax Year 2017

Filing Status	2017
Single	$261,500-$384,000
Married, Filing Jointly	$313,800-$436,300
Married, Filing Separately	$156,900-$218,150
Head of Household	$287,650-$410,150

Source: Internal Revenue Service (IRS), Revenue Procedure 2016-55.

For example, in 2017, the PEP reduction for a married couple filing jointly with two dependent children and an AGI of $350,000 would be calculated as: ($350,000-$313,800)/$2,500 = 14.48. By multiplying 14.48 by 2, the tax unit's $16,200 in personal exemptions ($4,050 per personal exemption) is reduced by 29 percent. Thus, PEP would reduce this tax unit's personal exemptions from $16,200 to $11,502 (a reduction of $4,698).

Rationale

With its codification in 1954, the Internal Revenue Code first allowed parents to claim dependency exemptions for their children regardless of the

children's gross income, provided they were less than 19 years old or were full-time students for at least five months. Under prior law, such exemptions could not be claimed for any child whose gross income exceeded $600 (the amount of the personal exemption at the time). Committee reports for the legislation noted that the prior rule was a hardship for parents with children in school and constituted a disincentive to work for the children.

Under the 1954 Code, dependents whose exemptions could be claimed by their parents could also claim personal exemptions on their own returns. The Tax Reform Act of 1986 (P.L. 99-514) disallowed double exemptions, limiting claims just to the parents. It did allow a partial standard deduction for students equal to the greater of $500 or earned income up to the generally applicable standard deduction amount. As a result, students with no earned income were able to shelter up to $500 in unearned income from taxation. The $500 is indexed for inflation as is the amount of the standard deduction.

The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) restricted the student dependency exemption to children under the age of 24. Students who are older than 23 can be claimed as dependents only if their gross income is less than the personal exemption amount.

The Taxpayer Relief Act of 1997 (P.L. 105-34) raised students' standard deduction to the greater of $700 (which was equivalent to the prior $500, after adjusting for inflation) or the total of earned income plus $250 in unearned income provided the total did not exceed the full standard deduction. This change, effective beginning in 1998, enables students with earned income greater than $700, but less than the standard deduction amount, and with little unearned income, to shelter their unearned income from taxation; it also exempts them from the requirement to file a separate tax return (unless they must do so to claim a refund of withheld tax). The limit on unearned income is adjusted annually for inflation.

The Working Family Tax Relief Act of 2004 (P.L. 108-311) revised the definition of a child for tax purposes, beginning with tax year 2005. Specifically, the law replaced the definition of a dependent for the personal exemption with requirements (or tests) that define new categories of dependents. Under this definition, a child is a qualifying child of the taxpayer if the child satisfies three tests: (1) the child has not yet attained a specified age; (2) the child has a specified relationship to the taxpayer; and (3) the child has the same principal place of abode as the taxpayer for more than half the taxable year. Fostering Connections to Success and Increasing Adoptions Act of 2008 (P.L. 110-351) made additional changes to the definition of a child.

The 2017 tax revision (P.L. 115-97) temporarily repealed personal exemptions for tax years 2018 through 2025. Among other temporary changes for 2018 through 2025, P.L. 115-97 also raises the standard deduction (by $5,500 for single filers and $11,000 for married filing jointly in 2018), increases the child tax credit to $2,000 per child under age 17, and provides a $500 credit for dependents not eligible for the regular child tax credit.

Assessment

The student dependency exemption was created before the development of broad-based federal student aid programs, and some of its effects might be questioned in light of their objectives. The exemption principally benefited families with higher incomes (except for families with very high incomes, that are subject to PEP), and the tax savings are not related to the cost of education. In contrast, most federal student aid is awarded according to financial need formulas that reflect both available family resources and educational cost.

Nonetheless, the original rationale for the student dependency exemption arguably remains valid. If the exemption did not exist, as was the case before 1954, students who earned more than the personal exemption amount would cause their parents to lose a dependency exemption potentially worth hundreds of dollars, depending on the parent's tax bracket. Unless students would earn substantially more money, students who knew of this consequence might stop working when their earnings reached the personal exemption amount.

Selected Bibliography

Crandall-Hollick, Margot L. *Higher Education Tax Benefits: Brief Overview and Budgetary Effects*, Library of Congress, Congressional Research Service Report R41967, Washington, DC: June 11, 2018.

Lowry, Sean. *Tax Deductions for Individuals: A Summary*, Library of Congress, Congressional Research Service Report R42872, Washington, DC: February 18, 2015.

Nelson, Zachary and Amy Cardillo. "The Financial Impact of the TCJA on Lower-Income Taxpayers," *Tax Notes Today*, July 9, 2018.

Sherlock, Molly F. and Donald J. Marples, Coordinators. *The 2017 Tax Revision (P.L. 115-97): Comparison to 2017 Tax Law*, Library of Congress, Congressional Research Service Report R45092, Washington DC: Februrary 6, 2018.

U.S. Congress, House of Representatives. *Conference Report 115-466 to Accompany H.R. 1, Tax Cuts and Jobs Act,* 115th Congress, 1st Session, December 15, 2017, pp. 202-205.

— , Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986* (H.R. 3838, 99th Congress; Public Law 99-514), JCS-10-87, Washington, DC: May 4, 1987, pp. 22-24.

Viard, Alan. "The Basic Economic of Pease and PEP," *Tax Notes*, vol. 146, no. 6, February 9, 2015.

DEDUCTION FOR TEACHER CLASSROOM EXPENSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	-	0.2
2019	0.2	-	0.2
2020	0.2	-	0.2
2021	0.2	-	0.2
2022	0.2	-	0.2

Authorization

Section 62(a)(2)(D).

Description

An eligible educator working at a public (including charter) or private elementary or secondary school may claim up to $250 as an above-the-line deduction for eligible unreimbursed expenses. Since the "educator deduction" is an "above-the-line" deduction, taxpayers do not need to itemize their deductions to claim this tax benefit.

Eligible expenses for the purposes of this deduction are expenses paid for by an eligible educator for books, supplies (other than nonathletic supplies for health or physical education courses), computer equipment, software, and services and other equipment; and supplementary materials used by the educator in the classroom. Expenses for the educator's professional development shall also be considered eligible expenses for purposes of the deduction. The taxpayer may deduct up to $250 spent on these items. This amount is annually adjusted for inflation beginning in 2016. (Generally, the measure of inflation used to adjust inflation-indexed provisions in the Internal

Revenue Code was permanently changed from the CPI-U to the chained CPI-U by P.L. 115-97.)

An eligible educator is defined to be an individual who, with respect to any tax year, is an elementary or secondary school teacher, instructor, counselor, principal, or aide in a school for a minimum of 900 hours in a school year. A school means any school that provides elementary education or secondary education (kindergarten through grade 12), as determined under state law.

Taxpayers must reduce the total amount they deduct by any interest from an Education Savings Bond or distribution from a Qualified Tuition (Section 529) Program or Coverdell Education Savings (Section 530) account that was excluded from income. In other words, if educators or members of their tax filing units use earnings from these savings vehicles to pay tuition and other qualified educational expenses, only those classroom expenses that exceed the value of these income exclusions are deductible.

Impact

Educators, as an occupation, are actively involved in improving the human capital of the nation. A recent study (Nagel, 2013) found, for example, that public school teachers spent $1.6 billion of their own money on classroom supplies in the 2012-2013 school year, an average of $485 per teacher of unreimbursed spending on education expenses.

As noted in the table below, more than three-quarters of the deductions are taken by tax filing units with adjusted gross incomes over $50,000, with more than one-third claimed by those with income between $100,000 and $200,000.

Distribution by Income Class of Educator Expense Deduction at 2015 Income Levels

Income Class (in thousands of $)	Percentage Distribution
Below $10	1.4
$10 to $20	2.1
$20 to $30	4.1
$30 to $40	7.1
$40 to $50	8.5
$50 to $75	19.3
$75 to $100	17.4
$100 to $200	34.5
$200 and over	5.7

Source: IRS *Statistics of Income Table 1*.4, 2015. This is not a distribution of the tax expenditures, but of the amount deducted, classified by adjusted gross income.

Rationale

The educator deduction was enacted on a temporary basis as part of the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147). It was reauthorized through December 31, 2009, as part of the Emergency Economic Stabilization Act of 2008 (P.L. 110-343). The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312), extended the deduction for 2010 and 2011. The American Taxpayer Relief Act of 2012 (P.L. 112-240), extended the deduction through the end of 2013. The Tax Increase Prevention Act of 2014 (P.L. 113-295), extended the deduction through the end of 2014. The Protecting Americans from Tax Hikes Act or "PATH" Act (Division Q of P.L. 114-113) made the deduction permanent beginning in 2015. In addition to extending the provision permanently, the PATH Act made two changes to the deduction that went into effect in 2016. First, the maximum amount of the deduction—$250—was indexed annually for inflation. Second, the definition of eligible expenses was expanded to include expenses for the educator's professional development.

Before the educator deduction's enactment, the only tax benefit available to educators for trade/business expenses was the permanent deduction at Section 162 of the Code. That deduction was available to educators but to take it, the total of their miscellaneous itemized deductions had to have exceeded

two percent of adjusted gross income. However, section 11046 of P.L. 115-97 temporarily repealed the itemized deduction for miscellaneous expenses from 2018 through the end of 2025. An above-the-line deduction targeted at educators may be considered desirable because teachers voluntarily augment school funds by purchasing items thought to enhance the quality of children's education.

Assessment

This incentive could encourage school teachers to purchase or spend more on classroom supplies. Specifically, the educator deduction may encourage educators already purchasing supplies to increase the amount spent and may encourage other educators to purchase supplies. However, a deduction that is capped at a small amount may not be very effective because many teachers are already spending at least $250 (as previously noted, on average they are spending $485 per year (Nagel, 2013)). Generally, benefits with caps are expected to be less effective, per dollar of revenue lost, in increasing the spending on desired product or activity. The principal reason is that those who spend more than the cap have no marginal incentive to increase their spending.

If the purpose of the deduction is to reimburse some portion of classroom spending, a deduction is not a particularly equitable way to provide this type of refund. Deductions are worth more to taxpayers in higher tax brackets, than those in lower tax brackets. A teacher in a higher tax bracket (perhaps due to his or her spouse's income) spending $100 on supplies might see a reduction in tax liability of $35. A teacher in a lower tax bracket, also spending $100 on supplies, might realize tax savings of $15. Thus, even when each teacher spends the same amount on classroom supplies, one teacher's tax savings is more than twice that of the other. The increasing marginal tax rates of the federal income tax in conjunction with the greater amount deducted by higher income taxpayers (see the distribution table), means that the largest share of this benefit will generally be received by higher income taxpayers.

Selected Bibliography

Driessen, Grant A. and Gravelle, Jane G. *Selected Recently Expired Individual Tax Provisions ("Extenders"): In Brief*. Congressional Research Service Report R43688. Washington, DC: October 27, 2016.

Hanousek-Monmge, Rebekah and Benjamin Rue Silliman. *An Examination of Tax Expenditures for Educator Expenses Under Internal*

Revenue Code Section 62(a)(2)(D): A Policy Analysis. Proceedings of ASBBS (American Society of Business and Behavioral Sciences). ASBBS Annual Conference: La Vegas, Vol. 21, No. 1. February 2014.

Hruza, Melissa. *What Do Teachers Spend on Supplies? 2015-2016 School Year*. AdoptAClassroom.org. Available at http://blog.adoptaclassroom.org/2015/09/15/infographic-recent-aac-survey-results-on-teacher-spending/. September 15, 2015.

Joint Committee on Taxation. *Technical Explanation of the Protecting Americans from Tax Hikes Act of 2015, House Amendment #2 to the Senate Amendment to H.R. 2029*. JCX-144-15. Washington, DC: December 17, 2015.

Lowry, Sean. *Tax Deductions for Individuals: A Summary*. Congressional Research Service Report R42872. Washington, DC: March 17, 2017.

Nagel, David. *K-12 Teachers Out of Pocket $1.6 billion on Classroom Tools*. The Journal. Available at https://thejournal.com/articles/2013/07/01/k12-teachers-out-of-pocket-1-point-6-billion-on-classroom-tools.aspx. July 1, 2013.

National School Supply and Equipment Association. *2013 NSSEA Retail Market Awareness Study*. EDmarket. June 1, 2013.

Sherlock, Molly F. and Crandall-Hollick, Margot. *The Deduction for Out-Of-Pocket Teacher Expenses*. Congressional Research Service InSight 10021. Washington, DC: December 9, 2017.

Sherlock, Molly F. *Expired and Expiring Temporary Tax Provisions ("Tax Extenders")*. Congressional Research Service Report R43124. Washington, DC: November 6, 2014.

Education, Training, Employment, and Social Services:
Education and Training

TAX CREDITS FOR TUITION FOR POST-SECONDARY EDUCATION

American Opportunity Tax Credit (AOTC)
and Lifetime Learning Credit
Estimated Revenue Loss
[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	18.9	-	18.9
2019	19.1	-	19.1
2020	19.1	-	19.1
2021	19.1	-	19.1
2022	19.2	-	19.2

Note: Estimates include outlay effects associated with the refundability of the AOTC. These outlay effects are $6.4 billion (2017), $6.6 billion (2018), $6.7 billion (2019), and $6.8 billion (2020), and $6.8 billion (2021).

Authorization

Section 25A.

Description

The American Opportunity Tax Credit

The AOTC is a refundable tax credit that provides financial assistance to taxpayers pursuing a post-secondary education (college, university, or vocational school) or whose children are pursuing a post-secondary education. The credit, worth up to $2,500 per eligible student, can be claimed for a student's qualifying expenses incurred during the first four years of postsecondary education at an eligible postsecondary education program. In

addition, 40 percent of the credit (up to $1,000) can be received as a refund by taxpayers with little or no tax liability, typically low-income households.

The AOTC is calculated as 100 percent of the first $2,000 of qualified tuition, academic fees and required course materials (e.g., text books), and 25 percent of the next $2,000. Hence, the maximum value of the credit per student is $2,500.

The AOTC is refundable, meaning taxpayers with little to no tax liability may still be able to benefit from this tax provision. By definition, the value of a refundable tax credit can be greater than a taxpayer's tax liability. The refundable portion of the AOTC is calculated as 40 percent of the value of the credit the taxpayer is eligible for based on qualifying education expenses. Therefore, if the taxpayer was eligible for a $2,500 AOTC, but had no tax liability, they could receive $1,000 (40 percent of $2,500) as a refund.

The credit phases out for taxpayers with modified adjusted gross income between $80,000 and $90,000 ($160,000 and $180,000 for married couples filing jointly) and is unavailable to taxpayers with modified adjusted gross income above $90,000 ($180,000 for married couples filing jointly). These phaseout levels are *not* indexed for inflation.

An eligible student is one enrolled on at least a half-time basis for at least one academic period during the tax year in a program leading to a degree, certificate, or credential at an institution eligible to participate in U.S. Department of Education student aid programs (these include most accredited public, private, and proprietary postsecondary institutions). The student must be in their first four years of post-secondary education, which for most students is the first four years of undergraduate education. The student must not have been convicted of any state or federal felony offense for possessing or distributing a controlled substance when they claim the credit.

Qualifying education expenses are tuition and certain expenses required for enrollment at a higher education institution, including the cost of books, supplies, and equipment needed for a student's studies. Qualifying expenses for the AOTC must be reduced by any tuition and fees financed with tax-free scholarships, including Pell Grants, veterans' education assistance, and other tax-free educational assistance. (To the extent that the taxpayer chooses to report an otherwise tax-free grant, scholarship, or fellowship on their tax return (and hence it is subject to taxation), they may not need to reduce their education expenses by the amount of the award included in income.)The credit cannot be claimed for the same student for whom a Lifetime Learning Credit

is claimed in the same tax year. Taxpayers claiming the AOTC cannot claim the temporary deduction for qualified higher education expenses (the "tuition and fees deduction") for the same student in the same year. They also cannot claim a credit based on the same expenses used to figure the tax-free portion of a distribution from a Coverdell Education Savings Account or a Qualified Tuition (Section 529) Plan.

In cases where the student is claimed as a dependent by the taxpayer, any qualifying expenses paid by the dependent are to be treated as if they were paid by the taxpayer. If a taxpayer does not claim an exemption for their dependent (even if entitled to the exemption), and the dependent is a qualifying student, then the qualifying student can claim the credit based on the expenses they have paid. (At the end of 2017, President Trump signed into law P.L. 115-97 which made numerous changes to the federal income tax for individuals and businesses, including setting the amount of the dependent exemption equal to zero from 2018 through the end of 2025. However, this does not affect this aspect of the credit.)

To claim the credit, the taxpayer and student (if different) must provide their name and taxpayer identification number. For most taxpayers, their taxpayer ID number is their social security number (SSN). Other taxpayers may use their individual taxpayer identification number (ITIN). For the taxpayer and the student (if different), the taxpayer ID number must have been issued before the due date of the return on which they are claiming the AOTC. Hence, if a taxpayer did not have a taxpayer ID by the due date for filing 2017 federal income tax returns for individuals (April 17, 2018), they could not claim the AOTC on their 2017 income tax return. In addition, if an ITIN is issued after the due date of the return, the taxpayer cannot amend their return and claim the credit.

A tax filer is barred from claiming the AOTC for a period of 10 years after the IRS makes a final determination to reduce or disallow a tax filer's AOTC because that individual made a fraudulent AOTC claim. A tax filer is barred from claiming the AOTC for a period of two years after the IRS determines that the individual made an AOTC claim "due to reckless and intentional disregard of the rules" of the AOTC, but that disregard was not found to be due to fraud.

Lifetime Learning Credit

The Lifetime Learning Credit provides a 20 percent credit per return for the first $10,000 of qualified tuition and fees that taxpayers pay for themselves,

their spouses, or their dependents. For the purposes of this credit, qualified tuition and fees include expenses for any course of instruction to acquire or improve job skills. The credit is available for those enrolled in one or more courses of instruction at an eligible institution. There is no limit on the number of years for which the credit may be claimed.

The nonrefundable credit is phased out for single taxpayers with modified adjusted gross income between $40,000 and $50,000 ($80,000 and $100,000 for joint return taxpayers). These income thresholds are indexed to inflation. In 2017, these phaseout levels are equal to $57,000 and $67,000 for single taxpayers ($114,000 and $134,000 for joint return taxpayers).

As with the AOTC, tuition and fees financed with scholarships, Pell Grants, veterans' education assistance, and other tax-free educational assistance are not qualified expenses. (To the extent that the taxpayer chooses to report an otherwise tax-free grant, scholarship, or fellowship on their tax return (and hence it is subject to taxation), they may not need to reduce their education expenses by the amount of the award included in income.) The Lifetime Learning Credit cannot be claimed for the same student for whom the AOTC is claimed in the same tax year. As with the AOTC, taxpayers claiming the credit cannot concurrently take the temporary deduction for qualified higher education expenses. Finally, the definitions of qualifying student and qualifying educational institutions for the Lifetime Learning credit are the same as those for the AOTC.

Impact

Tuition tax credits, like other forms of traditional student aid and other forms of tax-based financial aid, reduce the cost of higher education.

Research indicates that students from lower-income households are more sensitive to the price of college when deciding whether to attend college, in comparison to their higher-income counterparts. Policies that reduce the price of college, like tuition tax credits, would then be expected to have the largest effect on enrollment if they were targeted towards lower-income students. The AOTC is refundable, so taxpayers with little to no tax liability including low-income taxpayers, may be able to claim the AOTC. Data suggest, however, that the majority of the AOTC is claimed by middle and higher-income taxpayers, and hence this credit is not specifically targeted to lower-income students. The Lifetime Learning Credit is non-refundable and hence taxpayers with little to no tax liability—including low-income taxpayers—cannot claim this credit.

As shown in the following table, which reflects the refundability of the AOTC, tuition tax credits primarily benefit middle-income taxpayers. More than 60 percent of the total dollar amount of the credits are taken by tax filing units with adjusted gross incomes of between $50,000 and $200,000.

Distribution by Income Class of the Tax Expenditure for Education Tax Credits, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	3.5
$10 to $20	7.7
$20 to $30	9.4
$30 to $40	8.8
$40 to $50	7.6
$50 to $75	15.8
$75 to $100	12.2
$100 to $200	33.6
$200 and over	1.4

Rationale

The Hope Scholarship and Lifetime Learning Credits were enacted as permanent tax provisions as part of the Taxpayer Relief Act of 1997 (P.L. 105-34). The intent of these benefits was to make postsecondary education more affordable for middle-income families and students who might not qualify for need-based federal student aid.

The American Opportunity Tax Credit was enacted as part of the American Recovery and Reinvestment Act of 2009 (P.L. 111-5), temporarily replacing the Hope Scholarship Credit for 2009 and 2010. The AOTC was extended for 2011 and 2012 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). Subsequently, the AOTC was extended for five more years, through the end of 2017, by the American Taxpayer Relief Act of 2012 (P.L. 112-240; ATRA). The Protecting Americans from Tax Hikes (PATH) Act (Division Q of P.L. 114-113), made the AOTC permanent, effectively eliminating the Hope Credit. (The Tax Technical Corrections Act of 2018, included as part of P.L. 115-141, made numerous technical corrections to the Internal Revenue Code (IRC), including

modifying the text of IRC section 25A to eliminate text that references the Hope credit.) The PATH Act also included a number of provisions intended to reduce improper payments of the AOTC. These provisions included the disallowance of the credit due to fraud or a reckless disregard of the credit's rules and the ID requirements for the taxpayer, student, and educational institution.

Assessment

One rationale for tuition tax credits may be to increase college attendance by reducing the after-tax price of college. Increased college attendance may not only lead to benefits for individuals in terms of higher wages, but also may provide societal benefits including increased productivity and innovation. This economic rationale is often referred to as the "positive externality" rationale for government interventions in higher education. Broadly, an externality is a cost or benefit associated with a transaction that is not reflected in market prices borne by the buyer or seller. In the case of a positive externality associated with education, the positive benefit to society in terms of increased productivity and innovation is greater than the benefit to the individual, which may result in under-investment in education from a social perspective.

There are a variety of factors that may determine whether a student attends college, including family socioeconomic level, student educational aspirations, peer support, academic performance, and the cost of college. Education tax credits, like other forms of traditional student aid and other forms of tax-based financial aid, subsidize some of the costs associated with higher education. The effect that a cost reduction has on college attendance will depend on how sensitive a student's (and his family's) decision to attend college is to price. Some students will be very sensitive to price, and insofar as tax credits reduce college costs, these tax benefits may induce them to attend college. On the other hand, certain students will attend college irrespective of price. In this case, education tax credits reward students and their families for an action—attending college—that they would have made regardless of the credit's availability, and the credits are a windfall gain to certain taxpayers.

Recent studies analyzing the effect of education tax incentives on college attendance indicate a minimal impact of tax credits on college attendance. Research by Turner (2011) has found that tax-based aid did have an impact on college attendance, but also that a significant proportion of recipients—93 percent—would have attended college in the absence of these benefits. Other research by Bulman and Hoxby (2014) finds a "meager" effect of the higher education tax credits on students' decisions to attend college.

Another rationale for government interventions in higher education more broadly may be because private capital markets may be unwilling to lend to students to finance their higher education expenses. Many students do not have sufficient savings to finance their education. And since students often lack property to pledge as collateral for student loans, private lenders must charge high interest rates to reflect the losses they would incur (and could not recover) if the student defaults. To rectify this problem, the federal government guarantees student loan which effectively absorbs private lenders default risk. Tuition tax credits, often received many months after tuition payments are required to be paid and which in many cases may be substantially less than student's tuition costs, may do little to help credit constrained students and families finance their college education.

Selected Bibliography

George B. Bulman & Caroline M. Hoxby, 2015. "The Returns to the Federal Tax Credits for Higher Education," Tax Policy and the Economy, University of Chicago Press, vol. 29(1), pp. 13-88.

Burman, Leonard E. with Elaine Maag, Peter Orszag, Jeffrey Rohaly, and John O'Hare. *The Distributional Consequences of Federal Assistance for Higher Education: The Intersection of Tax and Spending Programs*, The Urban Institute, Discussion Paper No. 26. Washington, DC: August 2005.

Crandall-Hollick, Margot. *The American Opportunity Tax Credit: Overview, Analysis, and Policy Options*. Congressional Research Service Report R42561. Washington, DC: June 4, 2018.

—. *Higher Education Tax Benefits: Brief Overview and Budgetary Effects*. Congressional Research Service Report R41967. Washington, DC: June 11, 2018.

Susan M. Dynarski and Judith Scott-Clayton. 2017. "Tax Benefits for College Attendance," in Alan Auerbach and Kent Smetters, eds., *The Economics of Tax Policy*. Oxford University Press.

Dynarski, Susan M., Judith Scott-Clayton, and Mark Wiederspan. "Simplifying Tax Incentives and Aid for College: Progress and Prospects." Tax Policy and the Economy, vol. 27, edited by Jeffrey R. Brown. Cambridge, MA: National Bureau of Economic Research: 2013.

—. "Hope for Whom? Financial Aid for the Middle Class and Its Impact on College Attendance." *National Tax Journal*, Vol. 53, No. 3 (September 2000). pp. 629-661.

Garriga, Carlos and Mark P. Keightley, "A General Equilibrium Theory of College with Education Subsidies, In-School Labor Supply, and Borrowing

Constraints," *Federal Reserve Bank of St. Louis Working Paper Series*, November 2007, http://research.stlouisfed.org/wp/2007/2007-051.pdf.

Government Accountability Office, *Improved Tax Information Could Help Families Pay for College,* GAO-12-560, May 2012.

Government Accountability Office, *Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes,* GAO-08-717T, May 2008.

Government Accountability Office, *Student Aid and Postsecondary Tax Preferences: Limited Research Exists on Effectiveness of Tools to Assist Students and Families through Title IV Student Aid and Tax Preferences*, GAO-05-684, July 2005.

Hoxby, Caroline M. "Tax Incentives for Higher Education." in Poterba, James M. (ed.), Tax Policy and the Economy, Vol. 12, 49-82. (1998). MIT Press, Cambridge, MA.

Joint Committee on Taxation. *Background and Present Law Relating to Tax Benefits for Education*. JCX-133-15. Washington, DC: October 5, 2015.

LaLumia, Sara. "Tax Preferences for Higher Education and Adult College Enrollment," National Tax Journal Vol. 65, No.1. pp. 59-90, 2012.

Long, Bridget Terry. *The Impact of Federal Tax Credits for Higher Education Expenses*. College Choices: The Economics of Which College, When College, and How to Pay For It. Caroline M. Hoxby, ed. Chicago: University of Chicago Press and the National Bureau of Economic Research: 2004.

Lewis, Kevin. *Bankruptcy and Student Loans*. Congressional Research Service Report R45113. Washington, DC: February 22, 2018.

Maag, Elaine with David Mundel, Lois Rice, and Kim Rueben. "Subsidizing Higher Education through Tax and Spending Programs," *Tax Policy Issues and Options*, No. 18 (May 2007). pp. 1-7.

Maag, Elaine and Jeffrey Rohaly. "Who Benefits from the Hope and Lifetime Learning Credit?" Tax Policy Center, Urban Institute and Brookings Institution. Washington, DC: 2007.

Rosenberg, Donald L. and Allen Finley Schuldenfrei. "Education Expenses: An Analysis of the New American Opportunity Tax Credit." *The CPA Journal* (February 2010). pp. 53-55.

Rueben, Kim S. "Do Higher Education Tax Credits Make Sense?" *TaxVox Blog* (July 27, 2012).

Schanzenbach, Diane Whitmore, Lauren Bauer, and Audrey Breitwieser, *Eight Economic Facts on Higher Education*, The Hamilton Project, April 2017.

Schenk, Deborah H. and Andrew L. Grossman. "The Failure of Tax Incentives for Education." *N.Y.U. Tax Law Review*, Vol. 61 (2007-2008). pp. 295-394.

Stegmaier, Sean Michael. "Tax Incentives for Higher Education in the Internal Revenue Code: Education Tax Expenditure Reform and the Inclusion of Refundable Credits." *Southwestern University Law Review*, Vol. 37, No. 1 (Jan. 2008). pp. 135-181.

Turner, Nicholas. "Effect of Tax-Based Federal Student Aid on College Enrollment." *National Tax Journal*, Vol. 64, No. 3 (September 2011), pp. 839-862.

U.S. Government Accountability Office. *Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes*, GAO-08-717T. Washington, DC: May 2008.

Zimmerman, Dennis. "Education Tax Credits," in Joseph J. Cordes with Robert D. Ebel and Jane G. Gravelle, *Encyclopedia of Taxation and Tax Policy*, Washington, DC: Urban Institute, 2005.

DEDUCTION FOR INTEREST ON STUDENT LOANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	2.2	-	2.2
2019	2.3	-	2.3
2020	2.3	-	2.3
2021	2.4	-	2.4
2022	2.5	-	2.5

Authorization

Section 221.

Description

Taxpayers may deduct up to $2,500 of interest paid on qualified education loans when determining their adjusted gross income. The deduction is not restricted to itemizers (i.e., it is an above-the-line deduction). The maximum amount that can be deducted ($2,500) is the same irrespective of a taxpayer's filing status.

The amount that can be deducted is reduced for taxpayers with income over specific thresholds. In 2018, the amount that can be deducted phases out for taxpayers with modified adjusted gross income between $65,000 and $80,000 ($135,000 to $165,000 for married taxpayers filing joint returns). Hence, taxpayers with income above $80,000 ($165,000 for taxpayers filing joint returns) cannot claim this deduction. Taxpayers are not eligible for the deduction if they can be claimed as a dependent by another taxpayer.

Qualified education loans are loans incurred solely to pay qualified higher education expenses of taxpayers, their spouse, or their dependents who were students at the time the debt was incurred. The student must be enrolled on at least a half-time basis in a program leading to a degree, certificate, or credential at an institution eligible to participate in U.S. Department of Education student aid programs (these include most accredited public, private, and proprietary postsecondary institutions). Other eligible institutions are hospitals and health care facilities that conduct internship or residency programs leading to a certificate or degree. Qualified higher education expenses generally equal the cost of attendance (e.g., tuition, fees, books, equipment, room and board, and transportation) minus scholarships and other education payments excluded from income taxes. Refinancings are considered to be qualified loans, but loans from related parties are not.

Impact

As with tax benefits that reduce taxable income, the student loan interest deduction benefits for taxpayers are proportional to a taxpayer's marginal tax rate (see Appendix A). Most education debt is incurred by students, who generally have low tax rates immediately after they leave school and begin loan repayment. However, some debt is incurred by parents in higher tax brackets.

The cap on the amount of student loan interest that can be deducted annually limits the tax benefit's impact for those who have large loans (and hence a high level of interest paid). The income ceilings prevent the highest income taxpayers (with more than $200,000 of income) from benefitting from this deduction as shown in the table below. Middle and upper-middle income taxpayers tend to receive the greatest share of the tax savings from this deduction. More than three-fourths of the tax reduction that results from this deduction benefits tax filing units with adjusted gross incomes between $50,000 and $200,000.

Distribution by Income Class of the Tax Expenditure for the Student Loan Deduction, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	1.5
$20 to $30	4.1
$30 to $40	7.2
$40 to $50	8.4
$50 to $75	26.7
$75 to $100	13.9
$100 to $200	38.1
$200 and over	0.1

Rationale

Since 1954, interest generally—including student loan interest—was deductible by taxpayers. The Tax Reform Act of 1986, (TRA86, P.L. 99–514) disallowed all forms of personal interest deductions other than for mortgage interest.

The current student loan interest deduction for qualified education loans was authorized by the Taxpayer Relief Act of 1997, (P.L. 105-34). The interest deduction was seen as a way to help taxpayers repay student loan debt, which has risen substantially in recent years.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA, P.L. 107-16) modified this deduction in two ways that were initially in effect between 2002 through the end of 2010, but were then made permanent. First, EGTRRA temporarily repealed a limitation of this deduction whereby only interest paid within the first 60 months was deductible. Second, EGTRRA increased the income levels at which the deduction began to phase out. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the EGTRRA modifications through the end of 2012, and they were made permanent by the American Taxpayer Relief Act of 2012 (P.L. 112-240).

Assessment

The tax deduction can be justified both as a way of encouraging persons to undertake additional education and as a means of easing repayment burdens. The deduction may encourage some graduates to accept public service jobs that may pay lower salaries.

On the other hand, the deduction, which subsidizes debt financing of education, may encourage students and their families to take on additional debt to pay for higher education (either more education or more costly education). At the very least, analysis by the Pew Trusts indicates that as student loan debt has increased over the past ten years, so has the aggregate costs of the deduction (in terms of reduced revenues). Whether the deduction will affect enrollment decisions is unknown.

The deduction has been criticized for providing a subsidy to all borrowers (aside from those with higher income), even those with little debt, and for doing little to help borrowers who have large loans and high interest payments. It is unlikely to reduce loan defaults, which generally are related to low income and unemployment.

Selected Bibliography

Abel, J. and Deitz, R. "Do the Benefits of College Still Outweigh the Costs?" Current Issues in Economics and Finance. Federal Reserve Bank of New York. Vol. 20, No. 3, 2014.

Burman, Leonard E. with Elaine Maag, Peter Orszag, Jeffrey Rohaly, and John O'Hare. *The Distributional Consequences of Federal Assistance for Higher Education: The Intersection of Tax and Spending Programs*, The Urban Institute, Discussion Paper No. 26, Washington, DC: August 2005.

Crandall-Hollick, Margot. *Higher Education Tax Benefits: Brief Overview and Budgetary Effects*. Congressional Research Service Report R41967. Washington, DC: June 11, 2018.

Dynarski, S. and Kreisman, D. "Loans for Educational Opportunity: Making Borrowing Work for Today's Students." Washington, DC: The Brookings Institution: The Hamilton Project. October, 2013.

Fitzsimons, Adrian P. and Benjamin Rue Silliman. "Reform of Education Tax Credit Provisions: Policy Considerations to Improve and Simply Benefits," Journal of Accounting and Finance, Vol. 16, No. 3 (2016), pp. 121-136.

Guzman, Tatyana. "Federal Tax Benefits for Education: Do They Work?" *Tax Notes,* June 9, 2014, pp. 1179-1189.

Hacker, Michael, "Rethinking the Tax Treatment of Higher Education Expenditures: An Argument for Cost Recovery Through Amortization Deductions," January 23, 2017. Available at http://dx.doi.org/10.2139/ssrn.2904331

Haneman, Victoria. "The Collision of Student Loan Debt and Joint Marital Taxation," 35 Virginia Tax Review. Vol. 35, 2016, pp. 223-268.

Hanushek, Eric A. with Charles Ka Yui Leung and Kuzey Yilmaz. *Borrowing Constraints, College Aid, and Intergenerational Mobility*. Journal of Human Capital, Vol. 8, No. 1 (Spring 2014), pp. 1-41.

Joint Committee on Taxation. *Background and Present Law Relating to Tax Benefits for Education*. JCX-133-15. Washington, DC: October 5, 2015.

Maag, Elaine and Katie Fitzpatrick. *Federal Financial Aid for Higher Education: Programs and Prospects*. The Urban Institute. Washington, DC: January 2004.

Oliff, Phillip and Brakeyshia Samms. "Student Loan Interest Deduction Should Factor Into Debates on Student Debt, Tax Code." Pew Trusts. Washington, DC: September 21, 2017.

Post, Kyle C. "Higher Education Tax Incentives: Why Current Reform is Necessary." *Southern Law Journal,* Vol. 23, Issue 1, Spring 2013, pp 73-98.

Rothstein, Jesse and Cecilia Elena Rouse. *Constrained After College: Student Loans and Early Career Occupational Choices*. Journal of Public Economics, Vol. 95, Issues 1-2 (February 2011), pp. 149-163.

Schenk, Deborah H. and Andrew L. Grossman. "The Failure of Tax Incentives for Education." *N.Y.U. Tax Law Review*, 61 (2007-2008), pp. 295-394.

Steuerle, C. Eugene et al. "Who Benefits from Asset-Building Tax Subsidies?" The Urban Institute. Washington, DC: September 2014.

Trivedi, Shamik. "Do Student Loan Deductions Offer Too Little, Too Late?" *Tax Notes,* August 1, 2011, p. 495.

Education, Training, Employment, and Social Services:
Education and Training

EXCLUSION OF EARNINGS OF COVERDELL EDUCATION SAVINGS ACCOUNTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	-	0.1
2019	0.1	-	0.1
2020	0.1	-	0.1
2021	0.1	-	0.1
2022	0.1	-	0.1

Authorization

Section 530.

Description

A Coverdell education savings account (ESA)—often referred to simply as a Coverdell—is a tax-advantaged investment account that can be used to pay for both higher-education expenses and elementary and secondary school expenses. The specific tax advantage of a Coverdell is that distributions (i.e., withdrawals) from this account are tax-free, if they are used to pay for qualified education expenses. If the distribution is used to pay for nonqualified expenses, a portion of the distribution is taxable and may also be subject to a 10 percent penalty.

Generally, a contributor, often a parent, makes a contribution to a Coverdell for a designated beneficiary, often their child. Contributors can open a Coverdell at many banks, brokerage firms, or mutual fund companies. Since Coverdells are established for minors, a "responsible individual" is named to the account, generally the beneficiary's legal guardian. This responsible

individual may also be a contributor to the account. While a contributor selects the initial investments for a beneficiary when they open the account, the responsible individual (if they differ from the contributor) makes investment and withdrawal decisions after the account is established.

Contributions to a Coverdell must be made in cash using after-tax dollars. This means contributions to Coverdells are not tax deductible to the contributor. Contributions to a Coverdell are prohibited once a beneficiary reaches 18, and the balance of the account must be liquidated when the beneficiary turns 30. However, these age limitations do not apply to special-needs beneficiaries.

In addition, the total amount that can be contributed to all Coverdells for a given beneficiary is limited to $2,000 per year. (The beneficiary is subject to a 6 percent excise tax each year on excess contributions that are in a Coverdell ESA at the end of the year.)

Any contributor can contribute up to $2,000 into a beneficiary's Coverdell, as long as the *contributor's income* is below certain limits. Specifically, as the contributor's income exceeds $95,000 ($190,000 for married joint filers), the maximum amount the contributor can donate ($2,000) is reduced. When the contributor's income exceeds $110,000 ($220,000 for married joint filers), a contributor is prohibited from funding a Coverdell. (These amounts are not adjusted for inflation.)

Funds withdrawn from one Coverdell in a 12-month period and rolled over to another Coverdell on behalf of the same beneficiary or a relative of the beneficiary who is under 30 are excluded from the annual contribution limit and are not taxable.

Qualified education expenses are referred to as adjusted qualified education expenses (AQEE), and include expenses related to enrollment or attendance at either a higher education institution or elementary and secondary school. Specifically, these expenses include the following for higher education:

- Tuition, fees, books, supplies, and equipment required for enrollment or attendance at an eligible educational institution;
- Expenses for special needs services incurred in connection with enrollment or attendance of a special-needs beneficiary at an eligible educational institution; and

- Room and board expenses for students enrolled at least half-time at an eligible educational institution.

Qualified elementary and secondary school (i.e., K-12) education expenses include:

- Tuition, fees, books, supplies, equipment, academic tutoring, and special needs services for special needs beneficiaries;
- Room and board, uniforms, transportation, and supplementary items and services (including extended day programs) if these expenses are required or provided by an eligible K-12 institution in connection with attendance; and
- Computer technology, equipment, or Internet access and related services if used by the beneficiary and the beneficiary's family during any of the years the beneficiary is in elementary and secondary school.

To determine the amount of AQEE, qualified higher education expenses must be reduced by the amount of any tax-free educational assistance. Tax-free educational assistance includes the tax-free portion of scholarships and fellowships, veterans' educational assistance, Pell grants, and employer-provided educational assistance. They also must be reduced by the value of expenses used to claim education tax credits. (Eligible postsecondary institutions are those eligible to participate in U.S. Department of Education student aid programs; these include most accredited public, private, and proprietary postsecondary institutions. A qualifying elementary or secondary school is any public, private, or religious school that provides elementary or secondary education as determined under state law.)

Impact

The exclusion from gross income of account earnings withdrawn to pay for qualified expenses confers benefits to tax filing units according to their marginal tax rate (see Appendix A). These benefits are most likely to accrue to higher-income families that have the means to save on a regular basis.

Tax benefits from Coverdell ESAs might be offset by reductions in federal student aid, much of which is awarded to students based on their financial need. For most aid applicants, the impact is felt to the extent that balances in Coverdell ESAs (assets) and withdrawals from them (income) are expected to be contributed toward postsecondary education expenses under the traditional federal student aid system. A greater expected family

contribution (EFC) can lead to reduced financial need and decreased eligibility for federal student aid. While the financial aid treatment of Coverdell balances and distributions depends on a student's particular circumstances (e.g., does the parent or student own the account, is the student a dependent), savings for college in a Coverdell (or a 529 plan) will have a more favorable treatment in the financial aid formula than other types of savings accounts.

Rationale

Tax-favored saving for higher education expenses was authorized by the Taxpayer Relief Act of 1997 (P.L. 105-34) as one of a number of tax benefits for postsecondary education. These benefits reflected congressional concern that families faced difficulty paying for college. They also may reflect congressional intent to subsidize middle-income families that otherwise would not qualify for need-based federal student aid.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA; P.L. 107-16), made several temporary modifications to Coverdells. These modifications included:

- An increase in the maximum contribution amount per beneficiary from $500 to $2,000 per year;
- An expansion of qualified education expenses to include elementary and secondary school expenses in addition to higher education expenses (this was intended, in part, to encourage families to exercise school choice, i.e., attend alternatives to the traditional public school);
- An increase in the income range at which the contribution limit phases out for married taxpayers such that it is double the range for unmarried taxpayers;
- A waiver on the beneficiary age limitations with respect to contributions and withdrawal for special needs beneficiaries;
- Coordination of tax-free Coverdell distributions and education tax credits such that beneficiaries who use Coverdells can also claim education tax credits without penalty (expenses paid for with Coverdell funds cannot be used to claim credits);

- Coordination between contributions to Coverdells and 529 qualified tuition programs, such that contributions can be made to both a 529 and Coverdell for the same beneficiary without penalty.

The modifications were initially scheduled to expire at the end of 2010. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312) extended the provisions enacted in 2001 for two additional years, through 2012. The American Taxpayer Relief Act of 2012 (P.L. 112-240) made the EGTRRA changes to Coverdells permanent.

Assessment

There are two tax advantages to a Coverdell. First, the earnings in a Coverdell account can grow tax-free annually until they are withdrawn. Second, distributions (i.e., withdrawals) from a Coverdell are tax-free if they are used to pay for qualified education expenses.

The tax exclusion could be justified both as a way of encouraging families to save for college expenses and as a means of easing financing burdens. However, there is not conclusive evidence that tax incentives for savings generally are effective at inducing more saving.

Among families who do use these accounts to save for college, higher income families—who both have a greater ability to save and receive a larger tax benefit (due to their high tax bracket)—will tend to benefit the most from these accounts. In addition, tax benefits for Coverdell ESAs are not related to the student's cost of attendance or family resources, as is most federal student aid for higher education, which limits target efficiency.

Higher income families also are more likely than lower income families to establish accounts for their children's K-12 education expenses. The amount of the tax benefit, particularly if the maximum contribution to an account is not made each year, is probably too small to affect a family's decision to send their children to public or private school. In addition, as a result of changes made by the 2017 tax revision, P.L. 115-97, 529 accounts—generally less restrictive than Coverdells—can now be used to pay for elementary and secondary education expenses. This may lessen the use of Coverdells in the future.

Selected Bibliography

Dynarski, Susan M. "Who Benefits from the College Saving Incentives? Income, Educational Expectations and the Value of the 529 and Coverdell," *National Tax Journal*, v. 57, no. 2 (June 2004). pp. 359-383.

—. "High-Income Families Benefit Most from New Education Savings Incentives," *Tax Policy Issues and Options*, no. 9 (February 2005). pp. 1-5.

Crandall-Hollick, Margot. *Higher Education Tax Benefits: Brief Overview and Budgetary Effects*. Congressional Research Service Report R41967. Washington, DC: June 11, 2018.

—. *Tax Preferred College Savings Plans: An Introduction to Coverdells*. Congressional Research Service Report R42809. Washington, DC: March 3, 2018.

Government Accountability Office, *Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes,* GAO-08-717T, May 2008.

Government Accountability Office, *A Small Percentage of Families Save in 529 Plans,* GAO-13-64, December 12, 2012.

Hurley, Joseph. The Best Way to Save for College: A Complete Guide to 529 Plans 2015-2016. Pittsford, NY: Saving for College LLC, 2015.

Joint Committee on Taxation. *Background and Present Law Relating to Tax Benefits for Education*. JCX-133-15. Washington, DC: October 5, 2015

DEDUCTION FOR HIGHER EDUCATION EXPENSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-	-
2019		-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-

Note: The deduction expired at the end of 2017. Revenue estimates indicate a cost of $0.4 billion per year.

Authorization

Section 222.

Description

Taxpayers may deduct qualified tuition and related expenses for postsecondary education from their adjusted gross income. The deduction – often referred to as the "tuition and fees deduction"—is "above-the-line," that is, it is not restricted to itemizers. Taxpayers are eligible for the deduction if they pay qualified expenses for themselves, their spouses, or their dependents. Individuals who may be claimed as dependents on another taxpayer's return, married persons filing separately, and nonresident aliens who do not elect to be treated as resident aliens cannot take the deduction.

The maximum deduction per return is $4,000 for taxpayers with modified adjusted gross income (MAGI) that does not exceed $65,000 ($130,000 on joint returns). (For the purposes of this deduction MAGI is defined as adjusted gross income (AGI) plus deducted domestic production activities, deducted

tuition and fees, and excluded foreign and territorial income and is thus generally greater than AGI.) Taxpayers with incomes above $65,000 ($130,000 for joint returns) but not above $80,000 ($160,000 for joint returns) can deduct up to $2,000 in qualified expenses. Taxpayers with incomes above $80,000 ($160,000 for joint returns) cannot claim this deduction. These income limits are not adjusted for inflation.

The deduction may be taken for qualified tuition and related expenses in lieu of claiming higher education tax credits for the same student. Taxpayers cannot deduct qualified expenses under Section 222 if they deduct these expenses under any other provision in the Code (e.g., the itemized deduction for education that maintains or improves skills required in a taxpayer's current profession).

Before the deduction can be taken, qualified expenses must be reduced by the amount of any tax-fee assistance including scholarships, Pell Grants, employer-provided educational assistance, veterans' educational assistance, and any other nontaxable income (other than gifts and inheritances). Qualified expenses also must be reduced if paid with tax-free interest from Education Savings Bonds, tax-free distributions from Coverdell Education Savings Accounts, and tax-free earnings withdrawn from Qualified Tuition Plans.

Qualified tuition and related expenses are tuition and fees required for enrollment or attendance in an institution eligible to participate in U.S. Department of Education student aid programs (these include most accredited public, private, and proprietary postsecondary institutions). Like the Lifetime Learning Credit, the deduction may be taken for any year of undergraduate or graduate enrollment. It too is available to part-time and full-time students, and the program need not lead to a degree, credential, or certificate.

Impact

As with tax benefits that reduce taxable income, the tuition and fees deduction benefits for taxpayers are proportional to a taxpayer's marginal tax rate (see Appendix A). Students usually have relatively low tax rates, but they may be part of families in higher tax brackets. The maximum amount of deductible expenses limits the tax benefit for individuals attending schools with comparatively high tuition and fees. Because the income limits are not adjusted for inflation, the deduction is expected to be available to fewer taxpayers over time.

Distribution by Income Class of Education Deduction at 2015 Income Levels

Income Class (in thousands of $)	Percentage Distribution
Below $10	33.4
$10 to $20	9.8
$20 to $30	6.7
$30 to $40	4.9
$40 to $50	3.2
$50 to $75	12.9
$75 to $100	4.3
$100 to $200	24.8
$200 and over	0.0

Source: Data obtained from IRS *Statistics of Income*. This is not a distribution of the tax expenditure, but of the amount deducted. The ultimate impact of this deduction on tax liability will depend on the taxpayer's tax bracket. These data are classified by adjusted gross income.

Rationale

The tuition and fees deduction was enacted temporarily by the Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16). The deduction went into effect in 2002 and was originally scheduled to expire at the end of 2005. It was subsequently extended through the end of 2007 as part of the Tax Relief and Health Care Act of 2009 (P.L. 109-432). It was extended for 2008 and 2009 as part of the Emergency Economic Stabilization Act of 2008 (P.L. 110-343). It was extended through 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). It was extended through the end of 2013 by the American Taxpayer Relief Act of 2012 (P.L. 112-240). It was extended through the end of 2014 by the Tax Increase Prevention Act of 2014 (P.L. 113-295) and extended for 2015 and 2016 by the Protecting Americans from Tax Hikes (PATH) Act (P.L. 114-113). The provision was most recently extended for 2017 by the Bipartisan Budget Act of 2018 (BBA18, P.L. 115-123).

The deduction builds upon postsecondary tax benefits that were enacted by the Taxpayer Relief Act of 1997 (P.L. 105-34). It is one additional means that Congress has chosen to help families who are unlikely to qualify for need-

based federal student aid. According to the Joint Committee on Taxation (2003), "Congress recognized that in some cases a deduction for education expenses may provide greater tax relief than the present-law credits. The Congress wished to maximize tax benefits for education, and provide greater choice for taxpayers in determining which tax benefit is most appropriate for them."

Assessment

One rationale for the tuition and fees deduction may be to increase college attendance by reducing the after-tax price of college. Increased college attendance may not only lead to benefits for individuals in terms of higher wages, but also may provide societal benefits including increased productivity and innovation. This economic rationale is often referred to as the "positive externality" rationale for government interventions in higher education. Broadly, an externality is a cost or benefit associated with a transaction that is not reflected in market prices borne by the buyer or seller. In the case of a positive externality associated with education, the positive benefit to society in terms of increased productivity and innovation may be greater than the benefit to the individual, which may result in under-investment in education from a social perspective.

There are a variety of factors that may determine whether a student attends college, including family socioeconomic level, student educational aspirations, peer support, academic performance, and the cost of college. The tuition and fees deduction, like other forms of traditional student aid and other forms of tax-based financial aid, subsidize some of the costs associated with higher education. The effect that a cost reduction has on college attendance will largely depend on how sensitive a student's (and her family's) decision to attend college is to price. Some students will be very sensitive to price, and insofar as the tuition and fees deduction reduces college costs, these tax benefits may induce them to attend college. On the other hand, certain students will attend college irrespective of price. In this case, the tuition and fees deduction rewards students and their families for an action—attending college—that they would have made regardless of the credit's availability, and the credits are a windfall gain to certain taxpayers. Since, all else being equal, the value of the deduction increases proportionally to a taxpayer tax bracket, higher income taxpayers will tend to receive the greatest benefit from this tax incentive. This may limit its ability to induce lower-income taxpayers to attend college, since the benefit they receive may be relatively small compared to the benefit for higher-income taxpayers.

Another rationale for government interventions in higher education more broadly may be because private capital markets may be unwilling to lend to students to finance their higher education expenses. Many students do not have sufficient savings to finance their education. And since students often lack property to pledge as collateral for student loans, private lenders must charge high interest rates to reflect the losses they would incur (and could not recover) if the student defaults. To address this issue, the federal government guarantees student loans which effectively absorbs private lenders default risk. The tuition and fees deduction, often received many months after tuition payments are required to be paid, may do little to help credit-constrained students and families finance their college education.

In addition, the deduction has been criticized for adding complexity to the tax code. Families must determine which higher education tax benefits they are eligible for and the optimal mix of those benefits for financing postsecondary education. Since 2002, for example, taxpayers whose income fell below the education credits' lower income threshold could claim either one of these education credits or the deduction. The distribution of the deduction indicates that taxpayers may not be claiming the optimal tax benefit. For example, the Lifetime Learning Credit is preferable to the deduction at lower income levels since it will lower taxpayers' tax liability by more than the tax deduction. However, the distribution of the tax deduction indicates that more than 40 percent of the deduction is claimed by those with income under $20,000. Hence, these taxpayers likely chose a suboptimal education benefit. The overall complexity of education tax benefits may have contributed to this suboptimal decision.

The deduction also must be coordinated with tax-advantaged college savings vehicles (e.g., Coverdell Education Savings Accounts and Qualified Tuition Plans), further increasing complexity.

Selected Bibliography

Burman, Leonard E. with Elaine Maag, Peter Orszag, Jeffrey Rohaly, and John O'Hare. *The Distributional Consequences of Federal Assistance for Higher Education: The Intersection of Tax and Spending Programs*, The Urban Institute, Discussion Paper No. 26. Washington, DC: August 2005.

Crandall-Hollick, Margot. *Higher Education Tax Benefits: Brief Overview and Budgetary Effects*. Congressional Research Service Report R41967. Washington, DC: June 11, 2018.

Davis, Albert J. "Choice Complexity in Tax Benefits for Higher Education," *National Tax Journal*, Vol. 55, No. 3 (September 2002). pp. 509-530.

Driessen, Grant A. and Gravelle, Jane G. *Selected Recently Expired Individual Tax Provisions ("Extenders"): In Brief*. Congressional Research Service Report R43688. Washington, DC: December 22, 2015.

Dynarski, Susan M. and Judith Scott-Clayton. "Tax Benefits for College Attendance." NBER Working Paper No. 22127. March 2016.

Government Accountability Office, *Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes,* GAO-08-717T, May 2008.

Guzman, Tatyana. "Federal Tax Benefits for Education: Do They Work?" *Tax Notes,* June 9, 2014, pp. 1179-1189.

Joint Committee on Taxation. *Background and Present Law Relating to Tax Benefits for Education*. JCX-133-15. Washington, DC: October 5, 2015.

Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted In The 107th Congress*. JCX-1-03. Washington, DC: January 24, 2003, pp. 54-56.

Kroh, Eric. "Education Tax Incentives Favor Higher-Income Taxpayers." *Tax Notes*. February 25, 2013, p. 933.

Maag, Elaine with David Mundel, Lois Rice, and Kim Rueben. "Subsidizing Higher Education through Tax and Spending Programs," *Tax Policy Issues and Options*, No. 18 (May 2007), pp. 1-7.

Schenk, Deborah H. and Andrew L. Grossman. "The Failure of Tax Incentives for Education." *N.Y.U. Tax Law Review*, Vol. 61 (2007-2008), pp. 295-394.

Turner, Nicholas. "The Effect of Tax-Based Federal Student Aid on College Enrollment." *National Tax Journal*, Vol. 64, No. 3, September 2011, pp. 839-862.

—. "Why Don't Taxpayers Maximize their Tax-Based Student Aid? Salience and Inertia in Program Selection." *The B.E. Journal of Economic Analysis & Policy*: 2011, Vol. 11, No. 1 (Contributions), Article 75.

—. "Who Benefits from Student Aid? The Economic Incidence of Tax-Based Federal Student Aid." *Economics of Education Review*, Vol. 31. 2011, pp. 463-481.

Education, Training, Employment and Social Services:
Education and Training

EXCLUSION OF TAX ON EARNINGS OF QUALIFIED TUITION PROGRAMS/529 PLANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.0	-	1.0
2019	1.4	-	1.4
2020	1.6	-	1.6
2021	1.8	-	1.8
2022	1.8	-	1.8

.

Authorization

Section 529.

Description

Qualified Tuition Programs (QTPs), also known as "529 plans" for their section number in the tax code, are tax-advantaged investment trusts used to pay for higher education expenses and up to $10,000 of elementary and secondary school tuition expenses. There are two tax advantages to a 529 plan. First, generally the earnings in a 529 account can grow tax-free annually until they are withdrawn. Second, distributions (i.e., withdrawals) from a 529 plan are tax-free, if they are used to pay for adjusted qualified education expenses. Contributions to 529 plans are not tax deductible. If the distribution is used to pay for nonqualified expenses, a portion of the distribution is taxable and may also be subject to a 10 percent penalty.

There are two types of 529 plans: "prepaid" plans and "savings" plans. Prepaid plans enable a contributor to make payments on behalf of beneficiaries

for a specified number of academic periods or course units at current prices, thus providing a hedge against tuition inflation. Savings plans enable payments to be made on behalf of beneficiaries into a variety of investment vehicles offered by plan sponsors (e.g., age-based portfolios whose mix of stocks and bonds changes the closer the beneficiary's matriculation date, or an option with a guaranteed rate of return). The majority of 529 plans are "savings" plans.

Adjusted qualified education expenses include (1) qualified higher education expenses and (2) qualified elementary and secondary school expenses.

Qualified higher education expenses are expenses related to enrollment or attendance at an eligible educational institution and include any of the following (or combination thereof): tuition, fees, books, supplies, and equipment *required* for enrollment or attendance of the beneficiary at an eligible educational institution; expenses for special needs services incurred in connection with enrollment or attendance of a special-needs beneficiary at an eligible educational institution; and room and board expenses for students enrolled at least half-time at an eligible educational institution.

Qualified elementary and secondary school expenses include up to $10,000 per beneficiary per year for tuition expenses at a public, private, or religious elementary school.

To determine the amount of *adjusted qualified education expenses*, qualified higher education expenses and qualified elementary and secondary school expenses must be reduced by the amount of any tax-free educational assistance. Tax-free educational assistance includes the tax-free portion of scholarships and fellowships, veterans' educational assistance, Pell grants, and employer-provided educational assistance. They also, in the case of qualified higher education expenses, must be reduced by the value of expenses used to claim education tax credits

In addition to their income tax treatment, the Internal Revenue Code specifies their gift tax treatment. Payments to 529 plans are considered completed gifts of present interest from the contributor to the beneficiary meaning that an individual could contribute up to $15,000 in 2018 as a tax-free gift per beneficiary. A special gifting provision allows a 529 plan contributor to make an excludable gift of up to $75,000 in one year by treating the payment as if it were made over 5 years. By making 529 plan contributions

completed gifts, their value generally is removed from the contributor's taxable estate.

A 529 plan must receive cash contributions, maintain separate accounting for each beneficiary, and not allow investments to be directed by contributors and beneficiaries. A contributor may fund multiple accounts for the same beneficiary in different states, and an individual may be the designated beneficiary of multiple accounts.

The specifics of plans vary greatly across states. Plan sponsors may establish restrictions that are not mandated either by the Code or federal regulation. There are no income caps on contributors, unlike the limits that generally apply to taxpayers who want to claim the other higher education benefits. Similarly, there is no federal annual dollar limit on contributions, unlike the case with the Coverdell Education Savings Account (ESA). However, the statute does stipulate that aggregate contributions to a 529 plan on behalf of any beneficiary can't be more than the *amount necessary* to provide for the education expenses of the beneficiary.

Except in the case of the beneficiary's death, disability, attendance at a military academy, or receipt of a scholarship, veterans educational assistance allowance or other nontaxable payment for educational purposes (excluding a gift or inheritance), a 10 percent tax penalty is assessed on the earnings portion of distributions that exceed or are not used toward adjusted qualified education expenses. An account owner can avoid paying income tax and a penalty on nonqualified distributions by transferring the account to a new beneficiary who is a family member of the old beneficiary.

To determine if any of their 529 plan distribution is taxable, a taxpayer must reduce their qualified higher education expenses by any amounts used to claim higher education tax credits. The qualified higher education expenses as defined for 529 plans are not identical to the qualified higher education expenses of education tax credits. The qualified higher education expenses common to both 529 plans and education tax credits are tuition and fees, and hence these are the expenses which taxpayers may (mistakenly) try to use to claim both an education tax credit and a tax-free 529 plan distribution. (Other expenses, like room and board which are a qualified expense for 529 plans, are not a qualified expense for education tax credits and hence would not be used to claim an education tax credit.) Instead of an education tax credit, a taxpayer may choose to take both a 529 distribution and claim the tuition and fees deduction for the same student in the same year. (Currently, the tuition and fees deduction expired at the end of 2017.) Taxpayers who take a 529

distribution and also choose to claim the tuition and fees deduction must reduce the amount of expenses used for the tuition and fees deduction by the earnings portion of the 529 distribution (not the entire amount of the distribution).

Impact

The tax deferral and exclusion of earnings from income benefits tax-filing units based on their marginal tax rate. 529s are more likely to benefit higher income families because those taxpayers are subject to higher tax rates.

In addition to the tax advantages of 529s, these plans are also treated more favorably than other types of college savings or investments when determining a student's eligibility for federal need-based student aid. For instance, 529 plans generally have a minimal impact on a student's federal expected family contribution (EFC). The EFC is the amount that, according to the federal need analysis, can be contributed by a student and the student's family toward the student's cost of education. All else being equal, the higher a student's EFC, the lower the amount of federal student need-based aid he or she will receive. A variety of financial resources are reported by students and their families on the Free Application for Federal Student Aid (FAFSA). These resources are assessed at differing rates under the federal need analysis methodology.

While the financial aid treatment of 529 assets depends on a student's particular circumstances (e.g., does the parent or student own the account, is the student a dependent of the parents), saving for college in a 529 plan has a more favorable treatment in the financial aid formula than other types of savings accounts.

Rationale

529 plans were established by states in response to widespread concern about the rising cost of college. The tax status of the first program, the Michigan Education Trust, was the subject of several federal court rulings that left major issues unresolved. Congress eventually clarified these issues by enacting section 529 as part of the Small Business Job Protection Act of 1996 (P.L. 104-188). Under this law, individuals could defer taxes on their investment until they withdrew money from these accounts.

The Taxpayer Relief Act of 1997 (P.L. 105-34) added room and board to the list of qualified higher education expenses.

The Economic Growth and Tax Relief Reconciliation Act (EGTRRA, P.L. 107-16) temporarily (through 2010) made qualified distributions from 529s tax free (as opposed to tax-deferred). In 2006, the Pension Protection Act of 2006 (P.L. 109-280) made this EGTRRA change to 529s permanent.

The 2017 tax revision, P.L. 115-97, expanded the definition of qualifying higher education expense to include up to $10,000 per beneficiary per year for tuition expenses at a public, private, or religious elementary and secondary school.

Assessment

According to estimates from the College Savings Plan Network, in 2017 there were over 13.3 million 529 accounts with an aggregate value of nearly $320 billion. Families that save in 529 accounts tend to be wealthier. According to a 2012 report by the Government Accountability Office, "...less than 3 percent of families saved in a 529 plan [or Coverdells]...among those families who considered saving for education a priority, fewer than 1 in 10 had a 529 plan (or Coverdell). Families with these accounts had about 25 times the median financial assets of those without. They also had about 3 times the median income and the percentage that had college degrees was about twice as high as for families without 529 plans (or Coverdells)."

Given that 529 plans were intended to encourage families to save for college, and that higher-income families are more likely to save without 529 plans, these plans may not be the most efficient way to encourage college saving. Even with 529 plans, lower and middle income families may lack the income or have other financial priorities (like retirement) that make it difficult to save for college. In addition, lower and middle income families may be unaware of 529 plans, discouraged from investing with minimum initial contribution requirements, or unfamiliar with the variety of investment options available.

Selected Bibliography

Bogan, Vicki L. "Savings Incentives and Investment Management Fees: A Study of the 529 College Savings Plan Market," *Contemporary Economic Policy,* Vol. 32, No. 4 (October 2014), pp. 826-842.

Buttell, Amy F. "Joe Hurley on the Future of 529 plans and Saving for College," *Journal of Financial Planning,* Vol. 23, No. 8 (August 2010), pp. 18-22.

College Savings Plan Network. *529 Plan Data*. December 31, 2017. Available at http://www.collegesavings.org/529-plan-data/.

Crandall-Hollick, Margot. *Tax-Preferred College Savings Plans: An Introduction to 529 Plans*. Congressional Research Service Report R42807. Washington, DC: March 5, 2018.

DiSciullo, Joseph. "Commentators Question Reach of Qualified Tuition Program Regs," *Tax Notes,* April 7, 2008, pp. 49-50.

Dynarski, Susan M. "Tax Policy and Education Policy, Collision or Coordination? A Case Study of the 529 and Coverdell Saving Incentives," *Tax Policy and the Economy*, Vol. 18 (2004), pp. 81-115.

Dynarski, Susan M. "Who Benefits from the College Saving Incentives? Income, Educational Expectations and the Value of the 529 and Coverdell," *National Tax Journal*, Vol. 57, No. 2 (June 2004), pp. 359-383.

Dynarski, Susan M. "High-Income Families Benefits Most from New Education Savings Incentives," *Tax Policy Issues and Options*, No. 9 (February 2005), pp. 1-5.

Gerzog, Wendy C. "College Savings Plans: Not Just for Education," *Tax Notes*, March 9, 2009, pp. 1267-1270.

Government Accountability Office, *A Small Percentage of Families Save in 529 Plans,* GAO-13-64, December 12, 2012.

Guzman, Tatyana. "Federal Tax Benefits for Education: Do They Work?" *Tax Notes,* June 9, 2014, pp. 1179-1189.

Hurley, Joseph. The Best Way to Save for College: A Complete Guide to 529 plans 2015-2016. Pittsford, NY: Saving for College LLC, 2015.

Internal Revenue Service. *529 Plans: Questions and Answers*. February 20, 2018. Available at https://www.irs.gov/newsroom/529-plans-questions-and-answers.

Lieber, Ron. "Yes, You Really Can Pay for Private School with 529 Plans Now," *New York Times*, December 21, 2017.

Pressman, Steven and Robert H. Scott III. "The Higher Earning in America: Are 529 Plans a Good Way to Save for College?" *Journal of Economic Issues*, Vol. 51, Issue 2 (2017), pp. 375-382

Schenk, Deborah H. and Andrew L. Grossman. "The Failure of Tax Incentives for Education," *N.Y.U. Tax Law Review*, Vol. 61 (2007-2008), pp. 295-394.

Joint Committee on Taxation. *Background and Present Law Relating to Tax Benefits for Education*. JCX-133-15. Washington, DC: October 5, 2015.

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT QUALIFIED PRIVATE ACTIVITY BONDS FOR STUDENT LOANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.4	0.1	0.5
2019	0.4	0.1	0.5
2020	0.5	0.1	0.6
2021	0.5	0.1	0.6
2022	0.5	0.1	0.6

Authorization

Sections 103, 141, 144(b), and 146.

Description

Student loan bonds are tax-exempt bonds issued by states to finance reduced rate student loans. Since July 1, 2010, students have had the option of borrowing directly from the U.S. Department of Education, a process that can compete with student loans financed with tax-exempt bonds issued by states. These tax-exempt bonds are subject to the private-activity bond annual volume cap and must compete for cap allocations with bond proposals for all other private activities subject to the volume cap. The private-activity bond annual volume cap is equal to the greater of $105 per state resident or $311.38 million in 2018. The cap has been adjusted for inflation since 2003. This tax expenditure represents the revenue loss from these bonds.

Before July 1, 2010, the federal government maintained several loan programs that were made through private lenders and were financed in part by tax-exempt debt. Part of this tax expenditure includes outstanding tax-exempt

bonds issued for this purpose. These programs include Stafford Loans, PLUS Loans, and Consolidation Loans, which were made by private lenders under the Federal Family Education Loan (FFEL) Program. No further loans were made under the FFEL Program beginning July 1, 2010. All new Stafford, PLUS, and Consolidation Loans will come directly from the department under the Direct Loan Program.

Impact

Since interest on the student loan bonds is tax exempt, purchasers are willing to accept lower pre-tax rates of interest than on taxable securities. The relatively low interest rate may increase the availability of student loans because states may be more willing to lend to more students. In 2017, $1.3 billion of student loan bonds were issued. However, the interest rate paid by the students is not any lower since the rate is set by federal law. Student loan bonds also create a secondary market for student loans that compares favorably with the private sector counterpart in the secondary market for student loans.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and student borrowers, and for estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

Although the first student loan bonds were issued in the mid-1960s, few states used them in the next 10 years. The use of student loan bonds began growing rapidly in the late 1970s because of the combined effect of three pieces of legislation.

First, the Tax Reform Act of 1976 (P.L. 94-455) authorized nonprofit corporations established by state and local governments to issue tax-exempt bonds to acquire guaranteed student loans. It exempted the special allowance payment from tax-code provisions prohibiting arbitrage profits (borrowing at low interest rates and investing the proceeds in assets (e.g., student loans) paying higher interest rates). State authorities could use arbitrage earnings to make or purchase additional student loans or turn them over to the state government or a political subdivision. This rule provided incentives for state and local governments to establish more student loan authorities. State

authorities could also offer discounting and other features private lenders could not because of the lower cost of tax-exempt debt financing.

Second, the 1976 act raised the ceiling on Special Allowance Payments (SAPs) and tied them to quarterly changes in the 91-day Treasury bill rate. The Middle Income Student Assistance Act of 1978 (P.L. 95-566) made all students, regardless of family income, eligible for interest subsidies on their loans, expanding the demand for loans by students from higher-income families.

Third, the Higher Education Technical Amendments of 1979 (P.L. 96-49) removed the ceiling, making the program more attractive to commercial banks and other lenders, and increasing the supply of loans.

In 1980, when Congress became aware of the profitability of tax-exempt student loan bond programs, it passed remedial legislation, the Mortgage Subsidy Bond Tax Act of 1980 (P.L. 96-499), which reduced by one-half the special allowance rate paid on loans originating from the proceeds of tax-exempt bonds.

Subsequently, the Deficit Reduction Act of 1984 (P.L. 98-369) mandated a Congressional Budget Office study of the arbitrage treatment of student loan bonds, and required that Treasury enact regulations if Congress did not respond to the study's recommendations.

Regulations were issued in 1989, effective in 1990, which required SAPs to be included in the calculation of arbitrage profits, and that restricted arbitrage profits to 2 percentage points in excess of the yield on the student loan bonds. The Tax Reform Act of 1986 (P.L. 99-514) allowed student loans to earn 18 months of arbitrage profits on unspent (not loaned) bond proceeds. This special provision expired one-and-a-half years after adoption, and student loans are now subject to the same six-month restriction on arbitrage earnings as other private-activity bonds.

The Health Care and Education Reconciliation Act of 2010 (P.L. 111-152) ended loans made available through the FFEL after June 30, 2010. These loans included Stafford Loans, Unsubsidized Stafford Loans, PLUS Loans, and Consolidation Loans. Tax-exempt private-activity bonds were often issued in conjunction with these state administered FFEL programs.

Assessment

The desirability of allowing these bonds to be eligible for tax-exempt status hinges on one's view of whether students should pay the full cost of their education, or whether sufficient social benefits exist to justify federal taxpayer subsidy. Students present high credit risk due to their uncertain earning prospects, their high mobility, and society's unwillingness to accept future earnings as loan collateral. This suggests there may be insufficient funds available for investment in education, which increases the value of human capital, as opposed to investment in physical capital.

Even if a case can be made for subsidy for underinvestment in human capital, it is not clear that tax-exempt financing is necessary or sufficient to correct the market failure. The presence of direct federal loans already addresses the problem and could be adjusted to address the underinvestment. In addition, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, bonds issued for student loans have increased the financing costs of bonds issued for public capital stock, and have increased the supply of assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Austin, D. Andrew. "Do Lower Lender Subsidies Reduce Guaranteed Student Loan Supply?" *Education Finance and Policy*, vol. 5, no. 2 (2010), pp. 138-176.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt,* Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Lochner, Lance J. and Alexander Monge-Naranjo. "Student Loans and Repayment: Theory, Evidence and Policy," *National Bureau of Economic Research*, NBER Working Paper 20849, January 2015.

— . The Nature of Credit Constraints and Human Capital," *National Bureau of Economic Research*, NBER Working Paper 13912, April 2008.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Neubig, Tom. "The Needless Furor Over Tax-Exempt Student Loan Bonds," *Tax Notes*, April 2, 1984, pp. 93-96.

Thomson-Reuters, *The Bond Buyer 2017 in Statistics,* SourceMedia, February 26, 2018.

U.S. Congress, Congressional Budget Office. Statement of Donald B. Marron before the Subcommittee on Select Revenue Measures, Committee on

Ways and Means, U.S. House of Representatives, "Economic Issues in the Use of Tax-Preferred Bond Financing," March 16, 2006.

U.S. Congress, Joint Committee on Taxation. *Background and Present Law Related to Tax Benefits for Education,* JCX-70-14, June 20, 2014.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2010, Statistics of Income*, Spring 2013, pp. 112-157.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

— . "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*. Washington: The Urban Institute Press, 1991.

Zimmerman, Dennis and Barbara Miles. "Substituting Direct Government Lending for Guaranteed Student Loans: How Budget Rules Distorted Economic Decision Making," *National Tax Journal,* vol. 47, no. 4, December 1994, pp. 773-787.

Education, Training, Employment, and Social Services:
Education and Training

EXCLUSION OF EMPLOYER-PROVIDED TUITION REDUCTION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.3	-	0.3
2019	0.3	-	0.3
2020	0.3	-	0.3
2021	0.3	-	0.3
2022	0.4	-	0.4

Authorization

Section 117(d).

Description

Individuals who work for educational institutions and receive tuition reductions from their employers may not have to pay tax on the value of this benefit. More specifically, they may not have to include the amount of this reduction in their gross income (and hence may not have to pay tax on the value of this benefit) if it is a "qualified tuition reduction." Amounts that are excludible from gross income for income tax purposes are also excluded from wages for employment tax purposes.

There are a variety of requirements that must be met for a tuition reduction to be considered "qualified" and hence tax-free. First, a qualified tuition reduction must be provided by and used at an eligible education institution. An eligible education institution is defined as an educational organization which normally maintains a regular faculty and curriculum and normally has a regularly enrolled body of pupils or students in attendance at the place where its educational activities are regularly carried on. Hence,

eligible educational institutions include both higher education institution, as well as elementary and secondary educational institutions. Second, a qualified tuition reduction must be available to employees on a nondiscriminatory basis. In other words, the provision of this benefit cannot discriminate in favor of highly compensated employees. Third, any tuition reduction that is received as payment for services in generally includable in income and hence may be subject to taxation.

Other rules for determining if a tuition reduction is "qualified" (and hence tax free) differ if the education is below the graduate level (k-12 and undergraduate), or graduate education.

If the tuition reduction is for education below the graduate level, it is considered qualified (assuming other requirements are met) if the student has a specific relationship to the eligible educational institution providing the benefit—generally they are or were an employee of the eligible educational institution. Specifically, the student must be (1) an employee of the eligible educational institution; (2) a former employee of the eligible educational institution, but retired or left on disability; (3) a widow or widower of an individual who died while an employee of the eligible educational institution or who retired or left on disability; or (4) a dependent child or spouse of any of the individuals described above.

If the tuition reduction is for graduate education, it is considered qualified (assuming other requirements are met) if the student is a graduate student who performs teaching or research activities for the educational institution.

Impact

The exclusion of tuition reductions lowers the net cost of education for employees of educational institutions. When teachers and other school employees take reduced-tuition courses, the exclusion provides a tax benefit not available to other taxpayers unless their employers provide tuition assistance under an employer education-assistance plan (Section 127). When their spouse or children take reduced-tuition courses, the exclusion provides a unique benefit unavailable to other taxpayers.

Rationale

Language regarding tuition reductions was added by the Deficit Reduction Act of 1984 (P.L. 98-369) as part of legislation codifying and establishing boundaries for tax-free fringe benefits; similar provisions had existed in regulations since 1956.

Assessment

Tuition reductions are provided by education institutions to employees as a fringe benefit, which may reduce costs of labor and job turnover. In addition, tuition reductions for graduate students providing research and teaching services for the educational institution also contribute to reducing the educational institution's labor costs. Both employees and graduate students may view the reduced tuition as a benefit of their employment that encourages education. The exclusion may, however, pass some of the educational institutions' labor costs on to other taxpayers.

Selected Bibliography

Fenton, Edmund. "Employer-Provided Education Benefits," Journal of Accountancy. September 2004.

Green, Erica. "House G.O.P. Tax Writers Take Aim at College Tuition Benefits." The New York Times. November 15, 2017.

Internal Revenue Service. *Publication 970 (2017), Tax Benefits for Education*. Washington, DC: January 30, 2018.

Joint Committee on Taxation. *Comparison of the House-And Senate-Passed Version of the Tax Cuts and Jobs Act*. JCX-64-17. Washington, DC: December 7, 2017.

Joint Committee on Taxation. *Description of H.R.1, the "Tax Cuts and Jobs Act"*. JCX-50-17. Washington, DC: November 3, 2017.

Joint Committee on Taxation. *Background and Present Law Relating to Tax Benefits for Education*. JCX-133-15. Washington, DC: October 5, 2015.

Education, Training, Employment, and Social Services:
Education and Training

EXCLUSION OF SCHOLARSHIP AND FELLOWSHIP INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	3.0	-	3.0
2019	3.2	-	3.2
2020	3.4	-	3.4
2021	3.6	-	3.6
2022	3.8	-	3.8

Authorization

Section 117.

Description

Individuals who receive a scholarship or fellowship may not have to pay tax on the value of this benefit. Specifically, scholarships or fellowships are excludable from gross income (and hence not taxable) if the following requirements are met: (1) the scholarship or fellowship recipient is a candidate for a degree at an eligible educational institution; and (2) the scholarship or fellowship amounts are used to pay for tuition and fees required for enrollment or for books, supplies, fees, and equipment required for courses at the eligible educational institution. Scholarships and fellowships include awards based upon financial need (e.g., Pell Grants) as well as those based upon scholastic achievement or promise (e.g., National Merit Scholarships).

Scholarships or fellowships that are used for room, board, and incidental expenses are not excluded from gross income, and are hence taxable.

Generally, amounts representing payment for services — teaching, research, or other activities — are not excludable, regardless of when the service is performed or whether it is required of all degree candidates. An exception to this rule applies to funds received from the National Health Service Corps Scholarship Program and the Armed Forces Health Professions Scholarship and Financial Assistance Program. These amounts are excludible from income and not subject to taxation even if they represent payment for services.

Eligible educational institutions maintain a regular teaching staff and curriculum and have a regularly enrolled student body attending classes where the school carries out its educational activities.

Impact

The exclusion reduces the net cost of education for students who receive financial aid in the form of scholarships or fellowships. The potential benefit is greatest for students at schools where higher tuition charges increase the amount of scholarship or fellowship assistance that might be excluded. For students at institutions with lower tuition charges, the exclusion may apply only to a small portion of a scholarship or fellowship award since most of the award may cover room and board and other costs.

The effect of the exclusion may be negligible for students with little additional income: they could otherwise reduce their taxable income by the standard deduction if filing their own income tax return. (This tax provision may provide a tax benefit to parents of dependent students who do not file their own tax returns.) The exclusion may result in a more substantial tax benefit for married postsecondary students who file joint returns with their employed spouses.

In addition, as with all tax benefits that reduce taxable income the benefit in terms of tax savings is proportional to the taxpayer's top marginal tax rate. If a taxpayer excludes $10,000 of scholarship or fellowship income and is subject to a top marginal rate of 10%, the exclusion will result in a tax savings of $1,000. If, on the other hand, the taxpayer is subject to a top marginal tax rate of 37%, the exclusion will result in a tax savings of $3,700.

Rationale

Section 117 was enacted as part of the Internal Revenue Code of 1954 to clarify the tax status of grants to students; previously, they could be excluded only if it could be established that they were gifts. The statute has been

amended a number of times. Before the Tax Reform Act of 1986, (P.L. 99-514), the exclusion was also available to individuals who were not candidates for a degree (though it was restricted to $300 a month with a lifetime limit of 36 months), and teaching and other service requirements did not bar use of the exclusion, provided all candidates had such obligations.

Under current law, scholarships and fellowships that reflect compensation for services (i.e., teaching or research) are generally not excludible and hence subject to taxation. The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA; P.L. 107-16) temporarily enacted (through 2010) an exception to this rule for awards received under the National Health Service Corps Scholarship Program and the Armed Forces Health Professions Scholarship and Financial Assistance Program. This exception was extended through 2012 by the Tax Relief, Unemployment Insurance Reauthorization and Tax Relief Act of 2010 (P.L. 111-312). The exception was made permanent by the American Taxpayer Relief Act of 2012 (P.L. 112-240).

Assessment

The exclusion of scholarship and fellowship income was justified by proponents on the grounds that the awards were analogous to gifts. With the development of grant programs based upon financial need, which today account for most awards, justification now rests upon the hardship taxation would impose.

If the exclusion were abolished, awards could arguably be increased to cover students' additional tax liability, but the likely effect would be that fewer students would get assistance. Scholarships and fellowships are not the only education benefits that receive favorable tax treatment (e.g., government support of public colleges, which has the effect of lowering tuition, is not considered income to the students), and it might be inequitable to tax them without taxing the others.

The exclusion provides greater benefits to taxpayers with higher marginal tax rates. While students themselves generally have low (or even zero) marginal rates, they often are members of families subject to higher rates. Determining what ought to be the proper taxpaying unit for college students complicates assessment of the exclusion.

Selected Bibliography

Abramowicz, Kenneth F. "Taxation of Scholarship Income," *Tax Notes*, v. 60. November 8, 1993, pp. 717-725.

Crandall-Hollick, Margot. *Higher Education Tax Benefits: Brief Overview and Budgetary Effects*. Congressional Research Service Report R41967. Washington, DC: June 11, 2018.

Finaid. Taxability of Scholarships. Available at *http://www.finaid.org/scholarships/taxability.phtml*, accessed on July 5, 2015.

Joint Committee on Taxation. *Background and Present Law Relating to Tax Benefits for Education*. JCX-133-15. Washington, DC: October 5, 2015.

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR PRIVATE NONPROFIT AND QUALIFIED PUBLIC EDUCATIONAL FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	2.7	0.8	3.5
2019	2.8	0.8	3.6
2020	2.8	0.7	3.5
2021	2.9	0.7	3.6
2022	3.0	0.7	3.7

Authorization

Sections 103, 141, 142(k), 145, 146, and 501(c)(3).

Description

Interest income on state and local bonds used to finance the construction of private nonprofit educational facilities (usually university and college facilities such as classrooms and dormitories) and qualified public educational facilities (QPEFs) is tax exempt. The private nonprofit organization bonds and bonds issued for QPEFs are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Bonds issued for nonprofit educational facilities are not subject to the state volume cap on qualified private-activity bonds (the state volume cap in 2018 is the greater of $105 per state resident or $311.38 million). This

exclusion from the volume cap probably reflects the belief that the nonprofit bonds have a greater benefit to the general public than do many of the other private activities eligible for tax exemption. The bonds are subject to a $150 million cap on the amount of bonds any nonprofit institution (other than hospitals) can have outstanding.

Bonds issued for QPEFs are subject to a separate state-by-state annual cap: the greater of $10 per capita or $5 million.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to finance both types of educational facilities at reduced interest rates. Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the nonprofit educational facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

An early decision of the U.S. Supreme Court predating the enactment of the first federal income tax, *Dartmouth College v. Woodward* (17 U.S. 518 [1819]), confirmed the legality of government support for charitable organizations that provided services to the public. The income tax adopted in 1913, in conformance with this principle, exempted from taxation virtually the same organizations now included under Section 501(c)(3). In addition to their tax-exempt status, these institutions were permitted to receive the benefits of tax-exempt bonds under the Revenue and Expenditure Control Act of 1968 (RECA, P.L. 90-364). Almost all states have established public authorities to issue tax-exempt bonds for nonprofit educational facilities.

The interest exclusion for QPEFs was provided in the Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16) and is intended to extend tax preferences to public school facilities which are owned by private, for-profit corporations. The school must have, however, a public-private agreement with the local educational authority. The private-activity status of these bonds subjects them to more severe restrictions in some areas, such as arbitrage rebate and advance refunding, than would apply if they were classified as traditional governmental school bonds. These provisions were

extended through 2012 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). The American Taxpayer Relief Act of 2012 (P.L. 112-240) made the interest exclusion for QPEFs permanent.

Assessment

Efforts have been made to reclassify nonprofit bonds as governmental bonds. Central to this issue is the extent to which nonprofit organizations are fulfilling their public purpose. Some argue that these entities are using their tax-exempt status to subsidize goods and services for groups that might receive more critical scrutiny if they were subsidized by direct federal expenditure.

As one of many categories of tax-exempt private-activity bonds, nonprofit educational facilities and QPEFs have increased the financing costs of bonds issued for more traditional public capital stock. The higher cost arises because the QPEFs compete for a relatively fixed amount of available investment capital. In addition, this class of tax-exempt bonds has increased the supply of assets that individuals and corporations can use to shelter income from taxation.

Selected Bibliography

Congressional Budget Office and Joint Committee on Taxation. *Subsidizing Infrastructure Investment with Tax-Preferred Bonds*, Pub. No. 4005, October 2009.

Dortch, Cassandra. *School Construction and Renovation: A Review of Federal Programs*, Library of Congress, Congressional Research Service Report R41142, November 16, 2015.

Driessen, Grant. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 107th Congress*, Joint Committee Print JCS-1-03, January 24, 2003.

— . *Background and Present Law Related to Tax Benefits for Education, Prepared for Senate Committee on Finance Public Hearing*, JCX-70-14, June 20, 2014.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2011, Statistics of Income*, Summer 2014, pp. 38-67.

Whitaker, Stephen. "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, Working paper no. 11-10, April 2011.

Zimmerman, Dennis. "Nonprofit Organizations, Social Benefits, and Tax Policy," *National Tax Journal*, vol. 44, no. 3, September 1991, pp. 341-349.

— . The Private Use of Tax-Exempt Bonds: *Controlling Public Subsidy of Private Activities*. Washington: The Urban Institute Press, 1991.

TAX CREDIT FOR HOLDERS OF QUALIFIED ZONE ACADEMY BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2016	0.1	0.2	0.3
2019	0.1	0.2	0.3
2020	0.1	0.1	0.2
2021	0.1	0.1	0.2
2022	0.1	0.2	0.2

Note: Estimates include outlay effects associated with the refundable portion of QZABs. These outlay effects are estimated to increase outlays by a combined $0.3 billion from FY2017-FY2021. These outlays are to state and local governments and are attributed to individuals for purposes of this table.

Authorization

Sections 54E and 1397E.

Description

Qualified zone academy bonds (QZABs) are debt instruments issued by municipal governments for projects related to certain primary and secondary schools. Holders of QZABs can claim a credit equal to the dollar value of the bonds held multiplied by a credit rate determined by the Secretary of the Treasury. The credit rate is equal to the percentage that will permit the bonds to be issued without discount and without interest cost to the issuer. The bonds must be purchased by a bank, an insurance company, or a corporation in the business of lending money.

More recent QZAB issuances were offered another financing option. In the 111th Congress, the American Recovery and Reinvestment Act (ARRA, P.L. 111-5) created a new type of tax credit bond, Build America Bonds (BABs, see the entry *Build America Bonds*), that allowed issuers the option of receiving a direct payment from the U.S. Treasury instead of tax-exempt interest payments or tax credits paid to the investors. Later in the 111th Congress, the Hiring Incentives to Restore Employment Act (HIRE, P.L. 111-147) provided for a direct payment option for new QZABs. Pursuant to the Budget Control Act (P.L. 112-25), as amended, the credit rate for direct payment QZABs and all other direct payment TCBs were subject to sequestration from FY2013 through FY2019. For FY2019, the sequestration reduced the direct payment QZAB credit rate by 6.2 percent.

A qualified zone academy must be a public school below the college level. It must be located in an Empowerment Zone or Enterprise Community, or have a student body with an eligibility rate for free or reduced-cost lunches of at least 35 percent. The maximum maturity of the bonds is that which will set the present value of the obligation to repay the principal equal to 50 percent of the face amount of the bond issue. The discount rate for the calculation is the average annual interest rate on tax-exempt bonds issued in the preceding month having a term of at least 10 years. Ninety-five percent of bond proceeds must be used within five years to renovate capital facilities, provide equipment, develop course materials, or train personnel. The academy must operate a special academic program in cooperation with businesses, and private entities must contribute equipment, technical assistance, employee services, or other property worth at least 10 percent of bond proceeds. The limit for QZAB debt was $400 million annually from 1998 through 2008, $1.4 billion for each of 2009 and 2010, and $400 million for 2011 through 2016. Authority to issue QZABs has expired, and the 2017 tax revision (P.L. 115-97) repealed issuing authority for all tax credit bonds beginning on January 1, 2018.

Impact

The interest income on bonds issued by state and local governments usually is excluded from federal income tax (see the entry *Exclusion of Interest on Public Purpose State and Local Debt*). Such bonds result in the federal government paying a portion (approximately 25 percent) of the issuer's interest costs. QZABs are structured to have the entire interest cost of the state or local government paid by the federal government in the form of a tax credit

to the bond holders or in select instances direct payment to the issuer. QZABs are not tax-exempt bonds.

The cost has been capped at the value of federal tax credits generated by the cap on QZAB volume. If school districts in any state do not use their annual allotment, unused capacity can be carried forward for up to two years.

Rationale

The Taxpayer Relief Act of 1997 (P.L. 105-34) created QZABs. Some low-income school districts found it difficult to pass bond referenda to finance new schools or to rehabilitate existing schools. Increasing the size of the existing subsidy provided by tax-exempt bonds from partial to 100 percent federal payment of interest costs was expected to make school investments less expensive and therefore more attractive to taxpayers in these districts. The tax provision also intended to encourage public/private partnerships, and eligibility depends in part on a school district's ability to attract private contributions that have a present value equal to at least 10 percent of the value of the bond proceeds. The Tax Relief and Health Care Act (P.L. 109-432) extended QZABs for two years (for 2006 and 2007), introduced the five-year spending horizon, and applied arbitrage rules. P.L. 110-343 extended the QZAB with $400 million for each of 2008 and 2009. The $1.4 billion limits for 2009 and 2010 were provided in ARRA. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act (P.L. 111-312) extended QZAB through 2011 with a $400 million limit. The authority to issue QZABs was extended through December 31, 2013, by the American Taxpayer Relief Act of 2012 (P.L. 112–240). Most recently, the Consolidated Appropriations Act, 2016 (P.L. 114-113) authorized an additional $400 million dollars in QZABs for both 2015 and 2016. P.L. 115-97 repealed issuing authority for all tax credit bonds beginning in tax year 2018.

Assessment

Financial institutions can be induced to purchase these bonds if they receive the same after-tax return from the tax credit that they would from the purchase of tax-exempt bonds. The value of the credit is included in taxable income, but is used to reduce regular or alternative minimum tax liability. Assuming the taxpayer is subject to the regular corporate income tax, the credit rate should equal the ratio of the purchaser's forgone market interest rate on tax-exempt bonds divided by one minus the corporate tax rate. For example, if the tax-exempt interest rate is 6 percent and the corporate tax rate is 21 percent, the credit rate would be equal to .06/(1-.21), or about 7.6 percent.

Thus, a financial institution purchasing a $1,000 QZAB would receive a $76 tax credit for each year it holds the bond.

With QZABs, the federal government pays 100 percent of interest costs; tax-exempt bonds that are used for financing other public facilities finance only a portion of interest costs. For example, if the taxable rate is 8 percent and the tax-exempt rate is 6 percent, the non-QZAB bond receives a subsidy equal to two percentage points of the total interest cost, the difference between 8 percent and 6 percent. The zone academy bond receives a subsidy equal to all eight percentage points of the interest cost. Thus, this provision reduces the price of investing in schools compared to investing in other public services provided by a governmental unit, and other things equal should cause some reallocation of the unit's budget toward schools. In addition, the entire subsidy (the cost to the federal taxpayer) is received by the issuing government if the direct payment option is chosen, unlike tax-exempt bonds.

The Budget Control Act (P.L. 112-25), as amended, reduced the credit rate for direct payment QZABs from FY2013 through FY2019 through sequestration. For FY2012, the sequestration reduced the direct payment QZAB credit rate by 6.2 percent. With this modification, in the example above the direct payment subsidy received for the zone academy bond would be equal to 93.8 percent (i.e., 100-6.8) of the eight percentage points of interest costs, or 7.504 percent.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," *Journal of Fixed Income*, vol. 20, no. 1, 2010, p. 67.

Cestau, Dario, Richard C. Green, and Norman Schürhoff. "Tax-Subsidized Underpricing: The Market for Build America Bonds," *Journal of Monetary Economics*, vol. 60, no. 5, 2013, pp. 593-608.

Collinson, Dale S. and Hannah Burke. "Tax Credit Bonds and the Taxable Bond Option—A Growing Force in Municipal Finance," *Journal of Taxation of Financial Products*, vol. 8, no. 2, April 2009.

Congressional Budget Office. *Testimony, Federal Support for State and Local Governments Through the Tax Code*, April 2012.

— . *Tax Credit Bonds and the Federal Cost Financing Public Expenditures*, July 2004.

Congressional Budget Office and Joint Committee on Taxation. *Subsidizing Infrastructure Investment with Tax-Preferred Bonds*, pub. no. 4005, October 2009.

Davie, Bruce. "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," *Proceedings of the 91st Annual Conference on Taxation*, National Tax Association, 1999.

Dortch, Cassandria. *School Construction and Renovation: A Review of Federal Programs*, Library of Congress, Congressional Research Service Report R41142, November 16, 2015.

Driessen, Grant A. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Driessen, Grant and Jeffrey M. Stupak. *Tax Credit Bonds: Overview and Analysis,* Library of Congress, Congressional Research Service Report RL31457, October 11, 2016.

Galper, Harvey, Kim Rueben, Richard Auxier, and Amanda Eng. "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 67, no. 4, December 2014, p. 901.

Internal Revenue Service. *Update: Effect of Sequestration on State & Local Government Filers of Form 8038-CP,* June 2018.

Liu, Gao and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal,* vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Matheson, Thornton. "Qualified Zone Academy Bond Issuance and Investment: Evidence from 2004 Form 8860 Data," *Statistics of Income Bulletin*, Internal Revenue Service, Spring 2007, pp. 155-162.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal,* vol. 64, no. 2, June 2011, pp. 591-613.

Molly F. Sherlock et al. *The 2017 Tax Revision (P.L. 115-97): Comparison to 2017 Tax Law*, Library of Congress, Congressional Research Service Report R45092, February 6, 2018.

U.S. Congress, Joint Committee on Taxation. *Background and Present Law Related to Tax Benefits for Education,* Prepared for Senate Committee on Finance Public Hearing, JCX-70-14, June 20, 2014.

— . Joint Committee on Taxation. *Present Law and Issues Related to Infrastructure Finance,* Joint Committee Print JCX-83-08, October 29, 2008.

— . Joint Committee on Taxation. *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

— . Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in 1997*, Joint Committee Print JCS-23-97, December 17, 1997, pp. 40-41.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2010*, *Statistics of Income*, Spring 2013, pp. 112-157.

U.S. Office of Management and Budget. "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2018," April 6, 2018.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2017," May 12, 2017.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2016," January 4, 2016.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2015," January 20, 2015.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2014," February 7, 2014.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2013," April 9, 2013.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2012," January 18, 2012.

TAX CREDIT FOR HOLDERS OR ISSUERS OF QUALIFIED SCHOOL CONSTRUCTION BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.7	([1])	0.7
2019	0.7	([1])	0.7
2020	0.7	([1])	0.7
2021	0.7	([1])	0.7
2022	0.7	([1])	0.7

Note: Estimates include outlay effects associated with the refundable portion of QSCBs. These outlay effects are estimated to increase outlays by a combined $3.3 billion from FY2018-FY2022. These outlays are to state and local governments and are attributed to individuals for purposes of this table.

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 54A and 54F.

Description

Qualified school construction bonds (QSCBs) are debt instruments issued by municipal governments for certain school construction projects. Holders of QSCBs can claim a credit equal to the dollar value of the bonds held multiplied by a credit rate determined by the Secretary of the Treasury. The credit rate is equal to the percentage that will permit the bonds to be issued without discount and without interest cost to the issuer and is roughly equivalent to the interest rate on a taxable 10-year bond. The maximum maturity of the bonds is that which will set the present value of the obligation to repay the principal equal to 50 percent of the face amount of the bond issue.

There was a second option for issuers of QSCBs. In the 111th Congress, the American Recovery and Reinvestment Act (ARRA, P.L. 111-5) created a new type of tax credit bond, Build America Bonds (BABs, see the entry *Build America Bonds*), that allowed issuers the option of receiving a direct payment from the U.S. Treasury instead of tax-exempt interest payments or tax credits for investors. Later in the 111th Congress, the Hiring Incentives to Restore Employment Act (HIRE, P.L. 111-147) provided for a direct payment option, like that for BABs, for new QSCBs. Pursuant to the Budget Control Act (P.L. 112-25), as amended, the credit rate for direct payment QSCBs and all other direct payment TCBs were subject to sequestration from FY2013 through FY2019. For FY2019, the sequestration reduced the direct payment QSCB credit rate by 6.2 percent.

The bonds generally are allocated to states according to each state's share of Title 1 Basic Grants (Section 1124 of the Elementary and Secondary Education Act of 1965; 20 U.S.C. 6333, BG). The District of Columbia and the possessions of the United States are considered states for QSCBs. The possessions other than Puerto Rico (i.e., American Samoa, Commonwealth of the Northern Mariana Islands, Guam, and U.S. Virgin Islands), however, are allocated an amount on the basis of the possession's population with income below the poverty line as a portion of the entire U.S. population with income below the poverty line. QSCBs had a national limit of $11 billion in each of 2009 and 2010. An additional $200 million in each of 2009 and 2010 was allocated to Indian schools. As of December 2012, QSCB issuance was over $15.4 billion. Authority to issue QSCBs expired at the end of 2010, and the 2017 tax revision (P.L. 115-97) repealed issuing authority for all tax credit bonds beginning on January 1, 2018.

Forty percent of the national QSCB volume ($4.4 billion) was dedicated to large Local Education Agencies (LEAs). A “large” LEA is defined as one of the 100 largest based on the number of “children aged 5 through 17 from families living below the poverty level.” Also, one of up to 25 additional LEAs can be chosen by the Secretary if the LEA is “...in particular need of assistance, based on a low level of resources for school construction, high level of enrollment growth, or such other factors as the Secretary deems appropriate.” Each large LEA would receive an allocation based on the LEA's share of the total Title I basic grants directed to large LEAs. The state allocation is reduced by the amount dedicated to any large LEAs in the state, and unused allocations can be carried forward.

Impact

The impact of QSCBs on new school construction has been significant given the relatively substantial interest rate subsidy. As of December 2012, QSCBs issuances exceeded $15.4 billion. Generally, the interest income on traditional bonds issued by state and local governments for school construction is excluded from federal income tax (see the entry *Exclusion of Interest on Public Purpose State and Local Debt*). Such bonds result in the federal government paying a portion (approximately 25 percent) of the issuer's interest costs. In contrast, QSCBs are structured to have the federal government pay almost the entire interest cost of the state or local government in the form of a federal tax credit to the bond holders or the bond issuers.

Ultimately, however, the impact of QSCBs depends on how responsive school districts were to the reduced interest cost for school construction. Because QSCBs were relatively new, the impact of the tax expenditure for the bonds is somewhat uncertain. The $15.4 billion of school construction with QSCBs may have occurred even without the QSCB program, though the size of the interest rate subsidy would seem to have had some stimulative effect on school construction.

Rationale

As noted earlier, the American Recovery and Reinvestment Act (ARRA, P.L. 111-5) created QSCBs. These bonds offered a subsidy much larger than that provided by tax-exempt bonds. The federal payment of most interest costs was expected to make school investments less expensive and therefore more attractive to taxpayers in all school districts. Many observers noted that the underinvestment in public school infrastructure adversely affects education outcomes. Proponents also cited the possible stimulative effect of additional public infrastructure spending arising from this program during the Great Recession.

Assessment

For issuers, QSCBs were assessed against the most common alternative mechanism for financing school construction: tax-exempt bonds. With QSCBs, the federal government pays almost all of the interest costs. In contrast, tax-exempt bonds that finance the construction of schools as well as other public facilities provide a subsidy for only a portion of interest costs. For example, if the taxable rate is 7 percent and the tax-exempt rate is 5 percent, the tax-exempt bond issuer receives a subsidy equal to two percentage points

of the total interest cost, the difference between 7 percent and 5 percent. The QSCB issuer receives a subsidy equal to all seven percentage points of the interest cost. Almost the entire subsidy (the cost to the federal taxpayer) is received by the QSCB-issuing government. There is a clear incentive for issuers to use QSCBs over tax-exempt bonds, and the QSCB subsidy should be roughly the same with either the investor credit or direct-payment option. The Budget Control Act (P.L. 112-25), as amended, reduced the credit rate for direct payment QSCBs from FY2013 through FY2019 through sequestration. For FY2019, the sequestration reduced the direct payment QSCB credit rate by 6.2%.

Investors, in contrast to issuers, do not share the same clear incentive to purchase QSCBs. Investors can be induced to purchase these bonds if they receive at least the same after-tax return from the credit as that from the tax-exempt bonds or other taxable instruments of similar risk. When QSCBs are evaluated against tax-exempt bonds, the credit rate should equal the ratio of the investor's forgone market interest rate on tax-exempt bonds divided by one minus the regular tax rate. Thus, investors in higher-tax marginal income tax brackets would need a higher credit rate to equate the return on QSCBs to that of tax-exempt bonds. The uniform credit rate across jurisdictions would seem to make QSCBs less attractive to high-income investors for higher-risk jurisdictions.

Compared to other taxable investments of similar risk, QSCBs may be at a disadvantage given the relatively unique structure and limited supply of the bonds. In particular, jurisdictions generally perceived as higher risk may need to increase the attractiveness of QSCBs to investors with financial enhancements such as bond insurance. These enhancements would reduce the benefit to the issuing jurisdictions.

In theory, if the demand for these bonds exceeds that of traditional tax-exempt bonds issued for the same purpose, then interest costs for the issuer could be further reduced. Also, if the credit rate is set such that the bonds are more attractive relative to other taxable instruments, issuers may realize an additional interest cost savings. The savings from issuing QSCBs, thus, may lead to more investment in school construction.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," *Journal of Fixed Income*, vol. 20, no. 1, 2010, p. 67.

Cestau, Dario, Richard C. Green, and Norman Schürhoff. "Tax-Subsidized Underpricing: The Market for Build America Bonds," *Journal of Monetary Economics*, vol. 60, no. 5, 2013, pp. 593-608.

Collinson, Dale S. and Hannah Burke. "Tax Credit Bonds and the Taxable Bond Option—A Growing Force in Municipal Finance," *Journal of Taxation of Financial Products*, vol. 8, no. 2, April 2009, pp. 47-56.

Congressional Budget Office. *Testimony, Federal Support for State and Local Governments Through the Tax Code*, April 2012.

— . *Tax Credit Bonds and the Federal Cost Financing Public Expenditures*, July 2004.

Congressional Budget Office and Joint Committee on Taxation. *Subsidizing Infrastructure Investment with Tax-Preferred Bonds*, pub. no. 4005, October 2009.

Davie, Bruce. "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," *Proceedings of the 91st Annual Conference on Taxation*, National Tax Association, 1999.

Dortch, Cassandria. *School Construction and Renovation: A Review of Federal Programs*, Library of Congress, Congressional Research Service Report R41142, November 16, 2015.

Driessen, Grant A. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Driessen, Grant and Jeffrey M. Stupak. *Tax Credit Bonds: Overview and Analysis,* Library of Congress, Congressional Research Service Report RL31457, October 11, 2016.

Galper, Harvey, Kim Rueben, Richard Auxier, and Amanda Eng. "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 67, no. 4, December 2014, p. 901.

Internal Revenue Service. *Update: Effect of Sequestration on State & Local Government Filers of Form 8038-CP,* June 2018.

Liu, Gao and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal,* vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Matheson, Thornton. "Qualified Zone Academy Bond Issuance and Investment: Evidence from 2004 Form 8860 Data," *Statistics of Income Bulletin*, Internal Revenue Service, Spring 2007, pp. 155-162.

Matheson, Thornton. "Qualified Zone Academy Bond Tax Credit Usage: 2005," *Statistics of Income Bulletin*, Internal Revenue Service, Spring 2009, pp. 106-109.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal,* vol. 64, no. 2, June 2011, pp. 591-613.

Molly F. Sherlock et al. *The 2017 Tax Revision (P.L. 115-97): Comparison to 2017 Tax Law*, Library of Congress, Congressional Research Service Report R45092, February 6, 2018.

U.S. Congress, Joint Committee on Taxation. *Background and Present Law Related to Tax Benefits for Education,* Prepared for Senate Committee on Finance Public Hearing, JCX-70-14, June 20, 2014.

— . *Present Law and Issues Related to Infrastructure Finance,* Joint Committee Print JCX-83-08, October 29, 2008.

— . *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

— . *General Explanation of Tax Legislation Enacted in 1997*, Joint Committee Print JCS-23-97, December 17, 1997, pp. 40-41.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2010*, *Statistics of Income*, Spring 2013, pp. 112-157.

U.S. Office of Management and Budget. "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2018," April 6, 2018.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2017," May 12, 2017.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2016," January 4, 2016.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2015," January 20, 2015.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2014," February 7, 2014.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2013," April 9, 2013.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2012," January 18, 2012.

Education, Training, Employment and Social Services:
Education and Training

EXCLUSION OF INCOME ATTRIBUTABLE TO THE DISCHARGE OF CERTAIN STUDENT LOAN DEBT AND NHSC AND CERTAIN STATE EDUCATIONAL LOAN REPAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	-	0.2
2019	0.2	-	0.2
2020	0.2	-	0.2
2021	0.2	-	0.2
2022	0.2	-	0.2

Authorization

Section 108(f); 20 U.S.C. §§1087(c)(4), 1087e(a)(1), 1087dd(g)(4), & 1087ee(a)(5); and 42 U.S.C. §254l-1(g)(3).

Description

In general, cancelled or forgiven debt, or debt that is repaid on the borrower's behalf or discharged, is included as gross income for individuals for purposes of taxation under §61(a)(12) of the IRC. However, IRC §108(f) and provisions in the Higher Education Act provide that in certain instances—loan forgiveness or repayment for certain service performed or due to death or total and permanent disability—student loan cancellation and student loan repayment assistance may be excluded from gross income.

In addition, student loan debt discharged for a variety of other reasons may sometimes be excluded from gross income. Such instances include when certain federal student loans are discharged due to a postsecondary institution's closure and, in limited circumstances, when a federal student loan

is discharged upon a borrower's successfully asserting a defense to repayment due to an institution's acts or omissions. The discharge of private student loans in similar circumstances may also, in limited circumstances, be excluded from gross income. Given the limited availability of these types of student loan discharge, their exclusion from gross income is not discussed herein.

Loan Repayment and Forgiveness Programs

Cancelled or forgiven student loan debt may be excluded from gross income under §108(f)(1) if the loan was made by specified types of lenders to assist the individual in attending a qualified educational organization described in §170(b)(1)(A)(ii) and if the loan contains terms providing that some or all of the loan will be cancelled for work for a specified period of time, in certain professions or occupations, and for any broad class of employers.

Specified lenders are the government (federal, state, local, or an instrumentality, agency, or subdivision thereof); tax-exempt public benefit corporations that have assumed control of a state, county, or municipal hospital and whose employees are considered public employees under state law; and educational organizations if the loan is made under an agreement with an entity described above, or under a program of the organization designed to encourage students to serve in occupations or areas with unmet needs and under the direction of a governmental entity or a tax-exempt §501(c)(3) organization.

Student loans may be broadly categorized as either federal student loans or non-federal private student loans. The primary program through which federal student loans are currently being made is the William D. Ford Federal Direct Loan (DL) program. Previously, federal student loans were also made available under the Federal Family Education Loan (FFEL) program and the Federal Perkins Loan program. Although loans are no longer being made under the FFEL program or the Perkins Loan program, borrowers remain obligated to repay those loans. All three of these programs make/made loans available to students, and the DL and FFEL programs have made loans available to parents who may borrow on behalf of their dependent undergraduate student. Loans made under each of these programs contain terms that provide that if borrowers work for specified periods of time in certain professions, for certain broad classes of employers, all or a portion of their debt will be cancelled or forgiven. Examples include teacher loan forgiveness under the FFEL and DL programs, loan forgiveness for public service employees under the DL program, and loan cancellation for public

service under the Federal Perkins Loan program. Some non-federal loans may be made with terms that meet the requirements of §108(f). Thus, if they are repaid or forgiven upon the individual's completion of specified service, they may be excluded from gross income.

Federal student loans are made by different types of lenders. DL program loans are made directly by the federal government and thus, when forgiven for work in certain professions or occupations, the forgiven debt may be excluded from gross income. FFEL program loans are guaranteed by the federal government, but were made by a variety of lenders, including commercial banks, nonprofit entities, and state entities. While many FFEL program lenders were not among the types specified in §108(f), the Department of the Treasury has determined that because of the government's role in guaranteeing FFEL program loans and in discharging borrowers' debt, as a matter of subrogation, these loans can reasonably be viewed as being made by the government.[7] Thus, when FFEL program loans are forgiven for work in certain professions or occupations, the forgiven debt may be excluded from taxation. Perkins Loans are made by the postsecondary institutions that borrowers attend. The statute authorizing the Federal Perkins Loan program specifies that any part of a Federal Perkins Loan cancelled for certain types of public service shall not be considered income for purposes of the IRC (20 U.S.C. §1087ee(a)(5)).

Individuals may refinance existing student loans borrowed from any lender by obtaining new loans made by an educational or other tax-exempt organization for purposes of participating in a public service program of that organization designed to encourage borrowers to serve in occupations or areas with unmet needs and in which the services performed are under the direction of a governmental entity or a tax-exempt §501(c)(3) organization. If borrowers refinance their loans in this way and qualify for loan forgiveness or repayment, amounts forgiven or repaid are excluded from gross income.

An exclusion from gross income is also provided under §108(f)(4) for assistance provided under certain student loan repayment and loan forgiveness programs for health professionals. The National Health Service Corps (NHSC) Loan Repayment Program and state programs eligible to receive funds under the Public Health Service Act provide payment on a borrower's behalf for principal, interest, and related expenses of educational loans in return for the borrower's service in a health professional shortage area. The Patient

---

[7] Donna J. Welsh, Senior Technician Reviewer, Department of the Treasury, Internal Revenue Service, IRS Information Letter: INFO 2011-0053, (Apr. 18, 2011).

Protection and Affordable Care Act, (PPACA, P.L. 111-148) extended the exclusion from gross income to apply to state loan repayment and loan forgiveness programs designed to facilitate the increased availability of health care services in underserved or health professional shortage areas beginning with tax year 2009.

Loans Discharge in Instances of Death or Total and Permanent Disability

Discharged student loan debt may be excluded from gross income under IRC §108(f)(5) if: (1) the student loan was made to an individual by specified types of lenders to assist the individual in attending a qualified educational organization described in §170(b)(1)(A)(ii) or was a private education loan, and (2) the discharge was made due to death or total and permanent disability for loans discharged after December 31, 2017 and before January 1, 2026. For purposes of this provision, student loans include those federal and nonfederal private student loans described above and made by the specified lenders described above. In addition, student loans include private education loans as defined under the Consumer Credit Protection Act (P.L. 90-321, as amended).[8]

Loans made under the DL, FFEL, and Perkins Loan programs contain terms that if a borrower (or a student on whose behalf a parent borrowed) dies, the loan is discharged. Loan terms also provide that the loan is discharged if a borrower becomes totally and permanently disabled or is unable to engage in any substantial gainful activity due to a physical or mental impairment that can be expected to result in death or that has lasted continuously or can be expected to last continuously for 60 months. Borrowers who have been determined by the Secretary of Veterans Affairs to be unemployable due to a service-connected condition are considered totally and permanently disabled for purposes of student loan discharge. The IRC provision excluding such discharged debt from gross income appears to apply to all DL, FFEL, and Federal Perkins Loans made to students. However, it is unclear whether this provision also applies to DL and FFEL programs loans borrowed by parents on behalf of their dependent student in instances where the parent or the dependent student dies or becomes totally and permanently disabled. Some nonfederal private loans may be made with terms that provide for the discharge of the debt in instances of death or total and permanent disability. Section 108(f)(5) excludes from gross income those qualifying private loans that are discharged due to the death or total and permanent disability of the student.

---

[8] IRC §108(f)(5)(B)(ii) references §140(7) of the Consumer Credit Protection Act. This appears to be an incorrect reference.

Impact

Section 108(f) permits individuals to exclude from their gross income some cancelled or forgiven student loan debt, payments made on their behalf under the NHSC and state loan repayment programs. The benefit provided to any individual taxpayer and the corresponding loss of revenue to the federal government depends on the taxpayer's marginal tax rate. The extent to which individuals choose to finance the costs of their education by initially borrowing from or refinancing through specified types of lenders, and subsequently choose to enter certain professions (e.g., public service, occupations with unmet need) because of available loan forgiveness or repayment programs and the favorable tax treatment of forgiven debt is unknown.

Section 108(f) also permits individuals (or their estates) to exclude some student loan debt cancelled due to death or total and permanent disability. The benefit provided to any individual taxpayer and the corresponding loss of revenue to the federal government depends on the taxpayer's marginal tax rate. The extent to which individuals who have chosen to finance the costs of their education by initially borrowing from or refinancing through specified types of lenders and subsequently have their debt discharged due to death or disability is unknown.

Rationale

Congress first excluded certain loan repayment benefits from gross income in 1976 under the Tax Reform Act of 1976 (P.L. 94-455). Under the Tax Reform Act of 1984 (Division A of the Deficit Reduction Act of 1984, P.L. 98-369), a similar exclusion was included in IRC §108. Subsequently, in 2004, P.L. 108-357 extended the exclusion from gross income to apply to payments received under the NHSC loan repayment program, and, in 2010, PL 111-148 extended the exclusion to apply to state loan repayment and loan forgiveness programs. Finally, in 2017, P.L. 115-97 extended the exclusion from gross income to amounts of loans discharged due to death or total and permanent disability.

Whether to include the forgiveness of student loan debt or the repayment of debt through loan repayment assistance programs as part of gross income for purposes of taxation has been a policy issue for the past half century. Following the Supreme Court's decision in *Bingler v. Johnson* (1969), the primary issue in determining whether loan forgiveness and loan repayment programs are taxable has been whether there exists a *quid pro quo* between the

recipient and the lender. Generally, if borrowers must perform service for the entity forgiving or repaying their loans, it is assumed that a *quid pro quo* exists and so the amount forgiven or repaid is treated as taxable income. The policy issue is whether the service borrowers provide in return for the discharge of their loan is for the benefit of the grantor of debt forgiveness and thus should be considered akin to income, or if the service is for the benefit of the broader society and thus should potentially be excluded from income. Following IRS rulings made subsequent to *Bingler v. Johnson* that had established the discharge of student loan indebtedness as taxable income, Congress has periodically amended the IRC to override these rulings and to specifically exclude the discharge of broader categories of certain student loan debt from taxation. As a result, the IRC currently provides tax treatment for qualified loan forgiveness and loan repayment programs similar to the treatment of educational grants and scholarships, which, generally, are not taxable.

Whether to include the discharge of student loan debt due to death or total and permanent disability as part of gross income for purposes of taxation has been a policy issue for several years, and legislation to exclude such discharged debt has been introduced multiple times in recent years. Most recently, under the 2017 tax revision (P.L. 115-97), Congress excluded the discharge of certain student loan debt from taxation due to an individual's death or total and permanent disability for loans discharged after December 31, 2017, and before January 1, 2026. In doing so, Congress stated it believed such discharged loans should not be a taxable event.[9]

Assessment

The value to an individual of excluding the discharge of student loan indebtedness from gross income depends on that individual's marginal tax rate in the tax year in which the benefit is realized.

In some instances, beneficiaries are required to have served in certain types of professions or occupations, including occupations with unmet need, or that are in locations with unmet needs. Examples of programs include federal and other programs that provide loan cancellation or repayment for employment as teachers, in public service jobs, in areas of national need, and in health professional shortage areas. In many instances, borrowers employed in these types of professions may be in lower tax brackets than if they had

---

[9] U.S. Congress, House Committee on Ways and Means, *Tax Cuts and Jobs Act*, report to accompany H.R. 1, 115th Cong., 1st sess., November 13, 2017, H.Rept. 115-409, p. 153.

taken higher paying jobs elsewhere. Section 108(f) was made applicable to payments received through the NHSC Loan Repayment Program under P.L. 108-357. Previously, the program provided loan repayment recipients with an additional payment for tax liability equal to 39 percent of the loan repayment amount (42 U.S.C. 2541-1(g)(3)). By excluding NHSC loan repayment from income, tax relief is now provided through forgone revenue as opposed to discretionary outlays.

In other instances, student loans may be discharged upon an individual's death or becoming totally and permanently disabled. In many instances, individuals who are deemed totally and permanently disabled may be unable to engage in any substantial gainful activity; thus, their earning capacity is less and they may be in lower tax brackets than if they were not totally and permanently disabled. Prior to the enactment of the 2017 tax revision, it appears that in the event of an individual's death, the amount of student loan discharge would have been assessed on the deceased's estate or, in the case of a loan with a co-signor, might have been included in the surviving co-signor's gross income. Through the 2017 tax revision, Congress sought to address such scenarios by making the discharged loan amounts nontaxable.

Selected Bibliography

Beck, Richard C.E., "Loan Repayment Assistance Programs for Public-Interest Lawyers: Why Does Everyone Think They Are Taxable?" *New York Law School Law Review*, vol. 40, (1996): 251-310.

Bingler v. Johnson, 394 U.S. 741 (1969).

Boe, Caroleen C., "Cancelled Student Loans: For the Benefit of the Grantor?" *Albany Law Review*, vol. 39, (1974): 35-51.

Brooks, John R., "Treasury Should Exclude Income from Discharge of Student Loans," *Tax Notes*, 152, no. 5, (Aug. 1, 2016): 751-757.

Dauthtrey, Zoel, and Frank M. Messina, "Medical Student Loans: Making Repayments Tax Free," *The CPA Journal*, (Jan. 1999).

Internal Revenue Service, Revenue Ruling 73-256, State Medical Education Loan Scholarship Program, 1973-1 CB 56, (Jan. 01, 1973).

Philipps, J. Timothy, and Timothy G. Hatfield, "Uncle Sam Gets the Goldmine — Students Get the Shaft: Federal Tax Treatment of Student Loan Indebtedness," *Seton Hall Legislative Journal*, vol. 15, (1991): 249-296.

Moloney v. Commissioner of Internal Revenue, United States Tax Court, Summary Opinion 2006-53.

Fountain, Joselynn H., *Campus-Based Student Financial Aid Programs Under the Higher Education Act,* CRS Report RL31618, Library of Congress, Congressional Research Service, Washington, D.C., (2018).

Smole, David P., *Federal Student Loans Made Under the Federal Family Education Loan Program and the William D. Ford Federal Direct Loan Program: Terms and Conditions for Borrowers*, CRS Report R40122, Library of Congress, Congressional Research Service, Washington, D.C., (2015).

U.S. Internal Revenue Service, Rev. Proc. 2015-57, 2015-51 IRB 863, December 21, 2015.

—Rev. Proc. 2017-24, 2017-7 IRB 916, February 17, 2017.

—Rev. Proc. 2018-39, IRB 2018-34, August 20, 2018.

DEDUCTION FOR CHARITABLE CONTRIBUTIONS TO EDUCATIONAL INSTITUTIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	9.2	0.9	10.1
2019	7.2	1.0	8.2
2020	7.3	1.0	8.3
2021	7.6	1.0	8.6
2022	8.3	1.4	9.7

Authorization

Sections 170 and 642(c).

Description

Subject to certain limitations, charitable contributions may be deducted by individuals, corporations, and estates and trusts. The contributions must be made to specific types of organizations, including scientific, literary, or educational organizations. The estimated revenue loss in the table above is related to giving to educational institutions.

Individuals who itemize may deduct qualified contribution amounts of up to 50 percent of their adjusted gross income (AGI) and up to 30 percent for gifts of capital gain property. For 2018-2025, the limit is increased to 60 percent. For contributions to nonoperating foundations and organizations, deductibility is limited to the lesser of 30 percent of the taxpayer's contribution base, or the excess of 50 percent of the contribution base for the tax year over the amount of contributions which qualified for the 50-percent deduction

ceiling (including carryovers from previous years). Gifts of capital gain property to these organizations are limited to 20 percent of AGI. Excess contributions can be carried forward for five years.

The maximum amount deductible by a corporation is 10 percent of its adjusted taxable income. Adjusted taxable income is defined to mean taxable income with regard to the charitable contribution deduction, dividends-received deduction, any net operating loss carryback, and any capital loss carryback. Excess contributions may be carried forward for five years. Amounts carried forward are used on a first-in, first-out basis after the deduction for the current year's charitable gifts have been taken. Typically, a deduction is allowed only in the year in which the contribution occurs. However, an accrual-basis corporation is allowed to claim a deduction in the year preceding payment if its board of directors authorizes a charitable gift during the year and payment is scheduled by the 15th day of the third month of the next tax year.

Donors of noncash charitable contributions face increased reporting requirements. For charitable donations of property valued at $5,000 or more, donors must obtain a qualified appraisal of the donated property. For donated property valued in excess of $500,000, the appraisal must be attached to the donor's tax return. Deductions for donations of patents and other intellectual property are limited to the lesser of the taxpayer's basis in the donated property or the property's fair market value. Taxpayers can claim additional deductions in years following the donation based on the income the donated property provides to the donee. There are also additional reporting requirements for charitable organizations receiving vehicle donations from individuals claiming a tax deduction for the contribution, if it is valued in excess of $500.

Taxpayers are required to obtain written substantiation from a donee organization for contributions which exceed $250. This substantiation must be received no later than the date the donor-taxpayer files the required income tax return. Donee organizations are obligated to furnish the written acknowledgment when requested with sufficient information to substantiate the taxpayer's deductible contribution.

Impact

The deduction for charitable contributions reduces the net cost of contributing. In effect, the federal government provides the donor with a corresponding grant that increases in value with the donor's marginal tax

bracket. Individuals who use the standard deduction or who pay no taxes receive no benefit from the provision.

A limitation (temporarily suspended for 2018-2025) applies to the itemized deductions of high-income taxpayers, whereby itemized deductions are reduced by 3 percent of the amount by which a taxpayer's adjusted gross income (AGI) exceeds an inflation adjusted dollar amount ($320,000 for joint returns in 2018). The limit is capped at 80 percent of itemized deductions. However, because the limitation is triggered by income rather than deductions it is not effectively a limit on itemized deductions unless the cap is reached, which is unusual. The limit acts as an additional tax rate.

The following table provides the distribution of all charitable contributions, not just those to education organizations. In general, contributions to education are more heavily concentrated in the higher income categories (and similar to contributions to the arts and health), as compared to contributions for religion, combined purpose charities, and charities to meet basic needs.

Distribution by Income Class of the Tax Expenditure for Charitable Contributions, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.0
$30 to $40	0.1
$40 to $50	0.2
$50 to $75	1.2
$75 to $100	2.4
$100 to $200	11.8
$200 and over	84.2

Rationale

This deduction was added by passage of the War Revenue Act of October 3, 1917. Senator Hollis, the sponsor, argued that high wartime tax rates would

absorb the surplus funds of wealthy taxpayers, which were generally contributed to charitable organizations.

It was also argued that many colleges would lose students to the military, and that charitable gifts were needed by educational institutions. Thus, the original rationale shows a concern for educational organizations. The deduction was originally limited to individuals. A deduction for trusts and estates was added in 1918, but a deduction for corporations was not allowed until 1935.

The deduction allowed in 1917 was limited to 15 percent of taxable income. Most of the revisions in the early tax law related to this limit. In 1924, it was changed to 15 percent of adjusted gross income. The corporate deduction was limited to 5 percent of income when introduced in 1935. In 1952, the individual limit was increased to 20 percent. The limit was increased to 30 percent in 1954, but the additional 10 percent had to go to a charity (thus retaining a 20 percent limit for foundations). A carryover of unused deductions for two years was first allowed for corporations in 1954. In 1964, the carryover was increased to five years and extended to individuals.

The percentage limit on individual contributions to charities was increased to 50 percent by the Tax Reform Act of 1969 (P.L. 91-172) but was restricted to 30 percent for gifts of appreciated property. The percentage limit on corporate charitable contributions was increased to 10 percent of taxable income in the Economic Recovery Tax Act of 1981 (P.L. 97-34). The limit on contributions to private foundations was increased to 30 percent for cash contributions by the Deficit Reduction Act of 1984 (P.L. 98-369).

The Economic Recovery Tax Act of 1981 also allowed a temporary deduction for non-itemizers, but this provision was not extended by the Tax Reform Act of 1986 (P.L. 99-514).

Concerns about abuse led to provisions requiring greater substantiation of gifts. The Deficit Reduction Act of 1984 (P.L. 98-369) required written substantiation of contributions in excess of $2,000 and the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) lowered that amount to $250. The American Jobs Creation Act of 2004 (P.L. 109-280) increased reporting requirements for donors of non-cash gifts.

The Pension Protection Act of 2006 (P.L. 109-280) provided for some temporary additional benefits (part of the “extenders”) that were effective through 2007 at that time. The 2006 act also added restrictions on donor

advised funds (where sponsors receive contributions and then make donations advised by the original contributor) and certain supporting organizations (organizations that receive donations used to support other active charities). The 2006 law also tightened rules governing charitable giving in certain areas, including gifts of taxidermy, contributions of clothing and household items, contributions of fractional interests in tangible personal property, and record-keeping and substantiation requirements for certain charitable contributions.

Temporary charitable giving incentives were further extended through 2009 by the Economic Emergency Economic Stabilization Act of 2008 (P.L. 110-343) enacted in October 2008, and through 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). Some provisions were extended through 2013 by the American Taxpayer Relief Act (P.L. 112-240). These provisions were made permanent in the Consolidated Appropriations Act (P.L. 114-113).

The 2017 tax change, P.L. 115-97, popularly known as the Tax Cuts and Jobs Act, increased the percentage of income limit for contributions of cash to public charities to 60 percent and eliminated the phaseout of itemized deductions on a temporary basis.

Assessment

Most economists agree that education produces substantial "spillover" effects benefitting society in general. Examples include a more efficient workforce, lower unemployment rates, lower welfare costs, and less crime. An educated electorate fosters a more responsive and effective government. Since these benefits accrue to society at large, they argue in favor of the government actively promoting education.

Further, proponents argue that the federal government could be forced to assume some activities now provided by educational organizations if the deduction were eliminated. However, public spending might not be available to make up all the difference. Also, many believe that the best method of allocating general welfare resources is through a dual system of private philanthropic giving and governmental allocation.

Economists have generally held that the deductibility of charitable contributions provides an incentive effect which varies with the marginal tax rate of the giver. There are a number of studies which find significant behavioral responses, although a study by Randolph (1995) suggests that such

measured responses may largely reflect transitory timing effects. Most recent estimates indicate that the induced giving is less than the revenue cost.

Types of contributions may vary substantially among income classes. Contributions to religious organizations are far more concentrated at the lower end of the income scale than are contributions to health organizations, the arts, and educational institutions, with contributions to other types of organizations falling between these levels. The volume of donations to religious organizations, however, is greater than to all other organizations. In 2013, Giving USA Foundation and its research partner at Indiana University estimated that contributions to religious institutions amounted to 31 percent of all contributions ($335 billion from individuals, corporations, bequests, and foundations), while contributions to education amounted to 16 percent ($53.6 billion).

More highly valued contributions, like intellectual property and patents, tend to be made by corporations to educational institutions.

Opponents say that helping educational organizations may not be the best way to spend government money. Opponents further claim that the present system allows wealthy taxpayers to indulge special interests (such as gifts to their alma maters). It is generally argued that the charitable contributions deduction is difficult to administer and adds complexity to the tax code.

Selected Bibliography

Ackerman, Deena and Gerald Auten. "Tax Expenditures for Noncash Charitable Contributions," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, Vol. 64, Part 2, June 2011, pp. 651-688.

Aprill, Ellen P. "Churches, Politics, and the Charitable Contribution Deduction," *Boston College Law Review*, Vol. 42, July 2001, pp. 843-873.

Arnone, Michael. "Congress Approves Lower Tax Benefits for Donations of Intellectual Property," *Chronicle of Higher Education*, Vol. 51, iss. 9, October 22, 2004, p. A36.

Auten, Gerald E., Sieg Holger, and Charles T. Clotfelter. "Charitable Giving, Income and Taxes: An Analysis of Panel Data," *American Economic Review*, Vol. 92, March 2002, pp. 371-382.

Bakija, Jon and Bradley T. Heim. "How Does Charitable Giving Respond to Incentives and Income? New Estimates from Panel Data," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, Vol. 64, Part 2, June 2011, pp. 615-650.

Bakija, Jon and Rob McClelland. "Timing vs. Long-Run Charitable Giving Behavior: Reconciling Divergent Approaches and Estimates," Williams College, December 2004.

Boatsman, James R. and Sanjay Gupta. "Taxes and Corporate Charity: Empirical Evidence from Micro-Level Panel Data," *National Tax Journal*, Vol. 49, June 1996, pp. 193-213.

Bradley, Ralph, Steven Holder, and Robert McClelland, "A Robust Estimation of the Effect of Taxes on Charitable Contributions," *Contemporary Economic Policy*, Vol. 23, October 2005, pp. 545-554.

Center on Philanthropy. *The 2008 Study of High Net Worth Philanthropy*, Sponsored by Bank of America, Indiana University-Purdue University, Indianapolis, March 2009.

— . *Giving USA 2014, The Annual Report on Philanthropy for the Year 2013*, Indiana University. Indiana University-Purdue University, Indianapolis: 2010.

— . *Patterns of Household Charitable Giving by Income Group, 2005*, prepared for Google, Indiana University, Summer 2007.

Clotfelter, Charles T. "The Impact of Tax Reform on Charitable Giving: A 1989 Perspective," In *Do Taxes Matter? The Impact of the Tax Reform Act of 1986*, ed. Joel Slemrod, Cambridge, MA.: MIT Press, 1990.

— . "The Impact of Fundamental Tax Reform on Non Profit Organizations," In *Economic Effects of Fundamental Tax Reform*, eds. Henry J. Aaron and William G. Gale. Washington, DC: Brookings Institution, 1996.

Duquette, Nicholas J. "Do Tax Incentives Affect Charitable Contributions? Evidence from Public Charities' Reported Revenues," *Journal of Public Economics*, Vol. 137, May 2016, pp. 51-69.

Eckel, Catherine C. and Philip J. Grossman. "Subsidizing Charitable Contributions: A Natural Field Experiment," *Experimental Economics*, Vol. 11, March 2008, pp. 234-252.

Feldman, Naomi. "Time is Money: Choosing Between Charitable Activities," *American Economic Journal: Economic Policy*, Vol. 11, No. 1, 2010, pp. 103-130.

Gravelle, Jane and Donald Marples. *Charitable Contributions: The Itemized Deduction Cap and Other FY2011 Budget Options*, Library of Congress, Congressional Research Service Report R40518, March 18, 2010.

Gravelle, Jane G. and Molly Sherlock. *An Analysis of Charitable Giving and Donor Advised Funds*, Library of Congress, Congressional Research Service Report R45957, July 11, 2012.

— . *Recently Expired Charitable Tax Provisions ("Tax Extenders") in Brief*, Library of Congress, Congressional Research Service Report RL34608, January 15, 2016.

— . *Tax Issues Relating to Charitable Contributions and Organizations*, Library of Congress, Congressional Research Service Report RL34608, March 13. 2013.

Green, Pamela and Robert McClelland. "Taxes and Charitable Giving," *National Tax Journal*, Vol. 54 (Sept. 2001), pp. 433-450.

Karlan, Dean and John A. List. "Does Price Matter in Charitable Giving? Evidence from a Large-Scale Natural Field Experiment," *American Economic Review*, Vol. 97, December 2007, pp. 1774-1793.

Randolph, William C. "Charitable Deductions," in *The Encyclopedia of Taxation and Tax Policy, 2nd Edition*, eds. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005, pp. 51-53.

— . "Dynamic Income, Progressive Taxes, and the Timing of Charitable Contributions," *Journal of Political Economy*, Vol. 103, August 1995, pp. 709-738.

Rondeau, Daniel and John A. List. "Matching and Challenge Gifts to Charity: Evidence from Laboratory and Natural Field Experiments," *Experimental Economics* Vol. 11, September 2008, pp 253-267.

Rose-Ackerman, Susan. "Altruism, Nonprofits, and Economic Theory," *Journal of Economic Literature*, Vol. 34, June 1996, pp. 701-728.

Sherlock, Molly and Jane Gravelle. *An Overview of the Charitable and Nonprofit Sector*, Library of Congress, Congressional Research Service Report R40919, November 17, 2009.

Tiehen, Laura. "Tax Policy and Charitable Contributions of Money," *National Tax Journal*, Vol. 54, December 2001, pp. 707-723.

U.S. Congress, Congressional Budget Office. *Budget Options*. (Rev-6, Curtail the Deduction for Charitable Giving), Washington, DC: Government Printing Office, December 2016.

U.S. Congress, Senate Committee on Finance. *Staff Discussion Draft: Proposals for Reforms and Best Practices in the Area of Tax-Exempt Organizations*, Washington, DC, June 22, 2004, pp. 1-19.

U.S. Department of Treasury. "Charitable Giving Problems and Best Practices," *Testimony Given by Mark Everson, Commissioner of Internal Revenue*, Internal Revenue Service, IR-2004-81, June 22, 2004, pp. 1-17.

— . *Report to Congress on Supporting Organizations and Donor Advised Funds*, December 2011.

Yetman, Michelle H. and Robert J. Yetman. "The Effect of Nonprofits' Taxable Activities on the Supply of Private Donations," *National Tax Journal*, Vol. 56, March 2003, pp. 243-258.

Zimmerman, Dennis. "Nonprofit Organizations, Social Benefits, and Tax Policy," *National Tax Journal*, Vol. 44, September 1991, pp. 341-349.

Education, Training, Employment, and Social Services:
Education and Training

EXCLUSION OF EMPLOYER-PROVIDED EDUCATION ASSISTANCE BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.1	-	1.1
2019	1.1	-	1.1
2020	1.1	-	1.1
2021	1.1	-	1.1
2022	1.2	-	1.2

Authorization

Section 127, 3121(a)(18).

Description

An individual may not have to pay income or employment taxes on up to $5,250 of educational assistance provided by their employer. Specifically, an individual may be able exclude from their gross income up to $5,250 annually of educational assistance for both graduate and undergraduate education provided by their employer under an education assistance program.

There are three main requirements that must be satisfied in order for employer-provided educational assistance to be excludable from gross income and hence tax-free. First, the educational assistance must be provided pursuant to a written qualified educational assistance program. Second, the plan may not discriminate in favor of highly compensated employees. Third, no more than 5 percent of the total amount paid out during the year may be paid to or for employees who are shareholders or owners of at least 5 percent or more of the business. (The employer must maintain records and file a plan return.)

The employer may make qualified assistance payments directly, by reimbursement to the employee, or may directly provide the education. (The exclusion only applies to the employee and not their spouses or dependents.) Qualifying assistance payments include, but are not limited to, tuition, fees, and similar payments, books, supplies, and equipment. Qualifying assistance payments do not include student loan payments. Courses do not have to be job related. Qualifying assistance payments do not include tools or supplies that can be kept by the employee, meals, lodging or transportation and educations involving sports, games or hobbies.

Generally, employer-provided educational assistance in excess of $5,250 is includable in the employee's gross income and is hence subject to both income and employment taxes.

Impact

The exclusion of these benefit payments encourages employers to offer educational assistance to employees. Availability of the benefit varies across firms, depending upon such things as industry and employer size. Availability also varies within firms, depending upon the number of hours an employee works and their level of earnings. The U.S. Bureau of Labor Statistics stopped reporting the percent of employees in the private sector with access to employer-provided educational assistance in 2008. In that year, one-half of private sector employees had access to work-related educational assistance while 15 percent had access to nonwork-related educational assistance as part of their fringe benefit package. Generally, employees in management, professional, and related occupations; in full-time jobs; who belong to labor unions; with average wages in the top half of the earnings distribution; and who work at large firms (100 or more employees) are more likely to have educational assistance benefits made available to them by their firms.

The exclusion allows certain employees, who otherwise might be unable to do so, to continue their education. The value of the exclusion is dependent upon the amount of educational expenses furnished and varies with the taxpayer's marginal tax rate.

Rationale

Section 127 was enacted on a temporary basis under the Revenue Act of 1978 (P.L. 95-600), effective through 1983. Before enactment, the treatment of employer-provided educational assistance was complex, with a case-by-

case determination of whether the employee could deduct the assistance as job-related education.

Since its inception, this temporary provision has been regularly extended. It first was extended from the end of 1983 through 1985 by P.L. 98-611. The Tax Reform Act of 1986 (P.L. 99-514) next extended it through 1987, and raised the maximum excludable assistance from $5,000 to $5,250. The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) reauthorized the exclusion retroactively to January 1, 1989 and extended it through September 30, 1990. The Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) then extended it through December 31, 1991, and the Tax Extension Act of 1991 (P.L. 102-227) further extended it through June 30, 1992. The Omnibus Reconciliation Act of 1993 (P.L. 103-66) reauthorized the provision retroactively for 1993 and through December 31, 1994; the Small Business Job Protection Act (P.L. 104-188) extended it to run from January 1, 1995 through May 31, 1997. The Taxpayer Relief Act of 1997 (P.L. 105-34) extended the exclusion—but only for undergraduate education—for courses beginning before June 1, 2000. The Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170) extended the exclusion through December 31, 2001.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA; P.L. 107-16) originally extended the exclusion through the end of 2010. It also expanded the exclusion to include graduate education. Congressional committee reports indicate this extension was designed to reduce the complexity of the tax law and was intended to result in fewer disputes between taxpayers and the Internal Revenue Service. The exclusion (and the EGTRRA expansion to include graduate education) was extended an additional two years—2011 and 2012—by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010, (P.L. 111-312). The exclusion (and the EGTRRA modification) was made permanent by the American Taxpayer Relief Act of 2012 (P.L. 112-240).

Assessment

The availability of employer educational assistance encourages employer investment in human capital, which may be inadequate in a market economy because of spillover effects (i.e., the benefits of the investment extend beyond the individuals undertaking additional education and the employers for whom they work). Because all employers do not provide educational assistance, however, taxpayers with similar incomes are not treated equally.

Selected Bibliography

Crandall-Hollick, Margot. *Higher Education Tax Benefits: Brief Overview and Budgetary Effects*. Congressional Research Service Report R41967. Washington, DC: June 11, 2018.

Finaid Employer Tuition Assistance. Available at http://www.finaid.org/otheraid/employertuitionassistance.phtml , accessed on July 6, 2016

Government Accountability Office, *Student Aid and Postsecondary Tax Preferences: Limited Research Exists on Effectiveness of Tools to Assist Students and Families through Title IV Student Aid and Tax Preferences*, GAO-05-684, July 2005.

Government Accountability Office, *Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes,* GAO-08-717T, May 2008.

Internal Revenue Service. *Publication 970 (2017), Tax Benefits for Education*. Washington, DC: January 30, 2018.

Joint Committee on Taxation. *Background and Present Law Relating to Tax Benefits for Education*. JCX-133-15. Washington, DC: October 5, 2015.

Korn, Melissa. "Universities, Companies Fight to Keep Tax-Free Tuition Assistance." Wall Street Journal, December 11, 2017.

National Association of Independent Colleges and Universities. *Who Benefits from Section 127?* Society for Human Resource Management. Alexandria, VA: 2010.

Education, Training, Employment, and Social Services:
Employment

SPECIAL TAX PROVISIONS FOR EMPLOYEE STOCK OWNERSHIP PLANS (ESOPS)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	2.1	1.7	3.8
2019	2.2	1.6	3.8
2020	2.4	1.7	4.1
2021	2.5	1.8	4.3
2022	2.6	1.9	4.5

Authorization

Sections 401(a)(28), 404(a)(9), 404(k), 415(c)(6), 512(e), 1042, 4975(d)(3), 4978, 4979A.

Description

An employee stock ownership plan (ESOP) is a defined-contribution plan that is required to invest primarily in the stock of the sponsoring employer. Either a C corporation or an S corporation can have an ESOP. ESOPs are unique among employee benefit plans in their ability to borrow money to buy stock. An ESOP that has borrowed money to buy stock is a leveraged ESOP. An ESOP that acquires stock through direct employer contributions of cash or stock is a nonleveraged ESOP.

ESOPs are provided with various tax advantages. Employer contributions to an ESOP may be deducted by the employer as a business expense. Contributions to a leveraged ESOP are subject to less restrictive limits than contributions to other qualified employee benefit plans.

An employer may deduct dividends paid on stock held by an ESOP if the dividends are paid to plan participants, if the dividends are used to repay a loan

that was used to buy the stock, or if the dividends are paid on stock in a retirement plan. The deduction for dividends used to repay a loan is limited to dividends paid on stock acquired with that loan. Employees are not taxed on employer contributions to an ESOP or the earnings on invested funds until they are distributed.

A stockholder in a closely held company may defer recognition of the gain from the sale of stock to an ESOP if, after the sale, the ESOP owns at least 30 percent of the company's stock and the seller reinvests the proceeds from the sale of the stock in a U.S. company.

To qualify for these tax advantages, an ESOP must meet the minimum requirements established in the Internal Revenue Code. Many of these requirements are general requirements that apply to all qualified employee benefit plans. Other requirements apply specifically to ESOPs.

In particular, ESOP participants must be allowed voting rights on stock allocated to their accounts. In the case of publicly traded stock, full voting rights must be passed through to participants. For stock in closely held companies, voting rights must be passed through on all major corporate issues.

Closely held companies must give employees the right to sell distributions of stock to the employer (a put option), at a share price determined by an independent appraiser. An ESOP must allow participants who are approaching retirement to diversify the investment of funds in their accounts.

Impact

The various ESOP tax incentives encourage personal savings through employee ownership of stock in a qualified employee benefit plan. ESOPs also provide employers with a tax-favored means of financing. The deferral of recognition of the gain from the sale of stock to an ESOP encourages the owners of closely held companies to sell stock to the company's employees. The deduction for dividends paid to ESOP participants encourages the current distribution of dividends.

Various incentives encourage the creation of leveraged ESOPs. Compared to conventional debt financing, both the interest and principal on an ESOP loan are tax-deductible. The deduction for dividends used to make payments on an ESOP loan and the unrestricted deduction for contributions to pay interest encourage employers to repay an ESOP loan more quickly.

According to the National Center for Employee Ownership, most ESOPs are in private companies, and most ESOPs have fewer than 100 participants. But the number of ESOP participants employed by private companies exceeds the number of ESOP participants by less than 300,000 (out of total ESOP participation of 13.5 million). Likewise, most ESOP assets are held by plans in public companies.

Rationale

The tax incentives for ESOPs are intended to broaden stock ownership, provide employees with a source of retirement income, and grant employers a tax-favored means of financing.

The Employee Retirement Income Security Act of 1974 (P.L. 93-406) allowed employers to form leveraged ESOPs. The Tax Reduction Act of 1975 established a tax-credit ESOP (called a TRASOP) that allowed employers an additional investment tax credit of one percentage point if they contributed an amount equal to the credit to an ESOP.

The Tax Reform Act of 1976 (P.L. 94-455) allowed employers an increased investment tax credit of one-half a percentage point if they contributed an equal amount to an ESOP and the additional contribution was matched by employee contributions.

The Revenue Act of 1978 (P.L. 95-600) required ESOPs in publicly traded corporations to provide participants with full voting rights, and required closely held companies to provide employees with voting rights on major corporate issues. The act required closely held companies to give workers a put option on distributions of stock.

The Economic Recovery Tax Act of 1981 (P.L. 97-34) replaced the investment-based tax credit ESOP with a tax credit based on payroll (called a PAYSOP). The 1981 act also allowed employers to deduct contributions of up to 25 percent of compensation to pay the principal on an ESOP loan. Contributions used to pay interest on an ESOP loan were excluded from the 25-percent limit.

The Deficit Reduction Act of 1984 (P.L. 98-369) allowed corporations a deduction for dividends on stock held by an ESOP if the dividends were paid to participants. The act also allowed lenders to exclude from their income 50 percent of the interest they received on loans to an ESOP.

The act allowed a stockholder in a closely held company to defer recognition of the gain from the sale of stock to an ESOP if the ESOP held at least 30 percent of the company's stock and the owner reinvested the proceeds from the sale in a U.S. company. The act permitted an ESOP to assume a decedent's estate tax in return for employer stock of equal value.

The Tax Reform Act of 1986 (P.L. 99-514) repealed the payroll tax credit ESOP. The act also extended the deduction for dividends to include dividends used to repay an ESOP loan. The act permitted an estate to exclude from taxation up to 50 percent of the proceeds from the sale of stock to an ESOP. The act allowed persons approaching retirement to diversify the investment of assets in their accounts.

The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) limited the 50-percent interest exclusion to loans made to ESOPs that hold more than 50 percent of a company's stock. The deduction for dividends used to repay an ESOP loan was restricted to dividends paid on shares acquired with that loan. The act repealed both estate tax provisions: the exclusion allowing an estate to exclude proceeds from the sale of stock to an ESOP, and the provision allowing an ESOP to assume a decedent's estate tax. The Small Business Job Protection Act of 1996 (P.L. 104-188) eliminated the provision that allowed a 50 percent interest income exclusion for bank loans to ESOPs. The Economic Growth and Reconciliation Act of 2001 (P.L. 107-16) allowed firms to deduct dividends on stock held in retirement plans through 2010. The Pension Protection Act of 2006 (P.L. 109-280) made this provision permanent and strengthened diversification requirements for ESOPs that hold publicly traded stocks.

Assessment

One of the major objectives of ESOPs is to expand employee stock ownership. These plans are believed to motivate employees by more closely aligning their financial interests with the financial interests of their employers. The distribution of stock ownership in ESOP firms is broader than the distribution of stock ownership in the general population.

Some evidence suggests that among firms with ESOPs there is a greater increase in productivity if employees are involved in corporate decision-making. But employee ownership of stock is not a prerequisite for employee participation in decision-making.

ESOPs do not provide participants with the traditional rights of stock ownership. Full vesting can depend on a participant's length of service, and distributions are generally deferred until a participant separates from service. To provide participants with the full rights of ownership would be consistent with the goal of broader stock ownership, but employees would be able to use employer contributions for reasons other than retirement.

The requirement that ESOPs invest primarily in the stock of the sponsoring employer is consistent with the goal of corporate financing, but it may not be consistent with the goal of providing employees with retirement income. The cost of such a lack of diversification was demonstrated with the failure of Enron and other firms whose employees' retirement plans were heavily invested in company stock. If a firm experiences financial difficulties, the value of its stock and its dividend payments will fall. Furthermore, employee-ownership firms do fail with not only the consequent loss of jobs but also the employees' ownership stakes. Because an ESOP is a defined-contribution plan, participants bear the burden of this risk. The partial diversification requirement for employees approaching retirement was enacted in response to this issue.

A leveraged ESOP allows an employer to raise capital to invest in new plant and equipment. But evidence suggests that the majority of leveraged ESOPs involve a change in ownership of a company's stock, and not a net increase in investment.

Although the deduction for dividends used to repay an ESOP loan may encourage an employer to repay a loan more quickly, it may also encourage an employer to substitute dividends for other loan payments.

Because a leveraged ESOP allows an employer to place a large block of stock in friendly hands, leveraged ESOPs have been used to prevent hostile takeovers. In these cases, the main objective is not to broaden employee stock ownership.

ESOPs have been used in combination with other employee benefit plans. A number of employers have adopted plans that combine an ESOP with a 401(k) salary reduction plan. Some employers have combined an ESOP with a 401(h) plan to fund retiree medical benefits.

Selected Bibliography

Anderson, Sean M. "Risky Retirement Business: How ESOPs Harm the Workers They Are Supposed to Help," *Loyola University Chicago Law Journal*, v. 41, no. 1, Fall 2009, pp. 1-37.

Blasi, Joseph, Douglas Kruse, and Aaron Berstein. *In the Company of Others*, New York: Basic Books, 2003.

Blinder, Alan S., ed. *Paying for Productivity: A Look at the Evidence*. Washington, DC: The Brookings Institution, 1990.

Bortz, Bill. "The Problem With ESOPs," *Tax Notes,* April 20, 2015, p.327.

Chetty, Raj et al., "Active vs. Passive Decisions and Crowdout in Retirement Savings Accounts: Evidence from Denmark," *Quarterly Journal of Economics*, v. 129(3), 2014.

Gamble, John E. "ESOPs: Financial Performance and Federal Tax Incentives," *Journal of Labor Research*, v. 19, Summer 1998, pp. 529-541.

Gravelle, Jane G. *Employer Stock in Pension Plans: Economic and Tax Issues*, U.S. Library of Congress, Congressional Research Service Report RL31551, Washington, DC: September 4, 2002.

— . "The Enron Debate: Lessons for Tax Policy," Urban-Brookings Tax Policy Center Discussion Paper 6, Washington, DC: The Urban Institute, February 2003.

Kim, E. Han and Paige Ouimet. "Broad-Based Employee Stock Ownership: Motives and Outcomes," *The Journal of Finance*, v. 69, n. 3, June 2014, pp. 1273-1319.

Kruse, Douglas, Richard Freeman, Joseph Blasi, Robert Buchele, and Adria Scharf. "Motivating Employee-Owners in ESOP Firms: Human Resource Policies and Company Performance," in *Employee Participation, Firm Performance and Survival, Advances in the Economic Analysis of Participatory and Labor-Managed Firms*, v. 8, Virginie Perotin and Andrew Robinson, eds., Amsterdam: Elsevier, 2004.

Mayer, Gerald. "Employee Stock Ownership Plans," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds., Washington, DC: Urban Institute Press, 2005.

Rosen, Corey. "Do ESOPs Need Reform: A Look at What the Data Tell Us," *Tax Notes*, June 22, 2015.

— . "Evidence That ESOPs Can Improve Corporate Performance," *Tax Notes*, June 11, 2018.

Snyder, Todd S. *Employee Stock Ownership Plans (ESOPs): Legislative History*. U.S. Library of Congress, Congressional Research Service Report RS21526, Washington, DC: May 20, 2003.

Stumpff, Andrew. "Perpetual Motion Machines: ESOPs Don't Pay for Themselves," *Tax Notes*, May 28, 2018.

— and Norman Stein. "Repeal Tax Incentives for ESOPs," *Tax Notes*, October 19, 2009.

U.S. General Accounting Office. *Employee Stock Ownership Plans: Benefits and Costs of ESOP Tax Incentives for Broadening Stock Ownership*, PEMD-87-8. Washington, DC: General Accounting Office, December 29, 1986.

— . *Employee Stock Ownership Plans: Little Evidence of Effects on Corporate Performance*, PEMD-88-1. Washington, DC: General Accounting Office, October 29, 1987.

Education, Training, Employment and Social Services:
Employment

CREDIT FOR FAMILY AND MEDICAL LEAVE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	0.5	0.7
2019	0.5	1.1	1.6
2020	0.3	0.8	1.1
2021	0.1	0.3	0.4
2022	0.1	0.2	0.3

Authorization

Section 45S.

Description

Under section 45S, an eligible employer is allowed to claim a non-refundable credit in the 2018 and 2019 tax years for any paid family and medical leave it provides to qualified employees under the Family and Medical Leave Act (FMLA, P.L. 103-3). The credit is part of the section 38 general business credit, and thus subject to the limitations on its use.

The FMLA requires employers with 50 or more employees living within a 75-mile radius of the workplace to give eligible employees up to 12 work weeks a year of unpaid leave for births, adoptions, and serious family illnesses. An employer is required to provide such leave for the following reasons: (1) the birth of a child; (2) the placement of a child with an employee for adoption or foster care; (3) the care of a seriously ill child, spouse, or parent; (4) an employee's serious illness; (5) any "qualified exigency" related to an employee's spouse, child, or parent serving as a member of the military on active duty; and (6) the care of a service member with a serious injury or illness.

To qualify for unpaid leave, an employee must have worked for at least one year for the employer providing such leave, and he or she must have worked at least 1,250 hours during that period. In addition, an employee cannot have received compensation during that year that exceeds 60 percent of the amount received by a "highly compensated" employee under the non-discrimination rules for qualified retirement plans. Those rules specify that an employee is considered highly compensated if he or she was (1) a five-percent owner of a business any time during the previous year, or (2) received compensation during that year totaling more than $120,000. This means that in 2018, a qualifying employee cannot receive more than $72,000 in compensation if his/her employer is to qualify for the section 45S credit in the 2019 tax year.

Upon returning to work, an employee has the right under the FMLA to return to the same job, or one that is equivalent in pay, benefits, working conditions, and responsibilities. Employers that offer health insurance coverage to employees are also required to continue that coverage when an employee is taking unpaid leave under FLMA.

Several other rules govern the use of the section 45S credit. It is available only to companies that pay employees taking family and medical leave under FMLA an hourly wage that is equal to at least half of their regular or normal wage. The credit itself is equal to the "applicable percentage" (AP) of the wages paid to employees while they are on leave. In this case, the AP ranges from 12.5 percent to 25 percent. The percentage is 12.5 percent if an employer pays an employee 50 percent of his/her regular wage; it climbs in increments of 0.25 percentage points for each one percentage point above the 50 percent threshold until the AP reaches a top rate of 25 percent. The credit cannot exceed an employee's normal or regular hourly wage rate multiplied by the number hours of leave taken under FMLA. And the maximum amount of leave eligible for the credit cannot exceed 12 work weeks in a year for an employee.

Furthermore, an employer may claim the section 45S credit only if it has issued a written policy that meets certain conditions. First, the policy must offer full-time employees at least two weeks of annual paid FMLA leave. This leave cannot be offered as vacation, sick, personal, or medical leave. For part-time employees, the minimum of amount of FMLA leave is pro-rated, based on the ratio of the number of hours they are expected to work in a week to the number of hours an equivalent full-time employee is expected to work during the week. Second, the policy must state that the wage rate for employees on FMLA leave is not less than 50% of their normal wages.

The IRS is authorized to issue regulations for determining whether employers or employees qualify for the FMLA credit. Under the guidance already issued by the IRS, paid family leave required by state or local law is not eligible for the credit.

Impact

The section 45S credit encourages private-sector employers to offer paid family and medical leave to eligible employees, and to pay at least half of the regular wage of employees while they take qualified leave under the FMLA. As a result of the credit, the federal government effectively covers 12.5% to 25% of the wage cost for eligible employees while away on such leave.

Rationale

The credit was added by the 2017 tax revision (P.L. 115-97). It builds on the Family and Medical Leave Act of 1993 (P.L. 103-3). On September 24, 2018, the IRS issued 34 questions and answers about the credit (see Notice 2018-71).

Assessment

Paid family leave generally refers to partially or fully compensated time away from work for specific caregiving needs, such as the birth or adoption of a child or the serious illness of a family member. While the Family and Medical Leave Act gives eligible workers a federal entitlement to limited unpaid leave for a specified set of purposes, there is no federal law that requires private-sector employers to provide paid leave of any kind, including sick and family leave. The lack of a federal mandate of this kind has made the United States an outlier with regard to paid family and medical leave among many nations.

Since 2002, several states and the District of Columbia have taken steps to fill this void. As a result, eligible workers in California, Rhode Island, New York, and New Jersey who take time off to provide care for their children and other family members are eligible to receive cash benefits that last from four to eight weeks and equal 50 percent to 67 percent of their average weekly wage in 2018, depending on the state. Similar programs are being implemented in Massachusetts, the District of Columbia, and Washington state.

The section 45S tax credit can be viewed as an effort by Congress to expand the availability of paid family leave in the private sector without the use of a mandate. It gives eligible employers an added incentive to go beyond

the minimum requirements of the FMLA by providing paid leave for such care. The credit reduces the after-tax wage cost to employers for qualified paid family and medical leave. At this early stage in the credit's implementation, it is unclear what impact the credit might have on the number of employers offering such leave and the size of the wage rate.

There has been an extended debate over whether the United States should adopt a mandatory family and medical leave policy, and how such a policy should be structured. Relatively few firms provide paid family and medical leave. According to the results of a 2017 survey of employer health benefits by the Kaiser Family Foundation and Health Research and Education Foundation, one in three firms reported providing paid maternity leave and one in six reported providing paid paternity leave for the birth or adoption of a child. And a survey of employers conducted by the Bureau of Labor Statistics found that 15 percent of employees had access to paid family and medical leave through their employers as of December 2017. The survey also found that such leave was most prevalent among professional and technical occupations, high-paying occupations, full-time workers, and workers for large companies.

Proponents of mandatory paid family leave argue that such a benefit is a critical component of workplace policies aimed at helping employees find a desirable balance among work, family, and health care needs. They note that paid family and medical leave provides low-paid employees with a measure of financial security when they must take time off to care for a child, sick family member, or themselves. In addition, proponents maintain that paid family leave benefits women in general by allowing them to remain more attached to the labor force, and to specific jobs in particular, when they take leave to care for themselves or family members. They also say that a mandatory paid leave policy would benefit family members by allowing them to get the special care they need when they are seriously ill. The benefits of such a policy would extend to most employers, in the view of proponents. Employers would benefit from the reduced workforce turnover (and the significant costs it can entail) that paid family and medical leave would lead to. Surveys of employers in the states that have adopted paid family and medical leave programs have indicated that a majority of employers have backed them and not experienced negative effects on their businesses.

Opponents of a federal mandate for paid family and medical leave in the private sector cite concerns about its impact on compensation and employment. They claim that required paid family leave would lead to reduced

job and wage growth, as many employers would be forced to pay more in taxes to finance such a requirement. In their view, the more generous the leave benefit, the greater the reduction. Opponents also point out that mandatory paid family leave would be likely to cause serious disruptions in the workplace if employees are allowed to take paid leave with the right to return to their previous job. Another concern is that employers might begin to hire fewer lesser-educated women in response to a paid family leave mandate. Some critics say that this could happen when an employer values the work of highly-educated employees more than the work of lesser-educated employees, expects lesser-educated employees to have a shorter work tenures, and expects such employees to give birth more frequently than highly educated employees do.

A key issue in designing any federal mandate for paid family and medical leave is balancing its costs and benefits in ways that satisfies workers and employers. This raises the question of whether a tax credit is the optimal way to achieve such an objective. Supporters of the credit say it has the advantage of giving employers an incentive to adopt a paid leave program for employees that is limited in duration (no more than 12 weeks in a tax year) and targeted at lower-wage (employees earning no more than $72,000 in 2018). Critics counter that the credit is unlikely to convince many employers to offer the benefit because it could prove costly and the credit offsets no more than 12.5 percent to 25 percent of the cost. In their view, firms most likely to take up the credit are those that already offer paid family and medical leave to employees, or those that have been leaning toward offering such leave to employees but have not yet done so.

Some argue that a better solution to the problem of the uneven availability of paid family and medical leave in the private sector is to create a mandatory benefit that is fully funded by increases in employer or employee contributions to the payroll tax.

Selected Bibliography

AEI-Brookings Working Group on Paid Family Leave, *Paid Family and Medical Leave: An Issue Whose Time Has Come*, May 2017.

Berkowitz, Alan D., J. Ian Downes, and Jane E Patullo, "Navigating the Maze of State and Local Employment Laws Concerning Sick Time and Family Leave, Criminal and Salary History Checks, Pregnancy and Lactation Accommodation and Anti-Discrimination Protection for Medical Marijuana Users," *Employee Relations Law Journal*, vol. 43, no. 4, Spring 2018, pp. 3-27.

Boushey, Heather, *To Grow Our Economy, Start with Paid Leave*, CATO Online Forum, November 14, 2014, https://www.cato.org/publications/cato-online-forum/grow-our-economy-start-paid-leave.

—, and Sarah Jane Glynn, *The Effects of Paid Family and Medical Leave on Employment Stability and Economic Security*, Center for American Progress (Washington, DC: April 2012).

Corley, Danielle, Sunny Frothingham, and Kate Bahn, *Paid Sick Days and Paid Family and Medical Leave Are Not Job Killers*, Center for American Progress, (Washington, DC: January 2017).

Donovan, Sarah, *The Family and Medical Leave Act: An Overview of Title I*, U.S. Library of Congress, Congressional Research Service report R44274, November 16, 2015.

—, *Paid Family Leave in the United States*, U.S. Library of Congress, Congressional Research Service report R44835, September 12, 2018.

Engelkamp, Alex, "Approaching Paid Sick Leave: Compliance or Preemption," *Benefits Law Journal*, vol. 31, iss. 1, spring, 2018, pp. 61-82.

Findlay, Steve, "Health Policy Brief: Paid Family and Medical Leave," *Health Affairs*, November 21, 2016.

Glover, Asha, "Senators Still Searching for Consensus on Expanding Paid Leave," *Tax Notes*, July 16, 2018, p. 431.

Greszler, Rachel, *Why Using Social Security for Paid Family Leave Is a Bad Idea*, economic commentary, July 19, 2018, https://www.heritage.org/social-security/commentary/why-using-social-security-paid-family-leave-bad-idea.

Holzer, Harry J., *Paid Family Leave: Balancing Benefits and Costs*, social mobility memo, Brookings Institution, January 30, 2017, https://www.brookings.edu/blog/social-mobility-memos/2017/01/30/paid-family-leave-balancing-benefits-and-costs/.

Kaiser Family Foundation and Health Research and Education Foundation, "Fact Sheet: Paid Family Leave and Sick Days in the U.S.: Findings from the 2017 Kaiser/HRET Employer Benefits Survey, October 2017.

National Conference of State Legislators, "State Family and Medical Leave Laws, July 19, 2016, http://www.ncsl.org/research/labor-and-employment/state-family-and-medical-leave-laws.aspx.

Internal Revenue Service, Employer Credit for Paid Family and Medical Leave, Notice 2018-71, October 1, 2018, https://www.irs.gov/pub/irs-drop/n-18-71.pdf.

Sakaria, Anjali and Jacqueline Tosto, "Issue Brief: Paid Family and Medical Leave: Impact and Implementation," Federal Reserve Bank of Boston, June 19, 2018.

Schreiber, Sally P., "Rules Issued on Paid Family and Medical Leave Credit," *The Tax Adviser*, September 24, 2018.

Shapiro, Kristin A. and Andrew G. Biggs, "A Simple Plan for Parental Leave," *Wall Street Journal*, January 25, 2018, https://www.wsj.com/articles/a-simple-plan-for-parental-leave-1516836442.

U.S. Department of Labor, Bureau of Labor Statistics, *Employee Benefits in the United States*, March 2018, Table 5, https://www.bls.gov/news.release/pdf/ebs2.pdf.

—, Employee Benefits Survey: Access to Paid Personal Leave, March 2018, https://www.bls.gov/ebs/paid_personal_leave_122017.htm

U. S. Senate, Committee on Finance, Subcommittee on Social Security, Pensions, and Family Policy, Hearing on the Importance of Paid Family Leave for American Working Families, July 11, 2018, https://www.finance.senate.gov/hearings/examining-the-importance-of-paid-family-leave-for-american-working-families

Education, Training, Employment and Social Services:
Employment

EXCLUSION OF EMPLOYEE AWARDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.4	-	0.4
2019	0.4	-	0.4
2020	0.4	-	0.4
2021	0.5	-	0.5
2022	0.5		0.5

Authorization

Sections 74(b), 74(c), and 274(j).

Description

Generally, prizes and awards given to employees that do not qualify as a *de minimis* fringe benefit under section 132(a)(4) are taxed as part of an employee's income. But section 74 contains two exceptions to this rule.

First, a taxpayer may exclude from gross income any designated prizes and awards that are transferred to qualified charities (section 74(b)).

Second, a taxpayer may exclude certain employee achievement awards (section 74(c)). To qualify for the exclusion, the award must be an item of tangible personal property given to an employee in recognition of his or her length of service or safety record. In addition, the property has to be awarded through a meaningful presentation and in circumstances that make it clear the award is not a form of disguised compensation. There are some exceptions to these rules. As specified in section 274(j), a length-of-service award does not qualify for the exclusion if it is made within an employee's first five years of service, or if the employee received a similar award earlier in the current year

or in the preceding four years. A safety achievement award does not qualify for the exclusion if more than 10 percent of an employer's employees receive the same award in the current year, or if an employer gives safety achievement awards to managers, administrators, clerical employees, or other professional employees.

The amount an employee may exclude from gross income under section 74(c) is based on the fair market value of the property received and cannot exceed the employer's deduction for the award. For qualified awards not made under a qualified employee achievement plan, the maximum employer deduction per employee is $400. For awards made under a qualified plan, the maximum employer deduction per employee is $1,600. In the case of employees who receive both qualified plan awards and other awards in the same year, the maximum deduction per employee is also $1,600. A qualified achievement plan is an established plan or program available to all employees, regardless of their level of compensation. This means that for all qualified awards received by an employee in a year, his or her exclusion cannot exceed $400 for non-qualified plans and $1,600 for qualified plans. But if the average cost per employee of all awards granted under all achievement plans for an employer exceeds $400, no award qualifies for the exclusion.

An employee may exclude from gross income the entire value of a qualified award when an employer is allowed to deduct its full cost. But if a qualified award's cost to an employer is larger than its allowable deduction, then the employee must include in gross income the greater of: (1) the amount of the non-deductible portion of the award's cost, up to the market value of the award, or (2) the excess (if any) of the award's value over the allowable deduction.

For employees of non-profit employers, the exclusion is determined under the same rules that apply to for-profit employers. So the maximum exclusion is $400 per employee, unless a non-profit employer has a qualified employee achievement award plan, in which case the maximum exclusion rises to $1,600.

The amount of an eligible employee award excluded from gross income is also excluded under the Federal Insurance Contributions Act (FICA) from the Social Security and Medicare employment taxes.

Impact

Sections 74(c) and 274(j) exclude from gross income employee awards of tangible personal property for length-of-service and safety achievements that would otherwise be subject to taxation.

Rationale

The exclusion for certain employee awards was enacted by the Tax Reform Act of 1986. Before this change in law, awards received by employees generally were taxable, although there were numerous exceptions.

Assessment

The exclusion promotes a traditional and widespread business practice. According to the findings of a 2013 survey by WorldatWork and ITA Group of human resource professionals at a broad range of for-profit and not-for-profit employers, 84 percent of respondents offered length-of-service awards to employees and 19 percent offered safety achievement awards. Since the dollar limits on the exclusion are relatively small and have not been increased since in 1986, the exclusion has not become a vehicle for significant tax avoidance. At the same time, the lack of an increase in the exclusion may have led over time to reductions in the tax-free portion of qualified awards, undercutting their incentive effect.

Selected Bibliography

Shaviro, Daniel, "A Case Study for Tax Reformers: The Taxation of Employee Awards and Other Business Gifts," *Virginia Tax Review*, vol. 4, no. 2 (Winter 1985), pp. 241-286.

U.S. Congress, Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986*, joint committee print, 100th Cong., 1st sess., May 4, 1987, JCS-10-87 (Washington, DC: GPO, 1987), pp. 30-38.

U.S. Department of the Treasury, Internal Revenue Service, *Employer's Tax Guide to Fringe Benefits*, Publication 15-B, December 23, 2015, p. 7.

—, Internal Revenue Service, Federal State and Local Governments (FSLG), *Taxable Fringe Benefit Guide*, January 2014.

Weld, Leonard, "Nontaxable Fringe Benefits," *The Tax Adviser*, August 1995, pp. 494-502.

WorldatWork and ITA Group, "Trends in Employee Recognition," June 2013.

TREATMENT OF EMPLOYEE MEALS AND LODGING (OTHER THAN MILITARY)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	2.8	-0.8	2.0
2019	3.0	-0.8	2.2
2020	3.1	-0.9	2.2
2021	3.1	-0.9	2.2
2022	3.2	-0.9	2.3

Authorization

Sections 119 and 132(e)(2).

Description

In general, the gross income of employees should include the fair market value (FMV) of any meals and lodging that they and their spouses and dependents receive from their employers. But section 119 provides an exception to this rule. The provision allows employees to exclude the FMV of employer-provided meals and lodging under certain conditions. Meals must be provided on the employer's business premises and for the convenience of the employer. Lodging not only must meet the conditions for meals for its FMV to be excludable, but an employee is required to accept the lodging as a condition of employment.

An employer's business premises generally refer to the place where an employee performs his or her duties or the place where the employer conducts a substantial share of its business activities. Business premises include any place on the grounds of an employer's business, not just the main buildings.

An employer provides meals for its convenience when it does so for "a substantial non-compensatory business reason." Determining whether such a reason exists generally depends on the facts and circumstances of specific cases. An employer's statement that the meals it offers to employees are not compensation, by itself, is not considered sufficient evidence. Of greater importance is that employees accept the meals as a key element of performing their jobs properly.

Lodging is a condition of employment if an employee is required to accept the lodging in order to properly perform his or her duties. This means that an employer furnishes the lodging because an employee has to be on duty at all times, or because the employee could not perform the job unless the employer furnished such lodging.

Section 132(e)(2) allows employees to exclude as a *de minimis* fringe benefit the FMV of meals provided to employees at a subsidized eating facility operated by an employer. Two conditions must be met to benefit from the exclusion. First, the facility has to be located on or near the employer's place of business. Second, revenue from the facility must equal or exceed the facility's operating costs. Highly compensated employees may claim the exclusion only if all employees, regardless of compensation level, have access to the facility on "substantially the same terms."

In addition, under section 132(e), employees are allowed to exclude from gross income the value of any item or service they frequently receive from their employers whose cost is so small that accounting for it would be impractical or burdensome. This benefit is referred to in the tax code as a *de minimis* fringe benefit. Examples include small food or drink items frequently available to employees or occasional meals (or cash for meals) provided to employees to enable them to work overtime.

Impact

Excluding from taxation the FMV of employer-provided meals and lodging effectively subsidizes employment in the occupations or industries in which such arrangements are widely available. Live-in housekeepers or apartment resident managers, for instance, frequently receive lodging or meals from their employers. The exclusion offers benefits both to the employees (more are employed and they receive higher after-tax compensation) and to their employers (who might receive their employees' services at a lower net cost). Before 2018, employers are allowed to deduct the cost of meals and

lodging provided to employees as an ordinary and necessary business expense under section 162.

Rationale

The exclusion for employee meals and lodging is set forth in section 119. It generally was the subject of numerous court cases involving taxpayers and the Treasury Department in the first few decades after its enactment in 1918. Section 119 was adopted as part of the revision of the Internal Revenue Code in 1954 (P.L. 83-591) to clarify the conditions under which the cost of employer-provided meals and lodging may be excluded from an employee's taxable income.

Congress created the exclusion for certain employer-provided eating facilities as part of the Deficit Reduction Act of 1984 Act (P.L. 98-369). In doing so, it recognized that the benefits provided to a particular employee who eats regularly at such a facility might not qualify as a *de minimis* fringe benefit. The record-keeping difficulties involved in identifying the employees who ate employer-provided meals on particular days, as well as the cost of those meals, led Congress to conclude that an exclusion should be provided for subsidized eating facilities, as defined in section 132(e)(2).

Assessment

The exclusion subsidizes employment in those occupations or sectors in which employer-provided meals and/or lodging is common. Both employees and employers benefit from the tax exclusion. Under normal market circumstances, more people are employed in these positions than would otherwise be the case, and they receive higher after-tax compensation. Their employers may get their services at a lower cost. Both sides of the transaction benefit because the loss is imposed on the U.S. Treasury in the form of lower tax collections.

Because the exclusion applies to practices that are widely available in some occupations or industries only, it introduces differences in the tax treatment of employees and employers across industries.

Some tax benefits are conferred specifically for the purpose of encouraging or discouraging taxpayers from engaging in certain activities. The section 119 exclusion is not one of those benefits. Rather, it serves two purposes related to employers who provide meals and lodging to employees as a matter of business necessity. The exclusion simplifies tax accounting for employers by doing away with the necessity of determining the FMV of the

meals and lodging provided to employees. The exclusion also rewards employees who are required to remain close to their places of employment to do their jobs properly.

Still, some maintain that the accounting problems addressed by the exclusion are not an adequate rationale for excluding from income the cost of employer-provided meals and lodging. They note that a value is placed on these services under some federal and many state income support programs, and that employers could use the same methods to estimate the FMV of meals and lodging for employees.

Another issue related to the exclusion for employer-provided meals and lodging has arisen in the past decade or so. It concerns the unlimited meals that certain high-technology companies provide their employees. Some argue that the FMV of those meals should not be excludable under section 119 because companies like Google and Facebook use them primarily as a means of attracting and retaining talented individuals, and because the lavishness of the meals make them compensatory under federal tax law. Others reject this argument and maintain that the meals are not compensatory but are intended to benefit employers by encouraging employees to spend more time at work and interact in a social setting that could foster new innovations.

Selected Bibliography

Campbell, Alan D. and Dena S. Mitchell, "Tax Treatment of Employer-Provided Meals and Lodging," *Journal of Accountancy*, July 1, 2015.

Katz, Avery and Gregory Mankiw, "How Should Fringe Benefits Be Taxed?" *National Tax Journal*, vol. 38, no. 1 (March 1985), pp. 37-46.

Lomax, Austin L., "Five-Star Exclusion: Modern Silicon Valley Companies Are Pushing the Limits of Section 119 by Providing Tax-Free Meals to Employees," *Washington and Lee Law Review*, vol. 71, no. 3, Summer 2014.

Potts, Steven T., "I.R.C. Section 119: An Exclusion for Meals and Lodging," *Montana Law Review*, Vol 47, No. 2, Summer 1986.

Raby, Burgess J. W. and William L. Raby, "'Will Work for Food!': Room Meals, and 'Convenience of the Employer,'" *Tax Notes*, vol. 100, July 14, 2003, pp. 203-205.

Turner, Robert, "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

U.S. Congress, Joint Committee on Taxation, *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984,* Committee Print, 98th Congress, 2nd session. December 31, 1984, pp. 858-859.

U.S. Department of the Treasury, Internal Revenue Service, *Employer's Tax Guide to Fringe Benefits*, Publication 15-B, December 4, 2013, pp. 15-17.

— , Internal Revenue Service, Office of Federal State and Local Governments, *Taxable Fringe Benefit Guide*, January 2014, pp. 43-50.

DEFERRAL OF TAXATION ON SPREAD ON ACQUISITION OF STOCK UNDER INCENTIVE STOCK OPTION PLANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.5	-1.5	-1.0
2019	0.5	-1.5	-1.0
2020	0.5	-1.5	-1.0
2021	0.7	-1.5	-0.8
2022	0.7	-1.5	-0.8

Authorization

Sections 421 and 422.

Description

Qualified (or "statutory") options include "incentive stock options," which are limited to $100,000 a year for any one employee, and employee stock purchase plans (see entry on Deferral of Taxation on Spread on Acquisition of Stock under Employee Stock Purchase plans). Incentive stock options may be confined to officers and highly paid employees. Qualified options are not taxed to the employee when granted or exercised (under the regular tax); tax is imposed only when the stock is sold. If the stock is held one year from purchase and two years from the granting of the option, the gain is taxed as a long-term capital gain. The employer is not allowed a deduction for these options, which requires the employer to pay higher income taxes. However, if the stock is not held the required time, the employee is taxed at ordinary income tax rates and the employer is allowed a deduction. The value of incentive stock options is included in minimum taxable income for the individual alternative minimum income tax in the year of exercise.

Impact

Incentive stock options provide employees with tax benefits under current law. The employee recognizes no income (for regular tax purposes) when the options are granted or when they are exercised. Taxes (under the regular tax) are not imposed until the stock purchased by the employee is sold. If the stock is sold after it has been held for at least two years from the date the option was granted *and* one year from the date it was exercised, the difference between the market price of the stock when the option was exercised and the price for which it was sold is taxed at long-term capital gains rates. If the option price was less than 100 percent of the fair market value of the stock when it was granted, the difference between the exercise price and the market price (the discount) is taxed as ordinary income (when the stock is sold).

Taxpayers with high incomes are the primary beneficiaries of incentive stock options. Because employers (usually corporations) cannot deduct the cost of stock options eligible for the lower tax rate on long-term capital gains, employers pay higher income taxes. The prevailing view of tax economists is that the corporate income tax falls primarily on owners of capital. Because most capital income is received by high-income households, these households bear the incidence of this aspect of stock options. These conflicting effects on incidence mean that the overall incidence of qualified stock options is uncertain. Because this tax expenditure raises corporate income tax revenue by more than it reduces individual income tax revenue, the net effect is to increase federal tax revenue.

Rationale

The Revenue Act of 1964 (P.L. 88-272) enacted special rules for qualified stock options, which excluded these options from income when they were granted or exercised and instead included the gains as income at the time of sale of the stock. The Tax Reform Act of 1976 (P.L. 94-455) repealed these special provisions and thus subjected qualified stock options to the same rules as applied to nonqualified options. Therefore, if an employee receives an option, which has a readily ascertainable fair market value at the time it is granted, this value (less the option price paid for the option, if any) constituted ordinary income to the employee at that time. But, if the option did not have a readily ascertainable fair market value at the time it was granted, the value of the option did not constitute ordinary income to the employee at that time. However, when the option was exercised, the spread between the option price and the value of the stock constituted ordinary income to the employee. The

Economic Recovery Tax Act of 1981 (P.L. 97-34) reinstituted special rules for qualified stock options with the justification that encouraging the management of a business to have a proprietary interest in its successful operation would provide an important incentive to expand and improve the profit position of the companies involved.

The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) established code section 162(m), titled "Certain Excessive Employee Remuneration," which applied to the Chief Executive Officer (CEO) and the four highest compensated officers (other than the CEO) of a publicly held corporation. For each of these "covered employees," the publicly held corporation could only deduct, as an expense, the first $1 million of applicable remuneration. The reason for this change was that "the committee [House Committee on the Budget] believes that excessive compensation will be reduced if the deduction for compensation ... paid to the top executives of publicly held corporations is limited to $1 million per year." Exceptions to this $1 million in applicable remuneration included (1) "remuneration payable on commission basis" and (2) "other performance-based compensation." In 2006, the Securities and Exchange Commission amended the rules for covered employees under Section 162(m). Under the new rules, covered executives are the principal executive officer (PEO), the principal financial officer (PFO), and the three most highly compensated executives other than the PEO and PFO. Economic theory suggests that the $1 million cap on deductible compensation increased the relative importance of performance-related compensation including stock options.

Assessment

Tax advantages for qualified stock options may encourage some companies to provide them to employees rather than other forms of compensation that are not tax favored. Paying for the services of employees, officers, and directors by the use of stock options has several advantages for the companies. Start-up companies often use the method because it does not involve the immediate cash outlays that paying salaries involves; in effect, a stock option is a promise of a future payment, contingent on increases in the value of the company's stock. It also makes the employees' pay dependent on the performance of the company's stock, giving them extra incentive to try to improve the company's (or at least the stock's) performance. Ownership of company stock is thought by many to assure that the company's employees, officers, and directors share the interests of the company's stockholders.

Lastly, receiving pay in the form of stock options serves as a form of forced savings, since the money cannot be spent until the restrictions expire.

Critics of the stock options, however, argue that there is no real evidence that the use of stock options instead of cash compensation improves corporate performance. Furthermore, stock options are a risky form of pay, since the market value of the company's stock may decline rather than increase. Some employees may not want to make the outlays required to buy the stock, especially if the stock is subject to restrictions and cannot be sold immediately. And some simply may not want to invest their pay in their employer's stock. Critics also assert that the aggregate dollar amount of the benefits to employees is less than the aggregate dollar amount of the cost to employers (primarily corporations).

Selected Bibliography

Internal Revenue Service. "Covered Employees under Section 162(m)(3)," Notice 2007-49, *Internal Revenue Service Bulletin*: 2007-25, June 18, 2007.

—. *Topic 427-Stock Options*, 2016.

Johnson, Shane A. and Yisong S. Tian. "The Value and Incentive Effects of Nontraditional Executive Stock Option Plans," *Journal of Financial Economics*, vol. 57, July 2000, pp. 3-34.

Nichols, Nancy and Luis Betancourt. "Options and the Deferred Tax Bite," *Journal of Accountancy*, March 2006.

Rose, Nancy L. and Catherine Wolfram. "Regulating Executive Pay: Using the Tax Code to Influence CEO Compensation," *Journal of Labor Economics*, vol. 20, April 2002, Part 2, pp. S138-S175.

U.S. Congress, Congressional Budget Office. *Accounting for Employee Stock Options,* Washington, DC: April 2004.

U.S. Congress, Joint Committee on Taxation. *Overview of Federal Income Tax Provisions Relating to Employee Stock Options* (JCX-107-00), Washington, DC: October 10, 2000.

–. *Present Law and Background Relating to Executive Compensation* (JCX-39-06), Washington, DC: September 5, 2006.

U.S. General Accounting Office, *Federal Accounting Standards: Accounting for Stock Options and Other Share-Based Payments*, Testimony of David M. Walker, Comptroller General of the United States, before the House Committee on Energy and Commerce, GAO-04-962T, Washington, DC: July 8, 2004.

Wood, Robert W. "Tax Refresher on Options and Restricted Stock," *Tax Notes*, January 1, 2018, pp. 145-149.

DEFERRAL OF TAXATION ON SPREAD ON ACQUISITION OF STOCK UNDER EMPLOYEE STOCK PURCHASE PLANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	-0.2	-0.1
2019	0.1	-0.2	-0.1
2020	0.1	-0.2	-0.1
2021	0.1	-0.2	-0.1
2022	0.1	-0.2	-0.1

Authorization

Sections 421 and 423.

Description

Qualified (or "statutory") options include "employee stock purchase plans," which are limited to $25,000 a year for any employee, and "incentive stock options" (see entry on Deferral of Taxation on Spread on Acquisition of Stock under Incentive Stock Option Plans). Employee stock purchase plans must be offered to all full-time employees with at least two years of service. Plans may allow a discount so that option price is not less than the lesser of 85 percent of the fair market value when granted and 85 percent of the fair market value when acquired. A lag between grant and purchase can occur when payroll deductions are made to a fund that accumulates for a stock purchase, and the total discount may include a 15 percent discount plus a look-back to a lower price.

Qualified options are not taxed to the employee when granted or exercised (under the regular tax); tax is imposed only when the stock is sold. If the stock is held one year from purchase and two years from the granting of the option, the gain is taxed as a long-term capital gain but the discount is taxed as compensation. The employer is not allowed a deduction for these options, which requires the employer to pay higher income taxes. However, if the stock is not held the required time, the employee is taxed at ordinary income tax rates and the employer is allowed a deduction.

Impact

Both types of qualified stock options provide employees with tax benefits under current law. The employee recognizes no income (for regular tax purposes) when the options are granted or when they are exercised. Taxes (under the regular tax) are not imposed until the stock purchased by the employee is sold. If the stock is sold after it has been held for at least two years from the date the option was granted *and* one year from the date it was exercised, the difference between the market price of the stock when the option was exercised and the price for which it was sold is taxed at long-term capital gains rates. If the option price was less than 100 percent of the fair market value of the stock when it was granted, the difference between the exercise price and the market price (the difference is called the discount) is taxed as ordinary income when the stock is sold.

Taxpayers with above-average or high incomes are the primary beneficiaries of these tax advantages. Because employers (usually corporations) cannot deduct the cost of stock options eligible for the lower tax rate on long-term capital gains, employers pay higher income taxes. The prevailing view of tax economists is that the corporate income tax falls primarily on capital income. Because most capital income is owned by high-income households, these households bear the incidence of this aspect of stock options. These conflicting effects on incidence mean that the overall incidence of qualified stock options is uncertain. Because this tax expenditure raises corporate income tax revenue by more than it reduces individual income tax revenue, the net effect is to increase federal tax revenue.

Rationale

The Revenue Act of 1964 (P.L. 88-272) enacted special rules for qualified stock options, which excluded these options from income when they were granted or exercised and instead included the gains as income at the time of sale of the stock. The Tax Reform Act of 1976 (P.L. 94-455) repealed these

special provisions and thus subjected qualified stock options to the same rules as applied to nonqualified options. Therefore, if an employee receives an option, which has a readily ascertainable fair market value at the time it is granted, this value (less the option price paid for the option, if any) constituted ordinary income to the employee at that time. But, if the option did not have a readily ascertainable fair market value at the time it was granted, the value of the option did not constitute ordinary income to the employee at that time. However, when the option was exercised, the spread between the option price and the value of the stock constituted ordinary income to the employee. The Economic Recovery Tax Act of 1981 (P.L. 97-34) reinstituted special rules for qualified stock options with the justification that encouraging the management of a business to have a proprietary interest in its successful operation would provide an important incentive to expand and improve the profit position of the companies involved.

Assessment

Tax advantages for qualified stock options may encourage some companies to provide them to employees rather than other forms of compensation that are not tax favored. Evidence from Babenko and Sen indicate that, although employee stock purchase plans are available to most employees, employees with lower income and education are less likely to participate in these plans even though the discounts provide a clear financial benefit. Younger and older employees are also less likely to participate, as are those with a lack of familiarity with the stock market.

To the extent that stock plans and their discounts substitute for wages, they make the employees' pay dependent on the performance of the company's stock, giving them extra incentive to try to improve the company's (or at least the stock's) performance. Ownership of company stock is thought by many to assure that the company's employees, officers, and directors share the interests of the company's stockholders. Lastly, receiving pay in the form of stock options serves as a form of forced savings, since the money cannot be spent until the restrictions expire.

Critics of the stock options, however, argue that there is no real evidence that the use of stock options instead of cash compensation improves corporate performance. Furthermore, stock options are a risky form of pay, since the market value of the company's stock may decline rather than increase. Since many employees tend to hold on to their stock, employee stock purchase plans may lead to less diversified retirement portfolios.

Since the aggregate dollar amount of the tax benefits to employees is less than the aggregate tax cost to employers (primarily corporations), stock purchase plans may be less likely to be used by employers.

Selected Bibliography

Babenko, Ilona and Rik Sen, "Money Left on the Table: An Analysis of Participation in Employee Stock Purchase Plans," *Review of Financial Studies*, vol. 27, December 2014.

Bickley, James M., *Employee Stock Options: Tax Treatment and Tax Issues,* Library of Congress, Congressional Research Service Report RL31458. Washington, DC: June 15, 2012.

Ebeling, Ashlea, "Employee Stock Purchase Plans Are Making A Comeback," *Forbes*, April 11, 2013.

Internal Revenue Service, *Topic 427-Stock Options*, 2016.

U.S. Congress, Congressional Budget Office, *Accounting for Employee Stock Options,* Washington, DC: April 2004.

U.S. Congress, Joint Committee on Taxation, *Overview of Federal Income Tax Provisions Relating to Employee Stock Options* (JCX-107-00), Washington, DC: October 10, 2000.

U.S. General Accounting Office, *Federal Accounting Standards: Accounting for Stock Options and Other Share-Based Payments*, Testimony of David M. Walker, Comptroller General of the United States, before the House Committee on Energy and Commerce, GAO-04-962T, Washington, DC: July 8, 2004.

Education, Training, Employment, and Social Services:
Employment

EXCLUSION OF BENEFITS PROVIDED UNDER CAFETERIA PLANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	37.9	-	37.9
2019	40.1	-	40.1
2020	43.3	-	43.3
2021	47.7	-	47.7
2022	53.0	-	53.0

Authorization

Section 125.

Description

A cafeteria plan is a benefit provided by employee that enables employees to set aside money on a pre-tax basis for certain qualified expenditures, including health insurance premiums, dependent care, and adoption fees. Cafeteria plans allow employees to choose among cash and certain nontaxable benefits (such as health care) without paying taxes if they select the latter. A general rule of tax accounting is that when taxpayers have the option of receiving both cash and nontaxable benefits they are taxed even if they select the benefits, since they are deemed to be in constructive receipt of the cash (that is, since it is within their control to receive it). Section 125 of the Internal Revenue Code provides an express exception to this rule when certain nontaxable benefits are chosen under a cafeteria plan. The tax expenditure measures the loss of revenue from not including the nontaxable benefits in taxable income when employees have this choice. Cafeteria plan benefits are also not subject to employment taxes of either the employer or employee.

"Cash" includes not only cash payments but also employment benefits that are normally taxable, such as vacation pay. Nontaxable benefits include any employment benefits that are excluded from gross income under a specific section of the Code, other than long-term care insurance, scholarships or fellowships, employer educational assistance, miscellaneous fringe benefits, and most forms of deferred compensation. Nontaxable benefits typically included in cafeteria plans are accident and health insurance, dependent care assistance, group-term life insurance, and adoption assistance. If health insurance is the only benefit offered, the plan is known as a premium conversion plan. Employer contributions to health savings accounts are also an allowable nontaxable benefit.

Most flexible spending accounts (FSAs) are governed by cafeteria plan provisions, as are premium conversion arrangements under which employees pay their share of health insurance premiums on a pretax basis. In both cases, employees are choosing between cash wages (through voluntary salary-reduction agreements) and nontaxable benefits.

Cafeteria plans must be in writing. The written plan must describe the available benefits, eligibility rules, procedures governing benefit elections (usually occurring during an annual open season), employer contributions, and other matters. Under IRS regulations, midyear election changes generally are allowed only for employee status changes (e.g., the birth of a child) or benefit cost changes (e.g., child care fees increase), though midyear changes on the basis of cost are not allowed for health benefits.

Highly compensated individuals are taxed on all benefits if the cafeteria plan discriminates in favor of them as to eligibility, as are highly compensated participants with respect to contributions and benefits. Highly compensated individuals and participants include officers, 5-percent shareholders, someone with high compensation (more than $120,000 in 2018, unless the employee was not in the top 20 percent of earners), or a spouse or dependent of any of these individuals. In addition, if more than 25 percent of the total tax-favored benefits are provided to key employees, they will be taxed on all benefits. Key employees include officers earning more than $175,000, 5-percent owners, or 1-percent owners earning more than $150,000. There are some exceptions to these rules, including cafeteria plans maintained under collective bargaining agreements.

Amounts in health care FSAs may be rolled over into Health Savings Accounts (HSAs) under legislation adopted at the end of 2006; contributions to health are limited to $2,650 for 2018.

An important benefit that can be provided via cafeteria plans is the employee's share of health insurance premiums, including cases where the employee pays the entire premium. Insurance bought from the individual exchanges established under the Patient Protection and Affordable Care Act of 2010, P.L. 111-148, which began in 2014, is not eligible for tax benefits under cafeteria plans.

Impact

Cafeteria plans allow employees to choose among a number of nontaxable employment benefits without incurring a tax liability simply because they could have received cash. The principal effect is to encourage employers to give employees some choice in the benefits they receive.

As with other tax exclusions, the tax benefits are greater for taxpayers with higher incomes. Higher-income taxpayers may be more likely to choose nontaxable benefits (particularly health care benefits) instead of cash, which would be taxable. Lower-income taxpayers may be more likely to choose cash, which they may value more highly and for which the tax rates would be comparatively low.

More employers reportedly are offering cafeteria plans, but employee access to them depends largely on firm size. According to a 2018 survey from the Bureau of Labor Statistics (BLS), 18 percent of employees had access to a flexible benefits plan, 42 percent to a dependent care plan, and 45 percent to healthcare reimbursement plan. For firms with less than 100 employees these ratios were 10, 24, and 27 percent, respectively. For firms with more than 500 employees, the percentages were 34, 71, and 76 percent, respectively. The federal government began to offer FSAs to its employees in July 2003.

Despite a high percentage of employers offering FSAs, the average participation rate among employees has been much lower. According to a 2015 report of results of a Mercer Survey, 22 percent of eligible employees participated in a health care FSA, and 6 percent in a child care FSA. A Mercer survey of consumer-directed health plans found that only 30% of eligible employees participated in 2017.

Rationale

Under the Employee Retirement Income Security Act of 1974 (ERISA, P.L. 93-406), an employer contribution made before January 1, 1977, to a cafeteria plan in existence on June 27, 1974, was required to be included in an employee's gross income only to the extent the employee *actually* elected

taxable benefits. For plans not in existence on June 27, 1974, the employer contribution was included in gross income to the extent the employee *could* have elected taxable benefits.

The Tax Reform Act of 1976 (P.L. 94-455) extended these rules to employer contributions made before January 1, 1978. The Foreign Earned Income Act of 1978 (P.L. 95-615) made a further extension until the effective date of the Revenue Act of 1978 (P.L. 95-600) (i.e., through 1978 for calendar-year taxpayers).

In the Revenue Act of 1978 (P.L. 95-600), the current provision as outlined above was added to the Code to ensure that the tax exclusion was permanent, but no specific rationale was provided.

The Deficit Reduction Act of 1984 (P.L. 98-369) limited permissible benefits and established additional reporting requirements. The Tax Reform Act of 1986 (P.L. 99-514) imposed stricter nondiscrimination rules (regarding favoritism towards highly compensated employees) on cafeteria and other employee benefit plans. In 1989, the latter rules were repealed by legislation to increase the public debt limit (P.L. 101-140).

By administrative rulings, federal government employees were allowed to start paying their health insurance premiums on a pretax basis in 2000 and to establish flexible spending accounts in 2003.

Also by administrative ruling, in 2005 the Internal Revenue Service (IRS) allowed employees an additional 2 and ½ months to use remaining balances in their health care FSAs at the end of the year. Previously, unused balances at the end of the year were forfeited to employers.

In August 2007, the IRS issued new proposed rules for cafeteria plans. The rules have not yet been finalized. IRS rules for cafeteria plans are important since there is relatively little statutory language, particularly for FSAs.

Amounts in health care FSAs may be rolled over into Health Savings Accounts (HSAs) under legislation adopted at the end of 2006 (P.L. 109-432).

Beginning in 2013, contributions to health care FSAs are limited to $2,500, indexed for inflation, under the Patient Protection and Affordable Care Act of 2010 (P.L. 111-148). The limit for 2018 is $2,650. That legislation also excluded over-the-counter drugs from being a qualified FSA expense. It also prohibited employees from using their FSA to purchase individual

coverage through the health exchanges, beginning in 2014 (Treasury Notice 2013-54).

On October 31, 2013, the Internal Revenue Service (IRS) issued Notice 2013 -71 which allowed a limited carryover of unused benefits in health care FSAs.

Assessment

Cafeteria plans often are more attractive to employees than fixed benefit packages since they can choose the benefits best suited to their individual circumstances. Usually, choice extends to both the type of benefit (health care, child care, etc.) as well as the amount, at least within certain limits. Ability to fine-tune benefits increases the efficient use of resources and may help some employees better balance competing demands of family and work.

As with other employment benefits, however, the favored tax treatment of cafeteria plans leads to different tax burdens for individuals with the same economic income. One justification for this outcome might be that it is in the public interest for employers to provide social benefits to workers if otherwise they would enroll in public programs or go without coverage. Providing social benefits through employment, however, puts burdens on employers, particularly those with a small number of workers, and may impede workers' willingness and ability to move among jobs.

Health care flexible spending accounts (FSAs) funded through salary reduction agreements allow employees to receive tax benefits for the first dollars of their unreimbursed medical expenditures; in contrast, other taxpayers get tax benefits only if they itemize deductions and their unreimbursed medical expenditures exceed 10 percent of adjusted gross income (7½ percent in 2017 and 2018).

Selected Bibliography

"Employee Benefits," *Journal of Accountancy*, v. 206, no. 2 (August 2008), p. S9-S11.

Hall, Mark A. and Amy B. Monahan. "Paying for Individual Health Insurance Through Tax-Sheltered Cafeteria Plans," *Inquiry*, v. 47, no. 3 (Fall 2010), pp. 252-261.

Roane, Dana. "Health Reform Prohibits Most Reimbursement Plans," Journal of Accountancy, v. 220, no. 3 (September 2015), pp. 78-80.

Roberts, Gary E. "Municipal Government Benefits Practices and Personnel Outcomes: Results from a National Survey," *Public Personnel Management,* v. 33, no. 1, Spring 2004.

Ryan, Chris and Cathy Wells. "FSA Rule Change a Mixed Bag for Participants, Administrators," *Benefits Law Journal,* v. 18, no. 3, Autumn 2005.

Turner, Robert. "Fringe Benefits," *The Encyclopedia of Taxation and Tax Policy*. 2nd ed. Washington, DC: Urban Institute Press, 2005.

Umland, Beth. "The FSA: Going Through Some Changes," Mercer, February 3, 2015, at http://ushealthnews.mercer.com/article/322/the-fsa-going-through-some-changes.

U.S. Bureau of Labor Statistics, National Compensation Survey, Table 41. Financial Benefits, Civilian Workers, March 2018, https://www.bls.gov/ncs/ebs/benefits/2018/ownership/civilian/table41a.pdf.

U.S. Congress. Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, 98th Congress, 2nd session, December 31, 1984, pp. 867-872.

EXCLUSION OF HOUSING ALLOWANCES FOR MINISTERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.7	-	0.7
2019	0.7	-	0.7
2020	0.7	-	0.7
2021	0.7	-	0.7
2022	0.8	-	0.8

Authorization

Sections 107 and 265.

Description

In general, the gross income of employees should include the fair market value of any lodging provided by an employer. But an exception is made for housing allowances received by eligible members of the clergy.

Under section 107 of the federal tax code, "ministers of the gospel" may exclude qualified housing-related compensation from their gross income for the income tax. A minister of the gospel is defined as someone who is "a duly ordained, commissioned, or licensed minister of a church." This definition applies to clergy in all religions. Even ministers who are not ordained are regarded (for tax purposes) as a minister of the gospel if they are qualified to perform substantially all of the duties of an ordained minister.

Members of the clergy are considered employees under the federal income tax but self-employed under federal payroll taxes. This distinction means that a minister may not exclude any qualified housing compensation from the income base for the self-employment tax.

Ministers are allowed to exclude from gross income two kinds of housing-related compensation. One is known as the parsonage exemption (section 107(1)). Members of the clergy who have use of a house (or parsonage) as part of their compensation may exclude from gross income the fair rental value of the property.

The second housing-related exclusion is known as the minister's cash housing allowance (section 107(2)). In this case, members of the clergy who receive a cash housing allowance in lieu of use of a parsonage from their employer may exclude from gross income the extent to which the allowance is used to pay expenses related to renting or owning a home, such as rent, mortgage payments, property taxes, utilities, repairs, and other expenses directly related to residing in a home. Like the parsonage exemption, the exclusion for cash housing allowances is limited to the fair rental value of the property.

In addition, ministers receiving housing allowances (and thus benefiting from the exclusion) may also claim an itemized tax deduction for payments they make for mortgage interest and property taxes on their residences. In other words, they are allowed to deduct those payments even though they were made from income that is excluded from income taxation. Such a double benefit from the same expenditure is highly unusual under the federal tax code.

A clergy member can benefit from the exclusion only if their employer officially designates a specified amount of his or her compensation as a housing allowance before the minister receives it. The designation must be in writing and could be included in the minutes of a church board or finance committee meeting or the minister's contract with their employer.

While excluded from income taxes, the fair rental value of a parsonage or housing obtained with a cash housing allowance is subject to federal payroll taxes.

If a minister's housing allowance exceeds the actual amount he or she spends on qualified housing expenses, the excess must be included in gross income.

Impact

As a result of the exclusion, ministers receiving qualified housing allowances pay less tax than other taxpayers with similar (or even smaller) incomes.

The tax benefit from the exclusion hinges on the average effective tax rate that applies to a minister's income. For example, in the case of a $1,000 housing allowance, a minister in the highest income tax bracket (37 percent) would derive a greater tax savings from the exclusion than would a minister in a lower tax bracket (12 percent). In this instance, the tax savings would be $370 for the former but only $120 for the latter.

Ministers who receive a cash housing allowance can further decrease their tax liability by claiming an itemized deduction for the amount of their payments for mortgage interest and property taxes, even if the income used to make the payments has been excluded from the income tax. Once again, the amount of the tax benefit varies by tax bracket.

Rationale

The exclusion for the housing allowances for ministers entered the federal tax code through the Revenue Act of 1921 (RA, P.L. 67-98). There is no record of Congress's intention in creating the exclusion. The act addressed the value of employer-provided housing for ministers (e.g., parsonages) but said nothing about the tax treatment of cash housing allowances. In establishing the exclusion, Congress may have intended to provide tax relief to a group that was widely seen as essential to the spiritual welfare of Americans, but that experienced economic deprivation because of their relatively low salaries.

Several noteworthy disputes over the tax treatment of cash housing allowances involving the Internal Revenue Service and ministers were settled on the basis of the RA. Congress responded to the uncertainties underlying the disputes by exempting cash housing allowances for clergy from the income tax in the 1954 revision of the Internal Revenue Code (P.L. 83-591). This equalized the tax treatment of both forms of ministerial housing compensation.

Several subsequent IRS and court rulings and congressional actions addressed the question of whether or not a minister's payments for mortgage interest and property tax from a housing allowance could be deducted from taxable income as an itemized deduction.

In a 1962 ruling (Revenue Ruling 62-212), the IRS said that interest and taxes paid by a minister in connection with ownership of a personal residence could be claimed as itemized deductions, in addition to the exclusion of a housing allowance from gross income. This ruling was revoked in 1983

(Revenue Ruling 83-3), though it never took effect as Congress blocked its implementation.

In the Tax Reform Act of 1986 (P.L. 99-514), Congress permanently reversed the 1983 IRS ruling, arguing that the double tax benefit should remain intact since it was long-standing. Additionally, some Members of Congress were concerned that if the 1983 rule were allowed to stand, the IRS might extend the elimination of the double tax benefit for clergy housing allowances to the housing allowances for U.S. military personnel.

Following the Tax Reform Act of 1986, no changes in the tax treatment of clergy housing allowances were made until 2002. At issue was the taxation of a housing allowance that exceeded the fair rental value of a clergy's residence. The issue had its origins in a 1971 IRS ruling (Revenue Ruling 71-280) that the housing allowance for parsonages may not exceed the fair rental value of the home plus the cost of utilities. Influenced by a pending lawsuit involving a claim that 100 percent of a minister's compensation was designated as a housing allowance (Warren v. Commissioner, 114 T.C. 343 (2000)), Congress clarified the tax treatment of the parsonage housing allowance in the Clergy Housing Allowance Clarification Act of 2002 (P.L. 107-181). Congress largely sided with the IRS ruling in the matter. Under the act, the exclusion for clergy housing allowances could not exceed the fair rental value of the parsonage, including furnishings and appurtenances such as a garage, plus the cost of utilities, beginning on January 1, 2002; any housing allowance beyond this amount would be taxable.

Assessment

It is not known to what extent the exclusion for clergy housing allowances boosts spending on housing and related expenses by members of the clergy. But it is possible that the exclusion leads some congregations to include higher housing allowances in ministerial compensation packages than they otherwise would, increasing the revenue loss from the exclusion.

The provision is inconsistent with the tax principles of horizontal and vertical equity. Horizontal equity requires that taxpayers with similar abilities to pay bear similar tax burdens. Since all taxpayers may not exclude amounts they pay for housing from taxable income, section 107 gives members of the clergy a tax benefit that most other taxpayers do not have, violating the principle of horizontal equity. For example, a clergyman teaching in an affiliated religious school may exclude most or all of the cost of her housing,

whereas another teacher in the same school may not, even though both earn the same income.

Vertical equity requires that tax burdens be based on a taxpayer's ability to pay. Ministers with higher incomes receive a greater tax subsidy than lower-income ministers because those with higher incomes pay taxes at higher marginal tax rates. The disproportionate benefit of the tax exclusion to individuals with higher incomes reduces the progressivity of the tax system.

In addition, ministers living in church-provided homes do not receive the same tax benefits as those who live in homes they purchase and claim tax deductions for mortgage interest and property taxes. Section 265 disallows deductions for interest and expenses which relate to tax-exempt income, except in the case of military housing allowances and the parsonage allowance. As such, the exclusion for clergy housing allowances is inconsistent with one of the key principles undergirding the federal income tax: no taxpayer should derive a double benefit from the same expenditure.

Selected Bibliography

Aprill, Ellen P. "Parsonage and Tax Policy: Rethinking the Exclusion." *Tax Notes*, vol. 96, no. 9 (Aug. 26, 2002), pp. 1243-1257.

Campbell, Alan D. "Tax Considerations for Ministers." *The Tax Adviser* (June 1, 2015).

Dorocak, John R. "The Income Tax Exclusion of the Housing Allowance for Ministers." *Tax Notes*, vol. 124 no. 4 (July 27, 2009), pp. 380-383.

Dwyer, Boyd Kimball. "Redefining 'Minister of the Gospel' To Limit Establishment Clause Issues." *Tax Notes*, vol. 95, no. 12 (June 17, 2002), pp. 1809-1815.

Frazer, Douglas H. "The Clergy, the Constitution, and the Unbeatable Double Dip: The Strange Case of the Tax Code's Parsonage Allowance." *The Exempt Organization Tax Review*, vol. 43 (February 2004), pp. 149-152.

Foster, Matthew W. "The Parsonage Allowance Exclusion: Past, Present, and Future." *Vanderbilt Law Review,* vol. 44, January 1991, pp. 149-178.

Gompertz, Michael L. "Lawsuit Challenges Income Tax Preferences for Clergy." *Tax Notes*, vol. 128 no. 1 (July 5, 2010), pp. 81-94.

—. "The Clergy Housing Allowance is Unconstitutional." *Tax Notes*, vol. 144 (July 21, 2014), pp. 315-327.

Internal Revenue Service, *Social Security and Other Information for Members of the Clergy and Religious Workers*, Publication 517, December 29, 2017.

Langford, Bryce. "The Minister's Housing Allowance: Should It Stand, and If Not, Can Its Challengers Show Standing?" *Kansas Law Review*, vol. 63 (May 2015), pp. 1129-1167.

Raby, Burgess J.W. and William L. Raby. "Some Thoughts on the Parsonage Exemption Imbroglio." *Tax Notes*, vol. 96, no. 11 (Sept. 9, 2002), p. 1497.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986*, H.R. 3838, 99th Congress, Public Law 99-514. Washington, DC: U.S. Government Printing Office, May 4, 1987, pp. 53-54.

Warren, Steven E. "Tax Planning for Clergy." *Taxes*, vol. 72, January 1994, pp. 39-46.

Zelinsky, Edward A. "The First Amendment and the Parsonage Allowance." *Tax Notes*, Special Report (January 27, 2014), pp. 413-421.

Education, Training, Employment, and Social Services:
Employment

EXCLUSION OF INCOME EARNED BY VOLUNTARY EMPLOYEES' BENEFICIARY ASSOCIATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.5	-	1.5
2019	1.4	-	1.4
2020	1.5	-	1.5
2021	1.5	-	1.5
2022	1.6	-	1.6

Authorization

Sections 419, 419A, 501(a), 501(c)(9), 512(a)(3), 4976.

Description

Voluntary Employees' Beneficiary Associations (VEBAs) are generally used to fund fringe benefits for groups of active or retired employees and their families. More specifically, funds from the VEBAs cover some or all of the expenses of life insurance, medical, disability, accident, and other welfare benefits to associations of employees, their dependents, and their beneficiaries. Contributions to VEBAs can be made by either employers (which is relatively more common) or employees (which is relatively less common). Funds grow tax-deferred. Funds in the VEBAs are legally separate from the employer, belong to employees, and may never revert to an employer. A substantial majority of VEBAs are formed as trusts, and that is the context in which they will be discussed in this chapter. Generally, income earned by VEBAs can be exempt from federal income taxes under Sections 501(a) and 501(c)(9). (Some types of income, however, may be subject to the unrelated business income tax (UBIT).)

Employer contributions to VEBAs are deductible within the limits described below. In contrast, employee contributions are made with after-tax dollars. Section 61 requires all income, from all sources, to be included in gross income unless there is a provision that excludes it from gross income. Distributions for accident and health benefits are excluded from taxable income to workers under Sections 104 and 105. Distributions for certain death benefits are excluded under Section 101. Those for certain educational assistance are excluded under Section 127. However, although a VEBA may make distributions for severance and vacation pay to protect against a contingency that would impair or interrupt a member's earning ability, such distributions would be considered wages. They would be reported on Form W-2 and subject to withholding for all payroll and income taxes.

A VEBA must meet a number of general requirements, including: (1) it must be an association of employees who share a common employment-related bond; (2) membership in the association must be voluntary (or, if mandatory, under conditions described below); (3) the association must be controlled by its members, by an independent trustee (such as a bank), or by trustees or fiduciaries at least some of whom are designated by or on behalf of the members; (4) substantially all of the association's operations must further the provision of life, sickness, accident, and other welfare benefits to employees and their dependents and beneficiaries; (5) none of the net earnings of the association may accrue, other than by payment of benefits, directly or indirectly, to any shareholder or private individual; (6) benefit plans (other than collectively bargained plans) must not discriminate in favor of highly compensated individuals; and (7) the organization must apply to the IRS for a determination of tax-exempt status.

These general requirements have been refined and limited by both IRS and court decisions. For example, employee members may have a common employer or affiliated employers, common coverage under a collective bargaining agreement or membership in a labor union, or a specified job classification. In addition, members may be employees of several employers engaged in the same line of business in the same geographic area. Not all members need be employees, but at least 90 percent of the membership on at least one day each calendar quarter must be employees. (Spouses and dependents that are eligible for benefits from the VEBA are not included in the calculation of the number of employees.) Membership may be required if contributions are not mandatory or if it is pursuant to a collective bargaining agreement or union membership. Permissible benefits generally include those that safeguard or improve members' health or that protect against

contingencies that interrupt or impair their earning power such as benefits for vacations, recreational activities, and child care. Prohibited benefits include pension and annuities payable at retirement and deferred compensation unless it is payable due to an unanticipated event such as unemployment.

As noted above, benefits funded through VEBAs generally may not discriminate in favor of the highly paid. In addition, VEBAs used for prefunding of retiree medical or life insurance benefits are required to establish *separate* accounts for members who are key employees, where key employees generally include certain owners and officers of an employer, highly paid employees, or both.

With certain exceptions discussed below, employer deductions for VEBA contributions are limited to the qualified cost reduced by the VEBA's after-tax income. The qualified cost is generally defined as the sum of qualified direct costs and additions to qualified asset accounts. These account limits are specified in Sections 419 and 419A.

- *Qualified direct costs* are the amounts employers could have deducted for employee benefits had they provided the benefits directly and used cash basis accounting (essentially, benefits and account expenses actually paid during the year).

- *Qualified asset accounts* include: (1) reserves set aside for claims incurred but unpaid at the end of the year for disability, medical, supplemental unemployment and severance pay, and life insurance benefits; (2) administrative costs for paying those claims; and (3) additional reserves for post-retirement medical and life insurance benefits and for non-retirement medical benefits of bona fide association plans. The reserve for post-retirement benefits must be funded over the working lives of covered individuals on a level basis, using actuarial assumptions incorporating current, not projected, medical costs.

- *After-tax net income* consists of net interest and investment earnings plus employee contributions, minus any UBIT liability.

The prefunding limits described in the above three points do not apply to VEBAs created by a collective bargaining arrangement, employee pay-all VEBAs (sometimes called 419A(f)(5) VEBAs), or to multiple employer welfare plans (MEWAs) of 10 or more employers in which no employer makes

more than 10 percent of the contributions (sometimes called 419A(f)(6) plans). MEWAs cannot have experience-rated contributions for single employers.

There are differences between collectively-bargained and non-collectively-bargained VEBAs in terms of their ability to include medical inflation. In particular, in calculating the amount needed to fund health benefits for current and perhaps future retirees over the lifetime of the VEBA, trusts conducted in the absence of collective bargaining must assume that future medical inflation is zero. On the other hand, trusts created as part of a collective bargaining agreement can allow for future medical inflation, which leads to higher trust fund balances holding all other factors constant.

Impact

Historically, VEBAs have been used by employers for a variety of reasons. These reasons include segregating assets, earning tax-free investment returns for qualified funds, reducing future contribution requirements by prefunding, creating an offsetting asset for an employer liability, and meeting requirements of rate-making bodies and regulatory agencies. Funding a welfare benefit through a VEBA often offers tax advantages to the employer as well as the employees. The magnitude of the tax advantage depends on the amount of benefits payable and the duration of the liability. Thus, the tax advantage is greater for a VEBA that funds the disabled claim reserve for a Long Term Disability plan than for a VEBA that funds the Incurred but Not Paid claim reserve for a medical plan. More recently, however, interest has focused on using VEBAs to fund health benefits for current and future retirees, especially retirees from firms in or contemplating bankruptcy proceedings.

Although employers are required to prefund qualified defined-benefit pension plans, they are not legally required to prefund retiree health plans. The use of VEBAs for prefunding retiree health benefits gathered momentum after the Financial Accounting Standards Board (FASB) required accrual accounting for non-pension post-retirement benefits under the Statement of Financial Accounting Standard 106 (FAS 106). This accounting standard, which was effective for employers' fiscal years beginning after December 15, 1992, required employers to accrue the cost of anticipated future retiree health benefits, and recognize the cost as an expense on their income statement. If an employer had segregated assets dedicated to the payment of retiree health care benefits, the return on these assets reduced the net periodic postretirement health care cost. With the release of FAS 106, VEBAs that were the product of collective bargaining proved to be an attractive funding choice because the

investment income on the funds accumulated tax-free and there were no limits on contributions.

In the absence of a VEBA, retirees of a company in a bankruptcy proceeding might lose most or all of their health care coverage. Under certain circumstances, a provision of the Bankruptcy Code may allow an employer to discontinue health care coverage that was provided in already-ratified collective bargaining agreements. (The health coverage tax credit may be available to employees if a defined-benefit pension plan was turned over to the Pension Benefit Guaranty Corporation because of financial difficulties. This tax credit is currently in effect through 2019.) Because the funds for qualifying benefits that are held in a VEBA may never revert to the employer, the presence of a VEBA guarantees that the retirees will receive at least some retiree health coverage. However, VEBAs do not guarantee that projected benefits will be fully funded (i.e., contain enough money to pay for all coverage expected over the life of the VEBA). The value of future benefits depends on the amount of the contributions and the growth in the assets in the VEBA relative to the increase in health care costs.

For example, negotiations in the late 2000s between the "Detroit Three" automakers (General Motors, Ford, and Chrysler, LLC) and the International Union, United Automobile, Aerospace, & Agricultural Implement Workers of America (UAW) established a VEBA for health benefits to current and some future retirees. Although there is only one VEBA, officially known as the UAW Retiree Medical Benefits Trust, it consists of three separate accounts: one each for the three automakers. Under the agreements, the automakers nearly eliminated their responsibility for retiree health benefits in exchange for making cash and other financial contributions that were worth significantly less than the present value of their obligations. The UAW received the security of knowing that the funds in the VEBA, and thus some retiree health benefits, would be protected if the automakers filed for bankruptcy. Despite bankruptcy reorganizations by both General Motors and Chrysler in 2009, the UAW VEBA is still available to provide retiree health benefits to eligible retirees from each company.

Rationale

VEBAs were originally granted tax-exempt status by the Revenue Act of 1928 (P.L. 70-562), which allowed associations to provide payment of life, sickness, accident, or other benefits to their members and dependents provided that: (1) no part of their net earnings accrued (other than through such payments) to the benefit of any private shareholder or individual; and (2) 85

percent or more of their income consisted of collections from members for the sole purpose of making benefit payments and paying expenses. Perhaps VEBAs were seen as providing welfare benefits that served a public interest and should be exempt from taxation.

The Revenue Act of 1942 (P.L. 77-753) allowed employers to contribute to the association without violating the 85-percent-of-income requirement. In the Tax Reform Act of 1969 (P.L. 91-172), Congress eliminated the 85-percent requirement, allowing a tax exclusion for VEBAs that had more than 15 percent of their income from investments. However, the legislation imposed the UBIT on VEBA income (as well as the income of similar organizations) to the extent it was not used for exempt functions.

While VEBAs cannot be used for deferred compensation, sometimes it has been difficult to distinguish such benefits. Particularly after 1969, VEBAs presented opportunities for businesses to claim tax deductions for contributions that would not be paid out in benefits until many years afterwards, with the investments earning income free from tax. In many cases, the benefits were disproportionately available to corporate officers and higher-income employees. After passage of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA, P.L. 97-248), there was increased marketing of benefit plans providing readily available deferred benefits (for severance pay, for example) to owners of small businesses. These plans appeared to circumvent restrictions the Act had placed on qualified pensions.

In response, the Deficit Reduction Act of 1984 (DEFRA, P.L. 98-369) placed tight restrictions on employer contributions (Section 419) and limitations on accounts (Section 419A). In addition, tighter nondiscrimination rules were adopted for highly compensated individuals. These changes applied to welfare benefit funds generally, not just VEBAs. The nondiscrimination rules were further modified by the Tax Reform Act of 1986 (TRA86, P.L. 99-514). TRA86 also exempted collectively bargained welfare benefit funds and employee pay-all plans from account limits, thereby exempting the investment income on such VEBA trusts from the UBIT.

DEFRA did not apply these restrictions to collectively bargained plans or MEWA plans. In practice, both exemptions allowed arrangements that the IRS and others criticized as tax shelters. In 2003, IRS Notice 2003-24 stated that tax benefits purportedly generated by sham labor negotiations were not allowable for federal income tax purposes. The IRS also issued final regulations defining experience-rating arrangements that preclude employer deductions for MEWAs.

The Pension Protection Act of 2006 (P.L. 109-280) authorized an additional reserve for non-retirement medical benefits of bona fide association plans.

In October 2007, IRS Notices 2007-83 and 2007-84 cautioned taxpayers against using VEBAs to provide cash value life insurance or to provide post-retirement benefits such as health care on a seemingly nondiscriminatory basis that in practice primarily benefits the owners or other key employees. The notices were aimed at welfare benefit plans considered abusive by the IRS that were being sold to professional corporations and other small businesses. In addition, the IRS clarified that deductions are not allowed under Section 419 for contributions to pay cash value life insurance premiums (Rev. Rul. 2007-65). Deductions are disallowed whether the trust provides insurance as a benefit or uses the proceeds to fund other benefits.

The Patient Protection and Affordable Care Act of 2010 (ACA, P.L. 111-148) enacted a provision that pertains to employer-provided and self-insured health plans, which includes plans that use VEBAs. Section 501(c)(9), as amended by the ACA, provides that, for purposes of providing for the payment of sick and accident benefits to VEBA members and their dependents, the term dependent includes any individual who is a member's child (as defined in Section 152(f)(1)) and who has not attained age 27 as of the end of the calendar year.

Assessment

VEBA withdrawals that are exempt from federal income taxes could lead to inefficient use of employee fringe benefits. By lowering the after-tax cost of these benefits, the tax preferences for VEBAs could encourage overconsumption of these benefits compared to a situation where there was no tax preference for these benefits.

VEBAs could also lead to inequality among employers and employees with similar abilities to pay income tax. While the Internal Revenue Code excludes certain fringe benefits from federal income taxation (e.g., certain health and medical benefits), employees can withdraw from their VEBA accounts to pay for qualified medical claims without incurring income tax on the distributions. By comparison, an employee with a more common, employer-sponsored insurance plan would typically use after-tax dollars for their co-pays (unless they were using another tax-exempt method, such as a

Section 223 health savings account). Benefits from VEBAs that are not for tax-qualified medical purposes may be subject to tax.

A VEBA may provide a valuable option for both employers and employees by providing tax-free contributions for employers and benefits to employees. In addition, the irrevocable trust fund associated with a VEBA helps protect the benefits.

VEBAs associated with an employer's chapter 11 bankruptcy proceedings (reorganizations) may both protect the fund's beneficiaries and make it more likely that the debtor-company will be able to successfully reorganize. Even if underfunded, establishing a VEBA would provide the beneficiaries with some future benefits. At the same time, it would improve the company's financial position by removing future costs of the covered benefits from the debtor-company's obligations.

Selected Bibliography

Bjornstad Amin, Kathryn, Theodore R. Groom and Christine L. Keller. "Recent IRS Developments Affecting VEBAs and Group Term Life Insurance Plans." Groom Law Group Benefits Brief, February 19, 2014.

Borzi, Phyllis. *Retiree Health VEBAs: A New Twist on an Old Paradigm, Implications for Retirees, Unions, and Employers*. Kaiser Family Foundation, March 2009.

Creed, Maggie F. "Investment Planning and Tax Implications for a Tax-Exempt Voluntary Employee Benefit Association Trust." *Journal of Financial Service Professionals*, Vol. 61, No. 5, September 2007.

Ghilarducci, Teresa. *The New Treaty of Detroit: Are Voluntary Employee Benefits Associations Organized Labor's Way Forward, or the Remnants of a Once Glorious Past?* New Labor Market Institutions and the Public Response: A Symposium to Honor Lloyd Ulman. Berkeley, California: October 26, 2007.

Giancola, Frank L. "The Turbulent History of the Nation's Largest Voluntary Employees' Beneficiary Association." *Compensation and Benefits Review*. Vol 47, Issue 4, May 29, 2016, pp. 184-189

Grudzien, Larry. The Great Vanishing Benefit, Employer Provided Retiree Medical Benefits: The Problem and Possible Solutions. *J. Marshall Law Review*, Vol. 39, 2005-2006.

Hurley, Timothy and Hinkle Elkouri. "VEBA Las Vegas: The Code Section 501(c)(9) Win-Win." *Compensation and Benefits Review*. (2008), pp. 52-66.

Internal Revenue Service. *Voluntary Employees' Beneficiary Associations*. Internal Revenue Manual 7.25.9.

Kehoe, Danea M. "419A: A Legislative Odyssey." *Journal of Financial Service Professionals*. Vol. 56, No. 2 (March, 2002).

Leighty, Erin S., What's Next for VEBAs? The Impact of Declining Employer-Provided Health Care Coverage and the Affordable Care Act (July 1, 2014). Pension Research Council WP 2014-19.

Macey, Scott J. and George F. O'Donnell: Retiree Health Benefits - The Divergent Paths. *New York University Review of Employee Benefits and Executive Compensation*, 2003.

O'Brien, Ellen. *What Do the New Auto Industry VEBAs Mean for Current and Future Retirees?* AARP Public Policy Institute, March 2008.

Rapaport, Carol. *Voluntary Employees' Beneficiary Associations (VEBAs) and Retiree Health Insurance in Unionized Firms*. Library of Congress. CRS Report R41387, August 31, 2010 (archived).

Rapaport, Carol. *The Effect of Firm Bankruptcy on Retiree Benefits, with Applications to the Automotive and Coal Industries*. Library of Congress. CRS Report R43732, April 30, 2015 (archived).

Richardson, Michael I. and Daniel R. Salemi. Funding Postretirement Health Benefits Through a VEBA. *Benefits and Compensation Digest*, September 2007.

Secunda, Paul M. *"The Forgotten Employee Benefit Crisis: Multiemployer Benefit Plans on the Brink."* Cornell Journal of Law and Public Policy, Vol. 21, No. 1, 2011.

U.S. Congress, Joint Committee on Taxation. Welfare Benefit Plans. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984* (JCS-41-84), December, 1984, p. 774-806.

Utz, John L. Voluntary Employees' Beneficiary Associations ("VEBAs"): Part I. Journal of Deferred Compensation, Vol. 14, No. 2, Winter 2009, pp 1-84.

—. Voluntary Employees' Beneficiary Associations ("VEBAs"): Part II. Journal of Deferred Compensation, Vol. 14, No. 3, Spring 2009, pp 1-103.

EXCLUSION OF MISCELLANEOUS FRINGE BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	8.1	-	8.1
2019	8.4	-	8.4
2020	8.7	-	8.7
2021	9.0	-	9.0
2022	9.2	-	9.2

Authorization

Sections 132 and 117(D).

Description

Individuals do not include as income certain miscellaneous fringe benefits provided by employers, including services provided at no additional cost, employee discounts, working condition fringes, certain *de minimis* fringes, and certain tuition reductions.

These benefits also may be provided to spouses and dependent children of employees, retired and disabled former employees, and widows and widowers of deceased employees. Certain nondiscrimination requirements apply to benefits provided to highly compensated employees.

Impact

Exclusion from taxation of miscellaneous fringe benefits provides a subsidy to employment in those businesses and industries in which such fringe benefits are common and feasible. Employees of retail stores, for example, may receive discounts on purchases of store merchandise. Such benefits may

not be feasible in other industries—for example, for manufacturers of heavy equipment.

The subsidy provides benefits both to the employees (they receive higher compensation) and to their employers (who have lower wage costs).

Rationale

This provision was enacted in the Deficit Reduction Act of 1984 (P.L. 98-369). Congress recognized that in many industries employees receive either free or discounted goods and services that the employer sells to the general public. In many cases, these practices had been long established and generally had been treated by employers, employees, and the Internal Revenue Service as not giving rise to taxable income.

Employees receive a benefit from the availability of free or discounted goods or services, but the benefit may not be as great as the full amount of the discount. Employers may have valid business reasons, other than simply providing compensation, for encouraging employees to use the products they sell to the public. For example, a retail clothing business may want its salespersons to wear its clothing rather than clothing sold by its competitors. As with other fringe benefits, placing a value on the benefit in these cases is difficult.

In enacting these provisions, Congress also wanted to establish limits on the use of tax-free fringe benefits. Prior to enactment of the provisions, the Treasury Department had been under a congressionally imposed moratorium on issuance of regulations defining the treatment of these fringes. There was a concern that without clear boundaries on use of these fringe benefits, new approaches could emerge that would further erode the tax base and increase inequities among employees in different businesses and industries.

As new types of benefits appeared, IRS issued Announcement 2002-18 in 2002 indicating that frequent flyer miles are excluded, and Notice 20011-72 indicating that personal use of employer-provided cell-phones is excluded.

Assessment

The exclusion subsidizes employment in those businesses and industries in which fringe benefits are feasible and commonly used. Both the employees and their employers benefit from the tax exclusion. Under normal market circumstances, more people are employed in these businesses and industries than would otherwise be, and they receive higher compensation (after tax).

Their employers receive their services at lower cost. Both sides of the transaction benefit, because the loss is imposed on the Treasury in the form of lower tax collections.

Because the exclusion applies to practices which are common and may be feasible only in some businesses and industries, it creates inequities in tax treatment among different employees and employers. For example, consumer-goods retail stores may be able to offer their employees discounts on a wide variety of goods ranging from clothing to hardware, while a manufacturer of aircraft engines cannot give its workers compensation in the form of tax-free discounts on its products.

The 1984 legislation that defined excludable fringe benefits was before the advent of many benefits deriving from modern technology. Although IRS has clarified cell-phone use and frequent flyer miles, the connections between work and personal use via computers, related devices, and internet usage have become blurred. The result may be uncertainty about the tax treatment and lack of compliance with the law.

Selected Bibliography

Cohen, Adam and Joanna Myers. "IRS Pulls the Plug on Efforts to Tax Employer-Provided Cellphones," *Tax Notes*, November 7, 2011, pp. 717-719.

Greenberg, Scott. "A Strong Case for Reforming Fringe Benefit Taxation," *Tax Foundation*, November 4, 2015, http://taxfoundation.org/blog/strong-case-reforming-fringe-benefits-taxation.

Raby, Burgess J. W. and William L. Raby. "Working Conditions Fringes: Fishing Trips to Telecommuting," *Tax Notes*, Vol. 101, October 27, 2003, pp. 503-507.

Soled, Jay A. and Kathleen DeLaney Thomas. "Revisiting the Taxation of Fringe Benefits," *Washington Law Review*, Vol. 91, 2016, pp. 761-815.

—,"Taxing 21st-Century Fringe Benefits," *Tax Notes*, January 11, 2016.

Sunley, Emil M. "Employee Benefits and Transfer Payments," *Comprehensive Income Taxation*, ed. Joseph A. Pechman. Washington, DC: The Brookings Institution, 1977, pp. 90-92.

Turner, Robert. "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*. Committee Print, 98th Congress, 2nd session, December 31, 1984, pp. 838-866.

—. Senate Committee on Finance. *Fringe Benefits*, Hearings, 98th Congress, 2nd session. July 26, 27, and 30, 1984.

Education, Training, Employment, and Social Services:
Employment

TREATMENT OF EMPLOYEE MOVING EXPENSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-1.0	-	-1.0
2019	-1.3	-	-1.3
2020	-1.4	-	-1.4
2021	-1.5	-	-1.5
2022	-1.5	-	-1.5

Authorization

Section 132(g).

Description

Individuals must include in their gross income employer-provided reimbursements for qualified moving expense received after December 31, 2017, and before January 1, 2026. Members of the Armed Forces of the United States on active duty who move pursuant to a military order may exclude reimbursements for qualified moving expenses.

The inclusion in gross income of employer-provided reimbursements for qualified moving expenses is treated as a negative tax expenditure by the Joint Committee on Taxation (JCT) because an employee would be permitted to exclude such reimbursements under a normal income tax system.

Impact

This provision impacts employees whose employers provide moving expense reimbursement by increasing the tax burden of these individuals relative to a normal income tax system.

Rationale

This provision was enacted by the 2017 tax revision (P.L. 115–97). Previously, individuals were allowed to exclude employer-provided reimbursements for qualified moving expenses. This exclusion was not viewed as a subsidy, but rather a part of a normal income tax system. It is not clear what the rationale was for repealing the exclusion, but it may have been to raise revenue.

Assessment

Moving expense reimbursements are primarily provided by employers when requiring an employee to relocate. By requiring inclusion of these reimbursements by the employee, it imposes an increased tax burden on these individuals. In response, some employers may increase employees' salaries to compensate, although this is not certain. This provision is estimated to generate a moderate amount of revenue for the U.S. Treasury.

Selected Bibliography

Franklin, Mitchell and Michaele L. Morrow. "Sneaky Tax Increases: Ignored Provisions in the TCJA," *Tax Notes,* August 27, 2018, pp. 1215-1229.

Greenberg, Scott. "A Strong Case for Reforming Fringe Benefit Taxation," Tax Foundation, November 4, 2015, http://taxfoundation.org/blog/strong-case-reforming-fringe-benefits-taxation.

Johnson, Calvin H. "An Employer Level Tax on Fringe Benefits," *Tax Notes*, April 27, 2009, pp. 483-489.

Soled, Jay A. and Kathleen DeLaney Thomas. "Revisiting the Taxation of Fringe Benefits," *Washington Law Review*, Vol. 91, 2016, pp. 761-815.

— ."Taxing 21st-Century Fringe Benefits," *Tax Notes*, January 11, 2016.

Turner, Robert. "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

EXCLUSION OF EMPLOYER-PROVIDED (ON-SITE) GYMS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.5	-	1.5
2019	1.6	-	1.6
2020	1.6	-	1.6
2021	1.7	-	1.7
2022	1.7	-	1.7

Authorization

Section 132(j).

Description

Individuals may exclude from gross income the value of an employer-provided gym or any other athletic facility as long as the gym or facility is located on the premises of the employer, is operated by the employer, and is primarily for the use of employees and their immediate families.

Impact

The exclusion for the value of employer-provided gyms and athletic facilities provides a subsidy to employment in those businesses that offer such benefits. The subsidy provides benefits to both employees (they receive higher compensation) and to their employers (who have lower wage costs).

Rationale

This provision was enacted in the Deficit Reduction Act of 1984 (P.L. 98-369) as part of a more general provision that excludes a variety of benefits provided by employers. Congress recognized that in many industries

employees receive free or discounted goods and services. In many cases, these practices had been long established and generally had been treated by employers, employees, and the Internal Revenue Service as not giving rise to taxable income. Congress felt that codifying the rules that apply to the general practice that was prevalent at the time would improve the equity and administration of the tax system.

In enacting this provision, Congress also wanted to establish limits on the use of tax-free fringe benefits. Prior to enactment of the provisions, the Treasury Department had been under a congressionally imposed moratorium on issuance of regulations defining the treatment of these fringes. There was a concern that without clear boundaries on use of these fringe benefits, new approaches could emerge that would further erode the tax base and increase inequities among employees in different businesses and industries.

Assessment

The exclusion subsidizes employment in those businesses and industries in which employer-provided gyms and athletic facilities are feasible and commonly used. Both the employees and their employers benefit from the tax exclusion. Under normal market circumstances, more people are employed in these businesses and industries than would otherwise be, and they receive higher compensation (after tax). Employers receive their employees' services at lower cost. Both sides of the transaction benefit because the loss is imposed on the U.S. Treasury in the form of lower tax collections.

Because the exclusion applies only to those who are offered use of gym and athletic facilities by their employer, it creates inequities in tax treatment among different employees and employers. For example, a business with a large campus where most workers are located may be able to offer their employees access to on-premises gym facilities, while a service-oriented business with a workforce that works remotely cannot.

Selected Bibliography

Greenberg, Scott. "A Strong Case for Reforming Fringe Benefit Taxation, Tax Foundation," November 4, 2015, http://taxfoundation.org/blog/strong-case-reforming-fringe-benefits-taxation.

Johnson, Calvin H. "An Employer Level Tax on Fringe Benefits," *Tax Notes*, April 27, 2009, pp. 483-489.

Soled, Jay A. and Kathleen DeLaney Thomas. "Revisiting the Taxation of Fringe Benefits," *Washington Law Review*, Vol. 91, 2016, pp. 761-815.

— ,"Taxing 21st-Century Fringe Benefits," *Tax Notes*, January 11, 2016.

Turner, Robert. "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Education, Training, Employment, and Social Services:
Employment

TREATMENT OF MEALS AND ENTERTAINMENT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	3.4	-2.9	0.5
2019	3.5	-3.3	0.2
2020	3.6	-3.4	0.2
2021	3.7	-3.5	0.2
2022	3.8	-3.6	0.2

Authorization

Section 274.

Description

In general, businesses are not allowed to claim a deduction for any activity that is considered entertainment, amusement, or recreation; a facility used in connection with such activities; or membership dues for any club organized for business, pleasure, recreation, or other social purpose. The inability to claim these items as a deduction is a departure from normal income tax law and results in a negative tax expenditure.

Current law also provides a deduction equal to 50 percent of the cost of business meals (e.g., a client meal) as long as there is no entertainment provided. It is unclear, however, as to whether the recently enacted provision fully disallowing the deduction of entertainment costs applies to business meals for clients or prospects. IRS guidance is needed to clarify this issue.

The individuals (e.g., clients) who enjoy the entertainment or meals provided by a business are generally not required to include the value of the

benefit in their gross income. This exclusion results in a positive tax expenditure.

Impact

The disallowance of a deduction for entertainment expenses primarily impacts businesses that regularly incur such expenses. Impacted business will generally be those that use entertainment as part of their client and employee development strategies.

Rationale

Historically, entertainment expenses have been deductible to some extent as long as the taxpayer could substantiate that the expense was directly related to the active conduct of business or was incurred directly proceeding or following a bona fide business discussion that was associated with the active conduct of business. This is in accord with the ability to deduct ordinary and necessary business expenses.

The Revenue Act of 1978 (P.L. 95-600) prohibited the cost of entertainment facilities (e.g., skyboxes, bowling alleys, hunting lodges, vacation resorts, etc.) from qualifying for the deduction. The Tax Reform Act of 1986 (TRA86, P.L. 99-514) generally limited the deductibility of entertainment expense to 80 percent, and tightened the rules that were intended to prevent taxpayers from deducting entertainment facility expenses. The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) further restricted the deduction to 50 percent for expenses directly related to active conduct of business. Most recently, the 2017 tax revision (P.L. 115-97) generally eliminated the deduction for entertainment expenses.

The evolution of limiting the deduction for entertainment expenses appears to be mostly driven by concern over federal subsidization of personal consumption rather than providing a deduction for legitimate business expenses.

Assessment

Most entertainment expenses represent partly a business expense and partly personal consumption. Given the practical difficulty in separating the two, administrative simplicity calls for a rule to determine how much of an entertainment expense is and is not deductible. It is not clear exactly what the percentage allocation should be. By not allowing a deduction, however, the current rule effectively treats entertainment expenses as entirely personal consumption and discourages the use of entertainment by taxpayers as part of business development strategies.

Selected Bibliography

Turner, Robert, "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005

U.S. Congress, House of Representatives. *Tax Cuts and Jobs Act: Conference Report to Accompany H.R. 1*, H.Rept. 115-466, 115th Congress, 1st session, December 15, 2017, pp. 402-407.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986*. Committee Print, 100th Congress, 1st session. May 4, 1987, pp. 55-76.

Education, Training, Employment, and Social Services:
Employment

DISALLOWANCE OF THE DEDUCTION FOR EXCESS PARACHUTE PAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	-0.2	-0.2
2019	-	-0.2	-0.2
2020	-	-0.1	-0.1
2021	-	-0.2	-0.2
2022	-	-0.2	-0.2

Authorization

Sections 280G and 4999.

Description

Corporations may enter into agreements with key personnel that are called parachute payments or "golden parachutes," under which the corporation agrees to pay these individuals substantial amounts contingent on a change in the ownership or control of the corporation. An "excess parachute payment" is the amount by which a parachute payment exceeds three times a base amount and is made to a disqualified individual. The base amount is the individual's average annual compensation from the five previous years and a disqualified individual is either a shareholder, an officer of the corporation or is among the highest paid 1 percent of employees of the corporation or the 250 highest paid individuals of the corporation. Severance payments to covered employees are also deemed an excess parachute payment for corporations that took part in the troubled asset relief program (TARP) or the direct purchase program. Any payment that violates applicable securities laws or regulations is also characterized as an excess parachute payment.

Excess parachute payments are not deductible by the corporation. In addition, an individual receiving the payments must pay an excise tax (in addition to income taxes) equal to 20 percent of the amount of that the excess parachute payment exceeds the base amount. Parachute payments are subject to FICA taxes when paid to recipients.

The parachute payment provisions do not apply to certain types of payments, including reasonable compensation, qualified plan payments, payments by a domestic small business corporation, and payments by corporations that, immediately before a change in control, have no stock that is readily tradable on an established securities market.

Impact

The disallowance of the deduction for excess parachute payments removes a deduction for businesses in industries where excess parachute payments are common and feasible. They increase the after-tax cost, to the corporation, of this form of compensation, relative to deductible forms of compensation. The excise tax component, also, lowers the after-tax value of excess parachute payments to executives. All else equal, these effects should reduce the desirability of excess parachute payments.

Because this provision limits the corporate deductibility of employee compensation, while the employee is still subject to the individual income tax, it is a negative tax expenditure.

Rationale

The golden parachute provisions were enacted by the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66), in part, because the agreements were thought to hinder acquisition activity in the marketplace. In particular, agreements to pay key personnel large amounts could make a target corporation less attractive to an acquiring corporation. In other situations, payments made to key personnel to encourage a takeover might not be in the best interests of the shareholders. And, regardless of whether a friendly or hostile takeover is involved, the amounts paid to key personnel reduce the amounts available for the shareholders.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) expanded the definition of an excess parachute payment for corporations that benefit from the public's participation in their economic recovery. One factor motivating this change was concern over the fairness or equity of parachute

payments being given to executives of companies that benefited from the Emergency Economic Stabilization Act of 2008 (P.L. 110-343).

Assessment

The use and magnitude of excess parachute payments have increased since the enactment of provisions designed to make them less desirable forms of compensation. In the absence of these provisions, however, it is possible that excess parachute payments would be more prevalent.

Selected Bibliography

Bebchuk, Lucian A., "Executive Compensation as an Agency Problem," *Journal of Economic Perspectives,* vol. 17, no. 3, Summer 2003, pp. 71-92.

Bebchuk, Lucian A., Alma Cohen, and Charles C.Y. Wang, "Golden Parachutes and the Wealth of Shareholders," *Journal of Corporate Finance,* vol. 25, April 2014, pp. 140-154.

Hall, Brian J. and Jeffrey B. Liebman, "The Taxation of Executive Compensation," *Tax Policy and the Economy,* vol. 14, January 2000, pp. 1-44.

Jensen, Michael C. and Kevin J. Murphy, "Performance, Pay and Top-Management Incentives," *Journal of Political Economy,* vol. 98, no. 2, April 1990, pp. 225-264.

Knoeber, Charles R., "Golden Parachutes, Shark Repellents, and Hostile Tender Offers," *American Economic Review,* vol. 76, no. 1, March 1986, pp. 155-167.

Lefaniwicz, Craig E., John R. Robinson, and Reed Smith, "Golden Parachutes and Managerial Incentives in Corporate Acquisitions: Evidence from the 1980s and 1990s," *Journal of Corporate Finance*, (2000), pp. 215-239.

Liazos, Andrew C. and Daniel Senecoff, "Golden Parachute Rules in Corporate Transactions," *Tax Notes,* vol. 127, no. 7, May 17, 2010, pp. 801-803.

Murphy, Kevin J., "Executive Compensation," in Orley Ashenfelter and David Card, eds., *Handbook of Labor Economics,* vol. 3, bk. 2 (New York: Elsevier, 1999).

U.S. Congress. Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, H.R. 4170, 98th Congress, Public Law 98-369.* (Washington, DC: GPO, 1985), pp. 828-830.

LIMITS ON DEDUCTIBLE COMPENSATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-0.2	-1.3	-1.5
2019	0.2	-1.4	-1.6
2020	0.2	-1.5	-1.7
2021	0.2	-1.5	-1.7
2022	0.2	-1.5	-1.7

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 162(m).

Description

Publicly held corporations can, generally, deduct employee compensation in the calculation of taxable income. An exception to this rule pertains to executive compensation, for which only $1 million is deductible. This limit is reduced to $500,000 for each year a corporation has more than $300,000,000 in outstanding assets acquired under the troubled asset relief program (TARP, P.L. 110-343). Beginning in 2013, the $500,000 limit also applies to remuneration to officers, employees, directors, and service providers of covered health insurance providers under health insurance legislation. This threshold is reduced by the amount (if any) of excess golden parachute payments and any excise tax paid with respect to insider stock compensation.

Impact

The cap on deductible executive compensation does not appear to have impacted corporate executive compensation in recent years. The reduction in the corporate tax rate from 35 percent to 21 percent enacted by the 2017 tax revision (P.L. 115-409) lessened any affect the provision may have had on executive compensation levels. The deduction limitation positively impacts federal tax revenue.

Rationale

Before the Omnibus Budget Reconciliation Act of 1993 (OBR93, P.L. 103-66) all non-excessive executive compensation was deductible. OBR93 codified a $1 million cap on non-excessive executive compensation in response to concerns over the size of executive compensation packages.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) reduced this cap, to $500,000 for corporations that benefited from the public's participation in their financial recovery. One factor motivating this change was the concern over the fairness or equity of high executive compensation for companies that benefited from the Emergency Economic Stabilization Act of 2008.

The Patient Protection and Affordable Care Act (P.L. 111-148) added the lower limit of $500,000 for health care providers.

The 2017 tax revision (P.L. 115-97) made a number of modifications to the deductible compensation limitation. It specified that the limitation applied to any "covered" employee, which includes anyone who holds the position of chief executive officer or financial executive officer any time during the taxable year. Additionally, the revision also specified covered employees to include the three other most highly compensated company officers. Any person who is designated a covered employee after 2016, is considered a covered employee in all future years, including after retirement, termination, or death. P.L. 115-97 also repealed the exception to the deduction limit for qualified performance-based compensation and commissions. As a result, there is no deduction for any compensation in excess of the limitation that applies to covered employees. Lastly, the 2017 tax revision expanded the definition of companies subject to the limitation to include all domestically publically traded corporations and foreign companies that issue securities which are required to register their security issuances with the Security and Exchange Commission (SEC). Under the new rules, some large private C and

S corporations may also be subject to the deduction limitation. Previously, only corporations that had their stock publically traded were impacted.

Assessment

Since the early 1970s the real wages of non-managerial workers have been stagnant, while executive compensation has risen dramatically. Supporters of executive pay caps suggest that this is indicative of a larger social equity concern—inequality—and view the limit on deductible compensation as a tool to achieve greater equality. Opponents of the limitation, in contrast, argue that the limitation is inefficient because it creates a wedge between the marginal product and compensation of the executive.

Supporters of current executive pay levels argue that executive compensation is determined by normal private market bargaining, that rising pay reflects competition for a limited number of qualified candidates, and that even the richest pay packages are appropriate compared with the billions in shareholder wealth that successful executives create. Others, however, view executive pay as excessive. Some see a social equity problem, taking executive pay as symptomatic of a troublesome rise in income and wealth inequality. Others see excessive pay as a form of shareholder abuse made possible by weak corporate governance structures and a lack of clear, comprehensive disclosure of the various components of executive compensation.

Selected Bibliography

Bebchuk, Lucian A. "Executive Compensation as an Agency Problem," *Journal of Economic Perspectives,* vol. 17, no. 3, Summer 2003, pp. 71-92.

Jensen, Michael C. and Kevin J. Murphy. "Performance, Pay and Top-Management Incentives," *Journal of Political Economy,* vol. 98, no. 2, April 1990, pp. 225-264.

Murphy, Kevin J. "Executive Compensation," in Orley Ashenfelter and David Card eds., *Handbook of Labor Economics,* vol. 3, bk. 2. (New York: Elsevier, 1999).

Viard, Alan D. "Taxes, Subsidies, and Executive Compensation," *Tax Notes,* vol. 144, no. 4, July 28, 2014, pp. 491-497.

Education, Training, Employment, and Social Services:
Employment

WORK OPPORTUNITY TAX CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.6	2.8	3.4
2019	0.6	3.0	3.6
2020	0.3	1.2	1.5
2021	-	0.2	0.2
2022	-	-	-

Authorization

Sections 51 and 52.

Description

The Work Opportunity Tax Credit (WOTC) is a non-refundable wage credit whose main purpose is to increase job opportunities for designated groups of disadvantaged individuals. It has this effect by reducing an employer's net cost of hiring such individuals, relative to the net cost of hiring other individuals. The WOTC has always been a temporary subsidy. It is due to expire at the end of 2019.

Over the 22-year history of the credit, employers that hired persons from nine targeted groups have benefitted from it. Not all groups have been eligible every year since the creation of the credit in 1996. The nine groups are:

- (since 1997) families that receive benefits under the Temporary Assistance for Needy Families (TANF) program during nine of the 18 months before the hiring date;
- (since 1996) individuals who are 18- to 39-years old and are members of families receiving supplemental food assistance

under the Food and Nutrition Act of 2008 (FNA) during the six months preceding the hiring date; or abled-bodied individuals with no dependents who no longer are eligible for food assistance under section 6(o) of the act and belong to families that received supplemental food assistance in at least three of the five months preceding the hiring date;

- (since 2001) "designated community residents" (i.e., persons who are between 18 and 39 years old on the hiring date) whose principal place of residence was located in an empowerment zone, an enterprise community, a renewal community, or a rural renewal county;
- (since 2001) "summer youth," who are defined as 16- to 17-year olds hired for any 90-day period between May 1 and September 15 whose principal place of residence is in an empowerment zone or renewal community;
- (since 1996) ex-felons who are hired within one year of the date of their conviction or their release from prison;
- (since 1996) vocational rehabilitation referrals, who are defined as individuals with physical or mental disabilities that greatly restrict their employment opportunities who are referred to employers upon completion of or while receiving rehabilitative services under one of the following plans: (a) an individualized written plan for employment based on a state plan for vocational rehabilitation services approved under the Rehabilitation Act of 1973; (b) a vocational rehabilitation program for veterans carried out under chapter 31 of title 38, United States Code; or (c) an individual work plan developed and implemented by an employment network under section 1148(g) of the Social Security Act;
- (since 1997) Supplemental Security Income (SSI) recipients who received benefits under Title XVI of the Social Security Act for a month during the 60 days before the hiring date;
- (since 1996) veterans who are members of families receiving food stamps under the FNA during at least three of the 15 months ending on the hiring date, or who are entitled to compensation for a service-connected disability and are hired either not more

than one year after having been discharged or released from active duty in the Armed Forces, or after being unemployed in at least six of the twelve months preceding the hiring date;

- (2009 and 2010 only) "disconnected" 16- to 24-year olds, who are defined as persons in that age group who did not regularly attend school or were not regularly employed during the six months before the hiring date and were hard to employ because of inadequate skills;
- (2009 and 2010 only) unemployed veterans who were discharged or released from active duty in the Armed Forces during the five years preceding the hiring date and who received unemployment compensation for at least four weeks during the previous year; and
- (2016 to 2019) persons who have been unemployed for 27 or more weeks, as certified by a local state workforce agency; the period of joblessness may include any weeks when an unemployed person received unemployment compensation under federal or state law.

An employer cannot claim the WOTC until the workforce agency in the state where the employer is located has certified that its new hires are members of one of the targeted groups.

During a WOTC-certified individual's first year of employment (except for certain qualified veterans and summer youth), an employer may claim an income tax credit equal to 40 percent of the individual's first $6,000 in wages if he/she is employed at least 400 hours, or 25 percent if he/she is employed for 120 to 399 hours. No credit is available for eligible employees who work fewer than 120 hours.

Qualified wages for summer youth are limited to the first $3,000 in wages.

For WOTC-certified veterans who are entitled to compensation for a service-related disability, an employer is allowed to claim the WOTC for the first $12,000 in wages. In addition, an employer can claim the credit for the first $14,000 in wages paid to veterans who were unemployed for at least six months during the year before the hiring date. Finally, employers may claim the credit for the first $24,000 in wages paid to veterans who are entitled to compensation for a service-connected disability and were unemployed for at

least six months during the year before the hiring date. Employers claiming the WOTC must reduce their deductions for employee compensation by the amount of the credit to prevent them from benefiting twice from the same expenditures.

The WOTC is a component of the general business credit under section 38. As a result, unused WOTCs may be carried back one year or forward up to 20 years to offset an employer's tax liability.

Impact

Responsibility for administering the credit is split between federal and state governments. At the federal level, the Internal Revenue Service (IRS) processes and verifies claims for the WOTC, while the U.S. Department of Labor's Employment and Training Administration (ETA) administers the certification process. State workforce agencies (SWAs), assisted by so-called participating agencies (e.g., job corps centers, local welfare agencies, food stamp program agencies, and Veterans Administration offices), certify that newly hired employees in their states qualify for the credit.

In FY2016, SWAs issued 2,481,930 certifications of WOTC eligibility for new hires, up from 1,896,528 certifications in FY2015. During the first 10 years of the program, the majority of WOTC certifications went to members of the TANF group. But since FY2007, the vast share of certifications has gone to 18-24 year olds in families receiving supplemental nutrition assistance. In FY2014, for example, that group accounted for 70.7 percent of all WOTC certifications, while 13.2 percent were for members of families receiving TANF benefits.

A certification verifies that someone is a member of an eligible WOTC group. The total number of certifications issued in a year will exceed the number of credits claimed unless all WOTC-certified hires remain on their employers' payrolls for the minimum period required to claim the credit, which is 120 days.

Rationale

The WOTC is intended to help individuals who generally have difficulty obtaining employment in the private sector even in the best of times to find a job. It does so by reducing the relative cost of hiring such individuals through a temporary employer wage credit. In effect, the credit leverages private funds to the point that the assistance overcomes the reluctance of many employers to hire persons with relatively few skills, little work experience, and presumed

low productivity. For individuals eligible for the credit, the main idea behind the credit is to break the vicious cycle of a lack of work experience preventing them from getting a job.

The WOTC evolved from an earlier tax credit aimed at encouraging firms to hire hard-to-employ individuals: the Targeted Jobs Tax Credit (TJTC), which was available from 1978 through 1994. Evaluations of the effects of the TJTC suggested that it did not achieve its stated objectives for two reasons. First, it subsidized the hiring of plenty of individuals who probably would have been hired without the credit. Second, the TJTC did little to provide targeted individuals with the work experience and on-the-job training often needed to move into higher-paying jobs.

Nevertheless, Congress retained this approach, though with some modifications, to boosting employment opportunities for disadvantaged workers in adopting the WOTC. The Small Business Job Protection Act of 1996 (P.L. 104-188) created the credit and made it available from October 1, 1996 through September 31, 1997.

The Taxpayer Relief Act of 1997 (P.L. 105-34) made several changes in the WOTC. It added eight targeted groups to the list of designated individuals and converted it into a two-tiered credit based on length of employment. The act also extended the WOTC from October 1, 1997 through June 30, 1998.

Congress retroactively extended the credit through June 30, 1999, with the passage of the Omnibus Consolidated and Emergency Appropriations Act, 1999 (P.L. 105-277).

A provision of the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170) further extended the WOTC through December 31, 2001.

Under the Consolidated Appropriations Act, 2001 (P.L. 106-554), the "high risk" and "summer youth" groups were expanded to include residents of designated "renewal communities." Employers claiming the WOTC for such residents had to coordinate it with a recently enacted wage tax credit (the New Markets Tax Credit) for hiring renewal community residents.

Congress extended the WOTC through December 31, 2003 for qualified individuals hired after December 31, 2001, in the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147). The act also expanded the groups eligible for the credit to include New York Liberty Zone (NYLZ) firms with 200 or fewer employees located in the immediate vicinity of the World Trade

Center at the time of the terrorist attacks on September 11, 2001; they could claim the credit for NYLZ residents hired in 2002 and 2003.

The Welfare-to-Work tax credit (WTWTC) was established by the Taxpayer Relief Act of 1997 (P.L. 105-34). It was extended three times before Congress allowed the credit to expire on December 31, 2003. The credit was intended to complement the WOTC by increasing job opportunities for individuals who had received 18 or more months of federal welfare benefits. Although someone could be eligible for both credits, an employer was permitted to claim only one. For eligible individuals who worked at least 400 hours in a year, the WTWTC was equal to 35 percent of $10,000 of their wages in the first year of employment and 50 percent of the same amount in the second year.

The Working Families Tax Relief Act of 2004 (P.L. 108-311) extended the WOTC and WTWTC to December 31, 2005, following a 10-month lapse.

Under the Katrina Emergency Tax Relief Act of 2005 (P.L.109-73), employees directly affected by Hurricane Katrina were added to the groups eligible for the WOTC from August 28, 2005 to August 28, 2007. To qualify, workers had to be hired for jobs located in the core disaster area.

The Tax Relief and Health Care Act of 2006 (P.L. 109-432) retroactively extended the WOTC through December 31, 2007 and combined the WTWTC and the WOTC into a single wage credit. As a result, employers that hired long-term recipients of family assistance after December 31, 2006 were allowed to claim a credit equal to 25 percent of wages for recipients who were employed between 120 and 399 hours in their first year of employment, and 40 percent of wages for recipients who worked 400 or more hours during their first year. Wages eligible for the credit were capped at $10,000 in each of a recipient's first two years of employment. The credit's top rate rose to 50 percent for the second year.

Under the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Act of 2007 (P.L. 110-28), the WOTC was extended through August 31, 2011. The act also added "rural renewal counties" to the places of residence for "designated community residents."

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) expanded the WOTC to cover unemployed veterans and "disconnected" youth hired in 2009 and 2010.

An extension of the WOTC through December 31, 2011 was included in the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2012 (P.L. 111-312).

The American Jobs Act of 2011 (P.L. 112-56) further extended the credit for veterans only through December 31, 2012, expanded the group of veterans eligible for the credit, and increased the first-year wages against which it can be claimed for veterans.

Under the American Taxpayer Relief Act of 2012 (P.L. 112-240) the WOTC was extended through December 31, 2013 for all eight of the designated groups established by the Taxpayer Relief Act of 1997.

Congress extended the WOTC through the end of 2014 by passing the Tax Increase Prevention Act of 2014 (P.L. 113-295).

Finally, the Protecting Americans from Tax Hikes Act of 2015 (P.L. 114-113) added persons who have been unemployed 27 or more weeks to the list of designated groups for the WOTC, beginning in 2016. It also extended the credit through the end of 2019.

Assessment

In assessing the effects of the WOTC, it is important to keep in mind what the credit is and is not intended to do. In effect, the WOTC is a wage subsidy designed to encourage employers to hire more disadvantaged individuals than they otherwise would because of the cost of training them, their lack of employment experience, and their presumed relatively low productivity. But the credit is not intended to spur a faster rate of net job creation or promote recovery in labor markets mired in an economic downturn.

The credit raises several policy issues. One relates to the efficacy of the credit in achieving its main objective of increasing job opportunities for the targeted groups. Another issue concerns the credit's advantages and disadvantages relative to alternative approaches to expanding employment opportunities for such groups. Lawmakers may also want to know how the credit's costs stack up against its benefits.

There is an extensive literature on the WOTC. Most of the evidence relevant to these policy issues comes from a series of studies done since 2001. On the whole, the studies examine the credit's impact on selected

groups of eligible individuals and of employers over periods ranging from one to three years.

Broadly, the following conclusions can be drawn from the findings of this research:

- The take-up or participation rate for the credit has been surprisingly low. This rate is the number of WOTC-certified workers divided by the total number of eligible workers for whom the credit is not claimed. Hamersma (2003) estimated that the take-up rate of the credit was no more than 17 percent for eligible youth and 33 percent for welfare recipients. In her view, the main reason for these lower-than-expected rates was the relatively short job tenures of most WOTC-certified employees.

- Employers generally have not tried to maximize the credit they can claim by replacing ineligible workers with WOTC-certified workers, or by letting WOTC-certified workers go after one year and hiring other such workers to replace them.

- On the whole, WOTC-certified employees have earned higher wages than other employees doing the same work.

- The employment of WOTC-certified disabled veterans has expanded by perhaps as much as 2 percent because of the credit.

- There is evidence that the credit improved employment opportunities for long-term welfare recipients.

Still, it is unclear from available evidence how effective the WOTC has been on the whole. Nor is it clear whether the credit is more cost-effective than other policy options, such as federal grants for job training and education for the same groups of disadvantaged persons. Some have argued that replacing the WOTC with federal-formula grants to states to support local programs that combine training, employment subsidies, and support services would be a more cost-effective way to expand job opportunities for individuals targeted by the WOTC. In their view, a systematic comparison of the advantages and disadvantages of the WOTC and other policy options (especially labor demand subsidies) would help Congress decide whether to retain the WOTC and to improve its cost-effectiveness.

Selected Bibliography

Ajilore, Olugbenga. "Did the Work Opportunity Tax Credit Cause Subsidized Worker Substitution?" *Economic Development Quarterly*, v. 26, no. 3 (2012), pp. 231-239.

Bartik, Timothy J. "Adding Labor Demand Incentives to Encourage Employment of the Disadvantaged," *Employment Research Newsletter*, Upjohn Institute, v. 16, no. 3 (2009).

— and John H. Bishop. "The Job Creation Tax Credit: Dismal Projections for Employment Call for a Quick, Efficient, and Effective Response," Briefing Paper No. 248, Economic Policy Institute, October 20, 2009.

Cappelli, Peter. *Assessing the Effect of the Work Opportunity Tax Credit*, ADP, October 5, 2011, at http://www.adp.com/tools-and-resources/compliance-connection/tax-incentives/resources/legislative-updates/~/media/29092F9B946146FEB1FBE459105CD42E.ashx.

Christian, Blake. "Hire a Hero, Enjoy the Benefits," *Journal of Accountancy*, v. 213, no. 5 (2012), pp. 54-57.

Collins, Benjamin and Sarah A. Donovan. *The Work Opportunity Work Credit*, CRS Report R43729, March 14, 2016.

Gunderson, Jill Marie and Julie L. Hotchkiss. "Job Separation Behavior of WOTC Workers: Results from a Unique Case Study," *Social Service Review,* v. 81 (June 2007), pp. 317-342.

Hamersma, Sarah. "The Work Opportunity Tax Credit: Participation Rates Among Eligible Workers," *National Tax Journal*, v. 56, no. 4 (December 2003), pp. 725-738.

—. *The Work Opportunity and Welfare-to-Work Tax Credits,* Urban-Brookings Tax Policy Center, no. 15, October 2005.

—, "The Effects of an Employer Subsidy on Employment Outcomes: A Study of the Work Opportunity and Welfare-to-Work Tax Credits," *Journal of Policy Analysis and Management*. v. 27, no. 3 (2008), pp. 498-520.

— and Carolyn Heinrich. "Temporary Help Service Firms' Use of Employer Tax Credits: Implications for Disadvantaged Workers' Labor Market Outcomes," *Southern Economic Journal*. v. 74, no. 4 (2008), pp. 1123-1148.

—. "Why Don't Eligible Firms Claim Hiring Subsidies? The Role of Job Duration," *Economic Inquiry*, v. 49, no. 3 (2011), pp. 916-934.

Heaton, Paul. "*The Effect of Hiring Tax Credits on Employment of Disabled Veterans*," National Defense Research Institute, RAND Corp., 2012.

Levine, Linda. *Targeted Jobs Tax Credit, 1978-1994*, CRS Report 95-981, September 19, 1995.

Luce, Stephanie et al. *What Works for Workers? Public Policies and Innovative Strategies for Low-Wage Workers*, (New York: Russel Sage Foundation, 2014), p. 186-214.

U.S. General Accounting Office. *Work Opportunity Credit: Employers Do Not Appear to Dismiss Employees to Increase Tax Credits*, GAO-01-329, March 2001.

—, *Business Tax Incentives to Employ Workers with Disabilities Receive Limited Use and Have an Uncertain Impact*, GAO-03-39, December 2002.

CREDIT FOR CHILD AND DEPENDENT CARE AND EXCLUSION OF EMPLOYER-PROVIDED CHILD CARE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	4.6	-	4.6
2019	4.5	-	4.5
2020	4.6	-	4.6
2021	4.7	-	4.7
2022	4.8	-	4.8

Note: Estimates include outlay effects associated with the exclusion of employer-provided child care. This exclusion results in less income, which for some taxpayers may result in a larger refundable tax credit like the EITC or additional child tax credit than if employer-provided child care was included as income. These outlay effects are $0.8 billion (2018), $0.8 billion (2019), $0.8 billion (2020), $0.8 billion (2021) and $0.9 billion (2022).

Authorization

Sections 21 and 129.

Description

The child and dependent care tax credit is a nonrefundable tax credit that reduces a taxpayer's federal income tax liability based on child and dependent care expenses incurred so the taxpayer can work or look for work. Since the credit (sometimes referred to as the child care credit or the CDCTC) is nonrefundable, the amount of the credit cannot exceed a taxpayer's federal income tax liability. Taxpayers with little or no federal income tax liability—including many low-income taxpayers—generally receive little if any benefit from nonrefundable credits like the CDCTC.

A qualifying individual is defined as (1) the taxpayer's child who is under age 13 and for whom they can claim the dependent exemption; (2) the taxpayer's spouse who is not physically or mentally able to care for himself or herself and lived with the taxpayer for more than half the year; or (3) a person who is not physically or mentally able to care for himself or herself and lived with the taxpayer for more than half the year and either (a) was the taxpayer's dependent for purposes of the dependent exemption or (b) would have been the taxpayer's dependent in certain limited circumstances.

Qualifying expenses for the credit are generally defined as expenses for the care of a qualifying individual so that a taxpayer (and their spouse, if filing jointly) can work or look for work. An expense is not considered work-related merely because a taxpayer paid or incurred the expense while working or looking for work. The *purpose* of the expense must be to enable the taxpayer to work or look for work. Whether an expense has such a purpose is dependent on the facts and circumstances of each particular case. These expenses can include those for providing care for a qualifying individual or individuals both in and outside the taxpayer's home.

In-home care expenses include costs of care provided in the taxpayer's home such as the cost of a nanny to look after a child or a housekeeper to look after an elderly parent. The payroll taxes associated with these services, as well as meals and lodging provided to the caregiver as part of their employment, may be qualifying expenses. For household services that are in part for the care of qualifying individuals and in part for other purposes, generally only the portion for the care of a qualifying individual can be applied to the credit.

There are different types of care provided outside the taxpayer's home that may be considered qualifying expenses for the purposes of the credit. To qualify, the care must be provided to the taxpayer's dependent child under age 13 or another qualifying person who regularly spends at least eight hours each day in the taxpayer's home (in other words, a non-child dependent must generally live with the taxpayer even if that dependent spends the day at a care facility). This means, for example, that care provided at a live-in nursing home for a taxpayer's parent or spouse is not a qualifying expense. Common types of qualifying out-of-home care expenses include the following:

- **Dependent care center:** Care provided at a "dependent care center" can be considered a qualifying expense only if the center complies with all state and local regulations. A dependent care center is defined as a facility that provides care for more than six people (other than

those who may reside at the facility) and receives a payment or grant for providing care services.

- **Pre-K education/Before- and after-school care:** Expenses for education below the kindergarten level (e.g., nursery school or preschool) may be qualifying expenses for the credit. Treasury regulations provide that expenses for education at the kindergarten level or higher do not qualify for the credit, and neither does summer school or tutoring expenses. However, before- or after-school care of a child in kindergarten or higher grades may be a qualifying expense.
- **Day camp:** Day camp may be a qualifying expense. However, overnight camp is not a qualifying expense.
- **Transportation:** Transportation by a care provider (i.e., not the taxpayer) to take a qualifying individual to or from a place where care is provided may be a qualifying expense. For example, the cost of a nanny driving a child to a day care center may be considered a qualifying expense.

In order to claim the credit, the taxpayer (and if married, their spouse) must have earned income during the year. A taxpayer (and if married, their spouse), is treated as having earned income for the purposes of the credit if (s)he (1) is a full-time student or (2) is mentally or physically unable to care for himself or herself. Married taxpayers must generally file a joint return to take the credit, but special rules exist for couples who are legally separated or living apart.

Taxpayers calculate the credit based on a percentage (or "credit rate") of their qualifying child and dependent care expenses. The credit rate varies based on income. The maximum dependent care tax credit rate is 35 percent. The credit rate is reduced by one percentage point for each $2,000 of adjusted gross income (AGI), or fraction thereof, above $15,000 until the credit rate equals 20 percent for taxpayers with AGI above $43,000. These AGI levels are not annually adjusted for inflation.

The dollar limit of qualifying expenses that can be claimed for the credit is $3,000 for one qualifying individual and $6,000 for two or more qualifying individuals. In addition to the statutory dollar limit, the amount of work-related expenses used to calculate the credit may not exceed the earned income of the taxpayer. If the taxpayer is married, work-related expenses used to calculate the credit may not exceed the smaller of the taxpayer's or spouse's earned income. If the spouse is a full-time student or incapable of providing self-care, however, the spouse's monthly income for purposes of calculating the credit is

assumed to be $250 for one child and $500 for two or more dependents. (This rule applies to only one spouse for any one month. If, in the same month, both the taxpayer and their spouse do no work and are either full-time students or not physically or mentally able to care for themselves, only one of the spouses can be treated or "deemed" as having earned income in that month.) If the spouse is a full-time student or incapable of providing self-care all year, this results in earned income for purposes of the credit equal to the qualified expense limitations of $3,000 for one child and $6,000 for two or more dependents.

In addition to this credit, a taxpayer can exclude from their income up to $5,000 of dependent care expenses associated with an employer-provided dependent care assistance program (DCAP). The definitions for qualified dependent care expenses and qualified dependent used for the exclusion are the same as for the CDCTC. The maximum exclusion amount is $5,000, and may not exceed the lesser of the earned income of the employee or the employee's spouse if married.

An employer can provide direct payment to child care and adult day care providers, provide on-site child care, or reimburse employees for child care they obtain. Arrangements can also be funded through salary reduction agreements. Under a salary reduction agreement, the employee agrees that a specified amount be set aside for the employer's DCAP. The plan will then reimburse the employee from the set aside amount (i.e., employee contributions) for dependent care expenses. This type of arrangement is also known as a flexible spending arrangement or flexible spending account, and is often offered as part of a cafeteria benefit plan, in which employees may choose from one or more taxable or nontaxable benefits.

To qualify for the exclusion, the employer assistance must be provided under a plan which meets certain conditions, including eligibility conditions which do not discriminate in favor of principal shareholders, owners, officers, highly compensated individuals or their dependents, and the program must be available to a broad class of employees. The law provides that reasonable notification of the availability and terms of the program must be made to eligible employees.

For each dollar a taxpayer receives through an employer dependent care assistance program, a reduction of one dollar is made in the maximum qualified expenses that can be applied towards calculating the dependent care tax credit.

Impact

The credit reduces tax liability, but not to less than zero because the credit is nonrefundable. Thus, the credit does not benefit persons with no tax liability, including those with income so low that they have no tax liability.

Distribution by Income Class of the Tax Expenditure for the Dependent Care Credit, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to under $20	0.0
$20 to under $30	0.6
$30 to under $40	3.4
$40 to under $50	5.3
$50 to under $75	14.6
$75 to under $100	13.4
$100 to under $200	43.3
$200 and over	19.5

The credit rate phases down from 35 to 20 percent as income rises from $15,000 to $43,000, theoretically providing a larger benefit to parents with incomes of $43,000 or less. However, given the credit's non-refundable nature, it is not available to the lowest income taxpayers. Indeed, the credit primarily benefits middle and upper-income taxpayers, with almost 70 percent of the credit claimed by taxpayers with $100,000 or more of income.

The tax exclusion provides an incentive for employers to provide, and employees to receive, compensation in the form of dependent-care assistance rather than cash. The assistance is free from income and employment taxes, while cash income (i.e., wages) is not. As is the case with all deductions and exclusions, this benefit is linked to the taxpayer's marginal tax rate and, thus, provides a greater benefit to taxpayers in high tax brackets than those in low tax brackets. To the extent employers provide dependent care assistance rather than increases in salaries or wages, the Social Security Trust Fund and the Hospital Insurance Trust Fund (for Medicare) receipts are lower. Because of the lower amounts of earnings reported to Social Security the employee may receive a lower Social Security benefit during retirement years.

Rationale

A deduction for child and dependent care services was first enacted in 1954 (P.L. 591). The allowance was limited to $600 per year and was phased out for families with income between $4,500 and $5,100. Single parents and widow(er)s did not have an income limitation for the deduction. The provision was intended to recognize the similarity of child care expenses to employee business expenses and provide a limited benefit. Some believe compassion and the desire to reduce welfare costs contributed to the enactment of this allowance.

The Tax Reduction Act of 1975 (P.L. 94-12) substantially increased the income limits ($18,000 to $35,000) for taxpayers who could claim the deduction.

The deduction was replaced by a nonrefundable credit with enactment of the Tax Reform Act of 1976 (P.L. 94-455). The credit formula was 20 percent of eligible expenditures subject to a maximum level of expenditures of $2,000 for one qualifying individual and $4,000 for two or more qualifying individuals. These amounts were not adjusted for inflation. Congress believed that such expenses were a cost of earning income for all taxpayers and that its benefits should be made available to those taking the standard deduction. Also, the tax credit provided relatively more benefit than the deduction to taxpayers in the lower tax brackets.

The Revenue Act of 1978 (P.L. 95-600) provided that the child care credit was available for payments made to relatives. The stated rationale was that, in general, relatives provide better attention and the allowance would help strengthen family ties.

P.L. 97-34 created the current "sliding-scale" credit rate whereby the credit rate decreases as income increases. The sliding scale began at 30 percent for taxpayers with adjusted gross income of $10,000 or less, with the rate reduced by one percentage point for each $2,000 (or fraction thereof) above $10,000 until the lowest rate of 20 percent was reached at $28,000 of income. The law also increased the maximum expenditures from $2,000 to $2,400 for one qualifying individual and from $4,000 to $4,800 for two or more qualifying individuals. The congressional rationale for increasing the maximum amounts noted the substantial increases in costs for child care. The purpose of switching to a sliding-scale credit was to target the increases in the credit toward low- and middle-income taxpayers. The law also enacted the

exclusion for employer-sponsored child and dependent care as a way to encourage employers to sponsor child care for their employees.

The Family Support Act of 1988 (P.L. 100-485) modified the dependent care tax credit. First, the credit became available for care of children under 13 rather than 15. Second, a dollar-for-dollar offset was provided against the amount of expenses eligible for the dependent care credit for amounts excluded under an employer-provided dependent care assistance program. Finally, the act provided that the taxpayer must report on his or her tax return the name, address, and taxpayer identification number of the dependent care provider.

With passage of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA, P.L. 107-16) the sliding-scale credit rate was increased 5 percent (from 30 percent to 35 percent) while the maximum expenditure amounts for care were raised from $2,400 to $3,000 for one qualifying individual and from $4,800 to $6,000 for two or more qualified individuals. It seems likely that these changes were made because the qualifying expense dollar limits are not subject to an automatic inflation provision. These changes were originally set to expire on December 31, 2010.

The credit was further amended by the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147) which determined that the amount of "deemed" earned income in the case of a nonworking spouse incapable of self-care or who is a full-time student is increased to $250 if there is one qualifying child or dependent, or $500 if there are two or more children.

In 2004, the Working Families Tax Relief Act (P.L. 108-311) imposed a requirement that a disabled dependent (or spouse), who is not a qualifying child under age 13, live with the taxpayer for more than half the tax year. It also eliminated the requirement that the taxpayer maintain a household in which the qualifying dependent resides.

In 2010, the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act (P.L. 111-312) extended the temporary EGTRRA provisions adopted in 2001 (and which were originally scheduled to expire after 2010) for an additional two years—2011 and 2012. The provisions were made permanent by the American Taxpayer Relief Act of 2012 (P.L. 112-240).

Assessment

There are a variety of critiques of the credit. First, the credit may increase inequity between taxpayers, since the bulk of the benefit accrues to the higher income taxpayers. The distribution table appearing earlier in this section shows that taxpayers whose adjusted gross incomes were under $20,000 are estimated to claim 0.1 percent of the total value of the tax expenditure in 2018, while taxpayers in the $50,000-$75,000 income class are estimated to receive 13.2 percent of the tax expenditure. Similarly, CRS analysis of the credit under current law indicates a significant amount of the benefit goes to higher-income taxpayers. An estimated 35 percent of the tax units claiming the credit were in the highest-income quintile (top 20 percent) in 2014. In contrast, 1 percent of all CDCTC recipient families were in the lowest-income quintile in the same year.

However, the determination of the dependent care tax credit progressivity cannot be made simply by comparing an estimate of the federal tax expenditure. Analysis by the Tax Policy Center indicates that 80 percent of families with children, who receive the credit, received on average the same amount of the credit—between $500 and $600. The 20 percent of households with the lowest income received a smaller credit, on average about $150. Hence, excluding the 20 percent of families with the lowest incomes, the credit provides a similar benefit to families of varying income levels, so that for those with lower incomes (excluding the 20 percent with the lowest incomes) the benefit is larger relative to their income than for those with higher incomes. This would imply the credit (excluding the 20 percent with the lowest incomes) would increase equity among taxpayers.

One reason that roughly 80 percent of taxpayers receive on average a similar credit amount is that *actual* child care expenses are so much greater than the statutory cap ($3,000 for one child, $6,000 for two or more children), that all but the poorest effectively receive the maximum credit. For example, in 2016 the average annual cost of infant care provided in a child care center varied from a low of $5,178 in Mississippi to $23,089 in Washington, DC. The average annual cost of care for a 4-year-old at a child care center ranged from $4,556 in Mississippi to $18,202 in Washington, DC. For two-children (one-infant and one 4-year old), the average annual costs of center-based care in 2016 varied from $9,734 in Mississippi to $41,291 in Washington, DC.

The same analysis by the Tax Policy Center estimates that 12.1 percent of families with children will benefit from the credit. In some cases, this is

because the credit can only be claimed for certain expenses and not for others. For example, two similarly situated families of similar size and income level might receive very different benefits: In one case both spouses work and pay for a nanny and are eligible for the credit; in another, the care is provided by an adult child of the taxpayer (a non-qualifying expense) and would be ineligible for the credit. In other cases, families may be ineligible for the credit, if for example, both spouses don't work (or go to school).

To properly administer the dependent care tax credit, the Internal Revenue Service requires submission of a tax identification number for the provider of care (of if the taxpayer can show that they exercised due diligence in attempting to provide the required information). A taxpayer must include this information on the tax return to claim the credit. This requirement may reduce the number of taxpayers who erroneously claim this credit for non-qualifying care (for example, care provided by an older sibling). However, other aspects of the credit may result in lower compliance rates and additional administrative issues. For example, the rule for determining whether a child or family member is a qualifying individual for the child and dependent care tax credit is complex, and differs from the eligibility requirements for other child and dependent-related tax benefits. This may lead to confusion and error on the part of the taxpayer. In addition, it may be difficult for the IRS to verify that children and dependent are accurately claimed for the credit. Finally, determining whether expenses count towards the credit calculation may also increase the complexity of this provision.

There are two principal critiques of the exclusion for employer-provided child care: it reduces horizontal equity and has an adverse impact on the Social Security and Hospital Insurance Trust Funds. The income tax exclusion violates the economic principle of horizontal equity because taxpayers with similar incomes and work-related child care expenses are not treated equally. Only taxpayers whose employers have a qualified child care assistance program may exclude from income taxes a portion of their work-related child care expenses. Since upper-income taxpayers will receive a larger subsidy than lower-income taxpayers given their higher tax rate, the tax subsidy is inverse to need. If the benefits substitute for wage or salary increases, the benefits are not subject to employment taxes. The Social Security and Hospital Insurance Trust Funds would be smaller as a result.

The tax credit's advocates argue that the availability of dependent care can reduce employee absenteeism and unproductive work time. The tax exclusion may also encourage full participation of women in the work force

as the lower after-tax cost of child care may not only affect labor force participation but hours of work. Further, it can be expected that the provision affects the mode of child care by reducing home care and encouraging more formal care such as child care centers. Those employers that may gain most by the provision of dependent-care services are those whose employees are predominantly female, younger, and whose industries have high personnel turnover.

Selected Bibliography

Batchelder, Lily, et al. (2017). Assessing President Trump's Child Care Proposals. *National Tax Journal, 70*(4), 759-782.

Child Care Aware of America. *Parents and the High Cost of Child Care, 2017 Report*.

Congressional Budget Office. "Budget Options Volume 2," August 2009.

Crandall-Hollick, Margot L. *Child and Dependent Care Tax Benefits: How They Work and Who Receives Them*. Congressional Research Service Report R44993. Washington, DC: March 1, 2018.

Crandall-Hollick, Margot L. and Gene Falk. *The Child and Dependent Care Credit: Impact of Selected Policy Options*. Congressional Research Service Report R45035. Washington, DC: December 5, 2017.

Dickert-Conlin, Stacy, Katie Fitzpatrick, and Andrew Hanson. "Utilization of Income Tax Credits by Low-Income Individuals," *National Tax Journal,* v. 58, n. 4, 2005.

Dunbar, Amy E. "Child Care Expenses: The Child Care Credit," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005, pp. 53-55.

Forry, Nicole D. and Elaine A. Anderson. "The Child and Dependent Care Tax Credit, A Policy Analysis," *Marriage and Family Review,* v. 39, issue 1-2, 2006, pp. 159-176.

Gravelle, Jane G. *Federal Income Tax Treatment of the Family*, Library of Congress, Congressional Research Service Report RL33755. Washington, DC: January 17, 2013.

Greenberg, Mark. "Next Steps for Federal Child Care Policy," *The Future of Children,* v. 17 n. 2, Fall 2007, pp. 73-96.

Hollingsworth, Joel S. "Save the Cleavers: Taxation of the Traditional Family," *Regents University Law Review*, v. 13, n. 1, (2000/2001), pp. 29-64.

Johnston, David Cay. "Is the Child Care Credit Parent Friendly." *Tax Notes*. November 8, 2010, pp. 735-737.

Maag, Elaine. "The Disappearing Child Care Credit," *Tax Notes*. October 8, 2007.

Miller, Benjamin. M., and Mumford, Kevin. J. "The Salience of Complex Tax Changes: Evidence from the Child and Dependent Care Credit Expansion." *National Tax Journal,* v. 68, n. 3, 2015.

Rohaly, Jeffrey. "Reforming the Child and Dependent Care Tax Credit." *Tax Policy Center,* June 11, 2007.

Steuerle, C. Eugene. "Systemic Thinking About Subsidies for Child Care," *Tax Notes,* v.78, 1998, p. 749.

Tax Policy Center. Tax Policy Center Briefing Book. *How does the tax system subsidize child care expenses?* (2015).

U.S. Census. *Who's Minding the Kids, Child Care Arrangements: Spring 2011,* April 2013.

Viard, Alan D. "The Child Care Tax Credit: Not Just Another Middle-Income Tax Break." *Tax Notes*. September 27, 2010, pp. 1397-1403.

CREDIT FOR EMPLOYER-PROVIDED DEPENDENT CARE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 45F.

Description

Employers are allowed to claim a tax credit equal to 25 percent of qualified expenses for employee child care and 10 percent of qualified expenses for child care resource and referral services. Qualified child care expenses include the cost of acquiring, constructing, rehabilitating or expanding property used for a qualified child care facility, costs for the operation of the facility (including training costs and certain compensation for employees, and scholarship programs), or for contracting with a qualified child care facility to provide child care.

A qualified child care facility must have child care as its principal purpose and must meet all applicable state and local laws and regulations. A facility operated by a taxpayer is not a qualified child care facility unless, in addition to these requirements, the facility is open to all employees and, if qualified child care is the principal trade or business of the taxpayer, at least 30 percent of the enrollees at the facility are dependents of employees of the

taxpayer. Use of a qualified child care facility and use of child care resource and referral services cannot discriminate in favor of highly paid employees.

The maximum total credit that may be claimed by a taxpayer cannot exceed $150,000 per taxable year. The credit is reduced by the amounts of any tax deduction claimed for the same expenditures. Any credit claimed for acquiring, constructing, rehabilitating, or expanding property is recaptured if the facility ceases to operate as a qualified child care facility, or for certain ownership transfers within the first 10 years. The credit recapture is a percentage, based on the year when the cessation as a qualified child care facility or transfer occurs.

Impact

A 25 percent credit can significantly decrease the cost of on-site facilities for employers and encourage some firms to develop on-site facilities. Firms have to be large enough to make the facility viable; i.e., have enough employees with children in need of child care. Thus, large firms will most likely be those that provide on-site child care.

This nonrefundable tax credit has the potential to violate the principle of horizontal equity, which requires that similarly situated taxpayers should bear similar tax burdens. Mid- and small-sized firms may not have sufficient tax liability to claim the credit. Even for those firms that are able to claim the credit, they may not be able to claim the full amount because of limited tax liability.

Although the credit is contingent on non-discrimination in favor of more highly compensated employees, this provision, unlike child care tax benefits in general, may provide greater benefits to middle and upper income individuals because its relative cost effect is dependent on the size of the firm and not the income of the employees. Indeed, lower-income employees may not be able to afford the higher quality child care facilities offered by some firms (although some employers subsidize costs for lower-income workers).

Rationale

This provision was adopted as part of the Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16) and was designed to encourage on-site employer child care facilities. It was scheduled to expire after 2010 but was extended through 2012 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312). It was made permanent by the American Taxpayer Relief Act of 2012 (P.L. 112-240).

Assessment

Specific subsidies for on-site employer-provided child care would be economically justified if there were a market failure that prevented firms from providing this service. Few firms offer such facilities, although small firms may not have enough potential clients to allow the center to be economically viable. The limit on the subsidy amount is intended to target smaller firms, but it is not clear why such activities are under-supplied by the market. Some research has suggested that on-site care produces benefits that firms may not take into account, such as reduced absenteeism and increased productivity, but not all evidence is consistent with that view. In addition, employers may be reluctant to commit to on-site child care because of uncertainties regarding costs and return. There is also some concern that employer-provided child care centers may create resentment among employees who are either childless or on a waiting list for admittance of their children to the center.

Some firms have also begun offering emergency or back-up care, which is a more limited proposition that may be more likely to reduce absenteeism. The credits may encourage more large firms to provide these benefits, which may increase productivity because parents are not forced to stay home with a sick child or a child whose caregiver is temporarily not available.

Selected Bibliography

Koniak, Jaime. "Should the Street Take Care? The Impact of Corporate-Sponsored Day Care on Business in the New Millennium." *Columbia Business Law Review*, 2002, pp. 193-222.

McIntyre, Lee. "The Growth of Work-Site Daycare." *Federal Reserve Bank of Boston Regional Review*, v. 10, n. 3, 2000, pp. 8-15.

Rosenberg, Lee Fletcher. "Child Care Benefits May Get Boost from Tax Credit." *Business Insurance*, v. 35, July 30, 2001, pp. 3, 34.

Education, Training, Employment, and Social Services:
Social Services

ADOPTION CREDIT AND EMPLOYEE ADOPTION BENEFITS EXCLUSION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.4	-	0.4
2019	0.3	-	0.3
2020	0.3	-	0.3
2021	0.3	-	0.3
2022	0.3	-	0.3

Authorization

Sections 23, 137.

Description

In 2018, taxpayers may be able to receive an adoption credit of up to $13,810 (this amount is annually adjusted for inflation). The credit is reduced for taxpayers with income over $207,140 and is phased out completely for taxpayers with more than $247,140 in income (these amounts are subject to annual inflation adjustment). The adoption credit is not refundable. However, the credit may be carried forward and claimed on future tax returns for up to five years after initially claimed. (The credit was temporarily refundable for 2010 and 2011 only.)

A taxpayer can only claim expenses related to the adoption of an eligible child. The term *eligible child* refers to children under age 18 and to older individuals who are physically or mentally incapable of taking care of themselves. Qualifying expenses must be directly related to the adoption of an eligible child. They include: reasonable and necessary adoption fees, court costs, attorney fees; travelling expenses while away from home (including

amounts spent on meals and lodging); and other expenses directly related to and for the principal purposes of the legal adoption of an eligible child by the taxpayer (e.g., home study costs).

Qualified adoption expenses *do not include:* any expense for which a deduction or credit is allowed under any other provision of the tax code; funds for adoption expenses that are received under any federal, state, or local program; expenses incurred to carry out any surrogate parenting arrangement; expenses incurred in connection with adopting a spouse's child (i.e., a stepchild); or adoption expenses reimbursed under an employer program.

In the case of a special needs adoption, the maximum tax credit is allowed regardless of actual qualified adoption expenses (i.e., in 2018 they are assumed to have expenses equal to $13,810 and eligible for a credit of $13,810). A special needs child for the purposes of the adoption tax credit (and the exclusion for employer-provided adoption assistance; discussed below) does not necessarily mean the child has a medical condition or a disability. Instead, for the purposes of these tax benefits, special needs adoptions are the adoptions of children whom the state child welfare agency considers difficult to place for adoption. (The definition of "special needs" for purposes of adoption tax benefits is largely the same as "special needs" for purposes of the federal adoption assistance program that is included in Title IV-E of the Social Security Act.)

Most foster care adoptions (i.e., domestic public adoptions) are special needs adoptions, but few other adoptions are special needs adoptions. Specifically, a child is considered to have special needs if the child's state of residence determines that: the child cannot or should not be returned to the birth parents' home; there is a specific factor or condition (e.g., age of child; child is member of sibling group seeking adoption together; child has medical, physical, or social-emotional disability; or child is member of a minority race/ethnicity) that leads to the reasonable conclusion that the child will not be adopted without assistance provided to the adoptive parents; and the child is a citizen or legal resident of the United States. This last rule generally excludes any foreign adoptions from being considered special needs adoptions.

For domestic adoptions, qualified adoption expenses are eligible for the tax credit and income tax exclusion when incurred. For intercountry (foreign) adoptions, qualified adoption expenses are not eligible for the tax credit or income tax exclusion until after the adoption is finalized.

Taxpayers *cannot* claim a credit for expenses that violate federal or state law, are incurred in carrying out any surrogate parenting agreement, or are for the adoption of a child who is the child of the taxpayer's spouse, though they may be able to claim expenses for the adoption of a child of a domestic partner. Under current law, qualifying adoption expenses do not include expenses connected to the adoption of the child of the taxpayer's spouse.

To claim the adoption tax credit, a taxpayer must file IRS Form 8839 and include the name of the adopted child (if known), their age, and the child's taxpayer identification number (TIN). In most cases, the child's TIN is their Social Security number (SSN). However, in cases where the adopting parents do not have or cannot obtain the child's SSN, they may be able to use an adoption TIN or ATIN. If the child's name, age, and TIN are not provided, the IRS may disallow the credit until additional information about the adopted child is provided by the taxpayer.

In addition, a married couple generally must file a joint tax return to claim the adoption tax credit. If two taxpayers who are registered domestic partners adopt a child together, they may split the qualified expenses and the resulting credit by mutual agreement, but the total amount of the credit that can be claimed for a given adopted child is still subject to the same limit ($13,810 in 2018).

Taxpayers whose employers offer qualifying adoption assistance programs as a fringe benefit may not have to pay income taxes on some or all of the value of this benefit. The maximum amount that can be excluded from the taxpayer's income is capped at a maximum amount per adoption which is the same maximum amount of the credit: $13,810 in 2018.

Since the exclusion *reduces income* subject to taxation, it *reduces taxes* in proportion to the taxpayer's tax bracket. For example, if a taxpayer receives $2,000 of excludible employer-provided adoption assistance and is in the 10% tax bracket, the exclusion results in $200 of avoided income taxes. If a taxpayer is in the 35% tax bracket, the same $2,000 exclusion is worth $700 in tax savings. (By contrast, the tax credit reduces tax liability dollar for dollar of the value of the credit. For example, if a taxpayer had $2,000 of qualifying adoption expenses and applied those expenses toward the adoption credit, he or she could receive a credit of $2,000, irrespective of the taxpayer's tax bracket.)

Taxpayers can claim the exclusion and the credit concurrently for the same adoption, but cannot claim both tax benefits for the same expenses. Hence, for one adoption, a taxpayer is eligible for up to $13,810 in tax-free employer-provided adoption assistance and a $13,810 adoption credit. However, taxpayers who claim both benefits for the same adoption must reduce the amount of qualified adoption expenses eligible for the credit by the amount of qualified adoption expenses excluded under an employer-provided adoption assistance plan. Combined, the maximum value of these two tax benefits could equal up to $18,920 in *reduced tax liability* per adoption in 2018 depending on a taxpayer's expenses, income level, and availability of employer-sponsored adoption assistance program at their work.

In addition to having the same per-adoption maximum as the adoption tax credit, the exclusion for employer-provided adoption assistance is subject to the same income limitation (i.e., phaseout) and the same definitions of "qualified adoption expenses" and "eligible child." Similar rules that apply to special needs children for the credit also apply for the exclusion. In other words, if a taxpayer adopts a child with special needs and an employer has a qualified adoption assistance program, the taxpayer will be able to exclude up to $13,810 of income regardless of what the actual adoption expenses are and even if the taxpayer or the employer does not actually pay any qualified adoption expenses. The filing requirements for the exclusion are the same as for the credit. Finally, the same timing rules that apply to the adoption credit for domestic versus foreign adoption also apply to the exclusion. Thus, in order for the employer-provided adoption benefits to be excludable from income (and hence not taxable) for a foreign adoption, the amounts paid under the adoption assistance program must be paid either during or after the year the adoption becomes final.

Employer-provided adoption assistance programs are a separate employee benefit that must fulfill all of the following requirements to be excludable from an employee's income: the employer must provide notice of the plan to eligible employees; the plan must not discriminate in favor of highly compensated employees; and employees must provide reasonable substantiations of qualifying expenses. As long as these requirements are met, employers generally have discretion over other aspects of these plans.

Impact

Both the tax credit and employer exclusion may reduce the costs associated with adoptions through lower income taxes. The tax credit is

claimed by a small proportion of taxpayers. For 2015, approximately 0.04 percent of tax returns (approximately 64,000) claimed the adoption tax credit, with an average credit of $3,928 per tax return. In addition, as illustrated in the table below, the majority (79.3 percent) of the tax benefit is received by taxpayers with income over $75,000. One factor limiting the use of the credit is the nonrefundable nature of the credit. As a nonrefundable credit, the adoption tax credit is taken against tax liability *after* certain other nonrefundable tax credits, such as the nonrefundable portion of the child tax credit and the education credits, are claimed.

Distribution by Income Class of Adoption Credit Dollars Claimed in Tax Year 2015

Adjusted Gross Income Class (in thousands of $)	Percentage Distribution
Below $30	0.0
$30 to under $50	6.9
$50 to under $75	13.8
$75 to under $100	15.2
$100 to under $200	60.4
$200 and over	3.7

Source: Data compiled from IRS, *Statistics of Income*, Table 3.3.

The refundability of the credit for tax years 2010 and 2011 was expected to expand usage of the adoption tax credit for those two years. Data from 2011 indicate that when the credit was refundable about one-quarter of adoption tax credit dollars were claimed by taxpayers with adjusted gross income of less than $30,000.

Distribution by Income Class of the Refundable Adoption Credit Dollars Claimed in Tax Year 2011

Adjusted Gross Income Class (in thousands of $)	Total Percentage Distribution	Refundable Portion Percentage Distribution	Nonrefundable Portion Percentage Distribution
Below $30	24.6	24.6	0.0
$30 to under $50	11.6	10.9	0.8
$50 to under $75	21.3	17.8	3.5
$75 to under $100	8.7	4.7	4.0
$100 to under $200	33.1	10.2	22.9
$200 and over	0.5	0.0	0.6
Total	100	68.3	31.7

Source: Data compiled from IRS, *Statistics of Income*, Table 3.3.

In addition, when the credit was refundable, taxpayers claimed on average a larger credit. For example in 2010, the average adoption credit per taxpayer was $12,430, while the average adoption credit in 2011 was $12,729. In contrast, the average adoption credit in 2015 was $3,928.

Rationale

Before the enactment of the adoption tax credit and exclusion for employer-provided adoption assistance in the mid-1990s, Congress enacted an itemized deduction for adoption expenses associated with the adoption of a special needs child as part of the Economic Recovery Tax Act of 1981 (P.L. 97-34). This deduction was repealed five years later by the Tax Reform Act of 1986 (P.L. 99-514). The Joint Committee on Taxation provided several reasons for the repeal of this tax benefit including: adoption assistance for special needs children was more appropriate through an expenditure program; the itemized deduction provided its greatest benefits to higher-income taxpayers who had less need for federal assistance for adoption; agencies with expertise in adoption (i.e., not the IRS) should have budgetary control over adoption assistance

The tax credit and income tax exclusion for qualified adoption expenses were enacted by Congress as part of the Small Business Job Protection Act of

1996 (P.L. 104-188). The maximum amount of the tax credit and exclusion was $5,000 ($6,000 for a special needs child). The credit and exclusion phased out for income between $75,000 and $115,000. Neither the maximum amount of the exclusion nor the phaseout levels were annually adjusted for inflation under this law. The tax credit was enacted as a permanent tax provision for the adoption of a child with special needs, while it was not available for expenses incurred after December 31, 2001 for other adoptions. The exclusion was also scheduled to expire at the end of 2001. According to the Joint Committee on Taxation, Congress enacted the credit and exclusion because of the belief that the financial costs associated with the adoption process should not be a barrier to adoptions.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA, P.L. 107-16) extended temporarily the availability of the adoption credit for children other than special needs children. The law also temporarily increased the maximum qualified adoption expenses for the tax credit and income exclusion to $10,000 per eligible child, including special needs children. The act also temporarily extended the exclusion from income for employer-provided adoption assistance, and temporarily increased the beginning point of the income phase-out range for the credit and the exclusion to $150,000. The law also provided for an annual inflation adjustment beginning in 2003 for the limit on qualified adoption expenses and the phase-out income level. EGTRRA also included a sunset provision for the legislation. All of these EGTRRA changes were scheduled to expire at the end of 2010. For taxable years after 2010, the adoption credit was scheduled to revert to a maximum credit of $6,000 for special needs adoptions and no tax credit for non-special needs adoptions. Also, the credit phase-out range was scheduled to revert to the pre-EGTRRA levels (i.e., a ratable phase-out for modified adjusted gross income between $75,000 and $115,000). Congressional reports noted that both the credit and exclusion had been successful in reducing the after-tax cost of adoption to affected taxpayers. It was believed that increasing the size of both the credit and exclusion along with expanding the number of taxpayers who qualify for the tax benefit would encourage more adoptions and allow more families to afford adoption.

The Job Creation and Worker Assistance Act (P.L. 107-147) clarified that qualifying expenses for the adoption of children with special needs do not need to be documented. Therefore, a family seeking to adopt a child with special needs could claim the maximum credit without having to document expenses. The conference report accompanying H.R. 1836 (EGTRRA, P.L. 107-16) provided that the maximum amount of qualifying expenses was assumed to have been claimed (without the documentation requirement) in the case of a

special needs adoption for tax years beginning after 2002. However, the legislative language of EGTRRA did not make this provision clear. Therefore, a technical correction was made in P.L. 107-147.

The Patient Protection and Affordable Care Act of 2010 (P.L. 111-5) increased the amount of qualified expenses for the adoption tax credit and the exclusion. Adjusted for inflation, this level was originally $12,170 in 2010. This law increased this level to $13,170 and subsequently adjusted the level for inflation in 2011. The law also made the credit refundable for tax years 2010 and 2011. These changes and the temporary changes enacted under EGTRRA (that were originally scheduled to expire at the end of 2010) were scheduled to expire at the end of 2011.

The EGTRRA modifications to the credit and exclusion were extended for one year—2012—by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312). The EGTRRA modifications to the credit and the exclusions were made permanent by the American Taxpayer Relief Act of 2012 (P.L. 112-240).

Assessment

There are several ways economists evaluate tax benefits, including adoption tax benefits. Specifically, economists may assess whether adoption tax benefits encourage adoptions, the distribution of these benefits among taxpayers, and the complexity of administering the tax provision.

Adoption is generally viewed as beneficial to all individuals involved in the process (adopted children, adopted parents, and birth parents) and society more broadly. Hence, many believe that adoption should be encouraged, including through federal policies like tax benefits. There is currently little evidence, however, that adoption tax benefits are an effective policy tool to increase adoptions. Although the amount of adoption tax benefits has increased over time, the actual number of children adopted has not. Current adoption tax benefits may be too small in comparison to the actual costs of adoption to encourage families to adopt, or a family's decision to adopt may not be heavily influenced by financial incentives, but instead may be influenced by more personal issues or beliefs. If adoption tax benefits do not lead to additional adoptions, they are considered economically inefficient by economists and are instead a windfall benefit to families that would have adopted even in the absence of these benefits.

Given little evidence that adoption tax benefits encourage adoption, the fairness of these benefits may be of particular interest. As previously discussed, the vast majority of adoption tax benefits go to upper-income Americans, even though data suggest that a significant number of lower- and middle-income Americans adopt. In 2015, while approximately half of adoption tax credit *claimants* had income under $75,000, these taxpayers received one-fifth of adoption credit *dollars*.

The majority of adoption tax credit dollars (79.3 percent) went to taxpayers with income of $75,000 or more, with 60 percent of adoption tax credit dollars going to those with income between $100,000 and $200,000. While comparable data are not available for the exclusion of employer-provided adoption benefits, exclusions generally tend to provide the largest tax savings to those paying the highest marginal tax rates (i.e., upper-income taxpayers).

Under several economic definitions of "fairness," adoption tax benefits would be considered unfair (or inequitable). For example, the principle of *vertical equity* implies that taxpayers with greater income, and hence more economic resources, should pay more in tax. The principle of vertical equity underpins the progressive nature of the federal income tax code, where those with more income pay a greater share of that income in taxes through higher tax rates. Under the definition of vertical equity, adoption tax benefits which primarily benefit higher-income taxpayers would lessen the progressivity of the federal income tax and hence be inequitable.

Adoption tax benefits may also be considered inequitable under the definition of "horizontal equity." According to the principle of horizontal equity, *similar taxpayers* should pay a *similar amount in taxes*. Many economists consider taxpayers to be similar if they have similar levels of income. Hence, if two tax units earn $40,000 and both pay $8,000 in taxes, then the tax system is horizontally equitable. However, adoption tax benefits (like many tax preferences) can result in taxpayers with the same income paying different amounts in taxes, depending on their characteristics such as whether they own a home (the mortgage interest deduction), send a child to college (higher education tax benefits), or adopt (adoption tax benefits).

Recent evidence suggests that adoption tax benefits have been difficult for the IRS to administer to keep both erroneous benefit claims *and* taxpayer burden low. In 2012—when the IRS was processing mostly 2011 income tax returns and the adoption tax credit was refundable—they selected 69 percent

of returns with adoption tax credit claims for audit. In most cases, these returns were selected because the IRS flagged the required adoption documentation as missing, invalid, or insufficient. However, after auditing these returns the IRS "disallowed $11 million—or one and one half percent—in adoption credit claims" according to the IRS Taxpayer Advocate Service (TAS). One reason the IRS may have flagged such a large proportion of returns for audit—even when so few dollars of benefits were improperly claimed—was the IRS's lack of familiarity with adoption documentation.

The recent IRS challenges with administering the refundable adoption credit highlight fundamental challenges with having the IRS—which is focused on collecting revenue—administer a social policy like an adoption incentive.

Selected Bibliography

Crandall-Hollick, Margot. L. *Adoption Tax Benefits: An Overview*, Congressional Research Service Report R44745, Washington, DC: March 13, 2018.

Department of Health and Human Services Administration for Children and Families. "Planning for Adoption: Knowing the Costs and Resources." Factsheet for Families, November 2016. Available at https://www.childwelfare.gov/pubpdfs/s_costs.pdf.

Gossett, DeLeith Duke. "If Charity Begins at Home, Why Do We Go Searching Abroad? Why the Federal Adoption Tax Credit Should Not Subsidize International Adoptions." *Lewis and Clark Law Review,* v. 17, issue 3, 2013, pp. 839-897.

Government Accountability Office. *Adoption Tax Credit: IRS Can Reduce Audits and Refund Delays*, GAO Report GAO-12-98 (Washington: October 2011), pp. 1-26.

—. *Child and Family Services Reviews: Better Use of Data and Improved Guidance Could Enhance HHS's Oversight of State Performance*, GAO Report GAO-04-333 (Washington: April 2004), pp. 1-55.

—. *Foster Care: States Focusing on Finding Permanent Homes for Children, but Long-Standing Barriers Remain*, GAO Testimony GAO-03-626T (Washington: April 8, 2003), pp. 1-24.

Green, Rob. "The Adoption Tax Credit: Is It an Effective Approach to Promote Foster Care Adoption?" *Child Trends Research Brief*. August 2007.

Hollingsworth, Leslie Doty. "Adoption Policy in the United States: A Word of Caution," *Social Work*, v. 45, n. 2 (March 2000), pp. 183-186.

Internal Revenue Service. Topic 607-Adoption Credit and Adoption Assistance Programs. February 05, 2016.

Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 104th Congress*. *JCS-12-96*. Washington, DC: December 18, 1996, pp. 200-204.

Kanoy, Leah Carson, "The Effectiveness of the Internal Revenue Code's Adoption Tax Credit: Fostering the Nation's Future?" *University of Florida Journal of Law & Public Policy*, v. 21 n. 2, August 2010, pp. 201-226.

Lawsky, Sarah B. and Naomi Cahn. "Embryo Exchanges and Adoption Tax Credits." *Tax Notes,* June 15, 2009, pp. 1365-1372.

O'Connor, M. "Federal Tax Benefits for Foster and Adoptive Parents and Kinship Caregivers: 2001 Tax Year," Seattle: Casey Family Programs, 2001.

Pippin, Sonja. "Tax Treatment of Adoption Expenses." *Journal of Accountancy,* April 2010, v. 209, issue 4, p. 44-48.

Smith, Sheldon R. "Tax Benefits for Adoption," *Tax Notes*, v. 95 (May 13, 2002), pp. 1065-1071.

—, Adoption Tax Benefits: Policy Considerations," *Tax Notes*, v. 91 (May 14, 2001), pp. 1159-1164.

Smith, Sheldon R. and Glade K. Tew. "The Adoption Exclusion: Complications for Employees," *Tax Notes*, v. 90 (Jan. 29, 2001), pp. 659-664.

Stoltzfus, Emilie. *Child Welfare: An Overview of Federal Programs and Their Current Funding*. Congressional Research Service Report R43458, Washington, DC: January 2, 2018.

Stoltzfus, Emilie. *Child Welfare: The Adoption Incentive Program and Its Reauthorization*. Congressional Research Service Report R43025, Washington, DC: July 15, 2014.

Taxpayer Advocate Service. "Most Serious Problems: The IRS's Compliance Strategy for the Expanded Adoption Credit Has Significantly and Unnecessarily Harmed Vulnerable Taxpayers, Has Increase Costs for the IRS, and Does Not Bode Well for Future Credit Administration," 2012 Annual Report to Congress Volume One, December 31, 2012.

EXCLUSION OF CERTAIN FOSTER CARE PAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.4	-	0.4
2019	0.5	-	0.5
2020	0.5	-	0.5
2021	0.5	-	0.5
2022	0.6	-	0.6

Authorization

Section 131.

Description

Qualified foster care payments for the care of qualified foster individuals are excludable from gross income and hence not subject to income taxation, subject to certain limitations (discussed below). Since the exclusion applies to payments received, rather than expenses incurred, foster parents do not have to keep detailed records of their foster care expenditures to qualify for the exclusion. (Non-taxable foster care payments are not considered "earned income" for purposes of the Earned Income Tax Credit (EITC) or child tax credit.)

A qualified foster individual is an individual placed by a qualified foster care placement agency. A qualified placement agency is a placement agency that is licensed or certified by a state (or its political subdivision), or an entity designated by the state (or its political subdivision), for the foster care program of the state (or its political subdivision) to make foster care payments to foster care providers.

"Qualified foster care payments" include payments made (1) by either state or local governmental agencies, (2) by *any* "qualified foster care placement agency" that is licensed or certified by a state or local government, or (3) by an entity designated by a state or local government to make payments to foster care providers. Thus, payments made by for-profit agencies contracting with state and local governments to provide foster home placements are excludable from gross income by foster care providers.

"Difficulty of care payments" are payments to provide additional care in the foster care provider's home for a qualified foster individual who has a physical, mental, or emotional handicap.

Although the exclusion applies to foster care for individuals over the age of 18, payments for such individuals are not excludable from gross income to the extent payments are made for more than five recipients. No limitation exists for foster care recipients under the age of 19. The exclusion for foster care difficulty-of-care payments is limited to payments for the care of 10 qualified foster individuals who are under 19 years of age, and five who are over 18 years of age.

In 2014, the IRS ruled that "certain payments received by an individual care provider under a state Medicaid Home and Community-Based Services Waiver (Medicaid waiver) program, described in this notice, are difficulty of care payments excludable under section 131 of the Internal Revenue Code."

Impact

Both foster care and difficulty-of-care payments qualify for a tax exclusion, subject to certain limitations. Since these payments are not counted as part of gross income, the tax savings reflect the marginal tax bracket of the foster care provider. Thus, the exclusion has greater value for taxpayers with higher incomes (and higher marginal tax rates) than for those with lower incomes (and lower marginal tax rates). In general, foster care providers who have other income, would receive a larger tax benefit than foster care providers without other income.

Rationale

In 1977, the Internal Revenue Service, in Revenue Ruling 77-280, 1977-2 CB 14, held that payments made by charitable child-placing agencies or governments (such as child welfare agencies) were reimbursements or

advances for expenses incurred on behalf of the agencies or governments by the foster parents and, therefore, not taxable.

In the case of payments made to providers which exceed reimbursed expenses, the Internal Revenue Service ruled that the foster care providers were engaged in a trade or business with a profit motive and dollar amounts which exceed reimbursements were taxable income to the foster care provider.

The exclusion of foster care payments entered the tax law officially with the passage of the Periodic Payments Settlement Tax Act of 1982 (P.L. 97-473). That act codified the tax treatment of foster care payments and provided a tax exclusion for difficulty-of-care payments made to foster parents who provide additional services in their homes for physically, mentally, or emotionally handicapped children.

In the Tax Reform Act of 1986 (P.L. 99-514), the provision was modified to exempt all qualified foster care payments from taxation. This change was made to relieve foster care providers from the detailed record-keeping requirements of prior law. Congress feared that detailed and complex record-keeping requirements might deter families from accepting foster children or from claiming the full tax exclusion to which they were entitled.

This act also extended the exclusion of foster care payments to adults placed in a taxpayer's home by a government agency.

Under a provision included in the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147), the definition of "qualified foster care payments" was expanded to include for-profit agencies contracting with state and local governments to provide foster home placements. The change was made in recognition that states often contract services out to for-profit firms. Generally, the tax code had not recognized the role of private agencies in helping the states provide foster care services for placement and delivery of payments. The provisions are thought to reduce complexity with the hope that simpler rules may encourage more families to provide foster care services.

Assessment

It is generally understood that the tax law treatment of foster care payments provides administrative convenience for the Internal Revenue Service, and prevents unnecessary accounting and record-keeping burdens for foster care providers.

A study by the General Accounting Office (1989, now called Government Accountability Office) had reported a shortage of foster parents. Included among the reasons for the shortage were the low reimbursement rates paid to foster care providers, with some providers dropping out of the program because the low payment rates did not cover actual costs. In 2005, the Department of Health and Human Services reported a lack of permanent homes for older youths in the foster care system. Thus, to the extent that the exclusion promotes participation in the program, it is beneficial from a public policy viewpoint.

Selected Bibliography

Ahn, Haksoon, Diane DePanfilis, Kevin Frick and Richard Path. "Estimated Minimum Adequate Foster Care Costs for Children in the United States." *Children and Youth Services Review*, vol. 84, January 2018, pp. 55-67.

DeVooght, Kerry, and Dennis Blazey. *Family Foster Care Reimbursement Rates in the U.S.: A Report from a 2012 National Survey on Family Foster Care Provider Classifications and Rates*. Child Trends, April 9, 2013.

Internal Revenue Service. Notice 2014-7. January 3, 2014.

Internal Revenue Service. "Certain Medicaid Waiver Payments May Be Excludable from Income," February 23, 2016. Available at https://www.irs.gov/individuals/certain-medicaid-waiver-payments-may-be-excludable-from-income.

Department of Health and Human Services, Administration for Children & Families, *Adoption and Foster Care Analysis and Reporting System (AFCARS) Report #24*. November 30, 2017.

—.Administration for Children & Families, *Trends in Foster Care and Adoption: FY2007-FY2016 2014*, October 20, 2017.

—. Children's Bureau, *A report to Congress on adoption and other permanency outcomes for children in foster care: Focus on older children*. Washington, DC, 2005.

General Accounting Office. *Foster Parents: Recruiting and Preservice Trainings Practices Need Evaluation,* GAO Report GAO/HRD 89-86, August 1989.

Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress, Public Law 99-514*. Washington, DC: May 4, 1987, pp. 1346-1347.

Reichert, Charles J. "IRS Changes Position on Foster Care Payments Despite Court Win." *Journal of Accountancy*, April 1, 2014.

DEDUCTION FOR CHARITABLE CONTRIBUTIONS, OTHER THAN FOR EDUCATION AND HEALTH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	40.6	2.0	42.6
2019	30.5	2.1	32.6
2020	31.3	2.1	33.4
2021	32.5	2.2	34.7
2022	33.8	2.2	36.0

Authorization

Sections 170 and 642(c).

Description

Subject to certain limitations, charitable contributions may be deducted by individuals, corporations, and estates and trusts. The contributions must be made to specific types of organizations: charitable, religious, educational, and scientific organizations; non-profit hospitals; public charities; and federal, state, and local governments.

Individuals who itemize may deduct qualified contributions of up to 50 percent of their adjusted gross income (AGI) (30 percent for gifts of capital gain property). For 2018-2025, the limit is increased to 60 percent. For contributions to non-operating foundations and organizations, deductibility is limited to the lesser of 30 percent of the taxpayer's contribution base, or the excess of 50 percent of the contribution base for the tax year over the amount of contributions which qualified for the 50 percent deduction ceiling (including carryovers from previous years). Gifts of capital gain property to

these organizations are limited to 20 percent of AGI. Excess contributions can be carried forward for five years.

The maximum amount deductible by a corporation is 10 percent of its adjusted taxable income. Adjusted taxable income is defined to mean taxable income with regard to the charitable contribution deduction, dividends-received deduction, any net operating loss carryback, and any capital loss carryback. Excess contributions may be carried forward for five years. Amounts carried forward are used on a first-in, first-out basis after the deduction for the current year's charitable gifts have been taken. Typically, a deduction is allowed only in the year in which the contribution occurs. An accrual-basis corporation, however, is allowed to claim a deduction in the year preceding payment if its board of directors authorizes a charitable gift during the year and payment is scheduled by the 15th day of the third month of the next tax year.

Donors of noncash charitable contributions face increased reporting requirements. For charitable donations of property valued at $5,000 or more, donors must obtain a qualified appraisal of the donated property. For donated property valued in excess of $500,000, the appraisal must be attached to the donor's tax return. Deductions for donations of patents and other intellectual property are limited to the lesser of the taxpayer's basis in the donated property or the property's fair market value. Taxpayers can claim additional deductions in years following the donation based on the income the donated property provides to the donee. There are also additional reporting requirements for charitable organizations receiving vehicle donations from individuals claiming a tax deduction for the contribution, if it is valued in excess of $500.

Taxpayers are required to obtain written substantiation from a donee organization for contributions which exceed $250. This substantiation must be received no later than the date the donor-taxpayer files the required income tax return. Donee organizations are obligated to furnish the written acknowledgment when requested with sufficient information to substantiate the taxpayer's deductible contribution.

Impact

The deduction for charitable contributions reduces the net cost of contributing. In effect, the federal government provides the donor with a corresponding grant that increases in value with the donor's marginal tax bracket. Individuals who use the standard deduction or who pay no taxes receive no benefit from the provision.

A limitation applies to the itemized deductions of high-income taxpayers, whereby itemized deductions are reduced by 3 percent of the amount by which a taxpayer's adjusted gross income (AGI) exceeds an inflation adjusted dollar amount ($311,300 for joint returns in 2016). The limit is capped at 80 percent of itemized deductions. However, because the limitation is triggered by income rather than deductions it is not effectively a limit on itemized deductions unless the cap is reached, which is unusual. The limit acts as an additional tax rate.

The table below provides the distribution of all charitable contributions. In general, contributions outside of those to educational and health organizations are relatively less concentrated in the higher income categories.

Distribution by Income Class of the Tax Expenditure for Charitable Contributions, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.0
$30 to $40	0.1
$40 to $50	0.2
$50 to $75	1.2
$75 to $100	2.4
$100 to $200	11.8
$200 and over	84.2

Rationale

This deduction was added by passage of the War Revenue Act of October 3, 1917. Senator Hollis, the sponsor, argued that high wartime tax rates would absorb the surplus funds of wealthy taxpayers, which were generally contributed to charitable organizations. The deduction was originally limited to individuals; a deduction for trusts and estates was added in 1918, but a deduction for corporations was not allowed until 1935.

The deduction allowed in 1917 was limited to 15 percent of taxable income. Most of the revisions in the early tax law related to this limit. In 1924, it was changed to 15 percent of adjusted gross income. The corporate deduction was limited to 5 percent of income when introduced in 1935. In 1952 the individual limit was increased to 20 percent. The limit was increased to 30 percent in 1954, but the additional 10 percent had to go to a charity (thus retaining a 20 percent limit for foundations). A carryover of unused deductions for two years was first allowed for corporations in 1954. In 1964, the carryover was increased to five years and extended to individuals. The percentage limit on individual contributions to charities was increased to 50 percent by the Tax Reform Act of 1969 (P.L. 91-172) but was restricted to 30 percent for gifts of appreciated property. The percentage limit on corporate charitable contributions was increased to 10 percent of taxable income in the Economic Recovery Tax Act of 1981 (P.L. 97-34). The limit on contributions to private foundations was increased to 30 percent for cash contributions by the Deficit Reduction Act of 1984 (P.L. 98-369).

The Economic Recovery Tax Act of 1981 also allowed a temporary deduction for non-itemizers, but this provision was not extended by the Tax Reform Act of 1986 (P.L. 99-514).

Concerns about abuse led to provisions requiring greater substantiation of gifts. The Deficit Reduction Act of 1984 (P.L. 98-369) required written substantiation of contributions in excess of $2,000 and the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) lowered that amount to $250. The American Jobs Creation Act of 2004 (P.L. 108-357) increased reporting requirements of donors of noncash charitable contributions, including vehicles. The provisions enacted in 2004 resulted from Internal Revenue Service and congressional concerns that taxpayers were claiming inflated charitable deductions, causing the loss of federal revenue. In the case of vehicle donations, concern was expressed about the inflation of deductions. GAO reports published in 2003 indicated that the value of benefit to charitable organizations from donated vehicles was significantly less than the value claimed as deductions by taxpayers.

The Pension Protection Act of 2006 (P.L. 109-280) also provided for some temporary additional benefits which were part of the "extenders," effective through 2007. The 2006 act also added restrictions on donor advised funds (where sponsors receive contributions and then make donations advised by the original contributor) and certain supporting organizations (organizations that receive donations used to support other active charities).

The 2006 law also tightened rules governing charitable giving in certain areas, including gifts of taxidermy, contributions of clothing and household items, contributions of fractional interests in tangible personal property, and record-keeping and substantiation requirements for certain charitable contributions. The 2006 enactments were, in part, a result of continued concerns from 2004.

Temporary charitable giving incentives were extended through 2009 by the Economic Emergency Economic Stabilization Act of 2008 (P.L. 110-343), enacted in October 2008, and further extended through 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). Some provisions were extended through 2013 by the American Taxpayer Relief Act (P.L. 112-240). These provisions were made permanent in 2015 by the Consolidated Appropriations Act (P.L.114-113).

The 2017 tax change, P.L. 115-97, popularly known as the Tax Cuts and Jobs Act, increased the percentage of income limit for contributions of cash to public charities to 60 percent on a temporary basis.

Assessment

Supporters note that contributions finance socially desirable activities. Further, the federal government could be forced to step in to assume some activities currently provided by charitable, nonprofit organizations if the deduction were eliminated. Public spending, however, might not be available to make up all of the difference. In addition, many believe that the best method of allocating general welfare resources is through a dual system of private philanthropic giving and governmental allocation.

Economists have generally held that the deductibility of charitable contributions provides an incentive effect which varies with the marginal tax rate of the giver. There are a number of studies that find significant behavioral responses, although a study by Randolph (1995) suggests that such measured responses may largely reflect transitory timing effects. Most recent estimates indicate that the induced giving is less than the revenue cost.

Types of contributions may vary substantially among income classes. Contributions to religious organizations are far more concentrated at the lower end of the income scale than contributions to hospitals, the arts, and educational institutions, with contributions to other types of organizations falling between these levels. The volume of donations to religious organizations, however, is greater than to other organizations. For example, the Giving USA Foundation and its research partner, the Center on

Philanthropy at Indiana University, estimated that giving to religious institutions amounted to 31 percent of all contributions in calendar year 2013. This was in comparison to the next largest component of charitable giving recipients, educational institutions, at 16 percent.

Those who support eliminating this deduction note that deductible contributions are made partly with dollars which are public funds. They feel that helping out private charities may not be the optimal way to spend government money.

Opponents further claim that the present system allows wealthy taxpayers to indulge special interests and hobbies. It is generally argued that the charitable contributions deduction is difficult to administer and adds complexity to the tax code.

Selected Bibliography

Ackerman, Deena and Gerald Auten. "Tax Expenditures for Noncash Charitable Contributions," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, Vol. 64, Part 2, June 2011, pp. 651-688.

Aprill, Ellen P. "Churches, Politics, and the Charitable Contribution Deduction," *Boston College Law Review*, Vol. 42, July 2001, pp. 843-873.

Auten, Gerald E., Sieg Holger, and Charles T. Clotfelter. "Charitable Giving, Income and Taxes: An Analysis of Panel Data," *American Economic Review*, Vol. 92, March 2002, pp. 371-382.

Bakija, Jon and Bradley T. Heim. "How Does Charitable Giving Respond to Incentives and Income? New Estimates from Panel Data," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, Vol. 64, Part 2, June 2011, pp. 615-650.

Bakija, Jon and Rob McClelland. "Timing vs. Long-Run Charitable Giving Behavior: Reconciling Divergent Approaches and Estimates," Williams College, December 2004.

Boatsman, James R. and Sanjay Gupta. "Taxes and Corporate Charity: Empirical Evidence from Micro-Level Panel Data," *National Tax Journal*, Vol. 49, June 1996, pp. 193-213.

Bradley, Ralph, Steven Holder, and Robert McClelland, "A Robust Estimation of the Effect of Taxes on Charitable Contributions," *Contemporary Economic Policy*, Vol. 23, October 2005, pp. 545-554.

Center on Philanthropy. *The 2008 Study of High Net Worth Philanthropy*, Sponsored by Bank of America, Indiana University-Purdue University, Indianapolis, March 2009.

— . *Giving USA 2018, The Annual Report on Philanthropy for the Year 2017*, UIPUI Lilly Family School Indiana University, Indianapolis: 2018.

— . *Patterns of Household Charitable Giving by Income Group, 2005*, prepared for Google, Indiana University, Summer 2007.

Clotfelter, Charles T. "The Impact of Tax Reform on Charitable Giving: A 1989 Perspective," In *Do Taxes Matter? The Impact of the Tax Reform Act of 1986*, edited by Joel Slemrod, Cambridge, MA.: MIT Press, 1990.

— . "The Impact of Fundamental Tax Reform on Non Profit Organizations," In *Economic Effects of Fundamental Tax Reform*, eds. Henry J. Aaron and William G. Gale. Washington, DC: Brookings Institution, 1996.

Duquette, Nicholas J. "Do Tax Incentives Affect Charitable Contributions? Evidence from Public Charities' Reported Revenues," *Journal of Public Economics*, Vol. 137, May 2016, pp. 51-69.

Eckel, Catherine C. and Philip J. Grossman. "Subsidizing Charitable Contributions: A Natural Field Experiment," *Experimental Economics*, Vol. 11, March 2008, pp. 234-252.

Feldman, Naomi. "Time is Money: Choosing Between Charitable Activities," *American Economic Journal: Economic Policy*, Vol. 11, No. 1, 2010, pp. 103-130.

Gravelle, Jane and Donald Marples. *Charitable Contributions: The Itemized Deduction Cap and Other FY2011 Budget Options*, Library of Congress, Congressional Research Service Report R40518, March 18, 2010.

Gravelle, Jane G. and Molly Sherlock. *An Analysis of Charitable Giving and Donor Advised Funds*, Library of Congress, Congressional Research Service Report R45957, July 11, 2012.

— . *Recently Expired Charitable Tax Provisions ("Tax Extenders") in Brief*, Library of Congress, Congressional Research Service Report RL34608, January 15, 2016.

— . *Tax Issues Relating to Charitable Contributions and Organizations*, Library of Congress, Congressional Research Service Report RL34608, March 13, 2013.

Green, Pamela and Robert McClelland. "Taxes and Charitable Giving," *National Tax Journal*, Vol. 54 (Sept. 2001), pp. 433-450.

Gruber, Jonathan. "Pay or Pray? The Impact of Charitable Subsidies on Religious Attendance," *National Bureau of Economic Research Working Paper*, 10374, March, 2004, pp. 1-40.

Halperin, Dan. "A Better Way to Encourage Gifts of Conservation Easements," *Tax Notes*, July 16, 2012, pp. 307-314.

Karlan, Dean and John A. List. "Does Price Matter in Charitable Giving? Evidence from a Large-Scale Natural Field Experiment," *American Economic Review*, Vol. 97, December 2007, pp. 1774-1793.

Omer, Thomas C. "Near Zero Taxable Income Reporting by Nonprofit Organizations," *Journal of American Taxation Association*, Vol. 25, Fall 2003, pp. 19-34.

Randolph, William C. “Charitable Deductions,” in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005, pp. 51-53.

— . “Dynamic Income, Progressive Taxes, and the Timing of Charitable Contributions,” *Journal of Political Economy*, Vol. 103, August 1995, pp. 709-738.

Rondeau, Daniel and John A. List. "Matching and Challenge Gifts to Charity: Evidence from Laboratory and Natural Field Experiments," *Experimental Economics,* Vol. 11, September 2008, pp. 253-267.

Rose-Ackerman, Susan. “Altruism, Nonprofits, and Economic Theory,” *Journal of Economic Literature*, Vol. 34, June 1996, pp. 701-728.

Sherlock, Molly and Jane Gravelle. *An Overview of the Charitable and Nonprofit Sector*, Library of Congress, Congressional Research Service Report R40919, November 17, 2009.

Tiehen, Laura. “Tax Policy and Charitable Contributions of Money,” *National Tax Journal*, v. 54, December 2001, pp. 707-723.

U.S. Congress, Congressional Budget Office. *Budget Options*. (Rev-6, Curtail the Deduction for Charitable Giving), Washington, DC: Government Printing Office, December 2016.

U.S. Congress, Government Accountability Office. *Vehicle Donations: Benefits to Charities and Donors, but Limited Program Oversight*, GAO Report GAO-04-73, Washington, DC: U.S. Government Printing Office, November 2003, pp. 1-44.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation Of H.R. 4, The “Pension Protection Act Of 2006,”* as Passed by the House on July 28, 2006, and as Considered by the Senate on August 3, 2006, JCX-38-06, Washington, DC: U.S. Government Printing Office, August 3, 2006, pp. 1-386.

Zimmerman, Dennis. “Nonprofit Organizations, Social Benefits, and Tax Policy,” National Tax Journal, Vol. 44, September 1991, pp. 341-349.

CREDIT FOR DISABLED ACCESS EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 44.

Description

A non-refundable tax credit equal to 50 percent of eligible disabled access expenditures is available to small businesses, defined as businesses with gross receipts of less than $1 million or with no more than 30 full-time employees. Access expenditures in excess of $250, and up to $10,250, are eligible for the credit. Thus, the maximum tax credit is $5,000. The expenditures must be incurred to make a business accessible to disabled individuals.

The credit is included as a general business credit and is subject to present-law limits. No increase in the property's adjusted basis is allowable to the extent of the credit. The credit may not be carried back to tax years before the date of enactment. No further deduction or credit is permitted for amounts used under a disabled access credit. In particular, expenditures used to claim the tax credit may not also be used to expense costs under section 190. (See the entry on "Expensing of Costs to Remove Architectural and Transportation Barriers to the Handicapped and Elderly.")

The IRS disallows the credit (1) if it is claimed by a taxpayer who is not operating as a business or who does not qualify as an eligible small business; and (2) if the purchase does not make a business accessible to disabled individuals.

Impact

The provision lowers the after-tax cost to small businesses of expenditures to remove architectural, communication, physical, or transportation access barriers for persons with disabilities.

This tax treatment has two advantages relative to the standard tax treatment of claiming a depreciation deduction for capital expenditures—a more favorable tax rate and a larger amount that can be deducted for the year of the expenditure. First, the 50-percent credit provides a greater reduction in taxes than the business owner would receive by deducting the access expenditures at a marginal tax rate of 37 percent (the maximum rate for individuals in 2018) or less. Second, the credit can be claimed in the year of the expenditure, rather than being depreciated over a number of years (absent the extension of temporary accelerated depreciation policies). The direct beneficiaries of this provision are small businesses who make access expenditures that qualify for the credit.

The lack of inflation adjustments in the statute means that the value of the maximum access expenditures eligible for deduction have declined since the provision was first enacted in 1990. Additionally, a smaller share of businesses might be eligible for the provision today, compared to 1990 because the $1 million in gross receipts definition of a "small business" (for the purpose of this provision) has also not been adjusted for inflation. By comparison, the Small Business Administration (SBA) measures $7.5 million as the "anchor" size standard (for classifying a "small business") in the services, retail trade, construction, and other industries with receipts-based size standards (which the agency may update periodically in order to account for changes in inflation).

Rationale

The disabled access tax credit was introduced by the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508). Its purpose was to provide financial assistance to small businesses for complying with the Americans With Disabilities Act of 1990 (ADA, P.L. 101-336). That act requires restaurants, hotels, and department stores that are either newly constructed or

renovated to provide facilities that are accessible to persons with disabilities. It also calls for the removal of existing barriers, where readily achievable, in previously built facilities.

While the provision is intended to encourage compliance with the ADA, subsequent access improvements are not covered by the provision. A 2004 IRS ruling (Internal Revenue Service Memorandum 2004-11042) clarified that eligible small businesses that are already in compliance with the ADA may not claim the disabled access credit for expenditures paid or incurred for the purpose of upgrading or improving disabled access.

Assessment

Because the tax credit is non-refundable, a business's ability to benefit from the credit depends on whether its income tax liability is large enough to take full advantage of the credit.

The tax credit may not be the most efficient method for accomplishing the objective of promoting disabled access to businesses. Some of the tax benefit may go for expenditures that the small business would have made even without the credit. There is arguably no general economic justification for special treatment of small businesses relative to large businesses. With the enactment of the ADA over 28 years ago, it is questionable whether a tax benefit is still needed to assist small businesses to comply with the ADA.

On the other hand, the requirements of the ADA imposed capital expenditure requirements that may be a hardship to small businesses. The ADA rules were designed primarily to accomplish the social objective of accommodating people with disabilities. Although there are few justifications for retaining this tax credit as a "transitional provision," proponents of the credit could still argue that this social objective warrants a tax subsidy.

Selected Bibliography

Bullock, Reginald Jr. "Tax Provisions of the Americans with Disabilities Act," *The CPA Journal*, vol. 63, no. 2, February 1993, pp. 58-59.

Cook, Ellen D. and Anita C. Hazelwood. "Tax Breaks Cut the Cost of Americans With Disabilities Act Compliance," *Practical Tax Strategies*, vol. 69, September 2002, pp. 145-155.

Dilger, Robert Jay. *Small Business Size Standards: A Historical Analysis of Contemporary Issues*. Library of Congress. Congressional Research Service Report R40860, June 28, 2018.

Internal Revenue Service (IRS). Form 8826 Disabled Access Tax Credit.

Lebow, Marc I., Wayne M. Schell, and P. Michael McLain. "Not All Expenditures to Aid the Disabled Qualify for Credit," *The Tax Adviser*, vol. 32, December 2001, pp. 810-811.

CREDIT FOR CHILDREN AND OTHER DEPENDENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	103.8	-	103.8
2019	121.2	-	121.2
2020	122.2	-	122.2
2021	122.9	-	122.9
2022	125.1	-	125.1

Note: Estimates include outlay effects associated with the refundable portion of the child tax credit (the refundable portion of the child tax credit is often referred to as the additional child tax credit or ACTC). These outlay effects are $43.7 billion (FY2018), $47.9 billion (FY2019), $48.1 billion (FY2020), $48.1 billion (FY2021), and $48.7 billion (FY2022).

Authorization

Section 24.

Description

Families with qualifying children can reduce their federal income tax liability by up to $2,000 per qualifying child. The maximum credit a family can receive is equal to the number of qualifying children a taxpayer has, multiplied by $2,000. If the value of the credit exceeds the amount of tax a family owes, the family may be eligible to receive a full or partial refund of the difference. The refundable portion of the credit is sometimes referred to as the *additional child tax credit* or ACTC. Most taxpayers calculate the amount of the ACTC using the "earned income formula." Under the "earned income formula," the total amount of their refund is calculated as 15% (the refundability rate) of earned income that exceeds $2,500 (the refundability

threshold), up to the maximum amount of the refundable portion of the credit ($1,400 per child multiplied by the number of qualifying children). For purposes of calculating the ACTC, earned income is defined as wages, tips, and other compensation included in gross income. It also includes net self-employment income (self-employment income after deduction of one-half of Social Security payroll taxes paid by a self-employed individual).

Families with three or more children may choose to calculate the refundable portion of the child tax credit using an alternative formula. If the amount calculated under the alternative formula is larger than the refundable credit calculated under the earned income formula, the larger credit can be claimed. The alternative formula is calculated as the excess of a taxpayer's payroll taxes (including one-half of any self-employment taxes) over their earned income tax credit (EITC), not to exceed the maximum credit amount. However, lower-income taxpayers will often pay less in payroll taxes than they will receive in the EITC. This is because payroll taxes are equal to 7.65% of earnings, while the EITC equals up to 45% of earnings.

The child tax credit phases out for higher-income families. The $2,000-per-child value of the credit falls by a certain amount as a family's income rises. Specifically, for every $1,000 of modified adjusted gross income (MAGI) above a threshold amount, the credit falls by $50—or effectively by 5 percent of MAGI above the threshold. The threshold amount depends on a taxpayer's filing status, and equals $200,000 for single parents and married taxpayers filing separate returns, and $400,000 for married taxpayers filing joint returns. The actual income level at which the credit is entirely phased out (i.e., equals zero) depends on the number of qualifying children a taxpayer has. Generally, it takes $40,000 of MAGI above the phaseout threshold to completely phase out $2,000 of credit. For example, the credit will completely phase out for a married couple with two children if their MAGI exceeds $480,000. Neither the non-refundable child tax credit amount nor the phaseout thresholds are indexed for inflation. From 2018 to 2025, the maximum amount of the ACTC is indexed for inflation.

In order to claim the child tax credit, a taxpayer's child must be considered "a qualifying child" and meet several requirements which may differ from eligibility requirements for other child-related tax benefits: (1) the child must be under 17 years of age during the entire year for which the taxpayer claims the credit; (2) the child must be eligible to be claimed as a dependent on the taxpayer's return; (3) the child must be the taxpayer's son, daughter, grandson, granddaughter, stepson, stepdaughter, niece, nephew, or

an eligible foster child of the taxpayer; (4) the child must live at the same principal residence as the taxpayer for more than half the year for which the taxpayer seeks to claim the credit; (5) the child cannot provide more than half of their own support during the tax year; and (6) the child must be a U.S. citizen or national (if they are not a U.S. citizen or national, they must be a resident of the United States).

The statute requires that taxpayers who intend to claim the child tax credit provide a valid taxpayer identification number (TIN) for each qualifying child on their federal income tax return. Under a temporary change in effect from 2018 through the end of 2025, the child's TIN must be a work-authorized Social Security number (SSN). The SSN must be issued before the due date of the tax return. Failure to provide the child's SSN may result in the taxpayer being denied the credit (both the nonrefundable and refundable portions of the credit). In addition, in order to claim the child tax credit in a given tax year, the taxpayer must also provide their own TIN that must be issued before the due date of the tax return.

Absent any legislative changes, beginning in 2026, a variety of aspects of the child tax credit are scheduled to expire, including:

- The maximum amount of the credit is scheduled to revert to $1,000 per qualifying child.
- The refundability threshold is scheduled to increase to $3,000 and the maximum ACTC per child (the amount that exceeds income tax liability) is scheduled to decrease to $1,000 per child.
- The phaseout threshold will revert to $75,000 for unmarried taxpayers ($110,000 for married taxpayers filing joint returns). The phaseout threshold for taxpayers filing married separate returns reverts to $55,000.
- A valid TIN for qualifying children will include individual taxpayer identification numbers (ITINs) as well as SSNs. ITINs are issued by the IRS to noncitizens who do not have and are not eligible to receive SSNs. ITINs are supplied solely so that noncitizens are able to comply with federal tax law, and do not affect immigration status.

A tax filer is barred from claiming the child tax credit for a period of 10 years after the IRS makes a final determination to reduce or disallow a tax

filer's child tax credit because that individual made a fraudulent child tax credit claim. A tax filer is barred from claiming the child tax credit for a period of two years after the IRS determines that the individual made a child tax credit claim "due to reckless and intentional disregard of [the] rules" of the child tax credit, but that disregard was not found to be due to fraud.

From 2018 through 2025, taxpayers may also be eligible to claim a non-refundable tax credit for non-child tax-credit-eligible dependents. This credit is equal to $500 per non-child credit-eligible dependent. The amount is not annually adjusted for inflation. The phaseout parameters of the child credit (e.g., phaseout thresholds of $400,000 married filing jointly, $200,000 other taxpayers, 5 percent phaseout rate) apply to the family credit. This credit is generally available for dependents not eligible for the child tax credit. This includes otherwise eligible children who do not have an SSN or older dependents. Non-child credit-eligible dependents do not need to provide a SSN in order to be eligible for this credit. Non-child credit-eligible dependents excludes otherwise eligible dependents who are not U.S. citizens and also are residents of Mexico or Canada.

The child tax credit and credit for non-child-tax credit-eligible dependents can be applied against both a taxpayer's regular income tax and alternative minimum tax (AMT) liabilities.

Impact

The child tax credit reduces tax liability dollar for dollar of the value of the credit for all families with qualifying children, whose incomes fall below the AGI phaseout ranges.

The distribution of the tax expenditure associated with the child tax credit in 2018 are concentrated primarily among upper-income taxpayers. Taxpayers in the lowest income classes account for a disproportionately smaller share (relative to the total distribution of tax filers) of the tax expenditure associated with the credit. Over the past 20 years, legislative changes have significantly changed the credit, first transforming it from a nonrefundable credit available only to the middle and upper-middle class, to a partially refundable credit that more low-income families are eligible to claim. More recent legislative changes have greatly expanded the availability and amount of this credit for higher-income taxpayers.

Distribution by Income Class of the Tax Expenditure for the Child Tax Credit, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.6
$10 to $20	6.2
$20 to $30	8.0
$30 to $40	8.7
$40 to $50	8.1
$50 to $75	16.3
$75 to $100	12.5
$100 to $200	29.1
$200 and over	10.6

Note: Calculations include the refundable portion of the credit.

Rationale

The child tax credit was enacted as part of the Taxpayer Relief Act of 1997 (P.L. 105-34). Initially, for tax year 1998, families with qualifying children were allowed a credit against their federal income tax of $400 for each qualifying child. For tax years after 1998, the credit increased to $500 for each qualifying child. The credit was refundable, but only for the families with three or more children and only using the alternative payroll formula described previously in this chapter.

Congress indicated that the tax structure at that time did not adequately reflect a family's reduced ability to pay as family size increased. The decline in the real value of the personal exemption over time was cited as evidence of the tax system's failure to reflect a family's ability to pay. Congress further determined that the child tax credit would reduce a family's tax liabilities, would better recognize the financial responsibilities of child rearing, and would promote family values.

The amount and coverage of the child tax credit was substantially increased by the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA, P.L. 107-16) and subsequent legislation. EGTRRA increased the child tax credit to $1,000 with the increase scheduled to be phased in between 2001 and 2010. It also made the credit partially refundable for families with fewer than three children using the earned income formula. The refundability threshold was set at $10,000, adjusted annually for inflation. Proponents of

this increase argued that a $500 child tax credit was inadequate. It was argued that the credit needed to be increased to better reflect the reduced ability to pay taxes of families with children. Furthermore, many felt that the credit should be refundable for all families with children.

The Jobs and Growth Tax Relief Reconciliation Act of 2003 (P.L. 108-27) increased the child tax credit to $1,000 for tax years 2003 and 2004. The Working Families Tax Relief Act of 2004 (P.L. 108-311) effectively extended the $1,000 child tax credit through 2010. It also authorized inclusion of combat pay, which is not subject to income tax, in earned income for purposes of calculating the refundable portion of the credit, which may increase the amount of the credit for certain service members.

The Katrina Emergency Tax Relief Act of 2005 (P.L. 109-73) allowed taxpayers affected by Hurricanes Katrina, Rita, and Wilma to use their prior year's (2004) earned income to compute the amount of their 2005 refundable child credit.

In 2008 and 2009, Congress enacted legislation, the Emergency Economic Stabilization Act of 2009 (EESA, P.L. 110-343) and the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5), which further expanded the availability and amount of the credit to taxpayers whose income was too low to either qualify for the credit or be eligible for the full credit. EESA lowered the refundability threshold to $8,500 in 2008, while ARRA lowered the refundability threshold to $3,000 for 2009 through 2010. The $3,000 threshold was not adjusted annually for inflation. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended both the EGTRRA provisions of the child tax credit and the expansion of refundability under ARRA for two years through the end of 2012.

The American Taxpayer Relief Act (ATRA, P.L. 112-240) made the EGTRRA changes to the child tax credit permanent and extended the $3,000 refundability threshold enacted as part of ARRA for five years, through the end of 2017. In addition, the child tax credit can permanently offset the AMT as a result of ATRA. The Protecting Americans from Tax Hikes Act (PATH, P.L. 114-113) made the $3,000 refundability threshold permanent.

At the end of 2017, Congress enacted P.L. 115-97 which, in addition to making numerous changes to the tax code, temporarily changed the child tax credit. Specifically, the law increased the credit for many (though not all) taxpayers by doubling the maximum amount of the credit from $1,000 to

$2,000 per qualifying child (and increasing the maximum amount of the ACTC to $1,400 per qualifying child), increasing the income at which the credit begins to phase out from $75,000 to $200,000 for unmarried taxpayers and from $110,000 to $400,000 for married taxpayers filing jointly, and reducing the refundability threshold from $3,000 to $2,500. In addition, this law temporarily modified the identification (ID) number requirement of the credit, requiring taxpayers to provide the SSN for every child for whom they claimed the credit.

P.L. 115-97 also provided a new temporary credit for non-child credit-eligible dependents (children ineligible for the child tax credit or older non-child dependents). Non-child credit-eligible dependents excludes otherwise eligible dependents who are residents of Mexico or Canada. The credit is equal to $500 per non-child credit-eligible dependent. The amount is not annually adjusted for inflation. The phaseout parameters of the child credit (i.e., phaseout thresholds of $400,000 married filing jointly, $200,000 other taxpayers, 5 percent phaseout rate) apply to the family credit. The family credit is not annually adjusted for inflation.

All the modifications to the child tax credit and the credit for non-child credit-eligible dependents are currently scheduled to expire at the end of 2025.

Assessment

Economists tend to view the child tax credit as vertically equitable. One commonly used measure of vertical equity is the percentage change in after-tax income. Estimates from the Tax Policy Center are mixed in terms of the effect on after-tax income. As incomes rise, the credit as a percent of after-tax income also rises until income reaches an income level of about $50,000, at which point the child tax credit as a percentage of after-tax income begins to fall. As currently structured, lower-income taxpayers receive a smaller credit ($1,400 per child) than higher income taxpayers ($2,000 per child). In addition, the credit phaseout level ($200,000 for unmarried taxpayers and $400,000 for married taxpayers) substantially expands the availability of the credit to higher-income taxpayers, although the phaseout does result in the highest-income taxpayers being ineligible for the credit.

In addition to vertical equity, another standard of fairness used by economists is horizontal equity. Under horizontal equity families with equal circumstances should pay equal taxes. The child tax credit's effect on

horizontal equity ultimately depends on what are considered "equal circumstances." In other words, are taxpayers considered equal if they have the same income, or are they considered equal if they have chosen to spend that income in the same way?

Some economists interpret horizontal equity to mean that equally situated families with the same amount of financial resources should pay the same amount in taxes (and thus have the same average tax rate), *regardless* of whether they use those resources to buy a house, go on a vacation, or have a child. If children are viewed as choices of how taxpayers use their resources, the credit would violate horizontal equity. Specifically, the child tax credit generally provides greater tax benefits to a family as the number of children increases, assuming family income remains unchanged.

Other economists define horizontal equity to mean that families with the same "ability to pay" should pay the same in tax. Under this definition, families with more children should pay less in tax because additional children reduce their ability to pay. According to the "ability to pay" approach, the child tax credit does not generally violate horizontal equity. Congress used the "ability to pay" interpretation of horizontal equity to justify the structure of the child tax credit in 1997.

Economists may also analyze tax provisions in terms of whether a tax provision results in more or less of a good being produced or consumed. Subsidies, which lower the prices of goods, theoretically result in more of a good being consumed and produced. The current structure of the child tax credit subsidizes both low-wage work (by the earned income formula) and children (by the $1,000 per child aspect of the provision). However, there is currently little substantive research evaluating the impact of the child tax credit on taxpayer behavior.

There is concern that the child tax credit, and numerous other child-related tax benefits in the tax code are too complex for taxpayers to comply with and difficult for the IRS to administer. For example, a single parent with a 16-year-old child and income of $20,000 may be eligible for the child tax credit, a dependent exemption for that child, and the EITC. However, the next year when the child is 17, the single parent will be ineligible for the child tax credit, but remain eligible for the dependent exemption and the EITC. The amount of these tax benefits may change if the parent marries (which can change their tax liability), has an additional child, or their income changes (which changes the value of the child tax credit and EITC). Tax complexity associated with child-related tax provisions is particularly burdensome for lower-income families. Complexity reduces utilization rates among eligible

populations and reduces the value of the benefits among those who do claim them, because they often rely on a paid preparer for assistance. Complexity can thus undermine the ultimate goal of policymakers, whether it be behavioral changes or increased equity.

Selected Bibliography

Crandall-Hollick, Margot. *The Child Tax Credit: Current Law*. Library of Congress, Congressional Research Service Report R41873, May 15, 2018.

—. *The Child Tax Credit: Legislative History*. Library of Congress, Congressional Research Service Report R5124, March 1, 2018.

Esenwein, Gregg. "Child Tax Credit," *Encyclopedia of Taxation and Tax Policy*, Ed. Joseph J. Cordes, Robert D. Ebel and Jane G. Gravelle. The Urban Institute, Washington D.C. 2005.

Hoffman, William. *GOP's Expanded Child Tax Credit Evokes Mixed Reactions*. Tax Notes Today. November 13, 2017.

Maag, Elaine. "How to Improve the Child Tax Credit for Very Low-Income Families. Tax Policy Center: TaxVox Blog, April 19, 2018.

—. "Who Benefits from the Child Tax Credit Now?" Tax Policy Center Brief, February 15, 2018.

—. "Reforming the Child Tax Credit: How Different Proposals Change Who Benefits." Urban Institute, December 2015.

Tax Policy Center. "T18-0033 Tax Expenditure of Child Tax Credit; Baseline: Current Law; Distribution of Federal Tax Change by Expanded Cash Income Level, 2018." April 11, 2018. Available at https://www.taxpolicycenter.org/model-estimates/options-expand-additional-child-tax-credit-april-2018/t18-0033-tax-expenditure-child.

Tedeschi, Ernie. *For the Non-Rich, the Child Tax Credit Is the Key to Tax Reform*. The New York Times, October 17, 2017.

U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in 2015*. JCS-1-16. March 2016.

—. Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 112th Congress,* JCS-2-13. February 2013.

—. Joint Committee on Taxation. *Technical Explanation of the Revenue Provisions Contained in the "Tax Relief, Unemployment Insurance Reauthorization, And Job Creation Act of 2010" Scheduled for Consideration by the United States Senate*. JCX-55-10. December 2010

—. Joint Committee on Taxation. *Technical Explanation of Title III (Tax Provisions) of Divisions A of H.R. 1424, The "Emergency Economic Stabilization Act of 2008" Scheduled for Consideration By The Senate On October 1, 2008*. JCX-79-08. October 2008.

—. Joint Committee on Taxation. *Technical Explanation of H.R. 3768, The "Katrina Emergency Tax Relief Act of 2005"* JCX-69-05. September 2005.

—. Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 107th Congress*. JCS-1-03. January 2003.

—. Joint Committee on Taxation. *Summary of the Provisions Contained in the Conference Agreement for H.R. 1836, The Economic Growth and Tax Relief Reconciliation Act of 200*. JCX-50-01. May 2001.

—. House of Representatives. *Ticket to Work and Work Incentives Improvement Act of 1999,* Conference Report 106-478, November 1999.

—. Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in 1997*. JCS-23-97. December 1997.

HEALTH SAVINGS ACCOUNTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	5.3	-	5.3
2019	5.8	-	5.8
2020	5.9	-	5.9
2021	6.1	-	6.1
2022	6.3	-	6.3

Authorization

Section 223.

Description

Health Savings Accounts (HSAs) are a tax-advantaged way that people can pay for unreimbursed medical expenses such as deductibles, copayments, and services not covered by insurance. Eligible individuals can establish and fund these accounts when they have a qualifying high-deductible health plan (or HDHP) with a deductible of at least $1,350 for single coverage and $2,700 for family coverage in 2018 (plus other criteria described below), and no other health care coverage, with some exceptions. The minimum deductible levels do not apply to preventive care, which the IRS has defined by regulation. Prescription drugs are not exempt from the deductibles unless they are for preventive care. HDHP maximum annual deductibles are $6,650 for single coverage and $13,300 for family coverage. (The dollar amounts in this and other paragraphs in this section are for 2018.)

The annual contribution limit for single coverage is $3,450 and for family coverage it is $6,850. Individuals who are at least 55 years of age but not yet enrolled in Medicare may make an additional contribution of $1,000 each year. Individuals may deduct their HSA contributions “above-the-line” from gross

income in determining their taxable income. Employer contributions are excluded from income and employment taxes of the employee and from employment taxes of the employer.

Individuals do not lose their HSA or the right to access it by obtaining insurance with a low deductible; they simply cannot make further contributions until they become eligible once again. Individual members of a family may have their own HSA, provided they each meet the eligibility rules. They can also be covered through the HSA of someone else in the family; for example, a husband may use his HSA to pay expenses of his spouse even though she has her own HSA.

Withdrawals from HSAs are exempt from federal income taxes if used for qualified medical expenses, with the exception of health insurance premiums. However, payments for four types of insurance are considered to be qualified expenses: (1) long-term care insurance; (2) health insurance premiums during periods of continuation coverage required by federal law (e.g., COBRA); (3) health insurance premiums during periods the individual is receiving unemployment compensation; and (4) for individuals age 65 years and older, any health insurance premiums (including Medicare Part B premiums) other than a Medicare supplemental policy.

Withdrawals from HSAs not used for qualified medical expenses are included in the gross income of the account owner in determining federal income taxes; they also are subject to a 20 percent penalty tax. The penalty is waived in cases of disability or death and for individuals age 65 and older. HSA account earnings are tax-exempt and unused balances may accumulate without limit.

Impact

HSAs encourage people to purchase high-deductible health insurance and build a reserve for routine and other unreimbursed health care expenses. They are more attractive to individuals with higher marginal tax rates since their tax savings are greater. Some younger, lower-income taxpayers, however, might try to build up account balances in anticipation of when their income will be higher. Some higher-income individuals may be reluctant to start or continue funding HSAs if they have health problems for which low-deductible insurance would be more cost-effective.

Interest in HSAs continues to grow in both the employer and individual health insurance markets. Qualifying insurance was initially offered by

insurers that previously had been selling high-deductible policies (including policies associated with medical savings accounts, a precursor to HSAs), but today many insurers and even some health maintenance organizations offer qualifying coverage. Some of the first employers to offer HSA plans previously had health reimbursement accounts (HRAs) that were coupled with high-deductible coverage. (First authorized by the IRS in 2002, HRAs are accounts that employees can use for unreimbursed medical expenses; they can be established and funded only by employers and normally terminate when employees leave.) More employers became interested after the IRS issued guidance clarifying how HSA statutory provisions would be interpreted. The federal government began offering HSA plans to its employees in 2005.

According to a survey by America's Health Insurance Plans (AHIP), as of January 2017, approximately 21.8 million people (including policyholders and their dependents) were enrolled in HSA-qualified HDHPs. (AHIP is a national trade association that represents most health insurance carriers.) This figure represents a 7.9 percent increase from the 20.2 million people enrolled in such plans, as of January 2017. Of the 21.8 million people enrolled by an HSA-qualified HDHP in 2015, 82 percent were covered through the large-group market, 11 percent were covered through the small-group market, and 7 percent were covered through the individual market.

According to the Kaiser Family Foundation's 2017 Annual Employer Health Benefits Survey, the share of employers offering an HSA-qualified HDHP generally trended upwards during the first 10 years of availability, but has fluctuated between 17 percent (in 2017) and 24 percent (in 2016) in recent years. In 2017, 24 percent of employers offered an HDHP coupled with some sort of health savings option (HSA or HRA). More than 50% of employers with 200 or more workers offered an HDHP with a savings options compared to 23% of smaller firms in 2017.

Administrative data released by the U.S. Department of the Treasury, Office of Tax Analysis shows that the benefits of tax-advantaged HSA contributions accrue primarily to upper-middle income families. The "tax value deduction" of those contributions is measured as the federal income tax loss associated with the deduction of contributions from adjusted gross income (AGI). These contributions are taken as an "above-the-line" deduction on an employee's annual income tax return. The "tax value of the exclusion" is the estimated federal income and payroll tax loss associated with contributions made through employer payroll deductions. Neither calculation includes the tax loss on investment returns in HSAs. In total, HSA contributions totaled

$20 billion across all income levels in 2014. This amount includes contributions made by individual taxfilers (and deducted on their income tax returns), employer payroll deductions, and rollovers from individual retirement arrangements (IRAs).

Distribution of Health Savings Account Contributions by Income Tax Class of All Returns, 2014

Adjusted Gross Income (in thousands of $)	Percentage Distribution of Tax Value of Deduction	Percentage Distribution of Tax Value of Exclusion
Below $15	0%	0%
$15 under $30	2%	3%
$30 under $40	2%	5%
$40 under $50	3%	6%
$50 under $60	4%	5%
$60 under $75	6%	8%
$75 under $100	8%	15%
$100 under $200	29%	35%
$200 under $500	31%	17%
$500 under $1m	11%	4%
$1m or more	5%	2%

Source: Analysis of data from U.S. Department of the Treasury, Office of Tax Analysis.

Rationale

HSAs were authorized by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (P.L. 108-173). Congress adopted them as a replacement for Archer medical savings accounts (MSAs), which proponents considered unduly constrained by limitations on eligibility and contributions. Archer MSAs, purchased after December 31, 2007, are still available, but are restricted to self-employed individuals and employees covered by a high-deductible plan established by their small employer (50 or fewer workers). MSA contributions are limited to 65 percent of the insurance deductible (75 percent for family policies) or earned income, whichever is less. Individuals cannot make contributions if their employer does. About 100,000 MSAs have been established. Like MSAs, HSAs were advanced as a way to slow the

growth of health care costs by reducing reliance on insurance, to encourage more cost consciousness in obtaining health care services, and to help individuals and families finance future health care costs. Taxpayers can carry their HSAs with them when they change jobs, which, in theory, may help maintain continuity of health care if their new employer offers different or perhaps no health insurance coverage.

The Patient Protection and Affordable Care Act (ACA; P.L. 111-148) included two provisions that change the HSA rules effective in 2011. ACA raised the penalty on non-qualified distributions from 10 to 20 percent of the disbursed amount. ACA also modified the definition of qualified medical expenses to exclude over-the-counter medications (except insulin and those prescribed by a physician) as a qualified medical expense.

HSAs are seen as the cornerstone of consumer driven health care, which some employers hope will limit their exposure to rising health care costs. Some health care providers favor consumer driven health care in order to avoid managed care restrictions on how they practice medicine. HSAs are predicated upon market-based rather than regulatory solutions to health care problems.

The 2017 tax revision (P.L. 115-97) permanently changed the inflation adjustment measure for selected tax parameters, including HSA contribution limits, from the Consumer Price Index for All Urban Consumers (CPI-U) to the Chained Consumer Price Index for All Urban Consumers (C-CPI-U) effective with the 2018 tax year. Historically, the C-CPI-U grows at a slower rate than the CPI-U. As a result, IRS revised the 2018 HSA contribution limit for family plans down from $6,900, under prior law, to $6,850.

Assessment

HSAs allow individuals to insure against large or catastrophic expenses while covering routine and other minor costs out of their own pocket. Properly designed, they may encourage more prudent health care use and the accumulation of funds for medical emergencies. For these outcomes to occur, however, individuals will have to put money into their accounts regularly (especially if their employer does not) and refrain from spending it for things other than health care.

HSAs have also been touted as lowering overall cost, as consumers must be able to find out what health care providers charge and be willing to switch to lower-cost providers or forgo a doctor's visit for what they may consider a minor ailment. This raises an important issue about the distinction between

cost and quality and whether consumers can tell the difference. Similarly, incentives created by an HDHP/HSA to lower expenditures may unintentionally lower expenditures on "necessary" rather than "unnecessary" care.

One issue surrounding HSAs is whether they drive up insurance costs for everyone else. If HSAs primarily attract young, healthy individuals, premiums for plans without high deductibles are likely to rise since they would disproportionately cover the older and less healthy individuals. Over time, healthier people in higher-cost plans would likely switch to lower-cost plans, raising those premiums but increasing premiums in higher-cost plans even more. If this process continued unchecked, eventually people who need insurance the most would be unable to afford it. However, it might be possible to couple HSAs with coverage that does not have high deductibles.

HSAs have limits on their capacity to substantially reduce aggregate health care spending, even assuming their widespread adoption and significant price effects on insurance. Although a few studies suggest this is happening, the evidence is mixed and inconclusive. Most health care spending is attributable to costs above the high-deductible levels allowed under the legislation; consumers generally have little control over these expenditures. Even for smaller expenditures, the tax subsidies associated with HSAs may effectively reduce patient cost-sharing compared to typical comprehensive health insurance. A further complication is that HSAs with large account balances (which will eventually occur for some people) might be seen as readily-available funds for health care, which could lead to increased spending, just the opposite of the usual prediction.

Regardless of their impact on aggregate expenditures, HSAs provide more economically equitable treatment for taxpayers who choose to self-insure more of their health care costs. Employer-paid health insurance is excluded from employees' gross income regardless of the proportion of costs it covers. Employers generally pay about 80 percent of the cost of a plan that has a low deductible and a 20 percent copayment requirement. If the plan instead had a high-deductible and the same copayment requirement, employees normally would have to pay for expenses associated with the increase in the deductible with after-tax dollars. They would lose a tax benefit for assuming more financial risk. HSAs restore this benefit as long as an account is used for health care expenses. In this respect, HSAs are like flexible spending accounts (FSAs), which also allow taxpayers to pay unreimbursed health care expenses with pre-tax dollars. With FSAs, however, individuals

may forfeit some of the account balance unused at the end of the year. (FSA participants may be able to rollover up to $500 of their unused FSA account balance in a given year and carried forward for up to one year. Any additional amounts above this $500 rollover amount will generally be forfeited.)

Some people could use HSAs as substitutes or complements to tax-preferred retirement savings accounts. Like a traditional 401(k), contributions to an HSA are tax deductible and the earnings grow tax-deferred. Although individuals that withdraw HSA contributions for purposes other than qualified health expenditures incur a 20 percent penalty, this penalty does not apply for individuals 65 or older. Also like a traditional 401(k), withdrawals for nonmedical HSA distributions are taxed as ordinary income.

Selected Bibliography

America's Health Insurance Plans (AHIP). *Health Savings Accounts and Consumer-Directed Health Plans Grow as Valuable Financial Planning Tools* (April 2018).

Aaron, Henry J. "The 'Sleeper' in the Drug Bill," *Tax Notes*, vol. 102, no. 8 (February 23, 2004).

Baicker, Katherine et al. "Lowering the Barriers to Consumer-Directed Health Care: Responding to Concerns," *Health Affairs*, vol. 25, no. 5 (2008): 1328-1332.

Bloche, M. Gregg. "Consumer-Driven Health Care and the Disadvantaged," *Health Affairs*, vol. 26, no. 5 (2007): 1315-1327.

Buntin, Melinda B. et al. "Consumer-Directed Health Care: Early Evidence About Effects on Cost and Quality," *Health Affairs*, vol. 25, no. 6 (2006): w516-w530.

Cannon, Michael F. *Health Savings Accounts: Do the Critics Have a Point?* Cato Institute (May 30, 2006).

Chen, Song, Anthony T. Lo Sasso, and Aneesh Nandam. "Who Funds Their Health Savings Account and Why?" *International Journal of Health Care Finance And Economics,* vol.13, no. 3-4 (December 2013): 219-232.

Fernandez, Bernadette. *Health Insurance: A Primer*. Congressional Research Service Report RL32237 (January 8, 2015).

Fronstin, Paul. *Investment Options and HSAs: Findings from the EBRI HSA Database, Employee Benefit Research Institute*, Employee Benefit Research Institute (August 2015).

Hardie, Nancy A. et al. "Behavioral Healthcare Services Use in Health Savings Accounts Versus Traditional Health Plans," *Journal of Mental Health Policy And Economics*, vol.13, no. 4 (December 2010): 159-165.

Helmchen, Lorens A. et al. "Health Savings Accounts: Growth Concentrated Among High-Income Households And Large Employers," *Health Affairs*, vol. 34, no. 9 (September 2015): 1594-1598.

Internal Revenue Service. *Health Savings Accounts and Other Tax-Favored Health Plans,* Publication 969 (January 13, 2016).

Kaiser Family Foundation, 2017 Employer Health Benefits Survey (September 17, 2017), p. 132.

Lo Sasso, Anthony T., Lorens A. Helmchen, and Robert Kaestner. "The Effects of Consumer-Directed Health Plans on Health Care Spending," *Journal Of Risk And Insurance*, vol. 77, no. 1 (March 2010): 85-103.

Newhouse, Joseph P. "Consumer-Directed Health Plans and the RAND Health Insurance Experiment," *Health Affairs*, vol. 23, no. 6 (November/December 2004): 107-113.

Office of Tax Analysis, U.S. Department of the Treasury. "Health Savings Accounts, 2014" (January 2017).

Parente, Stephen T. and Roger Feldman. "Do HSA Choices Interact with Retirement Savings Decisions?" in *Tax Policy and the Economy*, ed. James M. Poterba, 22 ed. (University of Chicago Press, 2008): 81-108.

Peter, Richard, Sebastian Soika, and Petra Steinorth. "Health Insurance, Health Savings Accounts and Healthcare Utilization," *Health Economics*, vol. 25, no. 3 (March 2016): 357-371.

Richardson, David P. and Jason S. Seligman. "Health Savings Accounts: Will They Impact Markets?" *National Tax Journal*, vol. 60, no. 3 (September 2007): 455-467.

Rosso, Ryan J. *Health Savings Accounts (HSAs)*, Congressional Research Service Report R45277 (July 31, 2018).

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT QUALIFIED PRIVATE ACTIVITY BONDS FOR PRIVATE NONPROFIT HOSPITAL FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.8	0.6	2.4
2019	1.9	0.5	2.1
2020	1.9	0.5	2.2
2021	2.0	0.5	2.2
2022	2.0	0.5	2.3

Authorization

Sections 103, 141, 145(b), 145(c), 146, and 501(c)(3).

Description

Interest income on state and local bonds used to finance the construction of nonprofit hospitals and nursing homes is tax exempt. These bonds are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or businesses rather than to the general public. These nonprofit hospital bonds are not subject to the state private-activity bond annual volume cap. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest

rates enable issuers to finance hospitals and nursing homes at reduced interest rates.

Some of the benefits of the tax exemption also flow to bondholders. According to data published by the Internal Revenue Service, in 2015, $25.7 billion of qualified hospital bonds were issued. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the hospitals and nursing homes, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

Before the enactment of the first federal income tax, an early decision of the U.S. Supreme Court, *Dartmouth College v. Woodward* (17 U.S. 518 [1819]), confirmed the legality of government support for charitable organizations that provided services to the public.

The income tax adopted in 1913, in conformance with this principle, exempted from taxation virtually the same organizations now included under Section 501(c)(3). In addition to their tax-exempt status, these institutions were permitted to receive the benefits of tax-exempt bonds. Almost all states have established public authorities to issue tax-exempt bonds for nonprofit hospitals and nursing homes. Where issuance by public authority is not feasible, Revenue Ruling 63-20 allows nonprofit hospitals to issue tax-exempt bonds "on behalf of" state and local governments.

Before enactment of the Revenue and Expenditure Control Act of 1968 (RECA, P.L. 90-364), states and localities were able to issue bonds to finance construction of capital facilities for private (proprietary or for-profit) hospitals, as well as for public sector and nonprofit hospitals.

After the 1968 Act, tax-exempt bonds for proprietary (for-profit) hospitals were issued as small-issue industrial development bonds, which limited the amount for any institution to $5 million over a six-year period. The Revenue Act of 1978 raised this amount to $10 million.

The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) established December 31, 1986, as the sunset date for tax-exempt small-issue industrial development bonds. The Deficit Reduction Act of 1984 (P.L. 98-369) extended the sunset date for bonds used to finance manufacturing facilities, but left in place the December 31, 1986 sunset date for

nonmanufacturing facilities, including for-profit hospitals and nursing homes. The private-activity status of these bonds subjects them to restrictions that would not apply if they were classified as governmental bonds.

The 2017 tax revision (P.L. 115-97) retained the general income exclusion for interest earned on the private-activity bonds of nonprofit hospitals but restricted a refinancing option for these hospitals. Specifically, P.L. 115-97 repealed the exclusion of interest income earned from an advanced refunding bond for bonds issued after December 31, 2017. Advanced refunding bonds are bonds that are sold to refund (or retire) outstanding bonds that have not yet reached full maturity. Generally, an issuer will use proceeds from an advanced refunding bond with a lower interest rate to pay off an outstanding bond with a higher interest rate. Bonds with a governmental purpose (for which interest income is excluded from federal income taxation) may generally be advance refunded once.

Assessment

Some efforts have been made to reclassify nonprofit bonds, including nonprofit hospital bonds, as governmental bonds. The proponents of such a change suggest that the public nature of services provided by nonprofit organizations justify such a reclassification. Opponents argue that the expanded access to subsidized loans coupled with the absence of sufficient government oversight may lead to greater misuse than if the facilities received direct federal spending. Questions have also been raised about whether nonprofit hospitals fulfill their charitable purpose and deserve continued access to tax-exempt bond financing.

Even if a case can be made for this federal subsidy for nonprofit organizations, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, bonds for nonprofit organizations increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to attract investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Barker, Thomas R., "Re-Examining the 501(c)(3) Exemption of Hospitals as Charitable Organizations," *The Exempt Organization Tax Review*, July 1990, pp. 539-553.

Bernet, Patrick M. and Thomas E. Getzen, "Can a Violation of Investor Trust Lead to Financial Contagion in the Market for Tax-Exempt Hospital Bonds?" *International Journal of Health Care Finance and Economics*, vol. 8, no. 1, March 2008, pp. 27-51.

Driessen, Grant A., *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, January 9, 2015.

Galper, Harvey et al., "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 64, no. 4, December 2014, pp. 901-924.

Gentry, William M. and John R. Penrod, "The Tax Benefits of Not-For-Profit Hospitals," in David M. Cutler, ed., *The Changing Hospital Industry: Comparing Not-for-Profit and For-Profit Institutions*, Chicago: University of Chicago Press, 2000, pp. 285-324.

Gershberg, Alec I., Michael Grossman, and Fred Goldman, "Health Care Capital Financing Agencies: the Intergovernmental Roles of Quasi-government Authorities and the Impact on the Cost of Capital," *Public Budgeting and Finance*, vol. 20, Spring 2000, pp. 1-23.

Gershberg, Alec I., Michael Grossman, and Fred Goldman, "Competition and the Cost of Capital Revisited: Special Authorities and Underwriters in the Market for Tax-Exempt Hospital Bonds," *National Tax Journal,* vol. 52, no. 2, June 2001, pp. 255-280.

Liu, Gao and Dwight Dennison, "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal,* vol. 67, no. 3, September 2014, pp. 569-594.

Lunder, Erika. *Tax-Exempt Section 501(c)(3) Hospitals: Community Benefit Standard and Schedule H,* Library of Congress, Congressional Research Service Report RL34605, May 12, 2010.

Maguire, Steven and Joseph S. Hughes, *Private Activity Bonds: An Introduction*, Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Rosenbaum, Sara et al., "The Value of the Nonprofit Hospital Tax Exemption was $24.6 Billion in 2011," *Health Affairs*, vol. 34, no. 7, June 2015, pp. 1225-1233.

U.S. Government Accountability Office, *Tax-Exempt Status of Certain Bonds Merits Reconsideration, and Apparent Noncompliance with Issuance Cost Limitations Should Be Addressed*, GAO-08-364, February 2008.

U.S. Internal Revenue Service, SOI Tax Stats: Tax Exempt Bond Statistics, Table 07, September 2017.

Zimmerman, Dennis, "Nonprofit Organizations, Social Benefits, and Tax Policy," *National Tax Journal*, vol. 44, no. 3, September 1991, pp. 341-349.

—, *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activities*, Washington: The Urban Institute Press, 1991.

DEDUCTION FOR CHARITABLE CONTRIBUTIONS TO HEALTH ORGANIZATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	4.3	1.1	5.4
2019	3.2	1.1	4.3
2020	3.3	1.2	4.5
2021	3.4	1.2	4.6
2022	3.6	1.3	4.9

Authorization

Sections 170 and 642(c).

Description

Subject to certain limitations, charitable contributions may be deducted by individuals, corporations, and estates and trusts. The contributions must be made to specific types of organizations, including organizations whose purpose is to provide medical or hospital care, or medical education or research. To be eligible, organizations must be not-for-profit.

Individuals who itemize may deduct qualified contribution amounts of up to 50 percent of their adjusted gross income (AGI) and up to 30 percent for gifts of capital gain property. For 2018-2025, the limit is increased to 60 percent. For contributions to nonoperating foundations and organizations, deductibility is limited to the lesser of 30 percent of the taxpayer's contribution base, or the excess of 50 percent of the contribution base for the tax year over the amount of contributions which qualified for the 50-percent deduction ceiling (including carryovers from previous years). Gifts of capital gain property to these organizations are limited to 20 percent of AGI. Excess contributions can be carried forward for five years.

The maximum amount deductible by a corporation is 10 percent of its adjusted taxable income. Adjusted taxable income is defined to mean taxable income with regard to the charitable contribution deduction, dividends-received deduction, any net operating loss carryback, and any capital loss carryback. Excess contributions may be carried forward for five years. Amounts carried forward are used on a first-in, first-out basis after the deduction for the current year's charitable gifts has been taken. Typically, a deduction is allowed only in the year in which the contribution occurs. However, an accrual-basis corporation is allowed to claim a deduction in the year preceding payment if its board of directors authorizes a charitable gift during the year and payment is scheduled by the 15th day of the third month of the next tax year.

Donors of noncash charitable contributions have increased reporting requirements. For charitable donations of property valued at $5,000 or more, donors must obtain a qualified appraisal of the donated property. For donated property valued in excess of $500,000, the appraisal must be attached to the donor's tax return. Deductions for donations of patents and other intellectual property are limited to the lesser of the taxpayer's basis in the donated property or the property's fair market value. Taxpayers can claim additional deductions in years following the donation based on the income the donated property provides to the donee. There are also additional reporting requirements for charitable organizations receiving vehicle donations from individuals claiming a tax deduction for the contribution, if it is valued in excess of $500.

Taxpayers are required to obtain written substantiation from a donee organization for contributions which exceed $250. This substantiation must be received no later than the date the donor-taxpayer files the required income tax return. Donee organizations are obligated to furnish the written acknowledgment when requested with sufficient information to substantiate the taxpayer's deductible contribution.

Impact

The deduction for charitable contributions reduces the net cost of contributing. In effect, the federal government provides the donor with a corresponding grant that increases in value with the donor's marginal tax bracket. Individuals who use the standard deduction or who pay no taxes receive no benefit from the provision.

A limitation (temporarily suspended for 2018-2025) applies to the itemized deductions of high-income taxpayers, whereby itemized deductions

are reduced by 3 percent of the amount by which a taxpayer's adjusted gross income (AGI) exceeds an inflation adjusted dollar amount ($320,000 for joint returns in 2018). The limit is capped at 80 percent of itemized deductions. However, because the limitation is triggered by income rather than deductions it is not effectively a limit on itemized deductions unless the cap is reached, which is unusual. The limit acts as an additional tax rate.

The following table provides the distribution of all charitable contributions, not just those to health organizations. In general, contributions to health are more heavily concentrated in the higher-income categories (similar to contributions to the arts and education), as compared to contributions for religion, combined purpose charities, and charities to meet basic needs which are more concentrated in lower-income classes.

Distribution by Income Class of the Tax Expenditure for Charitable Contributions, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.0
$30 to $40	0.1
$40 to $50	0.2
$50 to $75	1.2
$75 to $100	2.4
$100 to $200	11.8
$200 and over	84.1

Rationale

This deduction was added by passage of the War Revenue Act of October 3, 1917. Senator Hollis, the sponsor, argued that high wartime tax rates would absorb the surplus funds of wealthy taxpayers, which were generally contributed to charitable organizations. The deduction was originally limited to individuals. A deduction for trusts and estates was added in 1918, but a deduction for corporations was not allowed until 1935.

The deduction allowed in 1917 was limited to 15 percent of taxable income. Most of the revisions in the early tax law related to this limit. In 1924, it was changed to 15 percent of adjusted gross income. The corporate deduction was limited to 5 percent of income when introduced in 1935. In 1952, the individual limit was increased to 20 percent. The limit was increased to 30 percent in 1954, but the additional 10% had to go to a charity (thus retaining a 20 percent limit for foundations). A carryover of unused deductions for two years was first allowed for corporations in 1954. In 1964, the carryover was increased to five years and extended to individuals.

The percentage limit on individual contributions to charities was increased to 50 percent by the Tax Reform Act of 1969 (P.L. 91-172) but was restricted to 30 percent for gifts of appreciated property. The percentage limit on corporate charitable contributions was increased to 10 percent of taxable income in the Economic Recovery Tax Act of 1981 (P.L. 97-34). The limit on contributions to private foundations was increased to 30 percent for cash contributions by the Deficit Reduction Act of 1984 (P.L. 98-369).

The Economic Recovery Tax Act of 1981 also allowed a temporary deduction for non-itemizers, but this provision was not extended by the Tax Reform Act of 1986 (P.L. 99-514).

Concerns about abuse led to provisions requiring greater substantiation of gifts. The Deficit Reduction Act of 1984 (P.L. 98-369) required written substantiation of contributions in excess of $2,000 and the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) lowered that amount to $250. The American Jobs Creation Act of 2004 (P.L. 108-357) increased reporting requirements of donors of noncash charitable contributions, including vehicles. The provisions enacted in 2004 resulted from Internal Revenue Service and congressional concerns that taxpayers were claiming inflated charitable deductions, causing the loss of federal revenue. In the case of vehicle donations, concern was expressed about the inflation of deductions. GAO reports published in 2003 indicated that the value of benefit to charitable organizations from donated vehicles was significantly less than the value claimed as deductions by taxpayers.

The Pension Protection Act of 2006 (P.L. 109-280) also provided for some temporary additional benefits which are part of the "extenders," effective through 2007. The 2006 act also added restrictions on donor advised funds (where sponsors receive contributions and then make donations advised by the original contributor) and certain supporting organizations (organizations that receive donations used to support other active charities). The 2006 law also

tightened rules governing charitable giving in certain areas, including gifts of taxidermy, contributions of clothing and household items, contributions of fractional interests in tangible personal property, and record-keeping and substantiation requirements for certain charitable contributions. The 2006 enactments were, in part, a result of continued concerns from 2004.

Temporary charitable giving incentives were further extended through 2009 by the Economic Emergency Economic Stabilization Act of 2008 (P.L. 110-343) enacted in October 2008, and through 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). Some charitable extenders were extended through 2013 by the American Taxpayer Relief Act (P.L. 112-240). These provisions were made permanent in 2015 by the Consolidated Appropriations Act (P.L.114-113).

The 2017 tax change, P.L. 115-97, popularly known as the Tax Cuts and Jobs Act, increased the percentage of income limit for contributions of cash to public charities to 60 percent and eliminated the phaseout of itemized deductions on a temporary basis.

Assessment

Supporters note that contributions finance desirable activities such as hospital care for the poor. Further, the federal government would be forced to assume some of the activities currently provided by health care organizations if the deduction were eliminated; however, public spending might not be available to make up all of the difference. In addition, many believe that the best method of allocating general welfare resources is through a dual system of private philanthropic giving and governmental allocation.

Economists have generally held that the deductibility of charitable contributions provides an incentive effect that varies with the marginal tax rate of the giver. There are a number of studies which find significant behavioral responses, although a study by Randolph (1995) suggests that such measured responses may largely reflect transitory timing effects.

Types of contributions may vary substantially among income classes. Contributions to religious organizations are far more concentrated at the lower end of the income scale than are contributions to health organizations, the arts, and educational institutions, with contributions to other types of organizations falling between these levels. The volume of donations to religious organizations, however, is greater than to other organizations. In 2013, Giving USA Foundation and its research partner at Indiana University estimated that

contributions to religious institutions amounted to 31 percent of all contributions ($335 billion from individuals, corporations, bequests, and foundations), while contributions to health care providers and associations amounted to 10 percent ($33.5 billion).

There has been a debate concerning the amount of charity care being provided by health care organizations with tax-exempt status. In the 109th Congress, hearings were held by both the Senate Committee on Finance and the House Committee on Ways and Means to examine the charitable status of nonprofit health care organizations. The Patient Protection and Affordable Care Act of 2010 (P.L. 111-148) imposed a number of additional regulations and reporting requirements on nonprofit hospitals that receive deductible charitable contributions.

Those who support eliminating charitable deductions note that deductible contributions are made partly with dollars which are public funds. They feel that helping out private charities may not be the optimal way to spend government money.

Opponents further claim that the present system allows wealthy taxpayers to indulge special interests and hobbies. To the extent that charitable giving is independent of tax considerations, federal revenues are lost without having provided any additional incentive for charitable gifts. It is generally argued that the charitable contributions deduction is difficult to administer and that taxpayers have difficulty complying with it because of complexity.

Selected Bibliography

Ackerman, Deena and Gerald Auten. "Tax Expenditures for Noncash Charitable Contributions," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, Vol. 64, Part 2, June 2011, pp. 651-688.

Aprill, Ellen P. "Churches, Politics, and the Charitable Contribution Deduction," *Boston College Law Review*, Vol. 42, July 2001, pp. 843-873.

Auten, Gerald E., Sieg Holger, and Charles T. Clotfelter. "Charitable Giving, Income and Taxes: An Analysis of Panel Data," *American Economic Review*, Vol. 92, March 2002, pp. 371-382.

Bakija, Jon and Bradley T. Heim. "How Does Charitable Giving Respond to Incentives and Income? New Estimates from Panel Data," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, Vol. 64, Part 2, June 2011, pp. 615-650.

Boatsman, James R. and Sanjay Gupta. "Taxes and Corporate Charity: Empirical Evidence from Micro-Level Panel Data," *National Tax Journal*, Vol. 49, June 1996, pp. 193-213.

Bradley, Ralph, Steven Holder, and Robert McClelland, "A Robust Estimation of the Effect of Taxes on Charitable Contributions," *Contemporary Economic Policy*, Vol. 23, October 2005, pp. 545-554.

Center on Philanthropy. *The 2008 Study of High Net Worth Philanthropy*, Sponsored by Bank of America, Indiana University-Purdue University, Indianapolis, March 2009.

— . *Giving USA 2018, The Annual Report on Philanthropy for the Year 2017*, IUPUI Lilly Family School Indiana University, Indianapolis: 2018.

— . *Patterns of Household Charitable Giving by Income Group, 2005*, prepared for Google, Indiana University, Summer 2007.

Clotfelter, Charles T. "The Impact of Tax Reform on Charitable Giving: A 1989 Perspective," In *Do Taxes Matter? The Impact of the Tax Reform Act of 1986*, edited by Joel Slemrod, Cambridge, MA: MIT Press, 1990.

— . "The Impact of Fundamental Tax Reform on Non Profit Organizations," In *Economic Effects of Fundamental Tax Reform*, Eds. Henry J. Aaron and William G. Gale. Washington, DC: Brookings Institution, 1996.

Duquette, Nicholas J. "Do Tax Incentives Affect Charitable Contributions? Evidence from Public Charities' Reported Revenues," *Journal of Public Economics*, Vol. 137, May 2016, pp. 51-69.

Eckel, Catherine C. and Philip J. Grossman. "Subsidizing Charitable Contributions: A Natural Field Experiment," *Experimental Economics*, Vol. 11, March 2008, pp. 234-252.

Feldman, Naomi. "Time is Money: Choosing Between Charitable Activities," *American Economic Journal: Economic Policy*, Vol. 11, No. 1, 2010, pp. 103-130.

Frank, Richard G. and David S. Salkever. "Nonprofit Organizations in the Health Sector," *Journal of Economic Perspectives*, Vol. 8, Fall 1994, pp. 129-144.

Gravelle, Jane and Donald Marples. *Charitable Contributions: The Itemized Deduction Cap and Other FY2011 Budget Options*, Library of Congress, Congressional Research Service Report R40518, March 18, 2010.

Gravelle, Jane G. and Molly Sherlock. *An Analysis of Charitable Giving and Donor Advised Funds*, Library of Congress, Congressional Research Service Report R45957, July 11, 2012.

— . *Recently Expired Charitable Tax Provisions ("Tax Extenders") in Brief*, Library of Congress, Congressional Research Service Report RL34608, January 15, 2016.

— . *Tax Issues Relating to Charitable Contributions and Organizations*, Library of Congress, Congressional Research Service Report RL34608, March 13. 2013.

Green, Pamela and Robert McClelland. "Taxes and Charitable Giving," *National Tax Journal*, Vol. 54 (Sept. 2001), pp. 433-450.

Greenwald, Leslie, Jerry Cromwell, Walter Adamache, Shulamit Bernard et al. "Specialty Versus Community Hospitals: Referrals, Quality, And Community Benefits," *Health Affairs*, Vol. 25, Jan/Feb 2006, pp. 106-119.

Horwitz, Jill R. "Making Profits and Providing Care: Comparing Nonprofit, For-Profit, And Government Hospitals," *Health Affairs*, Vol. 24, May/June 2005, pp. 790-801.

— . "Why We Need the Independent Sector: The Behavior, Law, and Ethics of Not-For-Profit Hospitals," *University of Michigan Public Law and Legal Theory Research Paper No. 35*, August 2003, pp. 1345-1411.

Karlan, Dean and John A. List. "Does Price Matter in Charitable Giving? Evidence from a Large-Scale Natural Field Experiment," *American Economic Review*, Vol. 97, December 2007, pp. 1774-1793.

Kim, Christine J. and Roland Hjorth. "Does Charity Begin at Home for Pharmaceutical Companies?" *Tax Notes*, July 16, 2011, pp. 49-62.

Lunder, Erika K. and Edward C. Liu. *501(c)(3) Hospitals and the Community Benefit Standard*, Library of Congress, Congressional Research Report RL34065, May 12, 2010.

Owens, Bramer. "The Plight of the Not-for-Profit," *Journal of Healthcare Management*, Vol. 50, July/August 2005, pp. 237-251.

Randolph, William C. "Charitable Deductions," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 1999, pp. 51-53.

— . "Dynamic Income, Progressive Taxes, and the Timing of Charitable Contributions," *Journal of Political Economy*, Vol. 103, August 1995, pp. 709-738.

Rondeau, Daniel and John A. List. "Matching and Challenge Gifts to Charity: Evidence from Laboratory and Natural Field Experiments," *Experimental Economics*, Vol. 11, September 2008, pp 253-267.

Rose-Ackerman, Susan. "Altruism, Nonprofits, and Economic Theory," *Journal of Economic Literature*, Vol. 34, June 1996, pp. 701-728.

Sherlock, Molly and Jane Gravelle. *An Overview of the Charitable and Nonprofit Sector*, Library of Congress, Congressional Research Service Report R40919, November 17, 2009.

Stokeld, Fred. "ETI Repeal Bill Would Tighten Rules on Vehicle, Patent Donations," *Tax Notes*, October 18, 2004, pp. 293-294.

Tiehen, Laura. "Tax Policy and Charitable Contributions of Money," *National Tax Journal*, Vol. 54, December 2001, pp. 707-723.

U.S. Congress, Congressional Budget Office. *Budget Options*. (Rev-6, Curtail the Deduction for Charitable Giving), Washington, DC: Government Printing Office, December 2016.

U.S. Congress, Government Accountability Office. *Vehicle Donations: Benefits to Charities and Donors, but Limited Program Oversight*, GAO

Report GAO-04-73, Washington, DC: U.S. Government Printing Office, November 2003, pp. 1-44.

— . *Nonprofit Hospitals: Better Standards Needed for Tax Exemption*. Washington, DC: U.S. Government Printing Office, May 1990.

U.S. Congress, House Select Committee on Aging. *Hospital Charity Care and Tax Exempt Status: Resorting the Commitment and Fairness*. Washington, DC: U.S. Government Printing Office, June 1990.

U.S. Congress, Joint Committee on Taxation. *Present Law and Background Relating to the Tax-Exempt Status of Charitable Hospitals*, JCX-40-06, Washington, DC: U.S. Government Printing Office, September 2006, pp. 1-29.

U.S. Congress, Senate Committee on Finance. *Staff Discussion Draft: Proposals for Reforms and Best Practices in the Area of Tax-Exempt Organization*s, Washington, DC, June 22, 2004, pp. 1-19.

U.S. Department of Treasury. "Charitable Giving Problems and Best Practices," *Testimony Given by Mark Everson, Commissioner of Internal Revenue*, Internal Revenue Service, IR-2004-81, June 22, 2004, pp. 1-17.

— . *Report to Congress on Supporting Organizations and Donor Advised Funds*, December 2011.

Young, Gary J. et al. "Provision of Community Benefits by Tax-Exempt U.S. Hospitals," *New England Journal of Medicine*, Vol. 368, April 18, 2013, pp. 1519-1527.

Zimmerman, Dennis. "Nonprofit Organizations, Social Benefits, and Tax Policy," *National Tax Journal,* Vol. 44, September 1991, pp. 341-349.

EXCLUSION OF WORKERS' COMPENSATION BENEFITS (MEDICAL BENEFITS)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	4.6	-	4.6
2019	4.7	-	4.7
2020	4.8	-	4.8
2021	4.8	-	4.8
2022	4.9	-	4.9

Authorization

Section 104 (a)(1).

Description

Payments for medical treatment of work-related injury or disease are provided as directed by various state and federal laws governing workers' compensation. Employers finance workers' compensation benefits through commercial insurance or self-insurance arrangements (with no employee contribution) and their costs are deductible as a business expense. Employees are not taxed on the value of insurance contributions for workers' compensation medical benefits made on their behalf by employers, or on the medical benefits or reimbursements they actually receive. This is similar to the tax treatment of other employer-paid health insurance.

Impact

The exclusion from taxation of employer contributions for workers' compensation medical benefits provides a tax benefit to any worker covered by the workers' compensation program, not just those actually receiving medical benefits in a particular year.

The costs to employers for workers' compensation in 2015 were $94.8 billion, equivalent to 1.32 percent of covered payrolls. Figures are not available on employer contributions specifically for workers' compensation medical benefits. However, in 2015, medical payments under workers' compensation programs totaled $31.1 billion. This represented 50.2 percent of total workers' compensation benefits. The rest consisted mainly of earnings-replacement cash benefits. (See entry on Exclusion of Workers' Compensation Benefits: Disability and Survivors Payments.)

Rationale

This exclusion was first codified in the Revenue Act of 1918 (P.L. 65-254). The committee reports accompanying the Act suggest that workers' compensation payments were not subject to taxation before the 1918 Act. No rationale for the exclusion is found in the legislative history. But it has been maintained that workers' compensation should not be taxed because it is in lieu of court-awarded damages for work-related injury or death that, before enactment of workers' compensation laws (beginning shortly before the 1918 Act), would have been payable under tort law for personal injury or sickness and not taxed. Workers' compensation serves as an exclusive remedy for injured workers and these workers are generally prohibited from seeking damages from their employers through the court system.

Assessment

Not taxing employer contributions to workers' compensation medical benefits subsidizes these benefits relative to taxable wages and other taxable benefits, for both the employee and employer. The exclusion allows employers to provide their employees with workers' compensation coverage at a lower cost than if they had to pay the employees additional wages sufficient to cover a tax liability on these medical benefits. In addition to the income tax benefits, workers' compensation insurance benefits are excluded from payroll taxation.

The tax subsidy reduces the employer's cost of compensating employees for accidents on the job and can be viewed as blunting financial incentives to maintain safe workplaces. Employers can reduce their workers' compensation costs if the extent of accidents is reduced. If the insurance premiums were taxable to employees, a reduction in employer premiums would also lower employees' income tax liabilities. Employees might then be willing to accept lower before-tax wages, thereby providing additional savings to the employer from a safer workplace.

Selected Bibliography

Burton, John F., Jr. "Workers' Compensation in the United States: A Primer," *Perspectives on Work,* v. 11. Summer 2007, pp. 23-25.

Hunt, H. Allan. *Adequacy of Earnings Replacement in Workers' Compensation Programs*. Kalamazoo MI: Upjohn Institute for Employment Research. 2004.

Larson, Lex K. and Thomas A. Robinson. *Larson's Workers' Compensation Law*. New York: Matthew Bender & Company, Inc. 2018.

McClaren, Christopher F. and Marjorie Baldwin. *Workers' Compensation: Benefits, Coverage and Costs, (2015 Data)*. Washington, DC: National Academy of Social Insurance. 2017.

Szymendera, Scott. *Workers' Compensation: Overview and Issues*. Library of Congress, Congressional Research Service Report R44580, Washington, DC: October 18, 2017.

Thomason, Terry, Timothy Schmidle and John F. Burton. *Workers' Compensation, Benefits, Costs, and Safety under Alternative Insurance Arrangements*. Kalamazoo MI: Upjohn Institute for Employment Research. 2001.

Welch, Edward M. *Employer's Guide to Workers' Compensation*. Washington, DC: The Bureau of National Affairs, Inc. 1994.

Wentz, Roy. "Appraisal of Individual Income Tax Exclusions," *Tax Revision Compendium*. U.S. Congress, House Committee on Ways and Means Committee Print. 1959, pp. 329-340.

Yorio, Edward. "The Taxation of Damages: Tax and Non-Tax Policy Considerations," *Cornell Law Review*, v. 62. April 1977, pp. 701-736.

CREDIT FOR PURCHASE OF HEALTH INSURANCE BY CERTAIN DISPLACED PERSONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	-	([1])
2019	([1])	-	([1])
2020	([1])	-	([1])
2021	([1])	-	([1])
2022	([1])	-	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 35.

Description

Eligible displaced workers and retirees can claim a refundable tax credit for 72.5 percent of the premiums they pay for qualified health insurance for themselves and family members for eligible coverage months. The credit is commonly known as the health coverage tax credit (HCTC). The HCTC acts as partial reimbursement for premiums paid for qualified health insurance coverage and can now be claimed for qualified coverage through 2019.

Eligible individuals include: (1) individuals who are receiving a Trade Readjustment Assistance (TRA) allowance, or who would be except their state unemployment benefits are not yet exhausted; (2) individuals who are receiving an Alternative Trade Adjustment Assistance (ATAA) / Reemployment Trade Adjustment Assistance (RTAA) allowance for people age 50 and over; (3) individuals who are receiving a pension paid in part by the Pension Benefit Guaranty Corporation (PBGC); and (4) the family member of an eligible TAA, ATAA, or RTAA recipient or PBGC payee who is deceased or who finalized a divorce. An individual is not eligible for the

HCTC if they (1) can be claimed as a dependent on another person's federal income tax return; or (2) are enrolled in Medicare, Medicaid, the Children's Health Insurance Program, or the Federal Employees Health Benefits Program or are eligible to receive benefits under the U.S. military health system (TRICARE).

An individual has an eligible coverage month if, as of the first day of the month, the taxpayer: (1) is an eligible individual; (2) is covered by qualified health coverage, the premium for which is paid by the taxpayer; (3) does not have other specified coverage; and (4) is not imprisoned under federal, state, or local authority.

Statute limits qualified health insurance to 11 categories of coverage, identified below. Individuals are not allowed to claim the tax credit for any other type of coverage. Four of the coverage categories are referred to as automatically qualified health plans. Individuals may elect these options without state involvement. These options (identified by their statutory letter designations) are as follows:

1. Coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA, P.L. 99-272).
2. Coverage under a group health plan available through a spouse's employer.
3. Coverage under individual health insurance. For tax years 2014 and 2015, the HCTC may be claimed for all individual insurance, including coverage through a health insurance exchange. However, exchange coverage may not be used to claim the HCTC for 2016 on.
4. Coverage funded by a voluntary employees' beneficiary association (VEBA).

The other seven categories of coverage are known as state-qualified health plans. Individuals may choose these options only if their state has established these plans. These options are as follows:

5. State-based continuation coverage provided under a state law requiring such coverage.
6. Coverage offered through a state high-risk pool (HRP).
7. Coverage under a plan offered for state employees.
8. Coverage under a state-based plan that is comparable to the plan offered to state employees.
9. Coverage through an arrangement entered into by a state and a

group health plan, an issuer of health insurance, an administrator, or an employer.
10. Coverage through a state arrangement with a private-sector health care purchasing pool.
11. Coverage under a state-operated plan that does not receive any federal financing.

Coverage under state-qualified health plans is required to provide four consumer protections, specified in statute, to all qualifying individuals. Qualifying individuals are defined as HCTC- eligible individuals (as described above) who had three months of creditable coverage under another health plan prior to applying for a state-qualified plan and did not have a significant break in coverage (defined as 63 days or more without coverage). For such individuals, state-qualified health plans must provide the following four protections:

1. The plan must be guaranteed issue, meaning coverage may not be denied to any qualifying applicant.
2. Coverage may not be denied based on preexisting health conditions.
3. Premiums (without regard to subsidies) may not be greater for qualifying individuals than for other similar individuals.
4. Benefits for qualifying individuals must be the same as or substantially similar to benefits for others.

Certain types of coverage are not considered qualified health insurance, even if they otherwise meet one of the categories listed above. Such coverage includes accident or disability income insurance, liability insurance, workers' compensation insurance, automobile medical payment insurance, credit-only insurance, coverage for on-site medical clinics, limited-scope dental or vision benefits, long-term care insurance, coverage for a specified disease or illness, hospital and other fixed indemnity insurance, and supplemental insurance.

Impact

The HCTC substantially reduces the after-tax cost of health insurance for eligible individuals and enables some to maintain or acquire coverage. According to estimates by the Urban Institute, done before changes made by the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5), 362,000 households a year met the TAA, ATAA, or PBGC requirements, and of these between 181,000 and 232,000 qualified for the HCTC. In 2006, between 12 percent and 15 percent of those eligible received the credit (about

26,000 households). However, the temporary changes made by ARRA increased the credit amount to 80 percent and made it easier for unemployed TAA participants to receive the HCTC. As a result, a 2010 Government Accountability Office (GAO) study found that while there was a 26 percent increase among potentially eligible individuals following the implementation of the ARRA provisions, there was a 36 percent increase in actual participation in the program. Improved participation was mostly among TAA eligible individuals rather than PBGC eligibles. The key reason cited for participation was improved affordability of health insurance coverage.

Rationale

The HCTC was enacted by the Trade Act of 2002 (P.L. 107-210). One impetus for the legislation was to assist workers who had lost their jobs, and consequently their health insurance coverage, due to economic dislocations in the wake of the September 11, 2001 terrorist attacks. Difficulties in reaching consensus on who should be included in this group contributed to the decision to restrict eligibility for the credit to workers adversely affected by international trade (e.g., imported goods contributed importantly to their unemployment, or their companies shifted production to other countries). Extension to taxpayers receiving pensions paid by the PBGC occurred late in the legislative process.

The HCTC was temporarily expanded under the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5). Specifically, ARRA made temporary changes (through December 31, 2010) including: increasing the HCTC subsidy rate from 65 percent to 80 percent, allowing retroactive payments, expanding the eligibility to include individuals receiving unemployment compensation but not enrolled in training, and allowing family members to continue to receive the HCTC for up to two years after a death or divorce or the policy holder becomes Medicare eligible.

By adopting the tax credit, Congress signaled its intention to help individuals maintain or acquire private market health insurance rather than expand public insurance programs like Medicaid or CHIP. Both proponents and opponents initially saw the credit as a possible legislative precedent for a broader tax credit to reduce the number of uninsured, which is similar to the broader health care reform legislation enacted in 2010.

The 112th Congress passed and the President signed into law the Trade Adjustment Assistance Extension Act of 2011 (P.L. 112-40) which retroactively changed the subsidy rate to 72.5 percent (from 65 percent) for

coverage months beginning after February 12, 2011, and terminated the HCTC at the end of 2013.

The Trade Preferences Extensions Act of 2015 (P.L. 114-27) reinstated, modified and extended the HCTC at the 72.5 percent rate through the end of 2019. Modifications include allowing health plans purchased through exchanges to be considered qualified health plans for 2014 and 2015 only, addressing interactions between the premium assistance tax credit and the HCTC if a qualifying individual is eligible for both, and reauthorizing monthly advance payments of the HCTC. Advance payments of the credit are paid out in advance of a taxpayer filing their federal income tax return.

Assessment

Tax credits for health insurance can be assessed by their effectiveness in continuing and expanding coverage, particularly for those who would otherwise be uninsured, as well as from the standpoint of equity. The HCTC is helping some unemployed and retired workers keep their insurance, at least temporarily. The impact may be greatest in the case of individuals who most need insurance (those with chronic medical conditions, for example) and who have the ability to pay the 27.5 percent of the cost not covered by the credit. For many eligible taxpayers, the effectiveness of the credit may depend on the advance payment arrangements; these might work well where there is a concentration of eligible taxpayers (where a plant is closed, for example) and if the certification process is simple and not perceived as part of the welfare system.

Before the temporary changes made by ARRA to the HCTC, estimates by the Urban Institute presented above found the HCTC had not reached many of the people it was intended to benefit. Participation did increase, however, after the HCTC was raised to 80 percent following ARRA. However, the ARRA provisions expired on December 31, 2010, and the HCTC credit rate decreased to 72.5 percent for 2011 through 2013 (and subsequently extended to the end of 2019). Administrative data from the IRS indicate that by 2013 participation had decreased in comparison to levels after ARRA. However, those same data indicate the number of claimants has increased in 2015, the most recent data available.

The HCTC is available to all eligible taxpayers with qualified insurance, regardless of income. From the standpoint of inclusiveness, this seems equitable. Using ability to pay as a measure, however, the one rate appears inequitable since it provides the same dollar subsidy to taxpayers regardless of

income. An unemployed taxpayer with an employed spouse, for example, can receive the same credit amount as a taxpayer in a household where no one works. At the same time, the credit is refundable, so it is available to low-income Americans who have little to no federal income tax liability.

Selected Bibliography

Dorn, Stan. *Health Coverage Tax Credits: A Small Program Offering Large Policy Lessons*. The Urban Institute, February, 2008.

—. *How Well Do Health Coverage Tax Credits Help Displaced Workers Obtain Health Care?* Statement before the House Committee on Education and Labor, March 27, 2007.

—. *Take-Up of Health Coverage Tax Credits: Examples of Success in a Program with Low Enrollment*. The Urban Institute, December, 2006.

Fernandez, Bernadette. *Health Insurance Premium Tax Credits and Cost-Sharing Subsidies*. Library of Congress, Congressional Research Service Report RL44425, Washington. DC: April 24, 2018.

Fernandez, Bernadette. *Health Coverage Tax Credit (HCTC): In Brief*. Library of Congress, Congressional Research Service Report R44392, Washington DC: December 6, 2016.

Internal Revenue Service. Health Coverage Tax Credit, available at https://www.irs.gov/credits-deductions/individuals/hctc. March 26, 2018.

Internal Revenue Service. Statistics of Income (SOI). *Individual Income Tax Returns 2015*. Table A. Available at https://www.irs.gov/statistics/soi-tax-stats-individual-income-tax-returns-publication-1304-complete-report#_tbla.

Pollitz, Karen. "Complexity and Cost of Health Insurance Tax Credits." *Journal of Insurance Regulation*, vol. 25, no. 4, Summer 2007.

U.S. Government Accountability Office. *Expiration of the Health Coverage Tax Credit Will Affect Participants' Costs and Coverage Choices as Health Reform Provisions Are Implemented* (GAO-13-147), December 2012.

—. *Health Coverage Tax Credit: Participation and Administrative Costs* (GAO-10-521R), April 2010.

—. *Trade Adjustment Assistance: Most Workers in Five Layoffs Received Services, but Better Outreach Needed on New Benefits*, (GAO-06-43), January 2006.

—. *Health Coverage Tax Credit: Simplified and More Timely Enrollment Process Could Increase Participation* (GAO-04-1029), September 2004.

U.S. Treasury Inspector General for Tax Administration. *Implementation of the Health Coverage Tax Credit Enrollment and Systemic Advance Monthly Payment Process* (2017-40-033), May 22, 2017.

DEDUCTION FOR HEALTH INSURANCE PREMIUMS AND LONG-TERM CARE INSURANCE PREMIUMS PAID BY THE SELF-EMPLOYED

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	6.4	-	6.4
2019	7.6	-	7.6
2020	8.5	-	8.5
2021	8.9	-	8.9
2022	9.2	-	9.2

Authorization

Section 162(l).

Description

Generally, a self-employed individual may deduct the entire amount he or she pays for health insurance (with some restrictions, which are discussed below), or long-term care insurance, for himself or herself and his or her immediate family. The deductible share of eligible health insurance expenses rose from 25 percent in 1987 to 100 percent in 2003 and each year thereafter. For the purpose of this deduction only, self-employed individuals are defined as sole proprietors, working partners in a partnership, and employees of an S corporation who each own more than two percent of the corporation's stock. The deduction is taken above-the-line, which is to say that it may be used regardless of whether or not a self-employed individual itemizes on his or her tax return. In addition, the self-employed may deduct their health insurance expenditures from the income base used to calculate their self-employment taxes.

Use of the deduction for health insurance expenditures by the self-employed is subject to several limitations. First, the deduction cannot exceed

a taxpayer's net earned income from the trade or business in which the health insurance plan was established, less the deductions for 50 percent of the self-employment tax and any contributions to qualified pension plans. Second, the deduction is not available for any month when a self-employed individual is eligible to participate in a health plan sponsored by his or her employer or by his or her spouse's employer. Third, if a self-employed individual claims an itemized deduction for medical expenses under IRC section 213, those expenses must be reduced by any deduction for health insurance premiums claimed under section 162(1). Fourth, any health insurance premiums that cannot be deducted under section 162(1) may be included with these medical expenses, subject to the statutory threshold of 7.5 percent of adjusted gross income (AGI) in 2018. Fifth, the deduction for long-term care premiums is limited, based on age. In 2018, these limits range from $420 for individuals under age 40 to $5,200 for individuals over age 70.

Impact

In 2016, nearly 3.9 million tax filers claimed over $29.6 billion under the health insurance deduction for the self-employed. It is not known how many self-employed claimed the deduction for long-term care insurance premiums, or how much they spent for that purpose.

The deduction under section 162(l) reduces the after-tax cost of health insurance or long-term care insurance for self-employed individuals and their immediate families. The tax savings are greater for taxpayers in higher marginal tax brackets (although the amount that can be deducted for long-term care insurance premiums is limited, based on age). As a result, higher-income individuals reap greater tax savings from the deduction than do lower-income individuals.

The relationship between the size of the subsidy and income is illustrated in the following table. It shows the percentage distribution by AGI of self-employed filers that claimed health insurance expenditures for 2016, and the average amount claimed per tax return for each income class. Individuals with an AGI greater than $100,000 accounted for 45.1 percent of the total returns filed. The average claim amount increased with income to the extent that for individuals with an AGI of $200,000 and above, it was more than triple the average claim for individuals with an AGI below $30,000 ($12,728 versus $3,712). If the deductions were translated into tax savings by income class, the distribution of the tax expenditure would be even more concentrated in the higher-income groups.

Distribution of the Deduction for Medical Insurance Premiums for the Self-employed, by Adjusted Gross Income, 2016

Income Class (in thousands of $)	Percentage Distribution of Filers	Average Amount of the Deduction Claimed per Tax Return
Below $15	11.7	$3,712
$15 to under $30	7.3	$3,674
$30 to under $50	12.7	$4,700
$50 to under $100	23.2	$6,304
$100 to under $200	22.0	$8,575
$200 and over	23.1	$12,728
Total	100.0	$7,583

Note: This is *not* a distribution of tax expenditure values. Analyzed from data in Internal Revenue Service (IRS), Statistics of Income, Table 1.4, August 2018.

Rationale

The health insurance deduction for the self-employed first entered the tax code as a temporary provision in the Tax Reform Act of 1986 (P.L. 99-514). Under the act, the deduction was equal to 25 percent of qualified health insurance expenditures and was set to expire on December 31, 1989. The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) made a few minor corrections to the provision.

A series of laws extended the deduction for brief periods during the early 1990s. The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) extended the deduction for nine months (through September 30, 1990) and made it available to subchapter S corporation shareholders; the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) extended the deduction through December 31, 1991; the Tax Extension Act of 1991 (P.L. 102-227) extended the deduction through June 30, 1992; and the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) extended it through December 31, 1993. Throughout this period, the deductible share of eligible health insurance expenditures remained at 25 percent.

Congress allowed the deduction to expire at the end of 1993 and took no action to extend it during 1994. A law enacted in April 1995, P.L. 104-7, reinstated the deduction, retroactive to January 1, 1994, and made it a permanent provision. Under the act, the deductible share of eligible health

insurance expenditures was to remain at 25 percent in 1994 and then rise to 30 percent in 1995 and beyond.

The Health Insurance Portability and Accountability Act of 1996 (HIPAA, P.L. 104-191) increased the deductible share of health insurance expenditures by the self-employed from 30 percent in 1995 and 1996 to 40 percent in 1997 and gradually to 80 percent in 2006 and each year thereafter. HIPAA also allowed self-employed persons to include in the expenditures eligible for the deduction any payments they made for qualified long-term care insurance, beginning January 1, 1997. The act imposed dollar limits on the amount of long-term care premiums that could be deducted in a single tax year and indexed these limits for inflation.

The Omnibus Consolidated and Emergency Supplemental Appropriations Act for FY1999 (P.L. 105-277) increased the deductible share to its present level: 70 percent of eligible expenditures in 2002 and 100 percent in 2003 and each year thereafter.

The Small Business Jobs Act of 2010 (P.L. 111-240) allowed business owners a temporary deduction for the cost of health insurance incurred in 2010 for themselves and their family members in the calculation of their 2010 self-employment tax.

Assessment

In establishing the deduction for spending on health insurance and long-term care insurance by the self-employed, Congress seemed to have two motivations. One was to provide those individuals with a tax benefit comparable to the exclusion from the taxable income of any employer-provided health benefits received by employees. A second motive was to improve access to health care by the self-employed.

The deduction lowers the after-tax cost of health insurance purchased by the self-employed by a factor equal to a self-employed individual's marginal income tax rate. Individuals who purchase health insurance coverage in the non-group market but are not self-employed receive no such tax benefit. There is some evidence that the deduction has contributed to a significant increase in health insurance coverage among the self-employed and their immediate families. As one would expect, the gains appear to have been concentrated in higher-income households.

Proponents of allowing the self-employed to deduct 100 percent of health insurance expenditures cited equity as the main justification for such tax

treatment. In their view, it was only fair that the self-employed receive a tax subsidy for health insurance coverage comparable to what is available to employees who receive employer-provided health insurance.

While the section 162(l) deduction greatly narrowed the gap between the self-employed and employees, it does not go far enough to achieve true equality in the tax treatment of health insurance coverage for the two groups. Recipients of employer-provided health insurance (including shareholder-employees of S corporations who own more than 2 percent of stock) are allowed to exclude employer contributions from the wage base used to determine their Social Security and Medicare tax contributions. By contrast, the self-employed must include their spending on health insurance in the wage base used to calculate their self-employment taxes under the Self-Employment Contributions Act.

The deduction also raises some concerns about its efficiency effects. Critics of current federal tax subsidies for health insurance contend that a 100-percent deduction is likely to encourage higher-income self-employed individuals to purchase more health insurance coverage than they otherwise would. That overconsumption leads to wasteful or inefficient use of health care. To reduce the likelihood of such an outcome, some favor capping the deduction at an amount commensurate with a standardized health benefits package, adjusted for regional variations in health care costs.

Selected Bibliography

Gulmus, Gulcin and Tracy L. Reagan. "Self-Employment and the Role of Health Insurance in the U.S.," *Journal of Business Venturing* (February 21, 2014).

Gruber, Jonathan and James Poterba. "Tax Incentives and the Decision to Purchase Health Insurance: Evidence from the Self-Employed," *The Quarterly Journal of Economics*, Vol. 109, Issue 3 (August 1994), pp. 701-33.

Gurley-Calvez, Tami. *Health Insurance Deductibility and Entrepreneurial Survival*. Small Business Administration, Office of Advocacy, Washington, DC: April 2006.

Heim, Bradley T. and Ithai Z. Lurie. "The Effect of Self-Employment Health Insurance Subsidies on Self-Employment," *Journal of Public Finance*, Vol. 94, Issue 11-12 (December 2010), pp. 995-1007.

Lowry, Sean. *Health-Related Tax Expenditures: Overview and Analysis*. Library of Congress, Congressional Research Service Report R44333. Washington, DC, January 8, 2016.

Perry, William Craig and Harvey S. Rosen. "Insurance and the Utilization of Medical Services Among the Self-Employed." In Cnossen, Sijbren and

Hans-Werner Sinn (eds.) *Public Finances and Public Policy in the New Millennium*. MIT Press: Cambridge, 2003.

U.S. Congress, Congressional Budget Office, *Budget Options Volume 1, Health Care*, Washington, DC: December 2008, p. 29.

—. *Present Law Tax Treatment of the Cost of Health Care* (JCX-81-08). Washington, DC: October 24, 2008.

Wellington, Alison J. "Health Insurance Coverage and Entrepreneurship," *Journal of Contemporary Economic Policy*, Vol. 19, No. 4 (October 2001), pp. 465-478.

DEDUCTION FOR MEDICAL EXPENSES AND LONG-TERM CARE EXPENSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	9.4	-	9.4
2019	7.4	-	7.4
2020	7.8	-	7.8
2021	8.8	-	8.8
2022	9.9	-	9.9

Authorization

Section 213.

Description

Most medical expenses that are paid for by an individual, but not reimbursed by an employer or insurance company, may be deducted from taxable income to the extent they exceed 7.5 percent of adjusted gross income (AGI). The floor increases to 10 percent of AGI beginning in 2019. Individuals must itemize on their tax returns to benefit from this deduction. If an individual receives reimbursements for medical expenses deducted in a previous tax year, the reimbursements must be included in taxable income for the year when they were received. Any reimbursement received for medical expenses incurred in a previous year for which no deduction was used may be excluded from an individual's taxable income in the tax year received.

A complicated set of rules governs the expenses eligible for the deduction. These expenses include amounts paid by the taxpayer on behalf of himself or herself, his or her spouse, and eligible dependents for the following purposes:

(1) health insurance premiums, including a variable portion of premiums for long-term care insurance, employee payments for employer-sponsored health plans, Medicare Part B premiums, and other self-paid premiums;

(2) diagnosis, treatment, mitigation, or prevention of disease, or for the purpose of affecting any structure or function of the body, including dental care;

(3) prescription drugs and insulin (but not over-the-counter medicines);

(4) transportation primarily for and essential to medical care; and

(5) lodging away from home primarily for and essential to medical care, up to $50 per night for each individual.

In general, the cost of programs entered by an individual on his or her own initiative to improve general health or alleviate physical or mental discomfort unrelated to a specific disease or illness may not be deducted. But the cost of similar programs prescribed by a physician to treat a particular disease is deductible. The same distinction applies to procedures intended to improve an individual's appearance. For instance, the IRS does not consider the cost of whitening teeth discolored by aging to be a deductible medical expense, but the cost of breast reconstruction after a mastectomy or vision correction through laser surgery are deductible expenses.

There are limits on deductions for long-term care insurance. The limits depend on the age of the insured person, and are adjusted annually for inflation: in 2018, they will range from $420 for individuals age 40 and under to $5,200 for individuals over age 70.

Impact

For individual taxpayers who itemize, the deduction can ease the financial burden imposed by costly medical expenses. The federal tax code, in part, regards these expenses as involuntary expenses that reduce a taxpayer's ability to pay taxes by absorbing a substantial part of income.

But the deduction is not limited to strictly involuntary expenses. It also covers some costs of preventive care, rest cures, and other discretionary expenses. A significant share of deductible medical expenses relates to procedures and care not covered by many insurance policies (such as orthodontia).

A larger percentage of the tax returns from the medical expense deduction go to taxpayers in the lower-to-middle income brackets, relative to other common itemized deductions. Taxpayers with an AGI below $75,000 accounted for 69.0 percent of the returns claiming the medical deduction in 2016. Medical spending constitutes a larger fraction of household budgets among low-income taxpayers than it does among high-income taxpayers, making it easier for low-income taxpayers to exceed the 7.5 percent AGI threshold in 2017 and 2018 (the threshold is 10 percent of AGI after 2018). Finally, low-income households are more likely to suffer large declines in their incomes than high-income households when serious medical problems cause working adults to lose time from work.

In contrast, the distribution of tax expenditure values for the itemized deduction for medical expenses is primarily concentrated in upper middle- and higher-income taxpayers. Taxpayers with an AGI less than $100,000 accounted for a cumulative share of 27.7 percent of the tax expenditure values. Taxpayers with an AGI between $100,000 to $200,000 accounted for 43.6 percent of the tax expenditure value, and a relatively small number of taxpayers with an AGI greater than $200,000 accounted for 28.7 percent of the tax expenditure values. As with any deduction, the medical expense deduction yields the largest tax savings per dollar of expense for taxpayers in the highest income tax brackets.

Distribution by Income Class of the Tax Expenditure for the Itemized Deduction for Medical and Dental Expenses, 2018 Rate and 2018 Income Levels

Income Class (in thousands of $)	Percentage Distribution
Below $10	<0.1
$10 to $20	0.1
$20 to $30	0.3
$30 to $40	0.9
$40 to $50	2.0
$50 to $75	9.7
$75 to $100	14.7
$100 to $200	43.6
$200 and over	28.7

Rationale

Since the early 1940s, numerous changes have been made in the rules governing the deduction for medical expenses. These changes have focused on where to set the income threshold, whether to cap the deduction and at what amount, the maximum deductible amount for taxpayers who are 65 and over and disabled, whether to carve out separate income thresholds for spending on medicines and drugs and for health insurance expenditures, and the medical expenses that qualify for the deduction.

Taxpayers first were allowed to deduct health care expenses above a specific income threshold in 1942. The deduction was a provision of the Revenue Act of 1942 (P.L. 77-753). In adopting such a rule, Congress was trying to encourage improved standards of public health and ease the burden of high tax rates during World War II. The original deduction covered medical expenses (including spending on health insurance) above five percent of AGI and was capped at $2,500 for a married couple filing jointly and $1,250 for a single filer.

Under the Revenue Act of 1948 (P.L. 80-471), the five-percent income threshold remained intact, but the maximum deduction was changed so that it equaled the then personal exemption of $1,250 multiplied by the number of exemptions claimed. The act placed a cap on the deduction of $5,000 for joint returns and $2,500 for all other returns.

The Revenue Act of 1951 (P.L. 82-183) repealed the five-percent floor for taxpayers and spouses who were age 65 and over. No change was made in the maximum deduction available to other taxpayers.

Congress passed legislation that substantially revised the Internal Revenue Code in 1954 (P.L. 83-591). One of its provisions reduced the AGI threshold to three percent and imposed a one-percent floor for spending on drugs and medicines. In addition, the maximum deduction was increased to $2,500 per exemption, with a ceiling of $5,000 for an individual return and $10,000 for a joint or head-of-household return.

In 1959, the maximum deduction rose to $15,000 for taxpayers who were 65 and over and disabled, and to $30,000 if their spouses also met both criteria.

The threshold was removed on deductions for dependents age 65 and over the following year.

In 1962 (P.L. 87-863), the maximum deduction was increased to $5,000 per exemption, with a limit of $10,000 for individual returns, $20,000 for joint and head of household returns, and $40,000 for joint returns filed by taxpayers and their spouses who were 65 or over and disabled.

Congress eliminated the one-percent floor on medicine and drug expenses for those age 65 or older (taxpayer, spouse, or dependent) in 1964 (P.L. 88-272). In the following year (P.L. 89-97), a three-percent floor for medical expenses and a one-percent floor for drugs and medicines were reinstated for taxpayers and dependents aged 65 and over. At the same time, the limitations on maximum deductions were abolished, and a separate deduction not to exceed $150 was established for health insurance payments.

The Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA; P.L. 97-248) made a number of significant changes in the deduction under section 213. First, it raised the floor from three percent to five percent of AGI. Second, it eliminated the separate deduction for health insurance payments and allowed taxpayers to combine them with other qualified medical expenses in computing the section 213 deduction. Finally, TEFRA removed the separate one-percent floor for drug costs, excluded non-prescription or over-the-counter drugs from the deduction, and merged the deduction for prescription drugs and insulin with the deduction for other medical expenses.

Under the Tax Reform Act of 1986 (TRA86; P.L. 99-514), the income threshold for the medical expenses deduction increased from five percent of AGI to 7.5 percent.

The Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) disallowed deductions for the cost of cosmetic surgery, with certain exceptions. It also exempted the medical expense deduction from the overall limit on itemized deductions for high-income taxpayers.

Under the Health Insurance Portability and Accountability Act of 1996 (HIPAA; P.L. 104-191), spending on long-term care and long-term care insurance was granted the same tax treatment as spending on health insurance and medical expenses. This meant that as of January 1, 1997, taxpayers were allowed to include expenditures for long-term care and long-term care insurance in the medical expenses eligible for the deduction. The act also imposed annual dollar limits, indexed for inflation, on the long-term care insurance payments a taxpayer may deduct, subject to the 7.5 percent of AGI threshold.

HIPAA also specified that periodic reimbursements received under a qualified long-term care insurance plan were considered payments for personal injuries and sickness and could be excluded from gross income, subject to a cap that was indexed for inflation. These payments could not be added to the expenses eligible for the section 213 deduction because they were considered reimbursement for health care received under a long-term care contract. Insurance payments above the cap that did not offset the actual costs incurred for long-term care services had to be included in taxable income.

Under the Patient Protection and Affordable Care Act (PPACA; P.L. 111-148) the threshold increased to 10 percent of AGI in 2013 for taxpayers who are under the age of 65. This effectively further limits the amount of medical expenses that can be deducted. Taxpayers age 65 and older were temporarily excluded from this provision and were still subject to the 7.5 percent limit from 2013 through 2016. The 2017 tax revision (P.L. 115-97) extended the temporary 7.5 percent limitation for all taxpayers through 2018. Beginning in tax year 2019, all taxpayers claiming the deduction will be subject to the 10 percent of AGI floor.

Assessment

The deduction is intended to assist taxpayers who have high out-of-pocket medical expenses relative to their taxable income. Taxpayers are more likely to use the deduction if they can shift several large medical expenditures into a single tax year. Unlike the itemized deduction for casualty losses, a taxpayer cannot carry medical expenses that cannot be deducted in the current tax year over to previous or future tax years.

Some argue that the deduction serves the public interest by expanding health insurance coverage. In theory, it could have this effect, as it lowers the after-tax cost of such coverage. This reduction can be as large as 39.6 percent for someone in the highest tax bracket. Yet there appears to be a tenuous link, at best, between the deduction and health insurance coverage. So few taxpayers claim the deduction that it is unlikely to have much impact on the decision to purchase health insurance, especially among individuals whose only option for coverage is to buy health insurance in the non-group market. Premiums tend to be higher and gaps in coverage more numerous in the non-group market than in the group market. What is more, few among those who itemize and have health insurance coverage are likely to qualify for the deduction because insurance covers most of the medical care they use. It is possible that the deduction assists taxpayers with one-off, unanticipated

medical expenses (or chronic conditions that are expensive, relative to AGI), rather than promote insurance coverage.

Current tax law runs counter to the principles of vertical and horizontal equity in its treatment of health insurance expenditures. Taxpayers who receive health benefits from their employers receive a larger tax subsidy, at the margin, than taxpayers who purchase health insurance on their own or self-insure. Employer-paid health care is excluded from income and payroll taxes, whereas the cost of health insurance bought in the non-group market can be deducted from taxable income only to the extent it exceeds a set percent of AGI. Lowering or abolishing the AGI threshold for the deduction would narrow but not eliminate the difference between the tax benefits for health insurance available to the two groups.

Selected Bibliography

Goldsberry, Edward, Ashley Tenney and David Luke. "Deductibility of Tuition and Related Fees as Medical Expenses," *The Tax Adviser*, November 2002, pp. 701-702.

Gravelle, Jane G. and Sean Lowry. *Restrictions on Itemized Tax Deductions: Policy Options and Analysis*. Library of Congress, Congressional Research Service Report R43079, Washington, DC: March 10, 2014.

Jones, Lawrence T. "Long-Term Care Insurance: Advanced Tax Issues," *Journal of Financial Service Professionals*, September 2004, pp. 51-59.

Kaplow, Louis. "The Income Tax as Insurance: The Casualty Loss and Medical Expense Loss Deductions and the Exclusion of Medical Insurance Premiums," *California Law Review*, Vol. 79, December 1991, pp. 1485-1510.

Lowry, Sean. *Tax Deductions for Individuals: A Summary*. Library of Congress, Congressional Research Service Report R42872, Washington, DC, March 17, 2017.

—. *Itemized Tax Deductions for Individuals: Data Analysis*. Library of Congress, Congressional Research Service Report R43012, Washington, DC, September 21, 2017.

—. *Health-Related Tax Expenditures: Overview and Analysis*. Library of Congress, Congressional Research Service Report R44333, Washington, DC, January 8, 2016.

Pauly, Mark V. "Taxation, Health Insurance, and Market Failure in the Medical Economy," *Journal of Economic Literature*, Vol. 24, No. 2. June 1986, pp. 629-75.

Sheiner, Louise. "Health Expenditures, Tax Treatment," *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington: Urban Institute Press, 2005, pp. 175-176.

U.S. Congress, Joint Committee on Taxation. *Present Law Tax Treatment of the Cost of Health Care*. Joint Committee Print JCX-81-08, Washington, DC, October 24, 2008.

EXCLUSION OF EMPLOYER CONTRIBUTIONS FOR HEALTH CARE, HEALTH INSURANCE PREMIUMS, AND LONG-TERM CARE INSURANCE PREMIUMS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	146.1	-	146.1
2019	164.1	-	164.1
2020	176.8	-	176.8
2021	186.3	-	186.3
2022	196.3	-	196.3

Authorization

Sections 105, 106, and 125.

Description

Employees pay no income or payroll taxes on contributions by their employers for coverage under accident or health plans. This exclusion includes employer contributions towards group insurance premiums and other forms of health coverage, such as: flexible savings accounts (FSAs) or cafeteria plans, Archer medical savings accounts (MSAs), health savings accounts (HSAs), or health reimbursement arrangements (HRAs).

Employees covered by these group plans generally may also exclude from taxable income certain payments for employer-provided health insurance. Under an FSA, for example, an employee chooses a benefit amount at the start of a calendar year and draws on the account over the course of the year to pay for medical expenses not covered by an employer's health plans, such as out-of-pocket costs for medication or insurance co-pays. FSAs are funded through wage and salary reductions or through employer contributions, both of which are exempt from income and payroll taxes.

The exclusion for employer contributions to health and accident plans is available regardless of whether an employer self-insures or enters into contracts with third-party insurers to provide group and individual health plans. Unlike some fringe benefits, there is no limit on the amount of employer contributions that may be excluded, with one notable exception. Generous reimbursements paid to highly-compensated employees under self-insured medical plans that fail to satisfy specified non-discrimination requirements must be included in the employees' taxable income.

An employer's plan that provides employees with coverage under a long-term care insurance contract generally is treated in the same manner as employer-provided health care. As a result, the employer's premium payments are generally excludable from income and wages, and benefits payable under the contract generally are excludable from the recipient's income. This exclusion does not apply, however, to long-term care insurance provided under a cafeteria plan. As a result, a cafeteria plan cannot offer long-term care coverage as a tax-favored option.

Impact

The tax exclusion for employer contributions to employee health plans benefits only those taxpayers who participate in employer-sponsored plans. Beneficiaries include current employees as well as retirees. In 2014, 60.0 percent of the U.S. nonelderly population received health insurance coverage through employers, according to Employee Benefit Research Institute's analysis of data from the Census Bureau.

While the tax code encourages the provision of health insurance through the workplace, not all workers receive health insurance coverage from their employers. Those at greatest risk of being uninsured include workers under age 25, workers in firms with fewer than 25 employees, part-time workers, workers earning relatively low wages, and workers in the construction, business and personal service, entertainment, and wholesale and retail trade industries.

The following table presents the Department of the Treasury's 2018 tax form-based estimates for family sources of health insurance coverage by income. Income is expressed as a percentage of the federal poverty level (FPL) for that year. The FPL is adjusted for family size. The following table estimates family sources of insurance in 2018 by income relative to the FPL (as measured by the 2017 FPL guidelines). For example, the second row income range (100% of 2017 FPL to under 133% of 2017 FPL income) would

include a family of four with an income of at least $24,600 and under $32,718 in modified adjusted gross income (MAGI) earned in 2018.

Health Insurance Coverage From Specified Sources, by Family Income Relative to the Federal Poverty Level, 2018 [a]

Income Relative to the Poverty Level[b]	Type of Insurance			
	Employer-Sponsored	Public	Non-group[c]	Uninsured
Under 100%	13%	65%	6%	17%
100% under 133%	25%	49%	10%	16%
133% under 150%	33%	43%	12%	13%
150% under 200%	42%	34%	13%	11%
200% under 250%	58%	22%	12%	8%
250% under 300%	66%	18%	11%	6%
300% under 350%	71%	15%	10%	4%
350% under 400%	74%	15%	8%	3%
400% under 600%	77%	14%	7%	2%
600% under 800%	82%	11%	7%	1%
800% under 1,000%	82%	9%	8%	1%
1,000% or more	78%	9%	12%	1%
Total	**52%**	**31%**	**9%**	**8%**

[a] A"family" is defined as a non-dependent taxpayer or married couple filing jointly plus all dependents. "Unmarried" families include taxpayers filing as single or head of household. Married families include taxpayers filing jointly or separately and qualifying widows and widowers.

[b] Equals modified adjusted gross income (MAGI) for 2018 divided by the federal poverty level for 2017 (which is used for health premium tax credit and related calculations for tax year 2018). For this purpose, MAGI is adjusted gross income plus tax-exempt interest, any foreign earned income or housing exclusion, and non-taxable Social Security benefits. The federal poverty threshold for a family of four in the contiguous United States in 2017 was $24,600.

[c] Includes individual coverage on marketplace exchanges, people with "other insurance," and people claiming the deduction for self-employer health coverage (excluding people in families with both employer-sponsored coverage and the self-employed health insurance deduction; these people appear under employer-sponsored insurance).

Source: Analysis of data from U.S. Department of the Treasury, Office of Tax Analysis, "Table 1A Number of Person-Years by Type of Health Insurance Coverage, Income Relative to Federal Poverty Level, and Family Type, 2018," December 2016.

The likelihood of having employer-sponsored health insurance increases with family income. In 2018, 13 percent of families with incomes below the FPL had employer-sponsored coverage, compared to approximately 75 percent of families with incomes four times the FPL. At the highest income levels, though, employer-sponsored coverage declines slightly. At the same time, the likelihood of receiving public health insurance declined as family income rose. The percentage of those covered by public insurance (e.g., Medicaid; see column 3) in 2018 dropped from 65 percent for those in the lowest income group to 9 percent for those in the highest income group. A similar pattern is apparent among the uninsured: the percentage of uninsured declined from 17 percent for those in the lowest income group to 1 percent for those in the highest income group.

The following table shows the Department of the Treasury's estimated tax value of the exclusion by income to families in 2018, measured as a percentage of the 2017 FPL. Treasury estimated that the total value of the exclusion to families in 2018 will be $394 billion. Although the tax exclusion benefits a majority of families (as shown in the previous table), the distribution of the benefits accrue more to higher-income taxpayers than to lower-income ones. High-paid employees tend to receive more generous employer-paid health insurance coverage than their low-paid counterparts. And high-paid employees fall in higher tax brackets. The value of an exclusion depends in part on a taxpayer's marginal tax rate: for a given amount of employer-provided health insurance coverage, the higher the tax rate, the greater the tax benefit. The tax value of the exclusion decreases near the top of the income distribution most likely because there are fewer families benefiting from the exclusion.

Distribution of the Tax Value of the Exclusion for Employer-Sponsored Health Coverage, 2018

Income as a Percentage of the Federal Poverty Level[a]	Percentage Distribution of Tax Value of Exclusion
Under 100%	3%
100% under 133%	3%
133% under 150%	2%
150% under 200%	6%
200% under 250%	6%
250% under 300%	6%
300% under 350%	7%
350% under 400%	7%
400% under 600%	23%
600% under 800%	15%
800% under 1,000%	8%
1,000% or more	14%

[a] Equals modified adjusted gross income (MAGI) for 2018 divided by the federal poverty level for 2017 (which is used for health premium tax credit and related calculations for tax year 2018). For this purpose, MAGI is adjusted gross income plus tax-exempt interest, any foreign earned income or housing exclusion, and non-taxable Social Security benefits. The federal poverty threshold for a family of four in the contiguous United States in 2017 was $24,600.

Source: Analysis of data from U.S. Department of the Treasury, Office of Tax Analysis, "Table 2: Families with Employer-Sponsored Insurance Coverage by Income Relative to Federal Poverty Level and Family Type, 2018," December 2016.

Rationale

The exclusion of compensation in the form of employer-provided accident or health plans originated with the Revenue Act of 1918. But the Internal Revenue Service (IRS) did not rule until 1943 that employer contributions to group health insurance policies for employees can be excluded from taxable income. This ruling did not address all outstanding issues surrounding the tax treatment of employer-provided health benefits. For instance, it did not apply to employer contributions to individual health

insurance policies. The tax status of those contributions remained in doubt until the IRS ruled in 1953 that they should be taxed. This ruling had a brief existence, as the enactment of IRC section 106 in 1954 reversed it. Henceforth, employer contributions to all accident and health plans were considered deductible expenses for employers and non-taxable compensation for employees. The legislative history of section 106 indicates that it was intended to remove differences between the tax treatment of employer contributions to group and non-group or individual health insurance plans.

The Revenue Act of 1978 (P.L. 95-600) added the non-discrimination provisions of section 105(h). These provisions specified that the benefits paid to highly compensated employees under self-insured medical reimbursement plans were taxable if the plan discriminated in favor of these employees. The Tax Reform Act of 1986 (P.L. 99-514) repealed section 105(h) and replaced it with a new section 89 of the Internal Revenue Code, which extended non-discrimination rules to group health insurance plans. In 1989, P.L. 101-140 repealed section 89 and reinstated the pre-1986 Act rules under section 105(h). The Patient Protection and Affordable Care Act (PPACA; P.L. 111-148) extended non-discrimination provisions to fully-insured plans. Effective for plan years beginning on or after September 23, 2010, the sponsors of health plans are prohibited from establishing eligibility criteria, for any full-time employee, that are based on the total hourly or annual salary of the employee. In no way are eligibility rules permitted to discriminate in favor of higher wage employees.

Under the Health Insurance Portability and Accountability Act of 1996 (HIPAA; P.L. 104-191), employer contributions to the cost of qualified long-term care insurance may be excluded from employees' taxable income. This exclusion does not apply to long-term care benefits received under a cafeteria plan or flexible spending account (FSA).

Assessment

The exclusion for employer-provided health insurance is thought to exert a strong influence on the health insurance coverage for a substantial share of the non-elderly working population. Because of the subsidy, employers face a significant incentive to offer health benefits rather than taxable wages.

Such a preference, however, has at least one notable drawback: it may lead employees to select more health insurance coverage than they need. Most health economists think the unlimited exclusion for employer-provided health benefits has distorted the markets for both health insurance and health care.

Generous health plans encourage subscribers to use health services that are not cost-effective, putting upward pressure on health care costs.

The exclusion could have some social benefits. Owing to the pooling of risk that employment-based group health insurance provides, one can argue that the exclusion makes it possible for many employees to purchase health insurance plans that simply would not be available on the same terms or at the same cost in the individual market.

Workers and their dependents covered by employer-provided health plans receive a much greater tax subsidy than individuals who purchase health insurance in the individual market or who have no health insurance, pay out of pocket for their medical expenses, and claim the medical-expense itemized income tax deduction. The cost of employer-paid health care is completely excluded from the taxable income of those who receive such care. By contrast, relatively few taxpayers can take advantage of the medical expense deduction. To do so, they must itemize on their tax returns, and their out-of-pocket spending on medical care (including health insurance premiums) must exceed the follow floor to claim the deduction for medical expenses: 7.5 percent of AGI for all tax filers before 2013 and tax filers over age 65 in 2013 to 2015, 10 percent of AGI for tax filers under age 65 in 2013 and beyond, and 10 percent of AGI for all tax filers in 2016 and beyond. In addition to the tax exclusion, employer-paid health insurance is exempt from payroll taxation.

Proposals to limit the tax exclusion for employer-provided health benefits periodically receive serious consideration. Generally, these proposals aim to retain the main social benefit of the exclusion— expanded access to group health insurance—while curbing its main social cost—overly generous health insurance coverage. One way to achieve this goal would be to cap the exclusion at or somewhat below the average cost of group health insurance in major regions. PPACA imposes a 40 percent excise tax on health insurers whose plan values exceed certain thresholds for 2022 and after. The cost of the tax is deductible for coverage providers, who bear the statutory burden of the tax. In theory, coverage providers will pass the economic cost of the tax onto employees who could ultimately reduce the value of the employer-provided health benefits consumed or accept a greater share of their compensation in the form of wages. Either outcome would indirectly reduce the value of the tax exclusion.

Not all analysts agree with such an approach. Critics say that it would be difficult to distinguish between reasonable and excessive health insurance coverage. They also contend that any limit on the exclusion would have to

consider the key factors determining health insurance premiums, including a firm's geographic location, size of its risk pool, and the risk profile of its employees. Limiting the subsidy for employer-provided health insurance would also carry a significant risk of some workers forgoing health insurance and some firms stopping the provision of health insurance to employees.

Selected Bibliography

Abraham, Jean Marie, and Roger Feldman. "What Will Happen if Employers Drop Health Insurance? A Simulation of Employees' Willingness to Purchase Health Insurance in the Individual Market." *National Tax Journal,* vol. 62, no. 2, June 2010, pp. 191-213.

Burman, Leonard E., and Amelia Gruber. "First Do No Harm: Designing Tax Incentives for Health Insurance." *National Tax Journal*, vol. 54, no. 3, September 2001, pp. 473-493.

Clemans-Cope, Lisa, Stephen Zuckerman, and Dean Resnick. *Limiting the Tax Exclusion of Employer-Sponsored Health Insurance Premiums: Revenue Potential and Distributional Consequences*. Urban Institute, Washington, DC: May 2013.

Cogan, John F., R. Glenn Hubbard, and Daniel P. Kessler. "The Effect of Tax Preferences on Health Spending," *National Tax Journal*, vol. 64, September 2011, pp. 795-816.

Employee Benefit Research Institute. *Sources of Health Insurance Coverage: A Look at Changes Between 2013 and 2014 from the March 2014 and 2015 Current Population Survey*. EBRI Issue Brief no. 419, October 2015.

Feldstein, Martin, and Bernard Friedman. "Tax Subsidies, the Rational Demand for Insurance and the Health Care Crisis." *Journal of Public Economics*, vol. 7, April 1977, pp. 155-78.

Gravelle, Jane G. *The Excise Tax on High-Cost Employer-Sponsored Health Insurance: Estimated Economic and Market Effects*. Congressional Research Service, Report R44159, Washington, DC, January 12, 2017.

Gruber, Jonathan. "Taxes and Health Insurance." *Tax Policy and the Economy*, National Bureau of Economic Research, vol. 16, 2002.

Gruber, Jonathan, and James M. Poterba. "Tax Subsidies to Employer-Provided Health Insurance," in Martin Feldstein and James Poterba, eds., *Empirical Foundations of Household Taxation*. National Bureau of Economic Research. Chicago and London: Univ. of Chicago Press, 1996.

—. "Fundamental Tax Reform and Employer-Provided Health Insurance," in *Economic Effects of Fundamental Tax Reform*, eds. Henry H. Aaron and William G. Gale. Washington, DC: Brookings Institution Press, 1996, pp. 125-170.

Lowry, Sean. *Health-Related Tax Expenditures: Overview and Analysis*. Congressional Research Service, Report R44333, Washington, DC, January 8, 2016.

—. *The Excise Tax on High-Cost Employer-Sponsored Health Coverage: Background and Economic Analysis*. Congressional Research Service, Report R44160, Washington, DC, August 20, 2015.

Mach, Annie. *Excise Tax on High-Cost Employer-Sponsored Health Coverage: In Brief*. Congressional Research Service, Report R44147, Washington, DC, March 24, 2016.

Pauly, Mark V. "Taxation, Health Insurance, and Market Failure in the Medical Economy." *Journal of Economic Literature*, vol. 24, no. 2, June 1986, pp. 629-75.

President's Advisory Panel on Federal Tax Reform. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System*. Washington, DC: November 2005.

U.S. Congress, Congressional Budget Office. *Options for Reducing the Deficit: 2017 to 2026*. Washington, D.C: December 2016, pp. 269-275.

—. *The Tax Treatment of Employment-Based Health Insurance*. Washington, DC: March 1994.

U.S. Congress, *Exclusion For Employer-Provided Health Benefits And Other Health-Related Provisions Of The Internal Revenue Code: Present Law And Selected Estimates* (JCX-25-16). Washington, DC: April 12, 2016.

U.S. Department of the Treasury, Office of Tax Analysis. "Table 1A Number of Person-Years by Type of Health Insurance Coverage, Income Relative to Federal Poverty Level, and Family Type, 2018" and "Table 2: Families with Employer-Sponsored Insurance Coverage by Income Relative to Federal Poverty Level and Family Type, 2018," December 2016.

Warshawsky, Mark J. and Michael Leahy. "Affordable Care Act's Cadillac Tax Could Affect One-Fourth Of Workers With Employer Health Coverage By 2025." *Health Affairs*, April 2018.

EXCLUSION OF MEDICAL CARE AND TRICARE MEDICAL INSURANCE FOR MILITARY DEPENDENTS, RETIREES, AND RETIREE DEPENDENTS NOT ENROLLED IN MEDICARE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2017	2.6	-	2.6
2018	3.0	-	3.0
2019	3.1	-	3.1
2020	3.3	-	3.3
2021	3.6	-	3.6

Authorization

Sections 112 and 134 and certain court decisions [see specifically *Jones v. United States*, 60 Ct. Cl. 552 (1925)].

Description

Active-duty and reserve component military personnel are provided with a variety of benefits (or cash payments in lieu of such benefits) that are not subject to taxation. Among such benefits are medical and dental care. Dependents of active-duty personnel, retired military personnel and their dependents, and survivors of deceased members are also eligible for these health benefits—and thus can take advantage of the tax exclusion.

Military dependents and retirees may be allowed to receive some of their medical care in military facilities and from military doctors, provided there is enough capacity. These individuals also have the option of being treated by civilian health-care providers working under contract with the Department of Defense (DOD). DOD currently relies on a program known as TRICARE to coordinate the medical care supplied by military and civilian providers. TRICARE gives most beneficiaries two options for receiving medical care:

TRICARE Prime, a DOD-managed health maintenance organization (HMO) in which most care is delivered through military treatment facilities; and non-DOD delivered care available through participating providers (TRICARE Extra) or non-participating providers (TRICARE Standard) coverage options that may be used concurrently. TRICARE Extra, the preferred-provider organization type plan, provides a discount on copayments for beneficiaries who use participating network providers, and TRICARE Standard, the fee-for-service option, provides access to non-participating providers but at a higher copayment. TRICARE Extra and TRICARE Standard have no enrollment requirement or premiums but do have an annual deductible and relatively higher copayments than TRICARE Prime, which features an annual enrollment fee but no annual deductible and minimal copayments.

Impact

As with the exclusion for employer-provided health insurance, the value of the tax exclusion for health benefits for military personnel and their dependents, retirees, and other eligible individuals depend on a recipient's tax bracket. The higher the tax bracket, the greater the tax savings. For example, an individual in the 10-percent tax bracket (the lowest federal income tax bracket) avoids $10 in tax liability for every $100 of health benefits he or she may exclude; the tax savings rises to $35 for someone in the 35-percent tax bracket.

Tax saving for beneficiaries may be partly offset by changes to requirements for beneficiary cost-sharing. Various legislative changes to the TRICARE program have changed the overall amount that different categories of beneficiaries are required to pay out-of-pocket under the program. Active duty service members do not pay anything out-of-pocket. Active duty service members' family members may pay annual deductibles and copayments if they elect to use the TRICARE Standard/Extra options rather than TRICARE Prime. Military retirees and their dependents who are not Medicare-eligible pay an annual enrollment fee if they enroll in TRICARE Prime.

Rationale

The tax exclusion for health care received by the dependents of active-duty military personnel, retirees and their dependents, and other eligible individuals has evolved over time. The main forces driving this evolution have been legal precedent, legislative action by Congress, a series of regulatory rulings by the Treasury Department, and long-standing administrative practices.

In 1925, the United States Court of Claims, in its ruling in *Jones v. United States*, 60 Ct. Cl. 552 (1925), drew a sharp distinction between the pay and the allowances received by military personnel. The court ruled that housing and housing allowances for these individuals constituted reimbursements similar to other tax-exempt benefits received by employees in the executive and legislative branches.

Before this decision, the Treasury Department maintained that the rental value of living quarters, the value of subsistence allowances, and reimbursements should be included in the taxable income of military personnel. This view rested on an earlier federal statute, the Act of August 27, 1894 (which the courts subsequently deemed unconstitutional), which imposed a two-percent tax "on all salaries of officers, or payments to persons in the civil, military, naval, or other employment of the United States."

Under the Dependents Medical Care Act of 1956 (P.L. 84-569), the dependents of active-duty military personnel and retired military personnel and their dependents were allowed to receive medical care at military medical facilities on a "space-available" basis. Military personnel and their dependents gained access to civilian health care providers through the Military Medical Benefits Amendments Act of 1966 (P.L. 89-614), which created the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), the precursor of the TRICARE system.

The Tax Reform Act of 1986 (P.L. 99-514) consolidated various provisions related to military compensation into a new section 134 of the Internal Revenue Code. In taking this step, Congress wanted to make the tax treatment of military fringe benefits more transparent and consistent with the tax treatment of fringe benefits under the Deficit Reduction Act of 1984 (P.L. 98-369). Section 134 specifically excludes from gross income any "qualified military benefit" which is defined to include any allowance or in-kind benefit (other than personal use of a vehicle).

Even if there was no specific statutory exclusion for the health benefits received by military personnel and their dependents, a case for excluding them from taxation could be made on the basis of sections 105 and 106 of the Internal Revenue Code. These sections exclude from the taxable income of employees any employer-provided health benefits they receive.

Assessment

Most military fringe benefits resemble those offered by private employers, such as allowances for housing, subsistence, moving and storage expenses, higher living costs abroad, uniforms medical and dental benefits, education assistance, group term life insurance, and disability and retirement benefits. While few would dispute that medical readiness of active-duty personnel is critical to the military's mission and thus related medical treatment should not be taxed, health benefits for dependents of active-duty personnel and retirees and their dependents have more in common with an employer-provided fringe benefit.

Most of the economic issues raised by the tax treatment of military health benefits are similar to those associated with the tax treatment of civilian and employer-provided health benefits. A central concern is that a tax exclusion for health benefits encourages individuals to purchase excessive health insurance coverage and to use inefficient amounts of health care.

Nonetheless, some of the issues raised by military health benefits have no counterpart in the civilian sector. Direct care provided in military facilities may at times be difficult to value for tax purposes. At the same time, such care may be the only feasible option for dependents living with service members who have been assigned to regions where adequate civilian medical facilities are lacking.

Proposals to make the tax treatment of health care received by dependents of active-duty personnel less generous may have important implications for rates of enlistment in the military. Some argue that limiting the tax exclusion for health care received by dependents would need to be coupled with an increase in military pay to prevent adverse impacts on the retention of active-duty military personnel with dependents and incomes high enough to incur tax.

Selected Bibliography

Hamby, James E., Jr. "Tricare for Life Law Combines Medicare, Tricare Standard." *Air Force Times*, June 23, 2008, p. 43.

Jansen, Don J. *Military Medical Care Services: Questions and Answers*. Library of Congress, Congressional Research Service Report RL33537. Washington, DC: January 2, 2014.

— (Coordinator). *FY2014 National Defense Authorization Act: Selected Military Personnel Policy Issues*, Library of Congress, Congressional Research Service R43184. Washington, DC: February 24, 2014.

Mendezm, Bryce H. *Defense Primer: Military Health System*. Library of Congress, Congressional Research Service IF10530. Washington, DC: April 20, 2018.

Office of the Undersecretary of Defense (Comptroller)/CFO, *United States Department of Defense Fiscal Year 2019 Budget Request Overview*, February 2018.

Office of the Undersecretary of Defense (Personnel & Readiness) Department of Defense. *Evaluation of the TRICARE Program: Access, Cost and Quality Fiscal Year (FY) 2018 Report to Congress,* February 28, 2018.

U.S. Congress, Congressional Budget Office. *The Tax Treatment of Employment Based Health Insurance*. Washington, DC: March 1994.

—. Congressional Budget Office. *Analysis of Alternatives for Changing Military Health Care*. Washington, DC: October 11, 2017.

—. House. Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress, Public Law 99-514*. Washington, DC: U.S. Government Printing Office, 1987, pp. 828-830.

EXCLUSION OF HEALTH INSURANCE BENEFITS FOR MILITARY RETIREES AND RETIREE DEPENDENTS ENROLLED IN MEDICARE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.4	-	0.4
2019	0.4	-	0.4
2020	0.5	-	0.5
2021	0.5	-	0.5
2022	0.6	-	0.6

Authorization

Sections 112 and 134 and certain court decisions [see specifically *Jones v. United States*, 60 Ct. Cl. 552 (1925)].

Description

Active-duty and reserve component military personnel are provided with varieties of benefits (or cash payments in lieu of such benefits) that are not subject to taxation. Among such benefits are medical and dental care. Dependents of active-duty personnel, retired military personnel and their dependents, and survivors of deceased members are also eligible for these health benefits—and thus can take advantage of the tax exclusion.

Military dependents and retirees may be allowed to receive some of their medical care in military facilities and from military doctors, provided there is enough capacity. These individuals also have the option of being treated by civilian health-care providers working under contract with the Department of Defense (DOD). DOD currently relies on a program known as TRICARE to coordinate the medical care supplied by military and civilian providers.

TRICARE for Life is available to TRICARE beneficiaries who are eligible for Medicare. The Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (P.L. 106-398) included a provision that authorized the TRICARE for Life program by amending the law to allow uniformed services retirees and their dependents who are eligible for Medicare Part A and participate in Medicare Part B to retain their TRICARE coverage as a secondary payer to Medicare. In most cases, an individual must have served at least 20 years in the military or be medically retired to qualify for the coverage. Under the plan, in most cases, TRICARE for Life pays the out-of-pocket costs that a beneficiary would have to pay if they only had Medicare coverage. There is no enrollment fee or premiums for TRICARE for Life. Coverage is automatic once an eligible individual is enrolled in Medicare Part B.

Most medical services are covered by both Medicare and TRICARE for Life and for these there are no out-of-pocket costs for the beneficiary. When a TRICARE for Life beneficiary sees a Medicare provider (participating or nonparticipating) for medically necessary care covered by Medicare and TRICARE, the beneficiary will have no out-of-pocket costs. As the first payer, Medicare determines if the care provided was medically necessary. Tricare for Life follows Medicare's determination. If Medicare determines that the care is medically necessary, Medicare pays its portion of the claim first. Then, TRICARE pays the remaining amount if the care is a TRICARE-covered service. If Medicare determines that the care is not medically necessary, neither Medicare nor TRICARE pays, and the beneficiary is responsible for the whole bill, but can appeal the decision. If Medicare reconsiders and decides to cover the service, TRICARE for Life also will reprocess the claim.

For care that is only covered by Medicare, like chiropractic care, Medicare processes the claim and pays its portion. TRICARE pays nothing, and the beneficiary is responsible for the Medicare deductible and cost-shares.

When a beneficiary gets care that only TRICARE covers, like TRICARE-covered services received overseas, TRICARE pays the TRICARE allowable charge and Medicare pays nothing. The beneficiary pays the TRICARE for Life deductible, cost-shares and any amount billed in excess of TRICARE allowable charge.

Impact

As with the exclusion for employer-provided health insurance, the value of the tax exclusion for health benefits for military personnel and their

dependents, retirees, and other eligible individuals depend on a recipient's tax bracket. The higher the tax bracket, the greater the tax savings. For example, an individual in the 10-percent tax bracket (the lowest federal income tax bracket) avoids $10 in tax liability for every $100 of health benefits he or she may exclude; the tax savings rises to $35 for someone in the 35-percent tax bracket.

Tax saving for beneficiaries may be partly offset by changes to requirements for beneficiary cost-sharing. TRICARE for Life beneficiaries pay copayments for name brand prescription drugs and for prescriptions filled at retail pharmacies. The shifting of costs from the TRICARE program to the beneficiary reduces the tax savings realized by the beneficiary.

Rationale

The tax exclusion for health care received by the dependents of active-duty military personnel, retirees and their dependents, and other eligible individuals has evolved over time. The main forces driving this evolution have been legal precedent, legislative action by Congress, a series of regulatory rulings by the Treasury Department, and long-standing administrative practices.

In 1925, the United States Court of Claims, in its ruling in *Jones v. United States*, 60 Ct. Cl. 552 (1925), drew a sharp distinction between the pay and the allowances received by military personnel. The court ruled that housing and housing allowances for these individuals constituted reimbursements similar to other tax-exempt benefits received by employees in the executive and legislative branches.

Before this decision, the Treasury Department maintained that the rental value of living quarters, the value of subsistence allowances, and reimbursements should be included in the taxable income of military personnel. This view rested on an earlier federal statute, the Act of August 27, 1894 (which the courts subsequently deemed unconstitutional), which imposed a two-percent tax "on all salaries of officers, or payments to persons in the civil, military, naval, or other employment of the United States."

Under the Dependents Medical Care Act of 1956 (P.L. 84-569), the dependents of active-duty military personnel and retired military personnel and their dependents were allowed to receive medical care at military medical facilities on a "space-available" basis. Military personnel and their dependents gained access to civilian health care providers through the Military Medical

Benefits Amendments Act of 1966 (P.L. 89-614), which created the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), the precursor of the TRICARE system.

The Tax Reform Act of 1986 (P.L. 99-514) consolidated various provisions related to military compensation into a new section 134 of the Internal Revenue Code. In taking this step, Congress wanted to make the tax treatment of military fringe benefits more transparent and consistent with the tax treatment of fringe benefits under the Deficit Reduction Act of 1984 (P.L. 98-369). Section 134 specifically excludes from gross income any "qualified military benefit" which is defined to include any allowance or in-kind benefit (other than personal use of a vehicle).

Even if there was no specific statutory exclusion for the health benefits received by military personnel and their dependents, a case for excluding them from taxation could be made on the basis of sections 105 and 106 of the Internal Revenue Code. These sections exclude from the taxable income of employees any employer-provided health benefits they receive.

Assessment

Most military fringe benefits resemble those offered by private employers, such as allowances for housing, subsistence, moving and storage expenses, higher living costs abroad, uniforms medical and dental benefits, education assistance, group term life insurance, and disability and retirement benefits. While few would dispute that medical readiness of active-duty personnel is critical to the military's mission and thus related medical treatment should not be taxed, health benefits for dependents of active-duty personnel and retirees and their dependents have more in common with an employer-provided fringe benefit.

Most of the economic issues raised by the tax treatment of military health benefits are similar to those associated with the tax treatment of civilian and employer-provided health benefits. A central concern is that a tax exclusion for health benefits encourages individuals to purchase excessive health insurance coverage and use inefficient amounts of health care.

Nonetheless, some of the issues raised by military health benefits have no counterpart in the civilian sector. Direct care provided in military facilities may at times be difficult to value for tax purposes. At the same time, such care may be the only feasible option for dependents living with service members

who have been assigned to regions where adequate civilian medical facilities are lacking.

Proposals to make the tax treatment of health care received by dependents of active-duty personnel less generous may have important implications for rates of enlistment in the military. Some argue that limiting the tax exclusion for health care received by dependents would need to be coupled with an increase in military pay to prevent adverse impacts on the retention of active-duty military personnel with dependents and incomes high enough to incur tax.

Selected Bibliography

Hamby, James E., Jr. "Tricare for Life Law Combines Medicare, Tricare Standard." *Air Force Times*, June 23, 2008, p. 43.

Jansen, Don J. *Military Medical Care Services: Questions and Answers*. Library of Congress, Congressional Research Service Report RL33537. Washington, DC: January 2, 2014.

— (Coordinator). *FY2014 National Defense Authorization Act: Selected Military Personnel Policy Issues*, Library of Congress, Congressional Research Service R43184. Washington, DC: February 24, 2014.

Mendezm, Bryce H. *Defense Primer: Military Health System*. Library of Congress, Congressional Research Service IF10530. Washington, DC: April 20, 2018.

Office of the Undersecretary of Defense (Comptroller)/CFO. *United States Department of Defense Fiscal Year 2019 Budget Request Overview*, February 2018.

Office of the Undersecretary of Defense (Personnel & Readiness) Department of Defense. *Evaluation of the TRICARE Program: Access, Cost and Quality Fiscal Year (FY) 2018 Report to Congress,* February 28, 2018.

U.S. Congress, Congressional Budget Office. *Analysis of Alternatives for Changing Military Health Care*. Washington, DC: October 11, 2017.

—. House. Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress, Public Law 99-514*. Washington, DC: U.S. Government Printing Office, 1987, pp. 828-830.

CREDIT FOR ORPHAN DRUG RESEARCH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	1.1	1.1
2019	([1])	1.1	1.1
2020	([1])	1.3	1.3
2021	([1])	1.6	1.6
2022	([1])	1.8	1.8

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 41(b), 45C, and 280C.

Description

Since 1983, businesses investing in the development of drugs to diagnose, treat, or prevent rare diseases and conditions have been able to claim a non-refundable tax credit for a portion of the qualified clinical testing expenses they incur or pay during the development process. From its inception in 1984 to 2017, the credit rate was 50 percent; P.L. 115-97 reduced it to 25 percent for tax years beginning in 2018 and thereafter. These drugs are known as orphan drugs. Clinical testing expenses qualify for the credit if they are incurred or paid after the U.S. Food and Drug Administration's (FDA) Office of Orphan Products Development (OOPD) has granted orphan status to a drug but before the FDA has approved it for use in the United States.

Section 526 of the Federal Food, Drug, and Cosmetic Act defines a rare disease or condition as one that affects fewer than 200,000 persons in the United States, or one that affects more than 200,000 people in the United States but for which there is no "reasonable expectation" of recovering the cost of developing the drug from U.S. sales alone.

No credit is allowed for clinical testing conducted outside the United States, except in cases where the company developing an orphan drug cannot obtain reliable and reproducible clinical testing data from trials conducted in the United States and the testing is done by an unrelated entity.

The orphan drug credit has been a component of the section 38 general business credit (GBC) since 1997; as a result, it is subject to the GBC's limitations. For most of the 32 credits (including the orphan drug tax credit or ODTC) that make up the GBC, any unused credit for the current tax year can be carried back one year or forward up to 20 years. From 1983 to 1994, the ODTC could be used only for the current year; no carryforwards or carrybacks were permitted. Moreover, during that period, the credit could be used only to the extent that a company's regular income tax liability, reduced by any non-refundable personal tax credits and foreign tax credit it could claim, exceeded its tentative alternative minimum tax liability. The carryforward and carryback periods were 15 years and three years, respectively, for ODTCs earned between July 1, 1996 and December 31, 1997.

Clinical testing expenses are defined as the sum of the in-house and contract research expenses a company pays or incurs to determine if a new investigative drug is safe and effective in treating the targeted diseases and conditions. Not all of the expenses associated with clinical trials for orphan drugs qualify for the credit. Specifically, while supplies and salaries do qualify, depreciable property (such as buildings and equipment) does not. In general, the expenses that qualify for the orphan drug tax credit are also likely to qualify for the section 41 credit for increasing research expenses.

To prevent a company from receiving a double tax benefit for the same expenditure, the tax code restricts the credits and deductions a company claiming the ODTC may take in the same year. More specifically, expenses used to claim the ODTC cannot also be used to claim the section 41 research tax credit. In addition, while expenses that qualify for the ODTC may also be deducted in the year when they are incurred or paid as qualified research expenditures under section 174(a), a company claiming the credit is required to reduce its section 174(a) deduction by the amount of the credit.

For tax years beginning after December 31, 2017, a company has the irrevocable option of claiming a reduced ODTC instead of reducing otherwise allowable deductions by the amount of the credit. Under this option, the credit is equal to the excess of the amount of the credit determined without the reduction over that amount multiplied by a company's maximum income tax rate.

A drug does not qualify for the section 45C credit if the FDA has already approved another drug to treat the same disease or condition and the producer of that drug has claimed the credit.

Impact

The orphan drug tax credit gives drug companies an incentive to invest in the development of drugs they otherwise might ignore because of the small size of the potential market and its limited profit potential. Orphan drugs generally have presented relatively weak prospects for earning a profit during the period of patent protection. There are two reasons for this. First, orphan drugs tend to be as costly to develop as other patented drugs. Second, the potential worldwide market for them is much smaller, on average, than it is for patented drugs to treat common and chronic diseases and conditions.

The credit offers several noteworthy benefits for drug companies. It lowers the cost of capital for investments in orphan drug development, relative to other investments a drug company might make. The credit also increases the cash flow of companies investing in orphan drug development, an effect that is especially beneficial for smaller drug companies that tend to rely heavily on internal cash to finance new investments. And the orphan drug credit is much more generous at the margin than the research tax credit. For example, a drug company investing $100 million in clinical trials for a new non-orphan drug would be able to claim a research tax credit for the trial expenses that would be smaller at the margin (9.1 percent or 13.0 percent, depending on which research tax credit a company claims) than the credit (25 percent at the margin) it could take if it were to invest the same amount in clinical trials for a new orphan-designated drug.

But the credit benefits only companies with positive tax liabilities, since it is non-refundable. This means that the typical small start-up company investing in the development of an orphan drug may be unable to take advantage of it during its first few years of operation, when its expenses are likely to exceed its revenue and its cash flow may be a problem.

To the extent that the credit has expanded and accelerated the development of orphan drugs, it has extended and improved the lives of many people suffering from a rare disease and condition. According to the OOPD, only 10 such medicines were approved during the decade before the enactment of the Orphan Drug Act, but the number of approved orphan drugs jumped to 88 during the decade following its enactment. Between 1983 and 2016, the FDA approved 590 such drugs for marketing in the United States. According

to the National Organization for Rare Disorders, an estimated 30 million Americans suffer from about 7,000 known rare diseases or conditions.

Rationale

The ODTC was established by the Orphan Drug Act of 1983 (ODA, P.L. 97-414). It was one of four incentives for orphan drug development included in the act. The others were (1) federal grants to cover part of research expenses, (2) a seven-year period of marketing exclusivity for orphan drugs approved by the FDA, and (3) a waiver of FDA application fees for investigative orphan drugs.

Under the act, the sole test for determining whether a drug should have orphan status was the absence of a reasonable expectation of recovering its cost of development from U.S. sales alone. The test soon proved to be a drag on new private investment in orphan drug development, as it required drug companies to provide detailed proof that a drug in development would end up being unprofitable. So to fix the problem, Congress in October 1984 passed the Health Promotion and Disease Prevention Amendments of 1984 (P.L. 98-551, which included a new eligibility test for orphan drug status. Under the provision, a drug qualified for orphan status if it met one of two tests: (1) the estimated domestic market did not exceed 200,000 persons, or (2) the estimated domestic market exceeded 200,000 persons but there was no realistic prospect of earning a profit from U.S. sales alone in the long run.

The initial orphan drug credit was scheduled to expire at the end of 1987, but it was extended by four laws: the Tax Reform Act of 1986 (P.L. 99-514), the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508), the Tax Extension Act of 1991 (P.L. 102-227), and the Omnibus Reconciliation Act of 1993 (P.L. 103-66). The credit did expire at the end of 1994, but it was reinstated from July 1, 1996 through May 31, 1997 by the Small Business Job Protection Act of 1996 (P.L. 104-88), which also allowed taxpayers with unused orphan drug credits earned in that period to carry them back up to three tax years or forward up to 15 tax years. The Taxpayer Relief Act of 1997 permanently extended the credit and made it a component of the section 38 general business credit.

In addition, sellers of orphan drugs for which the section 45C credit has been taken are exempt from the annual fee imposed on manufacturers and importers that receive more than $5 million in gross receipts from the sale of eligible branded prescription drugs to specified federal government health programs. The fee was established by the Patient Protection and Affordable

Care Act (ACA, P.L. 111-148). Under final regulations (26 CFR Parts 51 and 602) issued by the Internal Revenue Service (IRS) on July 28, 2014, no fee may be imposed on any drug for which a credit "was allowed for any taxable year under section 45C," as specified in section 9008(e)(3) of the ACA.

The 2017 tax revision (P.L. 115-97) lowered the rate for the credit from 50 percent to 25 percent and gave companies the option of claiming a reduced credit in lieu of reducing otherwise allowable deductions by the amount of the credit. These changes took effect in 2018.

Assessment

Assessing the effects of the section 45C credit is challenging because it is one of several incentives enacted as a package in 1983 to stimulate increased private investment in orphan drug development. Since then, these incentives have operated in tandem to promote the objectives of the ODA. As a result, the substantial gains in orphan drug approvals since 1983 reflect the combined influence of the entire package of incentives, not just one or two. Therefore, this assessment of the effectiveness of the orphan drug tax credit is based in part on the synergism of those incentives.

Supporters of the section 45C credit and the other incentives for orphan drug development created by the ODA say there is ample proof that they have been highly effective in increasing the domestic availability of medicines to treat, diagnose, or prevent rare diseases and conditions. From 1983 to 2013, drug companies and other sponsors (e.g., hospitals, individuals, and universities) submitted more than 3,920 requests to the OOPD for orphan designation for products they developed; over 2,720 of the requests were granted; and the FDA approved 441of those products for sale in the United States. Some of these orphan drugs are widely regarded as novel and innovative treatments.

According to a 2015 study by Ernst & Young for the Biotechnology Industry Organization and the National Organization for Rare Disorders, in the absence of the orphan drug credit, 277 fewer new orphan drugs would have been developed from 1983 to 2014. The study also estimated that repeal of the credit would result in 276 fewer orphan drugs entering the development pipeline from 2015 to 2024. These declines were attributed to the higher cost of capital for orphan drug development without the credit.

While most agree that the ODA incentives have had a positive effect on domestic investment in orphan drug development, some question the desirability of those results.

Critics note that even with the passage of the ODA, less than five percent of registered rare diseases have been treated with some kind of drug.

They also point out that some pharmaceutical and biotechnology firms have used the ODA's incentives to develop and market drugs that have earned billions of dollars in sales revenue worldwide after their approval by the FDA as orphan drugs. In their view, these companies probably would have developed many of these drugs without the ODA incentives.

The billions in sales revenue earned by orphan drugs developed since 1983 is due in part to the high prices companies charge for use of the drugs. In some cases, the annual cost of treatment totals six digits, and annual price increases have reached 1,000 percent. Critics say that current orphan drug pricing practices are having the unintended and perverse effect of denying timely access to life-sustaining and life-enhancing medicines to many persons because they cannot afford them.

Another issue raised by critics concerns the desirability of using federal subsidies to alter the allocation of investment within the drug industry. Some argue that it makes no sense during a period of large federal budget deficits for federal policy to encourage the diversion of private capital from the development of drugs to treat diseases and conditions that affect a broad range of people to the development of drugs that benefit relatively few individuals. This issue has grown in significance in recent years as larger pharmaceutical firms have begun to invest more and more in the development of personalized therapies (mainly drugs targeting specific cancers) and orphan drugs. The economics of new drug development has changed in recent years in ways that have made investment in orphan drug development more profitable than investment in non-orphan drug development, on average. On the whole, orphan drugs have lower development costs and a greater likelihood of commanding high prices than other medicines. One consequence of this pervasive shift in the research priorities of pharmaceutical companies has been reduced interest in developing new drugs to treat bacterial infections, cardiovascular disease, HIV/AIDS, depression, and Alzheimer's disease, among other conditions with a broader reach than the conditions targeted by orphan drugs.

To address these concerns about the market for orphan drugs, some critics recommend modifying the ODA incentives to encourage greater competition in the development of specific orphan drugs, and to limit the financial gains from investing in orphan drug development. One option for promoting greater competition would be to reduce the economic barriers to early-phase orphan drug development for companies that cannot fully benefit from the ODTC because they earn insufficient profits from existing products. Options for deterring drug companies from using the ODA incentives to develop blockbuster medicines include capping the revenue a company can earn from the worldwide sale of an FDA-approved orphan drug and shortening the period for marketing exclusivity when worldwide profits from the sale of the drug exceed a certain amount.

Selected Bibliography

Dalton, Matthew, "IRS Urged to Revise Definition of Orphan Drug," *Tax Notes*, November 19, 2012, p. 866.

Edgerly, Maureen, "Regulatory: Orphan Drug Regulation," *Research Practitioner*, vol. 3 (Jan.-Feb. 2002), pp. 21-23.

Ernst & Young, "Impact of the Orphan Drug Tax Credit on Treatments for Rare Diseases," June 2015.

Flynn, John J., "The Orphan Drug Act: An Unconstitutional Exercise of the Patent Power," *Utah Law Review*, no. 2 (1992), pp. 389-447.

Grabowski, Henry, "Encouraging The Development of New Vaccines," *Health Affairs*, vol. 24, no. 3 (2005), pp. 697-700.

Haffner, Marlene E., "Orphan Products — Ten Years Later and Then Some," *Food and Drug Law Journal*, vol. 49 (1994), pp. 593-601.

—, "Adopting Orphan Drugs: Two Dozen Years of Treating Rare Diseases," *New England Journal of Medicine*, vol. 354, no. 5 (2006), p. 445.

—, Joseph Torrent-Farnell, and Paul D. Maher, "Does Orphan Drug Legislation Really Answer the Needs of Patients," *The Lancet*, vol. 371, no. 9629 (June 2008), p. 2041.

Hemphill, Thomas A., "Extraordinary Pricing of Orphan Drugs: Is it a Socially Responsible Strategy for the U.S. Pharmaceutical Industry?" *Journal of Business Ethics*, v. 94 (2010), pp. 225-242

Korniakov, Alexander, David Pauls, and Tom Hopkins, "Research and Orphan Drug Tax Credits: Base Period Adjustments," *Tax Notes*, June 2, 2014, pp. 1039-1045.

Lee, Grace, *Orphan Drug Act: Fostering Innovation of Abuse?* Issue Brief, Source Blog, December 12, 2017, http://sourceonhealthcare.org/orphan-drug-act-fostering-innovation-or-abuse/.

Love, James and Michael Palmedo, *Costs of Human Use Clinical Trials: Surprising Evidence from the US Orphan Drug Act*, Consumer Project on Technology, November 28, 2001, http://www.cptech.org.

Meekings, Kiran N., Cory Williams, and John E. Arrowsmith, "Orphan Drug Development: An Economically Viable Strategy for Biopharma R&D," *Drug Discovery Today*, vol. 17 (2012), pp. 660-664.

Phillips, Ian, "Big Pharma's New Model in Orphan Drugs and Rare Diseases," *Expert Opinion on Orphan Drugs*, v. 1 (2013), pp 1-3.

Porter, Eduardo, "A Dearth of Innovation for Key Drugs," *New York Times*, July 22, 2014.

Seoane-Vazquez, Enrique, Rosa Rodriquez-Monguio, Sheryl L. Szeinbach, and Jay Visaria, "Incentives for Orphan Drug Research and Development in the United States," *Journal of Rare Diseases*, vol. 33, no. 3 (2008).

Sharma, Aarti, Abraham Jacob, Manas Tandon, and Dushyant Kumar, "Orphan Drugs: Development Trends and Strategies," *Journal of Pharmacy and BioAllied Sciences*, vol. 2, no. 4 (October-December 2010), pp. 290-299.

Thompson Reuters, *The Economic Power of Orphan Drugs*, 2012.

U.S. Government Accountability Office, *Drug Industry: Profits, Research and Development, and Merger and Acquisition Deals*, GAO-18-40 (Washington, DC: November 2017).

Valverde, Ana M., Shelby D. Reed, and Kevin A. Schulman, "Proposed 'Grant-And-Access' Program With Price Caps Could Stimulate Development of Drugs For Very Rare Diseases," *Health Affairs*, vol. 31, no. 11 (2012), pp. 2528-2535.

Yin, Wesley, "Market Incentives and Pharmaceutical Innovation," *Journal of Health Economics*, vol. 27 (2008), pp. 1060-1077.

TAX CREDIT FOR SMALL BUSINESSES PURCHASING EMPLOYER INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.5	0.1	0.6
2019	0.6	0.1	0.7
2020	0.6	0.1	0.7
2021	0.7	0.1	0.8
2022	0.7	0.1	0.8

Note: Estimates include outlay effects associated with the refundability of tax credits for small businesses purchasing employer insurance. These outlay effects are $0.1 billion (2017), $0.1 billion (2018), $0.1 billion (2019), $0.1 billion (2020), and $0.1 billion (2021).

Authorization

Section 45R.

Description

Small businesses with less than 25 full-time equivalent employees and average wages less than $50,000 (adjusted annually for inflation after 2013) may be eligible for a credit of 50 percent of the employer's payment for two years (35 percent for tax-exempt entities). For tax-exempt organizations, the credit will be in the form of a reduction in income and Medicare tax the employer is required to withhold from employees' wages and the employer share of Medicare tax on employees' wages (with the credit thus limited by these amounts). The employer must pay 50 percent of the health plan cost. The credit is against income tax, so small employers without tax liability will receive no current benefit and small employers with inadequate tax liability will not receive the full current benefit. Credits can be carried backward one year (except in the first year offered) and forward 20 years.

The credit is phased out both by size and average income in an additive fashion. The credit is reduced by the number of employees over 10, divided by 15; the credit is also reduced by average wages over $25,000 divided by $25,000 (adjusted annually for inflation after 2013). A business with 10 or fewer employees and $25,000 or less in average wages will receive a credit of 50 percent. If the wages remain at $25,000 or less but employee size rises to 15, the credit is reduced by 33.3 percent (15 minus 10, all divided by 15, or 1/3) or, from a 50 percent credit to 33.3 percent credit. If average wages are $30,000 but size is 10 or less, the credit is reduced by 20 percent ($30,000 minus $25,000, all divided by $25,000, or 1/5), or, from a 50 percent credit to 40 percent credit. If both occur, both phaseouts are added, so for a firm with 15 employees and $30,000 in average wages both the 33.3 percent and the 20 percent apply for a reduction of 53.3 percent. This phaseout would reduce the 50 percent credit to a 23.35 percent credit.

Impact

This provision reduces the cost to some small employers of providing health insurance coverage for their employees. According to 2015 Census Bureau data, this provision could provide a credit to nearly 92 percent of all U.S. employer firms. These businesses employ about 19 percent of U.S. employees. Smaller businesses also tend to have a lower rate of offering employee health benefits. According to the Kaiser Family Foundation's 2017 Employer Health Benefits Annual Survey, 40 percent of firms employing three to nine workers offered health benefits, and 66 percent of firms employing 10 to 24 workers offered health benefits. By comparison, 78 percent of firms employing 25 to 49 workers offered health benefits, and 92 percent of firms employing 50 to 199 workers offered health benefits.

Rationale

This provision was enacted as part of the Patient Protection and Affordable Care Act (P.L. 111-148), as amended by the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152), to offset the cost to small business of providing health insurance coverage for their employees.

Assessment

Although 4.4 million employers were potentially eligible, the Internal Revenue Service indicated 228,000 taxpayers claimed $278 million in credits in 2010, according to the Department of the Treasury's Inspector General. A 2012 report by the Government Accountability Office (GAO) indicated an

even smaller number of beneficiaries for the 2010 tax year: 170,300 beneficiaries claiming a total of $468 million in credits. GAO suggested that the credit was not as popular as expected because it was not generous enough to induce firms to offer insurance. Most small businesses that would otherwise be eligible for the credit did not offer health insurance (either because it was too costly for the business or the employees). Additionally, many small businesses felt that claiming the credit was too complex.

This credit is not available to all businesses. In addition to those disqualified by the size and average wage limitations, firms with insufficient or no tax liability receive limited or no benefit from the provision—thus reducing the effectiveness of the credit in increasing the provision of employer provided health insurance by small firms.

Selected Bibliography

Executive Office of the President, Council of Economic Advisers. *The Economic Effects of Health Care Reform on Small Businesses and their Employees*. July 25, 2009.

Fairlie, Robert W. and Kanika Kapur. "Is Employer-Based Health Insurance a Barrier to Entrepreneurship?" *Journal of Health Economics,* vol. 30, no. 1, September 21, 2010.

Forsberg, Vanessa C. *Overview of Health Insurance Exchanges*. Library of Congress, Congressional Research Service Report R44065. Washington DC: June 20, 2018.

Harrington, Scott E. "U.S. Health-Care Reform: The Patient Protection and Affordable Care Act." *Journal of Risk and Insurance,* vol. 33, no. 3, pp. 703-8, September 2010.

Herring, Bradley and Mark V. Pauly. "'Play-or-Pay' Insurance Reforms for Employers—Confusion and Inequity." *New England Journal of Medicine,* vol. 362, no. 2, January 14, 2010.

Kaiser Family Foundation. *Employer Health Benefits Annual Survey*. 2017, p. 39.

Lowry, Sean. *Health-Related Tax Expenditures: Overview and Analysis*. Library of Congress, Congressional Research Service Report R44333. Washington DC: January 8, 2016.

Lowry, Sean and Jane G. Gravelle. *The Affordable Care Act and Small Business: Economic Issues*. Library of Congress, Congressional Research Service Report R43181. Washington DC: January 15, 2015.

Mach, Annie L. *Summary of Small Business Health Insurance Tax Credit Under the Patient Protection and Affordable Care Act (ACA)*. Library of Congress, Congressional Research Service Report R41158. Washington DC: November 4, 2014.

U.S. Census Bureau. *Statistics of U.S. Business Annual Data for 2015*.

U.S. Congress, Joint Committee on Taxation. Exclusion For Employer-Provided Health Benefits And Other Health-Related Provisions Of The Internal Revenue Code: Present Law And Selected Estimates (JCX-25-16), 112th Cong., April 12, 2016.

—. Technical Explanation of the Revenue Provisions of the "Reconciliation Act of 2010," As Amended, in Combination with the "Patient Protection and Affordable Care Act" (JCX-18-10), 111th Cong., March 21, 2010, pp. 134-136.

U.S. Department of the Treasury, Inspector General for Tax Administration. Affordable Care Act: Efforts to Implement the Small Business Health Care Tax Credit Were Mostly Successful, but Some Improvements Are Needed, 2011-40-103, September 19, 2011.

U.S. Government Accountability Office. *Small Employer Health Tax Credit: Factors Contributing to Low Use and Complexity*, GAO-12-549, 2012.

SUBSIDIES FOR INSURANCE PURCHASED THROUGH HEALTH BENEFIT EXCHANGES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	49.2	-	49.2
2019	53.2	-	53.2
2020	56.8	-	56.8
2021	63.5	-	63.5
2022	71.0	-	71.0

Note: Estimates include outlay effects associated with the refundability of subsidies for insurance purchased through health benefit exchanges for certain taxfilers. These outlay effects are $42.7 billion (2018), $47.9 billion (2019), $48.1 billion (2020), $57.16 billion (2021), and $64.0 billion (2022).

Authorization

Section 36B.

Description

Beginning in 2014, the Patient Protection and Affordable Care Act of 2010 (ACA; P.L. 111-148) requires most U.S. citizens and legal residents to obtain health coverage ("individual mandate"). The ACA established penalties for individuals and families without coverage. The law also established exchanges, which limit premium differences for purchase of individual health insurance by those not covered by employer plans. Although this individual mandate penalty is reduced to $0 beginning in 2019, the ACA still includes a refundable tax credit to reduce the cost of health insurance premiums purchased through exchanges.

The premium assistance tax credit provides a tax benefit to limit the cost of premiums to a fixed percentage of household income. The progressive

limits on premium costs begin with households that have income less than 133 percent of the federal poverty line (FPL) and rise in several increments until 400 percent of the FPL. For the purposes of the premium tax credit, eligibility for a certain year is based on the most recently published set of federal poverty guidelines on the first day of the annual open enrollment period. For example, the tax credit for 2018 is based on the 2017 FPL guidelines.

Eligible participants can choose to either: (1) have the credit paid in advance to their insurance company to lower the cost of monthly premiums, or (2) claim all of the credit when they file a tax return for the year. If the participant chooses to have the credit paid in advance, then they will reconcile the amount paid in advance with the actual credit computed on their tax return. For purposes of the credit, income is adjusted gross income plus excluded income earned abroad (Section 911) and tax-exempt interest.

Participants must provide information from their federal income tax return from the previous year. The individual cannot be eligible for other coverage, including Medicare, Medicaid, the Children's Health Insurance Program (CHIP), military coverage, a grandfathered plan or any other coverage designated by the Secretary of the Treasury. Individuals who are offered minimum essential coverage by employers are also not eligible unless the coverage is unaffordable (employee premiums are more than 9.5 percent of income) or the employer's share is less than 60 percent, and the employee declines the insurance.

The credit can be applied to any plan but is measured as the difference between the cost of the second lowest-cost silver plan (as defined in statute) and the amount of the premium limited by the income level. The credit is payable in advance directly to the insurer. It is not taxable to individuals and families.

Impact

According to the Kaiser Family Foundation, as of March 15, 2018, approximately 10.6 million people are enrolled in marketplace exchanges. This includes individuals enrolled in both state- and federally-managed exchanges. Of these 10.6 million enrollees, 9.2 million (86.7 percent) enrollees received premium tax credits that could be advanced to their insurer, thereby lowering monthly premium costs. These subsidies are greatest for households with low or moderate income, but at least a portion of the credit can be claimed by households with income up to 400 percent of the FPL ($98,400 in tax year

2018, based on 2017 FPL guidelines, for a family of four, living in the continental United States).

Rationale

This provision was enacted as part of the Patient Protection and Affordable Care Act (ACA; P.L. 111-148), in combination with the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152). The objective of the legislation was to provide near universal health coverage. The premium credit is provided to relieve the financial burden of health insurance premiums on lower- and moderate-income individuals.

On June 28, 2012, the Supreme Court's ruling in *NFIB v. Sebelius*, found the Act, including the penalties under the individual mandate, to be constitutional. On June 25, 2015, the Supreme Court's ruling in *King v. Burwell* held that the premium tax credits are available to individuals who purchase insurance through federally established exchanges, and not just to those who purchase insurance through state-run exchanges.

The 2017 tax revision (P.L. 115-97) reduces the individual mandate penalty to $0 beginning in 2019 (i.e., the penalty is in effect through 2018). Before this change, the penalty in 2018 would have been the greater of 2.5 percent of an applicable income measure or $695. However, P.L. 115-97 does not make any other substantive changes to the statutory language establishing the mandate and its associated penalty.

Assessment

The premium assistance credits not only provide relief from the financial burden of health insurance, but also create incentives for lower- and moderate-income families to purchase health insurance. Although insurance purchase is not mandatory, penalties are imposed if insurance is not purchased. Since the penalties are generally smaller than the cost of insurance for low-income families, without premium assistance, some families may find it more feasible to pay the penalty (especially in 2019 and beyond, when the penalty is $0).

As with certain other tax expenditures (such as the earned income credit or the tuition tax credit), the tax system is used as a delivery mechanism to achieve goals of programs (such as education, health and income transfers) that could be provided through other mechanisms. While using the tax system increases the complexity of tax administration, the tax system has some administrative advantages. As compared to an alternative delivery system (where, for example, monthly income is used), tax administration allows

subsidies to be based on annual family income. The credit also avoids some of the drawbacks of certain tax benefits, as many qualifying households elect to take the benefits in the form of advance payments (made monthly to the insurance company) rather than wait to claim the credit when they file their taxes.

On October 13, 2017, the Trump Administration decided to halt the ACA's cost-sharing reduction (CSR) payments to insurers participating in the exchanges after the deadline passed for insurers planning to offer coverage in the federal marketplace to finalize premiums for 2018. These CSR payments reduce the out-of-pocket costs (e.g., co-pays and deductibles) of lower-income enrollees. Some insurers could have increased their 2018 marketplace premiums as a means to hedge against potential losses in the event of the halting of CSR payments. If so, then this risk-hedging strategy could have led to temporary increases in premium tax credits, issued under Section 36B, as the credit amounts are benchmarked to the second lowest cost silver plan available in the marketplace in the enrollee's local area.

Selected Bibliography

Blumberg, Linda J., Matthew Buettgens, and Robin Wang. *How Would Coverage, Federal Spending, and Private Premiums Change if the Federal Government Stopped Reimbursing Insurers for the ACA's Cost-Sharing Reductions?* Urban Institute, Washington, DC, September 2017.

Fernandez, Bernadette. *Eligibility and Determination of Health Insurance Premium Tax Credits and Cost-Sharing Subsidies*, Library of Congress, CRS Report R44425, April 24, 2018.

Frean, Molly, Jonathan Gruber, and Benjamin D. Sommers. "Premium Subsidies, the Mandate, and Medicaid Expansion: Coverage Effects of the Affordable Care Act," *Journal of Health Economics*, vol. 53, May 2017, pp. 72-86.

Harrington, Scott E. "U.S. Health-Care Reform: The Patient Protection and Affordable Care Act," *The Journal of Risk and Insurance,* vol. 33, no. 3, September 2010, pp. 703-708.

Kaiser Family Foundation. "Total Marketplace Effectuated Enrollment and Financial Assistance," February 2018.

Kamal, Rabah et al. *How the Loss of Cost-Sharing Subsidy Payments is Affecting 2018 Premiums*. Kaiser Family Foundation, Menlo Park, CA, October 2017.

Lowry, Sean. *Health-Related Tax Expenditures: Overview and Analysis*. Library of Congress, CRS Report R44333. Washington DC, January 8, 2016.

Lunder, Erika K. and Jennifer A. Staman. *NFIB v. Sebelius: Constitutionality of the Individual Mandate*, Library of Congress, CRS Report R42698, September 3, 2012.

Rosso, Ryan J. *The Individual Mandate for Health Insurance Coverage: In Brief*, Library of Congress, CRS Report R44438, March 19, 2018.

U.S. Congress, Congressional Budget Office. *Letter to Speaker Pelosi, PPACA Cost Estimate*, March 20, 2010.

—. *Repealing the Individual Health Insurance Mandate: An Updated Estimate*, November 8, 2017.

—. Joint Committee on Taxation. Exclusion For Employer-Provided Health Benefits And Other Health-Related Provisions Of The Internal Revenue Code: Present Law And Selected Estimates, committee print, 112th Cong., April 12, 2016, JCX-25-16.

—. Technical Explanation of the Revenue Provisions of the "Reconciliation Act of 2010," As Amended, in Combination with the "Patient Protection and Affordable Care Act," committee print, 111th Cong., March 21, 2010, JCX-18-10, pp. 134-136.

U.S. Department of Health and Human Services. *Health Plan Choice and Premiums in the 2017 Health Insurance Marketplace, 2017*. ASPE Research Brief, October 24, 2016.

Income Security

EXCLUSION OF DISASTER MITIGATION PAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 139.

Description

Payments made for disaster mitigation (that is, payments made to mitigate damages for future hazards) under the Robert T. Stafford Disaster Relief and Emergency Insurance Act or the National Flood Insurance Act are excluded from income. Gain from the sale of property is not eligible, but sale under a disaster mitigation program is treated as an involuntary conversion, with deferral of gain pending replacement. The basis of any property is not increased as a result of improvements due to disaster mitigation payments.

Impact

Disaster mitigation grants cover a variety of mitigation expenditures such as securing items (e.g., wall-mounting appliances) to reduce potential damage from earthquakes, putting houses on stilts to reduce flood damage, tie-downs for mobile homes to protect against hurricanes and other windstorms, creating safe rooms, and securing roofs and windows from wind damage. The tax exclusion from mitigation payments increases the value of these payments.

The tax exemption is most beneficial for higher-income individuals who have higher marginal tax rates. Even individuals with relatively low incomes could be subject to tax, however, since the mitigation payments can be large when used for major construction projects (such as putting houses in flood plains on stilts). These individuals might not have enough income to pay taxes on these grants and taxation might cause them not to participate in the program.

To the extent the payments increase the value of the property, they could be taxed as capital gains in the future, although most individuals do not pay capital gains tax on owner-occupied housing, and the capital gains tax rate is reduced for individuals.

Rationale

This provision was added by P.L. 109-7, Proper Tax Treatment of Certain Disaster Mitigation Payments. The mitigation program had been in effect for about 15 years, but did not specify that these amounts would be taxable. In general, recipients had not paid tax on these grants. In June 2004, the IRS ruled that these payments, without a specific exemption in the law, were taxable income, and indicated the possibility of retroactive treatment of their ruling. The tax legislation was in response to that ruling and reflected the general view that individuals and businesses should not be discouraged from mitigation activities due to tax treatment on these payments.

Assessment

The Multihazard Mitigation Council has reported that the return on disaster mitigation expenditures is estimated at $6 of benefit for each dollar spent, and since the programs are grants controlled by the federal government, these expenditures should continue to be cost effective. Some of these expenditures might have been undertaken in any case, without the grant, or with the grant but without tax exemption.

An argument can be made that individuals should be responsible for undertaking their own measures to reduce disaster costs since those expenditures would benefit them. At the same time, the government is heavily involved in disaster relief, and by providing programs such as subsidized flood insurance and direct disaster aid, may make the returns to individual investors smaller than they are to society as a whole. Disaster mitigation expenditures for individuals and businesses can also have benefits that spill over to the community at large, and an individual would not take these benefits into account when making an investment decision.

Selected Bibliography

Brown, Jared T. *FEMA's Pre-Disaster Mitigation Program: Overview and Issues*, Library of Congress, Congressional Research Service Report RL34537, Washington, DC, 2014.

Carter, Nicole et al. *Flood Resilience and Risk Reduction: Federal Assistance and Programs*, Library of Congress, Congressional Research Service Report R45017, Washington, DC, 2018.

Harrington, Jeff. "Disaster Assistant Exempted from Taxes," *St. Petersburg Times,* April 16, 2005, at http://www.sptimes.com/2005/04/16/news_pf/Business/Disaster_assistance_e.shtml.

—. "IRS To Tax Hurricane Grants," *St. Petersburg Times*, October 27, 2004, at http://www.sptimes.com/2004/10/27/Business/IRS_to_tax_federal_hu.shtml.

Multihazard Mitigation Council, National Institute of Building Sciences. *Natural Hazard Mitigation Saves 2017 Interim Report: An Independent Study*, 2017.

Sherlock, Molly. Tax Policy and Disaster Recovery, Library of Congress, Congressional Research Service, In Focus IF10730, September 11, 2018. U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in the 109th Congress*, U.S. Government Printing Office, Washington, DC, January 17, 2007, pp. 6-7.

U.S. Congressional Budget Office. *Potential Cost Savings from the Pre-Disaster Mitigation Program*, Washington, DC, September 2007.

EXCLUSION OF WORKERS' COMPENSATION BENEFITS (DISABILITY AND SURVIVORS PAYMENTS)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	2.8	-	2.8
2019	2.7	-	2.7
2020	2.8	-	2.8
2021	2.8	-	2.8
2022	2.6	-	2.6

Authorization

Section 104(a)(1).

Description

Workers' compensation benefits to employees in cases of work-related injury, and to survivors in cases of work-related death, are not taxable. Employers finance benefits through insurance or self-insurance arrangements (with no employee contribution), and their costs are deductible as a business expense.

Benefits are provided as directed by various state and federal laws and consist of cash earnings-replacement payments, payment of injury-related medical costs, special payments for physical impairment (regardless of lost earnings), and coverage of certain injury or death-related expenses (e.g., burial costs). Employees and survivors receive compensation if the injury or death is work-related. Benefits are paid regardless of the party (employer, employee or third party) at fault, and workers' compensation is treated as the exclusive remedy for work-related injury or death.

Cash earnings replacement payments typically are set at two-thirds of lost pre-tax earning capacity, up to legislated maximum amounts. They are provided for both total and partial disability, generally last for the term of the disability, may extend beyond normal retirement age, and are paid as periodic (e.g., monthly) payments or lump-sum settlements.

Impact

Generally, any amounts received for personal injury or sickness through an employer-paid accident or health plan must be reported as income for tax purposes. This includes disability payments and disability pensions, as well as sick leave payments. In contrast, an exception is made for the monthly cash payments paid under state workers' compensation programs, which are excluded from income taxation.

Workers' compensation benefits in 2015 totaled $61.9 billion, approximately 49.6 percent of which consisted of cash payments to injured employees and survivors replacing lost earnings, and 50.4 percent of which was paid for medical and rehabilitative services. The costs to employers for workers' compensation in 2015 were $94.8 billion, equivalent to 1.32 percent of covered payrolls.

The Census Bureau's 2017 Annual Social and Economic Supplement to the Current Population Survey provides the following profile of those who reported receiving workers' compensation in 2016:

Workers' compensation cash benefits were less than $5,000 for 42 percent of recipients, between $5,000 and $10,000 for 16 percent, between $10,000 and $15,000 for 14 percent, and more than $15,000 for 28 percent.

Recipients' income (including workers' compensation) was below $15,000 for 12 percent, between $15,000 and $30,000 for 22 percent, between $30,000 and $45,000 for 28 percent, and above $45,000 for 38 percent (and above $100,000 for 10 percent).

Total family income (including workers' compensation) for families with at least one workers' compensation recipient was below $15,000 for 4 percent of families with workers' compensation recipients, between $15,000 and $30,000 for 8 percent, between $30,000 and $45,000 for 13 percent, and above $45,000 for 75 percent (and above $100,000 for 30 percent). Seven percent had family incomes below the federal poverty level.

Rationale

This exclusion was first codified in the Revenue Act of 1918. The committee reports accompanying the Act suggest that workers' compensation payments were not subject to taxation before the 1918 Act. No rationale for the exclusion is found in the legislative history. But it has been maintained that workers' compensation should not be taxed because it is in lieu of court-awarded damages for work-related injury or death that, before enactment of workers' compensation laws (beginning shortly before the 1918 Act), would have been payable under tort law for personal injury or sickness and not taxed.

Assessment

Exclusion of workers' compensation benefits from taxation increases the value of these benefits to injured employees and survivors, without direct cost to employers, through a tax subsidy. Taxation of workers' compensation would put it on a par with the earned income it replaces. It also would place the "true" cost of workers' compensation on employers if compensation benefits were increased in response to taxation. It is possible that "marginal" claims would be reduced if workers knew their benefits would be taxed like their regular earnings.

Furthermore, exclusion of workers' compensation payments from taxation is a relatively regressive subsidy because it replaces more income for (and is worth more to) those with higher earnings and other taxable income than for poorer households. While states have tried to correct for this with legislated maximum benefits and by calculating payments based on replacement of after-tax income, the maximums provide only a rough adjustment and few jurisdictions have moved to after-tax income replacement.

On the other hand, a case can be made for tax subsidies for workers' compensation because the federal and state governments have required provision of this "no-fault" benefit. Moreover, because most workers' compensation benefit levels, especially the legal maximums and the standard benefit of two-thirds of a workers' pre-injury wage, have been established knowing there would be no taxes levied, it is likely that taxation of compensation would lead to considerable pressure to increase payments.

If workers' compensation were subjected to taxation, those who could continue to work or return to work (such as those with partial or short-term disabilities) or who have other sources of taxable income (such as a working spouse or investment earnings) are likely to be the most affected since their

combined incomes would likely be above the taxable threshold level. These groups represent the majority of beneficiaries. Those who receive only workers' compensation payments (such as permanently and totally disabled beneficiaries) would be less affected, because their incomes are likely to be below the taxable threshold level.

Some administrative issues would arise in implementing a tax on workers' compensation. Although most workers' compensation awards are made as periodic cash income replacement payments, with separate payments for medical and other expenses, a noticeable proportion of the awards are in the form of lump-sum settlements. In some cases, the portion of the settlement attributable to income replacement can be distinguished from that for medical and other costs, in others it cannot. A procedure for pro-rating lump-sum settlements over time would be called for. If taxation of compensation were targeted on income replacement and not medical payments, some method of identifying lump-sum settlements (e.g., a new kind of "1099") would have to be devised. In addition, a reporting system would have to be established for insurers (who pay most benefits), state workers' compensation insurance funds, and self-insured employers, and a way of withholding taxes might be needed.

Equity questions also would arise in taxing compensation. Some of the work force is not covered by traditional workers' compensation laws. For example, interstate railroad employees and seafaring workers have a special court remedy that allows them to sue their employer for negligence damages, similar to the system for work-related injury and death benefits that workers' compensation laws replaced for most workers. Their jury-awarded compensation is not taxed. Some workers' compensation awards are made for physical impairment, without regard to lost earnings. Under current tax law, employer-provided accident and sickness benefits generally are taxable, but payments for loss of bodily functions are excluded. Thus, equity might call for continuing to exclude those workers' compensation payments that are made for loss of bodily functions as opposed to lost earnings.

Selected Bibliography

Hunt, H. Allan. *Adequacy of Earnings Replacement in Workers' Compensation Programs*. Kalamazoo MI: Upjohn Institute for Employment Research, 2004.

Larson, Lex K. and Thomas A. Robinson. *Larson's Workers' Compensation Law*. New York: Matthew Bender & Company, Inc., 2018.

McClaren, Christopher F. and Marjorie Baldwin. *Workers' Compensation: Benefits, Coverage and Costs, (2015 Data)*. Washington, DC: National Academy of Social Insurance, 2017.

Szymendera, Scott. *Workers' Compensation: Overview and Issues*. Library of Congress, Congressional Research Service Report R44580, Washington, DC: October 18, 2017.

Thomason, Terry, Timothy Schmidle and John F. Burton. *Workers' Compensation, Benefits, Costs, and Safety under Alternative Insurance Arrangements*. Kalamazoo MI: Upjohn Institute for Employment Research, 2001.

Welch, Edward M. *Employer's Guide to Workers' Compensation*. Washington, DC: The Bureau of National Affairs, Inc., 1994.

Wentz, Roy. "Appraisal of Individual Income Tax Exclusions," *Tax Revision Compendium*. U.S. Congress, House Committee on Ways and Means Committee Print, 1959, pp. 329-340.

Yorio, Edward. "The Taxation of Damages: Tax and Non-Tax Policy Considerations," *Cornell Law Review*, v. 62, April 1977, pp. 701-736.

EXCLUSION OF DAMAGES ON ACCOUNT OF PERSONAL PHYSICAL INJURIES OR PHYSICAL SICKNESS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.7	-	1.7
2019	1.8	-	1.8
2020	1.8	-	1.8
2021	1.8	-	1.8
2022	1.8	-	1.8

Authorization

Sections 104(a)(2)-104(a)(5).

Description

Damages paid, through either a court award or a settlement, to compensate for physical injury and sickness are not included in income of the recipient. This exclusion applies to both lump-sum payments and periodic payments. It does not apply to punitive damages—except in certain cases where states only permit punitive damage awards. The exclusion does not apply to compensation for discrimination or emotional distress.

Impact

Income received in the form of damages is not taxable to individuals. There is no tax on the interest earnings that may be included in annuities or periodic payments. To the extent that damage payments substitute for medical payments that individuals would have received from their own insurance, the tax treatment is consistent with the non-taxation of medical payments. To the extent that the payments compensate for forgone wages, however, the payments are beneficially treated compared with regular wages which would

be taxed. The recipient of the settlement or award benefits because the damage award net-of-tax is larger. But the exclusion may also benefit the defendant—and his or her insurance company—because the payment to the injured party would likely need to be larger if it were subject to tax.

Rationale

A provision allowing an exclusion for payments for damages has been part of the tax law since 1918. It is based on the reasoning that these payments are compensating for a loss. The statute was amended by the Periodic Payment Settlement Act of 1982 (P.L. 97-473) to allow full exclusion of periodic payments as well as lump-sum payments. Normally, periodic payments would be partially taxable—on the interest component. An argument for the full exclusion of periodic payments was to avoid circumstances where individuals used up their lump-sum payments and might then require public assistance.

The provision was amended in 1996 by the Small Business Job Protection Act (P.L. 104-188) to make it clear that punitive damages (except for those cases where state law requires all damages to be paid as punitive damages) and damages arising from discrimination and emotional distress were not to be excluded from income. This change was intended to settle and clarify the law, following considerable variation in the interpretation by the courts.

The Victims of Terrorism Tax Relief Act of 2001 (P.L. 107-134) expanded the existing exclusion from gross income for disability income of U.S. civilian employees attributable to a terrorist attack outside the United States. Effective for taxable years ending on or after September 11, 2001, the exclusion applies to disability income received by any individual attributable to a terrorist or military action.

Interpretation of the provisions of these sections of the Code is frequently affected by case law.

Assessment

The exclusion benefits individuals who receive cash compensation for injuries and illness. It parallels the treatment of workers' compensation which covers on-the-job injuries. It especially benefits higher-income individuals whose payments would typically be larger, reflecting larger lifetime earnings, and subject to higher tax rates.

By restricting tax benefits to compensatory rather than punitive damages, the provision encourages plaintiffs to settle out of court so that the damages

can be characterized as compensatory. (That outcome may be preferred by defendants as well.) There is also an incentive to characterize damages as physical in nature—for example, to demonstrate that emotional distress led to physical symptoms—so that damages are treated as compensatory rather than punitive.

In recent years, scientific and public awareness has grown concerning the serious nature of psychiatric and emotional reactions that individuals can experience in response to harassment or situational trauma. Perhaps the best-known current example is Post-Traumatic Stress Disorder (PTSD). Some courts have opined that damage awards for emotional distress should also be excluded from taxation under section 104(a)(2).

Selected Bibliography

Bremser, Albert W. "Calculating a Taxable Damages Award: A Comparison of Two Calculation Methods." *Journal of Legal Economics*, vol. 16, no. 2 (April 2010).

Hanna, Habib. "Heads I Win, Tails You Lose: The Disparate Treatment of Similarly Situated Taxpayers Under the Personal Injury Income Tax Exclusion." *Chapman Law Review*, vol. 13 (Fall 2009), pp. 161-189.

Hanson, Randall K. and James K. Smith. "Taxability of Damages." *The CPA Journal*, vol. 68 (May 1998), pp. 22-28.

Internal Revenue Service, "Damages Received on Account of Personal Physical Injuries or Physical Sickness," T.D. [Treasury Decision] 9573, *Internal Revenue Bulletin*, March 19, 2012.

Schreiber, Sally P. "IRS Issues Final Regs on Exclusion of Damages for Personal Physical Injury," *Journal of Accountancy*, January 20, 2012.

Sonnenberg, Stephen P. and Maria A. Audero. "Post-Traumatic Stress Disorder: As claims become common, parties and courts explore juncture of law and psychiatry." *New York Law Journal*, GC New York, Labor & Employment, vol. 243, no. 46 (March 29, 2010).

U.S. Congress. Joint Committee on Taxation. *General Explanation of Tax Legislation in the 104th Congress*. U.S. Government Printing Office, Washington, DC, December 18, 1996, pp. 222-224.

Winkelman, Kenneth A. "Nonphysical Injury Awards After Murphy." *The Tax Adviser*, vol. 39, no. 13 (Dec. 2008).

Wood, Robert W. "Tax Indemnity Provisions in Settlement Agreements." *Tax Notes*, October 3, 2016, p. 105.

— . "Legal Settlements With Tax Indemnities Are on the Rise." *Tax Notes,* July 30, 2018, pp. 687.

EXCLUSION OF SPECIAL BENEFITS FOR DISABLED COAL MINERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	-	([1])
2019	([1])	-	([1])
2020	([1])	-	([1])
2021	([1])	-	([1])
2022	([1])	-	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

30 U.S.C. 922(c), Section 104(a)(1), Revenue Ruling 72-400, 1972-2 C.B. 75.

Description

Cash and medical benefits to coal mine workers or their survivors for total disability or death resulting from coal workers' pneumoconiosis (black lung disease) paid under the Black Lung Benefits Act generally are not taxable. Comparable benefits paid under state workers' compensation laws also are not taxed.

Black lung eligibility claims must meet the following general conditions: the worker must be totally disabled from, or have died of, pneumoconiosis arising out of coal mine employment. However, the statute's broad definition of total disability makes it possible for a beneficiary to be working outside the coal industry, although earnings tests apply in some cases.

Black lung benefits consist of monthly cash payments and payment of black-lung-related medical costs. There are two distinct black lung programs,

known as Part B and Part C. They pay the same benefits, but differ in eligibility rules and funding sources.

The Part B program provides cash benefits to those miners who filed eligibility claims prior to June 30, 1973 (or December 31, 1973, in the case of survivors). It is financed by annual federal appropriations. The Part C program pays medical benefits for all eligible beneficiaries (both Parts B and C) and cash payments to those whose eligibility claims were filed after the Part B deadlines. Part C benefits are paid either by the "responsible" coal mine operator or, in most cases, by the Black Lung Disability Trust Fund.

To pay their obligations under the Part C program, coal mine operators may set up special "self-insurance trusts," contributions to which are tax-deductible and investment earnings on which are tax-free. Otherwise, they may fund their liability through a third-party insurance arrangement and deduct the insurance premium costs. The Black Lung Disability Trust Fund is financed by an excise tax on coal mined in and sold for use in the United States and by borrowing from the federal Treasury.

Impact

Generally, any income-replacement amounts received for personal injury or sickness through an employer-paid accident or health plan must be reported as income for tax purposes. This includes disability payments and disability pensions, as well as sick leave. An exception is made for the monthly cash payments paid under the federal black lung program, and comparable cash benefits paid under state workers' compensation programs, which are excluded from income taxation.

Black lung medical benefits are treated like other employer-paid or government-paid health insurance. Recipients are not taxed on the employer or federal contributions for their black lung health insurance, or on the value of medical benefits or reimbursements actually received.

In fiscal year 2017, cash benefits were paid to 36,309 beneficiaries. Both the Part B and the Part C rolls are declining as elderly recipients die. Part B cash payments totaled $113 million and Part C cash payments totaled $175 million for fiscal year 2015. In calendar year 2018, monthly black lung cash payments under Part B and Part C ranged from $660.10 for a miner or widow alone, to $1,320.00 for a miner or widow with three or more dependents.

Rationale

Part B payments are excluded from taxation under the terms of title IV of the original Federal Coal Mine Health and Safety Act of 1969 (P.L. 91-173, now entitled the Black Lung Benefits Act). No specific rationale for this exclusion is found in the legislative history. Part C benefits have been excluded because they are considered to be in the nature of workers' compensation under a 1972 revenue ruling and fall under the workers' compensation exclusion of Section 104(a)(1) of the Internal Revenue Code. Like workers' compensation and in contrast to other disability payments, eligibility for black lung benefits is directly linked to work-related injury or disease. (See entry on "Exclusion of Workers' Compensation Benefits: Disability and Survivors Payments.")

Assessment

Excluding black lung payments from taxation increases their value to some beneficiaries, those with other taxable income. The payments themselves fall well below federal income-tax thresholds. The effect of taxing black lung benefits and the factors to be considered in deciding on their taxation differ between Part B and Part C payments.

Part B benefits could be viewed as earnings-replacement payments and, thus, appropriate for taxation, as has been argued for workers' compensation. However, it would be difficult to argue for their taxation, especially now that practically all recipients are elderly miners or widows. When Part B benefits were enacted, the legislative history emphasized that they were not workers' compensation, but rather a "limited form of emergency assistance." They also were seen as a way of compensating for the lack of health and safety protections for coal miners prior to the 1969 Act and for the fact that existing workers' compensation systems rarely compensated for black lung disability or death. Furthermore, it can be maintained that taxing Part B payments would take back with one hand what federal appropriations give with the other, although almost no beneficiaries would likely pay tax, given their age, retirement status, and low income.

A stronger argument can be made for taxing Part C benefits. If workers' compensation were to be made taxable, Part C benefits would automatically be taxed because their tax-exempt status flows from their treatment as workers' compensation. Taxing Part C payments would give them the same treatment as the earnings they replace. It would remove a subsidy to those with other taxable income. On the other side, black lung benefits are legislatively

established (as a percentage of minimum federal salaries). They do not directly reflect a worker's pre-injury earnings as does workers' compensation. They can be viewed as a special kind of disability or death "grant" that should not be taxed. Because the number of beneficiaries on both the Part B and Part C rolls is declining, the revenue forgone from not taxing these benefits should decrease over time.

Selected Bibliography

Barth, Peter S. *The Tragedy of Black Lung: Federal Compensation for Occupational Disease*. Kalamazoo, Mich., W.E. Upjohn Institute for Employment Research, 1987.

— . "Revisiting Black Lung: Can the Feds Deliver Workers' Compensation for Occupational Disease?" In *Workplace Injuries and Diseases: Prevention and Compensation*, eds. Karen Roberts, John F. Burton Jr., and Matthew M. Bodah, pp. 253-274. Kalamazoo, Mich., W.E. Upjohn Institute for Employment Research, 2005.

Szymendera, Scott D. and Molly F. Sherlock. *The Black Lung Program, the Black Lung Disability Trust Fund, and the Excise Tax on Coal: Background and Policy Options*. Library of Congress, Congressional Research Service Report R45261. Washington, DC, July 18, 2018.

U.S. Congress, House Committee on Education and Labor. *Black Lung Benefits Reform Act and Black Lung Benefits Revenue Act of 1977*. Committee Print, 96th Congress, 1st session, February 1979.

— . Senate Committee on Finance. *Tax Aspects of Black Lung Benefits Legislation*. Hearing on H.R. 10706. 94th Congress, 2nd session, September 21, 1976.

— . Committee on Finance, Subcommittee on Taxation and Debt Management Generally. *Tax Aspects of the Black Lung Benefits Reform Act of 1977*. Hearing on S. 1538. 95th Congress, 1st session, June 17, 1977.

U.S. Department of Labor, Division of Coal Mine Workers' Compensation, *Black Lung Monthly Benefit Rates for 2018*.

EARNED INCOME CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	70.1	-	70.1
2019	71.4	-	71.4
2020	72.6	-	72.6
2021	74.0	-	73.6
2022	75.6	-	74.8

Note: Estimates include outlay effects associated with the refundable portion of the EITC. These outlay effects are $61.5 billion (FY2018), $62.8 billion (FY2018), $63.7 billion (FY2019), $64.9 billion (FY2021), and $66.2 billion (FY20214).

0

Authorization

Section 32.

Description

The earned income credit, often referred to by the IRS, practitioners, and taxpayers as the earned income tax credit (EITC), is a refundable tax credit available to eligible low-wage workers. An EITC recipient need not owe taxes to receive the benefit. Due to its refundability, if the credit is greater than federal income tax owed, the difference is refunded. The portion of the credit that offsets income tax reduces tax collections, while the portion refunded to the taxpayer is treated as an outlay.

Eligibility for and the amount of the EITC are based on a variety of factors, including residence and taxpayer ID requirements, the presence of qualifying children, age requirements for certain recipients, amount of investment income, and the recipient's earned income.

Calculating the Credit

The EITC is calculated based on a recipient's earnings. Specifically, the EITC equals a fixed percentage (the "credit rate") of earned income until the credit reaches its maximum amount. The EITC then remains at its maximum level over a dollar range of earned income, between the "earned income amount" and the "phase out threshold." Finally, the credit gradually decreases in value to zero at a fixed rate (the "phase out rate") for each additional dollar of earnings (or AGI, whichever is greater) above the phase out threshold. The specific values of these EITC parameters (e.g., credit rate, earned income amount) vary depending on the several factors, including the number of qualifying children and the marital status of the tax filer, as illustrated below.

EITC Parameters 2018,
By Marital Status and Number of Qualifying Children

Number of qualifying children	**0**	**1**	**2**	**3 or more**
Unmarried tax filers (single and head of household filers)				
credit rate (percent)	7.65	34	40	45
earned income amount	$6,780	$10,180	$14,290	$14,290
maximum credit amount	$519	$3,461	$5,716	$6,431
phase out threshold	$8,490	$18,660	$18,660	$18,660
phase out rate (percent)	7.65	15.98	21.06	21.06
income where credit = 0	$15,270	$40,320	$45,802	$49,194
Married tax filers (married filing jointly)				
credit rate (percent)	7.65	34	40	45
earned income amount	$6,780	$10,180	$14,290	$14,290
maximum credit amount	$519	$3,461	$5,716	$6,431
phase out threshold	$14,170	$24,350	$24,350	$24,350
phase out rate (percent)	7.65	15.98	21.06	21.06
income where credit = 0	$20,950	$46,010	$51,492	$54,884

Eligibility Requirements

Earned income for calculation of the credit includes wages, tips, and other compensation included in gross income and self-employment income after the deduction for self-employment taxes. Earned income does not include pension or annuity income; income for nonresident aliens not from a U.S. business;

income earned while incarcerated (for work in prison); and TANF (Temporary Assistance for Needy Families) benefits received while a TANF recipient participates in work experience or community service activities.

Members of the Armed Forces may elect to include combat pay for purposes of computing their earned income. All military income earned by a member of the Armed Forces while in a designated combat zone is considered combat pay and is nontaxable income. As a result, a service member with combat zone service during the tax year may, without electing to include combat pay for credit purposes, have no earned income for the purposes of calculating their EITC. Hence, for certain service members, electing to include combat pay will result in a larger EITC amount. For those members who determine that including combat pay will reduce their EITC amount, they can elect to exclude it from their earned income for purposes of calculating the EITC.

To be considered a "qualifying child" of an EITC recipient, three requirements must be met. First, the child must have a specific *relationship* to the tax filer (son, daughter, step child or foster child, brother, sister, half-brother, half-sister, step brother, step sister, or descendent of such a relative). Second, the child must share a *residence* with the taxpayer for more than half the year in the United States. Third, the child must meet certain *age requirements*; namely, the child must be under the age of 19 (or age 24, if a full-time student) or be permanently and totally disabled. (Under internal revenue code (IRC) section 22(e)(3), "An individual is permanently and totally disabled if he is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months.")

As a result of these three requirements, a child may be the qualifying child of more than one tax filer in the same household. For example, a child who lives with a single parent, grandparent, and aunt in the same home could be a qualifying child of all three of these individuals. But only one of these individuals can claim the qualifying child for the EITC, and the others cannot. It appears that under current law, the other individuals are also ineligible to claim the childless EITC. In the case where the tax filers cannot agree on who claims the child, there are "tie-breaker" rules for who can claim the child for the EITC.

If a tax filer has *no qualifying children*, he or she must be between 25 and 64 years of age. Childless taxpayers under age 25 or older than 64 are not

eligible for the EITC. There is no age requirement for tax filers *with qualifying children*.

Tax filers with investment income greater than $3,500 in 2018 are ineligible for the EITC. Investment income includes interest income (including tax-exempt interest), dividends, net rent, and royalties that are from sources other than the filer's ordinary business activity, net capital gains, and net passive income.

A tax filer is barred from claiming the EITC for a period of 10 years after the IRS makes a final determination to reduce or disallow a tax filer's EITC because that individual made a fraudulent EITC claim. A tax filer is barred from claiming the EITC for a period of two years after the IRS determines that the individual made an EITC claim "due to reckless and intentional disregard of the rules" of the EITC, but that disregard was not found to be fraud.

To be eligible for the credit, the tax filer must provide valid Social Security numbers (SSNs) for work purposes for themselves, spouses if married filing jointly, and any qualifying children. The SSNs must be issued before the due date of the income tax return. (U.S. citizenship is not required to be eligible for the credit. SSNs do not indicate U.S. citizenship.) Nonresident aliens—those who do not have green cards or do not spend sufficient time in the United States—are generally ineligible for the EITC.

The majority (86%) of the aggregate amount of the EITC—$68.5 billion for 2015—is received as a refund. In other words, $58.8 billion of the EITC was received as a refund for 2014, while approximately $9.7 billion offset tax liabilities.

Impact

The earned income tax credit increases the after-tax income of lower- and moderate-income working couples and individuals, particularly those with children. Although the official poverty measure cannot be used to assess the anti-poverty impact of government tax and transfer programs including the EITC, new experimental poverty measures that include government benefits like the EITC as part of an individual's or family's resources do provide evidence of the anti-poverty effectiveness of the EITC. The U.S. Census Bureau found that when government tax and transfer programs were included in a broader measure of poverty than the official poverty measure, refundable tax credits were estimated to reduce the poverty rate more than food assistance (Supplemental Nutrition Assistance Program, or SNAP) and welfare (i.e.,

TANF) combined. (These data tables compiled by the Census have since been discontinued.) Although this analysis includes both the EITC and refundable portion of the child tax credit, the EITC is the largest refundable tax credit targeted to the poor, and previous research indicates that most of the anti-poverty impact of refundable tax credits can be attributed to the EITC. (The credit differs from other transfer payments in that individuals receive it as an annual lump sum rather than as a monthly benefit.)

The following table provides estimates of the earned income tax credit tax expenditure distribution by income level, and includes the refundable portion of the credit. Because the estimates use an expanded definition of income, the distribution includes incomes above the statutory limits.

Distribution by Income Class of the Tax Expenditure for the Earned Income Tax Credit, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	5.9
$10 to $20	33.6
$20 to $30	26.7
$30 to $40	17.1
$40 to $50	9.2
$50 to $75	7.0
$75 to $100	0.6
$100 to $200	0.0
$200 and over	0.0

Rationale

The earned income tax credit was enacted by the Tax Reduction Act of 1975 (P.L. 94-12) as a temporary refundable credit to offset the effects of the Social Security tax and rising food and energy costs on lower-income workers and to provide a work incentive for parents with little or no earned income.

The credit was temporarily extended by the Revenue Adjustment Act of 1975 (P.L. 94-164), the Tax Reform Act of 1976 (P.L. 94-455), and the Tax Reduction and Simplification Act of 1977 (P.L. 95-30). The Revenue Act of 1978 (P.L. 95-600) made the credit permanent, raised the maximum amount

of the credit, and provided for advance payment of the credit. The 1978 Act also created a range of income for which the maximum credit is granted before the credit begins to phase out.

The maximum credit was raised by both the Deficit Reduction Act of 1984 (P.L. 98-369) and the Tax Reform Act of 1986 (P.L. 99-514). The 1986 Act also indexed the maximum earned income and phase-out income amounts to inflation. The Omnibus Budget Reconciliation Act of 1990 (OBRA90; P.L. 101-508) increased the percentage used to calculate the credit, created an adjustment for family size, and created supplemental credits for young children (under age 1) and health insurance costs.

The Omnibus Budget Reconciliation Act of 1993 (OBRA93, P.L. 103-66) increased the credit, expanded the family-size adjustment, extended the credit to individuals without children, and repealed the supplemental credits for young children and health insurance. To increase compliance, the Taxpayer Relief Act of 1997 (P.L. 105-34) included a provision denying the credit to persons improperly claiming the credit in prior years.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA, P.L. 107-16) simplified calculation of the credit by excluding nontaxable employee compensation from earned income, eliminating the credit reduction due to the alternative minimum tax, and using adjusted gross income rather than modified adjusted gross income for calculation of the credit phase out. EGTRRA provided marriage penalty relief for the EITC by raising the phase-out income level of the EITC for married couples by $3,000 in comparison to the phase-out income level for unmarried EITC recipients. The EGTRRA changes were scheduled to expire after 2010.

The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) created a new credit category for three or more eligible children with a 45 percent credit rate. ARRA also temporarily increased marriage penalty relief for the EITC by raising the phase-out income level by $5,000 for married couples in 2009 and indexing the $5,000 for tax year 2010.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the EGTRRA and ARRA provisions through 2012. The American Taxpayer Relief Act of 2012 (P.L. 112-240) made the EGTRRA changes permanent and extended the two ARRA modifications (marriage penalty relief of $5,000 and a larger credit for families with three or more children) through the end of 2017. The Protecting

Americans from Tax Hikes Act (PATH Act, Division Q of P.L. 114-113) made these two temporary changes permanent.

The PATH Act (P.L. 114-113) also included a variety of provisions intended to reduce improper payments of refundable credits, including improper payments of the EITC. First, the law included a provision that would prevent retroactive claims of the EITC after the issuance of SSNs. As previously discussed, a taxpayer must provide an SSN for themselves, their spouses (if married), and any qualifying children. The law stated that the credit will be denied to a taxpayer if the SSNs of the taxpayer, their spouse (if married), and any qualifying children were issued after the due date of the tax return for a given taxable year. For example, if a family had SSNs issued in June 2017, the family could (if otherwise eligible) claim the EITC on its 2017 income tax return (which is due in April 2018), but could not amend its 2016 income tax return and claim the credit on its 2016 return (which is due in April 2017).

In addition, P.L. 114-113 also included a provision requiring the IRS to hold income tax refunds until February 15 if the tax return included a claim for the EITC (or the additional child tax credit, known as the ACTC). This provision was coupled with a requirement that employers furnish the IRS with W-2s and information returns on nonemployee compensation (e.g., 1099-MISCs) earlier in the filing season. According to the IRS Taxpayer Advocate, these legislative changes were made "to help prevent revenue loss due to identity theft and refund fraud related to fabricated wages and withholdings." With more time to cross-check income on information returns, with income used to determine the amount of the EITC, it is believed that this will help reduce erroneous payments of the EITC by the IRS. Previous research by the IRS has indicated that the most frequent EITC error was incorrectly reporting income, and the largest error (in dollars) was incorrectly claiming a child for the credit.

Assessment

The earned income tax credit raises the after-tax income of several million lower- and moderate-income families, especially those with children. The most recent data from the IRS indicate that 28 million taxpayers received $68.5 billion of the EITC when they filed their 2015 federal income tax return.

The EITC is one of the federal government's largest antipoverty programs, reflecting a trend toward reducing poverty through the tax code. The

official poverty measure, however, is unable to capture the antipoverty impact of the EITC. The official poverty measure is calculated by comparing an individual's or family's resources, measured as pre-tax cash income (hence excluding the EITC), to a poverty threshold, roughly equal to three times the cost of spending on the U.S. Department of Agriculture's Economy Food Plan. If an individual's or family's resources are less than their applicable threshold, the individual or family is counted as poor.

New experimental poverty measures that include government benefits like the EITC provide evidence of such programs' antipoverty effects. The U.S. Census Bureau found that when government tax and transfer programs were included in a broader measure of poverty, refundable tax credits were estimated to reduce poverty by three percentage points. This compares to a 1.6 percentage-point reduction for SNAP and a 0.2 percentage-point reduction for welfare (i.e., TANF). Although this analysis includes both the EITC and refundable portion of the child tax credit, the EITC is the largest refundable tax credit targeted to the poor, and previous research indicates that most of the antipoverty impact of refundable tax credits can be attributed to the EITC.

The antipoverty effects of the EITC are not uniform across different types of households and tax filers. Under the current federal income tax, married and unmarried childless workers with pre-tax income at the federal poverty level (FPL) tend to see their income remain below the poverty line after taxation, even when including the EITC. In contrast, married and unmarried workers with children whose pre-tax income is at the FPL will have post-tax income above the FPL because the EITC is greater than their payroll tax liability.

The EITC provides financial incentives to workers based on their earnings. Economic theory suggests that the EITC may have two effects on the labor force: it can encourage non-workers to begin working (economists refer to this as the labor supply at the "extensive margin"), and among those already working, it can affect the number of hours they work (economists refer to this as the "intensive margin"). For low-income workers eligible for the EITC, the EITC universally increases post-tax earnings, meaning it should theoretically increase labor force participation among eligible non-workers. In contrast, the impact of the EITC on hours worked depends on the tax filer's earnings, because the marginal value of the EITC, and hence the incentive to work more, changes as earnings rise.

Specifically, the EITC phases in over a certain range of earnings, remains constant over an earnings range, and then phases out to zero over a final

earnings range. As the EITC phases in, it increases the marginal return to work which should theoretically encourage workers to work more hours. Over the earnings range where the credit value is constant, the EITC has neither a positive nor negative effect on post-EITC earnings, and so the credit theoretically should have little effect on increasing the number of hours worked. Since their EITC remains constant over this earnings range, it does not have an impact on the marginal return to work, and will not influence whether a worker chooses to work more hours. As the credit phases out, economic theory suggests that it reduces the incentive to work more hours. Hence, for workers whose earnings put them in the phase-out range, the reduction in the EITC should theoretically discourage these workers from working more hours.

Up to the maximum earned income amount (at which the credit reaches a maximum) the credit generally provides a work incentive: the more a person earns, the greater the amount of the credit. But within the income range over which the credit is phased out, the credit may act as a work disincentive: as the credit declines, the taxes owed increase. As income increases, a credit recipient may switch from receiving a refund (because of the credit) to receiving no credit or paying taxes. The combination of higher taxes and a lower credit increases the marginal tax rate of the individual. The marginal tax rate may in many cases be higher than the rate for taxpayers with substantially higher incomes. This creates an incentive for the individual to reduce work hours (to avoid the increase in taxes and maintain the credit).

Current research indicates that the EITC does have a positive effect on labor force participation (i.e., a non-worker deciding to work), especially among single mothers. Much of the research focuses on how significant legislative expansions of the EITC encouraged previously non-working single mothers to enter the workforce. However, by contrast, research indicates that the EITC has had little effect on the number of hours EITC recipients work.

While the credit encourages single parents to enter the work force, the decline of the credit above the phase-out threshold can discourage the spouse of a working parent from entering the workforce. This “marriage penalty” may also discourage marriage when one or both parties receive the earned income tax credit. Researchers have looked at the impact of the EITC’s marriage penalty on two different behaviors among low-income workers—the impact it may have on *labor force participation* among those already married and the impact it may have on unmarried workers *to marry*. With respect to labor force participation, some research suggests that the EITC marriage penalty may act

as a work disincentive for secondary earners of EITC-eligible married couples whose earnings place them in the plateau or phase-out range of the credit. These couples may decide, for example, that one spouse's EITC is sufficiently large to allow the other spouse to stay out of the workforce and instead raise children. These couples could determine that having two earners would not only reduce their EITC, but may also increase the cost of other expenses, like child care, ultimately lowering their disposable income.

In terms of the marriage penalty's impact on marriage, the actual impact may depend on whether either individual has children before marriage as well as each individual's earnings. For example, two single, low-income adults who then marry and have children may see their EITC increase. In contrast, a single working mother may be discouraged to marry another working person for fear of a reduced EITC. However, research indicates that the EITC's effects on marriage patterns are small and ambiguous.

Recent economic and public health research suggests that the EITC may improve the health of some poor Americans. Decades of research has linked poverty to poorer health outcomes among infants and children, suggesting that measures to alleviate poverty—like the EITC—could improve certain health outcomes. Recent research indicates that in addition to its broad antipoverty impact, the EITC may also improve the health of children born to low-income mothers. One widely used indicator of infant health is the infant's weight at birth and whether the baby is considered low birth weight (LBW), which is defined as weighing less than 2,500 grams at birth. LBW babies have been found to have a number of health complications at above-average levels. Several recent studies suggest that the EITC is associated with increases in birth weight and a reduction in the incidence of LBW.

In addition to exploring the effects of the EITC on health outcomes, many researchers have studied the effects of the credit on education outcomes of low-income populations. Researchers looking at the test scores of children in elementary school in a large urban school district found that children in families that received larger EITCs (and the refundable portion of the child tax credit) tended to score higher on English and math tests. (Similar results were found by researchers looking at the impact of legislative expansions to the EITC in the 1990s. They found that the children in families that received the largest increase in the credit tended to score higher on math and reading tests.)

Problems with taxpayer compliance have been identified as a significant problem with the EITC. The IRS estimates that in FY2017, between $14.9 billion and $17.6 billion in EITC payments (i.e., between 21.9% and 25.8% of

payments) were issued improperly meaning they were higher (overpayments) or lower (underpayments), than they should have actually been.

In August 2014, the IRS released a new EITC compliance study examining the causes of EITC overclaims on 2006 to 2008 tax returns. This study found the most frequent EITC error was related to misreporting of income (i.e., underreporting income in order to receive a larger credit), and the largest error in terms of dollar amount was related to qualifying child errors (incorrectly claiming a child for the EITC). Filing status errors (claiming a credit as unmarried when the taxpayer was in fact married) were also a source, though a relatively smaller one, of EITC overclaims.

Selected Bibliography

Bastian, Jacob and Katherine Michelmore. "The Long-Term Impact of the Earned Income Tax Credit on Children's Education and Employment Outcomes," *Journal of Labor Economics*, vol. 36, no. 4, July 19, 2018.

Burman, Len and Elaine Maag, *The War on Poverty Moves to the Tax Code*, Tax Policy Center, January 6, 2014, available at http://www.urban.org/UploadedPDF/1001711-war-on-poverty-moves-to-tax-code.pdf.

Chetty, Raj, John N. Friedman, and Jonah Rockoff. "New Evidence of the Long-Term Impacts of Tax Credits," *Statistics of Income Paper*, November 2011, available at https://www.irs.gov/pub/irs-soi/11rpchettyfriedmanrockoff.pdf.

Congressional Budget Office, *Effective Marginal Tax Rates for Low- and Moderate-Income Workers in 2016,* June 22, 2018, available at https://www.cbo.gov/publication/54093.

Crandall-Hollick, Margot. *The Earned Income Tax Credit (EITC): An Economic Analysis,* Library of Congress, Congressional Research Service Report R44057, April 13, 2018.

Crandall-Hollick, Margot. *The Earned Income Tax Credit (EITC): Administrative and Compliance Challenges,* Library of Congress, Congressional Research Service Report R43873, April 23, 2018.

Crandall-Hollick, Margot. *The Earned Income Tax Credit (EITC): A Brief Legislative History,* Library of Congress, Congressional Research Service Report R44825, March 20, 2018.

Dahl, Gordon B. and Lance Lochner. "The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit," *American Economic Review*, vol. 102, no. 5, August 2012, pp. 1927-56.

Dahl, Molly, Thomas DeLeire, and Jonathan Schwabish, "Stepping Stone or Dead End? The Effect of EITC on Earnings Growth," *National Tax Journal*, vol. 62, no. 2, June 2009, pp. 329-346.

Eissa, Nada and Hilary Williamson Hoynes, "Taxes and the Labor Market Participation of Married Couples: The Earned Income Tax Credit," *Journal of Public Economics*, vol. 88 (2004).

Evans, William and Craig L. Garthwaite, "Giving Mom a Break: The Impact of Higher EITC Payments on Maternal Health," *American Economic Journal: Economic Policy 2014*, vol. 6, no. 2 (2014), pp. 258-290.

Falk, Gene and Margot Crandall-Hollick. *The Earned Income Tax Credit (EITC): An Overview,* Library of Congress, Congressional Research Service Report R43805, April 18, 2018.

Falk, Gene et al. *Need-Tested Benefits: Estimated Eligibility and Benefit Receipt by Families and Individuals,* Library of Congress, Congressional Research Service Report R44327, December 30, 2015.

Government Accountability Office. *Refundable Tax Credits: Comprehensive Compliance Strategy and Expanded Use of Data Could Strengthen IRS's Efforts to Address Noncompliance*, GAO-16-475, May 2016.

Holt, Stephen D. and Jennifer L. Romich, "Marginal Tax Rates Facing Low- and Moderate-Income Workers Who Participate in Means-Tested Transfer Programs," *National Tax Journal*, vol. 60, no. 2, June 2007, pp. 253-276.

Holtzblatt, Janet and Janet McCubbin, "Chapter 6: Issues Affecting Low-Income Filers," in *The Crisis in Tax Administration*, ed. Henry J. Aaron and Joel Slemrod (Washington, DC: Brookings Institution Press, 2004).

Internal Revenue Service, *Federal Tax Compliance Research: Tax Gap Estimates for Tax Years 2008-2010*, Publication 1415 (5-2016) Catalog Number 10263H, May 2016.

—, *Compliance Estimates for the Earned Income Tax Credit Claimed on 2006-2008 Returns*, Publication 5162, Washington, DC, August 2014.

Maag, Elaine, H. Elizabeth Peters, and Sara Edelstein. "Increasing Family Complexity and Volatility: The Difficulty in Determining Child tax Benefits," The Tax Policy Center, March 3, 2016.

Manoli, Day and Nicholas Turner, "Cash-on-Hand and College Enrollment: Evidence from Population Tax Data and the Earned Income Tax Credit," *American Economic Journal: Economic Policy 2018*, vol. 10, no. 2.

Meyer, Bruce D. "Labor Supply at the Extensive and Intensive Margins: The EITC, Welfare and Hours Worked," *American Economic Review*, vol. 92, May 2002, pp. 373-379.

Nichols, Austin and Jesse Rothstein, "The Earned Income Tax Credit (EITC)," *The Economics of Means-Tested Transfer Programs in the United States*, vol. 1 (2016), pp. 137-218.

Strully, Kate W., David H. Rehkopf, and Ziming Xuan, "Effects of Prenatal Poverty on Infant Health: State Earned Income Tax Credits and Birth Weight," *American Sociological Review*, vol. 5, issue 4 (August 2010).

Taxpayer Advocate Service, *Fiscal Year 2015 Objectives Report to Congress: Research Initiatives*, Washington, DC: June 30, 2014.

Taxpayer Advocate Service, *2013 Annual Report to Congress*, vol. 1, December 31, 2013, p. 61.

U.S. Department of the Treasury, *Agency Financial Report Fiscal Year 2017*, November 14, 2017.

ADDITIONAL STANDARD DEDUCTION FOR THE BLIND AND THE ELDERLY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	4.5	-	4.5
2019	5.3	-	5.3
2020	5.7	-	5.7
2021	6.0	-	6.0
2022	6.5	-	6.5

Authorization

Section 63(f).

Description

An additional standard deduction is available for blind and elderly taxpayers. To qualify for the additional standard deduction amount, a taxpayer must be age 65 (or blind) before the close of the tax year. The additional standard deduction amount for the aged and blind is $1,300 in 2018. For an individual who is unmarried and not a surviving spouse, the additional standard deduction amount is $1,600 in 2018. These amounts, like the basic standard deduction, are adjusted annually for inflation.

Impact

The additional standard deduction amounts raise the income threshold at which taxpayers begin to pay individual income taxes. The benefit depends on the marginal tax rate of the individual. Nearly two-thirds of the dollars deducted under this provision (65.7%) go to taxpayers with incomes under $50,000.

Distribution by Income Class of the Additional Standard Deduction Amount for the Blind and Elderly at 2015 Income Levels

Adjusted Gross Income Class (in thousands of $)	Percentage Distribution
Below $10	16.7
$10 to $20	19.2
$20 to $30	12.8
$30 to $40	9.5
$40 to $50	7.5
$50 and over	34.3

Source: Data obtained from IRS *Statistics of Income, Table 1.4*. Percentages may not sum to 100 percent due to rounding.

Note: This is not a distribution of the tax expenditure, but of the amount deducted; it is classified by adjusted gross income.

Rationale

Special tax treatment for the blind first became available under a provision of the Revenue Act of 1943 (P.L. 78-235) which provided a $500 itemized deduction. The purpose of the deduction was to help cover the additional expenses directly associated with blindness, such as the hiring of readers and guides. The deduction evolved to a $600 personal exemption in the Revenue Act of 1948 (P.L. 80-471) so that the blind did not forfeit use of the standard deduction and so that the tax benefit could be reflected directly in the withholding tables.

At the same time that the itemized deduction was converted to a personal exemption for the blind, relief was also provided to the elderly by allowing them an extra personal exemption. Relief was provided to the elderly because of a heavy concentration of low-income individuals in that population, the rise in the cost of living, and to counterbalance changes in the tax system after World War II. It was argued that those who were retired could not adjust to these changes and that a general personal exemption was preferable to piecemeal exclusions for particular types of income received by the elderly.

As the personal and dependency exemption amounts increased, so too did the amount of the additional exemption. The exemption amount increased to

$625 in 1970, $675 in 1971, $750 in 1972, $1,000 in 1979, $1,040 in 1985, and $1,080 in 1986.

Under the Tax Reform Act of 1986 (P.L. 99-514), the personal exemptions for age and blindness were replaced by an additional standard deduction. This change was made to better target the benefit to lower- and moderate-income elderly and blind taxpayers. Higher-income taxpayers are more likely to itemize their deductions (instead of claiming the standard deduction), while a personal exemption amount can be used by all taxpayers. The additional standard deduction, however, will be used only by those who forgo itemizing deductions.

Assessment

Advocates of the blind justify special tax treatment based on higher living costs and additional expenses associated with earning income. However, other taxpayers with disabilities (deafness, paralysis, loss of limbs) are not accorded similar treatment and may be in as much need of tax relief. Just as the blind incur special expenses, so too do others with different impairments.

Advocates for the elderly justify special tax treatment based on need, arguing that the elderly face increased living costs primarily due to inflation; medical costs are frequently cited as one example. However, Social Security benefits are adjusted annually for inflation, and the federal government has established the Medicare program. Opponents of the provision argue that if the provision is retained, the eligibility age should be raised. It is noted that life expectancy has been growing longer and that most 65-year-olds are healthy and could continue to work. The age for receiving full Social Security benefits has been increased for future years, rising to 67 for those born in 1960 or later

One notion of fairness is that the tax system should be based on ability to pay and that ability is based upon the income of taxpayers—not age or handicapping condition. The additional standard deduction violates the economic principle of horizontal equity in that similar taxpayers are not treated equally. The provision also fails the effectiveness test since low-income blind and elderly individuals who already are exempt from tax without the benefit of the additional standard deduction amount receive no benefit from the additional standard deduction. Nor does the provision benefit those blind or elderly taxpayers who itemize deductions (such as those with large medical expenditures in relation to income). Additionally, the value of the additional standard deduction is of greater benefit to taxpayers with a higher rather than

lower marginal income tax rate. Alternatives would be a refundable tax credit or a direct grant.

Selected Bibliography

Groves, Harold M. *Federal Tax Treatment of the Family*. Washington, DC: The Brookings Institution, 1963, pp. 52-55.

Livsey, Herbert C. "Tax Benefits for the Elderly: A Need for Revision." *Utah Law Review,* v. 1969, n. 1, 1969, pp. 84-117.

Jackson, Pamela J. and Jennifer Teefy. *Additional Standard Tax Deduction for the Blind: A Description and Assessment*, Library of Congress, Congressional Research Service Report RS20555. May 7, 2008.

— . *Additional Standard Tax Deduction for the Elderly: A Description and Assessment*, Library of Congress, Congressional Research Service Report RS20342. May 7, 2008.

DEDUCTION FOR CASUALTY AND THEFT LOSSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.2	-	0.2
2019	0.1	-	0.1
2020	0.1	-	0.1
2021	0.1	-	0.1
2022	0.1	-	0.1

Authorization

Sections 165(c)(3), 165(e), 165(h) - 165(k).

Description

An individual may claim an itemized deduction for eligible unreimbursed personal casualty or theft losses in excess of $100 per event and in excess of 10 percent of adjusted gross income (AGI) for combined net losses during the tax year. For tax years 2018 through 2025 eligible losses are those associated with a disaster declared by the President under Section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. For tax years after 2025, eligible losses include losses arising from fire, storm, shipwreck, or other casualty, or from theft. The cause of the loss should be considered a sudden, unexpected, and unusual event. Losses associated with a federally declared disaster may be applied against the prior year's tax return.

Impact

The deduction grants some financial assistance to taxpayers who suffer substantial casualties and itemize deductions. It shifts part of the loss from the property owner to the general taxpayer and thus serves as a form of government coinsurance. Use of the deduction is low for all income groups.

There is no maximum limit on the casualty loss deduction. If losses exceed the taxpayer's income for the year of the casualty, the excess can be carried back or forward to another year without reapplying the $100 and 10 percent floors. A dollar of deductible losses is worth more to taxpayers in higher-income tax brackets because of their higher marginal tax rates. The deduction is unavailable for taxpayers who do not itemize. Typically, lower-income taxpayers tend to be less likely to itemize the deductions.

Rationale

The deduction for casualty losses was allowed under the original 1913 income tax law without distinction between business-related and non-business-related losses. No rationale was offered then.

The Revenue Act of 1964 (P.L. 88-272) placed a $100-per-event floor on the deduction for personal casualty losses, corresponding to the $100 deductible provision common in property insurance coverage at that time. The deduction was intended to be for extraordinary, nonrecurring losses which go beyond the average or usual losses incurred by most taxpayers in day-to-day living.

The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) provided that the itemized deduction for combined nonbusiness casualty and theft losses would be allowed only for losses in excess of 10 percent of the taxpayer's AGI. While Congress wished to maintain the deduction for losses having a significant effect on an individual's ability to pay taxes, it included a percentage-of-adjusted-gross-income floor because it found that the size of a loss that significantly reduces an individual's ability to pay tax varies with income.

The Katrina Emergency Tax Relief Act of 2005 (P.L. 109-73) eliminated limitations of deductible losses arising from the consequences of Hurricane Katrina. Such losses were deductible without regard to whether aggregate net losses exceeded 10 percent of the taxpayer's adjusted gross income, and were not subject to the $100 per casualty or theft floor. Similarly, the limitations were removed for losses arising from Hurricanes Rita and Wilma, the 2007 Kansas storms and tornados, and the 2008 Midwestern floods, severe storms, and tornadoes.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) expanded the applicability of the deduction and increased the per casualty limitation to $500 for losses attributable to a federally declared disaster

occurring in 2008 and 2009. Taxpayers could claim the deduction for losses in addition to the standard deduction. Such losses were deductible without regard to whether the losses exceeded 10 percent of a taxpayer's AGI.

The 2017 tax revision (P.L. 115-97) repealed the deduction for casualty losses, except for disasters declared by the President under Section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act through the end of 2025. The 2017 tax revision also provided that 2016 and 2017 disasters declared by the President may qualify for an enhanced deduction. Specifically, losses in excess of $500 per casualty are not subject to the 10 percent AGI threshold and are deductible. Further, these losses may be claimed in addition to the standard deduction.

Assessment

Critics have pointed out that when uninsured losses are deductible but insurance premiums are not, the income tax discriminates against those who carry insurance and favors those who do not. It similarly discriminates against people who take preventive measures to protect their property but cannot deduct their expenses. No distinction is made between loss items considered basic to maintaining the taxpayer's household and livelihood versus highly discretionary personal consumption. The taxpayer need not replace or repair the item in order to claim a deduction for an unreimbursed loss.

Up through the early 1980s, while tax rates were as high as 70 percent and the floor on the deduction was only $100, higher-income taxpayers could have a large fraction of their uninsured losses offset by lower income taxes, providing them reason not to purchase insurance.

The imposition of the 10-percent-of-AGI floor effective in 1983, together with other changes in the tax code during the 1980s, substantially reduced the number of taxpayers claiming the deduction. In 1980, 2.9 million tax returns, equal to 10.2 percent of all itemized returns, claimed a deduction for casualty or theft losses. In 2016, the latest year available, an estimated 154,274 returns claimed such a deduction out of the 45.2 million returns that itemized deductions, with an average claim of roughly $33,621.

Use of the casualty and theft loss deduction can fluctuate widely from year to year. Deductions have risen substantially for years witnessing a major natural disaster—such as a hurricane, flood, or earthquake. In some years the increase in the total deduction claimed is due to a jump in the number of returns

claiming the deduction. In others it reflects a large increase in the average dollar amount of deduction per return claiming the loss deduction.

Selected Bibliography

Fulcher, Bill. "Casualty Losses Can Be Deductible," *National Public Accountant*, v. 44, July 1999, pp. 46-47.

Huang, Rachel J. and Larry Y. Tzeng. "Optimal Tax Deductions for Net Losses Under Private Insurance with an Upper Limit," *Journal of Risk and Insurance*, v. 74, no. 4, December 2007, pp. 883-893.

Kaplow, Louis. "Income Tax Deductions for Losses as Insurance," *American Economic Review*, v. 82, no. 4. September 1992, pp. 1013-1017.

Milam, Edward E. and Donald H. Jones Jr. "Casualty and Theft Losses Can Provide Significant Tax Deductions," *Taxes, The Tax Magazine*, v. 80, no. 10, October 2002, pp. 45-50.

Ritter, Gregory J. and Joel S. Berman. "Casualty Losses (A Tax Perspective)," *Florida Bar Journal*, v. 67, April 1993, pp. 43-38.

Sherlock, Molly F. "*Tax Policy and Disaster Recovery*," Congressional Research Service Report IF10730, September 11, 2018.

Thompson, Steven C. and Nell Adkins. "Casualty Gains — An Oxymoron, or Just a Trap for Unwary Taxpayers?" *Taxes*, v. 73, June 1995, pp. 318-24.

U.S. Congress, Senate Finance Committee. *Detailed Summary of Energy, Disaster Relief, AMT, and Other Tax Extender Provisions in Emergency Economic Stabilization Act of 2008,* October 1, 2008, reported by BNA, Inc, TaxCore - Congressional Documents, October 2, 2008.

U.S. Department of Treasury, Internal Revenue Service. *Casualties, Disasters, and Thefts*. Publication 547, March 5, 2018.

NET EXCLUSION OF PENSION CONTRIBUTIONS AND EARNINGS: PLANS COVERING PARTNERS AND SOLE PROPRIETORS (SOMETIMES REFERRED TO AS "KEOGH PLANS")

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	11.7	-	11.7
2019	14.8	-	14.8
2020	16.7	-	16.7
2021	18.4	-	18.4
2022	19.6	-	19.6

Authorization

Sections 401-407, 410-418E.

Description

Employer contributions to qualified pension, profit-sharing, stock-bonus, and annuity plans on behalf of an employee are not taxable to the employee. The employer is allowed a current deduction for these contributions (within limits). Earnings on these contributions are not taxed until distributed. These plans can include partners and proprietors (the self-employed), with or without employees.

These plans are subject to the same restrictions as employer plans although non-discrimination rules are not relevant when there are no employees (see entries on Net Exclusion of Pension Contributions and Earnings: Defined Benefit Plans and Net Exclusion of Pension Contributions and Earnings: Defined Contribution Plans for plan requirements). The partner, proprietor or employee is generally taxed on benefits when benefits are distributed. (In some cases, participants make direct contributions to plans that

are taxed to them as wages; these previously taxed contributions are not subject to tax when paid as benefits.)

There are two major types of pension plans: defined benefit plans, where employees are ensured of a certain benefit on retirement; and defined contribution plans, where employees have a right to accumulated contributions (and earnings on those contributions). For owners of unincorporated businesses, these plans are sometimes referred to as Keogh plans after the sponsor of the legislation that extended benefits to unincorporated businesses. Standard plans for the self-employed have more generous contribution limits than simplified plans but are complicated and administratively costly. A number of options for defined contribution benefit plans exist for the self-employed without employees or for small firms to simplify pensions which have lower contribution limits including 401(k) plans (see entry on Net Exclusion of Pension Contributions and Earnings: Defined Contribution Plans), Simplified Employee Plans (SEPs) and Savings Incentive Match Plans (SIMPLEs), which is a savings plan.

The tax expenditure is measured as the tax revenue that the government does not currently collect on contributions and earnings amounts, offset by the taxes paid on pensions by those who are currently receiving retirement benefits.

Impact

Pension plan treatment allows an up-front tax benefit by not including contributions in wage income. In addition, earnings on invested contributions are not taxed, although tax is paid on both original contributions and earnings when amounts are paid as benefits. The net effect of these provisions, assuming a constant tax rate, is effectively a tax exemption on the return. That is, the rate of return on the after-tax contributions is equal to the pre-tax rate of return. If tax rates are lower during retirement years than during the years of contribution and accumulation, there is a “negative” tax. In present value terms, the government loses more than it receives in taxes.

While some of the beneficiaries of the plans for unincorporated businesses include employees of small firms, the plans also benefit self-employed individuals who have no employees or only a spouse working in the business. This population includes independent contractors, although these individuals cannot participate in traditional plans (they can participate in 401(k), SEP and SIMPLE plans). According to Census data on businesses by

number of employees, more than 10 percent of all businesses have no employees.

According to the Social Security Administration, in 2014, pension income constituted 3 percent of total family income for elderly individuals in the poorest quintile (the lowest 20 percent of elderly individuals). Pension income, however, accounted for about 22.3 percent of total family income for those in the highest quintile.

There are several reasons that the tax benefit accrues disproportionately to higher-income individuals. First, according to the Labor Department's survey, employees with lower salaries are less likely to be covered by an employer plan. In 2018, 38 percent of workers in the bottom 25 percent of wages were covered by a pension plan. In contrast, 90 percent of workers in the top 25 percent were covered by a pension plan.

Second, in addition to fewer lower-income individuals being covered by the plans, the dollar contributions are much larger for higher-income individuals. This disparity occurs not only because of their higher salaries, but also because of the integration of many plans with Social Security. Under a plan that is integrated with Social Security, employer-derived Social Security benefits or contributions are taken into account as if they were provided under the plan in testing whether the plan discriminates in favor of employees who are officers, shareholders, or highly compensated. These integration rules allow a smaller fraction of income to be allocated to pension benefits for lower-wage employees.

Finally, higher-income individuals derive a larger benefit from tax benefits because their tax rates are higher and thus the value of tax reductions is greater.

In addition to differences across incomes, workers are more likely to be covered by pension plans if they work in certain industries, if they are employed by large firms, or if they are unionized. Thus, much of the benefit for unincorporated plans may be for self-employed individuals with no employees.

Rationale

While tax benefits for employee plans were allowed beneficial treatment by regulation shortly after the income tax was enacted, benefits for self-employed individuals were not allowed until 1962. The Self-Employed Individuals Retirement Act (P.L. 87-792) allowed self-employed individuals

to establish tax-qualified pension plans, known as Keogh (or H.R. 10) plans, which also benefitted from deferral.

The Revenue Act of 1978 (P.L. 95-600) allowed simplified employee pensions (SEPS) and tax-deferred savings (401(k)). The limits on SEPS and 401(k) plans were raised in the Economic Recovery Act of 1981 (P.L. 97-34). In the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248), limits on pensions were cut back and made the same for all employer plans, and special rules were established for "top-heavy" plans. The 1982 legislation also eliminated disparities in treatment between corporate and noncorporate (i.e., Keogh) plans, and introduced further restrictions on vesting and coverage.

The Deficit Reduction Act of 1984 (P.L. 98-369) maintained lower limits on contributions, and the Retirement Equity Act of that same year revised rules regarding spousal benefits, participation age, and treatment of breaks in service.

In the Tax Reform Act of 1986 (P.L. 99-514), various changes were enacted, including substantial reductions in the maximum contributions under defined contribution plans, and other changes (anti-discrimination rules, vesting, integration rules). In the Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647), rules to limit under-funding and over-funding of pensions were adopted. The Small Business Job Protection Act of 1996 (P.L. 104-188) made a number of changes to increase access to plans for small firms, including safe-harbor nondiscrimination rules. In the Taxpayer Relief Act of 1997 (P.L. 105-34), taxes on excess distributions and accumulations were eliminated.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16) raised the contribution and benefit limits for pension plans, allowed additional contributions for those over age 50, increased the full-funding limit for defined benefit plans, allowed additional ability to roll over limits on 401(k) and similar plans, and provided other regulatory changes. These provisions were to sunset at the end of 2010, but were made permanent by the Pension Protection Act of 2006. The 2001 act also created the Roth 401(k), which went into effect on January 1, 2006. Contributions to Roth 401(k)s are taxed, but qualified distributions are not taxed.

The Pension Protection Act of 2006 (P.L. 109-280) made a variety of changes relating to minimum funding requirements, disclosure, and increasing limits.

Assessment

The major economic justification for the favorable tax treatment of pension plans is that they arguably increase savings and increase retirement income security. The effects of these plans on savings and overall retirement income are, however, subject to some uncertainty.

Allowing plans for the self-employed may largely benefit higher-income owners, although the availability of coverage may encourage owners with employees to adopt pension plans.

One incentive to save relies on an individual's realizing tax benefits on savings about which he can make a decision. Since individuals cannot directly control their contributions to plans in many cases (defined benefit plans), or are subject to a ceiling on contributions, the tax incentives to save may not be very powerful, because tax benefits relate to savings that would have taken place in any case. This effect may be particularly pronounced for high-income individuals.

There has been some criticism of tax benefits to pension plans, because they are only available to individuals covered by employer plans. Thus they violate the principle of horizontal equity (equal treatment of equals). They have also been criticized for disproportionately benefitting high-income individuals.

Selected Bibliography

Cagan, Philip. *The Effect of Pension Plans on Aggregate Savings,* New York: Columbia University Press, 1965.

Choi, James J., David Laibson, and Brigitte C. Madrian. "Plan Design and 401(k) Savings Outcomes," *National Tax Journal,* v. 57, June 2004, pp. 275-298.

Eisenberg, Richard. "A Guide to Self-Employment Retirement Plans," *Forbes*, January 22, 2014, at http://www.forbes.com/sites/nextavenue/2014/01/22/a-guide-to-self-employment-retirement-plans/#68775e573abc.

Engen, Eric M., William G. Gale, and John Karl Scholz. "The Illusory Effects of Saving Incentives on Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 113-138.

Gale, William G. "The Effects of Pensions on Household Wealth: A Re-Evaluation of Theory and Evidence," *Journal of Political Economy*, v. 106, August 1998, pp. 706-723.

Hubbard, R. Glenn. "Do IRAs and Keoghs Increase Savings?" *National Tax Journal*, v. 37, March 1984, pp. 43-54.

— , and Jonathan S. Skinner. "Assessing the Effectiveness of Savings Incentives," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 73-90.

Iams, Howard M. and Patrick J. Purcell. "The Impact of Retirement Account Distributions on Measures of Family Income," *Social Security Bulletin*, v. 73, no. 2, 2013, pp. 77-86.

Internal Revenue Service, Retirement Plans for Self-Employed People, available at https://www.irs.gov/retirement-plans/retirement-plans-for-self-employed-people.

Joulfaian, David, and David Richardson. "Who Takes Advantage of Tax-Deferred Saving Programs? Evidence from Federal Income Tax Data," *National Tax Journal*, v. 54, September 2001, pp. 669-688.

Poterba, James M. "Retirement Security in an Aging Population," *American Economic Review*, v. 104, no. 5, May 2014, pp. 1-30.

Poterba, James M., Steven F. Venti, and David Wise. "Do 401(K) Contributions Crowd Out Other Personal Saving?" *Journal of Public Economics*, v. 58, 1995, pp. 1-32.

— . "How Retirement Saving Programs Increase Savings," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 91-112.

— . "Targeted Retirement Saving and the Net Worth of Elderly Americans," *American Economic Review*, v. 84, May 1995, pp 180-185.

Social Security Administration, Income of the Aged Chartbook, 2014, SSA Publication No. 13-11727, Washington: DC, April 2016.

U.S. Census Bureau, Statistics for All Firms with Paid Employees by Industry, Gender and Size of Firm for the States and the United States, 2012, American Fact Finder, available at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SBO_2012_00CSA09&prodType=table.

U.S. Department of Labor, Bureau of Labor Statistics, Employee Benefits Survey, March 2018,

https://www.bls.gov/ncs/ebs/benefits/2018/ownership/civilian/table03a.pdf.

NET EXCLUSION OF PENSION CONTRIBUTIONS AND EARNINGS: DEFINED BENEFIT PLANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	87.9	-	87.9
2019	90.2	-	90.2
2020	99.5	-	99.5
2021	113.1	-	113.1
2022	127.9	-	127.9

Authorization

Sections 401-407, 410-418E, and 457.

Description

Employer contributions to qualified pension, profit-sharing, stock-bonus, and annuity plans on behalf of an employee are not taxable to the employee. The employer is allowed a current deduction for these contributions (within limits). Earnings on these contributions are not taxed until distributed.

The employee or the employee's beneficiary is generally taxed on benefits when benefits are distributed. (In some cases, employees make direct contributions to plans that are taxed to them as wages; these previously taxed contributions are not subject to tax when paid as benefits.)

A pension, profit-sharing, or stock-bonus plan is a qualified plan only if it is established by an employer for the exclusive benefit of employees or their beneficiaries. In addition, a plan must meet certain requirements, including standards relating to nondiscrimination, vesting, requirements for participation, and survivor benefits. Nondiscrimination rules are designed to prevent the plans from primarily benefitting highly paid, key employees.

Vesting refers to the period of employment necessary to obtain non-forfeitable pension rights.

There are two major types of pension plans: defined benefit plans, where employees are ensured of a certain benefit on retirement; and defined contribution plans (see entry on Net Exclusion of Pension Contributions and Earnings: Defined Contribution Plans), where employees have a right to accumulated contributions (and earnings on those contributions). Defined benefit plans are subject to a variety of requirements to make sure that they are neither underfunded (and thus could not meet their promises of payment) or overfunded (which creates a tax sheltering opportunity for the firm). Private sector plans are also insured by the Pension Benefit Guaranty Corporation (PBGC). Portfolio choices are made by the employer.

Some plans are multiemployer plans, sponsored by several employers as part of a collective bargaining agreement.

The tax expenditure is measured as the tax revenue that the government does not currently collect on contributions and earnings amounts, offset by the taxes paid on pensions by those who are currently receiving retirement benefits.

Impact

Pension plan treatment allows an up-front tax benefit by not including contributions in wage income. In addition, earnings on invested contributions are not taxed, although tax is paid on both original contributions and earnings when amounts are paid as benefits. The net effect of these provisions, assuming a constant tax rate, is effectively tax exemption on the return. That is, the rate of return on the after-tax contributions is equal to the pre-tax rate of return. If tax rates are lower during retirement years than during the years of contribution and accumulation, there is a “negative” tax. In present value terms, the government loses more than it receives in taxes.

Defined benefit plans have important advantages for employees, because they guarantee an annuity in retirement, and thus decrease risk to employees due to uncertainties about investment returns, compared to defined contribution plans. Defined benefit plans, for the same reason, may be less attractive to employers because employers bear the risk. Defined benefit plans, once the major source of retirement earnings, have been declining in favor of defined contribution plans. In 1980, 38 percent of private workers had defined benefit plans; currently 23 percent do. Aside from employers wanting to

reduce risk, other reasons for the decline that are sometimes cited are the increasing regulatory and administrative costs of defined benefit plans, the shift of workers from the manufacturing sector (where such plans began) to the service sector, and the preference of employees, especially with the introduction of 401(k) plans that allow more control by the employees.

The employees who benefit most from defined benefit plans are taxpayers whose employment is covered by a plan and whose service has been sufficiently continuous for them to qualify for benefits in a company- or union-administered plan. The benefit derived from the provision by a particular employee depends upon the level of tax that would have been paid by the employee if the provision were not in effect.

According to the Social Security Administration, in 2014, pension income constituted 3 percent of total family income for elderly individuals in the poorest quintile (the lowest 20 percent of elderly individuals). Pension income, however, accounted for about 22.3 percent of total family income for those in the highest quintile.

According to the Labor Department's Employee Benefit Survey, more workers are covered by defined contribution plans (58 percent) than by defined benefit plans (27 percent). Participation rates are lower relative to availability, 40 percent for defined contribution compared to 23 percent for defined benefit.

There are several reasons that the tax benefit accrues disproportionately to higher-income individuals. First, according to the Labor Department's survey, employees with lower salaries are less likely to be covered by an employer plan. In 2018, 25 percent of workers in the bottom 25 percent of wages were covered by a pension plan. In contrast, 90 percent of workers in the top 25 percent were covered by a pension plan.

Second, in addition to fewer lower-income individuals being covered by the plans, the dollar contributions are much larger for higher-income individuals. This disparity occurs not only because of their higher salaries, but also because of the integration of many plans with Social Security. Under a plan that is integrated with Social Security, employer-derived Social Security benefits or contributions are taken into account as if they were provided under the plan in testing whether the plan discriminates in favor of employees who are officers, shareholders, or highly compensated. These integration rules allow a smaller fraction of income to be allocated to pension benefits for lower-wage employees.

Finally, higher-income individuals derive a larger benefit from tax benefits because their tax rates are higher and thus the value of tax reductions is greater.

In addition to differences across incomes, workers are more likely to be covered by pension plans if they work in certain industries, if they are employed by large firms, or if they are unionized.

Rationale

The first income tax law did not address the tax treatment of pensions, but Treasury Decision 2090 in 1914 ruled that pensions paid to employees were deductible to employers. Subsequent regulations also allowed pension contributions to be deductible to employers, with income assigned to various entities (employers, pension trusts, and employees). Earnings were also taxable. The earnings of stock-bonus or profit-sharing plans were exempted in the Revenue Act of 1921 (P.L. 67-98), and the treatment was extended to pension trusts in the Revenue Act of 1926 (P.L. 69-20).

The rationale for these early decisions as for many other early provisions was not clear, since there was no recorded debate. It seems likely that the exemptions may have been adopted in part to deal with technical problems of assigning income. In the Revenue Act of 1928 (P.L. 70-562), deductions for contributions to reserves were allowed.

In the Revenue Act of 1938 (P.L. 75-552), because of concerns about tax abuse (firms making contributions in profitable years and withdrawing them in loss years), restrictions were placed on withdrawals unless all liabilities were paid.

In the Revenue Act of 1942 (P.L. 77-753) the first anti-discrimination rules were enacted, although these rules allowed integration with Social Security. These regulations were designed to prevent the benefits of tax deferral from being concentrated among highly compensated employees. Rules to prevent over-funding (which could allow pension trusts to be used to shelter income) were adopted as well.

Non-tax legislation in the Taft-Hartley Act of 1947 (P.L. 80-101) affected collectively bargained multi-employer plans, and the Welfare and Pensions Plans Disclosure Act of 1958 (P.L. 87-420) added various reporting, disclosure, and other requirements.

Another milestone in the pension area was the Employee Retirement Income Security Act of 1974 (P.L. 93-406), which provided minimum standards for participation, vesting, funding, and plan asset management, along with creating the Pension Benefit Guaranty Corporation (PBGC) to provide insurance of benefits. Limits were established on the amount of benefits paid or contributions made to the plan, with both dollar limits and percentage-of-pay limits.

Legislation in the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) eliminated disparities in treatment between corporate and noncorporate (i.e., Keogh) plans, and introduced further restrictions on vesting and coverage.

The Deficit Reduction Act of 1984 (P.L. 98-369) maintained lower limits on contributions, and the Retirement Equity Act of that same year revised rules regarding spousal benefits, participation age, and treatment of breaks in service.

In the Tax Reform Act of 1986 (TRA86, P.L. 99-514), various changes were enacted, including anti-discrimination rules, vesting, and integration rules. In the Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647), rules to limit under-funding and over-funding of pensions were adopted. The Small Business Job Protection Act of 1996 (P.L. 104-188) made a number of changes to increase access to plans for small firms, including safe-harbor nondiscrimination rules. In the Taxpayer Relief Act of 1997 (P. L. 105-34) taxes on excess distributions and accumulations were eliminated.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16) raised the contribution and benefit limits for pension plans, allowed additional contributions for those over age 50, increased the full-funding limit for defined benefit plans, allowed additional ability to roll over limits on 401(k) and similar plans, and provided other regulatory changes. These provisions were to sunset at the end of 2010, but were made permanent by the Pension Protection Act of 2006 (P.L. 109-280). The 2006 Act also made a variety of changes relating to minimum funding requirements, disclosure, and increasing limits, and required firms to address underfunding and make up shortfalls (within seven years).

The Consolidated and Further Continuing Appropriations Act of 2014 (P.L. 113-235) addressed some funding problems associated with multiemployer defined benefit plans.

Assessment

Taxing defined benefit plans can be very difficult since it is not always easy to allocate pension accruals to specific employees. It would be particularly difficult to allocate accruals to individuals who are not vested. This complexity would not, however, preclude taxation of trust earnings at some specified rate.

The major economic justification for the favorable tax treatment of pension plans is that they arguably increase savings and increase retirement income security. Retirement security objectives are more effectively achieved by defined benefit plans. The effects of these plans on savings and overall retirement income are, however, subject to some uncertainty.

One incentive to save relies on an individual's realizing tax benefits on savings about which he can make a decision. Since individuals cannot directly control their contributions to plans in many cases (defined benefit plans), or are subject to a ceiling on contributions, the tax incentives to save may not be very powerful, because tax benefits relate to savings that would have taken place in any case. At the same time, pension plans may force saving and retirement income on employees who otherwise would have total savings less than their pension-plan savings. The empirical evidence is mixed, and it is not clear to what extent forced savings is desirable.

There has been some criticism of tax benefits to pension plans, because they are only available to individuals covered by employer plans. Thus they violate the principle of horizontal equity (equal treatment of equals). They have also been criticized for disproportionately benefitting high-income individuals.

Selected Bibliography

Brown, Elizabeth F. "Lessons from Efforts to Manage the Shift of Pensions to Defined Contribution Plans in the United States, Australia, and the United Kingdom," *American Business Law Journal*, v. 53, is. 5, Summer 2016, pp. 315-382.

Butrica, Barbara, Howard W. Iams, Karen E. Smith, and Eric J. Toder. "The Disappearing Defined Benefit and Its Potential Impact on Retirement Income," *Social Security Bulletin*, v. 69. no. 3, 2009.

Cagan, Philip. *The Effect of Pension Plans on Aggregate Savings,* New York: Columbia University Press, 1965.

Carroll, Donald C. "The National Pension Crisis: A Test in Law, Economics, and Morality," *University of San Francisco Law Review*, v. 50, no. 3, 2016, pp. 469-508.

Engen, Eric M., William G. Gale, and John Karl Scholz. "The Illusory Effects of Saving Incentives on Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 113-138.

Fox, John O. "The Troubling Shortfalls and Excesses of Tax Subsidized Pension Plans," ch. 11, *If Americans Really Understood the Income Tax,* Boulder, CO, Westview Press, 2001.

Gale, William G. "The Effects of Pensions on Household Wealth: A Re-Evaluation of Theory and Evidence," *Journal of Political Economy*, v. 106, August 1998, pp. 706-723.

Gravelle, Jane G. *Economic Effects of Taxing Capital Income*, ch. 8. Cambridge, MA: MIT Press, 1994.

Hungerford, Thomas L. *Saving Incentives: What May Work, What May Not,* U.S. Library of Congress, Congressional Research Service Report RL33482, Washington, DC: June 10, 2011.

Iams, Howard M. and Patrick J. Purcell. "The Impact of Retirement Account Distributions on Measures of Family Income," *Social Security Bulletin*, v. 73, no. 2, 2013, pp. 77-86.

Ippolito, Richard. "How Recent Tax Legislation Has Affected Pension Plans," *National Tax Journal*, v. 44, September 1991, pp. 405-417.

Johnson, Richard W., and Cori E. Uccello. "Cash Balance Plans: What Do They Mean for Retirement Security?" *National Tax Journal,* v. 57, June 2004, pp. 315-328.

Lindeman, David, and Larry Ozanne. *Tax Policy for Pensions and Other Retirement Savings,* U.S. Congress, Congressional Budget Office. Washington, DC: U.S. Government Printing Office, April 1987.

Munnell, Alicia. "Are Pensions Worth the Cost?" *National Tax Journal*, v. 44, September 1991, pp. 406-417.

— . "Current Taxation of Qualified Plans: Has the Time Come?" *New England Economic Review*, March-April 1992, pp. 12-25.

— . "The Impact of Public and Private Pension Schemes on Saving and Capital Formation," *Conjugating Public and Private: The Case of Pensions.* Geneva: International Social Security Association, Studies and Research No. 24, 1987.

— . "Private Pensions and Saving: New Evidence," *Journal of Political Economy*, v. 84, October 1976, pp. 1013-1032.

Poterba, James M. "Retirement Security in an Aging Population," *American Economic Review*, v. 104, no. 5, May 2016, pp. 1-30.

Social Security Administration, Income of the Aged Chartbook, 2014, SSA Publication No. 13-11727, Washington: DC, April 2014.

Topoleski, John. *Data on Multiemployer Defined Benefit (DB) Pension Plans,* U.S. Library of Congress, Congressional Research Service Report R45187, Washington, DC: August 10, 2018.

— . *Multiemployer Defined Benefit (DB) Pension Plans: A Primer*, U.S. Library of Congress, Congressional Research Service Report R43305, Washington, DC: September 24, 2018.

— . *Policy Options for Multiemployer Defined Benefit Pension Plans*, U.S. Library of Congress, Congressional Research Service Report R45311, Washington, DC: September 12, 2018.

— . *U.S. Household Savings for Retirement in 2010*, U.S. Library of Congress, Congressional Research Service Report R43057, Washington, DC: July 23, 2013.

— . *Worker Participation in Employer-Sponsored Pensions: A Fact Sheet,* U.S. Library of Congress, Congressional Research Service Report R43439, Washington DC: September 10, 2018.

Turner, John A. "Pension Tax Treatment," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds. Washington, DC: Urban Institute Press, 2005.

U.S. Congress, Joint Committee on Taxation, Present Law And Background Relating To Qualified Defined Benefit Plans, JCX-99-14, September 15, 2014.

— . Present Law Relating to MultiEmployer Defined Benefit Plans, JCX-30-38, April 17, 2018.

U.S. Department of Labor, Bureau of Labor Statistics, Employee Benefits Survey, 2018,

https://www.bls.gov/ncs/ebs/benefits/2018/ownership/civilian/table03a.pdf.

U.S. Department of the Treasury. *Report to Congress on the Effect of the Full Funding Limit on Pension Benefit Security*, May 1991.

U.S. General Accounting Office. *Answers to Key Questions About Private Pensions*, Washington, DC: U.S. Government Printing Office, GAO-02-7455P, September 18, 2002.

— . *Effects of Changing the Tax Treatment of Fringe Benefits*, Washington, DC: U.S. Government Printing Office, April 1992.

— . *Private Pensions: Improving Worker Coverage and Benefits*, Washington, DC: U.S. Government Printing Office, GAO-2-225. April 16, 2002.

VanDerhei. "How Does the Probability of a "Successful" Retirement Differ Between Participants in Final-Average Defined Benefit Plans and Voluntary Enrollment 401(k) Plans?" *EBRI Notes*, v. 36, is. 10, October 25, 2015, pp. 9-23.

NET EXCLUSION OF PENSION CONTRIBUTIONS AND EARNINGS: DEFINED CONTRIBUTION PLANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	125.5	-	125.5
2019	120.8	-	120.8
2020	125.0	-	125.0
2021	133.9	-	133.9
2022	142.8	-	142.8

Authorization

Sections 401-407, 410-418E, and 457.

Description

Employer contributions to qualified pension, profit-sharing, stock-bonus, and annuity plans on behalf of an employee are not taxable to the employee. The employer is allowed a current deduction for these contributions (within limits). Earnings on these contributions are not taxed until distributed.

The employee or the employee's beneficiary is generally taxed on benefits when benefits are distributed. (In some cases, employees make direct contributions to plans that are taxed to them as wages; these previously taxed contributions are not subject to tax when paid as benefits.)

A pension, profit-sharing, or stock-bonus plan is a qualified plan only if it is established by an employer for the exclusive benefit of employees or their beneficiaries. In addition, a plan must meet certain requirements, including standards relating to nondiscrimination, vesting, requirements for participation, and survivor benefits. Nondiscrimination rules are designed to prevent the plans from primarily benefitting highly paid, key employees.

Vesting refers to the period of employment necessary to obtain non-forfeitable pension rights.

There are two major types of pension plans: defined benefit plans (see entry on Net Exclusion of Pension Contributions and Earnings: Defined Benefit Plans), where employees are ensured of a certain benefit on retirement; and defined contribution plans, where employees have a right to accumulated contributions (and earnings on those contributions). Defined contribution plans include those where employee contributions are elective, such as 401(k) plans used in the private sector, thrift savings plans used by the federal government, and 403(b) and 457 plans used by government and nonprofit entities.

The tax expenditure is measured as the tax revenue that the government does not currently collect on contributions and earnings amounts, offset by the taxes paid on pensions by those who are currently receiving retirement benefits.

Roth 401(k) plan contributions are not deductible from income, but no tax is paid on earnings or benefits; the tax expenditure is the loss of revenue on the earnings.

All plans are subject to dollar limits on contributions that are adjusted for inflation. Total contributions to defined contribution plans are limited to $55,000 for 2018; for plans where employees have elective contributions, such as 401(k) plans, the employee is limited to an $18,500 contribution for 2018.

Impact

Pension plan treatment allows an up-front tax benefit by not including contributions in wage income. In addition, earnings on invested contributions are not taxed, although tax is paid on both original contributions and earnings when amounts are paid as benefits. The net effect of these provisions, assuming a constant tax rate, is effectively tax exemption on the return. That is, the rate of return on the after-tax contributions is equal to the pre-tax rate of return. If tax rates are lower during retirement years than during the years of contribution and accumulation, there is a “negative” tax. In present value terms, the government loses more than it receives in taxes.

Roth 401(k) plans are subject to a zero tax rate because earnings are exempt.

The employees who benefit from this provision consist of taxpayers whose employment is covered by a plan. The benefit derived from the provision by a particular employee depends upon the level of tax that would have been paid by the employee if the provision were not in effect.

According to the Labor Department's Employee Benefit Survey, more workers are covered by defined contribution plans (58 percent) than by defined benefit plans (27 percent). Participation rates are lower relative to availability, 40% for defined contribution compared to 23 percent for defined benefit.

According to the Social Security Administration, in 2014, pension income constituted 3 percent of total family income for elderly individuals in the poorest quintile (the lowest 20 percent of elderly individuals). Pension income, however, accounted for about 22.3 percent of total family income for those in the highest quintile.

There are several reasons that the tax benefit accrues disproportionately to higher-income individuals. First, according to the Labor Department's survey, employees with lower salaries are less likely to be covered by an employer plan. In 2018, 25 percent of workers in the bottom 25 percent of wages were covered by a pension plan. In contrast, 90 percent of workers in the top 25 percent were covered by a pension plan.

Second, in addition to fewer lower-income individuals being covered by the plans, the dollar contributions are much larger for higher-income individuals. This disparity occurs not only because of their higher salaries, but also because of the integration of many plans with Social Security. Under a plan that is integrated with Social Security, employer-derived Social Security benefits or contributions are taken into account as if they were provided under the plan in testing whether the plan discriminates in favor of employees who are officers, shareholders, or highly compensated. These integration rules allow a smaller fraction of income to be allocated to pension benefits for lower-wage employees.

Finally, higher-income individuals derive a larger benefit from tax benefits because their tax rates are higher and thus the value of tax reductions is greater.

In addition to differences across incomes, workers are more likely to be covered by pension plans if they work in certain industries, if they are employed by large firms, or if they are unionized.

Rationale

The first income tax law did not address the tax treatment of pensions, but Treasury Decision 2090 in 1914 ruled that pensions paid to employees were deductible to employers. Subsequent regulations also allowed pension contributions to be deductible to employers, with income assigned to various entities (employers, pension trusts, and employees). Earnings were also taxable. The earnings of stock-bonus or profit-sharing plans were exempted in the Revenue Act of 1921 (P.L. 67-98), and the treatment was extended to pension trusts in the Revenue Act of 1926 (P.L. 69-20).

The rationale for these early decisions as for many other early provisions was not clear, since there was no recorded debate. It seems likely that the exemptions may have been adopted in part to deal with technical problems of assigning income. In the Revenue Act of 1928 (P.L. 70-562), deductions for contributions to reserves were allowed.

In the Revenue Act of 1938 (P.L. 75-552), because of concerns about tax abuse (firms making contributions in profitable years and withdrawing them in loss years), restrictions were placed on withdrawals unless all liabilities were paid.

In the Revenue Act of 1942 (P.L. 77-753), the first anti-discrimination rules were enacted, although these rules allowed integration with Social Security. These regulations were designed to prevent the benefits of tax deferral from being concentrated among highly compensated employees. Rules to prevent over-funding (which could allow pension trusts to be used to shelter income) were adopted as well.

Non-tax legislation in the Taft-Hartley Act of 1947 (P.L. 80-101) affected collectively bargained multi-employer plans, and the Welfare and Pensions Plans Disclosure Act of 1958 (P.L. 87-420) added various reporting, disclosure, and other requirements.

In the Revenue Act of 1978 (P.L. 95-600), simplified employee pensions (SEPS) and tax-deferred savings (401(k)) plans were allowed. The limits on SEPS and 401(k) plans were raised in the Economic Recovery Tax Act of 1981 (P.L. 97-34).

In the Tax Reform Act of 1986 (P.L. 99-514), various changes were enacted, including substantial reductions in the maximum contributions under defined contribution plans, and other changes (anti-discrimination rules, vesting, integration rules). The Small Business Job Protection Act of 1996

(P.L. 104-188) made a number of changes to increase access to plans for small firms, including safe-harbor nondiscrimination rules.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16) raised the contribution and benefit limits for pension plans, allowed additional contributions for those over age 50, allowed additional ability to roll over limits on 401(k) and similar plans, and provided other regulatory changes. These provisions were to sunset at the end of 2010, but were made permanent by the Pension Protection Act of 2006 (P.L. 109-280). The 2001 Act also created the Roth 401(k), which went into effect on January 1, 2006. Contributions to Roth 401(k)s are taxed, but qualified distributions are not taxed.

Assessment

Taxing defined contribution pension plans would not be difficult, but extending the same treatment to defined benefit plans would be since it is not always easy to allocate pension accruals to specific employees.

The major economic justification for the favorable tax treatment of pension plans is that they arguably increase savings and increase retirement income security. The effects of these plans on savings and overall retirement income are, however, subject to some uncertainty.

One incentive to save relies on an individual's realizing tax benefits on savings about which he can make a decision. Since individuals cannot directly control their contributions to plans in many cases (defined benefit plans), or are subject to a ceiling on contributions, the tax incentives to save may not be very powerful, because tax benefits relate to savings that would have taken place in any case. At the same time, pension plans may force saving and retirement income on employees who otherwise would have total savings less than their pension-plan savings. Elective defined contribution plans such as 401(k) plans do not have this problem, although those who do not participate lose matching contributions. The empirical evidence is mixed, and it is not clear to what extent forced savings is desirable.

There has been some criticism of tax benefits to pension plans, because they are only available to individuals covered by employer plans. Thus they violate the principle of horizontal equity (equal treatment of equals). They have also been criticized for disproportionately benefitting high-income individuals.

The Enron collapse in 2001 focused attention on another important issue in pension plans: the displacement of defined benefit plans by defined contribution plans (particularly those with voluntary participation, such as the 401(k) plan, which are not insured) and the instances in which defined contribution plans were heavily invested in employer securities, increasing the risk to the employee who could lose retirement savings (as well as a job) when his or her firm failed. Research has suggested that individuals do not diversify their portfolios in the way that investment advisors would suggest, that they actually increase the share of their own contributions invested in employer stock when the employer stock is also used to make matching contributions, and that they are strongly affected by default choices in the level and allocation of investment.

Some evidence indicates that workers are more likely to participate in retirement savings plans (such as 401(k) plans) if the default when they are hired is to be automatically included rather than having to choose to opt in.

Selected Bibliography

Brown, Elizabeth F. "Lessons from Efforts to Manage the Shift of Pensions to Defined contribution Plans in the United States, Australia, and the United Kingdom," *American Business Law Journal*, v. 53, is. 5, Summer 2016, pp. 315-382.

Carroll, Donald C. "The National Pension Crisis: A Test in Law, Economics, and Morality," *University of San Francisco Law Review*, v. 50, no. 3, 2016, pp. 469-508.

Chernozhukov Victor, and Christian Hansen. "The Effects of 401(k) Participation on the Wealth Distribution: An Instrumental Quantile Regression Analysis," *Review of Economics and Statistics*, v. 86, no. 3, August 2004, pp. 735-751.

Choi, James J. "Contributions to Defined Pension Plans," *Annual Review of Financial Economics*, v. 7, no. 1, 2015, pp. 161-178.

Choi, James J., David Laibson, and Brigitte C. Madrian. "Plan Design and 401(k) Savings Outcomes," *National Tax Journal,* v. 57, June 2004, pp. 275-298.

Engen, Eric M., William G. Gale, and John Karl Scholz. "The Illusory Effects of Saving Incentives on Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 113-138.

Even, William E. and David Macpherson. "Company Stock in Pension Plans," *National Tax Journal,* v. 57, June 2004, pp. 299-314.

Fox, John O. "The Troubling Shortfalls and Excesses of Tax Subsidized Pension Plans," ch. 11, *If Americans Really Understood the Income Tax,* Boulder, CO, Westview Press, 2001.

Friedberg, Leora, and Michael T. Owyang. "Not Your Father's Pension Plan: The Rise of 401(k) and Other Defined Contribution Plans," *Federal Reserve Bank of St. Louis Review*, v. 84, January-February 2002, pp. 23-34.

Gale, William G. "The Effects of Pensions on Household Wealth: A Re-Evaluation of Theory and Evidence," *Journal of Political Economy*, v. 106, August 1998, pp. 706-723.

—. J. Mark Iwry, and Gordon McDonald. "An Analysis of the Roth 401(k)," *Tax Notes*, January 9, 2006, pp. 163-167.

Gravelle, Jane G. *Economic Effects of Taxing Capital Income*, ch. 8. Cambridge, MA: MIT Press, 1994.

—. *Employer Stock in Pension Plans: Economic and Tax Issues*, U.S. Library of Congress, Congressional Research Service Report RL31551, September 4, 2002.

—. "The Enron Debate: Lessons for Tax Policy," Urban-Brookings Tax Policy Center Discussion Paper 6, Washington, DC: The Urban Institute, February 2003.

Hubbard, R. Glenn, and Jonathan S. Skinner. "Assessing the Effectiveness of Savings Incentives," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 73-90.

Iams, Howard M. and Patrick J. Purcell. "The Impact of Retirement Account Distributions on Measures of Family Income," *Social Security Bulletin*, v. 73, no. 2, 2013, pp. 77-86.

Joulfaian, David, and David Richardson. "Who Takes Advantage of Tax-Deferred Saving Programs? Evidence from Federal Income Tax Data," *National Tax Journal*, v. 54, September 2001, pp. 669-688.

Madrian Brigette, C. "Matching Contributions and Savings Outcomes: A Behavioral Economics Perspective," in *Matching Contributions for Pensions: A Review of International Experience*, eds. R Hinz, R Holzman, D Tuesta, N Takayama. Washington, DC: World Bank, 2013, pp. 289-310.

Madrian, Brigette C., and Dennis F. Shea. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," *Quarterly Journal of Economics*, v. 116, November 2001, pp. 1149-1187.

Mitchell, Olivia S., Stephen P. Utkus, and Tongxuan Yang. "Turning Workers into Savers? Incentives, Liquidity, and Choice in 401(k) Plan Design," *National Tax Journal*, v. 60, no. 3, September 2007, pp. 469-489.

Munnell, Alicia H. and Annika Sunden. *Coming Up Short: The Challenge of 401(k) Plans,* Washington, DC: Brookings Institution Press, 2004.

Pence, Karen. "Nature or Nurture: Why do 401(k) Participants Save Differently than Other Workers?" *National Tax Journal*, v. 55, September 2002, pp. 596-616.

Poterba, James M. "Retirement Security in an Aging Population," *American Economic Review*, v. 104, no. 5, May 2014, pp. 1-30.

Poterba, James M., Steven F. Venti and David Wise. "Do 401(K) Contributions Crowd Out Other Personal Saving?" *Journal of Public Economics*, v. 58, 1995, pp. 1-32.

—. "How Retirement Saving Programs Increase Savings," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 91-112.

—. "Targeted Retirement Saving and the Net Worth of Elderly Americans," *American Economic Review*, v. 84, May 1995, pp 180-185.

Social Security Administration, Income of the Aged Chartbook, 2014, SSA Publication No. 13-11727, Washington: DC, April 2016.

Topoleski, John. *401(k) Plans and Retirement Savings: Issues for Congress*, U.S. Library of Congress, Congressional Research Service Report R40707, January 7, 2011.

— . *U.S. Household Savings for Retirement in 2010*, U.S. Library of Congress, Congressional Research Service Report R43057, July 23, 2013.

— . *Worker Participation in Employer-Sponsored Pensions: A Fact Sheet,* U.S. Library of Congress, Congressional Research Service Report R43439, February 2. 2015.

Turner, John A. "Pension Tax Treatment," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds. Washington, DC: Urban Institute Press, 2005.

U.S. Department of Labor, Bureau of Labor Statistics, Employee Benefits Survey, 2018,

https://www.bls.gov/ncs/ebs/benefits/2018/ownership/civilian/table03a.pdf.

VanDerhei, Jack. "How Does the Probability of a "Successful" Retirement Differ Between Participants in Final-Average Defined Benefit Plans and Voluntary Enrollment 401(k) Plans?" *EBRI Notes*, v. 36, is. 10, October 25, 2015, pp. 9-23.

INDIVIDUAL RETIREMENT ACCOUNTS: TRADITIONAL IRAS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	17.8	-	17.8
2019	18.4	-	18.4
2020	19.6	-	19.6
2021	20.9	-	20.9
2022	19.8	-	19.8

Authorization

Sections 219, 408, and 408A.

Description

There are two types of individual retirement accounts (IRAs): the traditional IRA and the Roth IRA. The traditional IRA allows for the tax deferred accumulation of investment earnings, and some individuals are eligible to make tax-deductible contributions to their traditional IRAs while others are not. Some or all distributions from traditional IRAs are taxed at retirement. In contrast, contributions to Roth IRAs are not tax deductible, but distributions from Roth IRAs are not taxed on withdrawal in retirement.

The deduction for contributions for traditional IRAs is phased out for active participants in a pension plan. Individuals not covered by a pension plan and whose spouse is also not covered can deduct the full amount of their IRA contribution regardless of income. For 2018, the phase-out range for single taxpayers is $63,000 to $73,000 in modified adjusted gross income and $101,000 to $121,000 for joint returns.

The annual limit for IRA contributions is the lesser of $5,500 or 100 percent of compensation. The ceiling is indexed for inflation in $500 increments. Individuals age 50 and older may make an additional catch-up contribution of $1,000.

A married taxpayer who is eligible to set up an IRA is permitted to make deductible contributions up to $5,500 to an IRA for the benefit of the spouse.

Distributions made before age 59½ (other than those attributable to disability or death) are subject to an additional 10-percent income tax unless they are rolled over to another IRA or to an employer plan. Exceptions include withdrawals of up to $10,000 used to purchase a first home, for education expenses, or for unreimbursed medical expenses.

Distributions from IRAs must begin by age 70½. Amounts may be withdrawn, on a one-time basis, from IRAs and contributed to Health Savings Accounts (HSAs) without tax or penalty. Beginning in 2010, the income limitations on converting a traditional IRA to a Roth IRA are eliminated.

Individuals are allowed to roll over employer retirement account balances into individual IRAs.

The current tax expenditure reflects the net effect from three types of revenue losses and gains. The first is the forgone taxes from the deduction of IRA contributions by certain taxpayers (for deductible IRAs). The second is the forgone taxes from not taxing IRA earnings (for all types of IRAs). The third is the revenue gain from the taxation of IRA distributions. Distributions from traditional IRAs are taxed. If the contributions were deductible, then the entire distribution is taxed. Only the investment earnings are taxed for distributions from nondeductible traditional IRAs.

Impact

Deductible IRAs allow an up-front tax benefit by deducting contributions along with no taxing of earnings, although tax is paid when earnings are withdrawn. The net overall effect of these provisions, assuming a constant tax rate, is the equivalent of tax exemption on the return (as in the case of Roth IRAs). That is, the individual earns the pre-tax rate of return on his or her after-tax contribution. If tax rates are lower during retirement years than they were during the years of contribution and accumulation, there is a “negative” tax on the return. Non-deductible IRAs benefit from a postponement of tax rather than an effective forgiveness of taxes, as long as they incur some tax on withdrawal.

Assets held in traditional IRAs are about ten times the size of those held in Roth IRAs: $6.7 trillion compared to $0.7 trillion in 2016. Most contributions to traditional IRAs are the result of rollovers from employer plans. Roth IRAs have more generous income limits but are also relatively newer. About two-thirds of the revenue loss is due to traditional IRAs which suggests that the offset from taxing withdrawals is probably larger than the loss from deducting contributions, offsetting some of the revenue loss from the lack of taxation of earnings.

IRAs tend to be less focused on higher-income levels than some other types of capital tax subsidies, in part because they are capped at a dollar amount and in part because of the income limits in some cases. Their benefits do tend, nevertheless, to accrue more heavily to the upper half of the income distribution. This effect occurs in part because of the low participation rates at lower income levels. Further, the lower marginal tax rates at lower income levels make the tax benefits less valuable.

As shown in the table below, incomes over $75,000 (about 30 percent of the income distribution) received over half the benefits of the deduction for traditional IRA. Incomes below $30,000 (about a third of the income distribution) accounted for about 11 percent of the deductions. Contributions to Roth IRAs are not reported on the tax return but might be more concentrated in higher income levels because the income limits are higher.

Distribution by Income Class of IRA Deductions, 2016

Income Class (in thousands of $)	Percentage Distribution of Amount Deducted
Below $10	1.6
$10 to $20	3.2
$20 to $30	6.0
$30 to $40	7.1
$40 to $50	8.1
$50 to $75	17.4
$75 to $100	15.1
$100 to $200	29.9
$200 and over	11.6

Note: Derived from 2016 IRS, Statistics of Income data. This is not a distribution of the tax expenditure but of the amount deducted.

Rationale

The provision for IRAs was enacted in the Employee Retirement Income Security Act of 1974 (P.L. 93-406), but it was limited to individuals not covered by pension plans. The purpose of IRAs was to reduce discrimination against these individuals.

In the Tax Reform Act of 1976 (P.L. 94-555), the benefits of IRAs were extended to a limited degree to the nonworking spouse of an eligible employee. It was thought to be unfair that the nonworking spouse of an employee eligible for an IRA did not have access to a tax-favored retirement program.

In the Economic Recovery Tax Act of 1981 (P.L. 97-34), the deduction limits for all IRAs were increased to the lesser of $2,000 or 100 percent of compensation ($2,250 for spousal IRAs). The 1981 legislation extended the IRA program to employees who are active participants in tax-favored employer plans, and permitted an IRA deduction for qualified voluntary employee contributions to an employer plan.

The current rules limiting IRA deductions for higher-income individuals not covered by pension plans were added as part of the Tax Reform Act of 1986 (P.L. 99-514). Part of the reason for this restriction arose from the requirements for revenue and distributional neutrality. The broadening of the base at higher income levels through restrictions on IRA deductions offset the tax rate reductions. The Taxpayer Relief Act of 1997 (P.L. 105-34) increased phase-outs and added Roth IRAs to encourage savings.

The 2001 tax cut act raised the IRA contribution limit to $3,000, with an eventual increase to $5,000 and inflation indexing. These provisions were to sunset at the end of 2010, but were made permanent by the Pension Protection Act of 2006 (P.L. 109-280). The 2001 tax act also added the tax credit and catch-up contributions. The elimination of the income limit on Roth IRA conversions starting in 2010 was added by the Tax Increase Prevention and Reconciliation Act of 2005 (P.L. 109-222).

Under legislation adopted at the end of 2006 (the Tax Relief and Health Care Act of 2006, P.L. 109-432), amounts may be withdrawn, on a one-time basis, from IRAs and contributed to Health Savings Accounts (HSAs) without tax or penalty.

Assessment

The tendency of capital income tax relief to benefit higher-income individuals has been reduced in the case of IRAs by the dollar ceiling on the contribution, and by the phase-out of the IRAs as income rises for those covered by a pension plan. Providing IRA benefits without income ceilings to those not covered by pensions may be justified as a way of providing more equity between those covered and not covered by an employer plan.

Another economic justification for IRAs is that they arguably increase savings and increase retirement security. The effects of these plans on savings and overall retirement income are, however, subject to some uncertainty, and this issue has been the subject of a considerable literature.

Selected Bibliography

Attanasio, Orazio and Thomas De Leire. "The Effect of Individual Retirement Accounts on Household Consumption and Savings," *Economic Journal*, v. 112, July 2002, pp. 504-538.

Burman, Leonard, Joseph J. Cordes, and Larry Ozanne. "IRAs and National Savings," *National Tax Journal*, v. 43, September 1990, pp. 123-128.

Burman, Leonard, William G. Gale, and David Weiner. "The Taxation of Retirement Saving: Choosing Between Front-Loaded and Back-Loaded Options." *National Tax Journal*, v. 54, September 2001, pp. 689-702.

Burnham, Paul and Larry Ozanne. "Individual Retirement Accounts," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds. Washington, DC: Urban Institute Press, 2005.

Engen, Eric M., William G. Gale, and John Karl Scholz. "The Illusory Effects of Saving Incentives on Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 113-138.

Feenberg, Daniel and Jonathan Skinner. "Sources of IRA Savings," *Tax Policy and the Economy 1989*, Lawrence H. Summers, ed. Cambridge, MA.: M.I.T. Press, 1989, pp. 25-46.

Gale, William G. and John Karl Scholz. "IRAs and Household Savings," *American Economic Review*, v. 84, no. 5, December 1994, pp. 1233-1260.

Gravelle, Jane G. "Do Individual Retirement Accounts Increase Savings?" *Journal of Economic Perspectives*, v. 5, Spring 1991, pp. 133-148.

— . *Economic Effects of Taxing Capital Income*, ch. 8. Cambridge, MA: MIT Press, 1994.

Hubbard, R. Glenn and Jonathan S. Skinner. "Assessing the Effectiveness of Savings Incentives," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 73-90.

Iams, Howard M. and Patrick J. Purcell, "The Impact of Retirement Account Distributions on Measures of Family Income," *Social Security Bulletin*, v. 73, no. 2, 2013, pp. 77-86.

Imrohoroglu, Selahattn and Douglas Joins. "The Effect of Tax Favored Retirement Accounts on Capital Accumulation," *American Economic Review*, v. 88, September 1988, pp. 749-768.

Joulfaian, David and David Richardson. "Who Takes Advantage of Tax-Deferred Saving Programs? Evidence from Federal Income Tax Data," *National Tax Journal,* v. 54, September 2001, pp. 669-688.

Kotlikoff, Laurence J. "The Crisis in U.S. Saving and Proposals to Address the Crisis," *National Tax Journal*, v. 43, September 1990, pp. 233-246.

Poterba, James M. "Retirement Security in an Aging Population," *American Economic Review*, v. 104, no. 5, May 2014, pp. 1-30.

Poterba, James, Steven Venti, and David A. Wise. "How Retirement Savings Programs Increase Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 91-112.

Topoleski, John. *Traditional and Roth Individual Retirement Accounts (IRAs): A Primer*, U.S. Library of Congress, Congressional Research Service Report RL34397, May 11, 2018.

Venti, Steven F. and David A. Wise. "Have IRAs Increased U.S. Savings?" *Quarterly Journal of Economics*, v. 105, August 1990, pp. 661-698.

INDIVIDUAL RETIREMENT ARRANGEMENTS: ROTH IRAS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	7.9	-	7.9
2019	7.8	-	7.8
2020	8.2	-	8.2
2021	9.0	-	9.0
2022	9.9	-	9.9

Authorization

Sections 219, 408, and 408A.

Description

There are two types of individual retirement accounts (IRAs): the traditional IRA and the Roth IRA. The traditional IRA allows for the tax deferred accumulation of investment earnings, and some individuals are eligible to make tax-deductible contributions to their traditional IRAs while others are not. Some or all distributions from traditional IRAs are taxed at retirement. In contrast, contributions to Roth IRAs are not tax deductible, but distributions from Roth IRAs are not taxed on withdrawal in retirement. Roth IRAs are sometimes referred to as backloaded IRAs.

The benefits are phased out for active participants in a pension plan. Individuals not covered by a pension plan and whose spouses are not covered are eligible for full benefits regardless of income. For 2018, these benefits are phased out at $189,000 to $199,000 for a joint return and $120,000 to $135,000 for singles.

The annual limit for IRA contributions is the lesser of $5,500 or 100 percent of compensation. The ceiling is indexed for inflation in $500

increments. Individuals age 50 and older may make an additional catch-up contribution of $1,000.

A married taxpayer who is eligible to set up an IRA is permitted to make deductible contributions up to $5,500 to an IRA for the benefit of the spouse.

Distributions made before age 59½ (other than those attributable to disability or death) are subject to an additional 10-percent income tax unless they are rolled over to another IRA or to an employer plan. Exceptions include withdrawals of up to $10,000 used to purchase a first home, for education expenses, or for unreimbursed medical expenses. Amounts may be withdrawn, on a one-time basis, from IRAs and contributed to Health Savings Accounts (HSAs) without tax or penalty.

Roth IRAs are not subject to minimum distribution requirements as are traditional IRAs (where distributions must begin by age 70½). Contributions can continue to be made after 70½.

Beginning in 2010, the income limitations on converting a traditional IRA to a Roth IRA are eliminated.

Individuals are allowed to roll over employer retirement account balances into individual IRAs.

The current tax expenditure reflects the forgone taxes from not taxing Roth IRA earnings. Qualified distributions from Roth IRAs are not taxed.

Impact

Earnings from Roth IRAs are exempt from tax and thus have a zero tax rate.

Assets held in traditional IRAs are about six times the size of those held in Roth IRAs: $6.7 trillion compared to $0.7 trillion in 2016.

IRAs tend to be less focused on higher-income levels than some other types of capital tax subsidies, in part because they are capped at a dollar amount and in part because of the income limits in some cases. Their benefits do tend, nevertheless, to accrue more heavily to the upper half of the income distribution, at least according to data on traditional IRA deductions. This effect occurs in part because of the low participation rates at lower-income levels. Further, the lower marginal tax rates at lower-income levels make the tax benefits less valuable.

Rationale

The Taxpayer Relief Act of 1997 (P.L. 105-34) added Roth IRAs to encourage savings. (See entry on traditional IRAs for the prior history.)

The 2001 tax cut act raised the IRA contribution limit to $3,000, with an eventual increase to $5,000 and inflation indexing. These provisions were to sunset at the end of 2010, but were made permanent by the Pension Protection Act of 2006 (P.L. 109-280). The 2001 tax act also added the tax credit and catch-up contributions. The elimination of the income limit on Roth IRA conversions starting in 2010 was added by the Tax Increase Prevention and Reconciliation Act of 2005 (P.L. 109-222).

Under legislation adopted at the end of 2006 (the Tax Relief and Health Care Act of 2006, P.L. 109-432), amounts may be withdrawn, on a one-time basis, from IRAs and contributed to Health Savings Accounts (HSAs) without tax or penalty.

Assessment

The tendency of capital income tax relief to benefit higher-income individuals has been reduced in the case of IRAs by the dollar ceiling on the contribution, and by the phase-out of the IRAs as income rises for those covered by a pension plan (although the phase-out level is much higher for Roth IRAs). Providing IRA benefits without income ceilings to those not covered by pensions may be justified as a way of providing more equity between those covered and not covered by an employer plan.

Another economic justification for IRAs is that they arguably increase savings and increase retirement security. The effects of these plans on savings and overall retirement income are, however, subject to some uncertainty, and this issue has been the subject of a considerable literature.

Selected Bibliography

Attanasio, Orazio and Thomas De Leire. "The Effect of Individual Retirement Accounts on Household Consumption and Savings," *Economic Journal*, v. 112, July 2002, pp. 504-538.

Burman, Leonard, William G. Gale, and David Weiner. "The Taxation of Retirement Saving: Choosing Between Front-Loaded and Back-Loaded Options," *National Tax Journal*, v. 54, September 2001, pp. 689-702.

Burnham, Paul and Larry Ozanne. "Individual Retirement Accounts," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds. Washington, DC: Urban Institute Press, 2005.

Engen, Eric M., William G. Gale, and John Karl Scholz. "The Illusory Effects of Saving Incentives on Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 113-138.

Feenberg, Daniel and Jonathan Skinner. "Sources of IRA Savings," *Tax Policy and the Economy 1989*, Lawrence H. Summers, ed. Cambridge, MA: M.I.T. Press, 1989, pp. 25-46.

Gale, William G. and John Karl Scholz. "IRAs and Household Savings," *American Economic Review*, v. 84, no. 5, December 1994, pp. 1233-1260.

Gravelle, Jane G. "Do Individual Retirement Accounts Increase Savings?" *Journal of Economic Perspectives*, v. 5, Spring 1991, pp. 133-148.

— . *Economic Effects of Taxing Capital Income*, ch. 8. Cambridge, MA: MIT Press, 1994.

Hubbard, R. Glenn and Jonathan S. Skinner. "Assessing the Effectiveness of Savings Incentives," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 73-90.

Iams, Howard M. and Patrick J. Purcell, "The Impact of Retirement Account Distributions on Measures of Family Income," *Social Security Bulletin*, v. 73, no. 2, 2013, pp. 77-86.

Joulfaian, David and David Richardson. "Who Takes Advantage of Tax-Deferred Saving Programs? Evidence from Federal Income Tax Data," *National Tax Journal,* v. 54, September 2001, pp. 669-688.

Kotlikoff, Laurence J. "The Crisis in U.S. Saving and Proposals to Address the Crisis," *National Tax Journal*, v. 43, September 1990, pp. 233-246.

Poterba, James M. "Retirement Security in an Aging Population," *American Economic Review*, v. 104, no. 5, May 2014, pp. 1-30.

Poterba, James, Steven Venti, and David A. Wise. "How Retirement Savings Programs Increase Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 91-112.

Topoleski, John. *Traditional and Roth Individual Retirement Accounts (IRAs): A Primer*, U.S. Library of Congress, Congressional Research Service Report RL34397, May 11, 2018.

Venti, Steven F. and David A. Wise. "Have IRAs Increased U.S. Savings?" *Quarterly Journal of Economics*, v. 105, August 1990, pp. 661-698.

CREDIT FOR CERTAIN INDIVIDUALS FOR ELECTIVE DEFERRALS AND IRA CONTRIBUTIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.2	-	1.2
2019	1.2	-	1.2
2020	1.2	-	1.2
2021	1.2	-	1.2
2022	1.2	-	1.2

Authorization

Section 25B.

Description

Taxpayers who are age 18 or over and not full-time students or dependents can claim a tax credit for elective contributions to qualified retirement plans or IRAs. The maximum contribution amount eligible for the credit is $2,000. Credit rates depend on filing status and adjusted gross income. In 2018, for joint returns the credit is 50 percent for adjusted gross income under $38,000, 20 percent for incomes between $38,000 and $41,000, and 10 percent for incomes above $41,000 and less than $63,000. Income categories are half as large for singles ($19,000, $20,500, and $31,500) and between those for singles and joint returns for heads of household ($28,500, $30,750, and $47,250). The income thresholds are indexed to inflation. The credit may be taken in addition to general deductions or exclusions. The credit is not refundable.

Contributions made to a beneficiary under the ABLE account (see entry for ABLE Accounts) for disabled individuals are eligible for the credit for taxable years from 2018-2025.

Impact

Because of the phaseout, the credit's benefits are targeted to lower-income individuals. However, the ability to use the credit is limited because so many lower-income individuals have no tax liability. In 2016, 8.5 million returns took the credit, and the average credit was $182. One study finds that the credit has a modest effect on take-up and on amounts contributed to retirement savings plans by low- and moderate-income families.

Historically, most lower-income individuals do not tend to save or participate in voluntary plans such as individual retirement accounts, perhaps because of pressing current needs. Thus, the number of families and individuals claiming the credit may be relatively small. In tax year 2016, about 9 percent of taxpayers with adjusted gross income of $50,000 or less took the retirement savings contribution credit.

Rationale

This provision was enacted as part of the Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-116) and was set to expire after 2006. The Pension Protection Act of 2006 (P.L. 109-280) made this credit permanent. Its purpose was to provide savings incentives for lower-income individuals who historically have had inadequate retirement savings or none at all. The credit is comparable to a matching contribution received by many 401(k) participants from their employers.

The provision allowing temporary credits for beneficiaries of ABLE accounts was added by the 2017 tax revision, P.L. 115-97, popularly known as the Tax Cuts and Jobs Act.

Assessment

The credit has limited impact on increasing savings for its target group because so many lower income-individuals do not have enough tax liability to benefit from the credit. Among those who are eligible, the higher incomes necessary for them to have tax liability mean that the credit rate is lower. The credit could be redesigned to cover more lower-income individuals by stacking it first, before the refundable child credit, or making the credit refundable.

Some evidence suggests that the credit primarily increased contributions among those with only transitorily low income.

As with other savings incentives, there is no clear evidence that these incentives are effective in increasing savings. The credit also has a cliff effect: because the credit is not phased down slowly, a small increase in income can trigger a shift in the percentage credit rate and raise taxes significantly.

Selected Bibliography

Brady, Peter and Warren B. Hrung. *Assessing the Effectiveness of the Saver's Credit: Preliminary Evidence from the First Year,* Paper presented at the National Tax Association Meetings, Miami, FL, November 2005.

Duflo, Ester et al. "Saving Incentives for Low- and Middle-Income Families: Evidence from a Field Experiment with H&R Block," *Quarterly Journal of Economics*, v. 121, no. 4, November 2006, pp. 1311-1346.

Gale, William G., J. Mark Iwry, and Peter R. Orszag. "The Saver's Credit: Expanding Retirement Savings for Middle- and Lower-Income Americans," The Retirement Security Project, No. 2005-2, March 2005.

Heim, Bradley T., and Ithai Z. Lurie. "Taxes, Income, and Retirement Savings: Differences by Permanent and Transitory Income," *Contemporary Economic Policy*, v. 32, no. 3, July 2014, pp. 592-617.

Hungerford, Thomas L. *Savings Incentives: What May Work, What May Not*, U.S. Library of Congress, Congressional Research Service Report RL33482, Washington, DC: June 10, 2011.

Kiefer, Donald et al. "The Economic Growth and Tax Relief Reconciliation Act of 2001: Overview and Assessment of Effects on Taxpayers," *National Tax Journal*, v. 55, March 2002, pp. 89-118.

Koenig, Gary, and Robert Harvey. "Utilization of the Saver's Credit: An Analysis of the First Year," *National Tax Journal*, v. 58, no. 4, December 2005, pp. 787-806.

Libson, Adi. "Confronting the Retirement Savings Problem: Redesigning the Saver's Credit," Harvard Journal on Legislation, v. 54, is. 1, 2017, pp. 401-452.

Orszag, Peter. "The Retirement Savings Component of Last Year's Tax Bill: Why It Is Premature to Make Them Permanent," Center on Budget Policies and Priorities, September 18, 2003.

Ramnath, Shanthi. "Taxpayers' Responses to Tax-Based Incentives for Retirement Savings: Evidence from the Saver's Credit Notch," *Journal of Public Economics*, v. 101, May 2013, pp 77-93.

White, Craig G. "Does the Saver's Credit Offer an Incentive to Lower Income Families?" *Tax Notes*, v. 96, September 16, 2002, pp. 1633-1640.

Sullivan, Martin. "Economic Analysis: With Little Fanfare, Gephardt Introduces Sweeping Pension Reform," *Tax Notes*, v. 95, June 17, 2002, pp. 1709-1710.

Topoleski, John. *Traditional and Roth Individual Retirement Accounts (IRAs): A Primer*, U.S. Library of Congress, Congressional Research Service Report RL34397, May 11, 2018.

EXCLUSION OF OTHER EMPLOYEE BENEFITS: PREMIUMS ON GROUP TERM LIFE INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	3.4	-	3.4
2019	3.6	-	3.6
2020	3.7	-	3.7
2021	3.8	-	3.8
2022	4.0	-	4.0

Authorization

Section 79 and L.O. 1014, 2 C.B. 8 (1920).

Description

The cost of employer-provided group-term life insurance plans that provide a death benefit and satisfy "anti-discrimination" provisions, net of employee contributions, above a $50,000 coverage threshold is excluded from employees' gross income. According to the Bureau of Labor Statistics Employee Benefits Survey, 59 percent of civilian workers are offered life insurance benefits, and 98 percent of those workers take up those benefits.

The cost of group-term life insurance imputed for an individual employee is usually calculated by multiplying the amount of insurance (in thousands of dollars) by an age-group-specific monthly unit cost factor taken from a U.S. Treasury table (published in Treasury Regulations, Subchapter A, Sec. 1.79-3). For example, suppose a 37-year-old employee receives $150,000 in group-term life insurance coverage for a full year from his employer and pays no premiums himself. The coverage eligible for the exclusion ($100,000) is then multiplied by the unit cost factor for employees aged 35-39 ($.09/month per $1,000 of coverage) taken from the Treasury table, giving an imputed monthly cost of $9 and an annual imputed cost of $108. Thus, the term life insurance

coverage of this employee would be considered as increasing his taxable income by $108, even if the cost of obtaining comparable term life insurance coverage were higher. In some cases, qualifying group plans can also include permanent benefits, such as a cash surrender value, subject to conditions in Treasury Regulations, Subchapter A, Sec. 1.79-3.

The group-term life insurance exclusion is subject to "anti-discrimination" provisions intended to ensure that benefits are spread widely and equitably among employees. In general, qualifying group plans must be provided to at least 10 full-time employees during a given year. Plans may fail to meet those provisions if only a narrow subset of employees receives benefits or if the plan discriminates in favor of "key employees" or if "key employees" comprise the bulk of the beneficiaries. For 2018, key employees generally are officers of a firm paid more than $175,000; five-percent owners; or one-percent owners earning more than $150,000. If a group-term life insurance plan fails to satisfy "anti-discrimination" provisions, so that over a quarter of total non-tax benefits accrue to key employees, the plan's actual cost, rather than the cost given by the Treasury-provided table, is added to the key employee's taxable income. Plans provided under terms of collective bargaining agreements are not considered to favor key employees.

Impact

Employer-provided group-term life insurance plans are a form of employee compensation. Because the full value of the insurance coverage is not taxed, a firm can provide this compensation at lower cost than the gross amount of taxable wages sufficient to allow an employee to purchase the same amount of insurance. Group term life insurance is a significant portion of total life insurance. Part of the value of this fringe benefit is exempt from income tax because a portion of the value of the term insurance coverage and any life insurance proceeds paid if the employee dies are excluded from gross taxable income.

Self-employed individuals or those who work for an employer without such a plan derive no advantage from this tax subsidy for life insurance coverage. The Bureau of Labor Statistics National Compensation Survey found that higher-wage employees and employees working for large firms and for governments are more likely to receive life insurance benefits from their employer.

Rationale

This exclusion was originally allowed, without limitation of coverage, by administrative legal opinion (L.O. 1014, 2 C.B. 8 (1920)). Insurance and pension benefits in a reasonable amount were excluded from World War II era wage and price controls (P.L. 77-729, 56 Stat. 765; Executive Order signed October 2, 1942, Title VI), which may have influenced subsequent court and regulatory opinions.

The $50,000 limit on the amount subject to exclusion was enacted in 1964. Reports accompanying that legislation reasoned that the exclusion would encourage the purchase of group life insurance and assist in keeping the family unit intact upon death of the breadwinner. The further limitation on the exclusion available for key employees in discriminatory plans was enacted in 1982 (P.L. 97-248), and expanded in 1984 (P.L. 98-369) to apply to post-retirement life insurance coverage. In 1986, more restrictive rules regarding anti-discrimination were adopted (P.L. 99-514), but were repealed in 1989 as part of debt limit legislation (P.L. 101-140).

Assessment

Concerns that many individuals would fail to buy prudent amounts of life insurance on their own may justify encouraging individuals to purchase more life insurance to protect surviving family members from financial vulnerabilities. Subsidizing life insurance coverage may help provide a minimum standard of living for surviving dependent individuals. This exclusion may motivate employers and employees to design compensation packages that increase term life insurance coverage of workers. Whether this exclusion is the most efficient method of encouraging purchases of prudent levels of life insurance coverage is unclear.

The form of this exclusion may raise horizontal and vertical equity issues. Aside from administrative convenience, the rationale for providing insurance subsidies to employees, but not to the self-employed or those who are not employed is unclear. Higher-income individuals probably receive more benefits from fringe benefit exclusions because their marginal tax rates are higher and because they are more likely to receive group life insurance benefits from their employers. Lower-income individuals, whose surviving dependents are probably more financially vulnerable, probably benefit less from this exclusion. Some have noted, however, that untaxed fringe benefits increased middle class incomes since 1980, while growth in take-home pay has stagnated for some subgroups.

Selected Bibliography

Butler, Richard J. *The Economics of Social Insurance and Employee Benefits*. Berlin: Springer, 1999.

Hacker, Jacob S. *The Divided Welfare State: The Battle over Public and Private Social Benefits in the United States*. New York: Cambridge, 2002.

Murray, John E. *Origins of American Health Insurance: A History of Industrial Sickness Funds*. New Haven, CT: Yale University Press, 2007.

Turner, Robert W. "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy (2nd ed.)*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005, pp.159-162.

Soled, Jay A. and Kathleen DeLaney Thomas. "Revisiting the Taxation of Fringe Benefits," *Washington Law Review* 91(2), 2016, pp. 761-813; https://ssrn.com/abstract=2679062.

"Taxation of Employee Accident and Health Plans Before and Under the 1954 Code," *Yale Law Journal* 64 (2), December 1954, pp. 222-247.

U.S. General Accounting Office. *Effects of Changing the Tax Treatment of Fringe Benefits*. Washington, DC: U.S. Government Printing Office, April 1992.

U.S. Department of Labor, Bureau of Labor Statistics, "Employee Benefits in the United States," press release USDL: 14-1348, July 25, 2014.

—. Employee Benefits Survey, Table 16: Insurance Benefits: Access, Participation, and Take-up Rates, March 2017; http://www.bls.gov/ncs/ebs/benefits/2017/ownership/civilian/table16a.htm.

U.S. Treasury, Internal Revenue Service. Tax Decision 8821 (Group-Term Insurance; Uniform Premiums), May 25, 1999; http://www.irs.gov/pub /irs-regs/td8821.pdf.

—. Rev. Proc. 2005-25. *Internal Revenue Bulletin* 2005-17. April 25, 2005.

—. Publication 15-B (2017), "Employers' Tax Guide to Fringe Benefits," http://www.irs.gov/publications/p15b/index.html.

—. Regulations, Subchapter A, Sec. 1.79-3, "Determination of Amount Equal to Cost of Group-Term Life Insurance."

Zucman, Gabriel, Thomas Piketty and Emmanuel Saez. "Distributional National Accounts: Methods and Estimates for the United States," *Quarterly Journal of Economics*, 133 (2), May 2018, pp. 553-609.

EXCLUSION OF OTHER EMPLOYEE BENEFITS: PREMIUMS ON ACCIDENT AND DISABILITY INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	4.2	-	4.2
2019	4.3	-	4.3
2020	4.5	-	4.5
2021	4.7	-	4.7
2022	4.9	-	4.9

Authorization

Sections 105 and 106.

Description

Premiums paid by employers for employee accident and disability insurance plans are excluded from the gross taxable income of employees. Although benefits paid to employees are generally taxable, payments that relate to permanent injuries are excluded from taxable income so long as those payments are computed without regard to the amount of time an employee is absent from work.

Impact

As with term life insurance, the employer's cost is less than he would have to pay in wages that are taxable, to confer the same benefit on the employee because the value of this insurance coverage is not taxed. Employers thus are encouraged to buy such insurance for employees. Because some proceeds from accident and disability insurance plans, as well as the premiums paid by the employer, are excluded from gross income, the value of the fringe benefit is generally exempted from federal income tax.

The Bureau of Labor Statistics Employee Benefits Survey found that 38 percent of workers had access to short-term disability benefits and 34 percent had access to long-term disability benefits. Ninety-seven percent of those workers take up disability benefits. Higher-wage employees and employees working for large firms and for governments are more likely than others to receive insurance benefits from their employer. As with many other fringe benefits, higher-income individuals also receive more benefits from this exclusion because their marginal tax rates are higher. One study that analyzed changes in Canadian tax subsidies for employer-provided supplementary health insurance found that a 1 percent reduction in tax subsidies led to a 0.5 percent decrease in coverage. This suggests that employers respond to tax incentives when designing benefit packages.

Rationale

Early 20th century tax laws excluded payments connected to injuries or sickness from taxable income if received from accident or health insurance or from workers' compensation plans. In 1939, Congress added an exclusion for sick pay (P.L. 76-1). In 1943, the IRS held that employer payments to employees connected to injury or sickness, even if administered as a well-defined plan, were not exempt from employee's income, while accident and health benefits paid as insurance policy proceeds (according to the IRS definition of 'insurance') were exempted from gross income. In 1954, Congress modified the exemption of accident and health benefits in an attempt to equalize the tax treatment of benefits through an insurance plan and benefits provided in other ways (P.L. 83-591). Encouraging individuals to purchase more accident or disability insurance may be justified by concerns that many would fail to buy prudent amounts of insurance on their own, thus increasing financial vulnerabilities of workers and their families.

Assessment

Public programs (Social Security, Supplemental Security Income, and worker's compensation) provide a minimum level of disability payments for most workers. The rules that determine who qualifies for accident and disability insurance benefits, however, can be very different for public and private plans. The form of the exclusion may raise questions of horizontal and vertical equity. As with many other fringe benefits, higher-income individuals probably receive more benefits from this exclusion because their marginal tax rates are higher and because they are more likely to receive insurance benefits from their employers. Lower-income individuals, who may have more difficulty protecting themselves from income losses due to accident or

disability, probably benefit less from this exclusion. This exclusion may motivate employers to design compensation packages that increase accident and disability insurance coverage of workers. Whether this exclusion is the most efficient method of encouraging purchases of prudent levels of insurance coverage is unclear. Some have noted, however, that untaxed fringe benefits increased middle class effective incomes since 1980, while growth in take-home pay has stagnated for some subgroups.

Selected Bibliography

Butler, Richard J. *The Economics of Social Insurance and Employee Benefits*. Berlin: Springer, 1999.

Finkelstein, Amy N. "The Effect of Tax Subsidies to Employer-provided Supplementary Health Insurance: Evidence from Canada," *Journal of Public Economics* 84, 2002, pp. 305–339.

Hacker, Jacob S. *The Divided Welfare State: The Battle over Public and Private Social Benefits in the United States*. New York: Cambridge, 2002.

Murray, John E. *Origins of American Health Insurance: A History of Industrial Sickness Funds*. New Haven: Yale, 2007.

Pendzialek, Jonas B., Dusan Simic, and Stephanie Stock. "Differences in Price Elasticities of Demand for Health Insurance: a Systematic Review," *European Journal of Health Economics* 17, 2016, pp. 5-21.

Simon, Karla W. "Fringe Benefits and Tax Reform Historical Blunders and a Proposal for Structural Change," *University of Florida Law Review* 36, 1984, pp. 889-895.

"Taxation of Employee Accident and Health Plans Before and Under the 1954 Code," *Yale Law Journal* 64 (2), December 1954, pp. 222-247.

U.S. Internal Revenue Service, *General Counsel Memorandum 23511*, 1943 *Cumulative Bulletin* 86.

—. Rev. Ruling 2005-24, *Internal Revenue Bulletin* 2005-16, April 2005.

—. Revenue Proc. 2014-22 (T.D. 9665), "Tax Treatment of Qualified Retirement Plan Payment of Accident or Health Insurance Premiums," *Internal Revenue Bulletin* 2007-3, May 27, 2014.

—. Publication 15-B (2017), "Employers' Tax Guide to Fringe Benefits," http://www.irs.gov/publications/p15b/index.html.

U.S. Department of Labor, Bureau of Labor Statistics. Employee Benefits Survey, Table 16a: Insurance Benefits: Access, Participation, and Take-up Rates, March 2016.

U.S. General Accounting Office. *Effects of Changing the Tax Treatment of Fringe Benefits*. Washington, DC: U.S. GPO, April 1992.

Zucman, Gabriel, Thomas Piketty and Emmanuel Saez. "Distributional National Accounts: Methods and Estimates for the United States," *Quarterly Journal of Economics* 133 (2), May 2018, pp. 553-609.

EXCLUSION OF AMOUNTS RECEIVED UNDER LIFE INSURANCE CONTRACTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	21.2	1.7	22.9
2019	21.8	1.7	23.5
2020	22.4	1.7	24.1
2021	22.9	1.8	24.7
2022	23.3	1.8	25.1

Authorization

Section 101.

Description

Life insurance companies invest premiums they collect, and returns on those investments help pay benefits. Amounts not paid as benefits may be paid as policy dividends or given back to policyholders as cash surrender values or loan values. Under the baseline tax system, individuals and corporations would pay taxes on their income when it is (actually or constructively) received or accrued. However, death benefits for most policies are not taxed at all, and amounts paid as dividends or withdrawn as cash values are taxed only when they exceed total premiums paid for the policy. (A broader tax preference formerly classified as a tax expenditure is described in the appendix.)

Impact

The provision offers preferential treatment for the purchase of life insurance coverage and for savings held in life insurance policies and annuity contracts. Middle-income taxpayers, who make up the bulk of the life insurance market, may reap most of this provision's benefits. Many higher-income taxpayers, once their life insurance requirements are satisfied, generally obtain better after-tax yields from tax-exempt state and local obligations or tax-deferred capital gains. Some very wealthy individuals, however, can gain tax advantages through other forms of life insurance, such as closely held life insurance companies (CHLICs or CICs) or private placement life insurance (PPLI), which may serve as an intergenerational wealth transfer tool.

Rationale

The exclusion of death benefits paid on life insurance dates back to the 1913 tax law (P.L. 63-16). While no specific reason was given for exempting such benefits, insurance proceeds may have been excluded because they were believed to be comparable to bequests, which also were excluded from the tax base.

Assessment

Many families, according to some economists, fail to buy enough life insurance to protect surviving family members from a sharp drop in income and living standards that the death of a wage-earner could cause. Such families, whose financial vulnerabilities are not offset by insurance benefits, may be described as underinsured. Encouraging families to buy more life insurance could reduce those families' financial vulnerabilities. Whether the tax exemption on life insurance benefits, however, induces families to buy prudent levels of life insurance is unclear. Better financial education, for example, may provide a more direct route to helping families reduce financial vulnerabilities due to death or other serious disruptions.

Selected Bibliography

Browning, Lynnley. "Tax-Free Life Insurance: An Untapped Investment for the Affluent," *New York Times*, February 9, 2011.

Vickrey, William S. "Insurance Under the Federal Income Tax," *Yale Law Journal* 52 (June 1943), pp. 554-585.

PHASE OUT OF THE PERSONAL EXEMPTION FOR THE REGULAR INCOME TAX AND DISALLOWANCE OF THE PERSONAL EXEMPTION AND THE STANDARD DEDUCTION AGAINST THE ALTERNATIVE MINIMUM TAX

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-4.6	-	-4.6
2019	-0.3	-	-0.3
2020	-0.3	-	-0.3
2021	-0.3	-	-0.3
2022	-0.3	-	-0.3

Authorization

Sections 151(d) and 55(d).

Description

For 2017, the deduction for personal and dependency exemptions was phased out for higher income taxpayers. The total exemption amount was reduced by 2 percent for each $2,500 ($1,250 for married persons filing separately) of adjusted gross income (AGI) above the threshold amount. For 2017, the threshold began at $261,500 for single filers ($313,800 for married, filing jointly). In tax years 2018 through 2025, personal exemptions are temporarily repealed.

Personal Exemption Phaseout (PEP) Ranges, by Adjusted Gross Income (AGI), Tax Year 2017

Filing Status	2017
Single	$261,500-$384,000
Married, Filing Jointly	$313,800-$436,300
Married, Filing Separately	$156,900-$218,150
Head of Household	$287,650-$410,150

Source: Internal Revenue Service (IRS), Revenue Procedure 2016-55.

For 2017, the alternative minimum tax (AMT) standard deduction (or exemption amount) was phased out for taxpayers with high AMT income (AMTI). The AMT exemption amount for single filers was $54,300 in 2017. For joint, married filers the exemption amount was $84,500 in 2017. Under the phase-out, these exemption amounts were reduced by $0.25 for every $1 of AMTI over the threshold. Personal exemptions ($4,050 per exemption in 2017) were not allowed against AMTI.

In 2018, the individual AMT is significantly modified. The AMT exemption amount for single filers is $70,300. For joint, married filers the exemption amount is $109,400. The AMT exemption phaseout thresholds are also increased. These higher amounts are temporarily in effect through 2025, and will be adjusted for inflation in years after 2018.

AMT Exemption Phaseout Thresholds, by Filing Status, Tax Years 2017 and 2018

Filing Status	2017	2018
Single/Unmarried	$120,700	$500,000
Married, Filing Jointly	$160,900	$1,000,000
Married, Filing Separately	$80,450	$500,000

Source: Internal Revenue Service (IRS), Revenue Procedures 2016-55 and 2018-18.

Impact

These provisions are designed to increase taxes on higher income taxpayers. According to the Joint Committee on Taxation, 90.9 percent of taxpayers affected by the provision in 2018 have an AGI of $200,000 or greater.

Distribution by Income Class of the Tax Expenditure for the Phaseout of the Personal Exemption for the Regular Income Tax, and Denial of Personal Exemption and the Standard Deduction for AMT at 2018 Rates and 2018 Income Levels

Income Class (in thousands of $)	Percentage Distribution
Below $10	-
$10 to $20	-
$20 to $30	-
$30 to $40	-
$40 to $50	-
$50 to $75	-
$75 to $100	0.7
$100 to $200	10.9
$200 and over	88.0

Note: Percentages may not total to 100 percent due to rounding.

Rationale

The Personal Exemption. The Tax Reform Act of 1986 (P.L. 99-514) created a tax structure with two marginal tax rates (15 percent and 28 percent) and a 5 percent surcharge on the taxable income of certain high-income taxpayers. The surcharge was phased out as income increased and consequently created a tax rate "bubble" of 33 percent for some taxpayers. The surcharge was essentially created to phase out the tax benefits of the 15 percent tax rate and personal exemptions for high-income taxpayers. The Omnibus Budget Reconciliation Act of 1990 (OBRA90, P.L. 101-508) repealed the 5 percent surcharge and instituted the current explicit approach for phasing out the tax benefits of the personal exemption. The Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-15) contained provisions to gradually repeal the personal exemption phaseout. The repeal, set to expire after 2010, was extended for two years by the Tax Relief, Unemployment

Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). The American Taxpayer Relief Act of 2012 (ATRA, P.L. 112-240) allowed the personal exemption phaseout to resume, but raised the threshold amounts above the scheduled rates set under previous law.

The AMT Exemption. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) increased the AMT exemption amount to $69,950 for joint filers and $46,200 for individuals for the 2008 tax year, but did not change the AMTI levels that began the phase-out of the exemption. The increased exemption amounts were intended to keep the same number of taxpayers on the AMT from year to year as the exemption amounts were not indexed for inflation. Increasing the exemption amount also raised the income level where the phase-out of the exemption was complete. The increased exemption amounts and accompanying expansion of the phase-out dampened the effect of the AMT on higher-income taxpayers.

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) increased the AMT exemption for 2009 to $46,200 (individuals) and $70,950 (joint returns). The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) increased the AMT exemption amounts to $47,450 (individuals) and $72,450 (joint returns) for 2010 and to $48,450 (individuals) and $74,450 (joint returns) for 2011.

The American Taxpayer Relief Act of 2012 (ATRA; P.L. 112-240) permanently indexed the exemption phaseout thresholds to inflation (beginning with the 2012 tax year), which reduced the need for Congress to pass regular legislation to "patch" these amounts for inflation.

The 2017 tax revision (P.L. 115-97) temporarily repealed personal exemptions for tax years 2018 through 2025. P.L. 115-97 also increases the base individual AMT exemption amounts (and phaseout thresholds) for 2018 through 2025 and indexes them for inflation.

Assessment

The personal exemption phaseout (PEP) rules were set to expire in 1995 under OBRA90. But budgetary pressures led to tax increases in 1993, which included making the personal exemption phaseout permanent. By 2001, Congress cited three reasons for eliminating the personal exemption phaseout. First, the personal exemption phaseout is complex. Second, the phaseout is essentially a hidden marginal tax rate increase on higher-income taxpayers. Lastly, the phaseout imposes high marginal tax rates on families in phaseout

ranges. Congress ultimately reinstated PEP under ATRA, in part, to offset the revenue costs of other provisions in the law (such as making temporary lower income tax rates for most taxpayers permanent).

The AMT provisions, the phaseout of the AMT standard deduction and disallowance of personal exemptions against AMTI, raise the minimum tax and increase the marginal tax rate disproportionately on high-income families. The AMT generally and the phaseout of the standard deduction specifically also increase the complexity and administrative cost of the personal income tax.

Selected Bibliography

Goodman, George R. "Regular Tax vs. AMT Bracketology: AMT Upsets Regular Tax for Many," *Tax Notes*, May 18, 2015, pp. 807-814.

Hungerford, Thomas L. "The Redistributive Effect of Selected Federal Transfer and Tax Provisions," *Public Finance Review*, v. 38, no. 4, July 2010, pp. 450-472.

Marples, Donald. *The Alternative Minimum Tax for Individuals: In Brief*, Library of Congress, Congressional Research Service Report R44494, Washington, DC: May 10, 2016.

Steuerle, Eugene. "Fixing the AMT by Raising Tax Rates," *Tax Notes*, April 9, 2007, pp. 171-172.

Viard, Alan. "The Basic Economics of Pease and PEP," *Tax Notes*, February 9, 2015, pp. 805-810.

ABLE ACCOUNTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	-	([1])
2019	([1])	-	([1])
2020	([1])	-	([1])
2021	0.1	-	0.1
2022	0.1	-	0.1

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 529A.

Description

The Achieving a Better Life Experience Act allows a state to sponsor a tax-advantaged savings program for individuals with certain impairments that began before age 26. Under a state's qualified ABLE program, an investment account may be established to meet the qualified disability expenses of an eligible blind or disabled individual, who is the designated beneficiary and owner of the account. Anyone, including the designated beneficiary, may contribute to the ABLE account, and contributions to the account are subject to both an annual and cumulative limit.

Earnings in an ABLE account are not taxed and distributions from an ABLE account (i.e., withdrawals) are tax-free if they are used to pay for qualified disability expenses. Contributions to an ABLE account are not tax deductible. If a distribution is used to pay for non-qualified disability expenses, a portion of the distribution is taxable and may also be subject to a 10-percent tax penalty.

A qualified ABLE program is a program established and maintained by a state or an agency or instrumentality of a state. If a state does not establish and maintain a qualified ABLE program, it may contract with another state to provide an ABLE program for its residents. Among other requirements, a qualified ABLE program must (1) limit a designated beneficiary to only one ABLE account at a time, (2) maintain separate accounting for the ABLE account of each designated beneficiary, (3) limit any changes in the investment direction of the ABLE account to no more than two times in any calendar year, and (4) prevent any part of the ABLE account or any other interest in the program from being used as security for a loan. Although the requirements governing qualified ABLE programs are set forth in federal law and regulations, the features of a particular ABLE program (e.g., residency requirements, program fees, investment options) are determined by the sponsoring state.

To establish an ABLE account, an eligible individual must be either (1) entitled to Social Security or Supplemental Security Income (SSI) benefits based on blindness or disability and such blindness or disability must have occurred before the date the individual attained age 26, or (2) certified by a physician that the individual's medically determinable impairment meets the blindness or disability standards for children under the SSI program, regardless of the individual's age or work activity, and such impairment must have occurred before the date the individual attained age 26. Under proposed regulations from the Internal Revenue Service (IRS), if an eligible individual is unable to establish or manage an ABLE account, an agent under a power of attorney, or if none, a parent or legal guardian may establish and exercise signature authority over an ABLE account on behalf of the designated beneficiary.

In general, the annual limit on contributions to an ABLE account from all contributors is equal to the annual gift tax exclusion amount, which for tax year 2018 is $15,000. (This amount is adjusted annually for inflation, but adjustments are made in $1,000 increments.) Thus, the maximum amount that an ABLE account can receive during tax year 2018 from all contributors (e.g., the designated beneficiary, family, and friends) is $15,000. Contributors may fund up to $15,000 per designated beneficiary and are not limited in the number of different beneficiaries to which they may contribute. A contribution to an ABLE account in excess of the annual limit is subject to a six-percent excise tax unless the excess contribution is returned in a timely manner.

Certain employed designated beneficiaries may contribute, beginning in 2018 and through 2025, an additional amount in excess of the annual gift tax exclusion amount ($15,000 for tax year 2018). This additional amount applies only to contributions made to the ABLE account by the designated beneficiary of the account and is limited to the lesser of (1) the designated beneficiary's compensation for the tax year, or (2) the Department of Health and Human Services' (HHS) poverty guideline for a one-person household for the preceding calendar year. For tax year 2018, the additional amount for employed designated beneficiaries in most states is limited to $12,060, which is the HHS poverty guideline for a one-person household in the 48 contiguous states and the District of Columbia for calendar year 2017. (This amount is adjusted annually for inflation.) When combined with the annual gift tax exclusion amount, the maximum potential contribution limit for employed designated beneficiaries in most states for tax year 2018 is $27,060. Employed designated beneficiaries are ineligible to contribute the additional amount if their employer made a contribution on their behalf during the tax year to a defined contribution plan (such as a 401[k] plan), a 403(b) annuity contract, or a 457(b) eligible deferred compensation plan.

A qualified ABLE program must ensure that aggregate contributions to an ABLE account on behalf of a designated beneficiary do not exceed the sponsoring-state's limit for aggregate contributions under its Qualified Tuition Program (QTP), also known as a "529 plan." In most states, this cumulative limit is between $350,000 and $500,000 per designated beneficiary. Aggregate contributions include contributions to any prior ABLE account for the same designated beneficiary or any prior designated beneficiary. In general, no additional contributions may be made to an ABLE account once its total balance (including earnings) reaches the cumulative limit.

Contributions by an individual to an ABLE account other than by the designated beneficiary of the account are treated as completed gifts to the beneficiary. However, gift tax consequences may arise if the contributor makes other gifts to the designated beneficiary during the tax year in addition to the contribution to the beneficiary's ABLE account. A contribution by a designated beneficiary to a qualified ABLE program benefitting the beneficiary is not treated as a completed gift. However, if a designated beneficiary transfers the funds in his or her ABLE account to a successor designated beneficiary, normal gift and generation-skipping transfer taxes apply, unless the successor is both an eligible individual and a recognized sibling of the former designated beneficiary.

If a distribution is used to pay for non-qualified disability expenses, then the earnings portion of the distribution (i.e., the amount attributable to investment growth) is subject to income tax. Except in the case of the designated beneficiary's death, a 10-percent tax penalty is also assessed on the earnings portion of a distribution used for non-qualified disability expenses.

Qualified disability expenses are expenses related to the designated beneficiary's qualifying impairment and are incurred to maintain or improve the beneficiary's health, independence, and quality of life. Qualified disability expenses include costs related to education, housing, transportation, employment training and support, assistive technology and personal support services, health and wellness, financial management and administrative services, legal fees, expenses for oversight and monitoring, funeral and burial expenses, and other expenses identified in guidance published by the IRS. In the proposed IRS regulations, qualified disability expenses are defined to include basic living expenses and are not limited to costs for which there is a medical necessity or which benefit the designated beneficiary exclusively.

Any assets remaining in an ABLE account upon the death of a designated beneficiary are subject to a claw-back provision, which allows a state to file a claim for reimbursement of payments made on behalf of the designated beneficiary under the state's Medicaid program after the establishment of the ABLE account. However, this reimbursement is made only after the payment of all outstanding qualified disability expenses and is net of any premiums paid by or on behalf of the designated beneficiary to the state's Medicaid Buy-In program.

Impact

ABLE accounts are more likely to benefit higher-income families who have the means to save on a regular basis. Lower-income families are less likely to save for ABLE account purposes because such families are more likely to use all available income to meet their current maintenance costs. In addition, the tax savings from ABLE accounts (i.e., the tax deferral and exclusion of earnings) is proportional to a taxpayer's marginal tax rate, which benefits higher-income taxpayers. In its cost estimate for the ABLE Act, the Joint Committee on Taxation projected that the revenue loss due to ABLE accounts would be attributable to savings by households with incomes higher than $40,000.

In addition to tax advantages, ABLE accounts receive special treatment under federal means-tested programs, which are programs specified in federal

law that use one or more financial considerations to restrict eligibility for or the amount of assistance provided by the program. Federal means-tested programs include SSI, Medicaid, and the Supplemental Nutrition Assistance Program (SNAP; formerly the Food Stamp Program). The ABLE Act specifies that assets in an ABLE account and distributions from the account for qualified disability expenses are disregarded (i.e., not counted) in determining a designated beneficiary's eligibility for or the amount of assistance provided by most federal means-tested programs.

The ABLE Act imposes special rules on SSI's treatment of ABLE account funds. Specifically, only the first $100,000 in an ABLE account is disregarded in determining a designated beneficiary's eligibility for SSI. The balance of an ABLE account above $100,000 is treated as a financial resource (i.e., asset) to the designated beneficiary and is counted against the program's resource limit, which is $2,000 for an individual or $3,000 for a couple. (These limits are not adjusted for inflation and have remained at their current levels since 1989.) If a designated beneficiary becomes ineligible for SSI due solely to excess ABLE funds, his or her cash benefits are suspended (without a time limit) until the balance of the ABLE account falls to or below $100,000. This suspension does not affect the beneficiary's eligibility for Medicaid. In addition, a distribution from an ABLE account for housing-related qualified disability expenses is counted against the SSI resource limit unless the distribution is spent in the month in which it was withdrawn. According to a 2015 study published in the *Social Security Bulletin*, ABLE accounts are likely to provide the greatest benefit to higher-income families whose blind or disabled child would otherwise be financially ineligible for SSI.

Rationale

The Stephen Beck, Jr., Achieving a Better Life Experience Act of 2014 (Division B of P.L. 113-295) amended the Internal Revenue Code (IRC) to permit states to create ABLE accounts, allowing contributions up to the annual gift tax limit.

The Protecting Americans from Tax Hikes Act of 2015 (Division Q of P.L. 114-113) amended section 529A of the IRC to eliminate the requirement that an ABLE account be established only in the designated beneficiary's state of residence.

The 2017 tax revision (P.L. 115-97) amended section 529A of the IRC to permit certain employed designated beneficiaries to contribute, from 2018 through 2025, an additional amount in excess of the annual gift tax exclusion

amount ($15,000 for tax year 2018). The 2017 tax revision also amended section 25B of the IRC to permit designated beneficiaries who meet certain requirements to claim the saver's credit on non-rollover contributions made to their ABLE accounts (see entry on Credits for Certain Individuals for Elective Deferrals and IRA Contributions). In addition, the 2017 tax revision amended section 529 of the IRC to permit the tax-free rollover of funds from a 529 account into an ABLE account under certain conditions.

The stated purpose of the ABLE Act is to

- encourage and assist individuals and families in saving private funds for the purpose of supporting individuals with disabilities to maintain health, independence, and quality of life; and
- provide secure funding for disability-related expenses on behalf of designated beneficiaries with disabilities that will supplement, but not supplant, benefits provided through private insurance, Medicaid, SSI, the beneficiary's employment, and other sources.

In justifying the creation of qualified ABLE programs, the House report accompanying the ABLE Act noted,

> The Committee recognizes the special financial burdens borne by families raising children with disabilities and the fact that increased financial needs generally continue throughout the child's lifetime. Present law provides for various types of tax-advantaged savings arrangements; however, none of these arrangements adequately serves the goal of promoting saving for these financial needs. The creation of qualified ABLE programs with tax-favored treatment of ABLE accounts for eligible beneficiaries will assist families and disabled individuals in meeting their financial needs.

Proponents of the ABLE Act framed the creation of qualified ABLE programs as a way of allowing individuals with disabilities and their families to save and pay for disability-related expenses without risking such individuals' eligibility for most federal means-tested programs. The ABLE Act was cosponsored by about 85 percent of lawmakers and passed both Houses of Congress by substantial majorities.

Assessment

Individuals with disabilities typically experience increased financial needs (i.e., higher living expenses) relative to those without disabilities. For

example, in 2016, health care expenditures per capita were three-and-a-half times greater for working-age adults with disabilities compared to working-age adults without disabilities. Some individuals with disabilities also require specialized services and supports to help them with everyday activities, such as a personal attendant to assist with daily self-care, modifications to their home or vehicle to promote independent living, assistive technology to communicate with others, or prepared meals that meet their special dietary requirements. Faced with these additional costs, many individuals with disabilities rely on benefits and services provided by federal means-tested programs, such as SSI and Medicaid. However, because such programs restrict eligibility to those with limited financial means, individuals with disabilities who save for their future financial needs risk becoming ineligible for the public benefits and services they may require to meet their current financial needs.

ABLE accounts allow saving without risking loss of eligibility, although setting up an account that did not affect eligibility for means-tested programs would not require a tax subsidy as well.

From the stated purpose of the ABLE Act, it is clear that one of the reasons for the tax exclusion is to encourage individuals with disabilities and their families to save for the individual's future financial needs. The likelihood of induced or increased savings stemming from ABLE accounts depends in part on family income. By and large, higher-income families already save for their blind or disabled child's future financial needs by establishing special needs trusts and therefore are less likely to be induced to save. However, the existence of ABLE accounts may increase the level of savings by higher-income families who use ABLE accounts to supplement savings in special needs trusts.

Middle-income families are more likely to be induced to save because other savings vehicles for individuals with disabilities can be complicated or costly to establish and manage for families with some but limited savings potential. For example, special needs trusts generally require a family to hire an attorney to properly establish the trust as well as for the family to appoint a trustee to administer disbursements from the trust and to file tax returns for it. In contrast, ABLE accounts are relatively easy to establish and their administrative costs are generally low.

As discussed earlier, lower-income families are less likely to be affected by ABLE accounts because they often lack the resources to have savings and thus are less likely to be influenced by tax incentives. Individuals who meet the ABLE Act's blindness or disability standards are unlikely to save because

their impairments, by definition, limit their ability to perform basic daily activities, such as working. In December 2017, 4.8 percent of all blind or disabled SSI recipients worked for pay or profit, with 1.2 percent earning above the HHS poverty guideline for an individual in most states.

Another possible justification for the tax exclusion of ABLE accounts is that the exclusion is a way of easing financial burdens on individuals with disabilities as well as on their families, who often act as caretakers. Individuals with disabilities face significant barriers to self-sufficiency due to their disabilities. Adverse health episodes can make steady employment difficult for many individuals with disabilities. In addition, individuals with disabilities face higher maintenance costs associated with treating or managing their disabilities. These impediments contribute to lower employment and earnings outcomes for individuals with disabilities compared to those without disabilities. For instance, in December 2017, the unemployment rate for working-age adults with disabilities was 9.0 percent compared to 3.8 percent for those without disabilities. Moreover, the poverty rate in 2017 for working-age adults with disabilities was 24.9 percent compared to 10.1 percent for working-age adults without disabilities.

To address the challenges faced by individuals with disabilities, lawmakers have enacted a number of programs, initiatives, and laws to assist individuals with disabilities in areas such as health care, income support, employment, education, and civil rights. The tax exclusion of ABLE accounts could be viewed as a furtherance of the federal government's established role in assisting individuals with disabilities.

Selected Bibliography

Hemmeter, Jeffery, "Supplemental Security Income Program Entry at Age 18 and Entrants' Subsequent Earning," *Social Security Bulletin*, vol. 75, no. 3, August 2015, p. 49.

Hershey, Lewis, Annemarie M. Kelly and Boris Abbey, "Enabling ABLE: Five Potential Positives for Implementing the ABLE Act," *Journal of Financial Service Professionals*, vol. 71, iss. 2, March 2017, pp. 69-84.

Kelly, Annemarie and Lewis Hershey, "A 50-State Review of Able Act 529A Accounts," *Journal of Financial Service Professionals*, vol. 72, iss. 2, March 2018, pp. 69-84.

U.S. Congress, Congressional Budget Office. *H.R. 647, Achieving a Better Life Experience Act of 2014*. September 22, 2014.

U.S. Congress, House Committee on Ways and Means, *ABLE Act of 2014*, report to accompany H.R. 647, 113th Cong., 2nd sess., November 12, 2014, H. Rept. 113-614 Part I, p. 11.

U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau. *Income and Poverty in the United States: 2017*. September 2018, Table 3.

U.S. Department of Labor, Bureau of Labor Statistics, "The Employment Situation—December 2017." News release USDL-18-0024, January 5, 2018, Table A-6.

U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. "MEPS Summary Tables: Use, expenditures, and population." 2016, Medical Expenditure Panel Survey.

U.S. Social Security Administration. *SSI Annual Statistical Report, 2017*. September 2018, Tables 40 and 46.

EXCLUSION OF SURVIVOR ANNUITIES PAID TO FAMILIES OF PUBLIC SAFETY OFFICERS KILLED IN THE LINE OF DUTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	-	([1])
2019	([1])	-	([1])
2020	([1])	-	([1])
2021	([1])	-	([1])
2022	([1])	-	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Section 101(h).

Description

The surviving spouse of a public safety officer killed in the line of duty can exclude from gross income a survivor annuity payment under a governmental pension plan. The annuity must be attributable to the officer's service as a public safety officer. Individuals qualifying as public safety officers include law enforcement officials, firefighters, ambulance crew members, rescue squad members, and chaplains employed by a fire or police department who were killed while responding to an emergency after September 10, 2001.

Impact

The exclusion is available to all surviving spouses who qualify, regardless of income level.

Ratio*nale*

Congress intended to subject annuities paid to surviving spouses of public safety officers killed in the line of duty to the same tax treatment as annuities paid to survivors of military service personnel killed in combat. This provision was part of the Taxpayer Relief Act of 1997 (P.L. 105-34).

Assessm*ent*

Annuities paid to surviving spouses of public safety officers killed in the line of duty are now treated consistently with annuities paid to surviving spouses of military service personnel killed in combat. The annual revenue loss from this item has been less than $50 million since its enactment in 1997.

Selected Bibliography

Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in 1997*. JCS-23-97. December 17, 1997.

U.S. Department of the Treasury, Internal Revenue Service, *Tax Guide to U.S. Civil Service Retirement Benefits,* Publication 721, January 25, 2018, p. 23.

Social Security and Railroad Retirement

EXCLUSION OF UNTAXED SOCIAL SECURITY AND RAILROAD RETIREMENT BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	37.9	-	37.9
2019	36.9	-	36.9
2020	39.2	-	39.2
2021	41.7	-	41.7
2022	44.3	-	44.3

Authorization

Section 86

Description

Depending on a taxpayer's income, their Social Security and Tier I Railroad Retirement benefits may be included as income and hence subject to income taxation. (Tier I Railroad Retirement benefits are those provided by the Railroad Retirement System that are equivalent to the Social Security benefit that would be received by the railroad worker were he or she covered by Social Security.) Specifically, a portion of Social Security and Tier I Railroad Retirement benefits *is included* in income for taxpayers whose "provisional income" exceeds certain thresholds. (For brevity, the term "social security benefit" as used in this chapter will henceforth refer to both Social Security and Tier I Railroad Retirement benefits.) If a taxpayer's provisional income is below these thresholds, their social security income is not included as income and hence not subject to the federal income tax.

Provisional income is adjusted gross income, *plus* certain otherwise tax-exempt income (tax-exempt interest), *plus* the addition (or adding back) of certain income specifically excluded from federal income taxation (interest on

certain U.S. savings bonds, employer-provided adoption benefits, foreign earned income or foreign housing, and income earned in Puerto Rico or American Samoa by bona fide residents), *plus* 50 percent of social security benefits.

The first tier of thresholds below which no Social Security or Tier I Railroad Retirement benefits are taxable are $25,000 (single), and $32,000 (married couple filing a joint return). In the case of taxpayers who are married filing separately, the threshold is also $25,000 if the spouses lived apart all year, but it is $0 for those who lived together at any point during the tax year.

If provisional income is between the $25,000 threshold ($32,000 for a married couple) and a second tier threshold of $34,000 ($44,000 for a married couple), the amount of benefits subject to tax is the lesser of: (1) 50 percent of benefits; or (2) 50 percent of provisional income in excess of the first threshold.

If provisional income is above the second tier threshold, the amount of benefits subject to tax is the lesser of:

(1) 85 percent of benefits; or

(2) 85 percent of income above the second threshold, plus the smaller of (a) $4,500 ($6,000 for a married couple), or (b) 50 percent of benefits.

These thresholds are not indexed for inflation.

For a married person filing separately who has lived with his or her spouse at any time during the tax year, taxable benefits are the lesser of 85 percent of benefits or 85 percent of provisional income.

The tax treatment of Social Security and Tier I Railroad Retirement benefits differs from that of pension benefits. For pension benefits, all benefits that exceed (or are not attributable to) the amount of the employee's contribution are fully taxable.

The proceeds from taxation of Social Security and Tier I Railroad Retirement benefits at the 50 percent rate are credited to the Social Security Trust Funds and the National Railroad Retirement Investment Trust, respectively. The additional revenue generated by increasing the maximum taxable proportion of benefits above the second threshold from 50 percent to 85 percent is credited to the Medicare Hospital Insurance Trust Fund. (The Congressional Budget Office [CBO] estimated that in 2014, these revenues

would account for about 4 percent of the tax revenues received by those trust funds. They would receive the other 96 percent of their tax revenues from payroll taxes.)

Impact

The distribution of the tax expenditure by income class is shown below. In 2018, nearly three-quarters of the forgone revenue (70.8 percent) goes to taxpayers with more than $50,000 of income.

Distribution by Income Class of Tax Expenditure, Untaxed Social Security and Railroad Retirement Benefits, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.3
$20 to $30	3.0
$30 to $40	10.7
$40 to $50	12.9
$50 to $75	27.7
$75 to $100	19.6
$100 to $200	17.0
$200 and over	8.7

In addition, a greater share of higher-income taxpayers are affected by this tax expenditure. In 2014, the CBO estimated that 49 percent of Social Security beneficiaries (or 25.5 million people) were affected by the income taxation of Social Security benefits. Their estimates indicated that Social Security beneficiaries with income under $40,000 owed less than 0.5 percent of their benefits in income taxes, on average, while those with income over $100,000 owed 21 percent of their benefits in income taxes.

Because the income thresholds to determine the taxation of Social Security benefits are not indexed for inflation or wage growth, the share of beneficiaries affected by these thresholds is increasing over time. Research by the Social Security Administration (SSA) using a microsimulation model projected that an annual average of about 56 percent of beneficiary families would owe federal income tax on part of their benefit income from 2015

through 2050. The SSA study also estimated that the median percentage of benefit income owed as income tax would rise from one percent to five percent between 2015 and 2050

Rationale

Until 1984, Social Security benefits were exempt from the federal income tax. The original exclusion arose from rulings made in 1938 and 1941 by the then Bureau of Internal Revenue (I.T. 3194, I.T. 3447). The exclusion of benefits paid under the Railroad Retirement System was enacted in the Railroad Retirement Act of 1935 (P.L. 74-399).

Under these rules, the treatment of Social Security benefits was similar to that of certain types of government transfer payments (such as Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI), and benefits under the Black Lung Benefits Act). This treatment was in sharp contrast to then-current rules for retirement benefits under private pension plans, the federal Civil Service Retirement System (CSRS), and other government pension systems. Benefits from those pension plans were fully taxable, except for the portion of total lifetime benefits (using projected life expectancy) attributable to the employee's own contributions to the system (and on which he or she had already paid income tax).

Currently (and as in 1941), under Social Security the worker's contribution to the system is half of the payroll tax, officially known as the Federal Insurance Contributions Act (FICA) tax. The amount the worker pays into the Social Security system in FICA taxes is not excluded to determine income subject to the federal income tax, and is therefore taxed. The employer's contributions to the system are not considered part of the employee's gross income, and are deductible from the employer's business income as a business expense. Consequently, neither the employee nor the employer pays taxes on the employer's contribution.

The 1979 Advisory Council on Social Security concluded that because Social Security benefits are based on earnings in covered employment, the 1941 ruling was wrong and that the tax treatment of private pensions was a more appropriate model for tax treatment of Social Security benefits. The council estimated that the most anyone who entered the workforce in 1979 would pay in payroll taxes during his or her lifetime would equal 17 percent of the Social Security benefits he or she would ultimately receive. (This was the most any individual would pay; in the aggregate, workers would make payroll tax payments amounting to substantially less than 17 percent of their

ultimate benefits.) Because of the administrative difficulties involved in determining the taxable amount of each individual benefit and to avoid "taxing more of the benefit than most people would consider appropriate," the council recommended instead that half of everyone's benefit be taxed. They justified this ratio as a matter of "rough justice" and noted that it coincided with the portion of the tax (the employer's share) on which income taxes had not been paid.

The National Commission on Social Security Reform (often referred to as the "Greenspan Commission"), appointed by President Reagan in 1981, recommended in its 1983 report that, beginning in 1984, 50 percent of Social Security cash benefits and Railroad Retirement Tier I benefits be taxable for individuals whose adjusted gross income, excluding Social Security benefits, exceeded $20,000 for a single taxpayer and $25,000 for a married couple, with the proceeds of such taxation credited to the Social Security trust funds. The commission did not include any provisions for indexing the thresholds. The commission estimated that 10 percent of Social Security beneficiaries would be subject to taxation of benefits. The commission acknowledged that the proposal had a "notch" problem, in that people with income at the thresholds would pay significantly higher taxes than those with only one dollar less, but trusted that it would be rectified during the legislative process.

In enacting the 1983 Social Security Amendments (P.L. 98-21) in March 1983, Congress essentially adopted the commission's recommendation, but modified it to phase in the tax on benefits gradually, as income rose above threshold amounts. The threshold amounts under this law were not indexed for inflation. At the same time, it modified the tax treatment of Tier I Railroad Retirement benefits to conform to the treatment of Social Security benefits.

In his FY1994 budget, President Clinton proposed that the taxable proportion of Social Security and Tier I Railroad Retirement benefits be increased to 85 percent effective in 1994, with the proceeds credited to Medicare's Hospital Insurance (HI) Trust Fund, which had a less favorable financial outlook than Social Security. Doing so also avoided possible procedural obstacles (budget points of order that can be raised regarding changes to the Social Security program in the budget reconciliation process). This measure was included in the 1993 Omnibus Budget Reconciliation Act (OBRA), which passed the House on May 27, 1993.

The Senate version of the bill included a provision to tax Social Security benefits up to 85 percent but imposed it only after provisional income

exceeded new thresholds of $32,000 (for single filers) and $40,000 (for married filers). When the House and Senate versions of the budget package were negotiated in conference, the conference agreement adopted the Senate version of the taxation of Social Security benefits provision and raised the thresholds to $34,000 (for single filers) and $44,000 (for married filers). President Clinton signed the measure into law (as part of P.L. 103-66) on August 10, 1993.

At that time it was estimated that the highest paid category of worker would, during the worker's lifetime, contribute 15 percent of the value of the Social Security benefits received by the worker. That is, at least 85 percent of the Social Security benefits received by a retiree could not be attributed to contributions by the retiree. Congress approved this proposal as part of the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66), but limited it to recipients whose threshold incomes exceed $34,000 (single) or $44,000 (couple). This change introduced the current two levels of taxation. There have been no direct legislative changes regarding taxation of Social Security benefits since 1993.

Assessment

Principles of horizontal equity (equal treatment of those in equal circumstances) generally support the idea of treating Social Security and Tier I Railroad Retirement benefits similarly to other sources of retirement income. Horizontal equity suggests that equal income, regardless of source, represents equal ability to pay taxes, and therefore should be equally taxed. Just as the portion of other pension benefits and IRA distributions on which taxes have never been paid is fully taxable, so too should the portion of Social Security and Tier I Railroad Retirement benefits not attributable to the individual's contributions be fully taxed.

In 1993, it was estimated that if Social Security benefits received the same tax treatment as pensions, on average about 95 percent of benefits would be included in taxable income, and that the lowest proportion of benefits that would be taxable for anyone entering the work force that year would be 85 percent of benefits. Because of the administrative complexities involved in calculating the proportion of each individual's benefits, and because in theory it would ensure that no one would receive less of an exclusion than entitled to under other pension plans, a maximum of 85 percent of Social Security benefits is currently in taxable income.

To the extent that Social Security benefits reflect social welfare payments, it can be argued that benefits be taxed similar to other general untaxed social welfare payments and not like other retirement benefits. One exception to the concept of horizontal equity is social welfare payments — payments made for the greater good (social welfare). Not all Social Security payments have a pension or other retirement income component and, unlike other pensions, more than one person may be entitled to benefits for a single worker. In addition, Social Security benefits are based on work earnings history and not contributions, with the formula providing additional benefits to recipients with lower work earnings histories.

Because the calculation of provisional income (to determine if benefits are taxable) includes a portion of Social Security benefits and certain otherwise untaxed income, the provisional income calculation can be compared to the income resources concept often used for means testing of various social benefits. Because the taxation increases as the provisional income increases, the after-tax Social Security benefits will decline as provisional income increases (but not below 15 percent of pre-tax benefits). This has resulted in the taxation of benefits being viewed as a "back-door" means test.

Under the current two-level structure, all Social Security beneficiaries have some untaxed benefits. The Congressional Budget Office estimates that more than 70 percent of benefits are untaxed. Taxes are imposed on at least half of the benefits for middle and upper income beneficiaries, while lower income beneficiaries have no benefits taxed.

Selected Bibliography.

Burman, Leonard E. et al. "The Effects of the Taxation of Social Security Benefits on Older Workers' Income and Claiming Decisions." *National Tax Journal* v. 67, n. 2 (June 2014), pp. 459-485.

Butrica, Barbara A., Richard W. Johnson, Karen E. Smith, and C. Eugene Steuerle. "The Implicit Tax on Work at Older Ages," *National Tax Journal*, v. 59, June 2006, pp. 211-234.

Congressional Budget Office. *The Taxation of Social Security Benefits*. Blog Post posted by Joshua Shakin on February 2, 2015. Available at https://www.cbo.gov/publication/49949.

—. *Options for Reducing the Deficit: 2017 to 2026: Revenues-Option 16, Tax Social Security and Railroad Retirement Benefits in the Same Way That Distributions from Defined Benefit Pensions Are Taxed,* December 8, 2016.

Erickson, Paul. "The Senior Citizen Marriage Tax Penalty/Bonus." *Journal of Financial Service Professionals*, v. 67, n. 6 (November 2013), pp. 40-45.

Government Accountability Office. *Social Security and Minorities: Earnings, Disability Incidence, and Mortality Are Key Factors That Influence Taxes Paid and Benefits Received*. GAO-03-387. April 23, 2003.

Internal Revenue Service. "Are Your Social Security Benefits Taxable?" IRS Tax Tip 2017-13. February 13, 2017.

—. Social Security and Equivalent Railroad Retirement Benefits. IRS Publication 915 for Use in Preparing 2017 Returns. January 03, 2018.

Munnell, Alicia. "The Declining Role of Social Security." *Boston College Center for Retirement Research No. JTF6,* February 2003.

Purcell, Patrick J. "Income Taxes on Social Security Benefits." Social Security Administration. Issue Paper No. 2015-02, December 2015.

Sloan, Allan. "Should We Cut Social Security Benefits for the Rich? We Already Have." *Fortune*, v. 165, no. 4 (March 19, 2012), pp. 85.

U.S. Congress, House of Representatives. *Omnibus Budget Reconciliation Act of 1993,* H.Rept. 103-213. August 4, 1993.

Weiner, David. "Social Security Benefits, Federal Taxation," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Whittaker, Julie M. *Social Security: Calculation and History of Taxing Benefits*, Library of Congress, Congressional Research Report RL32552. Washington, DC, October 27, 2016.

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT QUALIFIED PRIVATE ACTIVITY BONDS FOR VETERANS' HOUSING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])
2020	([1])	([1])	([1])
2021	([1])	([1])	([1])
2022	([1])	([1])	([1])

([1]) Positive tax expenditure of less than $50 million.

Authorization

Sections 103, 141, 143, and 146.

Description

Veterans' housing bonds are used to provide mortgages at below-market interest rates on owner-occupied principal residences of homebuyers who are veterans. These veterans' housing bonds are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals rather than to the general public.

Each state with an approved program is subject to an annual volume cap related to its average veterans' housing bond volume between 1979 and 1985. For further discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Government: Exclusion of Interest on Public Purpose State and Local Government Bonds*.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to offer mortgages on veterans' owner-occupied housing at reduced mortgage interest rates.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and homeowners, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Government: Exclusion of Interest on Public Purpose State and Local Government Bonds*.

Rationale

Veterans' housing bonds were first issued by the states after World War II, when both state and federal governments enacted programs to provide benefits to veterans as a reward for their service to the nation.

The Omnibus Budget Reconciliation Act of 1980 (P.L.96-499) required that veterans' housing bonds must be general obligations of the state. The Deficit Reduction Act of 1984 (P.L. 98–369) restricted the issuance of these bonds to the five states—Alaska, California, Oregon, Texas, and Wisconsin—that had qualified programs in existence before June 22, 1984, and limited issuance to each state's average issuance between 1979 and 1984.

Loans were restricted to veterans who served in active duty any time before 1977, and whose application for the mortgage financing occurred before the later of 30 years after leaving the service or January 31, 1985, thereby imposing an effective sunset date for the year 2007. Loans were also restricted to principal residences.

The Tax Increase Prevention and Reconciliation Act (P.L. 109-222) required that payors of state and municipal bond tax-exempt interest begin to report those payments to the Internal Revenue Service after December 31, 2005. The manner of reporting is similar to reporting requirements for interest paid on taxable obligations.

The most recent changes to the program were enacted by the Heroes Earnings Assistance and Relief Tax Act of 2008 (P.L. 110-245) which increased the annual issue limits to $100 million for Alaska, Oregon, and Wisconsin. In the case of California and Texas, the act removed a provision

restricting eligibility to veterans that served before 1977. Additionally, the exception for veterans from the first-time homebuyer requirement was made permanent.

Assessment

The need for these bonds has been questioned because veterans are eligible for numerous other housing subsidies that encourage home ownership and reduce the cost of their housing. As one of many categories of tax-exempt private-activity bonds, veterans' housing bonds have been criticized because they increase the financing costs of bonds issued for public capital stock and increase the supply of assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Cooperstein, Richard L. "Economic Policy Analysis of Mortgage Revenue Bonds." In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning, Boston, MA: Kluwer Academic Publishers, 1992.

— . "The Economics of Mortgage Revenue Bonds: A Still Small Voice." In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning, Boston, MA: Kluwer Academic Publishers, 1992.

Dreissen, Grant A. *Tax-Exempt Bonds: A Description of State and Local Government Debt*. Library of Congress, Congressional Research Service Report RL30638. February 15, 2018.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457. July 13, 2018.

U.S. Congress, Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, Committee Print, 98th Cong., 2nd sess., December 31, 1984, pp. 903-958.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*. Washington, DC: The Urban Institute Press, 1991.

EXCLUSION OF VETERANS' DISABILITY COMPENSATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	8.1	-	8.1
2019	7.4	-	7.4
2020	8.3	-	8.3
2021	8.5	-	8.5
2022	8.6	-	8.6

38 U.S.C. Section 5301.

Description

All benefits administered by the Department of Veterans Affairs (VA) are exempt from taxation. Such benefits include those for veterans' disability compensation. Disability compensation is a monthly tax-free benefit paid to veterans with at least a 10 percent disability rating because of injuries or diseases that were incurred in or aggravated during active duty, active duty for training, or inactive duty training. A disability can be the result of physical conditions, such as a chronic knee condition, as well as mental health conditions, such as post-traumatic stress disorder (PTSD). Compensation may also be paid for disabilities that are considered related or secondary to disabilities occurring in service and for disabilities presumed to be related to circumstances of military service, even though they may arise after service.

The benefit amount is graduated according to the degree of the veteran's disability rating on a scale from 10 percent to 100 percent (in increments of 10 percent). Typically, benefits increase with the severity of disability. Veterans whose service-connected disabilities are rated at 30 percent or more are entitled to additional allowances for dependents. Veterans with either (1) a single disability rated 60 percent or more, or (2) two or more disabilities with

a combined rating of 70 percent or more at least one of which is rated 40 percent may receive compensation at the 100-percent level if they are deemed unemployable by the VA.

The basic benefit amount effective December 1, 2017, ranges from $136.24 to $2,973.86 per month, depending on the disability rating. Additional amounts can be paid in certain circumstances, including severe disabilities or loss of limbs; having a spouse, dependent children, or dependent parents; or having a disabled spouse.

Impact

Beneficiaries of major veterans' programs pay less tax than other taxpayers with the same or smaller economic incomes. Since these exclusions are not counted as part of income, the tax savings are proportional to the veteran's marginal tax bracket. Thus, the exclusion amounts will have greater value for veterans with higher incomes than for those with lower incomes.

Rationale

The rationale for excluding veterans' benefits from taxation is not clear. The tax exclusion of benefits was adopted in 1917, during World War I. The World War Veterans Act of 1924 (P.L. 242), later codified by P.L. 85-56 and P.L 85-857, established the modern disability compensation program.

Many have concluded that the exclusion is in recognition of the extraordinary sacrifices made by armed forces personnel, especially during periods of war. Another rationale for the tax exclusion of veterans' disability benefits includes serving as an incentive to recruit and retain military personnel.

It could also be argued that this tax benefit provides parity between comparable civilian and military benefits. Specifically, veterans' disability compensation is similar to worker's compensation, which is exempt from taxation. (Members of the military are generally not eligible for workers' compensation.)

Assessment

The exclusion of veterans' benefits alters the distribution of payments and favors higher-income individuals. The rating schedule for veteran's disability compensation was intended to reflect the average impact of the disability on the average worker. However, because the rating is not directly

rated to the impact of disability on the veteran's actual or potential earnings, the tax exempt status of disability compensation payments may be an inaccurate estimate of the veteran's lost earnings from the disability. Some view veterans' compensation as a career indemnity payment owed to those disabled to any degree while serving in the nation's armed forces. If benefits were to become taxable, higher benefit levels would be required to replace lost income. Some disabled veterans would find it difficult to increase working hours to make up for the loss of expected compensation payments. Some commentators have noted that if veterans with new disability ratings below 30 percent were declared ineligible for compensation it would shift spending to those veterans most impaired. In FY2016, while 39.6 percent of veterans receiving disability compensation had a combined rating of 30 percent or less, their disability compensation payments were 10.4 percent of all disability compensation payments in FY2016.

Selected Bibliography

"Certain Payments to Disabled Veterans Ruled Tax-Free." *Federal Tax Course Letter* 22, no. 1 (January 2008), p. 10.

Collin, Benjamin, Scott D. Szymendera, and Libby Perl. *Benefits for Service-Disabled Veterans*. CRS Report R44837, May 8, 2017.

Cullinane, Danielle. *Compensation for Work-Related Injury and Illness,* Santa Monica, CA, RAND, 1992. 60 p. (RAND Publication Series N-3343-FMP).

Ferris, Nancy. "Serving Those Who Served," *Government Executive*, v. 30 (January 1998), pp. 18, 20, 22, 24.

Internal Revenue Service. *Information for Veterans with Disabilities*. March 28, 2014.

Poulson, Linda L. and Oenanthe Seetharaman. "Taxes and the Armed Forces," *The CPA Journal*, April 1996, pp. 22-26.

U.S. Congress, Congressional Budget Office. "Narrow the Eligibility for Veterans' Disability Compensation to Veterans Whose Disabilities are Related to Their Military Duties," *Budget Options*. Washington, DC: February 2007.

U.S. Department of Veterans Affairs. *Veterans Compensation Benefits Rate Tables-Effective 12/1/17*. Available at https://www.benefits.va.gov/compensation/resources_comp01.asp.

—. *Veterans Benefits Administration Annual Benefits Report Fiscal Year 2016*. February 2017. Available at https://www.benefits.va.gov/REPORTS/annual_benefits_report.asp.

Veterans' Disability Benefits Commission, *Honoring the Call to Duty: Veterans' Disability Benefits in the 21st Century*, October, 2007.

EXCLUSION OF VETERANS' PENSIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	0.1	-	0.1
2019	0.1	-	0.1
2020	0.1	-	0.1
2021	0.1	-	0.1
2022	0.1	-	0.1

Authorization

38 U.S.C. Section 5301.

Description

All benefits administered by the Department of Veterans Affairs (VA) are exempt from taxation. Such benefits include veterans' pension payments. There are currently two main veterans' pension programs: (1) The Improved Disability Pension, and (2) The Improved Death Pension Benefit. (There is also a Medal of Honor Pension to veterans who were awarded the Medal of Honor. Fewer than 100 veterans qualify for this type of pension.)

The Improved Disability Pension

The Improved Disability Pension provides a monthly benefit to certain low-income veterans. The monthly benefit is based on a maximum annual benefit, and the actual benefit received by the veteran is reduced by the veteran's "countable" income. A veteran with countable income above the maximum annual benefit amount is not eligible for the pension. To be eligible for the pension benefit, a veteran must meet eligibility criteria related to combat/period of service; income/net worth; and age or disability.

A veteran must meet military service requirements related to combat, or service during a period of war, to be eligible for the pension benefit. Specifically, a veteran must have been discharged from military service under conditions *other than dishonorable* and must have served in the active military either: (1) for at least 90 days during a period of war; (2) during a period of war and was released from service for a service-connected disability; (3) for 90 or more consecutive days which began or ended during a period of war; or (4) for a total of 90 days or more in two or more separate periods of service during one or more periods of war.

The pension benefit for an eligible veteran is calculated by subtracting the veteran's annual countable income from the annual maximum benefit; that is, the benefit amount is reduced dollar-for-dollar by countable income. A veteran with annual countable income above the annual maximum benefit amount receives no pension benefit. (Countable income for the veterans' pension benefit includes any Social Security benefits received. Therefore, the receipt of Social Security benefits can reduce or eliminate a veteran's pension benefit.) In addition, no benefit is paid to a veteran who has significant wealth, defined as a net worth large enough that it would be reasonable for part of that wealth to be used for the veteran's maintenance.

Veterans under age 65 are eligible if totally disabled due to a non-service connected injury, illness, or combination thereof that is not a result of the veteran's willful misconduct. Veterans aged 65 or older (regardless of disability status) who meet the other pension requirements (combat/period and income/net worth) are eligible for the benefit.

The maximum annual benefit amounts for the veterans' pension benefit are set in statute and are based on the presence of a spouse or dependent child (or children) and whether the beneficiary needs additional care or is housebound. The annual benefit amounts are adjusted automatically each year to reflect a cost-of-living adjustment (COLA) equal to the COLA for Social Security benefits. For example, effective December 1, 2017, the maximum annual amount for the pension benefit is $13,166 for a veteran and $17,241 for a veteran with one dependent. If two veterans are married to each other, the maximum annual amount is the same as for a veteran with one dependent ($17,241). The maximum annual benefit amount is higher if the veteran either requires additional care, known as "aid and attendance," or is housebound. An individual's benefit can be increased for only one of those reasons; the beneficiary cannot receive both Aid and Attendance benefits and Housebound benefits.

The Improved Death Pension Benefit

The low-income surviving spouse or dependent child of a deceased veteran is eligible for the Improved Death Pension Benefit if the deceased veteran and surviving spouse or dependent child meet eligibility requirements.

In general, survivors are eligible for the Improved Death Pension Benefit if the deceased veteran met the veteran's discharge and period of service requirements for the Improved Disability Pension. However, survivors of an individual who had at least two years of honorable military service and who died in military service but not in the line of duty are also eligible for the Improved Death Pension Benefit.

The surviving spouse cannot be remarried and must have been married to the deceased veteran: (1) for at least one year (there is no minimum if the surviving spouse and veteran had a child), or (2) before December 14, 1944, for deceased veterans of the Mexican border period and World War I; before January 1, 1957, for deceased veterans of World War II; before February 1, 1965, for deceased veterans of the Korean conflict; before May 8, 1985, for deceased veterans of the Vietnam era; or before January 1, 2001, for deceased veterans of the Persian Gulf War. (The Persian Gulf War period remains ongoing as there has not been a law or presidential proclamation formally ending this period.)

Surviving children must be under the age of 18 (age 23 or under if in school) or must have become incapable of self-care before the age of 18.

The countable income for a surviving spouse or child is calculated like that of a veteran for the Improved Disability Pension. However, for a surviving spouse with custody of a deceased veteran's child, part of the child's income that is available to the surviving spouse may be included in countable income. For a veteran's surviving child, current work income is excluded from countable income if the income is not more than the income level at which a federal income tax return must be filed *plus* postsecondary education or vocational rehabilitation or training expenses paid by the child. In addition, for a surviving spouse or child, any proceeds from a life insurance policy on the veteran are excluded from countable income.

The maximum annual benefit amounts for surviving spouses and dependent children, like those for veterans, are set in statute and are automatically increased to reflect the COLA for Social Security benefits. For example, effective December 1, 2017 the maximum annual benefit amount was $8,830 for a surviving spouse without a dependent child and $11,557 for a surviving spouse with a dependent child. Maximum annual benefit amounts are higher if the surviving spouse is housebound or requires aid and attendance. For a surviving child, the maximum annual benefit amount is $2,250.

Impact

Beneficiaries of these major veterans' programs pay less tax than other taxpayers with the same or smaller economic incomes. Since these exclusions are not counted as part of income, the tax savings are a percentage of the amount excluded, depending on the marginal tax bracket of the veteran. Thus, the exclusion amounts will have greater value for veterans with higher incomes than for those with lower incomes.

Rationale

The rationale for excluding veterans' benefits from taxation is not clear. The tax exclusion of benefits was adopted in 1917, during World War I. Many have concluded that the exclusion is in recognition of the extraordinary sacrifices made by armed forces personnel, especially during periods of war. In addition, it may be tax-exempt to provide parity with a similar program available to civilians—Supplemental Security Income or SSI.

Assessment

Income and wealth limitations of pension benefits target the benefit to certain lower-income veterans. As previously discussed, veterans pension benefits generally fall in value as income increases. In addition, no benefit is paid to a veteran who has enough wealth for the veteran's maintenance. (Neither law nor regulation specifies an amount of assets that would make a veteran ineligible for a pension due to excess net worth. In January 2015, the VA published a Notice of Proposed Rulemaking (NPRM) proposing regulatory changes to the pension eligibility rules that would establish a fixed monetary limit on net worth and provides for a 36-month look-back period during which assets transferred for less than market value would be counted toward net worth.) However, while pension benefits may be targeted to lower-income veterans, the benefit of the tax savings may be limited. Lower-income

taxpayers generally do not owe much (if any) in income taxes, so additional exclusions from their income (like veterans pension benefits) may not result in significant (if any) tax savings.

Selected Bibliography

"Certain Payments to Disabled Veterans Ruled Tax-Free." *Federal Tax Course Letter* 22, no. 1 (January 2008), p. 10.

Cullinane, Danielle. *Compensation for Work-Related Injury and Illness,* Santa Monica, CA, RAND, 1992. 60 p. (RAND Publication Series N-3343-FMP).

Ferris, Nancy. "Serving Those Who Served," *Government Executive*, v. 30 (January 1998), pp. 18, 20, 22, 24.

Internal Revenue Service. *Information for Veterans with Disabilities*. March 28, 2014.

Ogloblin, Peter K. *Military Compensation Background Papers: Compensation Elements and Related Manpower Cost Items, Their Purposes and Legislative Backgrounds*. Washington, DC: Department of Defense, Office of the Secretary of Defense, U.S. Government Printing Office, November 1991, pp. 633-645.

Poulson, Linda L. and Oenanthe Seetharaman. "Taxes and the Armed Forces," *The CPA Journal*, April 1996, pp. 22-26.

Szymendera, Scott D. and Carol D. Davis. *Veterans' Benefits: Pension Benefit Programs*. CRS report RS22804, September 9, 2015.

Torreon, Barbara Salazar. *U.S. Periods of War and Dates of Recent Conflicts*. CRS Report RS21405, October 11, 2017.

U.S. Department of Veterans Affairs. *Pensions Tables-Effective 12/1/17*. Available at Available at https://www.benefits.va.gov/pension/current_rates_veteran_pen.asp and https://www.benefits.va.gov/pension/current_rates_survivor_pen.asp .

—. *Veterans Benefits Administration Annual Benefits Report Fiscal Year 2016*. February 2017.

Veterans' Disability Benefits Commission, *Honoring the Call to Duty: Veterans' Disability Benefits in the 21st Century*, October, 2007.

EXCLUSION OF VETERANS' READJUSTMENT BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.6	-	1.6
2019	1.4	-	1.4
2020	1.6	-	1.6
2021	1.7	-	1.7
2022	1.8	-	1.8

Authorization

38 U.S.C. Section 5301.

Description

All benefits administered by the Department of Veterans Affairs (VA) are exempt from taxation. Such benefits include readjustment benefit payments.

Readjustment benefits for veterans include cash payments for education or training; vocational rehabilitation training or support payments; grants for adapting automobiles, homes, or equipment; and a clothing allowance for certain disabled veterans.

Impact

Beneficiaries of these major veterans' programs pay less tax than other taxpayers with the same or smaller economic incomes. Since these exclusions are not counted as part of income, the tax savings are proportional to the marginal tax bracket of the veteran. Thus, the exclusion amounts will have greater value for veterans with higher incomes than for those with lower incomes.

Rationale

The rationale for excluding veterans' benefits from taxation is not clear. The tax exclusion of benefits was adopted in 1917, during World War I. Many have concluded that the exclusion is in recognition of the extraordinary sacrifices made by armed forces personnel, especially during periods of war.

Assessment

The exclusion of veterans' benefits alters the distribution of payments and favors higher-income individuals.

Selected Bibliography

"Certain Payments to Disabled Veterans Ruled Tax-Free." *Federal Tax Course Letter* 22, no. 1 (January 2008), p. 10.

Cullinane, Danielle. *Compensation for Work-Related Injury and Illness,* Santa Monica, CA, RAND, 1992. 60 p. (RAND Publication Series N-3343-FMP).

Ferris, Nancy. "Serving Those Who Served," *Government Executive*, v. 30 (January 1998), pp. 18, 20, 22, 24.

Internal Revenue Service. *Information for Veterans with Disabilities*. March 28, 2014.

Ogloblin, Peter K. *Military Compensation Background Papers: Compensation Elements and Related Manpower Cost Items, Their Purposes and Legislative Backgrounds*. Washington, DC: Department of Defense, Office of the Secretary of Defense, U.S. Government Printing Office, November 1991, pp. 633-645.

Poulson, Linda L. and Oenanthe Seetharaman. "Taxes and the Armed Forces," *The CPA Journal*, April 1996, pp. 22-26.

U.S. Congress, House Committee on Ways and Means. *2008 Green Book; Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means*, available on the Committee website: http://waysandmeans.house.gov.

Veterans' Disability Benefits Commission, *Honoring the Call to Duty: Veterans' Disability Benefits in the 21st Century*, October, 2007.

General Purpose Fiscal Assistance

EXCLUSION OF INTEREST ON PUBLIC PURPOSE STATE AND LOCAL GOVERNMENT BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	23.6	7.1	30.7
2019	23.4	6.4	29.8
2020	24.1	6.3	30.4
2021	24.7	6.3	31.0
2022	25.3	6.2	31.5

Authorization

Sections 103, 141 and 146.

Description

Certain obligations of state and local governments qualify as "governmental" bonds. The interest income earned by individual and corporate purchasers of these bonds is excluded from taxable income. This interest income is not taxed because the bond proceeds generally are used to build capital facilities that are owned and operated by governmental entities and serve the general public interest, such as highways, schools, and government buildings. These bonds can be issued in unlimited amounts, although state and local governments do have of a variety of self-imposed debt limits.

Exemption from federal income taxation is also available for a subset of otherwise taxable *private-activity* bonds if the proceeds are used to finance a qualified activity specified in the Code. Unlike governmental bonds, many of these tax-exempt, private-activity bonds may not be issued in unlimited amounts. Each state is subject to a federally imposed annual volume cap on

new issues for most of these tax-exempt, private-activity bonds. Each activity included in the list of private activities eligible for tax-exempt financing is discussed elsewhere in this document under the private activity's related budget function. Many of the projects may be considered "public purpose" by some observers but are not included in this tax expenditure.

Impact

The impact of this tax expenditure can be measured by (1) how much additional public capital investment occurs because of this tax provision, and (2) the distributional effects across issuers and taxpayers. In the first case, the empirical evidence on the impact on public capital investment is mixed. The broad range of public projects financed with tax-exempt bonds diminishes the target efficiency of the public subsidy and complicates measurement of the tax subsidy's impact. Nonetheless, economic theory would predict that the lower relative price for government debt likely increases investment in public capital.

The distributional impact of this interest exclusion has two components: first, the division of tax benefits between issuing governments and bond purchasers; and second, the distribution of the tax benefits among income classes. The interest income exclusion lowers the interest rate on state and local government obligations relative to comparable taxable bonds. In effect, the federal government pays part of state and local interest costs. For example, if the market rate on tax-exempt bonds is 5.0 percent when the taxable bond rate is 7.0 percent, there is a 2.0-percentage-point interest rate subsidy to the issuer.

The interest exclusion also raises the after-tax return for some bond purchasers, more so for high-income investors. A taxpayer facing a 12 percent marginal tax rate is better off purchasing a 7 percent taxable bond over a 5 percent tax-exempt bond. The after-tax return on the taxable bond is 6.16 percent which is greater than the 5 percent after-tax return on the tax-exempt bond. But a high-income taxpayer facing a 37 percent marginal tax rate is better off buying a tax-exempt bond because the after-tax return on the taxable bond is 4.41 percent, and on the tax-exempt bond, 5 percent. These "inframarginal" investors in the 37 percent marginal tax bracket receive what have been characterized as "windfall gains."

The allocation of benefits between the bond investors and state and local governments (and, implicitly, its taxpayer citizens) depends on the spread in interest rates between the tax-exempt and taxable bond market, the share of

the tax-exempt bond volume purchased by individuals with marginal tax rates exceeding the market-clearing marginal tax rate, and the range of the marginal tax rate structure. The reduction of the top income tax rate of bond purchasers from the 70 percent individual rate that prevailed prior to 1981 to the 37 percent individual rate that prevailed in 2018 has increased the share of the tax benefits going to state and local governments.

The table below provides an estimate of the distribution by income class of tax-exempt interest income (including interest income from both governmental and private-activity bonds). The table also shows the share of total returns and total adjusted gross income for a variety of income ranges. In 2016, 73.5 percent of individuals' tax-exempt interest income is earned by returns with adjusted gross income in excess of $100,000, although these returns represent 16.8 percent of all returns. Returns below $30,000 earn 10.6 percent of tax-exempt interest income, although they represent 43.8 percent of all returns.

Distribution of Adjusted Gross Income and Tax-Exempt Interest Income, 2016

	Percentage Distribution of:		
Income Class (in thousands of $)	Total Returns	Net Adjusted Gross Income	Tax-Exempt Interest Income
Below $10	15.7	-0.9	6.2
$10 to $20	15.6	3.4	2.2
$20 to $30	12.5	4.6	2.2
$30 to $40	9.9	5.1	2.2
$40 to $50	7.7	5.1	2.1
$50 to $75	13.3	12.0	6.0
$75 to $100	8.5	10.9	5.6
$100 to $200	12.3	24.5	14.5
$200 to $500	3.6	15.1	13.5
$500 to $1,000	0.6	5.9	7.6
$1,000 to $1,500	0.1	2.3	3.9
$1,500 to $2,000	0.1	1.3	2.6
$2,000 to $5,000	0.1	3.4	7.8
$5,000 to $10,000	< .05	1.9	4.8

Income Class (in thousands of $)	Percentage Distribution of: Total Returns	Net Adjusted Gross Income	Tax-Exempt Interest Income
$10,000 and over	< .05	5.3	18.9

Source: IRS, Statistics of Income Division, Publication 1304, Table 1.4, June 2018.

The tax expenditure is even more concentrated in the higher income classes than the interest income because the average marginal tax rate (which largely determines the value of the tax expenditure from the nontaxed interest income) is higher for higher-income classes.

Rationale

This exclusion has been a part of the income tax since 1913, and was based on the belief that state and local interest income had constitutional protection from federal government taxation. The argument in support of this constitutional protection was rejected by the Supreme Court in 1988, *South Carolina v. Baker* (485 U.S. 505, [1988]). In spite of this loss of protection, many believe the exemption for governmental bonds is still justified on economic grounds, principally as a means of encouraging state and local governments to invest in public capital.

Bonds whose debt service is supported by the full faith and credit of state and local government have been left largely untouched by federal legislation, with a few exceptions such as arbitrage restrictions, denial of federal guarantee, and bond registration requirements. The principle reason is that most of these bonds are issued for the construction of public capital stock, such as schools and government buildings.

This has not been the case for bonds whose debt service is paid from revenue generated by the facilities built with the bond proceeds or by a specific revenue stream. These bonds have been the subject of almost continual legislative scrutiny, beginning with the Revenue and Expenditure Control Act of 1968 (RECA, P.L. 90-364) and peaking with a comprehensive overhaul by the Tax Reform Act of 1986 (TRA86, P.L. 99-514). Both RECA and TRA86 were intended to curb the issuance of a subset of tax-exempt bonds used to finance quasi-public investment activities. These bonds that provided a significant benefit to private businesses and individuals are characterized as "private-activity" bonds. Each private activity eligible for tax exemption and

associated revenue cost is discussed elsewhere in this document under the private activity's related budget function.

Assessment

This tax expenditure subsidizes the provision of state and local public goods and services. A justification for a federal subsidy is that it encourages state and local taxpayers to provide public services that also benefit residents of other states or localities. The form of the subsidy has been questioned because it subsidizes one factor of public sector production, capital, and encourages state and local taxpayers to substitute capital for labor in the public production process.

Critics maintain there is no evidence that state and local governments underprovide capital facilities. These critics argue that, to the extent a subsidy of state and local public service provision is needed to obtain the service levels desired by taxpayers, the subsidy should not be restricted only to capital.

The efficiency of the subsidy, as measured by the federal revenue loss generated by reduced state and local interest costs and the windfall gains for bond investors, has also been the subject of considerable controversy. The state and local share of the benefits depends to a great extent on the number of bond investors with tax rates above the marginal tax rate of the purchaser who clears the market. The share of the subsidy received by state and local governments grew during the 1980s as the highest statutory marginal income tax rate on individuals dropped from 70 percent to 31 percent (and on corporations from 46 percent to 34 percent). The tax cuts provided for by the 2017 tax revision (P.L. 115-97) further decreased the inefficiency of this subsidy, as it decreased the top marginal income tax rates faced by individuals and businesses to 37 percent and 21 percent, respectively, in tax year 2018.

Finally, the open-ended structure of the tax exclusion results in federal tax expenditure being dependent upon the decisions of state and local officials. The limited federal control of the revenue loss arising from governmental bonds could adversely impact federal budgeting.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhang Xing. "Taxes on Tax-Exempt Bonds," *The Journal of Finance,* vol. 65, no. 2, 2010, pp. 565-601.

Congressional Budget Office. Testimony, *Federal Support for State and Local Governments Through the Tax Code*. April 2012.

Driessen, Grant A. *Tax-Exempt Bonds: A Description of State and Local Government Debt*. Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

— . *Key Issues in Tax Reform: Federal Subsidies for Interest Income Generated from Municipal Bonds*. Library of Congress, Congressional Research Service Report IF10712, November 15, 2017.

Fortune, Peter. "Tax-Exempt Bonds Really Do Subsidize Municipal Capital!" *National Tax Journal*, vol. 51, no. 1, March 1998, pp. 43-54.

Galper, Harvey, Kim Rueben, Richard Auxier, and Amanda Eng. "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 67, no. 4, December 2014, p. 901.

Gamkhar, Shama and Beibei Zou, "To Tax or Not to Tax: Lessons from the Build America Bond Program about Optimal Federal Tax Policy for Municipal Bonds," *Municipal Finance Journal*, Fall 2014, vol. 35, no. 3, p. 1.

Gordon, Roger H. and Gilbert E. Metcalf. "Do Tax-Exempt bonds Really Subsidize Municipal Capital?" *National Tax Journal*, vol. 44, no. 4, December 1991, pp. 71-79.

Gravelle, Jane G. and Jennifer Gravelle. "How Federal Policymakers Account for the Concerns of State and Local Governments in the Formulation of Federal Tax Policy," *National Tax Journal*, vol. 60, no. 3, September 2007, pp. 631-648.

Hildreth, W. Bartley et al, "The Past and Future of Municipal Securities: Fortieth Anniversary of the Municipal Securities Rulemaking Board," *Municipal Finance Journal*, Spring 2016, vol. 37, no. 1, p. 1.

Landoni, Mattia. "Tax distortions and bond issue pricing," *Journal of Financial Economics*, vol. 129, no. 4, August 2018, pp. 382-393.

Liu, Gao and Dwight Dennison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal,* vol. 67, no. 3, September 2014, pp. 569-594.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal,* vol. 64, no. 2, June 2011, pp. 591-613.

Poterba, James M. and Andrew A. Samwick. "Taxation and Household Portfolio Composition: US Evidence from the 1980s and 1990s," *Journal of Public Economics*, vol. 87, January 2003, pp. 5-38.

U.S. Congress, Joint Committee on Taxation. *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

U.S. Congress, Joint Committee on Taxation, *Present Law and Background Related to Federal Taxation and State and Local Government Finance*, Joint Committee Print JCX-7-13, March 15, 2013.

U.S. Department of the Treasury, Internal Revenue Service. *Municipal Bonds, 2012-2013*, *Statistics of Income*, Spring 2016.

Whitaker, Stephen. "Adjusting the Volume: Private-Activity Municipal Bonds and the Variation in the Volume Cap," *Public Budgeting & Finance*, Spring 2014, vol. 34, issue 1, pp. 39-63.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity,* Washington, DC: The Urban Institute Press, 1991.

— . "Tax-Exempt Bonds," in *The Encyclopedia of Taxation and Tax Policy*, 2nd ed., edited by Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle, Washington, DC: The Urban Institute Press, 2005.

DEDUCTION OF NONBUSINESS STATE AND LOCAL GOVERNMENT TAXES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	43.1	-	43.1
2019	21.5	-	21.5
2020	23.1	-	23.1
2021	24.5	-	24.5
2022	25.6	-	25.6

Authorization

Section 164.

Description

State and local income, sales, personal property, and real property taxes paid by individuals are deductible from adjusted gross income as an itemized deduction. Business sales and property taxes are deductible as business expenses, but those deductions are not tax expenditures because they are included in the measurement of business economic income.

For tax years 2018 through 2025: (1) deductions for state and local income, sales, personal property, and domestic real property taxes paid not in the carrying on of a trade or business cannot exceed $10,000 (or $5,000 for married individuals filing separately); and (2) foreign real property tax payment claims are not eligible for the deduction. Under current law, the $10,000 limitation on claims for state and local taxes paid is eliminated and foreign real property tax payment claims are allowed beginning in tax year 2026.

Impact

The deduction of state and local individual income, sales, personal property, and real property taxes increases an individual's after-federal-tax income and reduces the individual's after-federal-tax price of the state and local public services provided with these tax dollars. Some of the benefit goes to the state and local governments (because individuals are willing to pay higher taxes) and some goes to the individual taxpayer. The deductibility of real property (real estate) taxes provides an additional subsidy to home ownership. Like the deduction for home mortgage interest (discussed elsewhere in this Compendium), the deduction for real property taxes reduces the cost of home ownership relative to renting, as renters may not deduct rental costs under the federal income tax. Landlords may deduct the property tax they pay on a rental property but are taxed on the rental income.

There may also be an impact on the structure of state and local tax systems. Economists have theorized that if a particular state and local tax or revenue source is favored by deductibility in the federal tax code, then state and local governments may rely more upon that tax source. In effect, state and local governments and taxpayers recognize that residents are only paying part of the tax, and that the federal government, through federal deductibility, is paying the remainder.

The distribution of tax expenditures from state and local tax deductions is concentrated in the higher income classes. Roughly 86 percent of the tax expenditures are projected to be taken by families with adjusted gross income in excess of $100,000 in 2018. As with any deduction, it is worth more as marginal tax rates increase, meaning those with greater taxable income and higher marginal tax rates receive larger savings. The difference in the value of the deduction across income levels may be mitigated in part by the limitation on the value of nonbusiness deductions that may be claimed, though a subsequent reduction on state and local government services provided may have ramifications for the population at-large.

Distribution by Income Class of Tax Expenditures for State and Local Government Taxes, 2018

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.1
$30 to $40	0.3
$40 to $50	0.6
$50 to $75	4.1
$75 to $100	8.5
$100 to $200	34.1
$200 and over	52.3

Rationale

Deductibility of state and local taxes was adopted in 1913 to avoid taxing income that was obligated to expenditures over which the taxpayer had little or no discretionary control. User charges (such as for sewer and water services) and special assessments (such as for sidewalk repairs), however, were not deductible. The Revenue Act of 1964 (P.L. 88-272) eliminated deductibility for motor vehicle operators' licenses, and the Revenue Act of 1978 (P.L. 95-600) eliminated deductibility of the excise tax on gasoline. These decisions represent congressional concern that differences among states in the legal specification of taxes allowed differential deductibility treatment for taxes that were essentially the same in terms of their economic incidence.

The Tax Reform Act of 1986 (P.L. 99-514) eliminated deductibility of sales taxes, partly out of concern that these taxes paid were estimated and therefore did not perfectly represent reductions of taxable income, and partly arising from concerns that some portion of the tax reflects discretionary decisions of state and local taxpayers to consume services through the public sector that might be consumed through private (nondeductible) purchase.

In 2004, the sales tax deductibility option was reinstated for the 2004 and 2005 tax years by the American Jobs Creation Act of 2004 (P.L. 108-357). In contrast to pre-1986 law, state sales and use taxes can only be deducted *in lieu of* state income taxes, not in addition to. Taxpayers who itemize and live in

states without a personal income tax will benefit the most from this provision. The rationale behind the *in lieu of* is the more equal treatment for taxpayers in states that do not levy an income tax. In December 2006, P.L. 109-432 extended the deduction through 2007. In October 2008, P.L. 110-343 extended the sales tax deduction option for an additional two years, through 2009. The sales tax deduction was extended through 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312), and through 2013 by the American Taxpayer Relief Act of 2012 (ATRA, P.L. 112-24). The Consolidated Appropriations Act, 2016 (P.L. 114-113) permanently incorporated the sales tax deduction option into law.

Since the 2004 tax year, taxpayers have been allowed to choose between deducting sales or income taxes. There was also a temporary additional standard deduction for state and local sales and excise taxes paid on up to $49,500 of the purchase price of a qualified new car, light truck, motor home or motorcycle. The deduction was available for purchases made between February 16, 2009, and January 1, 2010.

The 2017 tax revision (P.L. 115-97) made a number of changes to the deduction for state and local taxes paid. Beginning in tax year 2018, P.L. 115-97 restricted deductions for state and local taxes paid to $10,000 for taxes not paid in the carrying on of a trade or business. Property taxes paid in the carrying on of a trade or business are not subject to the $10,000 limit. (Business sales taxes paid are measured as business income and thus are not tax expenditures.) Deductions claimed for foreign real property taxes were eliminated. P.L. 115-97 also increased the value of the standard deduction, which will reduce the number of taxpayers claiming itemized deductions and thus who are eligible for the deduction for state and local taxes. Modifications to the deduction for state and local taxes paid included in P.L. 115-97 (including the increased value of the standard deduction) are all scheduled to expire at the end of the 2025 tax year.

Assessment

Proponents argue that the deduction for state and local taxes is a way of promoting fiscal federalism by helping state and local governments to raise revenues from their own taxpayers. Itemizers receive an offset for their deductible state and local taxes in the form of lower federal income taxes. Deductibility thus helps to equalize total combined (federal, state, and local) tax burdens across the country, as itemizers in high-tax state and local jurisdictions pay somewhat lower federal taxes as a result of their higher deductions.

Modern theories of the public sector discount the "don't tax a tax" justification for state and local tax deductibility, emphasizing instead that taxes represent citizens' decisions to consume goods and services collectively. From this perspective, state and local taxes are benefit taxes and should be treated the same as expenditures for private consumption. As such, these taxes should not be deductible against federal taxable income.

Deductibility can also be seen as an integral part of the federal system of intergovernmental assistance and policy. Public economic theory suggests that:

(1) deductibility provides indirect financial assistance for the state and local sector and should result in expanded state and local budgets, and

(2) deductibility will influence the choice of state and local tax instruments if deductibility is not provided uniformly.

In theory, there is an incentive for state and local governments to rely upon the taxes that are deductible from federal income, such as personal property taxes, because the tax "price" to the taxpayer is lower than the "price" on taxes that are not deductible. To the extent the federal tax treatment of state and local government taxes moves the jurisdiction away from the otherwise preferred tax structure, this tax expenditure generates an economically inefficient tax system. The limitation on nonbusiness deductions in tax years 2018 through 2025 may provide state and local governments with further incentive to adjust their tax systems, though the legal viability of structural alternatives is uncertain.

The deductibility of state and local taxes may also alter the behavior of individuals, as changes in their share of the tax burden may have consequences for locational choices of residence, employment, and consumer behavior. There is some evidence to suggest that large relative changes in state and local income tax rates induce household mobility, though such activity is typically confined to high-income households. Moreover, like the mortgage interest deduction, the value of the property tax deduction may be capitalized to some degree into higher prices for the type of housing bought by taxpayers more likely to itemize. Consequently, restricting the deduction for property taxes may lower the price of housing purchased by middle- and upper-income taxpayers, at least in the short run.

Selected Bibliography

Avi-Yonah, Reuven S. et al. "The Games They Will Play: Tax Games, Roadblocks, and Glitches under the House and Senate Tax Bills," *Social Science Research Network*, SSRN Working Paper 3084187, July 14, 2018.

Bankman, Joseph and Darien Shanske. "The Full Deduction Rule and the Substance Over Form Doctrine." Stanford Public Law Working Paper, August 20, 2018.

Bankman, Joseph et al. "State Responses to Federal Tax Reform: Charitable Tax Credits," *State Tax Notes*, vol. 159, no. 5, January 2018, pp. 641-689.

Birch, John W., Mark A. Sunderman, and Brent C. Smith. "Vertical Inequity in Property Taxation: A Neighborhood Based Analysis," *Journal of Real Estate Finance and Economics*, vol. 29, no. 1, July 2004, pp. 71-78.

Burman, Leonard E., Christopher Geisler, and Eric Toder. "How Big are Individual Income Tax Expenditures, and Who Benefits from Them?" *American Economic Review*, vol. 93, no. 2, May 2008, pp. 79-83.

Congressional Budget Office. Testimony before the U.S. Senate Committee on Finance, *Federal Support for State and Local Governments Through the Tax Code,* April 2012.

Driessen, Grant A. *Key Issues in Tax Reform: the Deduction for State and Local Taxes*, Library of Congress, Congressional Research Service, Report IF10721, November 14, 2017.

Driessen, Grant A. and Jane G. Gravelle. *Selected Recently Expired Individual Tax Provisions ("Tax Extenders"): In Brief*, Library of Congress, Congressional Research Service Report R43688, October 27, 2016.

Driessen, Grant A. and Steven Maguire. *Federal Deductibility of State and Local Taxes*, Library of Congress, Congressional Research Service Report RL32781, May 10, 2017.

Fox, William F. and John A. Swain. "The Federal Role in State Taxation: A Normative Approach," *National Tax Journal*, vol. 60, 2007, pp. 611-630.

Fullerton, Don and Gilbert E. Metcalf. "Tax Incidence," *Handbook of Public Economics*, vol. 4, 2002, pp. 1787-1872.

Gale, William G., Jonathan Gruber, and Seth Stephens-Davidowitz. "Encouraging Homeownership Through the Tax Code," *Tax Notes*, June 18, 2007, pp. 1171-1189.

Gamage, David. "Charitable Contributions in Lieu of SALT Deductions," *State Tax Notes*, vol. 87, no. 11, March 9, 2018, pp. 973-976.

Gravelle, Jennifer. "Who Pays Property Taxes? A Look at the Effects of Property Taxes Across States," *State Tax Notes*, December 24, 2007, pp. 887-890.

Heim, Bradley T. and Yulianti Abbas. "Does Federal Deductibility Affect State and Local Revenue Sources?" *National Tax Journal*, vol. 68, 2015, pp. 33-58.

Holderness, Hayes. "The Case for Preempting SALT Cap Workarounds." *State Tax Notes*, August 20, 2018, pp. 737-745.

Holtz-Eakin, D. and Harvey S. Rosen. "Federal Deductibility and Local Property Tax Rates," *Journal of Urban Economics*, vol. 27, no. 3, May 1990, pp. 269-284.

Keightley, Mark. *The Mortgage Interest and Property Tax Deductions: Analysis and Options*, Library of Congress, Congressional Research Service Report 41596, March 18, 2014.

Metcalf, Gilbert E. "Assessing the Federal Deduction for State and Local Tax Payments," *National Tax Journal*, vol. 64, June 2011, pp. 565-590.

Moretti, Enrico and Daniel J. Wilson. "The Effect of State Taxes on the Geographical Location of Top Earners: Evidence from Star Scientists," *American Economic Review*, vol. 107, no. 7, 2017, pp. 1858-1903.

Piccinini, Kristy. "The Deductibility of State and Local Taxes," Congressional Budget Office, February 2008.

Poterba, James and Todd Sinai. "Tax Expenditures for Owner-Occupied Housing: Deductions for Property Taxes and Mortgage Interest and the Exclusion of Imputed Rental Income," *American Economic Review*, vol. 98, no. 2, May 2008, pp. 84-89.

Sammartino, Frank and Kim S. Rueben. "Revisiting the State and Local Tax Deduction," Tax Policy Center, Urban Institute and Brookings Institution, March 31, 2016.

Sammartino, Frank, Philip Stallworth, and David Weiner. "The Effect of the TCJA Individual Income Tax Provisions Across Income Groups and Across the States," Tax Policy Center, Urban Institute and Brookings Institution, March 28, 2018.

Sommer, Kamila and Paul Sullivan. "Implications of US Tax Policy for House Prices, Rents, and Homeownership," *American Economic Review*, vol. 108, no. 2, 2018, pp.241-274.

U.S. Congress, Joint Committee on Taxation. *Estimates of Federal Tax Expenditures for Fiscal Years 2018-2022,* Joint Committee Print JCX-81-18, October 4, 2018.

—. *Estimated Budget Effects of the Conference Agreement for H.R. 1, the "Tax Cuts and Jobs Act",* Joint Committee Print JCX-67-17, December 18, 2017.

—. *Present Law and Background Related to Federal Taxation and State and Local Government Finance*, Joint Committee Print JCX-7-13, March 15, 2013.

U.S. Treasury, Internal Revenue Service. Proposed Rules: *Contributions in Exchange for State or Local Tax Credits*, Federal Register, vol. 83, no. 166, August 27, 2018, pp. 43563-43571.

Zodrow, George R. "Property Tax Incidence and the Mix of State and Local Finance on Local Expenditures," *State Tax Notes*, May 19, 2018, pp. 567-580.

ELIMINATE REQUIREMENT THAT FINANCIAL INSTITUTIONS ALLOCATE INTEREST EXPENSE ATTRIBUTABLE TO TAX-EXEMPT INTEREST

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	-	0.4	0.4
2019	-	0.4	0.4
2020	-	0.4	0.4
2021	-	0.4	0.4
2022	-	0.4	0.4

Authorization

Section 265.

Description

Interest expenses are generally deductible for businesses, with limitation. An exception to this general rule is for the expenses that are allocable to any class of income (other than interest) that is wholly exempt from tax; the expenses are related to the production of income and are allocable to interest that is wholly exempt from tax; or the interest is on debt that is incurred or continued to purchase or carry an obligation that produces interest that is wholly exempt from tax. As a result, financial institutions cannot deduct any portion of their interest expense that is allocable to tax-exempt obligations acquired after August 7, 1986.

An exception applies to certain qualified tax-exempt obligations. Qualified small issuer bonds, those issued by an entity expecting to issue $10 million or less ($30 million or less for debt issued in 2009 or 2010) in tax-exempt obligations in a calendar year, are exempt from this requirement. In addition, under a de minimis safe harbor, interest expense that is allocable to

investments in tax-exempt obligations does not include investments in tax-exempt municipal bonds issued during 2009 and 2010, to the extent that these investments constitute less than two percent of the average adjusted bases of all the assets of the financial institution. The portion of any obligation not taken into account under this rule is treated as having been acquired on August 7, 1986, for purposes of the rules regarding financial institution preference items.

Impact

Eliminating the requirement to allocate certain interest expenses could increase the demand for small issuer tax-exempt obligations, which would reduce the interest costs to the issuing governments.

Rationale

The Tax Reform Act of 1986 (P.L. 99–514) generally required the allocation of interest expenses to offset tax-exempt interest.

The American Recovery and Reinvestment Act of 2009 (P.L. 111–5) expanded the de minimis level for small issuers and allowed a 2-percent safe harbor for financial institutions to stimulate demand for tax-exempt obligations.

Assessment

This tax expenditure subsidizes the provision of state and local public goods and services by small issuers. This may not be economically efficient, as this provision favors small projects at the expense of larger projects—regardless of the relative economic value.

Selected Bibliography

Joint Committee on Taxation, Present Law and Background Relating to State and Local Government Bonds (JCX-14-06), March 14, 2006.

—, General Explanation of Tax Legislation Enacted in the 111th Congress (JCS–2–11), March 2011.

BUILD AMERICA BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	3.3	-	3.3
2019	3.3	-	3.3
2020	3.3	-	3.3
2021	3.3	-	3.3
2022	3.3	-	3.3

Note: Estimates include outlay effects associated with the refundable portion of BABs. These outlay effects are estimated to be $3.2 billion for each fiscal year listed above. These outlays are to state and local governments and are attributed to individuals for purposes of this table.

Authorization

Sections 54A, 54AA, 1400U, and 6431.

Description

In the 111th Congress, the American Recovery and Reinvestment Act (ARRA, P.L. 111-5) created a new type of tax credit bond, the Build America Bond (BAB), which gave issuers the option of receiving a direct payment from the Treasury or allowing investors to receive the credit instead of tax-exempt interest payments. The legislation also provided for a version of BABs with a deeper subsidy called Recovery Zone Economic Development Bonds for economically distressed areas (see the entry Recovery Zone Economic Development Bonds). This tax expenditure entry covers BABs.

BABs are not targeted in their designation, as are other tax credit bonds (TCBs; such as qualified zone academy bonds, qualified school construction bonds, and clean renewable energy bonds). The volume of BABs was not

limited, but they had to be issued before January 1, 2011, thus the tax expenditure represents the tax credits generated by the outstanding bonds. The purpose was constrained only by the requirement that "the interest on such obligation would (but for this section) be excludible from gross income under section 103." Thus, BABs were issued for any purpose that would have been eligible for traditional tax-exempt bond financing other than private activity bonds. The 2017 tax revision (P.L. 115-97) repealed issuing authority for all tax credit bonds beginning on January 1, 2018.

The BAB credit amount is 35 percent of the interest rate established between the buyer and issuer of the bond. The issuer and investor agree on terms either as a result of a competitive bid process or through a negotiated sale. For example, if the negotiated taxable interest rate is 8 percent, on $100,000 of bond principal, then the credit is $2,800 (8 percent times $100,000 times 35 percent). The issuer had the option of receiving a direct payment from the Treasury equal to the tax credit amount or allowing the investor to claim the tax credit. The issuers chose the direct payment option for all BABs issued because the net interest cost was less than traditional tax-exempt debt of like terms. The interest cost to the issuer choosing the direct payment is $8,000 less the $2,800, or $5,200. If the tax-exempt rate is greater than 5.20 percent (requiring a payment of greater than $5,200) then the direct payment BAB would have been a better option for the issuer. Note that the direct payment option means the bond proceeds must have been used for capital expenditures.

The requirements of the Balanced Budget and Emergency Deficit Control Act of 1985 (P.L. 99-177) reduced the credit payments by 6.9 percent for FY2017; 6.6 percent for FY2018; and 6.2 percent for FY2019. The cuts applied to all direct pay tax credit bonds. With these percentage reductions, the 35 percent direct payments were reduced to 32.585 percent for FY2017, 32.69 percent for FY2018, and 32.83 percent in FY2019.

Impact

The impact of BABs on the municipal bond market has been significant, although it is unclear how much additional public infrastructure investment and economic stimulus the BAB program created. Until the authority to issue BABs expired on January 1, 2011, $181.5 billion of BABs had been issued, over one-fifth of all municipal issuance over the same period (21.5 percent). A Treasury Department report on BABs estimated that through March 2010, the bonds had saved municipal issuers roughly $12 billion in interest costs. The BAB debt likely displaced tax-exempt debt in many cases, though some

portion may have been unplanned public investment or future projects that were expedited to take advantage of BAB financing.

Rationale

The American Recovery and Reinvestment Act (ARRA, P.L. 111-5) created BABs. These bonds offer a federal subsidy larger than that provided by tax-exempt bonds and were intended to spur more infrastructure spending and to aid state and local governments. Proponents also cited the possible stimulative effect of additional public infrastructure spending arising from this program during the economic downturn in 2009 and 2010.

Assessment

There are three principal stakeholders in the tax-preferred bond market: (1) state and local government issuers; (2) investors; and (3) the federal government. For issuers, BABs are best assessed against the most common alternative mechanism for financing public infrastructure: tax-exempt bonds. With direct-payment BABs, the federal government subsidizes the issuer directly, unlike with tax-exempt bonds which provide an indirect subsidy through lower interest rates. Either way, issuers receive an interest rate subsidy. In theory, if the demand for BABs exceeded that for traditional tax-exempt bonds issued for the same purpose, then interest costs for the issuer would have been further reduced. Also, if the credit rate were set such that the bonds were more attractive relative to other taxable instruments, issuers might have realized an additional interest cost savings.

When BABs are evaluated against tax-exempt bonds, the credit rate should equal the ratio of the investor's forgone market interest rate on tax-exempt bonds divided by one minus the investor's tax rate. Investors in higher tax marginal income tax brackets would need a higher rate to equate the return on BABs to that of tax-exempt bonds. Thus, high-income investors would prefer tax-exempt bonds to BABs. In contrast, non-taxable investors, international investors, and lower marginal tax rate investors would find BABs more attractive than tax-exempt bonds.

For the federal government, the BAB mechanism is a more economically efficient subsidy than tax-exempt bonds, particularly in cases where the issuer claims the direct payment (all BABs issued have been direct-payment BABs). The direct payment to the issuer mechanism, which is modeled after the "taxable bond option," was first considered in the late 1960s. Later, in 1976,

the following was posited by the then-President of the Federal Reserve Bank in Boston, Frank E. Morris:

> The taxable bond option is a tool to improve the efficiency of our financial markets and, at the same time, to reduce substantially the element of inequity in our income tax system which stems from tax exemption [on municipal bonds]. It will reduce the interest costs on municipal borrowings, but the benefits will accrue proportionally as much to cities with strong credit ratings as to those with serious financial problems.

The authority to issue BABs expired January 1, 2011. Many who supported extension of BABs, however, proposed a credit rate lower than the current 35 percent. Some observers were concerned that BABs will completely displace tax-exempt bonds, creating uncertainty in a market that has existed since inception of the federal income tax. P.L. 115-97 repealed all tax credit bond issuance authority from tax year 2018 forward.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," *Journal of Fixed Income*, vol. 20, no. 1, 2010, p. 67.

Cestau, Dario, Richard C. Green, and Norman Schurhoff. "Tax-Subsidized Underpricing: The Market for Build America Bonds," *Journal of Monetary Economics*, vol. 60, no. 5, July 2013, p. 593.

Congressional Budget Office. Testimony, *Federal Support for State and Local Governments Through the Tax Code,* April 2012.

— . *Tax Credit Bonds and the Federal Cost Financing Public Expenditures*, July 2004.

Congressional Budget Office and Joint Committee on Taxation. *Subsidizing Infrastructure Investment with Tax-Preferred Bonds*, pub. no. 4005, October 2009.

Davie, Bruce. "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," *Proceedings of the 91st Annual Conference on Taxation*, National Tax Association, 1999.

Driessen, Grant A. *Tax-Exempt Bonds: A Description of State and Local Government Debt*, Library of Congress, Congressional Research Service Report RL30638, February 15, 2018.

Driessen, Grant and Jeffrey M. Stupak. *Tax Credit Bonds: Overview and Analysis,* Library of Congress, Congressional Research Service Report RL31457, October 11, 2016.

Gamkhar, Shama and Beibei Zou, "To Tax or Not to Tax: Lessons from the Build America Bond Program about Optimal Federal Tax Policy for Municipal Bonds," *Municipal Finance Journal*, Fall 2014, vol. 35, no. 3, p. 1.

Galper, Harvey, Kim Rueben, Richard Auxier, and Amanda Eng. "Municipal Debt: What Does It Buy and Who Benefits?" *National Tax Journal*, vol. 67, no. 4, December 2014, p. 901.

Internal Revenue Service. *Update: Effect of Sequestration on State & Local Government Filers of Form 8038-CP,* June 2018.

Liu, Gao and Dwight V. Denison. "Indirect and Direct Subsidies for the Cost of Government Capital: Comparing Tax-Exempt Bonds and Build America Bonds," *National Tax Journal*, vol. 67, no. 3, September 2014, p. 569.

Maguire, Steven and Joseph S. Hughes. *Private Activity Bonds: An Introduction,* Library of Congress, Congressional Research Service Report RL31457, July 13, 2018.

Morris, Frank E. "The Taxable Bond Option," *National Tax Journal*, vol. 29, no. 3, September 1976, p. 356.

Molly F. Sherlock et al. *The 2017 Tax Revision (P.L. 115-97): Comparison to 2017 Tax Law*. Library of Congress, Congressional Research Service Report R45092, February 6, 2018.

U.S. Congress, Joint Committee on Taxation. *Present Law and Issues Related to Infrastructure Finance,* Joint Committee Print JCX-83-08, October 29, 2008.

— . *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

— . *General Explanation of Tax Legislation Enacted in 1997*, Joint Committee Print JCS-23-97, December 17, 1997, 40-41.

U.S. Office of Management and Budget. "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2018," April 6, 2018.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2017," May 12, 2017.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2016," January 4, 2016.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2015," January 20, 2015.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2014," February 7, 2014.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2013," April 9, 2013.

— . "OMB Final Sequestration Report to the President and Congress for Fiscal Year 2012," January 18, 2012.

U.S. Treasury Department. "Treasury Analysis of Build America Bonds and Issuer Net Borrowing Costs," April 2, 2010.

U.S. Treasury Department. Internal Revenue Service, Statistics of Income Division, "Table 12. Direct Payment Bonds Allowed Under the American Recovery and Reinvestment Act (ARRA), by Bond Type, 2009." July 2011.

U.S. Treasury Department. Internal Revenue Service, Statistics of Income Division, "Table 12. Taxable Direct Payment Bonds Allowed Under the American Recovery and Reinvestment Act (ARRA) and Specified Tax Credit Bonds Allowed Under the Hiring Incentives to Restore Employment Act (HIRE), by Bond Type, 2010." November 2012.

Interest

DEFERRAL OF INTEREST ON SAVINGS BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2018	1.1	-	1.1
2019	1.0	-	1.0
2020	0.9	-	0.9
2021	0.9	-	0.9
2022	0.9	-	0.9

Authorization

Section 454(c)

Description

Owners of U.S. Treasury Series E, Series EE, and Series I savings bonds have the option of either including interest in taxable income as it accrues or excluding interest from taxable income until the bond is redeemed. All E bonds no longer earn interest after June 2010, because they have matured. Before September 1, 2004, EE bonds also could be exchanged for current income HH bonds with the accrued interest deferred until the HH bonds were redeemed. As of September 1, 2004, the U.S. Treasury ended the sale and exchange of HH savings bonds. Series EE bonds issued before May 1997 earn various rates for semiannual earnings periods, depending on the issue date. Series EE bonds issued from May 1997 through April 2005 continue to earn market-based interest rates set at 90 percent of the average 5-year Treasury yields for the preceding six months. Series EE bonds issued from May 2005 onwards earn a fixed rate of interest, depending on the rate set when the bond was issued. The revenue loss shown above represents the tax that would be due on the deferred interest if it were reported and taxed as it accrued. On September 1, 1998, the Treasury began issuing Series I bonds, which

guarantee the owner a real rate of return by indexing the yield for changes in the rate of inflation.

Impact

The deferral of tax on interest income on savings bonds provides two advantages. First, it delays payment of tax on the interest, delivering the equivalent of an interest-free loan of the amount of the tax. Second, if the taxpayer is in a lower income tax bracket when the bonds are redeemed, the deferral reduces the rate of tax paid on the interest. This is particularly common when the bonds are purchased while the owner is working and redeemed after the owner retires.

The small denominations and low risk of savings bonds may make them an appealing instrument for certain taxpayers. There are currently annual cash purchase limits of $5,000 per person for both EE bonds and I bonds with these limits applying separately to each series (for a total of $10,000 per year). The tax deferral of interest on savings bonds primarily benefits middle income taxpayers.

Rationale

Before 1951, a cash-basis taxpayer generally reported interest on U.S. Treasury original issue discount bonds in the year of redemption or maturity, whichever came first. In 1951, when Series E bonds were extended past their dates of original maturity, a provision was enacted to allow the taxpayer either to report the interest currently, or at the date of redemption, or upon final maturity. Senate Finance Committee records indicated that the provision was adopted to facilitate the extension of maturity dates.

On January 1, 1960, the Treasury permitted owners of E bonds to exchange these bonds for current income H bonds with the continued deferment of federal income taxes on accrued interest until the H bonds were redeemed. This action was designed to encourage the holding of U.S. bonds, and was later extended to EE bonds, HH bonds, and I bonds. On February 18, 2004, the U.S. Treasury announced that HH savings bonds would no longer be offered to the public after August 31, 2004. The Treasury's press release stated that "The Treasury is withdrawing the offering due to the high cost of exchanges in relation to the relatively small volume of transactions."

Assessment

The savings bond program was established to provide small savers with a convenient and safe debt instrument and to lower the cost of borrowing to the taxpayer. The option to defer taxes on interest increases sales of bonds. There is no empirical study that has determined whether or not the cost savings from increased bond sales more than offset the loss in tax revenue from the accrual.

Selected Bibliography

U.S. Department of the Treasury. *A History of the United States Savings Bond Program, 50th Anniversary Edition*. Washington, DC: January 1991.

— . Treasury Direct. *Series EE/E Savings Bonds Tax Considerations*. Updated Sept. 26, 2014.

— . Treasury Direct. *Tax Considerations for I Bonds*. Updated Sept. 26, 2014.

— . Treasury Direct. *Tax Considerations for HH/H Bonds*. Updated Sept. 26, 2014.

U.S. Senate Committee on Finance. *Automatic Extension of Series E Savings Bonds*. S.Rept. 82-165, Washington, DC: March 13, 1951.

Appendix A:
Forms of Tax Expenditures

Exclusions, Exemptions, Deductions, Credits, Preferential Rates, and Deferrals

Tax expenditures may take any of the following forms:

(1) special exclusions, exemptions, and deductions, which reduce taxable income and, thus, result in a lesser amount of tax;

(2) preferential tax rates, which reduce taxes by applying lower rates to part or all of a taxpayer's income;

(3) special credits, which are subtracted from taxes as ordinarily computed; and

(4) deferrals of tax, which result from delayed recognition of income or from allowing in the current year deductions that are properly attributable to a future year.

Computing Tax Liabilities

A brief explanation of how tax liability is computed will help illustrate the relationship between the form of a tax expenditure and the amount of tax relief it provides.

CORPORATE INCOME TAX

Corporations compute taxable income by determining gross income (net of any exclusions) and subtracting any deductions (essentially costs of doing business).

The corporate income tax rate is 21 percent.

Any credits are deducted directly from tax liability. The essentially flat statutory rate of the corporation income tax means there is very little difference in marginal tax rates to cause variation in the amount of tax relief provided by a given tax expenditure to different corporate taxpayers. However,

corporations without current tax liability will benefit from tax expenditures only if they can carry back or carry forward a net operating loss or credit. Most firms cannot carry back net operating losses.

INDIVIDUAL INCOME TAX

Individual taxpayers compute gross income which is the total of all income items except exclusions. They then subtract certain deductions (deductions from gross income or "business" deductions) to arrive at adjusted gross income. The taxpayer then has the option of "itemizing" personal deductions or taking the standard deduction. The taxpayer then deducts personal exemptions to arrive at taxable income. A graduated tax rate structure is applied to this taxable income to yield tax liability, and any credits are subtracted to arrive at the net after-credit tax liability.

The graduated tax structure is currently applied at rates (in percent) of 10, 12, 22, 24, 32, 35, and 37 percent, with brackets varying across types of tax returns. These rates were enacted in the 2017 tax revision (P.L. 115-97) and are temporary (expiring in 2026). At that time the rates and brackets will return to pre-2018 values with rates (in percent) of 10, 15, 25, 28, 33, 35 and 39.6. For joint returns, in 2019, rates on taxable income are 10 percent on the first $19,400, 12 percent for amounts from $19,400 to $78,950, 22 percent for amounts from $78,950 to $168,400, 24% for amounts from $168,400 to $321,450, 32 percent for incomes from $321,450 to $408,200, 35 percent for taxable incomes of $408,200 to $612,350, and 37 percent for amounts over $612,350. These amounts are indexed for inflation using the chained consumer price index (C-CPI-U).

Exclusions, Deductions, and Exemptions

The amount of tax relief per dollar of each exclusion, exemption, and deduction increases with the taxpayer's marginal tax rate. Thus, the exclusion of interest from state and local bonds saves $37 in tax for every $100 of interest for the taxpayer in the 37-percent bracket, whereas for the taxpayer in the 12-percent bracket the saving is only $12. Similarly, the increased standard deduction for persons over age 65 or an itemized deduction for charitable contributions are worth almost twice as much in tax saving to a taxpayer in the 22-percent bracket as to one in the 12-percent bracket.

In general, the following deductions are itemized, i.e., allowed only if the standard deduction is not taken: medical expenses, specified state and local taxes, interest on nonbusiness debt such as home mortgage payments, casualty

losses in disaster areas, and gambling losses. (Certain of these deductions are subject to floors or ceilings.) The 2017 tax revision eliminated or restricted itemized deductions including adding a cap of $10,000 on state and local taxes, reducing the cap on mortgage interest to indebtedness up to $750,000 (rather than $1 million), eliminating deductions for home equity loans, eliminating casualty losses in areas not declared a national disaster, and eliminating miscellaneous deductions subject to a floor (including certain unreimbursed business expenses of employees, expenses of investment income, union dues, costs of tax return preparation, and uniform costs). These restrictions expire, absent legislative changes.

Whether or not a taxpayer minimizes his tax by itemizing deductions depends on whether the sum of those deductions exceeds the limits on the standard deduction. Higher income individuals are more likely to itemize because they are more likely to have larger amounts of itemized deductions which exceed the standard deduction allowance. Homeowners often itemize because deductibility of mortgage interest and property taxes leads to larger deductions than the standard deduction.

Preferential Rates

The amount of tax reduction that results from a preferential tax rate (such as the reduced rates on dividends and capital gains) depends on the difference between the preferential rate and the taxpayer's ordinary marginal tax rate. The higher the marginal rate that would otherwise apply, the greater is the tax relief from the preferential rate.

Credits

A tax credit (such as the dependent care credit) is subtracted directly from the tax liability that would accrue otherwise; thus, the amount of tax reduction is the amount of the credit and is not contingent upon the marginal tax rate. A credit can (with one exception) only be used to reduce tax liabilities to the extent a taxpayer has sufficient tax liability to absorb the credit. Most tax credits can be carried backward and/or forward for fixed periods, so that a credit which cannot be used in the year in which it first applies can be used to offset tax liabilities in other prescribed years.

The earned income credit and child credit are the only major tax credits which are now refundable. That is, a qualifying individual will obtain in cash the entire amount of the refundable credit even if it exceeds tax liability. Child credits are not fully refundable, however, for certain very low income families.

Deferrals

Deferral can result either from postponing the time when income is recognized for tax purposes or from accelerating the deduction of expenses. In the year in which a taxpayer does either of these, his taxable income is lower than it otherwise would be, and because of the current reduction in his tax base, his current tax liability is reduced. The reduction in his tax base may be included in taxable income at some later date. However, the taxpayer's marginal tax rate in the later year may differ from the current year rate because either the tax structure or the applicable tax rate has changed.

Furthermore, in some cases the current reduction in the taxpayer's tax base may never be included in his taxable income. Thus, deferral works to reduce current taxes, but there is no assurance that all or even any of the deferred tax will be repaid. On the other hand, the tax repayment may even exceed the amount deferred.

A deferral of taxes has the effect of an interest-free loan for the taxpayer. Apart from any difference between the amount of "principal" repaid and the amount borrowed (that is, the tax deferred), the value of the interest-free loan--per dollar of tax deferral--depends on the interest rate at which the taxpayer would borrow and on the length of the period of deferral. If the deferred taxes are never paid, the deferral becomes an exemption. This can occur if, in succeeding years, additional temporary reductions in taxable income are allowed. Thus, in effect, the interest-free loan is refinanced; the amount of refinancing depends on the rate at which the taxpayer's income and deductible expenses grow and can continue in perpetuity.

The tax expenditures for deferrals are estimates of the difference between tax receipts under the current law and tax receipts if the provisions for deferral had never been in effect. Thus, the estimated revenue loss is greater than what would be obtained in the first year of transition from one tax law to another. The amounts are long run estimates at the level of economic activity for the year in question.

Appendix B:
Tax Provisions Previously Classified as Tax Expenditures

This appendix gathers basic information concerning four federal tax provisions that have previously been treated as tax expenditures. All of these items were excluded from the Tax Expenditure Budgets prepared for fiscal years 2018-2022 by the Joint Committee on Taxation (JCT),[10] but were included in some previous years' documents.

With respect to each tax item in the appendix, the following information is provided:

> The legal authorization for the provision (e.g., Internal Revenue Code section, Treasury Department regulation, or Treasury ruling);
>
> A description of the tax expenditure, including an example of its operation where this is useful;
>
> A brief analysis of the impact of the provision, including information on the distribution of benefits where data are available;
>
> A brief statement of the rationale for the adoption of the tax expenditure where it is known, including relevant legislative history;
>
> An assessment, which addresses the arguments for and against the provision; and
>
> A selected bibliography.

The information presented for each tax expenditure is not intended to be exhaustive or definitive. Rather, it is intended to provide an introductory understanding of the nature, effect, and background of each provision. Useful starting points for further research are listed in the selected bibliography following each provision.

---

[10] U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2018-2022*, October 4, 2018 (JCX-81-18).

EXCLUSION OF INVESTMENT INCOME ON LIFE INSURANCE AND ANNUITY CONTRACTS

Authorization

Sections 72, 101, 7702.

Description

Life insurance companies invest premiums they collect, and returns on those investments help pay benefits. Amounts not paid as benefits may be paid as policy dividends or given back to policyholders as cash surrender values or loan values.

Policyholders are not generally taxed on this investment income, commonly called "inside build-up," as it accumulates. Insurance companies also usually pay no taxes on this investment income. Death benefits for most policies are not taxed at all, and amounts paid as dividends or withdrawn as cash values are taxed only when they exceed total premiums paid for the policy, allowing tax-free investment income to pay part of the cost of the insurance protection. Investment income that accumulates within annuity policies is also free from tax, but annuities are taxed on their investment component when paid.

Life insurance policies must meet tests designed to limit the tax-free accumulation of income. If investment income accumulates faster than is needed to fund the promised benefits, that income will be attributed to the owner of the policy and taxed currently. If a corporation owns a life insurance policy, investment income is included in alternative minimum taxable income.

Impact

The interest exclusion on life insurance savings allows policyholders to pay for a portion of their personal insurance with tax-free interest income. Although the interest earned is not currently paid to the policyholder, it covers part of the cost of the insurance coverage and it may be received in cash if the policy is terminated. The tax-free interest income benefit can be substantial,

despite limitations imposed on the amount of income that can accumulate tax-free in a contract.

The tax deferral for interest credited to annuity contracts allows taxpayers to save for retirement in a tax-deferred environment without restrictions on the amount that can be invested for these purposes. Although the taxpayer cannot deduct the amounts invested in an annuity, as is the case for contributions to qualified pension plans or some IRAs, the tax deferral on the income credited to life insurance investments can benefit taxpayers significantly.

These provisions thus offer preferential treatment for the purchase of life insurance coverage and for savings held in life insurance policies and annuity contracts. Middle-income taxpayers, who make up the bulk of the life insurance market, may reap most of this provision's benefits. Many higher-income taxpayers, once their life insurance requirements are satisfied, generally obtain better after-tax yields from tax-exempt state and local obligations or tax-deferred capital gains. Some very wealthy individuals, however, can gain tax advantages through other forms of life insurance, such as closely held life insurance companies (CHLICs or CICs) or private placement life insurance (PPLI), which may serve as an intergenerational wealth transfer tool.

Rationale

The exclusion of death benefits paid on life insurance dates back to the 1913 tax law (P.L. 63-16). While no specific reason was given for exempting such benefits, insurance proceeds may have been excluded because they were believed to be comparable to bequests, which also were excluded from the tax base.

The nontaxable status of the life insurance inside build-up and the tax deferral on annuity investment income also dates from 1913. Floor discussions of the bill made it clear that inside build-up was not taxable, and that amounts received during the life of the insured would be taxed only when they exceeded the investment in the contract (premiums paid), although these points were not included in the law explicitly. These views were, in part, based on the general tax principle of constructive receipt. Policyholders, in this view, did not own the interest income because to receive that interest income they would have to give up the insurance protection or the annuity guarantees. Since the early-1980s, Congress has taken various steps to limit tax-free inside build-up in certain cases and restricted the favorable treatment of inside buildup to

'traditional' life insurance policies from a broader category of 'investment-oriented' products.

The inside build-up in several kinds of insurance products was made taxable to the policy owners in the 1980s. For example, corporate-owned policies were included under the minimum tax in the Tax Reform Act of 1986 (P.L. 99-514); and the Deficit Reduction Act of 1984 (P.L. 98-369) and the Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) imposed taxes on inside build-up and distributions for policies with an overly large investment component. On the other hand, during consideration of the Tax Reform Act of 1986, Congress rejected a comprehensive proposal included in President Reagan's tax reform initiative that would have imposed current taxation on all inside build-up in life insurance policies. The President's Advisory Panel on Federal Tax Reform, which issued its final report in November 2005, recommended elimination of the exemption on life insurance investment earnings. Instead the Advisory Panel favored savings incentives which would treat various investment vehicles in a more neutral manner.

Assessment

The tax treatment of policy income combined with the tax treatment of life insurance company reserves (see "Special Treatment of Life Insurance Company Reserves," above) makes investments in life insurance policies virtually tax-free. Cash value life insurance can operate as an investment vehicle that combines life insurance protection with a financial instrument that operates similarly to bank certificates of deposit and mutual fund investments. This exemption of inside build-up distorts investors' decisions by encouraging them to choose life insurance over competing savings vehicles such as bank accounts, mutual funds, or bonds. The result could be overinvestment in life insurance and excessive levels of life insurance protection relative to what would occur if life insurance products competed on a level playing field with other investment opportunities.

A risk-averse and forward-looking family can use life insurance, in conjunction with investments in stocks and bonds, to hedge against the financial consequences of an unexpected loss of a wage earner. Many families, according to some economists, fail to buy enough life insurance to protect surviving family members from a sharp drop in income and living standards that the death of a wage-earner could cause. Such families, whose financial vulnerabilities are not offset by insurance benefits, may be described as underinsured. Encouraging families to buy more life insurance could reduce those families' financial vulnerabilities. Whether the tax exemption on life

insurance benefits, however, induces families to buy prudent levels of life insurance is unclear. Better financial education, for example, may provide a more direct route to helping families reduce financial vulnerabilities due to death or other serious disruptions.

The practical difficulties of taxing policy owners' inside build-up and the desire to avoid subjecting heirs to a tax on death benefits have discouraged many tax reform proposals covering life insurance. The value of inside buildup, however, could be computed actuarially. The insurer could be tasked with withholding taxes, which the policyholder could then claim as a credit. Taxing at the company level as a proxy for individual income taxation has been suggested as an alternative.

In the 1980s and 1990s, the inside build-up exclusion helped boost the number of corporate-owned life insurance (COLI) policies (also known as "employer-owned life insurance contracts"). Many firms, which had previously bought policies only for key personnel, bought life insurance on large numbers of lower-level employees. Several newspaper articles highlighted purchases of COLI policies bought without employees' knowledge or consent, which have been termed "dead peasant insurance" or "janitor insurance." Many policies, however, were structured so that a corporation would expect to neither gain nor lose from an employee's death.

The IRS argued that such COLI policies served as a tax shelter and successfully sued several major corporations. Those cases limited some of the tax benefits of COLI policies. (See the 2006 Joint Tax Committee summary for citations.) The Pension Protection Act of 2006 (P. L. 109-280) limited tax benefits of COLI policies to key personnel and to benefits paid to survivors, and requires firms to obtain employees' written consent. Firms with COLI policies generally must report data on IRS Form 8925, *Report of Employer-Owned Life Insurance Contracts*.

The statutory definition of 'key personnel' (26 USC § 101(j)(2)(A)), however, is broadly defined, so that the effect of limiting tax benefits of COLI policies to key personnel may be less than stringent. Such key personnel include the top 35 percent of employees ranked by compensation. Those earning above an inflation-adjusted threshold ($120,000 for 2018; see 26 USC 414(q)) also fall within that definition.

Selected Bibliography

Baldas, Tresa. "'Secret' Life Insurance Triggers Suits: Employees Claim Lack of Consent." *National Law Journal*, February 2, 2009.

Browning, Lynnley. "Tax-Free Life Insurance: An Untapped Investment for the Affluent." *New York Times*, February 9, 2011.

Chen, Penn et al. "Human Capital, Asset Allocation, and Life Insurance," *Financial Analysts Journal*, v. 62 (January/February 2006).

Cantley, Beckett G. "Repeat as Necessary: Historical IRS Policy Weapons to Combat Conduit Captive Insurance Company Deductible Purchases of Life Insurance." *U. C. Davis Business Law Journal*, v. 13, February 2013, http://ssrn.com/abstract=2315868.

Christensen, Burke A. "Life Insurance: the Under-Appreciated Tax Shelter." *Trusts and Estates*, v. 135 (November 1996), pp. 57-60.

Gravelle, Jane G. and Thomas L. Hungerford. *The Challenge of Individual Income Tax Reform: An Economic Analysis of Tax Base Broadening*, Library of Congress, Congressional Research Service Report R42435, January 11, 2013.

Harman, William B. Jr. "Two Decades of Insurance Tax Reform." *Tax Notes*, v. 57 (November 12, 1992).

Johnson, Calvin, Andrew Pike, and Eric A. Lustig. "Tax on Insurance Buildup," http://tax.network/cjohnson/tax-insurance-buildup. (February 2009).

Joulfaian, David. *To Own or Not to Own Your Life Insurance Policy? Journal of Public Economics*, v. 118 (2014).

Kotlikoff, Lawrence J. *The Impact of Annuity Insurance on Savings and Inequality*, *Journal of Labor Economics*, v. 4, no. 3 (1986).

Loeber, Christopher C. "Broad-Based, Leveraged Corporate Owned Life Insurance Litigation: The Policyholder's Perspective." Paper presented at the Annual Seminar of the American Bar Association's Insurance Coverage Litigation Committee, March 5, 2004, Tucson, Arizona.

McClure, Charles E. "The Income Tax Treatment of Interest Earned on Savings in Life Insurance." In *The Economics of Federal Subsidy Programs*. Part 3: Tax Subsidies. (U.S. Congress, Joint Economic Committee.) Washington, DC: U.S. Government Printing Office, July 15, 1972.

Mancini, Mary Anne. "Uses of Life Insurance for the Closely-Held Business." William & Mary Annual Tax Conference, paper 78, 2002.

President's Advisory Panel on Federal Tax Reform. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System: Report of the President's Advisory Panel on Federal Tax Reform*. Washington, DC: November 2005.

Schultz, Ellen E. and Theo Francis. "Companies Profit on Workers' Deaths Through 'Dead Peasants' Insurance," *Wall Street Journal*, April 19, 2002.

U.S. Congress, Joint Committee on Taxation. *Tax Reform Proposals: Taxation of Insurance Products and Companies*. Joint Committee Print, 99th Congress, 1st session. Washington, DC: Government Printing Office, September 20, 1985.

— . *Present-Law Federal Tax Treatment, Proposals, and Issues Relating to Company-Owned Life Insurance*, Joint Committee Print JCX-91-03, 108th Congress, 1st session. Washington, DC: Government Printing Office, October 15, 2003.

U.S. Congressional Budget Office. "Options to Increase Revenues: Include Investment Income from Life Insurance and Annuities in Taxable Income." In *Budget Options*. Washington, DC: 2005.

U.S. Department of the Treasury. *General Explanations of the Administration's FY2011 Revenue Proposals*. Washington, DC: February 2010, pp. 72-73.

U.S. Department of the Treasury. *The Tax Expenditure for Life Insurance Inside Buildup*. September 28, 2016.

— . *Report to the Congress on the Taxation of Life Insurance Company Products*. Washington, DC: March 30, 1990.

U.S. Office of Management and Budget. *Budget of the United States Government, Fiscal Year 2017, Analytical Perspectives*. Tables 14-2A and 14-2B. February 9, 2016.

Vickrey, William S. "Insurance Under the Federal Income Tax," *Yale Law Journal*, v. 52 (June 1943), pp. 554-585.

EXCLUSION OF UNTAXED MEDICARE BENEFITS: HOSPITAL INSURANCE (PART A)

Authorization

Rev. Rul. 70-341, 1970-2 C.B. 31.

Description

Part A of Medicare provides hospital insurance (HI) for individuals who are age 65 and over, as well as certain disabled persons and people with kidney failure. HI benefits cover costs of in-patient hospital care, skilled nursing facility care, home health care, and hospice care. In 2017, according to the Congressional Budget Office, 58 million aged and disabled persons were enrolled in Part A. Mandatory outlays for Part A, before offsets for deductibles and copayments, were estimated at $296 billion. Other components of Medicare provide medical care insurance (Part B), Medicare Advantage plans (Part C), and a prescription drug benefit (Part D).

Medicare Part A is financed primarily by a payroll tax levied on the earnings of current workers. The tax rate is 2.90 percent, and there is no ceiling on the earnings subject to the tax. Self-employed individuals pay the full rate, while employees and employers each pay 1.45 percent. Since 2013, an additional 0.9 percent payroll tax has been levied on wages over $200,000 for single workers and over $250,000 for married couples. The revenue from the payroll tax is credited to a trust fund, from which payments are made to health care providers for current Medicare beneficiaries. Individuals contribute to the fund during his or her working years and obtain eligibility for themselves and their spouses for premium-free Part A benefits during their retirement years once 40 quarters of Medicare-covered employment are completed.

The employer's share of the payroll tax is excluded from an employee's taxable income. Moreover, the expected lifetime value of Part A benefits under current law generally exceeds the amount of payroll tax contributions made by current beneficiaries during their working years. These excess benefits are excluded from the taxable income of Part A beneficiaries.

Impact

The value of the untaxed Part A benefit varies among individuals. All Medicare Part A beneficiaries arguably receive the same dollar value of in-kind insurance benefits per year if Part A is viewed as a community-rated insurance program, but the number of years Part A benefits are received depends on a beneficiary's longevity. The accumulated value of payroll tax contributions depends on an individual's work history.

Untaxed benefits tend to be larger for persons who started working before Medicare was established in 1965, for persons who had low taxable wages in their working years or who qualified as a spouse with little or no payroll contributions of their own, and for persons who live a long time. The value of the exclusion of Medicare insurance benefits from taxable income also depends on a beneficiary's marginal income tax rate during retirement.

Rationale

The exclusion of Medicare Part A benefits from the federal income tax has never been established or recognized by statute. The tax code (26 U.S.C. §104(a)) excludes most compensation for injuries and sickness from the definition of taxable income. The Internal Revenue Service in 1970 ruled (Rev. Rul. 70-341) that the benefits under Part A of Medicare were in the nature of disbursements intended to achieve the social welfare objectives of the federal government, and hence could be excluded from gross income. The ruling also stated that Medicare Part A benefits had the same legal status as monthly Social Security payments to an individual, in determining an individual's gross income under section 61 of the Internal Revenue Code. An earlier IRS ruling (Rev. Rul. 70-217, 1970-1 C.B. 13) allowed these payments to be excluded from gross income.

Under the Omnibus Budget Reconciliation Act of 1993 (OBRA93; P.L. 103-66), a portion of the Social Security payments received by taxpayers whose so-called provisional income exceeded certain income thresholds was subject to taxation, and the revenue was deposited in the HI trust fund. A taxpayer's provisional income is his or her adjusted gross income, plus 50 percent of any Social Security benefit and the interest received from tax-exempt bonds. If a taxpayer's provisional income falls between income thresholds of $25,000 ($32,000 for a married couple filing jointly) and $34,000 ($44,000 for a married couple), then the portion of Social Security benefits that are taxed is the lesser of 50 percent of the benefits or 50 percent of provisional income above the first threshold. If a taxpayer's provisional

income is greater than the second threshold, then the portion of Social Security benefits subject to taxation is the lesser of 85 percent of the benefits or 85 percent of provisional income above the second threshold, plus the smaller of $4,500 ($6,000 for married couples) or 50 percent of benefits. (See the entry on the exclusion of untaxed Social Security and Railroad Retirement benefits for details.) The same rules apply to Railroad Retirement tier 1 benefits.

Congress modified the HI payroll tax in 1990 and 1993. Before 1991, the taxable earnings base for Medicare Part A was the same as the earnings base for Social Security. But the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) differentiated the two bases by raising the annual cap on employee earnings subject to the Medicare HI tax to $125,000 in 1991 and indexing it for inflation in succeeding years. OBRA93 eliminated the cap on wages and self-employment income subject to the Medicare HI tax, as of January 1, 1994. More recently, the Patient Protection and Affordable Care Act (ACA; P.L. 111-148) enacted as additional 0.9 percent payroll tax for high wage earners.

Assessment

The exclusion of the value of Part A benefits lowers the tax burden of Part A beneficiaries. In aggregate, the Joint Committee on Taxation previously estimated the revenue loss at $180.7 billion over the 2014-2018 budget window. Without that exclusion, some workers might postpone their retirements, which would increase labor force participation in the economy. More generally, pressures for health care cost containment in Part A might have been greater in the absence of the exclusion. The exclusion may also shift income from younger to older generations.

Curtailing this exclusion in an equitable manner, as a means of increasing federal revenue or encouraging stronger health care cost control, would be difficult. Medicare benefits receive the same tax treatment as most other health insurance benefits: they are untaxed. Moreover, changing longstanding practices that would reduce the value of social insurance benefits would complicate retirement planning for those near or in retirement.

For current and future retirees, the share of HI benefits they receive beyond their payroll tax contributions is likely to decrease over time, as the contribution period will cover more of their work years. The absence of a cap on wages subject to the Medicare HI payroll tax means that today's high-wage earners contribute more during their working years to Medicare and consequently receive a smaller (and possibly negative) subsidy once they begin to receive Part A benefits. Also, income thresholds for the 0.9 percent

payroll tax are not indexed for inflation and so will apply to more workers in future years.

Selected Bibliography

2018 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. June 5, 2018.

Berchick, Edward R., Emily Hood, and Jessica C. Barnett. Current Population Reports, P60-264, *Health Insurance Coverage in the United States: 2017*. U.S. Department of Commerce, Census Bureau, September 2018.

Davis, Patricia A. et al. *Medicare: A Primer*. Library of Congress, Congressional Research Service Report R40425, July 5, 2018.

McClellan, Mark and Jonathan Skinner. "The Incidence of Medicare." *Journal of Public Economics*, v. 90 (1-2), January 2006, pp. 257-276.

Rettenmaier, Andrew J. "The Distribution of Lifetime Medicare Benefits, Taxes and Premiums: Evidence from Individual Level Data." *Journal of Public Economics*, v. 96 (9-10), October 2012, pp. 760-772.

Steuerle, C. Eugene and Caleb Quakenbush. "Social Security and Medicare Taxes and Benefits over a Lifetime." Urban Institute, November 2013.

U.S. Congress, Congressional Budget Office. *April 2018 Medicare Baseline*. April 9, 2018.

Julie M. Whittaker. *Social Security: Calculation and History of Taxing Benefits*. Library of Congress, Congressional Research Service Report RL32552, October 27, 2016.

EXCLUSION OF MEDICARE BENEFITS: SUPPLEMENTARY MEDICAL INSURANCE (PART B)

Authorization

Rev. Rul. 70-341, 1970-2 C.B. 31.

Description

Part B of Medicare provides coverage for physician services, outpatient hospital services, durable medical equipment, and other services. After a beneficiary satisfies an annual deductible, set at $183 for 2018, the Part B program generally pays 80 percent of Medicare's fee schedule or other approved amounts for covered services. In 2018, according to CBO projections, 55 million aged and disabled Americans were enrolled in Part B. Mandatory outlays on Part B were estimated at $317 billion in 2018.

Other components of Medicare provide hospital insurance (Part A), Medicare Advantage plans (Part C), and a prescription drug benefit (Part D). Part B and Part D (discussed in the next section) are part of Supplementary Medical Insurance (SMI). Those eligible for Medicare hospital insurance are generally eligible for SMI. Participation in SMI Parts B and D is voluntary, so that eligible persons may decline to enroll and avoid paying premiums.

Part B beneficiaries' premiums are set to cover 25 percent of estimated Part B program costs for aged enrollees, with the remainder financed by federal general revenues. Although the 2018 monthly premium is $134, which is automatically deducted from Social Security benefit checks of Part B enrollees, about 28 percent pay less due to a "hold harmless" provision in the Social Security Act. Transfers from the general fund of the U.S. Treasury to pay for the cost of covered services are excluded from the taxable income of enrollees.

Since 2007, higher-income enrollees pay higher premiums. These premiums range from 35 percent to 80 percent of the value of Part B depending on income levels affecting about 5 percent of Medicare beneficiaries. The income thresholds, based on modified adjusted gross income (MAGI), were

indexed to inflation. In 2010, however, income thresholds used to determine which beneficiaries are subject to higher Part B premium rates were frozen at 2010 levels through 2017, thus increasing the expected number of enrollees paying higher premiums. Those income thresholds start at a MAGI of $85,000 for an individual and at $170,000 for couples filing jointly.

Impact

The tax expenditure associated with this exclusion depends on the marginal tax rates of enrollees and the amount of the subsidy, which is the difference between the value of the benefit and Part B premiums paid. Taxpayers who claim the itemized deduction for medical expenses under section 213 may include any Part B premiums they pay out of pocket or have deducted from their monthly Social Security benefits.

Most enrollees arguably receive the same amount of the subsidy. If one viewed enrollment in Part B as analogous to receipt of a community-rated health insurance plan, so that all enrollees were presumed to receive the same dollar value of in-kind benefits, then the imputed general-fund premium subsidy for SMI would be the same for most eligible individuals. However, in 2018 some enrollees are bifurcated depending on whether the "hold harmless" provision is binding for them. In years where the "hold harmless" provision is not activated, about 95 percent of enrollees pay the same monthly premium. In addition, about 5 percent of Part B enrollees that pay higher premiums, who are generally in higher tax brackets with higher marginal tax rates, have greater tax savings from the exclusion, although income-related premiums offset those gains in part.

The exclusion of Part B benefits from taxable income may shift resources from younger to older generations.

Rationale

The exclusion of Medicare Part B benefits has never been established or recognized by statute. Rather, it emerged from two related regulatory rulings by the Internal Revenue Service (IRS). In 1966, the IRS ruled (Rev. Rul. 66-216) that the premiums paid for coverage under Part B may be deducted as a qualified medical expense under section 213. The ruling did not address the tax treatment of the medical benefits received through Part B. The IRS did address that issue four years later when it held (Rev. Rul. 70-341) that Part B benefits could be excluded from taxable income because they have the same status under the tax code as "amounts received through accident and health

insurance for personal injuries or sickness." These amounts were, and still are, excluded from taxable income under section 104(a). Rev. Rul. 70-341 did not address the issue of whether the exclusion applied to all Part B benefits or only to the portion of benefits financed out of premiums. Nevertheless, the exclusion has applied to all Part B benefits, including the portion financed out of general revenues, since 1970.

This exclusion is supported by the same rationale used by the IRS to justify the exclusion of Medicare Part A benefits from the gross income of beneficiaries. In Rev. Rul. 70-341, the agency noted that the Part A benefits received by an individual are not "legally distinguishable from the monthly payments to an individual under title II of the Social Security Act." It also pointed out that the IRS had held in an earlier revenue ruling (Rev. Rul. 70-217) that monthly Social Security payments should be excluded from the gross income of recipients, as they are "made in furtherance of the social welfare objectives of the federal government." So the IRS concluded that the "basic Medicare benefits received by (or on behalf of) an individual under part A title XVIII of the Social Security Act are not includible in the gross income of the individual for whom they are paid."

Assessment

Medicare benefits are similar to most other health insurance benefits in that they are exempt from taxation. While the tax subsidy for Part B reduces the after-tax cost of medical insurance for retirees, the addition of an income-related premium has partially reduced the tax subsidy for higher-income beneficiaries. The lower after-tax cost of Part B medical insurance might encourage some to switch from employer-provided health insurance to publicly provided Part B coverage by retiring earlier than they otherwise would have, thus reducing labor force participation. In aggregate, the Joint Committee on Taxation previously estimated the revenue loss at $128.1 billion over the 2014-2018 budget window.

Part B premiums were originally set to cover 50 percent of projected SMI program costs. But between 1975 and 1983, that share gradually shrank to less than 25 percent. From 1984 through 1997, premiums were set to cover 25 percent of program costs under a succession of laws. A provision of the Balanced Budget Act of 1997 (P.L. 105-33) and subsequent amending legislation permanently fixed the Part B monthly premium at 25 percent of projected program costs. The Medicare Modernization Act of 2003 (P.L. 108-173) introduced income-related premiums for Part B which took effect in 2007.

The introduction of income-related premiums for Part B reduced the tax subsidy for high-income households. Attempts to recapture the subsidy from lower- and middle-income beneficiaries may impose an added tax burden on those who have little flexibility in their budgets to absorb higher taxes.

Selected Bibliography

2018 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. June 5, 2018.

Cubanski, Juliette et al. *Raising Medicare Premiums for Higher-Income Beneficiaries: Assessing the Implications*. Kaiser Family Foundation Issue Brief. January 13, 2014.

Davis, Patricia A. et al. *Medicare: A Primer*. Library of Congress, Congressional Research Service Report R40425, July 5, 2018.

Davis, Patricia A. *Medicare: Part B*. Library of Congress, Congressional Research Service Report R40082, July 5, 2018.

— . *Medicare Financing*, Library of Congress, Congressional Research Service Report R41436, October 22, 2014.

McClellan, Mark and Jonathan Skinner. "The Incidence of Medicare." *Journal of Public Economics*, v. 90 (1-2), January 2006, pp. 257-276.

Rettenmaier, Andrew J. "The Distribution of Lifetime Medicare Benefits, Taxes and Premiums: Evidence from Individual Level Data." *Journal of Public Economics*, v. 96 (9-10), October 2012, pp. 760-772.

Steuerle, C. Eugene and Caleb Quakenbush "Social Security and Medicare Taxes and Benefits over a Lifetime." Urban Institute, November 2013.

U.S. Congress, Congressional Budget Office. *April 2018 Medicare Baseline*. April 9, 2018.

U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Medicare Program; Medicare Part B Monthly Actuarial Rates, Premium Rate, and Annual Deductible Beginning January 1, 2019*. 83 Fed. Reg. 52462 (October 17, 2018).

EXCLUSION OF MEDICARE BENEFITS: SUPPLEMENTARY MEDICAL INSURANCE (PART D PRESCRIPTION DRUG BENEFIT)

Authorization

Rev. Rul. 70-341, 1970-2 C.B. 31.

Description

Medicare Part D provides an outpatient prescription drug benefit, which went into effect on January 1, 2006. Other components of Medicare provide hospital insurance (Part A), medical services and durable medical equipment (Part B) and Medicare Advantage plans (Part C). The Part D drug benefit is offered through stand-alone private prescription drug plans (PDPs) or through Part C Medicare Advantage (MA) plans that include coverage for outpatient prescription drugs, which are often called MA-PD plans. A smaller number receive Part D subsidies for drug coverage within employer-based plans.

Medicare beneficiaries obtain the Part D drug benefit by enrolling in one of those plans, which are open to anyone entitled to Medicare Part A and/or enrolled in Medicare Part B. Participation in Part B and Part D, which together comprise Supplementary Medical Insurance (SMI), is voluntary, with the exception of so-called "dual eligibles"—those eligible both for Medicare and Medicaid—and certain other low-income Medicare beneficiaries who are automatically enrolled in a PDP if they do not select one on their own.

In 2018, the standard benefit includes a $405 deductible. Once that deductible is paid, a beneficiary then pays 25 percent of drug costs until costs paid by the beneficiary and the plan total $3,750. Once that level is reached, beneficiaries have minimal coverage until out-of-pocket costs of $5,000 are reached. Once a beneficiary's out-of-pocket drug costs reach $5,000, the catastrophic portion of the benefit then applies, and the program covers all drug expenses, except for nominal cost sharing. Most plans, however, feature four or five different cost-sharing tiers for generic, preferred brand name drugs, other brand name drugs, and specialty drugs. The Part D standard plan originally had a coverage gap between the initial and catastrophic coverage.

The Patient Protection and Affordable Care Act (ACA; P.L. 111-148) contained provisions to phase out the gap over the period from 2011 through 2020 and the Bipartisan Budget Act of 2018 (P.L. 115-123) moved up the date to 2019.

In 2018, more than 46 million aged and disabled beneficiaries were enrolled in Part D drug plans. Monthly premiums vary among plans and regions. The base premium for 2018 is $35.02 a month. Beneficiary premiums defray 25.5 percent of the Part D program costs, while general revenues and state contributions finance the rest. The value of Part D drug benefits, net of premiums, is excluded from enrollees' taxable income, just as Medicare Part A and Part B benefits are.

Higher-income Part D enrollees pay higher premiums, just as in Part B. Since 2011, individuals whose modified adjusted gross income (MAGI) exceeds $85,000 for single and $170,000 for joint filers are subject to higher premium amounts, ranging from 35 percent to 80 percent higher depending on income category. Income thresholds had been indexed for inflation, but the ACA froze those income thresholds at 2010 levels from 2011 through 2017, thus increasing the expected number of enrollees paying higher premiums. Beneficiaries with incomes below 150 percent of the poverty line can receive low-income subsidies to help pay premiums, cost-sharing, and other out-of-pocket expenses.

CBO estimated mandatory outlays for Medicare Part D would total $88 billion in 2018. Program costs reflect the number of enrollees, their health status and drug use, the number of recipients of low-income subsidies, drug prices negotiated between plan sponsors and drug suppliers, the administrative efficiency of plan sponsors, as well as the regional level of competition among plans.

Impact

The exclusion of Part D benefits from taxable income reduces the after-tax cost of covered drugs to enrollees. As such, it promotes a central aim of Part D: expanding access to affordable prescription drugs among the Medicare population.

The tax expenditure arising from the exclusion depends on the marginal tax rates of enrollees and the subsidies they receive. Both factors can vary considerably among individuals. The subsidy can be measured as the average difference between the cost of providing benefits to enrollees and the total

premiums they pay. The value of the exclusion was unambiguously greater for enrollees in the higher tax brackets before 2011 when premiums were not adjusted by income. Since 2011, higher-income enrollees have paid higher premiums, which somewhat offsets the exclusion's value. Enrollees who itemize deductions for medical expenses under section 213 may include their payments for Part D premiums.

Rationale

Part D was added to Medicare by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (P.L. 108-173), following years of sporadic debate in Congress over establishing such a benefit. It was intended to expand access to outpatient prescription drugs among the Medicare population, restrain their spending on drugs, and contain program costs through heavy reliance on private competition and enrollee choice. The Medicare Improvements for Patients and Providers Act of 2008 (P.L. 110-275), which became law on July 15, 2008, made some modifications to the Part D program. In 2010, The Patient Protection and Affordable Care Act (ACA; P.L. 111-148) made several significant changes to the design of the Part D drug benefit. ACA imposed income-related premiums similar to Part B. In addition, ACA included a phaseout of the coverage gap by 2020; and manufacturer discounts of 50 percent for brand-name drugs during the coverage gap, among other changes. The phaseout of the coverage gap was moved up to 2019 by the Bipartisan Budget Act of 2018 (P.L. 115-123).

The exclusion of Medicare benefits has never been embedded in statute. Rather, it emerged from two related regulatory rulings by the Internal Revenue Service (IRS). In 1966, the IRS held in Rev. Rul. 66-216 that premiums paid for coverage under Part B could be deducted as a qualified medical expense under section 213. Four years later, the agency ruled (Rev. Rul. 70-341) that Part B benefits could be excluded from gross income because they had the same status under the tax code as "amounts received through accident and health insurance for personal injuries and sickness." Those amounts were, and remain, excluded from taxable income under section 104(a).

Assessment

Medicare benefits receive the same tax treatment as other health insurance benefits: they are exempt from taxation. In the case of the drug benefit under Part D, this treatment has the effect of reducing the after-tax cost to enrollees of the drugs they use. Making drugs more affordable for beneficiaries is one of the primary objectives of the program. In aggregate, the

Joint Committee on Taxation previously estimated the revenue loss at $41.4 billion over the 2014-2018 budget window.

Some evidence suggests that Part D has made progress towards some of its main objectives. About 70 percent of Medicare beneficiaries were enrolled in a Part D plan and the share of those without drug coverage, including those in employer or other plans, has fallen to about 12 percent. Some evidence suggests that expanded drug coverage reduced hospitalization rates and non-drug medical spending for Medicare beneficiaries who previously had trouble affording drugs.

Selected Bibliography

2016 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. July 5, 2018.

Davis, Patricia A. et al. *Medicare: A Primer*. Library of Congress, Congressional Research Service Report R40425, July 5, 2018.

Davis, Patricia A. *Medicare Provisions in the Patient Protection and Affordable Care Act (PPACA), Summary and Timeline*, Library of Congress, Congressional Research Service Report R41196, January 24, 2011.

— . *Medicare Financing*, Library of Congress, Congressional Research Service Report R41436, October 22, 2014.

Donahue, Julie M. "The Impact and Evolution of Medicare Part D." *New England Journal of Medicine*, v. 371, August 21, 2014, pp. 693-695.

Engelhardt, Gary V. and Jonathan Gruber. "Does Medicare Part D Protect the Elderly from Financial Risk?" Center for Retirement Research, issue brief 11-8, June 2011.

Frank, Richard G. and Joseph P. Newhouse. "Should Drug Prices Be Negotiated Under Part D of Medicare? If So, How?" *Health Affairs*, v. 27 (1), January/February 2008, pp. 33-43.

Kaestner, Robert, Cuiping Long, and Caleb Alexander. "Effects of Prescription Drug Insurance on Hospitalization and Mortality: Evidence from Medicare Part D." NBER Working paper 19948, February 2014.

Kaiser Family Foundation. *Medicare Part D in Its Ninth Year: The 2014 Marketplace and Key Trends, 2006-2014*. August 2014.

Liu, Frank Xiaoqing et al. "The Impact of Medicare Part D on Out-of-Pocket Costs for Prescription Drugs, Medication Utilization, Health Resource Utilization, and Preference-Based Health Utility." *Health Services Research*, v. 46 (4), August 2011, pp. 1104-1123.

U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services. "Announcement of CY2016 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies and Final Call Letter." Attachments IV and V, April 6, 2015.

— . "Annual Release of Part D National Average Bid Amount and other Part C & D Bid Information." August 5, 2016.

U.S. Congress, Congressional Budget Office. *March 2018 Medicare Baseline*. April 9, 2018.

EXCLUSION OF CASH PUBLIC ASSISTANCE BENEFITS

Authorization

The exclusion of public assistance payments from income is not specifically authorized by law. However, a number of revenue rulings under Section 61 of the Internal Revenue Code, which defines "gross income," have declared specific types of means-tested benefits to be nontaxable.

Description

Section 61(a) of the Internal Revenue Code provides that, except as otherwise provided by law, gross income means all income from whatever source derived. The Internal Revenue Service has consistently held, however, under a limited "general welfare exclusion," that payments under governmental social benefit programs for the promotion of the general welfare are not includible in a recipient's gross income. For a payment to qualify under the general welfare exclusion, the payments must (1) be made to an individual under a governmental program, (2) be for the promotion of the general welfare (that is, based on need), and (3) not represent compensation for services.

The federal government provides public assistance benefits tax free to individuals either in the form of cash-transfers or noncash transfers (in-kind benefits such as certain goods and services received free or for an income-scaled charge). Cash payments come from programs such as Temporary Assistance for Needy Families (TANF), which replaced Aid to Families with Dependent Children during FY1997, Supplemental Security Income (SSI) for the aged, blind, or disabled, and the refundable portion of the earned income tax credit and the child tax credit.

Traditionally, the tax benefits from in-kind payments have *not* been included in the tax expenditure budget because of the difficulty of determining their value to recipients. (However, the Census Bureau publishes estimates of the value and distribution of major noncash welfare benefits.)

Impact

Exclusion of public assistance cash payments from taxation gives no benefit to the poorest recipients and has little impact on the income of many, in the absence of refundable tax credits. This is because welfare payments are relatively low and many recipients have little if any non-transfer cash income. If family cash welfare payments were made taxable, most recipients still would owe no tax due to insufficient income.

However, some welfare recipients do benefit from the exclusion of public assistance cash payments. They include persons who receive relatively greater cash aid including aged, blind, and disabled persons enrolled in SSI. Other beneficiaries of the exclusion include persons who have earnings for part of the year and public assistance for the rest of the year (and whose actual annual cash income would exceed the taxable threshold if public assistance were counted). Public assistance benefits are based on monthly income, and thus families whose fortunes improve during the year generally keep welfare benefits received earlier.

A 2013 CBO report estimated the annual cost of SSI ($50 billion) and TANF ($17 billion) was $67 billion in 2012. Other means-tested cash benefits examined included the refundable earned income tax credit (EITC) ($54 billion) and the child tax credit ($28 billion), totaling $82 billion in 2012. Means-tested health care benefits including Medicaid ($251 billion) and Medicare Part D Low-Income Subsidy ($21 billion) cost $272 billion, while supplemental ($80 billion) and child ($18 billion) nutrition, housing ($36 billion) and Pell Grants ($34 billion) totaled $168 billion in 2012. Hence, according to CBO, federal spending on ten selected means-tested benefits totaled approximately $588 billion in 2012. In aggregate, the Joint Committee on Taxation previously estimated the revenue loss for this tax expenditure at $19.7 billion over the 2014-2018 budget window.

Rationale

Revenue rulings generally exclude government transfer payments from income because they have been considered to have the nature of "gifts" in aid of the general welfare. While no specific rationale has been advanced for this exclusion, the reasoning may be that Congress did not intend to tax with one hand what it gives with the other.

Assessment

Several reasons have been advanced for treating means-tested cash payments as taxable income (eliminating the income tax exclusion) and for continuing the current income tax exclusion. First, excluding these cash payments results in treating persons with the same level of cash income differently. Second, removing the exclusion would not harm the poorest because their total cash income still would be below the income tax thresholds.

Third, the general view of cash welfare has changed. Cash benefits to TANF families are not viewed for tax purposes as "gifts," but as payments that impose obligations on parents to work or prepare for work through schooling or training, and many general assistance (GA) programs require work. Thus, it may no longer be appropriate to treat cash welfare transfers as gifts. (The SSI program imposes no work obligation, but offers a financial reward for work.)

Fourth, the exclusion of cash welfare increases the work disincentives inherent in need-tested aid by increasing the marginal tax rate above the statutory tax rate. A welfare recipient who goes to work replaces nontaxable cash with taxable income. The loss in need-tested benefits serves as an additional "tax", which increases the marginal tax rate above the statutory tax rate.

Fifth, using the tax system to subsidize needy persons without direct spending masks the total cost of aid and is considered economically inefficient.

Sixth, taxing welfare payments would help to integrate the tax and transfer system. In essence, part of the transfer system could be replaced through use of a negative income tax system.

There are several objections to eliminating the income tax exclusion for means-tested cash transfers. First, cash welfare programs have the effect of providing guarantees of minimum cash income; these presumably represent target levels of disposable income. Making these benefits taxable might reduce disposable income below the targets.

Second, unless the income tax thresholds were set high enough, some persons deemed needy by their state might be harmed by the change (a recipient may be subject to federal, state, or local income taxes based on different income thresholds). TANF and SSI minimum income guarantees differ by state, but the federal tax threshold is uniform for taxpayers with the

same filing status and family size. If cash welfare payments were made taxable, the impact would vary among the states.

Third, if cash welfare were made taxable, it is argued that noncash welfare should also be taxable (raising difficult measurement issues). Further, if noncash means-tested benefits were treated as income, it is argued that other noncash income (ranging from employer-paid health insurance to tax deductions for home mortgage interest) should also be taxable.

Fourth, the public might perceive the change (to taxing cash or noncash welfare) as weakening the social safety net, and, thus, object.

Selected Bibliography

Congressional Budget Office. *Growth in Means-Tested Programs and Tax Credits for Low-Income Households*. February, 2013.

Entin, Stephen J. "Fundamental Tax Reform: The Inflow Outflow Tax. A Savings-Deferred Neutral Tax System." Prepared testimony before the House Committee on Ways and Means, April 13, 2000.

Fiore, Nick. "General Welfare Exclusion: An Opportunity to Exclude Some Payments." *Journal of Accountancy*. May 2006.

"General Welfare Income Exclusion Clarified, Expanded." *Payroll Manager's Report*, v. 17, no. 3 (March 2013), pp. 14-15.

Holt, Stephen D. and Jennifer L. Romich. "Marginal Tax Rates Facing Low- and Moderate-Income Workers Who Participate in Means-Tested Transfer Programs," *National Tax Journal*, v. 60, no. 2, June 2007, pp. 253-276.

Kosar, Gizem and Robert A. Moffitt. *Trends in Cumulative Marginal Tax Rates Facing Low-Income Families*. NBER Working Paper 22782. October 2016.

"Part III. Administrative, Procedural, and Miscellaneous." *Internal Revenue Bulletin* 2011, no. 49 (December 5, 2011), pp. 834-837.

Weisbach, David A. and Jacob Nussim. "The Integration of Tax and Spending Programs," *Yale Law Journal*, March 2004, p. 955.

Appendix C:
Relationship Between Tax Expenditures and Limited Tax Benefits Subject to Line Item Veto

Description

The Line Item Veto Act (P.L. 104-130) enacted in 1996 gave the President the authority to cancel "limited tax benefits." A limited tax benefit was defined as either a provision that loses revenue and that provides a credit, deduction, exclusion or preference to 100 or fewer beneficiaries, or a provision that provides temporary or permanent transition relief to 10 or fewer beneficiaries in any fiscal year. The act was found unconstitutional in 1998, but there have been subsequent proposals to provide veto authority for certain limited benefits.

Items falling under the revenue losing category did not qualify if the provision treated in the same manner all persons in the same industry, engaged in the same activity, owning the same type of property, or issuing the same type of investment instrument.

A transition provision did not qualify if it simply retained current law for binding contracts or was a technical correction to a previous law (that had no revenue effect).

When the beneficiary was a corporation, partnership, association, trust or estate, the stockholders, partners, association members or beneficiaries of the trust or estate were not counted as beneficiaries. The beneficiary was the taxpayer who is the legal, or statutory, recipient of the benefit.

The Joint Committee on Taxation was responsible for identifying limited tax benefits subject to the line item veto (or indicating that no such benefits exist in a piece of legislation); if no judgment was made, the President could identify such a provision.

The line item veto took effect on January 1, 1997.

Similarities to Tax Expenditures

Limited tax benefits resemble tax expenditures in some ways, in that they refer to a credit, deduction, exclusion or preference that confers some benefit. Indeed, during the debate about the inclusion of tax provisions in the line item veto legislation, the term "tax expenditures" was frequently invoked. The House initially proposed limiting these provisions to a fixed number of beneficiaries (originally 5, and eventually 100). The Senate bill did not at first include tax provisions, but then included provisions that provided more favorable treatment to a taxpayer or a targeted group of taxpayers.

Such provisions would most likely be considered as tax expenditures, at least conceptually, although they might not be included in the official lists of tax expenditures because of de minimis rules (that is, some provisions that are very small are not included in the tax expenditure budget although they would qualify on conceptual grounds), or they might not be separately identified. This is particularly true in the case of transition rules.

Differences from Tax Expenditures

Most current tax expenditures would probably not qualify as limited tax benefits even if they were newly introduced (the line item veto applied only to newly enacted provisions).

First, many if not most tax expenditures apply to a large number of taxpayers. Provisions benefitting individuals, in particular, would in many cases affect millions of individual taxpayers. Most of these tax expenditures that are large revenue losers are widely used and widely available (e.g. itemized deductions, fringe benefits, exclusions of income transfers).

Provisions that only affect corporations may be more likely to fall under a beneficiary limit; even among these, however, the provisions are generally available for all firms engaged in the same activity.

These observations are consistent with a draft analysis of the Joint Committee on Taxation during consideration of the legislation which included examples of provisions already in the law that might have been classified as limited tax benefits had the line item veto provisions been in effect. Some of these provisions had at some time been included in the tax expenditure budget, although they were not currently included: the orphan drug tax credit, which is very small, and an international provision involving the allocation of interest, which has since been repealed. (The orphan drug tax credit is currently included in the tax expenditure budget.) Some provisions modifying

current tax expenditures might also have been included. But, in general, tax expenditures, even those that would generally be seen as narrow provisions focusing on a certain limited activity, would probably not have been deemed limited tax benefits for purposes of the line item veto.

Bibliographic Reference

U.S. Congress. Joint Committee on Taxation. *Draft Analysis of Issues and Procedures for Implementation of Provisions Contained in the Line Item Veto Act* (Public Law 104-130) Relating to Limited Tax Benefits, (JCX-48-96), November 12, 1996.

Index

1256 Contracts, 60-40 Rule for Gain or Loss from Section 555
179 Expensing..... 445
20-Percent Deduction for Passthrough Business Income…….....509
401(k) Plans 999
529 Education Plans..... 661
911 Exclusion 37
60-40 Rule for Gain or Loss from Section 1256 Contracts..... 555
ABLE Accounts.....1037
Accident and Disability Insurance, Exclusion of Premiums 1025
Adoption Credit 821
Adoption Benefits, Employee, Exclusion 821
Advanced Energy Property Credit 231
Agriculture
  Cash Accounting for Agriculture..... 289
  Exclusion of Cancellation of Indebtedness Income..... 285
  Exclusion of Cost-Sharing Payments 281
  Expensing of Soil and Water Conservation Expenditures.....279
  Expensing by Farmers for Fertilizer and Soil Conditioner Costs.....297
  Two-Year Carryback Period for Net Operating Losses..... 299
  Income Averaging 293
Airports, Docks, and Mass Commuting Facilities, Tax Exempt Bonds..... 581
Architectural and Transportation Barriers to the Handicapped and
  Elderly, Expensing of Costs to Remove Barriers..... ..525
Armed Forces
  Combat Pay, Exclusion of 27
  Disability Benefits, Exclusion of 19
  Exclusion of Benefits and Allowances to Personnel 13
  Medical Care and TRICARE, Medical Insurance for Military
    Dependents, Retirees, Retiree Dependents and Veterans, Exclusion 915
National Guard and Armed Forces Reserve Members, Deduction for
  Overnight-Travel Expenses of 23
Awards, Exclusion of Employee..... 733
Base Erosion and Anti-AbuseTax (BEAT).....……..31
Blind and the Elderly, Additional Standard Deduction 977
Blue Cross and Blue Shield Companies, Special Deduction..... 317
Bonds
  See Private Activity Bonds

See Tax Exempt Bonds
Build America Bonds 1091
Clean Renewable Energy Bonds and Energy Conservation
Bonds, Credit..... 205
Qualified Zone Academy Bonds, Tax Credit 685
Qualified School Construction Bonds, Tax Credit 691
Recovery Zone Economic Development Bonds.....615
Brownfields, Exclusion of Gain or Loss on Sales of Certain Environmentally
Contaminated Areas from the Unrelated Business Income Tax ……545
Business Start-Up Costs, Amortization..... 453
Cafeteria Plans 751
Capital Construction Funds of Shipping Companies, Deferral of Tax..... 567
Capital Gain
Exclusion at Death……..403
Carryover Basis on Gifts 495
Like-Kind Exchanges, Deferral 413
Non-Dealer Installment Sale, Deferral 409
Principal Residence, Exclusion 347
Real Property, Foreign Persons (FIRPTA) 77
Redemption of Stock to pay Estate Tax.....539
Reduced Rates 391
Small Business Stock Gains 531
Cash Accounting, Other than Agriculture..... 481
Cash Public Assistance Benefits, Exclusion 1127
Casualty and Theft Losses, Itemized Deduction 981
Charitable Contributions Deduction
Educational Institutions 705
Health Organizations 871
Other than for Education and Health 837
Child Care Credit 805
Child Care, Employer-Provided, Exclusion 805
Child Tax Credit..... 849
Classroom Expenses of Elementary and Secondary School
Educators, Deduction 627
Clean Coal Power Generation Facilities, Tax Credit 193
Coal Miners, Exclusion of Special Benefits for Disabled 959
Coal Production Tax Credit..... 217
Coal, Refined and Indian Coal, Credit for Production of 217
Combat Pay, Exclusion of 27
Compensation for Covered Employees for Publicly Held
Corporations, Cap on 791
Completed Contract Rules 471

Controlled Foreign Corporations, Reduced Tax Rate.....47
Coverdell Educational Savings Accounts, Exclusion of Earnings 649
Credit Union Income, Exemption 303
Damages on Account of Personal Physical Injuries or Physical
Sickness, Exclusion..... 955
Deferral of Certain Financing Income..... 59
Dependent Care Credit..... 805
Dependent Credit.....849
Dependent Care, Credit for Employer-Provided 817
Depreciation
Buildings Other than Rental Housing..... 417
Equipment 437
Expensing, Small Business Property 445
Rental Housing 361
Reuse and Recycling Property 245
Disabled Access Expenditures Credit 845
Disaster Mitigation Payments, Exclusion 945
Disaster Relief Provisions 603
Discharge of Principal Residence Acquisition Indebtedness, Exclusion 387
Distilled Spirits in Wholesale Inventories, Tax Credit for the
Cost of Carrying Tax-Paid ..... .521
Distributions in Redemption of Stock to Pay Various Taxes
Imposed at Death..... 539
District of Columbia Tax Incentives 589
Dividend Deduction, Controlled Foreign Corporations.....47
Dividends, Reduced Rates..... 391
Domestic International Sales Corporations, Special Rule
for Interest Charge..... 73
Earned Income Credit (EIC) 963
Educational Facilities, Private Nonprofit and Qualified Public, Tax
Exempt Bonds 681
Educational Savings Accounts, Coverdell, Exclusion of Earnings 649
Elective Deferrals and IRA Contributions, Tax Credit 1017
Employer-Provided Education Assistance Benefits, Exclusion 713
Educators, Deduction for Classroom Expenses of Elementary and
Secondary School Educators..... 627
Electricity Production from Renewable Resources, Tax Credit..... 171
Electricity Production from Clean Coal, Tax Credit.....193
Employee Stock Ownership Plans (ESOPs)..... 717
Employee Adoption Benefits Exclusion 821
Employee Awards, Exclusion of..... 733
Employee Meals and Lodging (Other than Military), Exclusion of.....737

Employee Stock Purchase Plans, Deferral of Taxation
on Spread on Acquisition 747
Employer-Provided or Paid
Accident and Disability Insurance 1025
Awards 733
Cafeteria Plans 751
Child Care 805
Dependent Care, Credit 817
Fringe Benefits, Miscellaneous 773
Education Assistance Benefits 713
Employee Stock Ownership Plans (ESOPs) 717
Group Term Life Insurance 1021
Meals and Lodging (Other than Military) 737
Health Care, Health Insurance Premiums, and Long-Term
Care Insurance Premiums 905
Housing Allowances for Ministers 757
Pension Contributions and Earnings Plans, Defined Benefit 991
Pension Contributions and Earnings Plans, Defined Contribution 999
Stock Option Plans 743
Stock Purchase Plans 747
Transportation Benefits 571
Tuition Reduction 675
Empowerment Zone Tax Incentives 581
Energy Conservation Subsidies Provided by
Public Utilities, Exclusion of 129
Energy Efficiency Improvements to Existing Homes, Tax Credit 151
Energy-Efficient Commercial Building Property Deduction 107
Energy-Efficient New Homes, Credit 227
Energy-Efficient Property, Residential, Tax Credit 145
Energy Production Facilities, Tax Exempt Bonds 141
Energy Property Depreciation 113
Environmental Settlement Funds, Tax Exclusion for Earnings 253
ESOPs (Employee Stock Ownership Plans) 717
Exclusion of Income Earned Abroad by U.S. Citizens 37
Exploration and Development Costs, Nonfuel Minerals, Expensing 263
Exploration and Development Costs, Oil, Gas,
and Other Fuels, Expensing 133
Farmers
Cash Accounting for Agriculture 289
Exclusion of Cancellation of Indebtedness Income 285
Exclusion of Cost-Sharing Payments 281
Expensing of Soil and Water Conservation Expenditures 279

Expensing by Farmers for Fertilizer and Soil Conditioner Costs.....297
Two-Year Carryback Period for Net Operating Losses.....299
Income Averaging 293
Federal Employees Abroad, Exclusion of Certain Allowances 43
FICA Taxes on Tips, Tax Credit for Employer-Paid 497
Film and Television Production Costs, Deduction.....517
FIRPTA (Foreign Investment in Real Property Act of 1980) 77
Foreign Derived Intangible Income (FDII), Deduction.....67
Foreign Earned Income by U.S. Citizens, Exclusion 37
Foreign Tax Deduction Instead of Credit.....65
Foster Care Payments, Exclusion.....833
Fringe Benefits, Exclusion of Miscellaneous.....773
Geological and Geophysical Costs: Oil, Gas,
and Other Fuels, Amortization of.....139
Global Intangible Low-Taxed Income (GILTI).....47
Green Buildings and Sustainable Design Project Tax Exempt Bonds 551
Group Term Life Insurance, Exclusion of Premiums.....1021
Gyms, Exclusion of Employer (On Site) 779
Health Care, Health Insurance Premiums, and Long-Term
Care Insurance Premiums, Employer Contributions, Exclusion 905
Health Insurance, Certain Displaced Persons, Tax Credit for Purchase.....885
Health Insurance, Credits and Subsidies for Participation in Exchanges.....939
Health Insurance Premiums and Long-Term Care Insurance
Premiums Paid by the Self-Employed, Deduction 891
Health Insurance, Tax Credit for Small Businesses 935
Health Savings Accounts 859
High Speed Intercity Rail Vehicle Speed Requirement
for Exempt High Speed Rail Facility Bonds 577
Higher Education Expenses, Deduction.....655
Highway Projects and Rail-Truck Transfer Facilities, Tax Exempt Bonds 557
Hospital Facilities, Tax Exempt Bonds.....867
Housing Allowances for Ministers, Exclusion.....757
Imputed Interest Rules, Exemption.....459
Incentive Stock Option Plans, Deferral of Taxation on
Spread on Acquisition of Stock Under 743
Income Averaging, Farmers and Fishermen 293
Income Taxes, State and Local, Itemized Deduction 1081
Indian Reservation Tax Incentives.....593
Indian Coal, Credit for Production of 217
Individual Retirement Plans, Self Employed (Keogh) 985
Individual Retirement Plans, Employer, Defined Contribution 991
Individual Retirement Plans, Traditional 1007

Individual Retirement Plans, Roth 1013
Intangible Drilling Costs, Oil, Gas, and Other Fuels, Expensing..... 133
Interest Expense Allocation 47
Inside Build-Up of Investment Income on Life Insurance
and Annuity Contracts..... 1107
Insurance
15-Percent Pro-Ration for Property and Casualty Insurance Companies 331
Exclusion of Investment Income on Life Insurance and
Annuity Contracts..... 1107
Interest Rate and Discounting Period Assumptions for Reserves
of Property and Casualty Insurance Companies 327
Special Treatment of Life Insurance Company Reserves 311
Special Deduction for Blue Cross and Blue Shield Companies 317
Tax-Exempt Status and Election to Be Taxed Only on Investment Income for
Certain Small Non-Life Insurance Companies ..... .323
Inventory Accounting: LIFO, LCM and Specific Identification ..... .541
Inventory Property Sales Source Rule Exception 55
IRA Contributions, Tax Credit..... 1017
IRA Plans, Traditional 1007
IRA Plans, Roth……..1013
Itemized Deductions
Casualty and Theft Losses 981
Charitable Contributions Deduction
Educational Institutions..... 705
Health Organizations..... 871
Other than for Education and Health..... 837
Income, Sales, and Personal Property Taxes 1081
Medical Expenses and Long-Term Care Expenses..... 897
Mortgage Insurance Premiums 343
Mortgage Interest on Owner-Occupied Residences..... 335
Property Taxes on Owner-Occupied Residences..... 1081
Keogh Plans 985
Life Insurance
See Insurance
Low-Income Housing Tax Credit..... 367
Magazine Circulation Expenditures, Expensing 463
Magazine, Paperback Book, and Record Returns 467
Meals and Lodging (Other than Military), Exclusion of Employee 737
Medical and Long-Term Care Expenses, Itemized Deduction..... 897
Medical Care and TRICARE, Medical Insurance for Military
Dependents, Retirees, Retiree Dependents and Veterans, Exclusion 915
Medicare Benefits: Hospital Insurance, Exclusion..... 1113

Medicare Benefits: Prescription Drug Benefit, Exclusion 1121
Medicare Benefits: Supplementary Medical Insurance, Exclusion 1117
Medicare Tax on Unearned Income 399
Military
Combat Pay, Exclusion of 27
Disability Benefits Exclusion of 19
Exclusion of Benefits and Allowances to Personnel 13
Medical Care and TRICARE, Medical Insurance for Military Dependents, Retirees, Retiree Dependents and Veterans, Exclusion 915
National Guard and Reserve Members, Deduction for Overnight-Travel Expenses of 23
Mining Reclamation Reserves, Special Rules 275
Mortgage Insurance Premiums Itemized Deduction 341
Mortgage Interest on Owner-Occupied Residences, Itemized Deduction 335
National Guard and Reserve Members, Deduction for Overnight-Travel Expenses of 23
Net Interest Deduction Limit 431
Net Operating Losses, Two-Year Carryback Period for Farmers 299
Net Operating Losses, Two-Year Carryback for Insurance Companies 427
Net Operating Loss Deduction, Limit 423
New Markets Tax Credit 595
Nuclear Decommissioning Reserve Fund, Special Tax Rate 241
Opportunity Zones 599
Orphan Drug Research, Tax Credit 927
Owner-Occupied Housing, Tax Exempt Bonds 353
Parachute Payments, Disallowance of the Deduction for Excess 787
Parental Personal Exemption for Students Age 19-23 621
Passthrough Business Income, 20-Percent Deduction 509
Pension Contributions and Earnings Plans for Employees and Self-Employed Individuals (Keoghs) 985
Percentage Depletion: Nonfuel Minerals 257
Percentage Depletion: Oil, Gas, and Other Fuels 121
Personal Property Taxes, State and Local, Itemized Deduction 1081
Pollution Control Facilities, Amortization of 211
Private Activity Bonds
Airports, Docks, and Mass Commuting Facilities 581
Educational Facilities, Private Nonprofit and Qualified Public 683
Energy Production Facilities 141
Green Buildings and Sustainable Design Project Bonds 551
High Speed Intercity Rail Vehicle Speed Requirement for Exempt High Speed Rail Facility Bonds 577
Highway Projects and Rail-Truck Transfer Facilities 559

Hospital Facilities 867
Owner-Occupied Housing 351
Rental Housing 357
Sewage, Water, and Hazardous Waste Facilities Bonds 611
Small-Issue 485
Student Loans 667
Veterans' Housing 1057
Production Activity Reduction 503
Property Insurance
See Insurance
Phase out of the Personal Exemption for the Regular Income Tax, and Disallowance of the Personal Exemption and the Standard Deduction for the Alternative Minimum Tax 1031
Property Taxes on Owner-Occupied Residences, Itemized Deduction 1081
Public Assistance Benefits, Exclusion of Cash 1127
Public Safety Officers Killed in the Line of Duty, Exclusion of Survivor Annuities Paid to Families of 1047
Publicly Traded Partnership with Qualified Income Derived from Certain Energy Related Activities, Exceptions for 117
Publicly Traded Partnership Rules with Qualified Income from Exploration and Mining 267
Qualified Opportunity Zones 599
Qualified Zone Academy Bonds 685
Railroad Retirement Benefits, Exclusion 997
Railroad Track Maintenance, Tax Credit 563
Reduced Rate on Active Income of Controlled Foreign Corporations 47
Refined Coal and Indian Coal, Credit for Production of 217
Reforestation Expenses, Amortization and Expensing of 271
Rehabilitation of Historic Structures, Tax Credit 375
Rehabilitation of Structures, Other Than Historic, Tax Credit 383
Rental Housing, Tax Exempt Bonds 357
Research and Development
Apportionment of Expenses for Foreign Tax Credits 47
Expensing of Research and Experimental Expenditures 85
Tax Credit for Increasing Research Expenditures 91
Orphan Drug Research, Tax Credit 905
Residential Energy Efficient Property Tax Credit 145
Retirement Plans, Traditional, Individual 1007
Retirement Plans, Roth, Individual 1013
Reuse and Recycling Property, Special Depreciation Allowance for 245
Roth Individual Retirement Plans 1013
Sales Taxes, State and Local, Itemized Deduction 1081
Savings Bonds, Deferral of Interest. 1097

Scholarship and Fellowship Income, Exclusion of 677
Sewage, Water, and Hazardous Waste Facilities Tax Exempt Bonds..... 611
Small Business Expensing 445
Small Business, Health Insurance, Tax Credit 935
Small Business Stock Gains, Reduced Tax Rate..... 531
Small-Issue Tax Exempt Bonds 485
Social Security and Railroad Retirement Benefits, Exclusion 1049
Solar, Geothermal, Fuel Cells, and Microturbines, Tax Credit..... 171
Stock Purchase Plans, Employee, Deferral of Taxation
on Spread on Acquisition of 747
Students Age 19-23, Parental Personal Exemption..... 621
Student Loan Interest Deduction..... 643
Student Loan Certain Student Loan Debt and NHSC Educational
Loan Repayments, Exclusion..... 697
Student Loans, Tax Exempt Bonds 667
Surtax on Unearned Income 399
Tax-Exempt Bonds
See Private Activity Bonds
Expenses Attributable to Tax Exempt Bond Interest ……..…… 1089
Public Purpose State and Local Government Debt..... 1073
Timber-Growing Costs, Expensing of 249
Title Passage Rule 55
Tonnage Tax 81
Transportation Benefits, Employer Paid, Exclusion 571
Tuition Programs, Exclusion of Tax on Earnings of Qualified 661
Tuition Reduction, Employer Provided..... 673
Tuition Tax Credits 633
Twenty Percent Deduction for Passthrough Business Income…….509
Two-Year Carryback Period for Net Operating Losses, Farmers 299
Two-Year Carryback Period for Net Operating Losses, Insurance Companies….. 427
Vehicle Refueling Property, Clean Fuel, Tax Credit..... 179
Vehicles, Alternative Technology, Tax Credits 159
Vehicles, Credit for Plug-In Electric.....165
Veterans' Benefits and Services: Disability Compensation, Exclusion.....1061
Veterans' Benefits and Services: Pensions, Exclusion.....1065
Veterans' Benefits and Services: Readjustment Benefits, Exclusion.....1071
Voluntary Employees' Beneficiary Associations (VEBAs), Exclusion
of Income Earned by 763
Veterans' Housing, Tax Exempt Bonds..... 1057
Work Opportunity Tax Credit 795
Workers' Compensation Benefits (Disability and
Survivors Payments), Exclusion..... 949

Workers' Compensation Benefits (Medical Benefits), Exclusion..... 881