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Compendium of Background Material on Individual Provisions

COMMITTEE ON THE BUDGET

UNITED STATES SENATE

DECEMBER 2016

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LETTER OF TRANSMITTAL

December 22, 2016

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 19, 2016, 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

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THE LIBRARY OF CONGRESS
Washington, D.C., December 19, 2016

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

Dear Madame Chairman:

I am pleased to submit a revision of the December 2014 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, Margo Crandall-Hollick, Grant Driessen, Jane Gravelle, Gary Guenther, Mark Keightley, Sean Lowry, Steven Maguire, Donald Marples, and Molly Sherlock of the Government and Finance Division; Alexandra Hegji, William Morton, and Scott Syzmendera of the Domestic Social Policy Division; Don Jansen of the Foreign Affairs, Defense and Trade Division; and Jennifer Teefy of the Knowledge Services Group. Carol Pettit of the American Law Division provided advice. Khalil Williams provided editorial review and prepared the document for publication.

Mary B. Mazanec
Director

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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 2015-2019 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 25 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 2015-2019, 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
>
> Selected bibliography.

---

[1] U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2015-2019*, December 7, 2015 (JCX-141R-15).

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 which 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 the most recent list produced by JCT. These items are described in the appendix to this document. 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 2015 Expenditure Budget

There are several differences between the tax expenditures shown in this publication and the tax expenditure budget found in the Administration's FY2015 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 2017, Analytical Perspectives*, "Tax Expenditures," pp. 225-265. 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. In several instances, one item in the table includes two or more items listed by JCT. The 10 items listed here account for 15 separate items in JCT's list. Overall, these 10 items account for a little over 75 percent of the total dollars of tax expenditures directed to individuals.

10 Largest Tax Expenditures, 2015: Individuals

[In billions of dollars]

Tax Expenditure	Amount
Exclusion of employer contributions for health care	145.5
Reduced rates of tax on dividends and long-term capital gains	131.7
Exclusion of contributions and earnings to retirement plans	129.4
Deduction of state and local taxes	94.6
Earned income tax credit	72.7
Deduction for mortgage interest	71.0
Child tax credit	57.1
Deduction for charitable contributions	45.6
Exclusion of untaxed Social Security and railroad retirement benefits	37.6
Exclusion of benefits provided under cafeteria plans	35.2

Note : The estimates for the exclusion of contributions and earnings to retirement plans, the deduction of state and local taxes, and the deduction for charitable contributions each reflect multiple tax expenditures.

The next table reports the 10 largest tax expenditures (in terms of revenue lost) directed to corporations. Again, some of the JCT tax expenditure items have been combined into a single item. Overall, these 10 tax expenditure items account for over 90 percent of the total dollars of tax expenditures directed to corporations, excluding bonus depreciation.

10 Largest Tax Expenditures, 2015: Corporations

[In billions of dollars]

Tax Expenditure	Amount
Deferral for active income of controlled-foreign corporations	99.3
Depreciation of equipment in excess of the alternative depreciation system, excluding bonus depreciation	22.6
Deduction of income attributable to domestic production activities	11.7
Deferral of gains on like-kind exchanges	11.0
Exclusion of interest on public purpose state and local government bonds	9.7
Credit for low income housing	7.3
Deferral of gain on non-dealer installment sales	6.9
Expensing under Section 179	4.8
Credit for increasing research activities	4.7
Reduced rates on first $10,000,000 of corporate taxable income	4.0

Note : Depreciation of equipment with bonus depreciation included is a negative tax expenditure of $20.0 billion. See discussion in entry on depreciation of equipment, p. XXX.

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 2015-2019. 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 12 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 2014 Income Levels

Income Class (in thousands of $)	Percentage Distribution
Below $10	12.3
$10 to $20	12.8
$20 to $30	12.8
$30 to $40	10.0
$40 to $50	8.3
$50 to $75	14.7
$75 to $100	9.5
$100 to $200	14.7
$200 and over	4.9

Source: JCT 2015.

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.

Shares 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 2013 that the top 1 percent of taxpayers accounted for nearly 47 percent of corporate income tax liability, the top 5 percent accounted for nearly 63 percent, the top 10 percent accounted for roughly 70 percent, and

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

[4] See Jane G. Gravelle, *Corporate Tax Reform: Issues for Congress*, Library of Congress, Congressional Research Service Report RL34229, January 6, 2014.

[5] U.S. Congress, Congressional Budget Office, *The Distribution of Household Income and Federal Taxes, 2013*, June 2013, Table 2.

the top 20 percent accounted for nearly 80 percent. The distribution of corporate income tax liabilities across the first four quintiles was 1.6 percent, 2.9 percent, 5.3 percent, and 9.5 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 also chronicles subsequent major changes in the provisions and the reasons for the changes.

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]

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[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

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.

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 veteran's 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 June 30, 2014. For a provision that has or was assumed to expire, its extension would typically add to its projected cost and the figures listed below.

Them?" *American Economic Review, papers and proceedings,* v. 98, no. 2, May 2008, pp. 79-83.

Sum of Tax Expenditure Estimates by Type of Taxpayer, Fiscal Years 2015-2019

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1,071.0	171.8	1,242.8
2016	1,144.9	183.7	1,328.6
2017	1,228.2	205.5	1,433.7
2018	1,298.0	221.5	1,519.5
2019	1,354.5	236.2	1,590.7

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 December 2015 list. Without bonus depreciation the corporate estimate would sum to $202 billion in FY2015.

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National Defense

EXCLUSION OF BENEFITS AND ALLOWANCES TO ARMED FORCES PERSONNEL

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	5.8	—	5.8
2016	6.0	—	6.0
2017	6.4	—	6.4
2018	6.8	—	6.8
2019	7.0	—	7.0

Authorization

Sections 112 and 134 and a 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 or cash benefits that are excluded from gross income. For the purpose of the exclusion, the armed forces consist of the Army, Navy, Air Force, Marine Corps, Coast Guard, the Commissioned Corps of the National Oceanic and Atmospheric Administration, and the Commissioned Corps of the Public Health Service. The benefits that qualify for the exclusion have been excludable from gross income by law, regulation, or administrative practice since September 9, 1986.

Under current law, the following benefits received by members of the armed services 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.

Any 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 members of the armed forces receive a $100,000 death gratuity payment for deceased members of the armed forces. The full amount of the payment is tax-exempt.

But personal use of a military vehicle is not excludable as a qualified military benefit.

Impact

Many military benefits qualify for the sections 112 and 134 exclusions from gross income. The tax savings from the excluded benefits depend upon recipient's marginal tax rate. Since the tax savings rise with income, it is fair to say that the exclusion, at least in theory, reduces the progressivity of the income tax system, 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 but $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, which also arises in the case of deductions and exemptions, 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 found 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 an earlier law, 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 could clearly understand and administer the tax law 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 U.S. Treasury Department's authority to add dependent-care assistance programs to the list of qualified military benefits.

For some benefits, the rationale was a desire to reduce the tax burdens of military personnel during wartime, as with the exclusion for combat pay. For other allowances, the exemption was based on the belief that these benefits were not only compensatory but also intrinsic elements in 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 fell, leading to a net loss in tax benefits (e.g., child tax credit) for some low-income members.

To correct this unintended effect, 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 that compensation as earned income in calculating the earned income tax credit and the child tax credit in 2004 and 200. This provision was extended through 2006 by the Gulf Opportunity Zone Act of 2005 (P.L. 109-135), 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).

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, subsistence, moving and storage expenses, 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.

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

One administrative 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 is not available could prove difficult in some circumstances. Another concern raised by substituting pay for certain tax-exempt allowances and benefits is its impact on the current and future size of the armed forces. The elimination of exclusions could lead service members to think their benefits were being cut, or provide an opportunity in the "simplification" process for Congress or the president to actually 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 armed forces members. And the upward adjustment of military pay scales that would result from the elimination of exclusions for some military benefits and allowances would be likely to increase the retirement income of military personnel.

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EXCLUSION OF MILITARY DISABILITY BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.3	-	0.3
2016	0.3	-	0.3
2017	0.3	-	0.3
2018	0.3	-	0.3
2019	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. Section 104(b) 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 pay 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 that would be paid under the percentage-of-disability method may be excluded from gross income.

Impact

Tax-exempt disability pension payments provide more net income than 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 eligible veterans receive a larger benefit than their lower-income counterparts.

Rationale

Historically, 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 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 employment 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 ameliorate 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 budget.

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

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	-	0.1
2016	0.1	-	0.1
2017	0.1	-	0.1
2018	0.1	-	0.1
2019	0.1	-	0.1

Authorization

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

Description

An above-the-line deduction is available for unreimbursed travel, meal, and lodging expenses of National Guard and Reserve members. To qualify for the 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. The cost of commuting expenses to and from drill meetings falls outside the scope of the deduction.

The deduction is available to taxpayers regardless of whether they claim the standard deduction or 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 higher incomes than it does for those with lower incomes.

Furthermore, an "above-the-line" deduction lowers a taxpayer's adjusted gross income (AGI). This is noteworthy because decreases in someone's AGI can lead to increases in other deductions and credits. For example, the maximum child care tax credit that may be claimed under section 24 is $1,000 per qualifying child; this amount is reduced dollar for dollar when a taxpayer's modified AGI exceeds $110,000 for joint filers, $75,000 for single or head-of-household filers and $55,000 for a married individual filing separately. In this case, larger above-the-line deductions could reduce the likelihood of a taxpayer benefiting from the credit. Therefore, 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 created by the Military Family Tax Relief Act of 2003 (MFTRA, P.L. 108-121). Under previous law, the overnight travel expenses of National Guard and Reserve members incurred while on duty were 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.

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, subsistence, 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 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.

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EXCLUSION OF COMBAT PAY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.4	-	1.4
2016	1.4	-	1.4
2017	1.5	-	1.5
2018	1.6	-	1.6
2019	1.6	-	1.6

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 gross income the qualified compensation they receive for any month they served in a combat zone. In this case, excludable compensation has the following elements:

- active-duty pay,
- imminent danger/hostile fire pay,
- pay for accrued leave earned during a period served in combat,
- any re-enlistment bonus earned during a period served in combat,
- 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 in a period served 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 amount of 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 activities.

Impact

The provision excludes from gross income qualified compensation received by service members while serving in a combat zone. The tax benefit from the exclusion varies with a taxpayer's marginal tax rate: the benefit is greater for higher-income taxpayers than for lower-income taxpayers. For example, if someone in the 25-percent tax bracket and another person in the 15-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 $250, while the latter would save $150 in income taxes.

Rationale

The exclusion for combat pay began during World War I, when compensation 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 net 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 include U.S. civilians working in combat zones, but none of the proposals has been enacted.

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International Affairs

EXCLUSION OF FOREIGN EARNED INCOME: HOUSING AND SALARY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals		Corporations	Total
	Housing	Salary		
2015	1.3	6.4	-	7.7
2016	1.3	6.7	-	8.0
2017	1.4	7.2	-	8.6
2018	1.5	7.6	-	9.1
2019	1.6	8.0	-	9.6

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 $101,300 for 2016. 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 foreign housing expenses there is a limitation equal to 30 percent of the taxpayer's maximum foreign earned income exclusion, or $30,390 in 2016 (30 percent of $101,300). 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. For tax year 2016, more than 100 foreign cities or regions had housing expense limitations that exceeded the statutory maximum of $30,390 for that year. For example, the maximum housing exclusion for Dubai was $57,174; for Paris, $68,600; and for Hong Kong, $114,300.

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 (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 ($99,200 for 2014). 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.

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APPORTIONMENT OF RESEARCH AND DEVELOPMENT EXPENSES FOR THE DETERMINATION OF FOREIGN TAX CREDITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.2	0.2
2016	-	0.2	0.2
2017	-	0.2	0.2
2018	-	0.2	0.2
2019	-	0.2	0.2

Authorization

Sections 861to 863 and 904 and IRS Regulation 1.861-17.

Description

The federal government taxes firms incorporated in the United States on their worldwide income but taxes foreign-based firms on their U.S. income only. When a U.S. firm earns foreign income through a foreign subsidiary, U.S. taxes apply to that income only when it is repatriated to the U.S. parent firm in the form of dividends, royalties, or other payment; the foreign income is exempt from U.S. taxation as long as it remains in the control of the foreign subsidiary.

When the foreign-source income is repatriated, the U.S. parent corporation can claim a credit against its U.S. tax liability for any foreign taxes the subsidiary has paid on that income. The credit cannot exceed the U.S. tax due on the foreign-source income. It is intended to avoid double taxation of repatriated foreign income. Excess credits incurred in tax years beginning after October 22, 2004 may be carried back one year and then carried forward up to 10 years.

U.S. corporations with foreign-source income face an overall limitation on the foreign tax credit they may use in a tax year. The limitation is designed to prevent the credit from being used to lower U.S. tax liability on U.S.-source income. Under the limitation, the foreign tax credit cannot exceed a taxpayer's U.S. income tax liability multiplied by a fraction equal to the taxpayer's foreign-source taxable income divided by its worldwide taxable income. For tax years starting after 2006, this limitation must be calculated separately for two categories (or baskets) of foreign-source income: passive income and general income. In this case, passive income refers to investment income such as dividends and interest and income from what are known as qualified electing funds. Any foreign-source income not considered passive generally is treated as belonging to the general-income basket. In determining its taxable income for each basket, a taxpayer must take into account the expenses, losses, and deductions related to the gross income related to each basket.

Federal tax law requires U.S. multinational corporations to allocate deductible expenses that could be related to both foreign and domestic income, such as interest payments and spending on research and development (R&D), between U.S. and foreign earnings. This allocation is not necessarily inconsequential, as the more costs a firm can assign to U.S. sources, the greater its foreign-source income as a share of total income and the larger its foreign tax credit limitation. For firms subject to lower tax rates on their foreign-source income than on their U.S.-source income, a change in the allocation of a small amount of expenses would not affect the foreign taxes it could claim as a credit. But in the case of firms that have excess foreign tax credits because they pay relatively high taxes on foreign-source income, a shift in the allocation of a small amount of expenses could increase the foreign taxes that are creditable, and thus reduce their U.S. taxes.

This requirement does not apply to research expenses that are incurred to satisfy some legal requirement or government regulation.

While research expenses are capital in nature in that they create assets that earn future income, section 174 allows firms to deduct them as a current expense as an incentive to invest in R&D. Most expenses are allocated to U.S. or foreign income on the basis of their relationship to the sources of gross income. But this matching principle is of little use in allocating research expenses, as they are not closely related to gross income in the current tax year. So a different approach is needed.

The allocation of research expenses between foreign-source and U.S.-source income is governed by a set of regulations (Reg. §1.861-17) issued by the Internal Revenue Service (IRS) in 1995. They proceed on the assumption that research expenses ordinarily deducted under section 174 are related to all income associated with broad product categories and can be allocated to all sources of that income, such as sales, royalties, or dividends.

The regulations set forth a two-step process for making this allocation. In the first step, research expenses are allocated to a particular class of income, such as sales, royalties, and dividends. Each class of income is then divided among product categories identified by three-digit standard industrial classification (SIC) codes.

The second step is more complicated. It involves apportioning the research expenses allocated to each product category between foreign-source income (or the statutory grouping) and U.S.-source income (or the residual grouping), using either the sales method or the gross-income method. Both methods allocate a fixed (or exclusive) percentage of the research expenses to the geographic location where more than 50 percent of the expenses were incurred. If that location is the United States, then 50 percent of the expenses are apportioned to U.S.-source income under the sales method, and 25 percent are apportioned to U.S. income under the gross-income method. (If that location happens to be another country, then the same percentages would apply to foreign-source income.) A larger fixed allocation can be made if a taxpayer can demonstrate the R&D related to the expenses is likely to have limited or long-delayed commercial applications outside the United States. If a taxpayer chooses the sales method, the amount of research expenses apportioned to foreign-source income for each product category, after subtracting the 50 percent of expenses assigned to U.S. income, is determined by multiplying the remaining expenses by a fraction equal to the taxpayer's foreign sales divided by its total sales for that category. If the taxpayer chooses the gross-income method, the apportionment is done the same way for each product category, except that gross income is used in lieu of sales in the fraction. An allocation using the gross-income method may not reduce the amount of research expenses allocated to foreign-source income to less than 50 percent of the foreign-source allocation produced by the sales method.

Impact

The regulations require U.S.-based multinational corporations to attribute part of their research expenses to foreign-source income, even if

their R&D was performed entirely in the United States. This rule raises both their U.S.-source income and their tax liability on that income. But since most foreign governments do not allow subsidiaries earning income in their territories to deduct from their taxable income any research expenses attributable to U.S. operations, the required allocation does not lower by a similar amount the foreign taxes paid by the U.S. parent corporations. As a result, the regulations have the effect of making the foreign tax credits claimed by the average U.S. multinational corporation with R&D investments larger than they would be if research expenses were allocated strictly according to the location of R&D activity.

The tax expenditure associated with the regulations lies in the larger foreign tax credits that some corporations can use as a result of the required allocation of research expenses to foreign-source income.

Rationale

In issuing regulations on the allocation of research expenses for the determination of the foreign tax credit limitation, the IRS appears to have been guided by the notion that if R&D conducted in the United States often contributes to the development of goods and services sold in foreign markets, then the accurate measurement of foreign income for U.S. multinational companies requires that part of their domestic R&D expenses be deducted from foreign income.

The current regulations under sections 861 to 863 trace their origin to a set of final regulations (Reg. §1.861-8) issued by the IRS in 1977. They required that a multinational firm's research expenses be allocated according to either the proportion of sales that occurred in each country or the proportion of gross income that had its source in each country. This meant, for example, that if a firm received 25 percent of its worldwide revenue from the sale of a product in the United States, then it had to allocate 25 percent of the research costs associated with that product to U.S.-source income and the remaining 75 percent to foreign-source income. The regulations also contained a so-called "place-of-performance" option that allowed a taxpayer to allocate 30 percent of its research expenses to any location where it performed over half of its R&D, before applying the sales formula for the allocation of its remaining research expenses.

The 1977 regulations proved controversial from the start. Critics charged that they reduced domestic R&D spending and encouraged U.S. firms to transfer some of their R&D activities to foreign locations.

Congress responded to these criticisms by adopting a two-year suspension of the regulations through the Economic Recovery Tax Act of 1981 (ERTA). During that period, U.S. firms were allowed to allocate all of their U.S. research costs as they saw fit.

In a report on the regulations mandated by ERTA and issued in 1983, the Treasury Department recommended that the suspension be extended an additional two years to allow more time to assess their likely effects. Congress agreed with the recommendation and suspended the regulations for another two years through the Deficit Reduction Act of 1984. In extending the suspension, it noted that its assessment of the regulations would focus on whether a repeal would be more effective than other options in boosting domestic business R&D investment.

When Congress passed the Tax Reform Act of 1986, it indicated that the issue of whether to retain, repeal, or modify the regulations still needed more time for analysis and discussion. So the act extended the suspension through 1987. It also altered the regulations to permit taxpayers using the place-of-performance option to allocate 50 percent of its research expenses to the location where more than half of its R&D was done, and to use the gross-income method to allocate the remaining expenses.

The Technical and Miscellaneous Revenue Act of 1988 temporarily replaced the regulations with a set of more liberal rules that applied in 1988 only. Under the act, firms were required to allocate 64 percent of their domestic research expenses to U.S. income and 64 percent of their foreign research expenses to foreign income for the first four months of the year. The remaining 36 percent of expenses could be allocated using either the gross-income or sales method. For the remaining eight months of 1988, taxpayers were required to use the allocation methods specified in the 1977 regulations.

From 1988 to 1991, Congress passed three measures that retained the requirement that 64 percent of research expenses be allocated to U.S. income: the Omnibus Budget Reconciliation Act of 1989, the Omnibus Budget Reconciliation Act of 1990, and the Tax Extension Act of 1991. This treatment expired on August 1, 1992.

Under the Omnibus Budget Reconciliation Act of 1993, taxpayers were allowed to allocate up to 50 percent of research expenses to U.S. income, and they could allocate the remaining 50 percent between U.S. and foreign income using either the sales or gross-income method. This provision expired on December 31, 1994.

In December 1995, the IRS issued proposed regulations that made three significant changes in the 1977 regulations. First, the proposed regulations would allow taxpayers to identify product categories by using three-digit SIC codes instead of two-digit codes. Second, the percentage of research expenses that could be exclusively allocated to a location under the sales method would rise from 30 percent to 50 percent. Third, a decision to use the sales or gross-income method would be treated as a binding election to use the same method in future tax years. The current regulations emerged from these proposed regulations.

Assessment

The current regulations under sections 861 to 863 governing the allocation of research expenses for the determination of the foreign tax credit limitation still provoke controversy. One source of controversy concerns their economic rationale.

Proponents argue the regulations are justified mainly because R&D performed by U.S.-based firms in the United States leads to the development of goods and services that they sell profitably in the United States and in other countries through subsidiaries. Under these circumstances, the accurate measurement of the foreign taxable income of these firms requires that part of their U.S. research expenses be deducted from foreign income.

Critics say this view of the process through which U.S.-based multinational companies earn foreign income from goods and services developed largely through their U.S. R&D activities is unrealistic. In their view, technological innovations generally are exploited commercially first in the country where they were developed, and only after a lengthy and often unpredictable delay are they then sold or used in other countries. Under this scenario, the regulations cannot be justified, as the accurate measurement of U.S. income requires that all (or nearly all) U.S. research expenses be deducted from U.S. income.

A policy issue raised by these differing perspectives relates to the geographic spread of the spillover benefits of R&D investments. If the spillover is primarily international in scope, then the argument made by proponents of the regulations would appear to have merit. But if the spillover is primarily local in scope, then critics would appear to be justified in calling for the repeal of the regulations and their replacement with a set of rules more favorable to the allocation of research expenses to U.S. income.

Another major source of controversy is the impact of the regulations on domestic business investment in R&D and the incentives for U.S. firms to transfer R&D activities overseas.

Critics have long argued that the regulations have the effect of reducing domestic investment and encouraging U.S. companies to transfer some R&D to foreign locations with higher tax rates than U.S. tax rates. Such an undesirable outcome, critics say, results from the impact of the regulations on the worldwide tax liabilities of U.S. multinational corporations, especially those with excess foreign tax credits. Most foreign governments do not allow a deduction for the cost of R&D conducted in the United States. Therefore, allocating a U.S. business expense to foreign rather than U.S. income has the same effect on a firm's net tax liability under federal tax law as denying it a deduction for this expense. If a foreign government allows a deduction for this expense, a U.S. firm's foreign taxes would decline but its total tax liability would remain about the same. But if the foreign government disallows a deduction, the increase in the firm's U.S. taxes would not be offset by a reduction in its foreign taxes. In this case, both the U.S. and foreign governments are taxing income equal to the denied deduction.

According to critics, this double taxation could be a problem for U.S. companies with excess foreign tax credits. It could lead them to reduce domestic business R&D investment and instead shift investment to less productive uses. For such companies, the regulations create a tax incentive for shifting R&D operations abroad that is equal to the difference between U.S. tax rates and foreign tax rates.

In contrast, supporters of the regulations see no compelling reason for the U.S. government to eliminate them and instead permit taxpayers to deduct the entire amount of their U.S. research expenses from U.S. income. They point out that doing so could create a situation that U.S. tax law tries to avoid: the use of foreign tax credits against a firm's tax liability on U.S.-source income. In the view of supporters, if action should be taken to eliminate any double taxation caused by the regulations, it should be taken by foreign governments that disallow a deduction for U.S. research expenses. To the extent that these governments do allow those expenses to be deducted, supporters say that allocating the entire amount of U.S. research expenses to U.S. income would be tantamount to allowing a double deduction and creating a tax subsidy for domestic R&D investment, not a tax penalty as critics charge.

Some specialists in international tax policy argue that the rules for the sourcing of income and the allocation of research expenses should be designed to accomplish three aims: (1) to avoid the double taxation of income; (2) to avoid imposing an inequitable tax on income generally; and (3) to achieve an equitable distribution of tax burden on multinational companies among sovereign governments. In their view, the only way to accomplish all three objectives simultaneously is an international consensus on a set of such rules.

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EXCLUSION OF CERTAIN ALLOWANCES FOR FEDERAL EMPLOYEES ABROAD

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	2.1	-	2.1
2016	2.2	-	2.2
2017	2.3	-	2.3
2018	2.3	-	2.3
2019	2.4	-	2.4

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, the Central Intelligence Act of 1949, the Overseas Differentials and Allowances Act, and the Administrative Expenses Act of 1946. 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 $101,300 in 2016, 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.

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DEFERRAL OF ACTIVE INCOME OF CONTROLLED FOREIGN CORPORATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	99.3	99.3
2016	-	108.9	108.9
2017	-	114.0	114.0
2018	-	118.1	118.1
2019	-	123.2	123.2

Authorization

Sections 11(d), 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. When a U.S. firm earns foreign-source income through a foreign subsidiary, U.S. taxes apply to the income only when it is repatriated to the U.S. parent firm as dividends or other income; the income is exempt from U.S. taxes as long as it remains with the foreign subsidiary. At the time the foreign income is repatriated, the U.S. parent corporation can credit foreign taxes the subsidiary has paid on the remitted income against U.S. taxes, subject to certain limitations. Because deferral permits U.S. firms to delay any residual U.S. taxes that may be due after foreign tax credits, it provides a tax benefit for firms that invest in countries with low tax rates.

Subpart F of the Internal Revenue Code (sections 951-964) provides an exception to the general deferral principle. Under its provisions, certain income earned by foreign corporations controlled by U.S. shareholders is deemed to be distributed whether or not it actually is, and U.S. taxes are

assessed on a current basis rather than deferred. 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.

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 (P.L. 108-357) 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.

Impact

Deferral provides an incentive for U.S. firms to invest in active business operations in low-tax foreign countries rather than the United States, and thus probably reduces the stock of capital located in the United States. Because the U.S. capital-labor ratio is therefore probably lower than it otherwise would be and U.S. labor has less capital with which to work, deferral likely reduces the general U.S. wage level. At the same time, U.S. capital and foreign labor probably gain from deferral. Deferral also probably reduces world economic efficiency by distorting the allocation of capital.

The one-year deduction for repatriations enacted in 2004 likely increased the repatriation of funds from foreign subsidiaries. However, at least part of the increase likely consisted of a shift in the timing of repatriations from future periods to the present, as firms took advantage of the one-year window. While the provision was intended, in part, to increase domestic investment—its supporters argued that repatriated funds would be invested in the United States—firms' use of the repatriations is not certain.

Rationale

Deferral has 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 1962, 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, the Tax Reform Act of 1976, the Tax Equity and Fiscal Responsibility Act of 1982, the Deficit Reduction Act of 1984, the Tax Reform Act of 1986, and the Omnibus Reconciliation Act of 1993 (OBRA93). 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 relaxed Subpart F in the area of shipping income and provided a one-year temporary tax reduction for income repatriated to U.S. parents from overseas subsidiaries. The American Taxpayer Relief Act of 2012 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, had been regularly extended. See the entry for "Deferral of Certain Financing Income" for more information.

Assessment

The U.S. method of taxing overseas investment, with worldwide taxation of branch income, limited foreign tax credit, and deferral, can either pose a disincentive, present an incentive, or be neutral towards investment abroad, depending on the form and location of the investment. For its part, deferral provides an incentive to invest in countries with tax rates that are lower than the United States.

Defenders of deferral argue that the provision is necessary to allow U.S. multinationals to compete with firms from foreign countries; they also maintain that the provision boosts U.S. exports. However, economic theory suggests that a tax incentive such as deferral does not promote the efficient

allocation of investment. Rather, capital is allocated most efficiently—and world economic welfare is maximized—when taxes are neutral and do not distort the distribution of investment between the United States and abroad. Economic theory also holds that while world welfare may be maximized by neutral taxes, the economic welfare of the United States would be maximized by a policy that goes beyond neutrality and poses a disincentive for U.S. investment abroad.

Supporters of a "territorial" tax system would permanently exempt U.S. tax on repatriated dividends, thus eliminating U.S. tax even on a deferred basis. Several arguments have been made in support of territorial taxation. Some assert the notion that changes in the international economy have made economic theory's traditional notions of efficiency and neutrality obsolete. This argument maintains that efficiency is promoted if taxes do not inhibit U.S. multinationals' ability to compete for foreign production opportunities or interfere with their ability to exploit the returns to research and development. It is also argued that a territorial tax system would stop corporate inversions. Another argument holds that the current tax system produces so many distortions in multinationals' behavior that simply exempting foreign-source business income from tax would improve economic efficiency. Others are concerned, however, that a territorial tax system could distort firms' location decision and lead to substantial differences in tax burdens across industries.

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INVENTORY PROPERTY SALES SOURCE RULE EXCEPTION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	1.7	1.7
2016	-	1.7	1.7
2017	-	1.8	1.8
2018	-	1.8	1.8
2019	-	1.8	1.8

Authorization

Sections 861, 862, 863, and 865.

Description

The tax code's rules governing the source of inventory sales interact 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.

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 provides an important exception, however, in the case of sales of inventory property. Inventory that is purchased and then resold is governed by the so-called "title passage" rule: the income is sourced in the country where the sale occurs. Since the country of title passage is generally quite flexible, sales governed by the title passage rules can easily be arranged so that the income they produce is sourced abroad.

Inventory that is both manufactured and sold by the taxpayer is treated as having a divided source. Unless an independent factory price can be established for such property, half of the income it produces is assigned a U.S. source and half is 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 can be effectively exempted from U.S. taxes. A complete tax exemption can apply to export income that is 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 is probably shared by U.S. capital in general, and therefore probably disproportionately benefits upper-income individuals. To the extent that the rule results in lower prices for U.S. exports, a part of the benefit probably accrues 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. 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 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 repealed the source rule exception for exports of raw timber.

Assessment

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

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DEFERRAL OF CERTAIN FINANCING INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: This provision expired at the end of 2014. It was permanently extended at a cost of $38.5 billion between FY2016 and FY2020. This revenue estimate is based on the provision's latest extension at the beginning of 2015 contained in JCX-143-15 at www.jct.gov.

Authorization

Sections 953 and 954.

Description

Under the U.S. method of taxing overseas investment, income earned abroad by foreign-chartered subsidiary corporations that are owned and controlled by U.S. investors or firms is generally not taxed if it is reinvested abroad. Instead, a tax benefit known as "deferral" applies: U.S. taxes on the income are postponed until the income is repatriated to the U.S. parent as dividends or other income.

The deferral benefit is circumscribed by several tax code provisions; the broadest in scope is provided by the tax code's Subpart F. Under Subpart F, certain types of income earned by certain types of foreign subsidiaries are taxed by the United States on a current basis, even if the income is not actually remitted to the firm's U.S. owners. Foreign corporations potentially subject to Subpart F are termed Controlled Foreign Corporations (CFCs);

they 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. 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 F are 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.

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 deferral tax benefit, and the tax expenditure at hand is an exception to Subpart F itself for a range of certain financial services income.

Impact

The exception poses an incentive in certain cases for firms to invest abroad; in this regard its effect is parallel to that of the more general deferral principle, which the exception restores in the case of certain banking and insurance income.

The provision only poses an incentive to invest in countries with tax rates lower than those of 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. 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. TIPRA (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).

Assessment

Subpart F attempts to deny the benefits of tax deferral 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 deferral tax benefit 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.

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DEDUCTION FOR FOREIGN TAXES INSTEAD OF A CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.3	0.3
2016	-	0.3	0.3
2017	-	0.3	0.3
2018	-	0.3	0.3
2019	-	0.3	0.3

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.

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.

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INTEREST EXPENSE ALLOCATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-0.7	-0.7
2016	-	-0.7	-0.7
2017	-	-0.7	-0.7
2018	-	-0.8	-0.8
2019	-	-0.8	-0.8

Authorization

Section 864.

Description

The United States, in principle, taxes its resident corporations and individuals on their worldwide income, regardless of where it is earned, under the residence rule. The foreign tax credit and deferral are the key structural pieces of the U.S. taxation of foreign-source income. The foreign tax credit provisions generally permit U.S. taxpayers to credit foreign taxes they pay against U.S. taxes they would otherwise owe—on a dollar-for-dollar basis. This credit is, however, limited.

In order to protect its domestic tax base, the U.S. imposes a limitation on the foreign tax credit. In effect, the tax code only allows foreign tax credits to offset the U.S. tax on foreign source-income. Any foreign taxes paid in excess of the limit become "excess credits" and can be carried back one year and carried forward up to 10 years. When a firm is in an excess credit position, the rules surrounding the sourcing of fungible sources of income, such as interest, become important.

Current law applies the fungibility principle to interest allocation in a manner sometimes referred to as "water's edge" allocation. Under this

system, foreign subsidiaries are not explicitly included in the allocation. This has two implications for the allocation formula. First, only a domestic parent's equity stake in its foreign subsidiary is counted as an asset—excluding the foreign subsidiary's assets financed by debt. The parent's assets, in contrast, are all included in the calculation—whether financed by equity or debt. Secondly, the subsidiary's interest expense is automatically allocated to foreign sources. This occurs since the subsidiary's interest expense reduces dividend payments to the parent, which are all allocated to foreign source income.

Under current law, beginning in 2021, the U.S. will allocate interest expense using a "worldwide" allocation regime. Under a "worldwide" allocation, the borrowing of foreign subsidiaries would be taken into account. The switch to a "worldwide" regime was originally scheduled to take place in 2009 as a result of the American Jobs Creation Act of 2004 (P.L. 108-357). The implementation was then first delayed until 2011 by the Housing and Economic Recovery Act of 2008 (P.L. 110-289), and then until 2018 by the Worker, Homeownership, and Business Assistance Act of 2009 (P.L. 111-92), and finally to 2021 by the Hiring Incentives To Restore Employment Act (P.L. 111-147).

Current law contains a subgroup election for firms that are banks. This election allows the interest allocation rules to be applied separately to the bank and non-bank subsidiaries of a U.S. corporation. Beginning in 2021, this election is available to a wider range of financial intermediaries, including finance companies and insurance firms.

Impact

In contrast to the water's edge allocation formula, the basic result of the worldwide interest allocation formula, if elected, is to increase the weight given to foreign assets in the allocation formula. This treatment should result in a greater proportion of the interest expense being allocated to U.S.-source income under the foreign tax credit formula, leading to higher foreign source income and a higher foreign tax credit for firms with excess credits.

The availability of subgroup elections runs counter to the principle of fungibility that is embodied by the interest allocation rules. This result follows from the fact that firms could distribute their borrowing among related subsidiaries to minimize foreign allocations of interest. The expansion of this election beginning in 2021, under current law, could move the U.S. system further from the principle of fungibility.

Rationale

Before 1986, each separately incorporated entity allocated its interest expenses separately, based upon its assets. This practice allowed companies to isolate debt offshore, thus allowing U.S. related interest to offset foreign income.

The Tax Reform Act of 1986 (P.L. 99-514) modified the interest allocation rules by adopting a one-taxpayer rule to address concerns that prior law allowed affiliated corporations to reduce U.S. tax on U.S. income by borrowing money through one corporation rather than another.

The American Jobs Creation Act of 2004 (P.L. 108-357) modified the interest allocation rules significantly. The Act mandated a switch from a waters edge to a worldwide view on the basis of the fungibility principle starting in 2009 and created a financial institution group election. Congress enacted these changes in response to concerns that the prior view left taxpayers excessively exposed to double taxation of foreign-source income and reduced their incentive to invest in the United States. As mentioned above, the switch to a worldwide view is currently delayed to until 2021.

Assessment

Assuming debt is fungible, worldwide allocation is a more accurate method than water's edge based rules of ensuring that the U.S. foreign tax credit is used for its intended purpose: allowing the foreign tax credit to offset the full share of U.S. pre-credit tax that falls on foreign source income. Absent additional rules, however, opportunities for tax planning may limit the achievement of this objective. Also, like the foreign tax credit limit itself, allocation rules tend to contribute to the distortions that discourage equity investment abroad. Worldwide interest allocation rules could, in several ways, increase these distortions relative to current law. The distortions created by current law can be viewed as a cost of collecting taxes—since they increase U.S. revenue—but the potential increased distortion associated with worldwide rules cannot since they decrease U.S. revenue.

The subgroup election provisions in the interest allocation rules do not appear consistent with the general objective of the interest allocation rules. The subgroup election may permit firms to reduce the current domestic interest allocation costs, while achieving foreign interest allocation benefits.

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SPECIAL RULE FOR INTEREST CHARGE DOMESTIC INTERNATIONAL SALES CORPORATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.6	0.6
2016	-	0.6	0.6
2017	-	0.6	0.6
2018	-	0.7	0.7
2019	-	0.7	0.7

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 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. 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 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. 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. A year earlier, the Jobs and Growth Tax Relief Reconciliation Act of 2003 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.

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TAXATION OF REAL PROPERTY GAINS OF FOREIGN PERSONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

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.

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TONNAGE TAX

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.1	0.1
2016	-	0.1	0.1
2017	-	0.1	0.1
2018	-	0.1	0.1
2019	-	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 35 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.

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General Science, Space, and Technology

EXPENSING OF RESEARCH AND EXPERIMENTAL EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	4.7	4.8
2016	0.1	5.2	5.3
2017	0.1	5.7	5.8
2018	0.1	6.0	6.1
2019	0.1	6.0	6.1

Authorization

Sections 174 and 59(e)

Description

As a general rule, the cost of a business asset with a useful life beyond a single year, such as a machine tool or an aircraft, must be capitalized. To do so, the owner may recover the cost through taking allowable depreciation deductions for the asset or selling it.

There are exceptions to this rule, one of which is section 174, which gives businesses investing in research and development (R&D) two options for recovering most (if not all) of the cost of the investment.

First, a business can deduct qualifying expenditures for R&D projects as a current (instead of a capital) expense. What makes this treatment valuable to the taxpayer (as well as a source of short-term revenue loss for the U.S. Treasury) is that these expenditures generally contribute to the development of tangible and intangible assets with useful lives that extend beyond a year.

Second, a taxpayer may elect to treat qualifying research expenditures as deferred expenses and amortize them over a period of 60 or more months, beginning in the month when a company first realizes benefits from the expenditures. A business is deemed to realize such benefits when an asset it develops begins to earn income or reduce operating expenses.

Businesses have yet another option for recovering the cost of qualifying research expenditures. Under Section 59(e) a company may amortize eligible research expenses over 10 years, starting with the tax year when they 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.

If a taxpayer does not account for qualified research expenditures with one of these options, then 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.

How a business is organized for tax purposes can affect the tax treatment of research expenditures. Subchapter C corporations are allowed to deduct qualifying research expenditures under Section 174(a) against the regular tax and the alternative minimum tax (AMT). Businesses organized as a passthrough entity (e.g., partnerships, sole proprietorships, and S corporations) may also deduct the same 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 involvement, the expenses must be amortized over 10 years under the AMT. Passthrough entities subject to this requirement are also allowed to amortize rather than deduct eligible research expenditures under the regular tax. The election is made separately by each partner in a partnership, or each shareholder in an S corporation, according to the partner’s or the shareholder’s allocable shares of those expenditures.

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 already 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.

Not all of the costs associated with research projects may be deducted under section 174. Most notably, 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 may be recovered over 15 years and 3 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 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 must reduce the deduction by the amount of the credit. Most of the expenditures that qualify for one also qualify for the other. Instead of reducing the deduction by the amount of the credit, the company could claim a credit that is 35% smaller than the credit it could take.

Impact

The expensing of R&D costs under section 174, like any form of expensing, has the effect of deferring taxes on the returns to qualifying R&D investments. Such a deferral yields tax savings for eligible businesses, after accounting for the time value of money. To illustrate this point, suppose a corporation is taxed at a marginal rate of 35% and spends $1 million in the current 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 $350,000 (0.35 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 $350,000 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. They tend to invest more in R&D as a percentage of gross revenues than most 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 had exhausted their economic value during the year 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 for that undertaking 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. The second objective was to eliminate or lessen the difficulties, 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 for tax purposes.

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 is now considered any representation of a product that is produced to evaluate and resolve uncertainties about the product during its development or improvement. While the final regulations clarify 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 address the definition of uncertainty.

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 eliminating or reducing 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 among lawmakers and policy analysts that firms in general invest too little in R&D, relative to its overall economic benefits, without government support. This presumed 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. A key concern about 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.

In the current debate over reforming the U.S. income tax, some have proposed a repeal of the expensing option under section but leaving intact the option to amortized qualified research expenditures over five years.

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TAX CREDIT FOR INCREASING RESEARCH EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	—	—	—
2016	—	—	—
2017	—	—	—
2018	—	—	—
2019	—	—	—

Note: This provision was permanently extended by the Protecting Americans from Tax Hikes Act of 2015 (P.L. 114-113). The Joint Committee on Taxation has not updated its revenue estimate for the credit to reflect the changes made by the act..

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), a credit for contract university basic research, and a credit for contract energy research. If they can satisfy the requirements for each credit, taxpayers may claim either the incremental regular credit or the ASC and each of the other two credits. The credit was extended permanently at the end of 2015, after being 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 had both taxable income and QREs in three of the four tax years between 1984 and 1988, while a startup firm 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 the firm's 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 should equal 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 what was known as the alternative incremental research credit (ARC), instead of the regular credit. When the ARC 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. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) suspended the ARC, and Congress has not reinstated it, heeding taxpayer complaints that it was too complicated and its incentive effect too weak. When the ARC 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, provided the payment qualifies.

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

- It must involve activities whose costs can be expensed 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, or 75 percent of payments for qualified research done by not-for-profit scientific research consortia, or 100 percent of the amount paid for qualified research performed by eligible small firms, certain universities, or federal laboratories.

In 2012, qualified wages accounted for 69 percent of QREs, followed by contract research (16 percent) and materials and supplies (15 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, outlays for equipment and structures represent about 30 percent of the total direct cost of business R&D investments. Nor can the regular credit or the ASC 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 receiving a double tax benefit 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 (AMT) 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. This means that a company cannot claim the GBC in a tax year when it must pay the AMT because its tentative minimum tax will always exceed its net income tax. Even when a company is subject to the regular income tax, any GBC it claims cannot be larger than the amount by which its regular tax liability exceeds 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 the unused credits in the following tax year.

Certain small businesses, however, may use the research tax credit to offset their AMT liability for tax years starting in 2016. More specifically, non-publicly traded corporations, partnerships, and sole proprietorships with average annual gross receipts in the past three tax years of $50 million or less are allowed to treat their tentative minimum tax as zero, but the section 38 limitation based on a company's regular income tax liability 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 of the tax years before the five tax years before the current year. So for a qualified taxpayer electing this

treatment for the 2016 tax year, it must have zero gross receipts in the 2012 tax year and any earlier years.

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. While the statutory rates for the regular credit and ASC are 20 percent and 14 percent, respectively, their marginal effective rates (MER) are lower, considerably so in some cases, owing.to 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.

One rule requires that any deduction taken for research expenditures under section 174 be reduced by the amount of the credit. For companies taxed at a marginal rate of 35 percent, the reduction lowers the credit's MER for an additional dollar of QREs above the base amount to 13 percent for the regular credit ([0.20 x (1-0.35)]) and 8.9 percent for the ASC ([0.14 x (1-0.35)]).

In addition, a firm's base amount for the regular credit cannot be less than 50 percent of its current-year QREs. As a result, the MER for the regular credit drops to 6.5 percent (or 3.45% in the case of the ASC) 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. As a result, the MER for QREs over $100 million is equal to 6.5 percent: [(0.5 x 0.13) x 100].

By contrast, there is no minimum base amount for the ASC.

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 used in R&D. Consequently, it is reasonable to argue that the credit's MER is reduced further when outlays for structures and equipment make up a share

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 those expenditures 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 eligible expenditures, all other things being equal.

A fourth rule affecting the credit's MER is the limitation on the credit's use under the GBC. The research tax credit is one of 36 credits making up the GBC. Research credits that cannot be used in the current tax year because of the limitation may be carried back one year or forward up to 20 years. Owing to the time value of money, current-year credits that are carried forward become less valuable in current-year dollars over time. A decline in the credits' present value effectively reduces their MER. The extent of the reduction depends on the number of years that pass before the credits are used and the rate of inflation during that period.

The regular credit and ASC do not benefit all firms undertaking qualified research equally. This is especially true for older companies that tend to invest less in R&D as a share of revenue today than they did during their base period for the credit. (The ratio of a company's research expenditures to its income measures its research intensity.) In this case, the regular credit in particular is of no benefit to firms whose research intensity has declined over time. Such a decline can result from 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. If the decline in research intensity is due to faster growth in sales revenue, then 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 2012, these firms accounted for 61 percent of the total amount of claims for the credit, and C corporations with $250 million or more in business receipts accounted for 84 percent of that amount.

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 statutory 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 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 it. No such study was undertaken, however. Instead, Congress extended the credit through 1988, at the 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 in coverage that still exists. The act also established a three-tiered alternative incremental credit (ARC) 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 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 ARC 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 renewed 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 noteworthy 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 can use to the employer share of their payroll tax liability, starting in the 2016 tax year. Third, it allowed eligible small corporations subject to the AMT to apply the full amount of any research tax credit they may use 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. This knowledge can lead to external 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 business R&D, partly in an effort to stimulate increased private-sector R&D investment. Among other forms of support, 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 2012, the most recent year for which data are available, companies claimed a total of $10.8 billion in research tax credits. 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 (MER). Multiplying one by the other indicates the extent to which $1 of the credit reduces the after-tax cost of $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 certain percentage 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 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 company taxed at a rate of 35 percent, the MER drops to 13 percent: [.20 x (1 – 0.35) 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 company's QREs more than double the base amount, the MER drops to 6.5 percent: [(0.50 x .13) x 100].

In addition, many R&D investments include outlays for structures and/or equipment. Companies making such investments of course include the cost of structures and equipment in their measure of the cost of capital for the investments. Research on the credit has estimated that 30 percent or so of domestic business R&D spending, on average, goes to expenditures for structures and equipment, which are ineligible for the credit. Given that the decision to invest in a research project takes into consideration all relevant costs, it can be argued that the credit's MER ought to reflect those cost exclusions. So for companies subject to the 50 percent base-amount rule, the cost exclusion rule reduces the MER to 4.5 percent: [(0.70 x .065) 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 not readily available. The next best approach is to use the credit's average effective rate (AER), which 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 3.9 percent in 2012. 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 about 4.0 percent.

Assuming that the AER for the credit is 3.9 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 1.95 percent to 5.85 percent of domestic business R&D investment. In 2012, domestic business R&D spending totaled $275.9 billion, according to the NSF; 3.9 percent of that amount is $10.8 billion. The Joint Committee on Taxation put the revenue loss from the credit that year at $6.0 billion. This suggests that $1 of the credit led to a $0.55 increase in R&D (including costs not covered by the credit) in 2012. But many maintain that $1 of the credit leads 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, although it is fair to say that most of them back the use of tax incentives to expand U.S. business R&D investment. A majority of critics think it should be modified to enhance its incentive effect. They point to several issues that undermine the credit's effectiveness. One problem with the credit, according to critics, is the complex method for determining the base amount for the regular credit and lingering uncertainties about the definition and measurement of QREs for the regular credit and ASC. Another concern is the recordkeeping required to verify claims for the credit during audits by the Internal Revenue Service. These issues, in their view, deter some companies from claiming the credit and increase the cost of complying with the rules governing the credit's use. Critics also say the credit's MER is too low to boost business R&D investment to levels more in line with its social benefits. And critics contend that the credit still does too little to support the innovative activities of small young companies at critical stages in their development, even though new small businesses may now apply a certain amount of the credit to the employer share of their payroll tax liability.

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 much reduced subsidy applied research and development.

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Energy

DEDUCTION OF EXPENDITURES ON ENERGY-EFFICIENT COMMERCIAL BUILDING PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: This provision expired at the end of 2014, but was extended through 2016 in P.L. 114-113, at a cost of $0.3 billion in FY2016 and $0.1 billion in 2017, with revenue gains of less than $50 million in FY2018 and FY2019. Other changes to this provision in P.L. 114-113 resulted in a revenue gain of less than $50 million in FY2016 and FY2017.

Authorization

Section 179D.

Description

Internal Revenue Code section (IRC §) 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, 2017. 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 (Code Sec. 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 (IRC § 179D(d)(4)). 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.

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).

Assessment

Commercial buildings include a wide variety of building types—such as offices, hospitals, schools, police stations, places of worship, warehouses, hotels, barber shops, libraries, 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. Electricity and natural gas are the most common energy sources used in commercial buildings, accounting for 93 percent of commercial sector primary energy consumption. The commercial sector in the United States uses almost as much energy as the residential sector but has not generally been the focus of energy conservation incentives.

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 § 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.

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DEPRECIATION RECOVERY PERIODS FOR ENERGY-SPECIFIC ITEMS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	0.9	0.9
2016	([1])	0.9	0.9
2017	([1])	0.8	0.8
2018	([1])	0.7	0.7
2019	([1])	0.7	0.7

([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 and natural gas distribution lines originally placed in service after April 11, 2005, is MACRS property recovered over 15 years.

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.

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.

A more beneficial depreciation method produces a tax subsidy that can be measured in different ways. One way is to express it as a percentage reduction in the cost. Based on a 5 percent real rate of return and a 2 percent

inflation rate, the present value of 5, 10, 15, and 20-year depreciation per dollar of investment is, respectively, $0.87, $0.77, $0.64, and $0.57. The differences between the 5, 10, and 15-year periods, and the 20-year period, are the difference between values multiplied by the tax rate. Using a 35 percent tax rate, these depreciation periods confer a reduction in the cost of acquiring the property of 11 percent for 5-year property; 7 percent for 10-year property; and 3 percent for 15-year property. The benefits can also be expressed as effective tax rates (the difference between the pre-tax required return on the investment and the after tax return). Assuming an economic depreciation rate of 3 percent and an equity financed investment, the effective tax rate using a 5-year life is 10 percent; for a 10-year life, 17 percent; for a 15-year life, 23 percent; and for a 20-year life, 27 percent. Other types of subsidies in the tax law, such as the ITC and PTC, might further reduce effective tax rates, as would debt-financed investment.

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.

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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
2015	1.1	-	1.1
2016	1.2	-	1.2
2017	1.2	-	1.2
2018	1.2	-	1.2
2019	1.2	-	1.2

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.

A number of recent decisions by the IRS have spurred the 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.

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.

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

Pass-through business income generally faces lower tax rates than corporate income. 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.

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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
2015	([1])	([1])	1.4	0.2	1.4	0.2
2016	([1])	([1])	1.3	0.2	1.3	0.2
2017	([1])	([1])	1.4	0.3	1.4	0.2
2018	([1])	([1])	1.6	0.3	1.6	0.3
2019	([1])	([1])	1.6	0.3	1.6	0.3

([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 2013 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 19 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 2015, oil and gas production accounted for roughly 34 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. The recent fall in oil prices, however, reduces the subsidy value.

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 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. Since 2012, the net income limitation has been in effect.

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. In fact 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. There is also no basis to believe that percentage depletion approximates 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.

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EXCLUSION OF ENERGY CONSERVATION SUBSIDIES PROVIDED BY PUBLIC UTILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	-	([1])
2016	([1])	-	([1])
2017	([1])	-	([1])
2018	([1])	-	([1])
2019	([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 results 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 y 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.

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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
2015	0.3	([1])	1.0	([1])	1.3	([1])
2016	0.4	([1])	1.1	([1])	1.5	([1])
2017	0.3	([1])	1.1	([1])	1.4	([1])
2018	0.3	([1])	1.1	([1])	1.4	([1])
2019	0.3	([1])	1.0	([1])	1.3	([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, 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. 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 alternative minimum tax. The amortization claimed under IRC section 59(e) is not considered a tax preference item for 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 undertake 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 3 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.

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

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	0.1	0.1
2016	([1])	0.1	0.1
2017	([1])	0.1	0.1
2018	([1])	0.1	0.1
2019	([1])	0.1	0.1

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

Authorization

Sections 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.

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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
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])

([1]) 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 $100 per state resident or $302.88 million in 2016. 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.

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RESIDENTIAL ENERGY-EFFICIENT PROPERTY CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.1	-	1.1
2016	1.2	-	1.2
2017	0.7	-	0.7
2018	-	-	-
2019	-	-	-

Note: This provision was modified and extended for solar property as part of the Consolidated Appropriations Act, 2016 (P.L. 114-113). The cost of the modification and extension was estimated at less than $50 million in FY2016, $0.2 billion in FY2017, $0.9 billion in FY2018, and $0.9 billion in FY2019.

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. Under current law, this tax provision is temporary, and set to expire January 1, 2017, for non-solar property.

For solar electric and qualified solar water heating property, 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.

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 Healthcare 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.

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 is likely 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 greater demand for 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.

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CREDIT FOR ENERGY-EFFICIENT IMPROVEMENTS TO EXISTING HOMES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.5	-	0.5
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: This provision, which had expired at the end of 2014, was recently extended through 2016, as part of P.L. 114-113. The cost of the extension was estimated at $0.8 billion for FY2016 and $0.5 billion for FY2017.

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.

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 2014, roughly 2.3 million taxpayers claimed a total of $518.4 million in nonbusiness energy property tax credits.

Tax credits for residential energy efficiency are disproportionately claimed by higher income taxpayers. In 2014, 12 percent of tax returns filed had adjusted gross income (AGI) between $100,000 and $200,000. However, 30 percent of tax returns claiming residential energy credits were from the $100,000 to $200,000 income group, with this group accounting for 31 percent of total credits claimed. While 45 percent of tax returns filed in 2014 had an adjusted gross income of less than $30,000, only 7 percent of the returns claiming residential energy credits were from this income group. Additionally, only 4 percent of the total amount of residential energy credits claimed were from returns with an AGI of less than $30,000. The IRS

Statistics of Income 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 above include data for claims of both credits.

Rationale

Similar provisions to the current day 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.

Assessment

Congress enacted the residential energy efficiency tax credits in 2005 because they felt 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. While these market barriers may explain the low adoption levels of energy efficient products, they may not necessitate a tax policy solution.

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.

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TAX CREDITS FOR BIODIESEL, SECOND GENERATION BIOFUEL, AND ALTERNATIVE FUEL

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: These fuels-related tax incentives, which had expired at the end of 2014, were extended through 2016 in P.L. 114-113. Extending the second generation biofuel producer credit cost less than $50 million in each of FY2016 and FY2017. Extending the incentives for biodiesel and renewable diesel cost $2.2 billion in FY2016 and $0.4 billion in 2017. Extending the excise tax credits and outlay payments for alternative fuel, and the excise tax credit for alternative fuels mixtures cost $0.8 billion in FY2016, and $0.1 billion in FY2017. In addition to the amounts above, the U.S. Treasury estimates that in FY2015, the alternative fuel mixture credit and biodiesel credit reduced excise tax receipts by $0.6 billion and $1.9 billion, respectively.

Authorization

Sections 34, 40, 40A, 87, 6426, 6427.

Description

Over time, the tax code has provided various incentives for certain alternative fuels and biofuels, including ethanol, biodiesel, and other fuels discussed below. Most tax incentives for ethanol expired at the end of 2011. Incentives for biodiesel, renewable diesel, second generation biofuel, and most alternative fuels are scheduled to expire at the end of 2016, but may be extended.

Biodiesel and Renewable Diesel. Essentially, there are three tax credits for biodiesel: the biodiesel mixture credit, the biodiesel credit, and the small agri-biodiesel producer credit. Each gallon of biodiesel, including agri-biodiesel (biodiesel made from virgin oils), may be eligible for a $1.00 tax credit. The mixtures tax credit may be claimed as an instant excise tax credit against the blender's motor and aviation fuels excise taxes. Credits in excess of excise tax liability may be refunded. The biodiesel and small agri-biodiesel credits may be claimed as income tax credits. The mixtures credit is proportionate to the fraction of biodiesel in the mixture—a blend of 80 percent diesel with 20 percent virgin biodiesel would qualify for a 20-cent-per-gallon tax credit. The tax credits for biodiesel are scheduled to expire on December 31, 2016.

Additionally, an eligible small agri-biodiesel producer credit of 10 cents is available for each gallon of "qualified agri-biodiesel production." An eligible "small agri-biodiesel producer" is defined as any person who, at all times during the taxable year, has annual productive capacity for agri-biodiesel not in excess of 60,000,000 gallons. The number of gallons that may be taken into account for the small agri-biodiesel producer credit may not exceed 15,000,000. The eligible small agri-biodiesel producer credit is effective for taxable years ending after August 8, 2005, and sunsets after December 31, 2016.

The tax code generally treats renewable diesel fuel like biodiesel for the purposes of the biodiesel fuels credit. Thus, renewable diesel sold or used after December 31, 2005, is eligible for a $1.00 per gallon tax credit. Renewable diesel cannot qualify as agri-biodiesel.

Alternative Fuels and Alternative Fuel Mixtures. The tax code also provides tax credits for alternative fuels and alternative fuel mixtures. Specifically, there is a 50-cents-per gallon excise tax credit for certain alternative fuels used as fuel in a motor vehicle, motor boat, or airplane and a 50-cents-per gallon credit for alternative fuels mixed with a traditional fuel (gasoline, diesel or kerosene) for use as a fuel. Qualifying fuels include liquefied petroleum gas; P Series fuels (certain renewable, non-petroleum, liquid fuels); compressed or liquefied natural gas (CNG or LNG); any liquefied fuel derived from coal or peat through the Fischer-Tropsch process which meets certain carbon capture requirements; liquefied hydrocarbons derived from biomass; and liquefied hydrogen. For propane, CNG, and LNG sold after December 31, 2015, the tax credit is based on gasoline gallon or

diesel gallon equivalent. No fuel produced outside of the United States is eligible for the alternative fuels tax incentives.

The alternative fuel and alternative fuel mixture credit is generally claimed as an excise tax credit. If the alternative fuel credit exceeds excise tax liability, the credit may be received as a payment. The refundable component of the alternative fuel mixture credit expired on December 31, 2011. Both credits are scheduled to expire on December 31, 2016.

Second Generation (Formerly Cellulosic) Biofuels. Beginning on January 1, 2009, a new provision was introduced under IRC § 40: the cellulosic biofuel producer credit. Beginning January 3, 2013, this credit became the second generation biofuel producer credit. This credit is a nonrefundable income tax credit for each gallon of qualified second generation biofuel production. The amount of the credit per gallon is generally $1.01.

Qualified second generation biofuel production is any second generation biofuel which is produced by the taxpayer and which is sold by the taxpayer to another person for use by such other person in the production of a qualified biofuel fuel mixture in such person's trade or business (other than casual off-farm production), for use by such other person as a fuel in a trade or business, or who sells such biofuel at retail to another person and places such biofuel in the fuel tank of such other person. Qualifying fuel must be produced and used in the United States. Cellulosic biofuel is produced using lignocellulosic or hemicellulosic matter available on a renewable or recurring basis. Qualified feedstocks for second generation biofuels include cultivated algae, cyanobacteria, or lemna. The credit is currently not available for cellulosic and second generation biofuel produced after December 31, 2016.

Black liquor is a byproduct of the paper pulping process that is used as a fuel to power paper manufacturing facilities. Black liquor produced during 2009 qualified for the cellulosic biofuel producer credit. Black liquor may also have qualified for tax credits under the alternative fuel mixture credit before 2010. The credit for alternative fuels and alternative fuels mixtures is not currently available for any fuel derived from the production of paper or pulp.

Alcohol Fuels. Tax credits for alcohol fuels expired at the end of 2011. Before their expiration, there were three income tax credits for alcohol-based motor fuels: the alcohol mixtures credit, the pure alcohol fuel credit, and the

small ethanol producer credit. The alcohol mixture (or blender's) credit and the pure alcohol fuel credit were 45 cents per gallon of ethanol (60 cents for alcohol other than ethanol) of at least 190 proof. A reduced credit was available for alcohol with a proof of at least 150 but less than 190. No credit was available for alcohol that was less than 150 proof. The alcohol mixtures credit was available to the blender (who typically was the refiner, wholesale distributor, or marketer). The pure (or "neat") alcohol credit could only be claimed by the consumer or retail seller.

The alcohol mixture credit was typically claimed as an instant excise tax credit. Excess credits could be claimed as an income tax credit or received as a direct payment. Blenders preferred to claim the excise tax credit, rather than the income tax credit, because its benefits accrue immediately upon the purchase of the fuels for blending rather than when the tax return is filed.

For small ethanol producers, the law also provided for a production tax credit in the amount of 10 cents per gallon of ethanol produced and sold for use as a transportation fuel. This credit, called the "small ethanol producer credit," was limited to the first 15 million gallons of annual alcohol production for each small producer, defined as one with an annual production capacity of less than 60 million gallons. This was in addition to any blender's tax credit claimed on the same fuel. The small ethanol producer credit was available only as an income tax credit, not as an excise tax credit or direct payment.

Impact

Throughout the 1980s, 1990s, and into the 2000s, the excise tax exemption for ethanol was an important incentive for alcohol fuels. This exemption was replaced in 2005 with tax credits, that were in effect through 2011 (this change is discussed below).

In recent years, however, the renewable fuel standards (RFS) may have been a more important factor in promoting renewable fuels than tax incentives. The RFS was adopted in 2005 under the Energy Policy Act of 2005 (P.L. 109-58) and greatly expanded in 2007 under the Energy Security and Independence Act (P.L. 110-140). The expanded RFS (referred to as RFS2) has a scheduled mandate of 13 billion gallons of renewable fuels in 2010, scheduled to grow to 36 billion gallons by 2022. For years after 2014, the statute mandates no more than 15 billion gallons can be ethanol from corn starch. The mandate for advanced biofuels is 21 billion gallons in 2022

and 16 billion gallons of cellulosic and agricultural-waste based biofuel in 2022. However, the statutory mandate for cellulosic biofuels is not currently being met, as production volumes have fallen short of expectations.

There is some question as to who benefits from tax subsidies for biofuels: farmers, fuels producers, blenders, or consumers? Studies of tax incentives for ethanol suggests that most of the tax credit for ethanol was captured by producers, with a smaller portion of the benefit going to blenders and farmers, and limited benefits for consumers.

Rationale

Tax incentives for alcohol fuels were first enacted in 1980. These credits were designed to complement the excise tax exemption for alcohol fuels that had been enacted in 1978. Both the credits and excise-tax exemptions were enacted to encourage the substitution of alcohol fuels produced from renewables for petroleum-based gasoline and diesel. The underlying policy objective was to reduce reliance on imported petroleum. In addition, Congress wanted to help support farm incomes by finding another market for corn, sugar, and other agricultural products that are the basic raw materials for alcohol production. The rationale for the biodiesel tax credits is to provide tax incentives to create an environmentally friendly substitute for conventional diesel fuel, while also creating additional markets for farm products.

The alcohol fuels mixture credit and the pure alcohol fuels credit were enacted as part of the Crude Oil Windfall Profit Tax Act of 1980 (P.L. 96-223), at the rate of 40 cents per gallon for alcohol that was 190 proof or more, and 30 cents per gallon for alcohol between 150 and 190 proof. The credits were increased in the Surface Transportation Act of 1982 (P.L. 97-424) to 50 cents and 37.5 cents, respectively, and again in the Deficit Reduction Act of 1984 (P.L. 98-369) to 60 cents and 45 cents, respectively. The Omnibus Reconciliation Act of 1990 (P.L. 101-508) reduced the credits to 54 cents and 40 cents and introduced the 10 cent per-gallon small ethanol producer credit. The Transportation Equity Act for the 21st Century (P.L. 105-178) reduced the blender's tax credit from 54 cents to 52 cents, and to 51 cents beginning in 2005.

The American Jobs Creation Act of 2004 (P.L. 108-357) reformed the tax incentives for fuel ethanol, by, in effect, treating the tax credits as if they were payments of excise tax liability. The rationale for the restructuring was to increase revenues for the Highway Trust Fund (HTF). Consumption of

fuel ethanol blends resulted in revenue losses to the HTF in the amount of the 5.2 cent exemption times the quantity of fuel ethanol blends used. In addition, under tax code sections enacted in 1990, 2.5 cents of the taxable portion of the tax (the 13.2 cents for 90/10 fuel ethanol blends) was retained in the general fund. Thus, in total, the HTF lost 7.7 cents per gallon of fuel ethanol blends (5.2 cents plus 2.5 cents). Under the restructured incentives, tax revenue losses accrue to the general fund, rather than the HTF. The American Jobs Creation Act of 2004 also introduced the biodiesel fuel tax credits, and allowed, for the first time, the small ethanol producer's tax credit to flow through to members of a farmers' cooperative.

The Energy Policy Act of 2005 (P.L. 109-58) included several amendments to the tax subsidies for ethanol and biodiesel fuels. First, it raised the maximum annual alcohol production capacity for an eligible small ethanol producer from 30 million gallons to 60 million gallons. The provision also modified the election by a cooperative to allocate the credit to its patrons. Second, the Energy Policy Act of 2005 added the 10 cent per gallon "eligible small agri-biodiesel producer credit" to the list of credits that comprise the biodiesel fuels credit. The 2005 Energy Policy Act also permitted cooperative organizations to elect to apportion the eligible small agri-biodiesel producer credit among their patrons, and set forth the election procedure. Another provision extended the existing income tax credit, excise tax credit, and payment incentives for biodiesel (which were enacted in 2004 under the "Jobs Bill") through December 31, 2010. The Energy Policy Act of 2005 also introduced the tax credit for alternative fuels and alternative fuel mixtures.

The Tax Relief and Health Care Act of 2006 (P.L. 109-432) (1) reduced the excise tax on ethanol and methanol fuels derived from coal; (2) extended the 54 cent per gallon tariff on imported ethanol through January 1, 2009; and (3) allowed 50 percent of the capital costs of cellulosic ethanol plants to be expensed, deducted in the first year. The Food, Conservation, and Energy Act of 2008, (P.L. 110-234, also known as the "farm bill"), made several changes to the tax incentives for alcohol fuels: First, it reduced the 51 cent ethanol tax credit, and 5.1 cent excise tax equivalent to 45 cents per gallon (equivalent to 4.5 cents per gallon of the 90/10 mixture) when total ethanol use (including cellulosic ethanol) reaches 7.5 billion gallons. This began in 2009, and there is a lag of one year: a determination in 2008 would reduce the tax credits beginning in 2009. Second, the farm bill created a new, temporary cellulosic biofuels production tax credit for up to $1.01 per gallon, available through December 31, 2012. Third, it extended the tariff on

imported ethanol another two years, through December 31, 2010. Finally, the farm bill reduced the fraction of an ethanol fuel mixture consisting of a denaturant, which effectively increases the fraction of a mixture which must consist of ethanol.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) expanded the 50 percent expensing of ethanol plant costs to include cellulosic biofuels generally, rather than only cellulosic ethanol. The law also extended the biodiesel and renewable diesel tax credits, and eliminated the requirement that renewable diesel fuel must be produced using a thermal depolymerization process. As a result, the credit was made available for any diesel fuel created from biomass without regard to the process used, so long as the fuel is usable as home heating oil, as a fuel in vehicles, or as aviation jet fuel. Diesel fuel created by co-processing biomass with other feedstocks (e.g., petroleum) was made eligible for the 50 cents per gallon tax credit for alternative fuels. Biodiesel imported and sold for export became ineligible for the credit effective May 15, 2008. The Emergency Economic Stabilization Act of 2008 also extended through 2009 the excise tax credit for alternative fuel and fuel mixtures.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended current income tax credits for alcohol fuels along with excise tax credits and outlay payments for fuel mixtures. Under P.L. 111-312, the tax credits for biodiesel and renewable diesel, the small agri-biodiesel producer credit, and the excise tax credits and outlay payments for alternative fuel and alternative fuel mixtures, were extended through December 31, 2011.

The American Taxpayer Relief Act of 2012 (P.L. 112-240) extended the tax credits for biodiesel and renewable diesel through December 31, 2013. The act also extended the tax credit for alternative fuels. The related outlay payment for the alternative fuel credit was extended through the end of 2013, while the outlay provisions that corresponds with the alternative fuel mixture credit was not extended past December 31, 2011. The cellulosic biofuel producer credit was also extended through 2013, although the credit was renamed the "second generation biofuel producer credit," and cultivated algae, cyanobacteria, and lemna were added to the list of approved feedstocks.

The Tax Increase Prevention Act of 2014 (P.L. 113-295) retroactively extended, through 2014, the second generation biofuel producer credit, the tax incentives for biodiesel and renewable diesel, and the alternative fuel and

alternative fuel mixtures tax credits. These credits were again extended, through 2016, as part of the Consolidated Appropriations Act, 2016 (P.L. 114-113).

Assessment

Tax credits biofuels and alternative fuels are motivated by a desire to reduce dependence on petroleum imports (enhance national energy security), address environmental concerns, and maintain farm incomes. While the use of biofuels and alternative fuels continues to increase, offsetting domestic petroleum consumption, it is not clear that the tax incentives are responsible for driving this change. Renewable fuel standards and blend mandates requiring certain amounts of ethanol and biofuels may be boosting domestic production. If non-tax policies are responsible for enhancing ethanol and biofuel production, and tax policies fail to induce additional production, the tax credits provide a windfall to taxpayers without necessarily resulting in additional use of biofuels.

Generally, tax subsidies are an economically inefficient mechanism for addressing environmental concerns. The use of petroleum as a fuel generates negative external costs by way of pollution, congestion, and energy security concerns. Since consumers generally do not consider these negative external costs when making petroleum consumption choices, the market will result in too much petroleum consumption. If petroleum prices were increased to fully reflect these negative external costs, petroleum consumption would fall to the economically efficient level. Policymakers often choose to subsidize alternatives to pollution generating activities, rather than directly taxing the polluting activity. While subsidies divert production and consumption toward the less-polluting alternative, subsidies that promote less-polluting alternatives are less economically efficient than taxes levied directly on polluting activities. Subsidies for biofuels can result in increased fuel consumption, as subsidies lead to reduced fuel costs. In some circumstances, the resulting added fuel consumption can undermine environmental objectives. Further, subsidies that promote certain fuels can distort market decisions and lead to an inefficient allocation of economic resources.

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CREDIT FOR ALTERNATIVE TECHNOLOGY VEHICLES: OTHER ALTERNATIVE FUEL VEHICLES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	--	([1])	([1])
2016	--	([1])	([1])
2017	--	([1])	([1])
2018	--	([1])	([1])
2019	--	([1])	([1])

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

Authorization

Sections 30B and 30D.

Description

As described below, certain alternative technology and alternative fuel vehicles qualify for tax credits. Tax credits for plug-in electric-drive motor vehicles also qualify for federal tax credits, and are discussed elsewhere in this compendium.

In recent years, tax credits have been 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.

Fuel Cell Vehicles. (Section 30B) 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.

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 in any form, 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, 2016.

Two- or Three-Wheeled Plug-In Electric Vehicles (Section 30D) 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 kilowatt-hours, 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 and 2016, 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.

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). 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 these tax credits were received by 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 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, tax credits 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.

Section 30D was enacted by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) to further stimulate the demand for another 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 Section 30D tax credit and created a 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, in the process essentially moving the credit from Section 30 back to Section 30D of the code. The credit for low-speed vehicles was not extended past the end of 2011.

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). Additionally, the act reinstated the credit for two-wheeled electric motorcycles for 2015 and 2016. The credit for three-wheeled electric drive motor vehicles was not extended.

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.

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CREDIT FOR PLUG-IN ELECTRIC VEHICLES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.2	([1])	0.2
2016	0.2	([1])	0.2
2017	0.2	([1])	0.2
2018	0.2	([1])	0.2
2019	0.2	([1])	0.2

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

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 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).

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.

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.

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 enacted 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 credit for low-speed vehicles was not extended past the end of 2011.

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.

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ENERGY CREDIT FOR RENEWABLE ENERGY PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.2	1.0	1.2
2016	0.3	1.5	1.8
2017	0.2	1.6	1.8
2018	0.1	1.6	1.7
2019	0.1	1.7	1.8

Note: As part of the Consolidated Appropriations Act, 2016 (P.L. 114-113) the higher credit rate for solar energy was extended through 2021, with a phaseout in 2020 and 2021. This modification cost $0.3 billion in FY2017; $0.6 billion in FY2018; and $0.8 billion in FY2019.

Authorization

Sections 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 kW of capacity and $200 per kW of capacity, respectively.

For most technologies, the ITC requires that property be placed in service by December 31, 2016. After 2016, the ITC will be available at the 10 percent rate for geothermal energy property. For solar property, other than hybrid solar lighting systems, the 30 percent credit is available for property under construction by the end of 2019, with the credit rate being reduced to 26 percent for property placed under construction in 2020, and 22 percent for property placed under construction in 2021. After 2021, the credit rate for solar is a permanent 10 percent. Any solar property placed in service after December 31, 2021, or that is not placed in service by December 31, 2023, is limited to a 10 percent credit.

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, 2017. 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 beginning 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 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 kilowatt of capacity cap for qualified fuel cells to $1,500 per half kilowatt 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.

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.

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TAX CREDITS FOR ALTERNATIVE FUEL VEHICLE REFUELING PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: This provision was extended through December 31, 2016, as part of P.L. 114-113. Extending this provision cost an estimated $0.1 billion in FY2016, with the estimated cost of the extension being less than $50 million per year in FY2017, FY2018, and FY2019.

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 terminates on December 31, 2016.

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. Absent the tax credit, under current depreciation rules (the Modified Cost Recovery System), the cost of most equipment used in retail gasoline and other fuel dispensing stations is recovered over five years using the double-declining balance method. However, some of the property might be classified differently and have a longer recovery period. For example, concrete footings and other "land improvements" have a recovery period of nine years. Alternatively, under IRC section 179, a small business fuel retailer may elect to expense up to $100,000 of such investments.

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).

Assessment

The lack of alternative fuel infrastructure has been a market barrier to the expanded use of alternative fuels. 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 2015, the U.S. Department of Energy's Alternative Fuels Data Center reported 2,990 E85 fueling stations, 30,945 electric vehicle charging units (a single location may have more than one unit), 3,594 propane (liquefied petroleum gas) stations, 1,563 compressed natural gas fuel stations, 721 biodiesel fuel stations, 39 hydrogen fuel stations, and 111 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 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 fuels 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.

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CREDITS FOR ELECTRICITY PRODUCTION FROM RENEWABLE RESOURCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	2.5	2.6
2016	0.2	2.8	3.0
2017	0.3	3.4	3.7
2018	0.4	3.6	4.0
2019	0.4	3.6	4.0

Note: This provision expired at the end of 2014, but was extended through 2016 or 2019 (depending on technology type) by the Consolidated Appropriations Act, 2016 (P.L. 113-114). The estimated cost of these extensions are $0.1 billion for FY2017; $0.5 billion for FY2018; and $1.0 billion for FY2019.

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 2016 for electricity produced using wind, closed-loop biomass, and geothermal energy resources is 2.3¢ per kilowatt hour (kWh). Other resources qualify for a credit equal to half the full credit amount, or 1.2¢ per kWh in 2016. 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, 2017.

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 Internal Revenue Code (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 and open-loop biomass. Between 2015 and 2019, 86 percent of PTC tax expenditures are expected to benefit wind, with 10 percent of claims being made by biomass facilities. The remaining 4 percent is expected to be claimed by closed-loop biomass, geothermal, qualified hydropower, small irrigation power, and municipal solid waste facilities.

Wind electricity generation capacity, while still a small share (approximately 5 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. 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 July 12, 2016, the Treasury had awarded $25.1 billion in grants under the Section 1603 grants in lieu of tax credit program. Roughly half (51 percent) of the funds awarded through July 2016 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 Incentive 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 phase-out. Under the phase-out, 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.

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 1970's and 1980's the investment tax credits established under President Carter's National Energy Act (NEA), 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.

In addition to the PTC, additional 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 would 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.

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CREDITS FOR INVESTMENTS IN CLEAN COAL FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.2	0.2
2016	-	0.2	0.2
2017	-	0.2	0.2
2018	-	0.2	0.2
2019	-	0.2	0.2

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. In 2015, 16 percent of primary energy use was coal supplied. Further, the U.S. 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 billion 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.

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 U.S. to use an abundant domestic energy resource while minimizing negative environmental effects.

Assessment

The investment tax credit reduces the cost of investing in clean coal technologies, ultimately promoting investment. Metcalf (2007) presents analysis of the levelized cost for different sources of electricity under various tax incentive scenarios. In Metcalf's analysis, the levelized cost is the price that a generator must receive to cover fixed and variable costs associated with electricity generation. The analysis found that eliminating the 20 percent investment tax credit for IGCC would increase the levelized cost from $3.55 per kWh to $4.06 per kWh (in 2004 dollars). The levelized cost of conventional coal was estimated at $3.53 per kWh. Levelized cost analysis from the Department of Energy, which does not include the impact of federal tax incentives, shows that advanced coal technologies with CCS continue to be more expensive than natural gas-fired alternatives.

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.

Finally, 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.

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CREDIT FOR HOLDERS OF CLEAN RENEWABLE ENERGY BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	0.1	([1])	0.1
2018	0.1	([1])	0.1
2019	0.1	([1])	0.1

Note: Estimates include outlay effects associated with the refundable portion of QSCBs. These outlay effects are less than $50 million for FY2015-FY2019. 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.

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 FY2016. For FY2016, the sequestration reduced the direct payment CREB credit rate by 6.8 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 of 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).

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 35 percent, the credit rate would have to be equal to 0.06/(1-0.35), or about 9.2 percent to induce investment. Thus, an investor purchasing a $1 million original CREB would need to receive a $92,000 annual tax credit each year. For new CREBs, the tax credit is 70 percent of that amount or $64,400. The issuer would pay interest of at least $27,600 to match the taxable bond alternative (e.g., the $92,000). The Budget Control Act (P.L. 112-25) as amended reduced the credit rate for direct payment new CREBs from FY2013 through FY2016 through sequestration. For FY2016, the sequestration reduced the direct payment new CREB credit rate by 6.8 percent.

The direct payment option made available for new CREBs and 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, 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.

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CREDIT FOR HOLDERS OF QUALIFIED ENERGY CONSERVATION BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	-	([1])
2016	([1])	-	([1])
2017	([1])	-	([1])
2018	([1])	-	([1])
2019	([1])	-	([1])

Note: Estimates include outlay effects associated with the refundable portion of QECBs. These outlay effects are less than $50 million for FY2015-FY2019. 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 the 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 FY2016. For FY2016, the sequestration reduced the direct payment QECB credit rate by 6.8 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.

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 35 percent, the credit rate would have to be equal to 0.06/(1-0.35), or about 9.2 percent to induce investment. Thus, an investor purchasing a $1 million QECB would need to receive a $92,000 annual tax credit each year. For QECBs, the tax credit is 70 percent of that amount or $64,400. The issuer would pay interest of at least $27,600 to match the taxable bond alternative (e.g., the $92,000).

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.

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AMORTIZATION OF POLLUTION CONTROL FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	0.4	0.4
2016	([1])	0.4	0.4
2017	([1])	0.3	0.3
2018	([1])	0.3	0.3
2019	([1])	0.3	0.3

([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 oxide (NO_2), and mercury (Hg).

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 for 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 and the alternative minimum tax may have provided a disincentive to invest in new equipment and other new assets.

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COAL PRODUCTION CREDITS: REFINED COAL AND INDIAN COAL

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	([1])	([1])
2016	-	([1])	([1])
2017	-	([1])	([1])
2018	-	([1])	([1])
2019	-	([1])	([1])

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

Note: The credit for Indian coal production was extended through 2016 and modified as part of P.L. 114-113. The cost associated with this extension was less than $50 million per year.

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 2016 is $6.810 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 2016.

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 11-year period beginning after 2005 and before 2017. The credit for 2015 is $2.354 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).

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.

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CREDIT FOR ENERGY-EFFICIENT NEW HOMES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: This provision was extended through 2016 at a cost of $680 million over the FY2016-FY2020 budget window.

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, 2016.

Impact

In 2007, approximately 25,000 of the corporate tax returns filed claimed the credit for energy efficient new homes. Approximately 75 percent of these credits were claimed by those in the construction sector, while 17 percent were claimed by taxpayers in the manufacturing sector. Since 2007, the number of new homes being built has declined substantially. Subsequent improvements in new home construction rates may signal an improvement in the market—though not a return to 2007 level.

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.

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.

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CREDIT FOR INVESTMENT IN ADVANCED ENERGY PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	0.2	0.3
2016	0.1	0.2	0.3
2017	0.1	0.2	0.3
2018	0.1	0.1	0.2
2019	0.1	0.1	0.2

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.

Applications were evaluated jointly by the Department of Energy 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).

The credits can be carried forward for 20 years if the taxpayer does not have sufficient tax liability to use the credits.

Impact

The advanced energy manufacturing tax credit was awarded to 183 projects across 43 states. 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 are expected to generate 17,000 jobs.

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% 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 is relatively low. In the mid-2000s, domestic content for the U.S. wind industry was 25 percent. That had

increased to 50 percent by 2010, and was expected to reach 70 percent once the current round of manufacturing expansion is complete.

Credits totaling $150 million that were unused after a review of the initial allocation were subsequently allocated (see IRS Notice 2013-12).

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 and global climate change. 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.

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SPECIAL RULE TO IMPLEMENT ELECTRIC TRANSMISSION RESTRUCTURING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-0.2	-0.2
2016	-	-0.2	-0.2
2017	-	-0.2	-0.2
2018	-	-0.2	-0.2
2019	-	-0.2	-0.2

Note: This provision expired at the end of 2014 but was extended through 2015 as part of P.L. 114-113. The cost associated with extending this provision in each of the fiscal years listed above was: 2016, 0.6; 2017, -i-; 2018, -0.1; 2019, 0.1. An (-i-) indicates a cost 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, 2017, 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), and through December 31, 2016 as part of the Consolidated Appropriations Act, 2016 (P.L. 114-113).

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.

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Natural Resources and Environment

EXCLUSION OF CONTRIBUTIONS IN AID OF CONSTRUCTION FOR WATER AND SEWER UTILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	([1])	([1])
2016	-	([1])	([1])
2017	-	([1])	([1])
2018	-	([1])	([1])
2019	-	([1])	([1])

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

Authorization

Section 118(c), (d).

Description

Contributions in aid of construction are charges paid by utility customers, usually builders or developers, to cover the cost of installing facilities to service housing subdivisions, industrial parks, manufacturing plants, etc. In some cases, the builder/developer transfers completed facilities to the utility rather than paying cash to the utility to finance construction of the facilities.

Qualifying contributions in aid of construction, received by regulated water and sewage disposal utilities, which provide services to the general public in their service areas, are not included in the utilities' gross income if the contributions are spent for the construction of the facilities within two years after receipt of the contributions. Service charges for starting or stopping services do not qualify as nontaxable capital contributions. Assets purchased with (or received as) qualifying contributions have no basis

(hence, cannot be depreciated by the utility) and may not be included in the utility's rate base for rate-making purposes.

Impact

To the extent that the lower charges to builders and developers for contributions in aid of construction are passed on to ultimate consumers through lower prices, the benefit from this special tax treatment accrues to consumers. If some of the subsidy is retained by the builders and developers because competitive forces do not require it to be passed forward in lower prices, then the special tax treatment also benefits the owners of these firms.

Rationale

The stated reason for reinstating the special treatment of contributions in aid of construction for water and sewage utilities was concern that the changes made by the Tax Reform Act of 1986, (TRA86, P.L. 99-514), may have inhibited the development of certain communities and the modernization of water and sewage facilities. Before TRA86, the special treatment described above applied to contributions in aid of construction received by regulated utilities that provide steam, electric energy, gas, water, or sewage disposal services. Section 118, enacted in the Internal Revenue Code of 1954 (P.L. 83-591), was primarily intended to clarify court decisions about contributions by potential customers in general, but effectively exempted from taxation the services provided by facilities financed by contributions in aid of construction. The treatment was repealed by TRA86 but reinstated by the Small Business Job Protection Act of 1996, (P.L. 104-188), for water and sewage facilities only.

Repeal of the special treatment resulted in increases in the amounts utilities charge their customers as contributions in aid of construction. Before TRA86, a utility would charge its customers an amount equal to the cost of installing a facility. After TRA86, utilities had to charge an amount equal to the cost of the facility plus an amount to cover the tax on the contribution in aid of construction. This parallels the pricing of most other business services, for which companies must charge customers the actual cost of providing the service plus an amount to cover the tax on the income.

The higher cost associated with contributions in aid of construction as a result of the change in the TRA86 led to complaints from utility customers and initiated proposals to reverse the change. In response, the special treatment of contributions in aid of construction was reinstated—but only for

water and sewage utilities—in the Small Business Job Protection Act of 1996. As a result of this reinstatement, water and sewage utility charges for contributions in aid of construction are lower than they would be if the contributions were still taxable. The charge now covers only the cost of the financed facility; there is little or no markup to cover taxes on the charge.

Assessment

The contribution in aid of construction tax treatment allows the utility to write off or expense the cost of the financed capital facility in the year it is put in place rather than depreciating it over its useful life. This treatment, in effect, exempts the services provided by the facility from taxation and thereby provides a special subsidy. Absent a public policy justification, such subsidies distort prices and undermine economic efficiency.

In repealing the special tax treatment of contributions in aid of construction in TRA86, Congress determined that there was no public policy justification for continuing the subsidy. In reinstating the special tax treatment for water and sewage utilities in the Small Business Job Protection Act of 1996, Congress determined that there was an adequate public policy justification for providing the subsidy to these particular utilities.

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SPECIAL TAX RATE FOR NUCLEAR DECOMMISSIONING RESERVE FUND

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.2	0.2
2016	-	0.2	0.2
2017	-	0.3	0.3
2018	-	0.3	0.3
2019	-	0.3	0.3

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.

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SPECIAL DEPRECIATION ALLOWANCE FOR CERTAIN REUSE AND RECYCLING PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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.

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.

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.

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EXPENSING OF TIMBER-GROWING COSTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	0.3	0.3
2016	([1])	0.3	0.3
2017	([1])	0.3	0.3
2018	([1])	0.3	0.3
2019	([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.

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EXCLUSION OF EARNINGS OF CERTAIN ENVIRONMENTAL SETTLEMENT FUNDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	([1])	([1])
2016	-	([1])	([1])
2017	-	([1])	([1])
2018	-	([1])	([1])
2019	-	([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 settlements 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.

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SPECIAL TAX RATE FOR QUALIFIED TIMBER GAIN (INCLUDING COAL AND IRON ORE)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.3	-	0.3
2016	0.3	-	0.3
2017	0.4	-	0.4
2018	0.4	-	0.4
2019	0.4	-	0.4

Authorization

Sections 631, 1221, and 1231.

Description

A taxpayer who has held standing timber or the right to cut timber for a year (including ornamental evergreens cut after six years) may elect to treat the income from the sale of the stand or cut timber as a capital gain (or loss). In 2016, capital gains tax rates are 20 percent for taxpayers in the highest marginal income tax bracket. Lessors of coal mining or iron ore rights who retain an economic interest in production may also treat income as a capital gain. Percentage depletion is not available to the lessor when tax rates on capital gains are lower than ordinary rates.

Impact

Capital gains treatment benefits individuals (corporate gains are taxed at ordinary rates). Capital gains treatment of timber departs from the general treatment of sale of inventory. For coal and iron ore, the benefit is offset by the loss of percentage depletion. Since percentage depletion is limited to 50 percent of net income and is in excess of cost depletion, the capital gains

treatment, at current rates, is more beneficial even when percentage depletion is large relative to net income for high income taxpayers.

Rationale

Treatment of gain from cutting timber was adopted in 1943, in part to equalize the treatment of those who sold timber as a stand (where income would automatically be considered a capital gain) and those who cut timber. This treatment was also justified to encourage timber conservation through selective cutting and because taxing gain at ordinary rates was unfair because of the long development time. Capital gains treatment for coal royalties was added in 1951 to equalize the treatment of coal lessors, to provide benefits to long-term lessors with low royalties who were unlikely to benefit from percentage depletion, and to encourage coal production. Similar treatment of iron ore was enacted in 1964 to equalize treatment and to encourage production of iron ore in response to foreign competition.

The American Jobs Creation Act of 2004 (P.L. 108-357) eliminated the requirement that the owner of the timber had to retain an economic interest in the timber to obtain capital gain treatment under Section 631(b). This provision meant that non-industrial, private forest landowners are no longer required to sell under pay-as-cut contracts (where payment is specified at a particular rate for each unit of timber that is actually cut and measured) to claim a special capital gains treatment under Section 631(b). Business owners who hold timber for use in a trade or business can also qualify for capital gain treatment in the event of an outright, lump-sum sale. Timber gains and losses can be netted against other gains and losses from the disposal of business assets under Section 1231.

Assessment

In general, investments should be treated neutrally to maximize economic efficiency unless there are market failures (such as external benefits) that justify subsidies. Unlike expensing provisions that allow the deduction of costs of developing and maintaining a timber stand, and could be justified on environmental grounds, the capital gains treatment does not distinguish between cutting old growth timber and planting new stands. Deforestation contributes to increased carbon dioxide (CO_2) emissions, and to the extent that the provision encourages cutting of existing timber, the provision could be harmful to the environment. Arguments are sometimes made to justify subsidies to mining on the basis of risk and protection of domestic industry, but it is unclear whether these problems represent true

present market failures, and these industries also may have negative environmental effects.

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EXCESS OF PERCENTAGE OVER COST DEPLETION, NONFUEL MINERALS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	0.1	0.1
2016	([1])	0.1	0.1
2017	([1])	0.1	0.1
2018	([1])	0.1	0.1
2019	([1])	0.1	0.1

([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 on 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.

Issues of principal concern are the extent to which percentage depletion:

(1) decreases the price of qualifying minerals, and therefore encourages their consumption;

(2) bids up the price of exploration and mining rights; and

(3) encourages the development of new deposits and increases production.

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, 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.

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EXPENSING OF EXPLORATION AND DEVELOPMENT COSTS, NONFUEL MINERALS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	0.1	0.1
2016	([1])	0.1	0.1
2017	([1])	0.1	0.1
2018	([1])	0.1	0.1
2019	([1])	0.1	0.1

([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 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.

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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
2015	0.1	-	0.1
2016	0.1	-	0.1
2017	0.1	-	0.1
2018	0.1	-	0.1
2019	0.1	-	0.1

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.

A number of recent decisions by the IRS have spurred the 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.

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.

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

Pass-through business income generally faces lower tax rates than corporate income. 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 pass-through 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.

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AMORTIZATION AND EXPENSING OF REFORESTATION EXPENSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	0.1	0.2
2016	0.1	0.1	0.2
2017	0.1	0.1	0.2
2018	0.1	0.2	0.3
2019	0.1	0.2	0.3

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 also 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. 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.

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SPECIAL RULES FOR MINING RECLAMATION RESERVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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 performance" 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.

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Agriculture

EXPENSING OF SOIL AND WATER CONSERVATION EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	([1])	0.1
2016	0.1	([1])	0.1
2017	0.1	([1])	0.1
2018	0.1	([1])	0.1
2019	0.1	([1])	0.1

([1]) Positive tax expenditure may be 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. Unused deductions can be carried forward. Taxpayers cannot elect to deduct soil and water conservation expenditures that (1) are not consistent with an appropriate public agency conservation plan; or (2) expenditures made to drain or fill wetlands or land preparation expenditures 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 of wetlands, or for preparing land for the installation of a central-pivot irrigation system, 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.

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EXPENSING OF THE COSTS OF RAISING DAIRY AND BREEDING CATTLE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.2	([1])	0.2
2016	0.2	([1])	0.2
2017	0.2	([1])	0.2
2018	0.2	([1])	0.2
2019	0.1	([1])	0.1

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

Authorization

Sections 162 and 263A; Reg. § 1.162-12(a).

Description

Farmers may treat feed costs and other costs associated with raising livestock as deductible. Alternatively, taxpayers may choose to capitalize the costs associated with raising livestock, and recover such costs through depreciation deductions over time. Breeding fees are deductible unless the accrual method of accounting is used. If the accrual method of accounting is used, breeding fees must be capitalized and allocated to the cost basis of the offspring. The election to deduct costs associated with raising livestock is an exception to general rules requiring taxpayers to capitalize costs associated with capital assets or property used in a trade or business.

Impact

Expensing, or being able to deduct costs immediately, is the most accelerated form of depreciation; the marginal effective tax rate on expensed

capital asset investments is zero. Being able to expense, rather than capitalize, costs associated with raising livestock reduces the effective tax rate on livestock.

Rationale

Allowing farmers to deduct costs associated with raising livestock is not a separate provision in the tax code, but instead provided in Regs. §1.162-12(a).

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.

Allowing taxpayers to expense the costs of raising and breeding livestock reduces 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

U.S. Department of the Treasury, Internal Revenue Service, *Farmer's Tax Guide,* Publication 225, October 17, 2016, pp. 26-28.

EXCLUSION OF COST-SHARING PAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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. 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.

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EXCLUSION OF CANCELLATION OF INDEBTEDNESS INCOME OF FARMERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	-	0.1
2016	0.1	-	0.1
2017	0.1	-	0.1
2018	0.1	-	0.1
2019	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. 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.

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CASH ACCOUNTING FOR AGRICULTURE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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 thus 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 year's harvest. 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 in 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 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 further limited the use of cash accounting by farm corporations and tax shelters and repealed the expensing rules for certain land clearing operations. The 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.

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 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 that 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.

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INCOME AVERAGING FOR FARMERS AND FISHERMEN

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	-	0.1
2016	0.2	-	0.2
2017	0.2	-	0.2
2018	0.2	-	0.2
2019	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 as "elected farm income" or from fishing as "fishing business" income. The taxpayer then allocates 1/3 of the "elected farm income" or "fishing business" 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" or "elected fishing business" 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" or "fishing business" income. "Elected farm income" can include the gain on the sale of farm 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 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 or contribute 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 exert some control over 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. Congress saw that the income from farming can fluctuate dramatically from year to year and that these fluctuations are outside the control of the taxpayers. To address these fluctuations, Congress voted that taxpayers who derive their income from agriculture should be allowed an election 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 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. 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) made income averaging for farmers permanent.

The American Jobs Creation Act of 2004 expanded income averaging to include commercial fisherman. 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.

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EXPENSING BY FARMERS FOR FERTILIZER AND SOIL CONDITIONER COSTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	([1])	0.1
2016	0.2	([1])	0.2
2017	0.2	([1])	0.2
2018	0.2	([1])	0.2
2019	0.2	([1])	0.2

([1]) Positive tax expenditure may be 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. Such expenditures may include those incurred for fertilizer, lime, ground limestone, marl, or similar materials used to enrich, neutralize, or condition farming land.

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 expenditures encourages taxpayers to investment in fertilizing 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.

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FIVE-YEAR CARRY-BACK PERIOD FOR NET OPERATING LOSSES ATTRIBUTABLE TO FARMING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	([1])	0.1
2016	0.1	([1])	0.1
2017	0.1	([1])	0.1
2018	0.1	([1])	0.1
2019	0.1	([1])	0.1

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

Authorization

Section 172.

Description

A net operating loss, the amount by which business and certain other expenses exceed income for the year, may be carried forward and deducted from other income for 20 years following the loss year. It may, at the taxpayer's election, instead be carried back to earlier years in which there was positive income. For most taxpayers, the carryback period is limited to the previous two years, although small businesses in federally declared disaster areas may carry losses back three years. Current law permits losses attributed to a farming business (as defined in section 263A(e)(4)) to be carried back five years.

Impact

For 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 five year carryback applies only 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 operation losses from income in other years has been an integral part of the income tax system from its inception. The current 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.

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 businessmen. 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.

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Commerce and Housing:
Financial Institutions

EXEMPTION OF CREDIT UNION INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	2.2	2.2
2016	-	2.4	2.4
2017	-	2.5	2.5
2018	-	2.7	2.7
2019	-	2.9	2.9

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. sec. 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, 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.

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SMALL LIFE INSURANCE COMPANY TAXABLE INCOME ADJUSTMENT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	*	*
2016	-	*	*
2017	-	*	*
2018	-	*	*
2019	-	*	*

*Positive tax expenditure of less than $50 million. Total estimated revenue loss for FY2015-FY2019 is $0.2 billion.

Authorization

Section 806.

Description

Life insurance companies with gross assets less than $500 million may take a special "small life insurance company deduction." This deduction is 60 percent of life insurance company taxable income (before the deduction) for a tax year up to $3 million. For life insurance company taxable income between $3 million and $15 million, the deduction is $1.8 million minus 15 percent of the taxable income above $3 million. That is, the deduction phases out as a company's taxable insurance income (before the deduction) increases from $3 million to $15 million. A company with taxable insurance income over $15 million (before the deduction) cannot take the small life insurance company deduction. The taxable income and gross asset standards are generally applied using consolidated group tests.

For example, a company meeting the gross assets requirement with life insurance company taxable income of $2 million would be eligible for a deduction of $1.2 million. A company meeting the gross assets requirement with life insurance company taxable income of $10 million would be eligible for a deduction of $750,000 (i.e., $1.8 million minus 15 percent of $7 million).

Impact

The small life insurance company deduction reduces the tax rate for "small" life insurance companies. An insurer with assets of up to $500 million and taxable incomes of up to $15 million is small relative to very large companies that comprise most of the industry. A company eligible for the maximum small company deduction of $1.8 million (i.e., for a company with life insurance company taxable income of exactly $3 million) is, in effect, taxed at a rate of 13.6 percent instead of the regular 35 percent corporate rate.

Determining how benefits for the small life insurance company deduction are distributed is difficult because ownership of these companies may be 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 life insurance policyholders via lower premiums.

Some consumer product retailers sell extended warranties that are serviced by insurance subsidiaries, some of which are structured to qualify as small life insurance companies. Some highly compensated business owners and professionals have created small life insurance companies—so-called microcaptives—as part of a tax avoidance strategy. How extensively microcaptives are being used to avoid taxes is unknown. In 2015, the IRS described some microcaptive insurance arrangements as abusive tax shelters.

Rationale

The Deficit Reduction Act of 1984 (P.L. 98-369), which made major revisions to the taxation of life insurance companies, included a small life insurance company deduction. The Senate Finance Committee in 1984 noted that "small life insurance companies have enjoyed a tax-favored status for some time," and concluded that although "Congress believed that, without this provision, the Act provided for the proper reflection of taxable income, .

. . it would not be appropriate to dramatically increase their tax burden at this time."

A companion provision (the special life insurance company deduction), which allowed all life insurance companies a deduction of 20 percent of tentative life insurance company taxable income, was repealed in the Tax Reform Act of 1986 (P.L. 99-514, § 1011(a)). The deduction for small companies, however, was retained.

Tax reforms proposed by House Ways and Means Chairman David Camp in February 2014 called for the repeal of the small life insurance company deduction on the grounds that it gave a tax subsidy to the insurance industry that was unavailable to other industries, and that the subsidy gave preferential treatment to "the segment of the insurance industry in which the risk distribution benefits of pooling are the weakest." On December 10, 2014, H.R. 1, which incorporated those reforms, was introduced. No legislative action was taken on the measure.

Assessment

The principle of taxing on the ability to pay, often put forth as a requisite of an equitable and fair tax system, does not justify reducing taxes on business income for firms below a certain size. Tax burdens are ultimately borne by persons, such as business owners, customers, employees, or other individuals, not by firms. The burden that a business's taxes places 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, because it offers a cost advantage based on size and not economic performance. This tax reduction serves no simplification purpose, because it requires an additional set of computations and some complex rules to prevent abuses. It may help newer life insurance companies become established and build up the reserves required by state laws. In other lines of insurance such as auto coverage, however, new entrants have quickly achieved significant market shares without such tax advantages.

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SPECIAL TREATMENT OF LIFE INSURANCE COMPANY RESERVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	2.9	2.9
2016	-	3.2	3.2
2017	-	3.3	3.3
2018	-	3.3	3.3
2019	-	3.3	3.3

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. The ability to deduct net additions to reserves may allow 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, after 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 aside some portion of the premium 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 provides detailed requirements on actuarial assumptions used to calculate appropriate levels of reserves.

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 "*Exclusion of Investment Income on Life Insurance and Annuity Contracts*," above).

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.

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), which set the current rules for taxing life insurance companies, 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 reforms proposed by House Ways and Means Chairman David Camp in February 2014 called for replacing the current-law discount rate, which reflects federal and state regulatory judgments, with a federal rate designed to track long-run corporate bond rates, which were said to support a more accurate measure of income. Some analysts, however, argued that the Camp proposals would raise discount rates above recent corporate bond benchmark rates. On December 10, 2014, H.R. 1, which incorporated those reforms, was introduced. No legislative action was taken on the measure.

Assessment

Reserve accounting allows the deduction of expenses relating to the future from current income. Reserve accounting is standard among state insurance regulators, which supervise life insurance companies operating in their state. The primary goal of state insurance regulators is actuarial solvency: that is, ensuring that companies will be able to pay promised benefits. The understatement of current income and conservative actuarial assumptions in that context is a virtue rather than a vice.

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.

One often-proposed solution would retain reserve accounting but limit the deduction to amounts actually credited to the accounts of specific policyholders, who would then be taxed on the additions to their accounts. This would assure that all premium and investment income not used to pay current expenses was taxed at either the company or individual level, more in line with the tax treatment of banks, mutual funds, and other competitors of the life insurance industry.

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SPECIAL DEDUCTION FOR BLUE CROSS AND BLUE SHIELD COMPANIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.4	0.4
2016	-	0.4	0.4
2017	-	0.4	0.4
2018	-	0.4	0.4
2019	-	0.5	0.5

Authorization

Section 833.

Description

Blue Cross and Blue Shield and a number of smaller health insurance providers that existed on August 16, 1986, and other nonprofit health insurers that meet certain community-service and medical loss ratio standards 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 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 a 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.

Tax reforms proposed by House Ways and Means Chairman David Camp in February 2014 called for eliminating the special treatment of Blue Cross/Blue Shield insurers.

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 over time. 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. Some have argued that these tax preferences have benefitted their managers and their affiliated hospitals and physicians more than their communities.

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.

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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
2015	-	0.1	0.1
2016	-	0.1	0.1
2017	-	0.1	0.1
2018	-	0.1	0.1
2019	-	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 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 $1.2 million. For tax years starting after the end of December 2016, that limit is be raised to $2.2 million and indexed to inflation for later years. A diversification test will also be required. 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.

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 35 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 widely dispersed. Competitive pressures may force companies to pass some of these benefits on to insurance policyholders via lower premiums. In other cases, a set 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 to these 501(c)(15) insurance company tax sheltering strategies. 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 tax years after 2016. The limit will be indexed to inflation for later years. A diversification test will also be required.

Assessment

The principle of basing taxes on the ability to pay, often put forth as a requisite of an equitable and fair tax system, does not justify reducing taxes on business income for firms below a certain size. Tax burdens are ultimately borne by persons, such as business *owners,* customers, employees, or other individuals, not by firms. 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.

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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
2015	-	2.3	2.3
2016	-	2.6	2.6
2017	-	2.6	2.6
2018	-	2.6	2.6
2019	-	2.6	2.6

Authorization

Sections 831, 832(b), 846

Description

How a property and casualty insurance company calculates the present value 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 are well above levels needed to ensure solvency, an insurer may be able to shift 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

Each year, the Treasury Secretary specifies discount factors (based on interest rates and an estimated profile of losses over time) 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 may use discount rates reflecting their own claims experience. A sophisticated insurer, however, may be able to finance future loss payouts more cheaply than calculations based on tax law and Treasury-specified discount rates would indicate. In effect, this would let an insurer shift some net earnings into the future, thus deferring and lowering its tax burden.

Under current law, the Treasury Department calculates an interest rate that is used to develop discount rates for computing present values of loss reserves. Long-term market interest rates, however, are generally higher than short-term interest rates because investors typically require a higher yield for investments that limit their choices for a longer period of time. This suggests that the present value of losses paid in the near future, calculated using present tax methods, may be overstated relative to market values, while the present value of losses paid farther into the future may be underestimated. In addition, the current tax law truncates the stream of losses. For example, for some lines of insurance, losses that occur more than ten years in the future are treated for tax purposes as occurring ten years in the future, thus increasing the estimated present value of losses.

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 overstates 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 may simplify the tax liability calculation and may help ensure uniform tax treatment of property and casualty companies. Most large property and casualty companies, however, are considered financially sophisticated firms capable of minimizing the costs of carrying loss reserves.

Tax reforms proposed by House Ways and Means Chairman David Camp in February 2014 called for replacing the current-law discount rate, which reflects federal and state regulatory judgments, with a federal rate designed to track long-run corporate bond rates, which were said to support a more accurate measure of income. Some analysts, however, argued that the Camp proposals would raise discount rates about recent corporate bond

benchmark rates. On December 10, 2014, H.R. 1, which incorporated those reforms, was introduced. No legislative action was taken on the measure.

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. This tax provision may serve a simplification purpose, although the Treasury Department and insurance companies are likely well equipped to promulgate and apply discounting methods that more closely approximate efficient financing strategies for loss reserve management. Allowing property and casualty insurance companies an advantageous tax status, based on the 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.

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PRO-RATION FOR PROPERTY AND CASUALTY INSURANCE COMPANIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.4	0.4
2016	-	0.4	0.4
2017	-	0.4	0.4
2018	-	0.4	0.4
2019	-	0.5	0.5

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 the 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.

Impact

The 15 percent 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 35 percent, a property or casualty insurance company would in the simplest case pay an effective tax rate of 15% × 35% = 5.25% on income from tax exempt investments. The corporate alternative minimum tax and certain other tax provisions, however, may cap 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.

Assessment

The 15-percent 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.

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DEDUCTION FOR MORTGAGE INTEREST ON OWNER-OCCUPIED RESIDENCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	71.0	-	71.0
2016	77.0	-	77.0
2017	84.3	-	84.3
2018	91.1	-	91.1
2019	96.4	-	96.4

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 underlying mortgage loans can represent acquisition indebtedness of up to $1 million, plus home equity indebtedness of up to $100,000.

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 encourages home ownership by reducing the cost of owning compared with renting. It also encourages them 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 middle- and 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. The home equity loan provision favors taxpayers who have been able to pay down their acquisition indebtedness and whose homes have appreciated in value.

Distribution by Income Class of Tax Expenditure for Mortgage Interest Deduction, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.1
$20 to $30	0.2
$30 to $40	0.6
$40 to $50	1.3
$50 to $75	6.4
$75 to $100	9.6
$100 to $200	39.8
$200 and over	42.0

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 expense. 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 TRA86 exception for qualified medical and educational expenses was replaced by the 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.

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, 81.8 percent of the benefit accrues to taxpayers with incomes greater than $100,000 in 2014.

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 must 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.

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DEDUCTION FOR PROPERTY TAXES ON REAL PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	32.4	-	32.4
2016	34.7	-	34.7
2017	36.9	-	36.9
2018	39.2	-	39.2
2019	41.3	-	41.3

Authorization

Section 164.

Description

Taxpayers may claim an itemized deduction for property taxes paid on owner-occupied residences.

Impact

The deductibility of property taxes on owner-occupied residences provides a subsidy both to home ownership and to the financing of state and local governments. Like the deduction for home mortgage interest (discussed elsewhere in this Compendium), the federal deduction for real property (real estate) taxes reduces the cost of home ownership relative to renting. Renters may not deduct any portion of their rent under the federal income tax. Landlords may deduct the property tax they pay on a rental property but are taxed on the rental income.

Homeowners may deduct the property taxes and are not subject to income tax on the imputed rental value of the dwelling. For itemizing homeowners, the deduction lowers the net price of state and local public

services financed by the property tax and raises their after-federal-tax income.

Like all personal deductions, the property tax deduction provides uneven tax savings per dollar of deduction as taxable income rises. The tax savings are higher for those with greater taxable income and higher marginal tax rates, and those homeowners who do not itemize their deductions receive no direct tax savings on property taxes paid.

Higher-income groups are more likely to itemize property taxes and to receive larger average benefits per itemizing return. Consequently, the tax expenditure benefits of the property tax deduction are concentrated in the upper-income groups, those with over $100,000 of income. These taxpayers received 81.0 percent of the tax expenditure in 2014.

Distribution by Income Class of Tax Expenditure for Property Tax Deductions, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.2
$30 to $40	0.6
$40 to $50	1.3
$50 to $75	6.6
$75 to $100	10.3
$100 to $200	42.6
$200 and over	38.4

Rationale

Under the original 1913 federal income tax law all federal, state, and local taxes were deductible, except those assessed against local benefits (for improvements which tend to increase the value of the property), for individuals as well as businesses. A major rationale was that tax payments reduce disposable income in a mandatory way and thus should be deducted when determining a taxpayer's ability to pay the federal income tax.

Over the years, the Congress has gradually eliminated the deductibility of certain taxes under the individual income tax, unless they are business-related. Deductions were eliminated for federal income taxes in 1917, for estate and gift taxes in 1934, for excise and import taxes in 1943, for state and local excise taxes on cigarettes and alcohol and fees such as drivers' and motor vehicle licenses in 1964, for excise taxes on gasoline and other motor fuels in 1978, and for sales taxes in 1986.

In 2004, a sales tax deductibility option was reinstated temporarily by the American Jobs Creation Act of 2004, (P.L. 108-357). It was most recently made permanent by the Protecting Americans From Tax Hikes (PATH) Act, which was included in P.L.114-113. See the entry "Deduction of Nonbusiness State and Local Government Income, Sales, and Personal Property Taxes" elsewhere in this Compendium.

State and local taxes are among several deductions subject to the phaseout on itemized deductions for taxpayers whose AGI exceeds the applicable threshold amount—$259,400 for single taxpayers, $311,300 for joint filers in 2016. The deduction is reduced by the lesser of three percent of the excess over the threshold amount or 80 percent of allowable deductions.

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 federal-state-local tax burdens across the country: itemizers in high-tax state and local jurisdictions pay somewhat lower federal taxes as a result of their higher deductions, and vice versa.

By allowing property taxes to be deducted in the same way as state and local income, and personal property taxes, the federal government avoids interfering in state and local decisions about which of these taxes to rely on. The property tax is particularly important as a source of revenue for local governments and school districts.

Nevertheless, the property tax deduction is not an economically efficient way to provide federal aid to state and local governments in general, or to target aid on particular needs, compared with direct aid. The deduction works indirectly to increase taxpayers' willingness to support higher state

and local taxes by reducing the net price of those taxes and increasing their income after federal taxes.

The same tax expenditure subsidy is available to property taxpayers, regardless of whether the money is spent on quasi-private benefits enjoyed by the taxpayers or redistributive public services, or whether they live in exclusive high-income jurisdictions or heterogeneous cities encompassing a low-income population. The property-tax-limitation movements of the 1970s and 1980s, and state and local governments' increased reliance on non-deductible sales and excise taxes and user fees during the 1980s and 1990s, suggest that other forces can outweigh the advantage of the property tax deduction.

Two separate lines of argument are offered by critics to support the case that the deduction for real property taxes should be restricted. One is that a large portion of local property taxes may be paying for services and facilities that are essentially private benefits being provided through the public sector. Similar services often are financed by non-deductible fees and user charges paid to local government authorities or to private community associations (*e.g.*, for water and sewer services or trash removal).

Another argument is that if imputed income from owner-occupied housing is not subject to tax, then associated expenses, such as mortgage interest and property taxes, should not be deductible.

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 who can itemize. Consequently, restricting the deduction for property taxes could lower the price of housing purchased by middle- and upper-income taxpayers, at least in the short run.

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Commerce and Housing:
Housing

DEDUCTION FOR PREMIUMS FOR QUALIFIED MORTGAGE INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: This provision expired at the end of 2014 but was extended through 2016 at a cost of $1.3 billion in FY2016 and $1.0 billion in FY2017. These revenue estimates are based on the provision's latest extension at the beginning of 2015 contained in JCX-143-15 at www.jct.gov.

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). Most recently, the deduction was extended through 2016 by Division Q of P.L. 114-113—the Protecting Americans from Tax Hikes Act (or "PATH" Act).

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 criteria—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 downpayment 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.

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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
2015	24.1	-	24.1
2016	29.0	-	29.0
2017	30.6	-	30.6
2018	32.2	-	32.2
2019	34.0	-	34.0

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 merely for maintenance or repairs. In many instances these records had to be kept for decades.

In addition to record keeping problems, Congress believed 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 believed 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 only 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.

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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
2015	0.9	0.3	1.2
2016	0.9	0.4	1.3
2017	1.0	0.4	1.4
2018	1.1	0.4	1.5
2019	1.1	0.4	1.5

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 (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 $100 per state resident or $302.88 million in 2016. 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 could have been 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 2015,

according to the Council of Development Finance Agencies, roughly $4.6 billion of MRBs and $6.8 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 of the late 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.

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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
2015	0.7	0.3	1.0
2016	0.7	0.3	1.0
2017	0.8	0.3	1.1
2018	0.8	0.3	1.1
2019	0.9	0.3	1.2

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 $100 per state resident or

$302.88 million in 2016. 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 2015, according to the Council of Development Finance Agencies, roughly $6.6 billion of multifamily-housing qualified private activity bonds were issued in the U.S.

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.

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DEPRECIATION OF RENTAL HOUSING IN EXCESS OF ALTERNATIVE DEPRECIATION SYSTEM

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	4.2	0.5	4.7
2016	4.0	0.4	4.4
2017	3.9	0.4	4.3
2018	3.9	0.4	4.3
2019	3.8	0.4	4.2

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 twenty 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.)

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CREDIT FOR LOW-INCOME HOUSING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.3	7.3	7.6
2016	0.3	7.8	8.1
2017	0.4	8.3	8.7
2018	0.4	8.6	9.0
2019	0.4	9.2	9.6

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 their projects. Most new LIHTC construction receives what is known as the "9-percent" credit, which is claimed over a 10-year period. In each year of the 10-year credit period the amount of the tax credit that may be claimed is roughly equal to 9-percent of a project's qualified basis (cost of construction). Specifically, the credit rate is determined as the greater of the rate needed to deliver a subsidy equal to 70 percent of a project's qualified basis in present value terms over 10 years, or 9%.

The second type of LIHTC, known as the "4-percent" credit, is generally reserved for low-income housing rehabilitation construction and construction that is partly financed with tax-exempt bonds. Like the 9-percent credit, the 4-percent credit is claimed annually over a 10-year credit

period. The actual credit rate fluctuates around 4-percent, but is set by the Treasury to deliver a subsidy equal to 30 percent of a project's qualified basis in present value terms over 10 years.

The credit is allowed only for the fraction of units serving low-income tenants, which are subject to a maximum rent. To qualify, at least 40 percent of the units in a rental project must be occupied by families with incomes less than 60 percent of the area median or at least 20 percent of the units in a rental project must be occupied by families with incomes less than 50 percent of the area median. Rents in low-income units are restricted to 30 percent of the 60 percent (or 50 percent) of area median 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). For 2016, the state annual credit limit was $2.35 multiplied by the state population. For states with low resident populations, there was a state minimum limit of $2,690,000 in 2016.

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. Most recently, Division Q of P.L. 114-113—the Protecting Americans from Tax Hikes Act (or "PATH" Act) permanently extended the previously temporary 9 percent floor. The 4 percent tax credit

rate is applied to rehabilitation construction has remained unaltered through the various iterations of the 9 percent floor.

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 $8.0 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 May 15, 2016, shows that 43,092 projects and 2.78 million housing units were placed in service between 1987 and 2014. More complete HUD data shows that between 1995 and 2014 more than 1,420 projects and nearly 107,000 units are placed in service each year. Nearly two-thirds of LIHTC construction is new construction, roughly one-quarter of the projects have a nonprofit sponsor, about 20 percent of projects also use tax-exempt bonds as a financing source, and nearly 95 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 micro-economic 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. Direct funding by the federal government to state housing agencies would avoid the cost of the syndication process (the sale of tax credits to investors as "tax shelters.") 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.

An issue at the forefront of some economist's concerns is the number of completed LIHTC projects that are nearing the end of their 15-year affordability restrictions. A report by the Joint Center for Housing Studies at Harvard University and the Neighborhood Reinvestment Corporation on the expiring affordability issue concluded that: "Lack of monitoring or insufficient funds for property repair or purchase will place even properties for which there is an interest in preserving affordability at risk of market conversion, reduced income-targeting, or disinvestment and decline." An increasing amount of tax credits have been and are likely to be used for the preservation of existing affordable housing in the future rather than for new units that add to the overall supply of affordable units.

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CREDIT FOR REHABILITATION OF HISTORIC STRUCTURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.2	0.7	0.9
2016	0.2	0.7	0.9
2017	0.2	0.7	0.9
2018	0.2	0.8	1.0
2019	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. The rehabilitation tax credit is generally allowed in the taxable year that the rehabilitated property is placed in 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 forwards recommendations for historic designation to the U.S. Department of the Interior.

The credit has a recapture provision. The owner must hold the building for five full years after completing the rehabilitation, or pay back the credit. If the owner disposes 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 is reduced by 20 percent per year. 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 provides 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.”)

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 the publication of this compendium, approximately 34 states had historic preservation tax credits. (Most recently, Alabama's state historic tax credit expired on May 15, 2016). Some states also have their own LIHTC and NMTC programs.

Investments claiming the federal historic tax credit have reached record highs in fiscal year 2013, after a sharp decline in fiscal years 2010 and 2011. 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 supported a combined $6.73 billion in new investment in fiscal year 2013. (See the next entry on "Credit for Rehabilitation of Structures, Other than Historic Places"). The credits have supported over $69 billion in rehabilitation investments, from its inception in 1976 through fiscal year 2013.

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.

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.

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INVESTMENT CREDIT FOR REHABILITATION OF STRUCTURES, OTHER THAN HISTORIC STRUCTURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	0.1	([1])	0.1
2019	0.1	([1])	0.1

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

Authorization

Section 47.

Description

Qualified expenditures made to substantially rehabilitate a non-historic, non-residential building are eligible for a 10-percent tax credit. Only expenditures on buildings placed in service before 1936 are eligible. A building that was moved after 1935 is ineligible. Expenditures made during any 24-month period must exceed the greater of $5,000 or the adjusted basis (cost less depreciation taken) of the building. There is no upper limit on the rehabilitation expenditures that can be claimed. The property must be depreciable. The basis must be reduced by the full amount of the credit. The tax credit may be claimed for the tax year in which the rehabilitated building is placed in service.

For a building to be eligible, at least 50 percent of the external walls must be retained as external walls, at least 75 percent of the exterior walls must be retained as internal or external walls, and at least 75 percent of the

internal structural framework of the building must be 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 also 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 is no formal administrative review process for the rehabilitation of non-historic buildings.

Impact

The tax credit encourages businesses to renovate property rather than relocate by reducing the cost of building rehabilitation. The availability of the tax credit may turn an unprofitable rehabilitation project into a profitable one, and may make 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.

Assessment

The main criticism of the tax credit is that it causes 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.

Proponents of updating 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. In 2001, the Joint Committee on Taxation recommended eliminating the 10-percent credit based on simplification arguments.

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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
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: This provision expired at the end of 2014. It was extended through 2016 at a cost of $3.4 billion in FY2016 and $1.8 billion in FY2017. These revenue estimates are based on the provision's latest extension at the beginning of 2015 contained in JCX-143-15 at www.jct.gov.

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, 2017. Debt discharged after 2016 may be eligible for the exclusion if the taxpayer has entered into a binding written agreement before January 1, 2017.

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 distress as a result of interest rate resets and the slowdown in general economic activity. 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 lead to recession.

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). Most recently, the PATH Act (Division Q of P.L. 114-113) extended the exclusion through the end of 2016. The Act also allowed for debt discharged after 2016 to be excluded from income if the taxpayer had entered into a binding written agreement before January 1, 2017.

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.

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REDUCED RATES OF TAX ON DIVIDENDS AND LONG-TERM CAPITAL GAINS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	131.7	-	131.7
2016	134.6	-	134.6
2017	137.1	-	137.1
2018	140.9	-	140.9
2019	145.4	-	145.4

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. Individuals subject to the 10 or 15 percent rate pay a zero-percent rate, individuals in higher tax brackets pay a 15 percent rate, and those in the top tax bracket pay a 20 percent rate. 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 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, 2015

[as a percent of the total tax expenditure]

Income Class	Preferential Rate for Capital Gains and Dividends
Lowest Quintile	0.0%
Second Quintile	0.4%
Middle Quintile	1.9%
Forth Quintile	5.0%
Highest Quintile	92.7%
80st Percentile to 90th Percentile	4.1%
90st Percentile to 95th Percentile	3.0%
95st Percentile to 99th Percentile	6.2%
Top 1%	79.4%
Top 0.1%	53.9%

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 taxed capital gains at ordinary rates, the 1912 law 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 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 1942 Act (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 at all clear, however, 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.

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SURTAX ON NET INVESTMENT INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-34.8	-	-34.8
2016	-35.9	-	-35.9
2017	-36.9	-	-36.9
2018	-38.3	-	-38.3
2019	-40.0	-	-40.0

Authorization

Section 1411

Description

Single taxpayers with a modified adjusted gross income (MAGI) in excess of $200,000 and married taxpayers with an 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 will be 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 by President Barack Obama 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.

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EXCLUSION OF CAPITAL GAINS AT DEATH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	32.4	-	32.4
2016	32.9	-	32.9
2017	33.8	-	33.8
2018	35.2	-	35.2
2019	36.8	-	36.8

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-Brooking Tax Policy Center (2015). 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, 2015

Income Class	Percentage
Lowest Quintile	0.0%
Second Quintile	0.4%
Middle Quintile	1.9%
Fourth Quintile	5.0%
Top Quintile	92.7%

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; indeed, 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.

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DEFERRAL OF GAIN ON NON-DEALER INSTALLMENT SALES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	2.1	6.9	9.0
2016	1.7	6.8	8.5
2017	1.4	6.7	8.1
2018	1.2	6.7	7.9
2019	1.2	6.7	7.9

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 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 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 simply 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.

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DEFERRAL OF GAIN ON LIKE-KIND EXCHANGES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	5.8	11.0	16.8
2016	5.9	11.1	17.0
2017	6.0	11.4	17.4
2018	6.2	11.7	17.9
2019	6.4	12.2	18.6

Authorization

Section 1031.

Description

When business or investment property is exchanged for 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 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.

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 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 set time limits on completing exchanges and the Omnibus Budget Reconciliation Act of 1989 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, 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.

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.

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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
2015	0.2	0.2	0.4
2016	0.2	0.2	0.4
2017	0.2	0.2	0.4
2018	0.2	0.2	0.4
2019	0.2	0.2	0.4

Note: Elements of this provision expired at the end of 2014 but were subsequently extended through 2016 or made permanent at a total cost of $3.2 billion from FY2016 through FY2019.

Authorization

Section 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). Improvements required for a new leasehold for a non-residential structure, for certain restaurant improvements, and for certain retail improvements made at least three years after original construction may be depreciated over 15 years. This provision expired at the end of 2014, but was made permanent by the Protecting

Americans From Tax Hikes Act of 2015 (PATH), enacted as Division Q of the Consolidated Appropriations Act, 2016 (P.L. 114-13). 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 undepreciated balance, with a switch to straight line midway through the period). That provision also expired at the end of 2014, but was extended through 2016 by PATH. Roughly half of the revenue cost is due to the special provisions, primarily the treatment of leasehold improvements. The provisions that have not already been made permanent have typically been included in past "extenders" provisions, which are usually extended each year.

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. The current revenue effects also reflect different write-off methods and lives prior to the 1993 revisions, which set the 39-year life, since many buildings pre-dating that time are still being depreciated.

Before 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. Non-residential buildings were restricted in 1969 to 150-percent declining balance (used buildings were restricted to straight-line). 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. In 1986, all depreciation on nonresidential buildings was calculated on a straight-line basis over 31.5 years, and that period was increased to 39 years in 1993.

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 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.

Accelerated depreciation 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 non-residential buildings is much slower than that reflected in tax depreciation methods.

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 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 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 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 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 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. 114113) in December 2015, made this provision a permanent part of the tax code.

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 this provision through tax year 2016.

Assessment

Evidence suggests that the rate of economic decline of rental 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 nonresidential structures 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 an approximate rate of two percent. Moreover, many other assets are eligible for accelerated depreciation as well, and the allocation of capital depends on the relative treatment.

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 main argument against the 15-year life for leasehold and restaurant improvements is that buildings, since 1981, have been depreciated as a composite investment with the aim of averaging out the treatment of different components to reflect the overall value of depreciation. Before this change, taxpayers were engaging in component depreciation, separating out

various short-lived components (such as a roof) for shorter lives. Under the current composite treatment, if a taxpayer puts a roof on a building that roof is depreciated on the standard useful life, because the overall life allows for the slower depreciation of some components and the quicker depreciation of others (such as the building shell). Component depreciation, where different parts of the building were depreciated separately, was eliminated in the Economic Recovery Tax Act of 1981. By allowing the separation of specific components for shorter lives without increasing them for longer-lived components, this provision undermines composite depreciation.

The argument for faster depreciation for leasehold improvements is that these are made based on the preferences of the leaseholder and may become obsolete with another leaseholder. The argument for retail and restaurant property is that they actually depreciate faster than other buildings, although this is not the position taken by the Bureau of Economic Analysis in their estimates of economic depreciation.

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.

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DEPRECIATION ON EQUIPMENT IN EXCESS OF ALTERNATIVE DEPRECIATION SYSTEM

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-8.2	-20.0	-28.2
2016	-7.4	-18.0	-25.2
2017	-1.3	-3.1	-4.4
2018	2.6	6.4	9.0
2019	5.7	13.8	19.5

Note: Revenue effects of this provision are affected by the status of bonus depreciation, which had expired at the end of 2014. The recent extension of bonus depreciation through 2019 results in negative tax expenditures of $90.6 billion in FY2016, $39.4 billion in FY2017, $20.9 billion in FY2018, and $0.1 billion in FY2019. The extension of expensing mine safety equipment through 2016 is a negative total tax expenditure of less than $50 million from FY2016 through FY2019. The extension of special tax treatment of racehorses through 2016 resulted in a total tax expenditure of negative $0.1 billion from FY2016 through FY2019.

Authorization

Section 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.

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 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 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.

Fifty percent of investment in advanced mine safety equipment may be expensed from the date of enactment of the Tax Relief and Health Care Act (P. L. 109-432) in December 2006 through 2013.

Revenue estimates reflect bonus depreciation, which allows 50 percent of the cost of equipment placed into service from 2008 to 2014 to be deducted when incurred (expensed). For the period after September 8, 2010 through the end of tax year 2011, 100% of the cost may be deducted when incurred. The Consolidated Appropriations Act, 2016 (P.L. 114-113)

extended bonus depreciation deduction through FY2019, with 50 percent of equipment costs deductible in 2015 through 2017, 40 percent of equipment costs deductible in 2018, and 30 percent of costs deductible in 2019.

Bonus depreciation is the main reason for the unusual revenue loss pattern in the table. Without bonus depreciation, tax expenditures would be positive. To estimate this cost, prior effects of legislation were used to adjust the FY2019 estimate (when timing shifts were less important). These adjustments increased the cost of $19.5 billion to $33.1 billion. Based on historical estimates, about 80% of normal accelerated depreciation for equipment ($26.5 billion) is corporate. Adjusting the FY2019 estimate to FY2015 based on GDP growth produces an estimate of depreciation excluding bonus depreciation of $22.6 billion.

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.

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 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. This provision was 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.

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EXPENSING UNDER SECTION 179 OF DEPRECIABLE BUSINESS PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	7.8	4.8	12.6
2016	2.9	1.8	4.7
2017	1.3	0.8	2.1
2018	1.2	0.8	2.0
2019	1.0	0.6	1.6

Note: JCT estimates that changes to Section 179 enacted by P.L. 114-113 will incur a revenue loss (in billions) of $22.3 in FY2016, $11.0 in FY2017, $8.7 billion in FY2018, and $5.6 billion in FY2019.

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. 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).

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 leasehold 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 $500,000, and the phaseout threshold at $2 million. These statutory amounts are indexed for inflation after 2015. For 2016, firms cannot claim a Section 179 deduction for more than $500,000 ($535,000 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 $2,010,000. Thus, for 2016, once a firm's investment reached $2,510,000, 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 are also scheduled to expire at the end of 2016, but may be extended.

Taxpayers unable to expense the costs of qualified property, due to income limitations, may have been able to claim 50 percent bonus depreciation. Basically, the same set of assets was eligible for both allowances. A taxpayer wishing to take the expensing allowance and the bonus depreciation allowance must have done so in a prescribed order. The Section 179 allowance had to be taken first, lowering the taxpayer's basis in the property by that amount. Then the bonus depreciation allowance could have been taken, resulting in a further reduction in the basis. Finally, whatever regular depreciation allowance is permitted under current law may be taken on the remaining basis. Under current law, bonus depreciation is scheduled to be 50 percent through 2017, 40 percent for 2018, 30 percent for 2019, and terminated beginning with the 2020 tax year.

Impact

In the absence of Section 179, 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.

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 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 in 2007 to 2010. The act also indexed both amounts for inflation in 2008 to 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, indexed those amounts for inflation, set the maximum allowance at $25,000 and the phaseout threshold at $200,000 for the 2013 and thereafter, and extended through 2012 the eligibility of off-the-shelf computer software for the allowance.

The American Taxpayer Tax Relief Act of 2012 (P.L. 112-240) retroactively increased the maximum expensing allowance to $500,000 and the phaseout threshold to $2,000,000 for the 2012 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 of 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 are both permanently classified as property eligible for Section 179 treatment. Absent legislative action, the maximum allowance would have been scheduled to reset at $25,000 in 2014 and thereafter, the level set by the Small Business Job Protection Act of 1996 (P.L. 104-188), and off-the-shelf computer software and qualified leasehold property would no longer have been eligible for Section 179 treatment.

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 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 corporate and individual tax rates and purge the tax code of most business tax preferences.

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AMORTIZATION OF BUSINESS START-UP COSTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	0.1
2018	0.1	([1])	0.1
2019	0.1	0.1	0.2

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

Authorization

Section 195.

Description

In general, business taxpayers are allowed to deduct all normal and reasonable expenses they incur in conducting their trade or business. This rule suggests that costs incurred before the start of a business should not be deducted as a current expense because they were not incurred in connection with conducting a trade or business. If anything, 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 these expenses exceed $50,000. As of October 23, 2004, 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 this preferential treatment. 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. Second, the expenditures must resemble costs that would be deductible if they were paid or incurred in connection with an existing trade or business. Qualifying start-up expenditures exclude interest payments on debt, tax payments, and spending on research and development, which is deductible under section 174.

Impact

The election to deduct and then amortize business start-up costs lessens an impediment to the formation of new businesses by permitting the immediate deduction of expenses that otherwise could be recovered over 15 years or when the owner sells his or her interest in the business. This acceleration in the recovery of start-up expenses reduces the cost of capital for investment in a new business, but it does not affect investments with $55,000 or more in such expenses.

Tax preferences for capital income such as section 195 tend to benefit individuals in the higher income classes (see the discussion in the Introduction).

Rationale

Before the enactment of section 195 in 1980, the question of whether an expense incurred in connection with starting a new trade or business could be deducted as a current expense or should be capitalized was a longstanding source of controversy and litigation between business taxpayers and the IRS. Business 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 arise over whether certain business start-up costs should be expensed under section 162, capitalized under section 263, or amortized under section 195. In another attempt to dampen the controversy and curtail the litigation surrounding the interpretation of section 195, Congress added a provision to the Deficit Reduction Act of 1984 (P.L. 98-369) clarifying 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.

No further changes were made in section 195 until the enactment of the American Jobs Creation Act of 2004 (P.L. 108-357). The act permitted business taxpayers to deduct up to $5,000 in eligible start-up costs in the tax year when their trade or business began. 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 that do not require substantial 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 further promote entrepreneurship, the Small Business Jobs and Credit Act of 2010 (P.L. 111-240) 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 theory, business start-up costs should be written off over the life of the business on the grounds that they are a capital expense. Such a view, however, does pose the difficult challenge of determining the useful life of a business at its outset.

Section 195 has three notable advantages as a means of addressing this challenge. First, it lowers the likelihood of costly and drawn-out legal disputes involving business taxpayers and the IRS over the tax treatment of start-up costs less likely. Second, it does so at a relatively 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 the provision to what extent the section 195 deduction has affected the rate of new business formation.

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REDUCED RATES ON FIRST $10,000,000 OF CORPORATE TAXABLE INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	4.0	4.0
2016	-	4.2	4.2
2017	-	4.2	4.2
2018	-	4.2	4.2
2019	-	4.2	4.2

Authorization

Section 11.

Description

Corporations with less than $10 million in taxable income are taxed according to a graduated rate structure. The tax rate is 15 percent on the first $50,000 of income, 25 percent on the next $25,000, and an average of 34 percent thereafter. To offset the benefit from the lower rates, a tax rate of 39 percent is imposed on corporate taxable income between $100,000 and $335,000. As a result, the benefit of the lower rates disappears for corporations with taxable income in excess of $335,000; they pay a flat average rate of 34 percent. The tax rate on taxable income between $335,000 and $10 million is 34 percent. It rises to 35 percent for taxable income from $10 million to $15 million. When taxable income falls between $15 million and $18,333,333, the rate jumps to 38 percent. Finally, a flat rate of 35 percent applies to taxable income above $18,333,333. Consequently, the benefit of the 34 percent rate is lost when income reaches $18,333,333.

The graduated rates do not apply to the taxable income of personal-service corporations, which are instead subject to a flat rate of 35 percent. In addition, there are restrictions on eligibility for the lower rates to prevent abuse by related corporations.

The tax expenditure for Section 11 lies in the difference between taxes paid and the taxes that would be paid if all corporate income were taxed at a flat 35 percent rate.

Impact

The lower rates mainly affect smaller corporations, although most businesses are not incorporated so only a small fraction of firms are affected by this provision. The graduated rates encourage firms to use the corporate form of legal organization and allow some small corporations that might otherwise operate as passthrough entities (e.g., sole proprietorships or partnerships) to provide fringe benefits. They also encourage the splitting of operations between sole proprietorships, partnerships, S corporations and regular C corporations.

This provision is likely to benefit higher-income individuals who are the primary owners of capital (see Introduction for a discussion).

Rationale

In the early years of the corporate income tax, exemptions from the tax were allowed in some years. A graduated rate structure was first adopted in 1936 (P.L. 74-740). From 1950 to 1974, corporate income was subject to a "normal tax" and a surtax; the first $25,000 of income was exempt from the surtax. The exemption was intended to provide tax relief for small businesses. Not surprisingly, this dual structure led many large firms to reorganize their operations into smaller corporations in order to avoid paying the surtax.

In 1975 (P.L. 94-12), a graduated rate structure with three brackets was adopted. In 1984, a law (P.L. 98-369) was enacted which included a provision phasing out the exemption for taxable incomes between $1 million and $1.405 million. The act also lowered the rates that applied to incomes up to $100,000.

The present graduated rate structure for corporate taxable income below $10 million came into being with the passage of the Tax Reform Act of 1986 (P.L. 99-514). Among other things, the act lowered the ceilings on the rates

and accelerated the phase-out of the reduced rates so that their benefits phased out between $100,000 and $335,000. In taking these steps, Congress was attempting to target the benefits of the graduated rate structure more precisely at smaller firms. Hoping to reduce a large and growing budget deficit by raising revenue, Congress added the 35 percent corporate tax rate through the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66).

Assessment

A principal justification for the graduated rates is that they encourage the growth of small entrepreneurial firms. The reduced rates lower their cost of capital for new investments and provide tax relief at a time when many of them struggle to survive. They were also originally intended to lessen the burden of the double taxation of corporate earnings.

The graduated rates are difficult to justify on equity grounds. Unlike the graduated rates of the individual tax, the corporate graduated rate structure has nothing to do with a firm's ability to pay; ultimately it is individuals and not corporations who end up paying corporate taxes.

The graduated rates are also difficult to justify on the basis of economic efficiency. Although there is a common argument that government policy should support investment by small firms because they tend to create more jobs and generate more technological innovations than larger firms, evidence on this issue is mixed and inconclusive. In theory, economic resources are likely to migrate to their most productive uses when the tax treatment of the returns to all investments is the same. A graduated rate structure encourages higher levels of investment by smaller corporations than would be the case if all corporate profits were taxed at a flat rate of 35 percent. Graduated rates also give large corporations an incentive to operate for tax purposes as multiple smaller units, where economies of scale have less of an impact on the returns to investment. And under a graduated rate structure, owners of small corporations are more likely to shelter income by retaining earnings rather than paying them out as dividends.

Graduated rates do have the advantage of making it possible for owners of businesses in the lower income brackets to operate as corporations. Generally, business owners are free to operate their firms as a regular C corporation or as a passthrough entity (i.e., sole proprietorship, partnership, limited liability company, or S corporation) for tax purposes. Income earned by passthrough entities is attributed to the owners (whether or not it is distributed) and taxed at individual income tax rates. Depending on the

amount, it is possible for income earned by corporations to be taxed at lower rates than income earned by passthrough entities. Differences between the two rates create opportunities for sheltering income in corporations. There may be some circumstances, however, where operating as a passthrough entity is not feasible. For instance, a firm must operate as a C corporation if it wants to issue more than one class of stock or offer employee fringe benefits that are eligible for favorable tax treatment.

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EXEMPTIONS FROM IMPUTED INTEREST RULES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.6	([1])	0.6
2016	0.6	([1])	0.6
2017	0.7	([1])	0.7
2018	0.7	([1])	0.7
2019	0.7	([1])	0.7

([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 or small businesses or farms, especially in periods of tight money 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 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 (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.

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EXPENSING OF MAGAZINE CIRCULATION EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	0.1	0.1
2016	([1])	0.1	0.1
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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.

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SPECIAL RULES FOR MAGAZINE, PAPERBACK BOOK, AND RECORD RETURNS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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.

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COMPLETED CONTRACT RULES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	0.9	1.0
2016	0.1	0.9	1.0
2017	0.1	0.9	1.0
2018	0.1	1.0	1.1
2019	0.1	1.0	1.1

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

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 liberal rules if they are of less than two years' duration and the contractor's gross receipts for the past three years have averaged $10 million or less.

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 finally 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 thought the end of 2014 (for most property) by the American Taxpayer Relief Act of 2012 (P.L. 112-240); the end of 2015 by the Tax Increase Prevention Act of 2014 (P.L. 113-295); 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.

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.

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CASH ACCOUNTING, OTHER THAN AGRICULTURE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.8	0.3	2.1
2016	1.9	0.3	2.2
2017	1.9	0.3	2.2
2018	2.0	0.3	2.3
2019	2.0	0.3	2.3

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. 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 four methods of accounting companies may be used to compute taxable income: (1) the "cash receipts and disbursements" (or cash) method, (2) the accrual method, (3) any other method permitted by the tax code, or (4) any combination of these three methods that is permitted under regulations issued by the Internal Revenue Service.

As this provision suggests, the two most important methods for accounting for taxable income are the cash-basis and accrual-basis methods. Under the cash method, 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 long before or after when cash is received for the delivery of goods and services or paid for the expenses incurred in producing those items. They also do not reflect all the assets and liabilities of a company on a particular date.

By contrast, the accrual method of accounting requires a business to recognize income and expenses when the transaction that causes them occurs. The transaction does not necessarily depend on when cash is received or paid. So under the accrual method, a business must recognize income when it is earned and expenses when they are incurred, regardless of when it receives or makes cash payments. This means that expenses are recognized in the same period when income is earned 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, as it matches income and expenses with greater precision.

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 also 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 $5 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.)

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 is thought to provide a more accurate measure of a firm's income. The tax expenditure from use of the cash method arises from the opportunity to defer the recognition of income or expenses for tax purposes. Owners of eligible small businesses and personal service corporations of all sizes capture most of the benefit from the expenditure.

Rationale

Individuals and many small businesses are allowed 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.

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 period. For financial reporting purposes, the accrual method is preferred because it paints a more accurate picture of a firm's financial condition in a period.

But 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.

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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
2015	0.3	0.1	0.4
2016	0.3	0.1	0.4
2017	0.3	0.1	0.4
2018	0.3	0.1	0.4
2019	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 $100 per state resident or $302.88 million in 2016. 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 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.

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CARRYOVER BASIS OF CAPITAL GAINS ON GIFTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-4.6	-	-4.6
2016	11.3	-	11.3
2017	10.5	-	10.5
2018	8.9	-	8.9
2019	9.3	-	9.3

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.

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 to the assets 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.

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CREDIT FOR EMPLOYER-PAID FICA TAXES ON TIPS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.7	0.6	1.3
2016	0.7	0.6	1.3
2017	0.7	0.6	1.3
2018	0.8	0.7	1.5
2019	0.8	0.7	1.5

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 in 2016.

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.

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.

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PRODUCTION ACTIVITY DEDUCTION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	4.5	11.7	16.2
2016	4.6	12.1	16.7
2018	4.7	12.3	17.0
2018	4.8	12.6	17.4
2019	4.9	12.8	17.6

Note: Elements of this provision expired at the end of 2014 and were extended through 2016 at a cost of $0.2 billion in FY2016 and $0.1 billion in FY2017.

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 also 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 pass through 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 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.

In a letter dated September 22, 2004 to Mark Prater and Patrick Heck, responding to a query about the similar (although slightly different) Senate version of the provision, the Joint Tax Committee indicated that three quarters of the benefit would have gone to corporations, 12 percent would have gone to Subchapter S firms (smaller incorporated firms that elect to be treated as partnerships) and cooperatives, 9 percent would have gone to partnerships, and 4 percent to sole proprietorships. Based on the revenue estimates ($3 billion for 2006) and projected corporate tax receipt of $249 billion for that year, the implication is that around a third of corporate activity qualifies.

More recent data on the deductions from the Internal Revenue Service statistics (2013) were consistent with these numbers. 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), a bill 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 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), which included earlier tax provisions from H.R. 7060 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 was subsequently extended through 2013 by the American Taxpayer Relief Act (P.L. 112-240), through 2014 by the Tax Increase Prevention Act (P.L.113-295), and through 2016 by the Consolidated Appropriations Act (P.L.114-113).

Assessment

The provision should somewhat expand the sector qualifying for the benefit and contract other sectors. It will likely introduce some inefficiency into the economy by diverting investment into qualifying sectors. The provision will also lower the burden on corporate equity investment which is more heavily taxed than other forms of

investment and among qualifying firms reduce the incentive for debt finance. This latter effect would produce an efficiency gain. It also targets a sector (primarily manufacturing) that is involved in international trade and investment and might make equity investment in the United States more attractive than would 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 had adopted a similar provision several years ago, but later repealed it because of the administrative complications.

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DEDUCTION OF CERTAIN FILM AND TELEVISION PRODUCTION COSTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: This provision expired at the end of 2014 but was extended through 2016 at a cost of $0.2 billion in FY2015.

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 2013. 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 ($15 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 (P.L.114-113) expanded the provision to include theatrical productions and extended the provision through 2016.

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.

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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
2015	-	([1])	([1])
2016	-	([1])	([1])
2017	-	([1])	([1])
2018	-	([1])	([1])
2019	-	([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.

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.

The current federal excise tax rate on distilled spirits is $13.50 per proof gallon.

Assuming an interest rate in the range of five to six percent, the tax credit would save wholesalers approximately $0.25 a case or $0.02 per bottle of distilled spirits. At an interest rate of one to two percent, it would save approximately $0.05 per case or less than a half-cent ($0.005) per bottle.

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).

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.

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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
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])

([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 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; (5) the taxpayer's tax rate is 35 percent; (6) 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.

The data needed to address these issues are not readily available. It is not clear from the business tax data published by the Internal Revenue Service to what extent firms have taken advantage of the section 190 expensing allowance. The efficacy of the allowance or small business tax credit under section 44 has not been empirically examined.

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.

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EXCLUSION FOR GAIN FROM CERTAIN SMALL BUSINESS STOCK

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.9	-	0.9
2016	1.0	-	1.0
2017	1.0	-	1.0
2018	1.1	-	1.1
2019	1.1	-	1.1

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 works 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 was 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 lower than the rates for ordinary income. Individual taxpayers in the 10-percent and 15-percent income tax brackets pay no tax on realized long-term capital gains. The tax rate increases to 15 percent for long-term capital gains realized by taxpayers in the 25 percent to 35 percent income tax rate brackets. And a 20-percent rate applies to long-term capital gains reported by taxpayers in the 39.6 percent income tax bracket.

Section 1202 allows non-corporate taxpayers (including passthrough entities like partnerships and subchapter S corporations) to exclude from their gross income 100 percent 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 could be excluded. The exclusion percentage rose to 75% for QSBS acquired from February 18, 2009 to September 27, 2010.

Several conditions must be met before a taxpayer can benefit from the gain exclusion for QSBS. 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 it 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 before and when the stock is issued. Third, the issuing corporation must use at least 80 percent of those 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 a specialized small business investment company (SSBICs) licensed under the Small Business Investment Act of 1958 or all lines of business except the following: health care, law, engineering, architecture, food service, lodging, farming, insurance, finance, or mining. Third, the stock must be issued after August 10, 1993.

Under section 1045, eligible taxpayers have the option of rolling over any capital gain from the sale of QSBS they have held for more than six months. To take advantage of this option, a taxpayer must use the proceeds from the 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 amount from the sale exceeds 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 so-called 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 not considered a preference item for the purpose of computing the 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), 7 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.

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 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 who are likely to have 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). In 1993, the maximum long-term capital gains tax rate for individuals was 28 percent. While the legislative history of the act did not specify this, 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. The American Taxpayer Relief Act of 2012 (P.L. 112-240) extended the provision through December 31, 2013.

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 7 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 does 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 will be 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 qualified small business stock acquired after September 27, 2010 and before January 1, 2012, under 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 provision through 2011. The American Taxpayer Relief Act of 2012 (P.L. 112-240) extended the exclusion 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 extended the provision barring the treatment of any gain exclusion as a preference item for the AMT.

Assessment

Section 1202 is intended to facilitate the formation and growth of small C corporations involved the commercial development of new technologies by increasing their access to relatively patient equity capital. It does this by giving investors (individuals such as angel investors as well as venture capital funds organized as partnerships) an incentive to acquire significant equity stakes in such firms. When the exclusion was enacted in 1993, it represented a significant reduction in the tax burden on the returns to investment in stock issued by new small companies in qualified lines of business, relative to the tax burden on the returns to comparable investments. Congress has maximized the incentive by setting the exclusion percentage at 100 percent for QSBS acquired after September 27, 2010.

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. More specifically, some may want to know whether the exclusion can be justified on economic grounds, and whether the exclusion has had its intended effect, and if so, to what extent.

Proponents of section 1202 say 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 financial markets to provide sufficient financing for all promising business ventures. According to proponents, established firms of all sizes are more likely, on average, to have greater access to the debt or equity they require to start or grow a new business than a small independent start-up firm intent on entering the same line of business.

Such a disparity, say proponents, constitutes a market failure in that it is 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 equity investors. In theory, these differences can trigger conflicts of interest involving moral hazard and adverse selection

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 in 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, proponents see the exclusion as a remedy for the imperfections that prevent capital markets from providing adequate funding to small research-intensive start-up firms.

Not everyone agrees that the section 1202 gains exclusion is needed to remedy a market failure. Some critics argue that there is no conclusive evidence that too few small start-up firms are formed over time, 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 to innovate and grow. As a result, say these critics, a policy initiative like the exclusion might have significant efficiency costs. Of particular concern is the extent to which the exclusion distorts the domestic allocation of financial capital. For critics, 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. Though over 18 years 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, or investment behavior of companies issuing the stock.

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DISTRIBUTIONS IN REDEMPTION OF STOCK TO PAY VARIOUS TAXES IMPOSED AT DEATH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	-	([1])
2016	([1])	-	([1])
2017	([1])	-	([1])
2018	([1])	-	([1])
2019	([1])	-	([1])

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

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 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 2016, the estate tax exemption was $5.45 million.

Rationale

This provision was added to the tax code by the Revenue Act of 1950. 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.

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INVENTORY ACCOUNTING: LIFO, LCM, AND SPECIFIC IDENTIFICATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.3	1.6	1.9
2016	0.3	1.7	2.0
2017	0.3	1.7	2.0
2018	0.3	1.7	2.0
2019	0.3	1.8	2.1

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

2014-2018, 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.

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 very small.

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EXCLUSION OF GAIN OR LOSS ON SALE OR EXCHANGE OF BROWNFIELD PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	([1])	([1])
2016	-	([1])	([1])
2017	-	([1])	([1])
2018	-	([1])	([1])
2019	-	([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 35 percent of the gain in value (at least for large organizations). When the gain in value is large relative to the acquisition cost, the cost is reduced by close to 35 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 (Internal Revenue Code (IRC) Sec. 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. As an environmental policy, this type of capital subsidy is also questionable on efficiency grounds. Some economists believe that expensing and the exception from the UBIT are costly and inefficient ways to achieve environmental goals, and that the external costs resulting from environmental pollution are more efficiently addressed by either pollution or waste taxes or tradable permits.

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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
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])

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

Authorization

Section 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.

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NET ALTERNATIVE MINIMUM TAX ATTRIBUTABLE TO NET OPERATING LOSS LIMITATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-0.1	-0.5	-0.6
2016	-0.1	-0.5	-0.6
2017	-0.1	-0.5	-0.6
2018	-0.1	-0.5	-0.6
2019	-0.1	-0.5	-0.6

Authorization

Sections 172 and 56.

Description

This provision allows business taxpayers to carry back an alternative minimum tax (AMT) net operating loss (NOL) incurred in 2008 or 2009 for up to five years and offset 100 percent of their alternative minimum taxable income (AMTI). Losses not fully utilized via carry back may be carried forward. Previously, AMT NOLs were limited to offsetting no more than 90 percent of AMTI. Eligible taxpayers are all taxpayers except for those who receive federal assistance from the Troubled Asset Relief Program.

Impact

The provision allows eligible taxpayers subject to the 90 percent limit to further offset their alternative minimum taxable income using losses incurred in 2008 or 2009.

Rationale

Under the Worker, Homeownership, and Business Assistance Act of 2009 (P.L. 111-92) the 90 percent limitation was removed for taxpayers, presumably for some combination of increasing the ability of business to smooth taxes over the business cycle and to help with short-term cash flow during the recession.

Assessment

The carryback and carryforward provisions allow taxpayers the ability to smooth out changes in business income, and therefore taxes, over the business cycle. Increasing the fraction of AMTI that may be offset using an NOL from 90 percent to 100 percent further promotes income smoothing by allowing taxpayers to fully recover current losses now, as opposed to in the future.

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INCOME RECOGNITION RULE FOR GAIN OR LOSS FROM SECTION 1256 CONTRACTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.0	0.1	1.1
2016	1.0	0.1	1.1
2017	1.0	0.1	1.1
2018	1.0	0.1	1.1
2019	1.0	0.1	1.1

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. 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). Under this mark-to-market rule, the gains and losses must be reported on an annual basis, for tax purposes.

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.

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.

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ELECTION TO ACCELERATE UNUSED ALTERNATIVE MINIMUM TAX AND RESEARCH AND DEVELOPMENT CREDITS IN LIEU OF ADDITIONAL FIRST-YEAR DEPRECIATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: Elements of this provision expired at the end of 2014 but were extended through 2019 at a cost of $2.5 billion in FY2016, $3.9 billion in FY2017, $4.2 billion in FY2018, and $4.6 billion in FY2019.

Authorization

Section 168(k)(4).

Description

Under Section 168(k)(4), firms may elect to forgo bonus depreciation as well as regular accelerated depreciation for purposes of calculating both alternative minimum tax (AMT) and regular income tax liability. In turn, firms can increase the amount of AMT credits by 20 percent of bonus depreciation. These credits are refundable, but are limited to the lesser of $30 million, or 6 percent of credit forwards generated before January 1, 2006, whichever is smaller.

Impact

Firms are potentially subject to an alternative minimum tax (AMT) applied to a broader base than the standard income tax, but with a lower rate for large corporations and high income business owners. The AMT is intended to increase tax payments from taxpayers who, under the rules of the regular tax system, are believed to pay too little tax relative to a more standard measure of income. For the purposes of calculating AMT liability, certain deductions are disallowed or treated differently than under the ordinary income tax system. Since the higher AMT tax may arise from timing shifts (because of the longer depreciation period under the AMT base) a credit is allowed for the excess of the AMT over regular tax if the regular tax exceeds the AMT tax in future years, up to the amount of the excess regular tax.

These credits are refundable, meaning that they result in a tax refund if the firm does not have tax liability to offset. This election can provide a tax benefit (possibly in the form of a refund) to firms that would not use bonus depreciation or the research tax credit because of limited tax liability.

Rationale

Following the economic downturn in 2007, Congress enacted a bonus depreciation provision as part of the Economic Stimulus Act of 2008 (P.L. 110-185). Bonus depreciation allows a firm to deduct a portion (generally 50 percent in recent years, but increased to 100 percent between September 8, 2010, and the end of 2011) the cost of equipment in the year that it is placed in service rather than deduct the value of the asset its economic lifetime. The rationale for bonus depreciation is to provide a short-term stimulus for investment by lowering the cost of capital.

However, many firms were unable to utilize bonus depreciation to offset their tax liability because they had no tax liability to offset. For example, a study by the Department of the Treasury confirmed that firms did not elect bonus depreciation for about 40 percent of eligible investment, and speculated that the existence of losses and loss carry-overs may have made the investment subsidy ineffective for many firms. The Housing and Economic Recovery Act of 2008 (HERA; P.L. 110-289) provided for the Section 168(k)(4) election to provide a temporary stimulus to those firms that could not benefit from bonus depreciation or research tax credits. It was subsequently extended, but the extension in the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312)

limited the provision to the AMT credit. The American Taxpayer Relief Act of 2012 (P.L. 112-240) extended the provision through 2013. The Protecting Americans from Tax Hikes (PATH) Act of 2015 (Division Q of the Consolidated Appropriations Act of 2016, P.L. 114-113) extended the provision through 2019.

Assessment

This provision was part of the stimulus proposals enacted in response to the 2007-2009 recession. The provision does not directly affect marginal investment decisions, but it does affect cash flow. Most forecasters, including the Congressional Budget Office, believe cash flow benefits have a minimal effect on economic stimulus. For firms that are in distress, however, cash flow may be more likely to contribute to increased spending.

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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
2015	0.1	([1])	0.1
2016	0.1	([1])	0.1
2017	0.1	([1])	0.1
2018	0.1	0.1	0.2
2019	0.1	0.1	0.2

([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 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 1968, 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. 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 15, 2016, $6.46 billion of bonds have been issued under this provision. Another $4.75 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.

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TAX CREDIT FOR CERTAIN RAILROAD TRACK MAINTENANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: This provision expired at the end of 2013, but was extended through 2016 at a cost of $0.3 billion in FY2016 and $0.1 billion in FY20156.

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 expires at the end of 2016 and can be taken against the 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.

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.

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DEFERRAL OF TAX ON CAPITAL CONSTRUCTION FUNDS OF SHIPPING COMPANIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.1	0.1
2016	-	0.1	0.1
2017	-	0.1	0.1
2018	-	0.1	0.1
2019	-	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 tax rate. This rule prevents firms from withdrawing funds in loss years and escaping tax entirely. Funds cannot be left in the account for more than 25 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 minimum 25-year period in the fund, 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

The failure to tax 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 U.S.

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.

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EXCLUSION OF EMPLOYER-PAID AND EMPLOYER-PROVIDED TRANSPORTATION BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	5.0	-	5.0
2016	5.2	-	5.2
2017	5.5	-	5.5
2018	5.7	-	5.7
2019	5.9	-	5.9

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, parking, and bicycle purchase and maintenance costs. 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. Bicycle commuting benefits within a given month, however, are not available to those who receive other types of qualified transportation benefits. About 7 percent of the civilian workforce receives subsidized commuting benefits.

In 2016, the limit for the parking benefit is also set at $255 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 may receive up to $20 per month, an amount not subject to inflation adjustment.

In 2016, the transportation benefit limit is $255 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.

An employee taking the parking tax benefit can also receive a vanpool or transit benefit. Thus, an employee could receive up to $255 in qualified transportation benefits and $255 in parking benefits, for a total of up to $510 per month. Employees can use pretax dollars, if their employer allows, to pay for transit passes, vanpool fares and parking. The bicycle commuting reimbursement, however, cannot be funded through pre-tax dollars and cannot be combined in a given month with either the parking or transit benefit programs.

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 both employees, through higher compensation, and their employers, who may face lower wage costs. This exemption arguably induces employees to use mass transportation and to the extent that mass transportation reduces traffic congestion, this exemption lowers commuting costs to all urban workers.

Higher income individuals are more likely to benefit from the parking exclusion than the mass transit and vanpool subsidies to the extent that 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

A statutory exclusion for the value of parking was introduced in 1984, 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, which was extended in 1981, on such regulations. 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. An employee who regularly bikes to work may receive a tax-free $20 per month reimbursement from the employer to cover costs of a bicycle, repair, maintenance, or storage. Such expenses must be documented and paid by the employer, rather than being funded by a salary reduction arrangement.

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, 61 percent received commuting benefits, while only 16 percent in the lowest 10 percent did. 66 percent of workers in firms with more than 500 employees received those benefits, while in firms with fewer than 50 employees, only 17 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.

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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
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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.

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EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR PRIVATE AIRPORTS, DOCKS, AND MASS-COMMUTING FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.7	0.2	0.9
2016	0.7	0.2	0.9
2017	0.7	0.3	1.0
2018	0.7	0.3	1.0
2019	0.8	0.3	1.1

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 $100 per state resident or $302.88 million in 2016. 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 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.

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Community and Regional Development

EMPOWERMENT ZONE TAX INCENTIVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	0.2	0.2
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])

(1) Positive tax expenditure of less than $50 million for each component.

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); and through the end of 2016 by the Protecting Americans from Tax Hikes Act of 2015 (P.L. 114-113).

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 working 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 EC designation with improvement in community outcomes. It is worth noting that 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; indeed, 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.

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DISTRICT OF COLUMBIA TAX INCENTIVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])

(1) Positive tax expenditure of less than $50 million for each component.

Authorization

Sections 1400-1400B.

Description

Residents and businesses located within the District of Columbia may be eligible for a tax incentives offering a zero-percent capital gains rate for selected DC assets held at least 5 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 to encourage economic development in designated portions of the District of Columbia. The tax incentive authorizations were subsequently extended through the end of 2005 by the American Jobs Creation Act of 2004 (P.L. 108-357); 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); and through the end of 2011 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 working 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.

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CREDIT FOR EMPLOYMENT AND ACCELERATED DEPRECIATION, INDIAN RESERVATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])

(1) Positive tax expenditure of less than $50 million for each component. These provisions were extended through 2016 at a cost of $289 million for FY2016, $177 million for FY2017, $43 million for FY2018, and $1 million for FY2019.

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 was 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); 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); and through the end of 2016 by the Protecting Americans from Tax Hikes Act of 2015 (P.L. 114-113).

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.

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NEW MARKETS TAX CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.0	([1])	1.0
2016	1.0	([1])	1.0
2017	1.1	([1])	1.1
2018	1.1	([1])	1.1
2019	1.0	([1])	1.0

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

Note: An element of this provision expired at the end of 2013 but was extended through 2014 at a cost of less than $50 million in FY2015 and FY2016, and a cost of $0,1 billion in FY2017 and FY2018.

Authorization

Sections 45D.

Description

The New Markets Tax Credit (NMTC) is designed to stimulate investment in low-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); 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 August 2016, New Markets Tax Credit allocatees had raised nearly $42.2 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, but 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).

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NATIONAL DISASTER RELIEF

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])

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

Note: The JCT score does not break out the full cost of these provisions separately. The figures above reflect the estimated revenue loss from the exclusion of disaster mitigation payments from the income security function.

Authorization

Sections 24, 32, 38, 61, 72, 123, 139, 143, 151, 165, 1033, and 1400.

Description

Internal Revenue Code (IRC) Sec. 139 exempts qualified disaster relief payments from taxable income. (Tax expenditures associated with this provision are included in the table above.) The JCT tax expenditure estimates associated with these provisions 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, and the Midwest floods of 2008. 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. These tax incentives include 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, 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.

The Work Opportunity Tax Credit (WOTC) encourages employers to keep employees on the payroll who cannot perform their jobs because the business is not operating as a result of the disaster.

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 providing 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, including 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 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 KETRA for Hurricane Katrina employees. The WOTC allows businesses to claim a credit for qualified wages for employees retained in the 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.

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 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. For more on accelerated depreciation for business property, see the entry in this volume titled: "Expensing of Depreciable Business Property."

The benefit of expanding the WOTC eases the tax burden on employers. The effectiveness of WOTC, 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."

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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
2015	0.2	0.1	0.3
2016	0.3	0.1	0.4
2017	0.3	0.1	0.4
2018	0.4	0.1	0.5
2019	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 $100 per state resident or $302.88 million in 2016. 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, 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.

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RECOVERY ZONE ECONOMIC DEVELOPMENT BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.2	([1])	0.2
2016	0.2	([1])	0.2
2017	0.2	([1])	0.2
2018	0.2	([1])	0.2
2019	0.2	([1])	0.2

([1]) Positive tax expenditure of less than $50 million. Estimates include outlay effects associated with the refundable portion of RZEDBs. These outlay effects are $0.2 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). 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) 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 as (3) 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 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 requirements of the Balanced Budget and Emergency Deficit Control Act of 1985, (P.L. 99-177), reduced the credit payments by 7.2 percent for FY2014; 7.3 percent for FY2015; and 6.8 percent for FY2016. The cuts applied to all direct pay tax credit bonds. With these percentage reductions, the 45 percent direct payments were reduced to 41.76 percent for FY2014, 41.71 percent for FY2015, and 41.94 percent in FY 2016.

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 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.

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ELIMINATE REQUIREMENT THAT FINANCIAL INSTITUTIONS ALLOCATE INTEREST EXPENSES ATTRIBUTABLE TO TAX-EXEMPT BOND INTEREST

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	0.5	0.5
2016	-	0.5	0.5
2017	-	0.5	0.5
2018	-	0.5	0.5
2019	-	0.5	0.5

Authorization

Sections 265(a), 265(b), and 291(e).

Description

Banks deduct interest expense, the interest they pay to depositors, as a cost of doing business, thereby reducing their tax liability. They have to reduce this interest expense, however, if the bank has invested in tax-exempt bonds. Generally, banks and financial institutions are required to reduce their interest expense deduction by a ratio calculated as the value of tax-exempt bonds to all assets in their portfolio. For example, if their interest expense is $1,000 and tax-exempt bonds represent eight percent of their total assets, they must reduce the interest expense deduction by $80 ($1,000 times eight percent). Reducing the size of the deduction (to $920) increases their tax liability. The rule is in place to keep banks from benefitting from two tax preferences for the same investment.

Tax-exempt bond investments by individuals and non-financial institutions that make up less than two percent of their investment portfolio, however, are not required to reduce their interest expense deduction. Also, investments by banks in qualified tax-exempt bonds receive more favorable tax treatment. Under this provision, the interest expense deduction is reduced by 20 percent of the interest expense allocable to these bonds. This confers a more favorable treatment on the *qualified* tax-exempt bonds and is often identified as the "two percent rule."

A *qualified* tax-exempt bond for this provision is one that: (1) has been issued since August 7, 1986, by a qualified small issuer, (2) is not a private activity bond, and (3) is designated by the issuer as qualifying for the exception from the general rule of section 265(b). A small issuer is one that issues less than $10 million per year ($30 million for bonds issued in 2009 and 2010).

This tax expenditure explains the temporary changes to these rules as provided for in American Recovery and Reinvestment Act, (ARRA, P.L. 111-5): they applied only to bonds issued in 2009 and 2010. First, the "two percent rule" described above was expanded from non-financial entities and individuals to banks and financial institutions. Thus, banks did not have to reduce their interest expense deduction if their tax-exempt bond holdings are less than two percent of total assets. Second, the small issuer definition is modified, increasing the annual "safe-harbor" issuance to $30 million from $10 million for bonds issued in 2009 and 2010. The rules for what constitutes "annual issuance" were loosened such that more issuers would qualify as a small issuer. The bonds issued under these temporary rules generate this legacy tax expenditure even though the ability to issue the bonds has expired

For more information on tax-exempt bonds generally, see the entry *Public Purpose State and Local Government Debt*.

Impact

The broader pool of potential investors (principally financial institutions) for these bonds likely increased the demand for the bonds and pushed down interest rates. Lower interest costs will encourage more of this type of financing. The two-year window for this provision likely limits the impact over the long run.

Rationale

The American Recovery and Reinvestment Act, (ARRA, P.L. 111-5), modified these rules for small issuers to encourage public infrastructure investment generally and to help state and local governments issue debt. In addition, the modified rules for borrowers that engage in pooled financing made it easier for these issuers to qualify for this tax preference.

Assessment

The temporary elimination of the requirement that banks and financial institutions reduce their interest expense deduction for these tax-exempt bonds likely increased the demand for these bonds. The increased demand conferred some interest cost savings to issuers. The magnitude of the interest cost saving is unclear and thus the effectiveness of the provision is uncertain. The increased complexity of the tax code, however, would likely reduce the effectiveness and economic efficiency of the provision.

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Education, Training, Employment and Social Services: Education and Training

PARENTAL PERSONAL EXEMPTION FOR STUDENTS AGE 19-23

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	4.5	-	4.5
2016	4.7	-	4.7
2017	4.9	-	4.9
2018	5.2	-	5.2
2019	5.5	-	5.5

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 ($4,000 in 2015 and $4,050 in 2016) 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. In 2016, 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 ($6,200 in 2015) for single taxpayers. 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 change 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 2016, 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 Years 2015 and 2016

Filing Status	2015	2016
Single	$258,250-$380,750	$259,400-$381,900
Married, Filing Jointly	$309,900-$432,400	$311,300-$433,800
Married, Filing Separately	$154,950-$216,200	$155,650-$216,900
Head of Household	$284,050-$406,550	$285,350-$407,850

Source: Internal Revenue Service (IRS), Revenue Procedure 2014-61; and Revenue Procedure 2015-53.

For example, in 2016, 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-$311,300)/$2,500 = 15.5. By multiplying 15.5*2, the tax unit's $16,200 in personal exemptions ($4,050 per personal exemption) is reduced by 31 percent. Thus, PEP would reduce this tax unit's personal exemptions from $16,200 to $11,178 (a reduction of $5,022).

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.

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 benefits 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.

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DEDUCTION FOR CLASSROOM EXPENSES OF ELEMENTARY AND SECONDARY SCHOOL EDUCATORS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: The estimates in this table were calculated prior to deduction for classroom expenses being made permanent beginning in 2015 by P.L. 114-113. Before this law, this provision expired at the end of 2014. According to the Joint Committee on Taxation, the permanent extension of this provisions will reduce revenues by an estimated $257 million (2016), $236 million (2017), $241 million (2018) and $260 million (2019).

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 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.

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 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, nearly three-quarters of the deductions are taken by tax filing units with adjusted gross incomes over $50,000, with nearly one-third claimed by those with income between $100,000 and $200,000.

Distribution by Income Class of Classroom Expense Deduction at 2013 Income Levels

Income Class (in thousands of $)	Percentage Distribution
Below $10	1.6
$10 to $20	3.4
$20 to $30	4.4
$30 to $40	8.0
$40 to $50	9.9
$50 to $75	19.8
$75 to $100	17.6
$100 to $200	31.3
$200 and over	4.3

Source: IRS *Statistics of Income Table 1.4* This is not a distribution of the tax expenditures, but of the amount deducted, classified by adjusted gross income.

Rationale

The classroom 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 classroom 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 remains available to

educators but to take it, the total of their miscellaneous itemized deductions must exceed two percent of adjusted gross income. An above-the-line deduction targeted at educators was 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 classroom supplies. Specifically, the classroom expense 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). Generally, benefits with caps are expected to be less effective, per dollar of revenue lost, in increasing the spending objective. 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 as in the preceding example, 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 of dollars 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.

This tax benefit increases the complexity of the tax code. Taxpayers with teachers in their filing units who make trade/business purchases in excess of $250 or who have other miscellaneous itemized deductions may now have to compute tax liability twice—under Code Sections 62 and 162—to determine which provides the greater savings.

In addition to increasing complexity, the classroom expense deduction treats educators differently than others whose business-related expenses are subject to the two percent floor on miscellaneous itemized deductions.

Further, the above-the-line deduction is allowed under the alternative minimum tax while the Section 162 deduction is not.

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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
2015	19.7	-	19.7
2016	21.0	-	21.0
2017	21.2	-	21.2
2018	12.5	-	12.5
2019	9.6	-	9.6

Note: Estimates include outlay effects associated with the refundability of the AOTC. These outlay effects are $6.4 billion (2015), $7.4 billion (2016), $7.8 billion (2017) and $8.0 billion (2018), with no estimated outlay effects in 2019.

The estimates in this table (and associated outlay effects) were calculated prior to the AOTC being made permanent by P.L. 114-113. According to the Joint Committee on Taxation, the permanent extension of the AOTC will reduce revenues by an estimated $2.4 billion and $11.8 billion in 2018 and 2019, respectively.

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 (to the extent that they are excluded from a student's gross income and not subject to taxation), veterans' education assistance, and other tax-free educational assistance. 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 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.

An eligible educational institution includes any accredited public, nonprofit, or proprietary college, university, vocational school, or other postsecondary educational institution eligible to participate in U.S. Department of Education student aid programs.

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 2016, these phaseout levels are equal to $55,000 and $65,000 for single taxpayers ($111,000 and $130,000 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. 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 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. Almost 60 percent 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, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	4.7
$10 to $20	9.2
$20 to $30	9.9
$30 to $40	9.0
$40 to $50	9.4
$50 to $75	16.4
$75 to $100	12.3
$100 to $200	28.0
$200 and over	1.1

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.

Assessment

A federal subsidy for higher education has potential economic justifications: fixing both a capital market failure and underinvestment in education. Subsidies that address these problems may benefit society as a whole.

Many students find themselves unable to finance their postsecondary education from earnings and personal or family savings. Student mobility and a lack of property to pledge as loan collateral would require commercial lenders to charge high interest rates on education loans in light of the high risk of default. As a result, students often find themselves unable to afford loans from financial intermediaries. This financial constraint bears more heavily on lower income groups than on higher income groups and accordingly, leads to inequality of opportunity to acquire a postsecondary education.

The capital market failure is likely attributable to the legal restriction against pledging an individual's future labor as loan collateral. Since modern society rejects this practice, the federal government has strived to correct the market failure by providing a guarantee to spread the financial sector's default risk associated with postsecondary loans to students to all federal taxpayers. This financial support is provided through the Direct Loan Program. The loan program is an entitlement and equalizes the financing cost for some portion of most students' education investment. When combined with Pell Grants for lower income students, it appears that at least some portion of the capital market failure has been corrected.

Some benefits from postsecondary education may accrue not to the individual being educated, but rather to society at large. As these external benefits are not valued by individuals considering educational purchases, invest less than is optimal for society (even assuming no capital market imperfections). External benefits would include increased productivity and better citizenship (e.g., greater likelihood of participating in elections).

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.

In addition, insofar as the credits results in higher tuition, their ability to lower the after-tax price of college may be limited. Some experts have expressed a concern that colleges and universities—especially those with tuition below the maximum amount subsidized by education tax credits—may respond to the availability of education tax credits like the AOTC by increasing their tuition. This would lessen the ability of education tax credits to lower the after-tax price of college. For example, if a student is eligible for a $2,000 credit, but their college increases tuition by $2,000, the price of college will effectively be unchanged and the credit will entirely benefit the college. If the college raises tuition for all students, irrespective of whether they are eligible for the credit, some students may actually see the cost of college rise. While there is currently no research on the institutional response to the AOTC, studies of the Hope and Lifetime Learning Credits have found little evidence that they resulted in tuition increases. This may in part be due to the fact that the colleges most likely to raise tuition—schools with lower tuition levels like community colleges—predominantly service lower-income students who were ineligible for the non-refundable Hope Credit and Lifetime Learning Credit. However, insofar as the AOTC benefits certain low-income taxpayers that were ineligible for the Hope Credit, schools may

choose to raise tuition levels, reducing the effective value of the AOTC and potentially increasing the after-tax cost of college for students ineligible for the AOTC.

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.

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DEDUCTION FOR INTEREST ON STUDENT LOANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	2.0	-	2.0
2016	2.1	-	2.1
2017	2.2	-	2.2
2018	2.3	-	2.3
2019	2.4	-	2.4

Authorization

Section 221.

Description

Taxpayers may deduct up to $2,500 of interest paid on qualified education loans in 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 2016, the amount that can be deducted phases out for taxpayers with modified adjusted gross income between $65,000 and $80,000 ($130,000 to $160,000 for married taxpayers filing joint returns). Hence, taxpayers with income above $80,000 ($160,000 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 indebtedness incurred solely to pay qualified higher education expenses of taxpayers, their spouse, or their

dependents who were at the time the debt was incurred students. 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

The deduction benefits taxpayers according to their 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 debt that can be deducted annually limits the tax benefit's impact for those who have large loans. The income ceilings limit the benefit's availability to the highest income individuals, 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, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	1.7
$20 to $30	5.0
$30 to $40	7.4
$40 to $50	8.6
$50 to $75	26.9
$75 to $100	14.5
$100 to $200	35.9
$200 and over	0.0

Rationale

The 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 education 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 when graduates begin full-time employment. Whether the deduction will affect enrollment decisions is unknown; it might only change the way

families finance college costs. The deduction may encourage some graduates to accept public service jobs that may pay lower salaries.

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. It is unlikely to reduce loan defaults, which generally are related to low income and unemployment.

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EXCLUSION OF EARNINGS OF COVERDELL EDUCATION SAVINGS ACCOUNTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	-	0.1
2016	0.1	-	0.1
2017	0.1	-	0.1
2018	0.1	-	0.1
2019	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.

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 (included 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 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.

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DEDUCTION FOR HIGHER EDUCATION EXPENSES

Estimated Revenue Loss*

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Note: The estimates in this table were calculated prior to the tuition and fees deduction being extended for 2015 and 2016 by P.L. 114-113. According to the Joint Committee on Taxation, this two-year extension will reduce revenues by an estimated $360 million and $248 million in 2016 and 2017, respectively.

Authorization

Section 222.

Description

Taxpayers may deduct qualified tuition and related expenses for postsecondary education from their adjusted gross income. The 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

The deduction benefits taxpayers according to their 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 might be available to fewer taxpayers over time.

Distribution by Income Class of Education Deduction at 2013 Income Levels

Income Class (in thousands of $)	Percentage Distribution
Below $10	31.6
$10 to $20	9.6
$20 to $30	6.3
$30 to $40	5.3
$40 to $50	4.7
$50 to $75	13.4
$75 to $100	5.7
$100 to $200	23.3
$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). Most recently, this provision was extended for 2015 and 2016 by the Protecting Americans from Tax Hikes (PATH) Act (P.L. 114-113).

The deduction builds upon postsecondary tax benefits that were initiated 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

Similar to the tuition tax credits, the tuition and fees deduction has several potential economic justifications: fixing both a capital market failure and underinvestment in education. Subsidies that address these problems may benefit society as a whole. Many students find themselves unable to finance their postsecondary education from earnings and personal or family savings. Student mobility and a lack of property to pledge as loan collateral would require commercial lenders to charge high interest rates on education loans in light of the high risk of default. As a result, students often find themselves unable to afford loans from the financial sector. This financial constraint bears more heavily on lower income groups than on higher income groups and accordingly, leads to inequality of opportunity to acquire a postsecondary education.

The capital market failure is likely attributable to the legal restriction against pledging an individual's future labor as loan collateral. Since modern society rejects this practice, the federal government has strived to correct the market failure by providing a guarantee to spread the financial sector's default risk associated with postsecondary loans to students to all federal taxpayers. This financial support is provided through the Direct Loan Program. The loan program is an entitlement and equalizes the financing cost for some portion of most students' education investment. When combined with Pell Grants for lower income students, it appears that at least some portion of the capital market failure has been corrected.

Some benefits from postsecondary education may accrue not to the individual being educated, but rather to society at large. If these external benefits are not valued by individuals considering educational purchases, they will invest less than is optimal for society (even assuming no capital market imperfections). External benefits would include increased

productivity and better citizenship (e.g., greater likelihood of participating in elections).

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, subsidizes 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 the tuition and fees reduces college cost, this tax benefit will induce them to attend college. On the other hand, certain students will attend college irrespective of price. In this case, the deduction rewards students and their families for an action—attending college—that they would have made regardless of the deduction and the deduction is 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 the benefit for higher income taxpayers.

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.

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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
2015	0.7	-	0.7
2016	0.9	-	0.9
2017	1.2	-	1.2
2018	1.4	-	1.4
2019	1.5	-	1.5

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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. 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 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.

Qualified education expenses are referred to as adjusted qualified higher education expenses (AQHEE) and include the following expenses related to enrollment or attendance at an eligible educational institution:

- 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.

To determine the amount of AQHEE, 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, the tax-free portion of Pell grants, and employer-provided educational assistance. They also must be reduced by the value of expenses used to claim education tax credits. (An eligible education institution for purposes of qualified tuition plans is any college, university, vocational school, or other postsecondary educational institution eligible to participate in a student aid program administered by the U.S. Department of Education.)

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 $14,000 in 2016 as a tax-free gift per beneficiary. A special gifting provision allows a 529 plan contributor to make an excludable gift of up to $65,000 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 annual limit on contributions, unlike the case with the Coverdell Education Savings Account (ESA).

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 qualified higher education expenses. Nonqualified earnings withdrawals are taxable to the distributee as well. 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.

If a loss is incurred on funds invested in a 529 plan account, taxpayers may be able to deduct the loss on their returns. The loss can be deducted only when all amounts in an account have been distributed and the total distribution is less than the unrecovered basis (i.e., total contributions to the account). The loss may be claimed as a miscellaneous itemized deduction on Schedule A, which is subject to the 2 percent-of-adjusted-gross-income floor.

In addition to 529s, there are a variety of other tax benefits taxpayers (either the beneficiary or the account owner) may use to lower their income tax bill based on education expenses. Notably, taxpayers may be eligible to claim higher education tax credits or the tuition and fees deduction. A taxpayer cannot claim more than one of these tax benefits for the same student in a given year.

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. 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 earning*s* 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 (see Appendix A). 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. Under this law, individuals could defer taxes on their investment until they withdrew money from these accounts.

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 made this EGTRRA change to 529s permanent.

Assessment

According to estimates from the Joint Committee on Taxation, in 2014 there were over 12 million 529 accounts with an aggregate value of nearly $250 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 higher income families are more likely to save without 529 plans, these plans may not be the most efficient way to encourage college saving. Indeed, 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.

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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
2015	0.4	0.2	0.6
2016	0.4	0.2	0.6
2017	0.4	0.2	0.6
2018	0.5	0.2	0.7
2019	0.5	0.2	0.7

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 $100 per state resident or $302.88 million in 2016. 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 2015, $1.8 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), that 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 failed to 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 Federal Family Education Loan (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.

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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
2015	0.3	-	0.3
2016	0.3	-	0.3
2017	0.3	-	0.3
2018	0.3	-	0.3
2019	0.3	-	0.3

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."

There are a variety of requirements for determining if a tuition reduction is "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. 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 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 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 courses are job-related or included 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.

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EXCLUSION OF SCHOLARSHIP AND FELLOWSHIP INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	2.7	-	2.7
2016	2.9	-	2.9
2017	3.0	-	3.0
2018	3.2	-	3.2
2019	3.4	-	3.4

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 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 use their standard deduction or personal exemption to offset scholarship or fellowship income (though their personal exemption would be zero if their parents could claim them as dependents). On the other hand, the exclusion may result in a more substantial tax benefit for married postsecondary students who file joint returns with their employed spouses.

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.

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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
2015	2.6	1.0	3.6
2016	2.6	1.0	3.6
2017	2.8	1.0	3.8
2018	2.9	1.1	4.0
2019	3.1	1.1	4.2

Authorization

Section 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 2016 is the greater of $100 per capita or $302.88 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 for 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.

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TAX CREDIT FOR HOLDERS OF QUALIFIED ZONE ACADEMY BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	0.2	0.3
2016	0.1	0.2	0.3
2017	0.1	0.2	0.3
2018	0.1	0.2	0.3
2019	0.1	0.2	0.3

Note: An element of this provision expired at the end of 2014 but was extended through 2016 at a cost of $50 million for FY2015-FY2019. Estimates include outlay effects associated with the refundable portion of QZABs. These outlay effects are $0.1 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 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 (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 FY2016. For FY2016, the sequestration reduced the direct payment QZAB credit rate by 6.8 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.

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 QZAB's 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.

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 35 percent, the credit rate would be equal to .06/(1-.35), or about 9.2 percent. Thus, a financial institution purchasing a $1,000 QZAB would receive a $92 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 FY2016 through sequestration. For FY2016, the sequestration reduced the direct payment QZAB credit rate by 6.8 percent. With this modification, in the example above the direct payment subsidy received for the zone academy bond would be equal to the 94.2 percent (100-6.8) of the eight percentage points of interest costs, or 7.538 percent.

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TAX CREDIT FOR HOLDERS OR ISSUERS OF QUALIFIED SCHOOL CONSTRUCTION BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.0	([1])	1.0
2016	1.1	([1])	1.1
2017	1.2	([1])	1.2
2018	1.3	([1])	1.3
2019	1.4	([1])	1.4

Note: Estimates include outlay effects associated with the refundable portion of QSCBs. These outlay effects are $1.0 billion in FY2015, $1.1 billion in FY2016, $1.2 billion in FY2017, $1.3 billion in FY2018, and $1.4 billion in FY2019. 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 (P.L. 111-5, ARRA) 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 (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 FY2016. For FY2016, the sequestration reduced the direct payment QSCB credit rate by 6.8 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 (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.

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 FY2016 through sequestration. For FY2016, the sequestration reduced the direct payment QSCB credit rate by 6.8%.

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.

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EXCLUSION OF INCOME ATTRIBUTABLE TO THE DISCHARGE OF CERTAIN STUDENT LOAN DEBT AND NHSC EDUCATIONAL LOAN REPAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.2	-	0.2
2016	0.2	-	0.2
2017	0.2	-	0.2
2018	0.2	-	0.2
2019	0.2	-	0.2

Authorization

Section 108(f); 20 U.S.C. §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 is included as gross income for purposes of taxation under §61(a)(12) of the IRC. However, §108(f) provides that in certain instances, student loan cancellation and student loan repayment assistance may be excluded from gross income.

Cancelled or forgiven student loan debt may be excluded from gross income under §108(f) if the relevant student loan was made by specified types of lenders; borrowed to assist an individual in attending an educational organization described in §170(b)(1)(A)(ii); and 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 of a 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 student loans. The major federal student loan programs are the William D. Ford Federal Direct Loan (DL) program, the Federal Perkins Loan program, and the Federal Family Education Loan (FFEL) program, although, loans are no longer being made under the FFEL program. 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. In addition, some non-federal loans may be made with terms that meet the requirements of §108(f) — for example, certain law school loan repayment assistance programs.

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 public, nonprofit, or for-profit 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) 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 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.

Impact

Section 108(f) permits individuals to exclude cancelled or forgiven student loan debt, payments made on their behalf under the NHSC, and state loan repayment programs from their gross income.

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[7] Eric Solomon, Assistant Secretary for Tax Policy, Department of the Treasury, "Letter to Honorable Sander Levin on the income tax treatment of student loans forgiven under the Higher Education Act," (Sep. 19, 2008).

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 not known.

Rationale

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.

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. 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 (e.g., law school loan repayment assistance 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 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% 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.

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DEDUCTION FOR CHARITABLE CONTRIBUTIONS TO EDUCATIONAL INSTITUTIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	6.2	0.3	6.5
2016	6.4	0.4	6.8
2017	6.6	0.4	7.0
2018	6.8	0.4	7.2
2019	7.1	0.4	7.5

Note: Additional costs of charitable contributions due to extenders are discussed in "Deduction for Charitable Contributions other than for Education and Health."

Authorization

Section 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 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.

The Pension Protection Act of 2006 (P.L. 109-280) included several provisions that temporarily expanded charitable giving incentives including enhancements to laws governing non-cash gifts and tax-free distributions from individual retirement plans; some of these provisions became part of the extenders, provisions that are extended a year or two at a time. These provisions were made permanent in 2015 by the Consolidated Appropriations Act (P.L.114-113). 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.

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 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, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.1
$30 to $40	0.2
$40 to $50	0.6
$50 to $75	3.2
$75 to $100	5.2
$100 to $200	22.4
$200 and over	68.2

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, 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).

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.

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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
2015	1.2	-	1.2
2016	1.2	-	1.2
2017	1.2	-	1.2
2018	1.3	-	1.3
2019	1.3	-	1.3

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. However, amounts that exceed the $5,250 limit may be excludable if they qualify as a working condition fringe benefit under Section 132 (i.e., the expense would have been deductible as a business expense if paid by the employee. To meet such a requirement, the expense must be related to the employee's current job.)

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), 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.

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SPECIAL TAX PROVISIONS FOR EMPLOYEE STOCK OWNERSHIP PLANS (ESOPS)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	1.4	1.5
2016	0.1	1.5	1.6
2017	0.1	1.6	1.7
2018	0.1	1.6	1.7
2019	0.1	1.7	1.8

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 for dividends 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 allowed an estate for 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.

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Education, Training, Employment and Social Services:
Employment

EXCLUSION OF EMPLOYEE AWARDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.3	-	0.3
2016	0.3	-	0.3
2017	0.3	-	0.3
2018	0.3	-	0.3
2019	0.4	-	0.4

Authorization

Sections 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 under section 74, there are 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 as part of a meaningful presentation and in circumstances that make it clear the award cannot be considered disguised compensation. 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 an employer gives safety achievement awards to a manager, administrator, clerical employees, or other professional employee.

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 is tied to 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 that is available to all employees, regardless of the amount 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. This means that the maximum exclusion is $400 per employee, unless a non-profit employer has a qualified employee achievement award plan, in which case the maximum limit can be as high as $1,600.

The amount of an eligible employee award excluded from gross income is also excluded under the Federal Insurance Contributions Act (FICA) for Social Security and Medicare taxes (Old Age, Survivors and Disability tax and Hospital Insurance tax).

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.

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EXCLUSION OF EMPLOYEE MEALS AND LODGING (OTHER THAN MILITARY)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	2.1	-	2.1
2016	2.1	-	2.1
2017	2.2	-	2.2
2018	2.3	-	2.3
2019	2.4	-	2.4

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 the employees 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 meals and lodging furnished by an employer under certain conditions. The FMV of meals is excludable if the meals are provided on the employer's business premises and for the convenience of the employer. In the case of employer-provided lodging, not only must it meet the two conditions for meals, 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 and not just the main buildings.

An employer provides meals for its convenience if it does so for "a substantial non-compensatory business reason." Determining if 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 does not matter. What counts for proving there is a substantial non-compensatory business reason for employer-provided meals is that employees must accept the meals in order to perform their job 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. First, the facility is located on or near the employer's place of business. Second, revenue from the facility equals or exceeds 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 is impractical or too 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

Exclusion from taxation of employer-provided meals and lodging effectively subsidizes employment in the occupations or industries in which such arrangements are widely practiced. 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).

Rationale

The exclusion for employee meals and lodging is set forth in section 119 and generally has been the focus of court and Treasury Department since 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 treated as tax free to employees. Employers are allowed to deduct the cost of meals and lodging provided to employees as an ordinary and necessary business expense under section 162.

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.

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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
2015	0.4	-1.1	-0.7
2016	0.4	-1.2	-0.8
2017	0.3	-1.2	-0.9
2018	0.3	-1.1	-0.8
2019	0.3	-1.1	-0.8

Authorization

Sections 421-422.

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 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).

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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
2015	([1])	-0.1	-0.1
2016	([1])	-0.2	-0.2
2017	0.1	-0.2	-0.1
2018	0.1	-0.2	-0.1
2019	0.1	-0.2	-0.1

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

Authorization

Sections 421, 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 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.

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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
2015	35.2	-	35.2
2016	36.1	-	36.1
2017	37.6	-	37.6
2018	39.4	-	39.4
2019	40.2	-	40.2

Authorization

Section 125.

Description

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 2016, 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 $170,000, 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 $2,500.

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 2015 survey from the Bureau of Labor Statistics (BLS) 17 percent of employees had access to a flexible benefits plan, 38 percent to a dependent care plan, and 40 percent to healthcare reimbursement. For firms with less than 100 employees these ratios were 10, 21 and 23 percent. For firms with more than 500 employees, the percentages were 35, 72 and 76 percent. The federal government began to offer FSAs to its employees in July 2003.

Despite 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 health care FSA, and 6 percent in a child care FSA.

Rationale

Under the Employee Retirement Income Security Act of 1974 (ERISA), 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 extended these rules to employer contributions made before January 1, 1978. The Foreign Earned Income Act of 1978 made a further extension until the effective date of the Revenue Act of 1978 (*i.e.*, through 1978 for calendar-year taxpayers).

In the Revenue Act of 1978, 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 limited permissible benefits and established additional reporting requirements. The Tax Reform Act of 1986 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 (Patient Protection and Affordable Care Act of 2010, P.L. 111-148). That legislation also excluded over-the-counter drugs from being a qualified FSA expense. It also disallowed insurance purchased in individual exchanges which began in 2014 in Treasury Notice 2013-54, providing for transition

relief in Treasury Notice 2015-17, which allowed small businesses through June 30, 2015 to comply.

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 expenditures exceed 10 percent of adjusted gross income (7½ percent for those over 65 through 2016). It is possible that FSAs encourage additional consumption of health care, though many workers are reluctant to put large sums in their accounts since unused amounts cannot be carried over to later years.

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EXCLUSION OF HOUSING ALLOWANCES FOR MINISTERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.8	-	0.8
2016	0.8	-	0.8
2017	0.8	-	0.8
2018	0.8	-	0.8
2019	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. A minister of the gospel is defined in section 107 as someone who is "a duly ordained, commissioned, or licensed minister of a church." This definition applies to all 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 in the church.

Members of the clergy are considered employees under the federal income tax but self-employed under federal payroll taxes.

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 receive from their employer 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 a parsonage from their employers 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 out of 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 marginal tax rate that applies to a minister's income. For the same housing allowance (say $1,000),

a minister in the highest income tax bracket (39.6 percent) would derive a greater tax savings from the exclusion than would a minister in a lower tax bracket (15 percent). In this instance, the tax savings would be $396 for the former but only $150 for the latter.

Ministers who receive a cash housing allowance can further decrease their tax burden 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 deemed 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 uncertainty 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 form 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 allowance exclusion 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 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. Motivated 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 housing allowance 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 into 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 should 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 in the same tax brackets do not have, violating the principle of horizontal equity. For example, a clergyman teaching in an affiliated religious school may exclude the 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 with church-provided homes do not receive the same tax benefits as those who purchase their homes 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 one of the key principles undergirding the federal income tax: no taxpayer should derive a double benefit from the same expenditure.

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EXCLUSION OF INCOME EARNED BY VOLUNTARY EMPLOYEES' BENEFICIARY ASSOCIATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	3.2	-	3.2
2016	3.2	-	3.2
2017	3.3	-	3.3
2018	3.3	-	3.3
2019	3.4	-	3.4

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 ten 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 Guarantee 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 3 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.

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EXCLUSION OF MISCELLANEOUS FRINGE BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	7.5	-	7.5
2016	7.7	-	7.7
2017	7.8	-	7.8
2018	8.0	-	8.0
2019	8.2	-	8.2

Authorization

Sections 132 and 117(D).

Description

Individuals do not include in income certain miscellaneous fringe benefits provided by employers, including services provided at no additional cost, employee discounts, working condition fringes, *de minimis* fringes, and certain tuition reductions. Special rules apply with respect to certain parking facilities provided to employees and certain on-premises athletic facilities.

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); the rules affecting transportation benefits were modified in the Energy Policy Act of 1992 (P.L. 102-486) and The Taxpayer Relief Act of 1997 (P.L. 105-34). 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 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 they 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 U.S. 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 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.

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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
2015	-	-0.2	-0.2
2016	-	-0.2	-0.2
2017	-	-0.2	-0.2
2018	-	-0.2	-0.2
2019	-	-0.2	-0.2

Authorization

Section 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. Any portion of such a payment over a base amount—an "excess parachute payment"—that is made to a disqualified individual is not deductible by the corporation. 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 take place 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 the excess parachute payment. 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 benefit 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.

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LIMITS ON DEDUCTIBLE COMPENSATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-0.8	-0.8
2016	-	-0.8	-0.8
2017	-	-0.9	-0.9
2018	-	-0.9	-0.9
2019	-	-0.9	-0.9

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). 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. Performance-based compensation and specified commissions are not treated as compensation, for the purposes of this provision.

Impact

The cap on deductible executive compensation provides an incentive for businesses to favor performance-based compensation in the structuring of executive compensation packages, relative to fixed compensation. Given the uncertainty surrounding performance-based compensation this would bias, all else equal, total executive compensation upward.

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.

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 CEO 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 CEOs create. Others, however, view executive pay as excessive. Some see a social equity problem, taking CEO 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.

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Education, Training, Employment, and Social Services:
Employment

WORK OPPORTUNITY TAX CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.1	0.4	0.5
2016	—	—	—
2017	—	—	—
2018	—	—	—
2019	—	—	—

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

Note: This provision was extended through 2019 by the Protecting Americans from Tax Hikes Act of 2015 (P.L. 114-113). The Joint Committee on Taxation has not updated its revenue estimate for this provision.

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 does so by reducing an employer's cost of hiring designated individuals, relative to the 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 20-year history of the credit, employers that hired persons from the following nine groups have benefitted from it. Not all groups have been eligible every year since the creation of the credit in 1996:

- (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) 18- to 39-year olds who are members of families receiving supplemental food assistance under the Food and Nutrition Act of 2008 (FNA) during the six months ending on the hiring date or, in the case of 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 ending on 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 ending within 60 days of 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 who 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 leading up to 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 year preceding that date; 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 the first year of employment for a WOTC-certified individual, (except for certain qualified veterans and summer youth), an employer may claim an income tax credit equal to 40% of the individual's first $6,000 in wages if she is employed at least 400 hours, or 25% if 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 credits may be carried back one year or forward up to 20 years.

Impact

Responsibility for administering the credit is split between the 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 FY2014, SWAs issued 1,304,460 certifications of WOTC eligibility for new hires, down from 1,591,000 certifications in FY2013. 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, regardless of economic conditions, to find a job. It does so by reducing the relative cost of hiring such individuals through a temporary employer wage credit. To be effective, the credit should be large enough to overcome the reluctance of many employers to hire persons with relatively few skills, little work experience, and presumed low productivity.

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 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 frequently 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 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 in 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. It also 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 or 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).

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, and 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. 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 and their presumed relatively low productivity. The credit is not intended to spur a faster rate of net job creation or promote recovery in labor markets reeling from the effects of 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.

There is an extensive literature on the WOTC. Most of the evidence relevant to these policy issues comes from a series of studies issued 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 defined as the number of WOTC-certified workers divided by the total number of eligible workers for whom the credit is not claimed. For instance, 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 trying 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 ineligible employees doing the same work because of the credit.

- The employment of WOTC-certified disabled veterans 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 studies 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 modify it to improve its cost-effectiveness.

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Education, Training, Employment, and Social Services:
Social Services

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
2015	4.7	-	4.7
2016	4.8	-	4.8
2017	4.8	-	4.8
2018	4.8	-	4.8
2019	4.9	-	4.9

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 credits like the EITC or additional child tax credit than if employer-provided child care was included as income. These outlay effects are $0.9 billion (2015), $1.0 billion (2016), $1.0 billion (2017), $0.9 billion (2018) and $1.0 billion (2019).

Authorization

Sections 21 and 129.

Description

A taxpayer may claim a nonrefundable tax credit (Section 21) for certain expenses for child or dependent care of a qualifying individual. Specifically, these expenses qualify for the credit if they are incurred to enable the taxpayer to work (or look for work) and are for the qualifying individual's care.

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.

Qualified expenses must be work-related, meaning they must allow the taxpayer (and if married, their spouse) to work (or look for work), and be for the care of the qualifying person. An expense is not considered work-related merely because the taxpayer incurred it while working. The purpose of the expense must be to allow the taxpayer to work (or look for work).

Qualifying expenses often include the cost of a nanny or other form of in-home care, daycare, and education below the kindergarten level. The cost of care outside the home, including at a dependent care center, generally is a qualified expense if the care is for a dependent under the age or 13, or any qualifying individual who spends at least 8 hours a day in the taxpayer's home. Dependent care centers must comply with state and local laws and regulations to qualify. Qualified expenses include payments made to relatives, as long as they are not dependents of the taxpayer, the taxpayer's spouse, a parent of the qualifying individual (if the qualifying individual isn't the taxpayer's child and under 13), or a child of the taxpayer under age 19.

Generally, qualified expenses do not include amounts paid for food, lodging, clothing, education, and entertainment. Thus, costs of institutional care in a nursing home or assisted living facility are generally not considered qualified expenses. Summer school, tutoring and overnight camp are also generally not considered qualified expenses.

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 (1) they are a full-time student or physically or (2) they are mentally not able 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.

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 taxpayer's spouse 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 student 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, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to under $20	0.1
$20 to under $30	2.1
$30 to under $40	5.4
$40 to under $50	5.9
$50 to under $75	12.1
$75 to under $100	11.7
$100 to under $200	41.3
$200 and over	21.3

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 generally not available to the lowest income taxpayers. Indeed, the credit primarily benefits middle and upper-income taxpayers, with almost 75 percent of the credit claimed by taxpayers with $75,000 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. 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 provision was made more generous in 1964, and was revised and broadened in 1971. Several new justifications in 1971 included encouraging the hiring of domestic workers, encouraging the care of incapacitated persons at home rather than in institutions, providing relief to middle-income taxpayers as well as low-income taxpayers, and providing relief for employment-related expenses of household services as well as for dependent care.

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). 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.

The income tax exclusion for employees was enacted in the Economic Recovery Tax Act of 1981 (P.L. 97-34) and was intended to provide an incentive for employers to become more involved in the provision of dependent care services for their employees. Also in 1981, the tax credit was converted into the current sliding-scale credit (whereby the rate decreased as income increased) and the maximum amount of qualified expenses was increased. 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 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% to 35%) 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, and least to the poorest. 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 2014, while taxpayers in the $50,000-$75,000 income class are estimated to receive 12.1 percent of the tax expenditure. 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 that for those with higher incomes. This would imply the credit (excluding the 20 percent with the lowest incomes) would increase equity among taxpayers.

The same analysis by the Tax Policy Center estimates that only 12.1 percent of families with children will actually 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 be 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).

Before tax year 2003, the maximum amount of qualified expenses had not been increased since 1982. The effect of the credit on reducing a taxpayer's after tax cost of child care will vary. Average annual child care costs vary by state and the age of the child. For example, in 2014 the average annual cost of infant care provided in a child care center varied from a low of $4,822 in Mississippi to $22,631 in Washington, DC. The average annual cost of care for a 4-year-old at a child care center ranged from $3,977 in Mississippi to $17,842 in Washington, DC. For two-children (one-infant and one 4-year old), the average annual costs of center-based care in 2014 varied from $8,819 in Mississippi to $40,473 in Washington, DC.

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 if a child or family member are a qualifying individual for the child and dependent care tax credit are complex, and differ 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: 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.

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CREDIT FOR EMPLOYER-PROVIDED DEPENDENT CARE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([1])	([1])	([1])

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

Authorization

Section 45F.

Description

Employers are allowed 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 be able to take advantage of 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 care giver is temporarily not available.

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ADOPTION CREDIT AND EMPLOYEE ADOPTION BENEFITS EXCLUSION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.4	-	0.4
2016	0.4	-	0.4
2017	0.4	-	0.4
2018	0.5	-	0.5
2019	0.5	-	0.5

Authorization

Sections 23, 137.

Description

A taxpayer may be able to claim a tax credit for qualified adoption expenses and an income tax exclusion of adoption benefits received under employer-sponsored adoption assistance programs. Both have a limitation on qualified expenses that is indexed for inflation ($13,460 in 2016). The credit is not refundable; meaning the value of the credit claimed cannot be greater than the taxpayer's tax liability. Any amount of the credit which is greater than tax liability is effectively forfeited, although any amount of the credit in excess of tax liability may be carried forward up to five years. (The credit was temporarily refundable for 2010 and 2011 only.)

A related tax benefit—the exclusion of employer-provided adoption assistance—has the same limit on expenses ($13,460 in 2016). Employer-provided adoption assistance benefits must be received under a written plan for an employer-sponsored adoption assistance program. Both the tax credit and income tax exclusion amounts are phased-out (allowable qualified

adoption expenses are reduced) for taxpayers with adjusted gross incomes above statutory thresholds. (These thresholds are the same for married and unmarried filers, although married filers must file a joint return.) For tax year 2016, a taxpayer with modified adjusted gross income over $201,920 has qualified adoption expenses reduced. For a modified adjusted gross income of $241,920 or more, the qualified adoption expenses are reduced to zero. The phase-out range is adjusted annually for inflation. The adoption credit is allowed against the alternative minimum tax. Unlike some other tax exclusions, the exclusion for employer-provided adoption assistance only applies to the income tax. Hence, adoption benefits provided through an employer-provided adoption assistance program are subject to employment taxes.

Qualified adoption expenses for both the credit and exclusion include reasonable and necessary adoption fees, court costs, attorney fees, and other expenses directly related to a legal adoption of a qualified child. A qualified child is under age 18; or an individual of any age who is physically or mentally incapable of caring for themselves. In the case of special needs adoptions, state required expenses such as construction, renovations, alterations, or other purchases may qualify as adoption expenditures. In the case of a special needs adoption, the maximum tax credit is allowed regardless of actual qualified adoption expenses (i.e., in 2016 they are assumed to have expenses equal to $13,460 and eligible for a credit of $13,460). 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.

These provisions are unavailable for expenses related to surrogate parenting arrangements, or the adoption of a spouse's child. The provisions are also unavailable for expenditures contrary to state or federal law.

The dollar limitation of the credit ($13,460) applies separately to both the credit and the exclusion, and the taxpayer may be able to claim both the credit and the exclusion for qualified expenses. However, the taxpayer must claim any allowable exclusion before claiming any allowable credit. Expenses used for the exclusion reduce the amount of qualified adoption expenses available for the credit. As a result, the taxpayer cannot claim both a credit and an exclusion for the *same* expenses. For example, if a taxpayer had $26,920 in qualified adoption expenses, and their employer reimbursed $13,460 of these expenses, the taxpayer could potentially claim a $13,460

adoption credit. The adoption tax credit or income tax exclusion is also not available for expenses paid by a grant received under a federal, state, or local program.

Married couples are generally required to file a joint tax return to be eligible for the credit. The Secretary of the Treasury is permitted to establish, by regulation, procedures to ensure that unmarried taxpayers who adopt a single child and who have qualified adoption expenses have the same dollar limitation as a married couple. The taxpayer is required to furnish the name, age, and Social Security number for each adopted child.

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 2013, approximately 0.04 percent of tax returns claimed the adoption tax credit, with an average credit of $4,171 per tax return. In addition, as illustrated in the table below, the majority (72.9 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 non-refundable credit, the adoption tax credit is taken against tax liability *after* certain other nonrefundable tax credits such as the child tax credit and the education credits are claimed.

Distribution by Income Class of the Adoption Credit Claimed in Tax Year 2013

Adjusted Gross Income Class (in thousands of $)	Percentage Distribution
Below $30	0.4
$30 to under $50	7.7
$50 to under $75	19.0
$75 to under $100	29.2
$100 to under $200	40.6
$200 and over	3.2

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 over a third of the refundable portion of the adoption

credit was claimed by taxpayers with income below $30,000. The average amount of the refundable portion of the adoption credit per taxpayer in 2011 was $13,178.

Distribution by Income Class of the Refundable Portion of the Adoption Credit Claimed in Tax Year 2011

Adjusted Gross Income Class (in thousands of $)	Percentage Distribution
Below $30	36.4
$30 to under $50	16.1
$50 to under $75	26.3
$75 to under $100	6.7
$100 to under $200	14.5
$200 and over	0.0

Source: Data compiled from IRS, *Statistics of Income*, Table 3.3.

Rationale

An itemized deduction was provided by the Economic Recovery Tax Act of 1981 (P.L. 97-34) to encourage, through the reduction of financial burdens, taxpayers to legally adopt children with special needs. The deduction was repealed with passage of the Tax Reform Act of 1986 (P.L. 99-514). The rationale for repeal was the belief that the deduction provided the greatest benefit to higher-income taxpayers and that budgetary control over assistance payments could best be handled by agencies with responsibility and expertise in the placement of special needs children.

The tax credit and income tax exclusion provisions 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. 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 adoption. 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 between 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 under this law.

The EGTRRA modifications to the credit and exclusion were extended 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

While federal tax assistance has been provided in the past for the placement of special needs children, both the current law tax credit and exclusion are more broadly based. The provisions apply to the vast majority of adoptions (that are not by family members), and are not targeted only to the adoptions of special needs children.

It appears that the credit and income tax exclusion are designed to provide tax relief to moderate income families for the costs associated with adoptions and to encourage families to seek adoptable children. Taxpayers with adjusted gross incomes of less than $201,920 in 2016 can receive the full tax exclusion or tax credit as long as they owe sufficient before-credit taxes. The phase-out applies only to those taxpayers whose adjusted gross incomes exceed $201,920 (in 2016). It would appear that the rationale for the cap is that taxpayers whose incomes exceed $201,920 (in 2016) have the resources for adoption so that the federal government does not need to provide special tax benefits for adoption to be affordable. The phase-out also reduces the revenue loss associated with these provisions.

Some have assumed that tax credits and direct government grants are similar, since both may provide benefits at specific dollar levels. However, some argue that tax credits are often preferable to direct government grants, because they provide greater freedom of choice to the taxpayer. Such freedoms include, for example, the timing of expenditures or the amount to spend, while government programs typically have more definitive rules and regulations. Additionally, in the case of grants, absent a specific tax exemption, a grant may result in taxable income to the recipient.

Use of a tax mechanism does, however, add complexity to the tax system, since the availability of the credit and tax exclusion must be made known to all taxpayers, and space on the tax form must be provided (with accompanying instructions). The enactment of these provisions added to the

administrative burdens of the Internal Revenue Service. A criticism of the tax deduction available under prior law was that the Internal Revenue Service had no expertise in adoptions and was therefore not the proper agency to administer a program of federal assistance for adoptions.

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EXCLUSION OF CERTAIN FOSTER CARE PAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.4	-	0.4
2016	0.4	-	0.4
2017	0.4	-	0.4
2018	0.4	-	0.4
2019	0.4	-	0.4

Authorization

Section 131.

Description

Qualified foster care payments are excluded from the foster care provider's gross income. Qualified foster care payments are payments made by a state or local governmental agency or any qualified foster care placement agency to the provider for either of two purposes: (1) for caring for a "qualified foster individual" in the foster care provider's home (defined as an individual placed by a qualified foster care placement agency, regardless of the individual's age at the time of placement) or (2) for additional compensation for additional care, provided in the foster care provider's home that is necessitated by an individual's physical, mental, or emotional handicap for which the state has determined that additional compensation is needed (referred to as a "difficulty of care" payment).

Foster care payments, other than "difficulty of care" payments, are limited based on the number of foster care individuals in the provider's home over age 18. The foster care payment exclusion is limited to payments for five qualified foster care individuals aged 19 or older. Foster care payments

for more than five children are not excluded from gross income. The difficulty-of-care exclusion is limited to payments for 10 qualified foster care individuals under the age of 19 or five individuals age 19 or older per foster home.

The Internal Revenue Service has ruled that foster care payments excluded from income are not "earned income" for purposes of the Earned Income Tax Credit (EITC).

Impact

Both foster care and difficulty of care payments qualify for a tax exclusion. 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 conceded 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. The trade-off is that to the extent foster care providers receive payments over actual expenses incurred, monies which should be taxable as income are provided an exemption from individual income and payroll taxation.

A study by the General Accounting Office (1989) 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. More recently, the Department of Human Services (2005) has 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.

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DEDUCTION FOR CHARITABLE CONTRIBUTIONS, OTHER THAN FOR EDUCATION AND HEALTH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	36.2	1.0	37.2
2016	37.3	1.1	38.4
2017	38.5	1.1	39.6
2018	39.8	1.1	40.9
2019	41.1	1.1	42.2

Note: Elements of this provision expired at the end of 2014 but were made permanent at a cost of $0.9 billion in FY2016, $1.0 billion in FY2017, $1.1 billion in FY2018, and $1.2 billion in FY2019. Some of this cost reflects costs of contributions to education and health.

Authorization

Section 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 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.

The Pension Protection Act of 2006 (P.L. 109-280) included several provisions that temporarily expanded charitable giving incentives including enhancements to laws governing non-cash gifts and tax-free distributions from individual retirement plans; some of these provisions became part of the extenders, provisions that are extended a year or two at a time. These provisions were made permanent in 2015 by the Consolidated Appropriations Act (P.L.114-113). 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.

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, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.1
$30 to $40	0.2
$40 to $50	0.6
$50 to $75	3.2
$75 to $100	5.2
$100 to $200	22.4
$200 and over	68.2

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% 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, 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).

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.

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TAX CREDIT FOR DISABLED ACCESS EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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 39.6 percent (the maximum rate for individuals) 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 $7.0 million as an appropriate 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 Revenue 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 26 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.

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CREDIT FOR CHILDREN UNDER AGE 17

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	57.1	-	57.1
2016	56.0	-	56.0
2017	55.8	-	55.8
2018	55.6	-	55.6
2019	42.5	-	42.5

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 $33.7 billion (FY2015), $33.9 billion (FY2016), $34.5 billion (FY2017), $35.0 billion (FY2018), and $22.1 billion (FY2019).

The estimates in this table (and associated outlay effects) were calculated prior to the $3,000 refundability threshold of the ACTC being made permanent by P.L. 114-113. According to the Joint Committee on Taxation, the permanent extension of this refundability threshold will reduce revenues by an estimated $12.4 billion in FY2019.

Authorization

Section 24.

Description

Families with qualifying children are allowed a credit against their federal individual income tax of up to $1,000 per qualifying child.

In order to claim the child tax credit, a taxpayer must have child that is considered "a qualifying child" for the child tax credit. A qualifying child for the child tax credit must meet several requirements including: (1) The child

must be under 17 years of age during the entire year for which the taxpayer claims the credit (for example, if the child was 16.5 years on December 31, 2010, the taxpayer could claim the credit on their 2010 federal income tax return); (2) The child must 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 wishes to claim in the credit; (5) The child cannot provide more than half of their own support during the tax year; (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. In most cases, this TIN will be the child's Social Security number.

The child tax credit is phased out for taxpayers whose modified adjusted gross incomes (AGIs) exceed certain thresholds. For married taxpayers filing joint returns, the phaseout begins at modified AGI levels in excess of $110,000, for married couples filing separately the phaseout begins at modified AGI levels in excess of $55,000; for unmarried individuals, the phaseout begins at modified AGI levels in excess of $75,000. The child tax credit is phased out by $50 for each $1,000 (or fraction thereof) by which the taxpayer’s AGI exceeds the threshold amounts. Hence, a $1,000 credit is reduced to zero when income is $20,000 above the appropriate threshold. Neither the child tax credit amount nor the phaseout thresholds are indexed for inflation.

The child tax credit is refundable, meaning the value of the credit can be greater than the taxpayer’s income tax liability. For families with less than three qualifying children, the maximum ACTC cannot exceed 15 percent of a taxpayer’s earned income in excess of a $3,000 threshold up to the maximum credit per amount ($1,000 per child multiplied by the number of qualifying children). This formula is referred to as the earned income formula.

Families with three or more children can calculate the ACTC using the earned income formula or the alternative payroll formula and claim whichever is greater. Under the alternative payroll formula, the ACTC equals the amount by which the taxpayer’s Social Security payroll taxes and income taxes exceed the taxpayer’s earned income tax credit.

The child tax credit 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 tax expenditure values associated with the child tax credit in 2014 are concentrated primarily among middle-income taxpayers. Taxpayers in the lowest and highest income classes account for a disproportionately smaller share (relative to the total distribution of tax filers) of the tax expenditure values associated with the credit. Over the past 15 years, legislative changes have significantly changed the credit, 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.

Distribution by Income Class of the Tax Expenditure for the Child Tax Credit, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	1.2
$10 to $20	12.4
$20 to $30	13.6
$30 to $40	11.9
$40 to $50	10.7
$50 to $75	18.6
$75 to $100	12.7
$100 to $200	18.8
$200 and over	0.1

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. The 2004 Act 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.

Assessment

Economists tend to view the child tax credit as vertically equitable since it results in higher-income taxpayers paying a greater share of their income in taxes (and thus having a higher average income tax rate) than lower-income taxpayers. The credit is structured to lower the tax burden of families earning between $3,000 and the phase-out income level, generally $150,000 for a married couple with two children. Estimates from the Tax Policy Center indicate that the child tax credit reduces the average federal tax rate of taxpayers with cash income under $200,000, while having little impact on taxpayers with income greater than $200,000. In addition, the child tax credit tends to reduce lower-income taxpayers' average tax rates more than it reduces the average tax rate of higher-income taxpayers. The largest reduction occurs among those with income between $10,000 and $20,000.

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 families with the same amount of financial resources (i.e., income) 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.

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HEALTH SAVINGS ACCOUNTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.8	-	1.8
2016	2.1	-	2.1
2017	2.4	-	2.4
2018	2.8	-	2.8
2019	3.3	-	3.3

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 qualifying high deductible health plan (or HDHP) with a deductible of at least $1,300 for single coverage and $2,600 for family coverage in 2015, (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 $6,550 for single coverage and $13,100 for family coverage. (The dollar amounts in this and other paragraphs in this section are for 2015.)

The annual contribution limit for single coverage is $3,350 and for family coverage it is $6,750. 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 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 had 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 the Kaiser Family Foundation's 2015 Annual Employer Health Benefits Survey, the share of employers offering an HSA-qualified has generally trended upwards: from 2 percent in 2005, to 12 percent in 2010, and 20 percent in 2015. In 2015, 26 percent of employers offered an HDHP coupled with some sort of health savings option (HSA or HRA). This general trend is consistent across employers of all sizes, but the practice is most common among the largest employers (1,000 or more workers). In 2015, 52 percent of these largest employers offered an HDHP with some sort of health savings option.

According to a survey by America's Health Insurance Plans (AHIP), as of January 2015, approximately 19.7 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 13.4 percent increase from the 17.4 million people enrolled in such plans, as of January 2014. Of the 19.7 million people enrolled by an HSA-qualified HDHP in 2015, 78.0 percent were covered through the large-group market, 11.6 percent were covered through the small-group market, and 10.4 percent were covered through the individual market.

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. Only 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.

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 literature in this area 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.)

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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
2015	1.8	0.7	2.5
2016	1.8	0.7	2.5
2017	2.0	0.7	2.7
2018	2.0	0.7	2.7
2019	2.1	0.7	2.8

Authorization

Section 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. 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 nonprofit hospital bonds are not subject to the state private-activity bond annual volume cap.

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 U.S. Internal Revenue Service, in 2013, $18.7 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.

Assessment

Recently, 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 finance.

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.

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DEDUCTION FOR CHARITABLE CONTRIBUTIONS TO HEALTH ORGANIZATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	3.2	1.9	5.1
2016	3.3	1.9	5.2
2017	3.4	2.0	5.4
2018	3.5	2.0	5.5
2019	3.6	2.1	5.7

Note: Additional costs of charitable contributions that might arise from extenders are discussed in "Deduction for Charitable Contributions other than for Education and Health."

Authorization

Section 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 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 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.

The Pension Protection Act of 2006 (P.L. 109-280) included several provisions that temporarily expanded charitable giving incentives including enhancements to laws governing non-cash gifts and tax-free distributions from individual retirement plans; some of these provisions became part of the extenders, provisions that are extended a year or two at a time. These provisions were made permanent in 2015 by the Consolidated Appropriations Act (P.L.114-113). 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.

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% 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, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.1
$30 to $40	0.2
$40 to $50	0.6
$50 to $75	3.2
$75 to $100	5.3
$100 to $200	22.4
$200 and over	63.2

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% 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).

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.

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EXCLUSION OF WORKERS' COMPENSATION BENEFITS (MEDICAL BENEFITS)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	4.9	-	4.9
2016	5.0	-	5.0
2017	5.1	-	5.1
2018	5.2	-	5.2
2019	5.3	-	5.3

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 2013 were $88.5 billion, equivalent to 1.37 percent of covered payrolls. Figures are not available on employer contributions specifically for workers' compensation medical benefits. However, in 2013, medical payments under workers' compensation programs totaled $31.5 billion. This represented 49.6% 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. 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.

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CREDIT FOR PURCHASE OF HEALTH INSURANCE BY CERTAIN DISPLACED PERSONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

Authorization

Section 35.

Description

Eligible individuals are allowed 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).

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.

Eligible 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) allowance for people age 50 and over; (3) individuals who are receiving a pension paid in part by the Pension Benefit Guaranty Corporation (PBGC). For TRA

recipients, eligibility for the HCTC generally does not extend beyond two years, the maximum length of time most could receive TRA allowances or benefits, and could have been less in some states.

Qualified health coverage includes 11 types of insurance specified in the statute. Seven types of coverage require state action to become effective, including coverage through a state high risk pool, coverage under a plan offered to state employees, and, in some limited circumstances, coverage under individual market insurance.

The other four categories of qualified health coverage are Consolidated Omnibus Budget Reconciliation Act (COBRA) continuation coverage, coverage under a group health plan that is available through the eligible individual's spouse, coverage in the individual market, and coverage under certain employee benefit plans funded by a voluntary employees' beneficiary association. Qualified health coverage does not include flexible spending or similar arrangements, nor does it include insurance if substantially all of its coverage is of excepted benefits described in § 9832(c). For 2014 and 2015 only, qualified coverage included individual health insurance purchased through a Health Insurance Marketplace (also known as an exchange).

In general, individuals otherwise eligible for the HCTC cannot receive the HCTC if they were: (1) enrolled in or had access to certain government-provided health insurance coverage, or (2) were enrolled in or had access to health insurance coverage maintained by any employer (or former employer) of the taxpayer or the taxpayer's spouse and the employer subsidized 50 percent or more of the cost of coverage.

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.

There is some question about the need for this tax credit now that the Patient Protection and Affordable Care Act (PPACA; P.L. 111-148) has provided access to health insurance and premium subsidies. A GAO study conducted under the assumption that the HCTC would expire at the end of 2013 found that 69 percent of HCTC participants would have been ineligible for either a PPACA premium tax credit or Medicaid, or would have likely received a PPACA premium tax credit less generous than the HCTC. On the other hand, GAO's analysis also found that at least 23 percent would have been eligible for PPACA premium tax credits that were more generous than the HCTC. In addition to the PPACA premium tax credit, up to 28 percent of all HCTC participants will likely be eligible for PPACA cost-sharing subsidies (available for use towards copays or deductibles) depending in part on whether or not their state expands Medicaid under PPACA.

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 through 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.

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, however,

increase after the HCTC was raised to 80 percent following ARRA. However, the ARRA provisions expired on December 31, 2010, and the HCTC decreased to 72.5 percent for 2011 through 2013. Administrative data from the IRS indicate that by 2013 participation had decreased in comparison to levels after ARRA. (More recent administrative data is currently unavailable.)

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 not limited to the taxpayer's regular tax liability.

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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
2015	5.2	-	5.2
2016	5.1	-	5.1
2017	5.4	-	5.4
2018	4.8	-	4.8
2019	4.8	-	4.8

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 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 10 percent of adjusted gross income (AGI). Fifth, the deduction for long-term care premiums is limited, based on age. In 2016, these limits range from $390 for individuals under age 40 to $4,870 for individuals over age 70.

Impact

In 2014, nearly 4.2 million tax filers claimed over $28.1 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 is greater for taxpayers in higher marginal tax brackets (although the amount that can be deducted 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 the filers that claimed health insurance expenditures by the self-employed claimed for 2014, and the average amount claimed per tax return for each income class. Individuals with an AGI greater than $100,000 accounted for 40.3 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 ($11,627 versus $3,724). 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, 2014

Income Class (in thousands of $)	Percentage Distribution of Filers	Average Amount of the Deduction Claimed per Tax Return
Below $15	11.8	$3,881
$15 to under $30	11.1	$3,560
$30 to under $50	13.5	$4,583
$50 to under $100	23.3	$5,834
$100 to under $200	20.1	$7,647
$200 and over	20.2	$11,627
Total	100.0	$6,717

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 2016.

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 and Credit Act of 2010 (P.L. 111-499) allowed business owners to deduct 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.

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DEDUCTION FOR MEDICAL EXPENSES AND LONG-TERM CARE EXPENSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	10.1	-	10.1
2016	11.1	-	11.1
2017	11.4	-	11.4
2018	12.2	-	12.2
2019	13.7	-	13.7

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 10 percent of adjusted gross income (AGI). 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 2016, they will range from $390 for individuals age 40 and under to $4,870 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 42.4 percent of the returns claiming the medical deduction in 2014, while taxpayers with an AGI under $100,000 accounted for 65.7 percent of the returns in 2014. There are several reasons for such an outcome. Lower-income taxpayers have relatively low rates of health insurance coverage because they cannot afford health insurance coverage or coverage is not offered by their employers. As a result, many of these taxpayers are forced to pay out of pocket for the health care they and their immediate families receive. In addition, 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 10 percent AGI threshold. 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 40.5 percent of the tax expenditure values. Taxpayers with an AGI between $100,000 to $200,000 accounted for a similar portion, 41.0 percent, of the tax expenditure value, and a relatively small number of taxpayers with an AGI greater than $200,000 accounted for 19.0 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, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.1
$20 to $30	0.7
$30 to $40	1.5

Income Class (in thousands of $)	Percentage Distribution
$40 to $50	3.7
$50 to $75	15.4
$75 to $100	18.7
$100 to $200	41.0
$200 and over	19.0

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 1-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 5 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 will be temporarily excluded from this provision and still be subject to the 7.5 percent limit from 2013 through 2016. Beginning in tax year 2017, all taxpayers claiming the deduction will 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 7.5 or 10 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.

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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
2015	145.5	-	145.5
2016	143.8	-	143.8
2017	151.4	-	151.4
2018	159.6	-	159.6
2019	169.4	-	169.4

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.

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 U.S. Census Bureau.

Although the tax exclusion benefits a majority of working Americans, it provides greater benefits 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.

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 data for 2014 on health insurance coverage by income group for the nonelderly population of the United States. Income is expressed as a percentage of the federal poverty income level for that year.

Health Insurance Coverage From Specified Sources, by Family Income Relative to the Federal Poverty Level, 2014, Nonelderly Population (Under 65)

Income Relative to the Poverty Level[a]	Type of Insurance			
	Employment-based[b]	Public[c]	Non-group[d]	Uninsured
Less than 100%	17.5%	54.0%	11.1%	21.0%
100% to 149%	31.3%	43.2%	12.8%	18.9%
150% to 199%	44.8%	29.7%	13.8%	17.6%
200% to 299%	61.3%	18.4%	13.8%	13.8%
300% and above	80.5%	7.4%	12.4%	6.5%
Total	**60.0%**	**21.7%**	**12.6%**	**12.0%**

People may have more than one source of health insurance; thus row percentages may total to more than 100.

[a] The weighted average poverty threshold for a family of four in 2014 was $23,850.

[b] Group health insurance, in own-name or as a dependent, through an employer or union.

[c] Includes Medicaid and the State Children's Health Insurance Program.

[d] Private non-group health insurance.

Source: Employee Benefit Research Institute estimates of the March 2015 Current Population Survey. Figures 27, 30, 31, and 32 published in *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.

The likelihood of having employer-provided health insurance increases with family income. In 2014, 17.5 percent of individuals with family incomes below the poverty-level had employer-sponsored coverage, compared to 80.5 percent of individuals with family incomes three or more times the poverty level.

At the same time, the likelihood of receiving public health insurance declined as family income rose. The percentage of those covered by public insurance (column 3) in 2014 dropped from 54.0 percent for those in the lowest income group to 7.4 percent for those in the highest income group. A similar pattern is apparent among the uninsured: the percentage of uninsured declined from 21.0 percent for those in the lowest income group to 6.5 percent for those in the highest income group.

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 only 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, employees 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 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 exceeded certain thresholds for 2020 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.

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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
2015	2.6	-	2.6
2016	2.7	-	2.7
2017	2.8	-	2.8
2018	2.9	-	2.9
2019	2.9	-	2.9

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, which provides a discount on copayments for beneficiaries who use participating network providers and TRICARE Standard, the fee-for-service option, which 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. The National Defense Authorization Act for Fiscal Year 2012 (P.L. 112-81) authorized DOD to increase the annual TRICARE prime enrollment fee by $30 per year for individual and $60 per year for family enrollments beginning in FY2012 for new enrollees, and FY2013 for previously enrolled beneficiaries. The Act also indexed the annual enrollment fee to the annual cost of living adjustment to retirement pay effective FY2013 thereby providing for automatic annual increases. Effective

October 1, 2015, the individual retiree annual enrollment fee for TRICARE Prime was $282.60 for individual and $565.20 for family enrollments. Similarly, the National Defense Authorization Act for Fiscal Year 2013 (P.L. 112-239) authorized DOD, beginning October 1, 2016, to annually increase prescription drug copayments by amount not to exceed the percentage of the annual adjustment to retired pay.

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. Data indicating higher utilization rates by TRICARE beneficiaries than comparable civilian HMO beneficiaries suggest that the economic efficiency of the program might be worthy of additional scrutiny. In FY2015, the TRICARE Prime inpatient utilization rate (direct and purchased care combined) was 51 percent higher than the civilian HMO utilization rate (60.5 discharges per 1,000 Prime enrollees compared with 40.1 per 1,000 civilian HMO enrollees). Differences varied by specialty. For example, in FY2015 the TRICARE Prime inpatient utilization rate was 83 percent higher than the civilian HMO rate for MED/SURG procedures, 20 percent higher for OB/GYN procedures, and 17 percent lower for PSYCH procedures.

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.

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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
2015	0.9	-	0.9
2016	0.9	-	0.9
2017	1.0	-	1.0
2018	1.0	-	1.0
2019	1.1	-	1.1

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, TFL 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 National Defense Authorization Act for Fiscal Year 2013 (P.L. 112-239) authorized DOD, beginning October 1, 2016, to annually increase prescription drug copayments by amount not to exceed the percentage of the annual adjustment to retired. 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. Data indicating higher utilization rates by TRICARE beneficiaries than comparable civilian HMO beneficiaries suggest that the economic efficiency of the program might be worthy of additional scrutiny. The Department of Defense estimates that, in FY2015, TRICARE for Life beneficiaries consumed $3,800 more medical services than their civilian counterparts (27 percent greater). Medicare, TRICARE, and other insurers paid an average of $17,549 per TFL beneficiary compared to $12,628 per civilian counterpart. DOD also estimates that the average out-of-pocket expenses faced by TRICARE for Life beneficiaries was $433 compared to $1,526 for their civilian counterparts in FY2015.

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.

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CREDIT FOR ORPHAN DRUG RESEARCH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	0.8	0.8
2016	([1])	1.0	1.0
2017	([1])	1.1	1.1
2018	([1])	1.2	1.2
2019	([1])	1.3	1.3

([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 qualified rare diseases and conditions have been able to claim a non-refundable tax credit equal to 50 percent of certain qualified clinical testing expenses they incur or pay during the development process. These drugs are also known as orphan drugs. Only clinical testing expenses 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 marketing in the United States qualify for the credit.

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, with one exception: the credit may be claimed for foreign clinical trials if the company developing an orphan drug cannot obtain reliable and reproducible clinical texting data from trials conducted in the United States and the testing is done by an entity unrelated to the company sponsoring the testing.

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 36 credits 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. But in the case of the orphan drug credit, the carryback period is three years and the carryforward period 15 years. In the tax years beginning on or after January 1, 1983 and after June 30, 1996, the orphan drug credit 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.

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 orphan drug tax credit may take in the same year. More specifically, expenses used to claim the orphan drug tax credit cannot also be used to claim the section 41 research tax credit. In addition, while expenses that qualify for the orphan drug credit 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.

Under current law, 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 relatively small size of the potential market. Orphan drugs generally have offered 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 drug companies that 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 (at best 9.1 percent or 13.0 percent, depending on which research tax credit a company claims) than the credit (50 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 benefits of the credit are limited to 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 exceed its revenue and 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 2015, the FDA approved 479 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 orphan drug tax credit 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 the 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. This 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). The act 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 repeatedly 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 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.

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 act.

Assessment

Assessing the effects of the section 45C credit is especially 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. This assessment of the effects 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 through 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 marketing 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, that 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 estimated declines were the result of 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 are 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 resources 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 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 orphan drug tax credit because they lack enough taxable income 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.

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TAX CREDIT FOR SMALL BUSINESSES PURCHASING EMPLOYER INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.2	0.2	1.4
2016	0.9	0.2	1.1
2017	0.6	0.1	0.7
2018	0.8	0.1	0.9
2019	0.9	0.2	1.1

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. 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 that 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 of providing employer provided health insurance coverage for some small employers. According to 2013 Census Bureau data, this provision could provide a credit to nearly 92 percent of all U.S. employer firms. These businesses employ about 20 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 2015 Employer Health Benefits Annual Survey, 47 percent of firms employing three to nine workers offered health benefits, and 63 percent of firms employing 10 to 24 workers offered health benefits. By comparison, 82 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), in combination with 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.

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SUBSIDIES FOR INSURANCE PURCHASED THROUGH HEALTH BENEFIT EXCHANGES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	29.6	-	29.6
2016	53.5	-	53.5
2017	72.5	-	72.5
2018	82.1	-	82.1
2019	84.8	-	84.8

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 $25.8 billion (2015), $46.3 billion (2016), $63.0 billion (2017), $71.3 billion (2018) and $73.7 billion (2019).

Authorization

Section 36B.

Description

Beginning in 2014, the Patient Protection and Affordable Care Act of 2010 (ACA) imposes a penalty for individuals and families without health insurance and establishes exchanges which limit premium differences for purchase of individual health insurance by those not covered by employer plans. ACA 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 2016 is based on the 2015 FPL guidelines.

Eligible participants can choose to either: (a) have the credit paid in advance to their insurance company to lower the cost of monthly premiums, or (b) 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 a 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 31, 2016, approximately 11.1 million people are enrolled in marketplace exchanges. This includes individuals enrolled in both state- and federally-managed exchanges. Of these 11.1 million enrollees, 9.4 million (84.7 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 ($97,000 in tax year 2016, based on 2015 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 exchanges.

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.

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, by providing the benefits in advance and directly to the insurer rather than requiring these families to pay and then apply for a refund.

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Income Security

EXCLUSION OF DISASTER MITIGATION PAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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, 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 $3 or $4 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.

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EXCLUSION OF WORKERS' COMPENSATION BENEFITS (DISABILITY AND SURVIVORS PAYMENTS)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	2.7	-	2.7
2016	2.9	-	2.9
2017	3.0	-	3.0
2018	3.2	-	3.2
2019	3.3	-	3.3

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 2013 totaled $63.6 billion, approximately 50.4 percent of which consisted of cash payments to injured employees and survivors replacing lost earnings, and 49.6 percent of which was paid for medical and rehabilitative services. The costs to employers for workers' compensation in 2013 were $88.5 billion, equivalent to 1.37 percent of covered payrolls.

The Census Bureau's 2015 Annual Social and Economic Supplement to the Current Population Survey provides the following profile of those who reported receiving workers' compensation in 2014:

Workers' compensation cash benefits were less than $5,000 for 45 percent of recipients, between $5,000 and $10,000 for 21 percent, between $10,000 and $15,000 for 11 percent, and more than $15,000 for 23 percent.

Recipients' income (including workers' compensation) was below $15,000 for 14 percent, between $15,000 and $30,000 for 24 percent, between $30,000 and $45,000 for 21 percent, and above $45,000 for 41 percent (and above $100,000 for 9 percent).

Total family income (including workers' compensation) for families with at least one workers' compensation recipient was below $15,000 for 7 percent of families with workers' compensation recipients, between $15,000 and $30,000 for 13 percent, between $30,000 and $45,000 for 17 percent, and above $45,000 for 64 percent (and above $100,000 for 27 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.

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EXCLUSION OF DAMAGES ON ACCOUNT OF PERSONAL PHYSICAL INJURIES OR PHYSICAL SICKNESS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	2.7	-	2.7
2016	2.9	-	2.9
2017	3.0	-	3.0
2018	3.2	-	3.2
2019	3.3	-	3.3

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. Nor does the exclusion 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).

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EXCLUSION OF SPECIAL BENEFITS FOR DISABLED COAL MINERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	-	([1])
2016	([1])	-	([1])
2017	([1])	-	([1])
2018	([1])	-	([1])
2019	([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 2015, cash benefits were paid to 40,235 beneficiaries. Both the Part B and the Part C rolls are declining as elderly recipients die. Part B cash payments totaled $109 million and Part C cash payments $180.5 million for fiscal year 2015. In calendar year 2016, monthly black lung cash payments under Part B and Part C ranged from $644 for a miner or widow alone, to $1,289 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.

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EARNED INCOME CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	72.7	-	72.7
2016	73.3	-	73.3
2017	76.0	-	76.0
2018	73.8	-	73.8
2019	75.6	-	75.6

Note: Estimates include outlay effects associated with the refundable portion of the EITC. These outlay effects are $63.3 billion (FY2015), $63.7 billion (FY2016), $66.1 billion (FY2017) and $63.8 billion (FY2018); $65.3 billion (FY2019).

The estimates in this table (and associated outlay effects) were calculated before the increased marriage penalty relief and larger credit for three or more children being made permanent by P.L. 114-113. These two modifications to the EITC were originally scheduled to expire at the end of 2017. According to the Joint Committee on Taxation, the permanent extension of these two modifications to the credit will reduce revenues/increase outlays by an estimated $41/$0 million in FY2018 and $0.3/$3.8 billion in FY2019 for a total budgetary effect of $41 million in FY2018 and $4.1 billion in FY2019.

Authorization

Section 32.

Description

The earned income credit, identified by the IRS, practitioners, and taxpayers as the earned income tax credit (EITC), is a refundable tax credit available to eligible low-wage workers. Because the credit is refundable, 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 (i.e., credit rate, earned income amount, etc.) 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 2016,
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	$6,610	$9,920	$13,930	$13,930
maximum credit amount	$506	$3,373	$5,572	$6,269
phase out threshold	$8,270	$18,190	$18,190	$18,190
phase out rate (percent)	7.65	15.98	21.06	21.06
income where credit = 0	$14,880	$39,296	$44,648	$47,955
Married tax filers (married filing jointly)				
credit rate (percent)	7.65	34	40	45
earned income amount	$6,610	$9,920	$13,930	$13,930

Number of qualifying children	0	1	2	3 or more
maximum credit amount	$506	$3,373	$5,572	$6,269
phase out threshold	$13,820	$23,740	$23,740	$23,740
phase out rate (percent)	7.65	15.98	21.06	21.06
income where credit = 0	$20,430	$44,846	$50,198	$53,505

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 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.

An EITC recipient must be a resident of the United States, unless the recipient resides in another country because of U.S. military service. In addition, 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.

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.")

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 $3,400 in 2016 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.

For tax year 2013, the refundable portion of the EITC was 86.7 percent of the total EITC claimed (the remainder of the EITC offsets income taxes (1.9 percent) or offsets other taxes like self-employment taxes or social security taxes on tip income (12.9 percent).

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 (known as SNAP or the Supplemental Nutrition Assistance Program) and welfare (known as TANF or the Temporary Assistance for Needy Families) 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, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	5.8
$10 to $20	33.1
$20 to $30	26.3
$30 to $40	16.7
$40 to $50	10.5
$50 to $75	7.1
$75 to $100	0.4
$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 enacted in 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.

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 indicates that 27.5 million taxpayers received $66.7 billion of the EITC when they filed their 2014 federal income tax return. The credit has been promoted as an alternative to raising the minimum wage, as a method for reducing the burden of Social Security tax increases, and as an incentive to work. The credit has, in dollar terms, become the largest cash welfare program.

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.

Some eligible individuals do not receive the credit because of incorrect or incomplete tax return information, or because they do not file. Conversely, payments to ineligible individuals, and overpayments to eligible recipients, have been a source of concern. Problems with taxpayer compliance have been identified as a significant problem with the EITC. The IRS estimates that in fiscal year 2013, 22 percent to 26 percent of EITC payments—between $13.3 billion and $15.6 billion—were issued improperly, meaning they were higher (over payments) or lower (underpayments), than they should have actually been.

In August 2014, the IRS released a new EITC compliance study examining the issue of the causes of EITC overclaims on the EITC claimed 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 over claims.

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ADDITIONAL STANDARD DEDUCTION FOR THE BLIND AND THE ELDERLY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	2.7	-	2.7
2016	2.9	-	2.9
2017	3.0	-	3.0
2018	3.3	-	3.3
2019	3.5	-	3.5

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 added standard deduction amounts—$1,250 for a married individual or surviving spouse or $1,550 for an unmarried individual for 2016—are added to the basic standard deduction amounts. 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 taxes. The benefit depends on the marginal tax rate of the individual. More than two-third of the dollars deducted under this provision (68.9%) go to taxpayers with incomes under $50,000.

Distribution by Income Class of the Additional Standard Deduction Amount for the Blind and Elderly at 2013 Income Levels

Adjusted Gross Income Class (in thousands of $)	Percentage Distribution
Below $10	17.4
$10 to $20	20.4
$20 to $30	13.5
$30 to $40	10.2
$40 to $50	7.4
$50 and over	31.1

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 expenditures, 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.

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DEDUCTION FOR CASUALTY AND THEFT LOSSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.4	-	0.4
2016	0.5	-	0.5
2017	0.5	-	0.5
2018	0.5	-	0.5
2019	0.6	-	0.6

Authorization

Sections 165(c)(3), 165(e), 165(h) - 165(k).

Description

An individual may claim an itemized deduction for 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. Eligible losses are those 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 adjusted gross income.

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 2014, the latest year available, an estimated 90,109 returns claimed such a deduction out of the 44 million returns that itemized deductions, with an average claim of roughly $24,500.

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.

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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
2015	8.0	-	8.0
2016	9.3	-	9.3
2017	10.7	-	10.7
2018	15.5	-	15.5
2019	17.7	-	17.7

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 or 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 contributions 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 2016, 24 percent of workers in the bottom 25 percent of wages were covered by a pension plan. In contrast, 79 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.

In 1978, simplified employee pensions (SEPS) and tax-deferred savings (401(k)) plans were allowed. The limits on SEPS and 401(k) plans were raised in 1981. In 1982, 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 1986, 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 1987, 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 1997, taxes on excess distributions and accumulations were eliminated.

The 2001 tax cut 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 Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16) 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.

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NET EXCLUSION OF PENSION CONTRIBUTIONS AND EARNINGS: DEFINED BENEFIT PLANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	48.6	-	48.6
2016	57.4	-	57.4
2017	62.9	-	62.9
2018	69.6	-	69.6
2019	77.0	-	67.0

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). They 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%). Participation rates are lower relative to availability, 40% for defined contribution compared to 23% 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 2016, 24 percent of workers in the bottom 25 percent of wages were covered by a pension

plan. In contrast, 79 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 1921, and the treatment was extended to pension trusts in 1926.

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 1928, deductions for contributions to reserves were allowed.

In 1938, 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 1942 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 1982 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 1986, various changes were enacted, including anti-discrimination rules, vesting, and integration rules. In 1987, 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 1997, taxes on excess distributions and accumulations were eliminated.

The 2001 tax cut 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 Pension Protection Act of 2006 (P.L. 109-280) 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 DB 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.

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NET EXCLUSION OF PENSION CONTRIBUTIONS AND EARNINGS: DEFINED CONTRIBUTION PLANS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	72.8	-	72.8
2016	82.7	-	82.7
2017	98.9	-	98.9
2018	117.6	-	117.6
2019	132.9	-	132.9

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 (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 $53,000 for 2016; for plans where employees have elective contributions, such as 401(k) plans, the employee is limited to an $18,000 contribution for 2016.

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%). Participation rates are lower relative to availability, 40% for defined contribution compared to 23% 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 2016, 24 percent of workers in the bottom 25 percent of wages were covered by a pension plan. In contrast, 79 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 1921, and the treatment was extended to pension trusts in 1926.

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 1928, deductions for contributions to reserves were allowed.

In 1938, 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 1942 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 1978, simplified employee pensions (SEPS) and tax-deferred savings (401(k)) plans were allowed. The limits on SEPS and 401(k) plans were raised in 1981.

In 1986, 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 2001 tax cut 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.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16) 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 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.

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INDIVIDUAL RETIREMENT ACCOUNTS: TRADITIONAL IRAS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	20.9	-	20.9
2016	12.9	-	12.9
2017	13.6	-	13.6
2018	14.5	-	14.5
2019	15.3	-	15.3

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 2016, the phase-out range for single taxpayers is $61,000 to $71,000 in modified adjusted gross income and $98,000 to $118,000 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: $6.4 trillion compared to $0.6 trillion in 2014. Most contributions to traditional IRAs is due to 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 about half the benefits of the deduction for traditional IRA. Incomes below $30,000 (about a third of the income distribution) accounted for about 10 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, 2014

Income Class (in thousands of $)	Percentage Distribution of Amount Deducted
Below $10	1.9
$10 to $20	2.9
$20 to $30	5.3
$30 to $40	8.3
$40 to $50	7.0
$50 to $75	19.5
$75 to $100	15.9
$100 to $200	28.1
$200 and over	11.0

Note: Derived from 2014 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 1974, but it was limited to individuals not covered by pension plans. The purpose of IRAs was to reduce discrimination against these individuals.

In 1976, 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 1981, 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.

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INDIVIDUAL RETIREMENT ARRANGEMENTS: ROTH IRAS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	7.1	-	7.1
2016	7.0	-	7.0
2017	7.7	-	7.7
2018	8.5	-	8.5
2019	9.2	-	9.2

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 eligible for full benefits regardless of income. For 2016, these benefits are phased out at $184,000 to $194,000 for a joint return and $117,000 to $132,000 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: $6.4 trillion compared to $0.6 trillion in 2014.

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.

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CREDIT FOR CERTAIN INDIVIDUALS FOR ELECTIVE DEFERRALS AND IRA CONTRIBUTIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.2	-	1.2
2016	1.2	-	1.2
2017	1.2	-	1.2
2018	1.2	-	1.2
2019	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. For joint returns the credit is 50 percent for adjusted gross income under $37,000, 20 percent for incomes between $37,000 and $40,000, and 10 percent for incomes above $40,000 and less than $61,500. Income categories are half as large for singles ($18,500, $20,000, and $30,750) and between those for singles and joint returns for heads of household ($27,750, $30,000, and $46,125). The income thresholds are indexed to inflation. The credit may be taken in addition to general deductions or exclusions. The credit is not refundable.

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 2014, 8 million returns took the credit, and the average credit was $174. 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 2014, about 7 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 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.

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. Gale, Iwry, and Orszag (2005) estimate that the annual revenue cost of a refundable retirement savings contribution credit will be about $4.2 billion between 2007 and 2015.

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.

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EXCLUSION OF OTHER EMPLOYEE BENEFITS: PREMIUMS ON GROUP TERM LIFE INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	3.2	-	3.2
2016	3.2	-	3.2
2017	3.3	-	3.3
2018	3.3	-	3.3
2019	3.4	-	3.4

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. Officers of a firm paid more than $170,000; five-percent owners; one-percent owners earning more than $150,000; or top 10 employee-owners are generally deemed key employees. If a group-term life insurance plan fails to satisfy "anti-discrimination" provisions, the plan's actual cost, rather than the cost given by the Treasury-provided table, is added to the key employee's taxable income.

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, and expanded in 1984 to apply to post-retirement life insurance coverage. In 1986, more restrictive rules regarding anti-discrimination were adopted, 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. 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 group life insurance benefits from their employers. Lower-income individuals, whose surviving dependents are probably more financially vulnerable, probably benefit less from this exclusion.

The President's Advisory Panel on Federal Tax Reform, which issued its final report in November 2005, recommended elimination of the group-term life insurance exemption on equity grounds. The Advisory Panel argued that providing this tax benefit to a small number of employees requires higher tax rates on others. Congress has adopted no legislation that would implement recommendations of the Advisory Panel.

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EXCLUSION OF OTHER EMPLOYEE BENEFITS: PREMIUMS ON ACCIDENT AND DISABILITY INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	4.1	-	4.1
2016	4.2	-	4.2
2017	4.4	-	4.4
2018	4.6	-	4.6
2019	4.8	-	4.8

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. 97 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 and employees 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.

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PHASE OUT OF THE PERSONAL EXEMPTION FOR THE REGULAR INCOME TAX AND DISALLOWANCE OF THE PERSONAL EXEMPTION AND THE STANDARD DEDUCTION AGAINST THE AMT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	-15.0	-	-15.0
2016	-15.9	-	-15.9
2017	-16.9	-	-16.9
2018	-17.9	-	-17.9
2019	-19.0	-	-19.0

Authorization

Sections 151(d) and 55(d).

Description

The deduction for personal and dependency exemptions is phased out for higher income taxpayers. The total exemption amount is 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 2015, the threshold begins at $258,250 for single filers ($309,900 for married, filing jointly). For 2016, the threshold begins at $259,400 for single filers (311,300 for married, filing jointly).

Personal Exemption Phaseout (PEP) Ranges, Individual Income Tax, by Filing Status, Tax Years 2015 and 2016

Filing Status	2015	2016
Single	$258,250-$380,750	$259,400-$381,900
Married, Filing Jointly	$309,900-$432,400	$311,300-$433,800
Married, Filing Separately	$154,950-$216,200	$155,650-$216,900
Head of Household	$284,050-$406,550	$285,350-$407,850

Source: Internal Revenue Service (IRS), Revenue Procedure 2014-61; and Revenue Procedure 2015-53.

The alternative minimum tax (AMT) standard deduction (or exemption amount) is phased out for taxpayers with high AMT income (AMTI). The AMT exemption amounts for single filers is $53,600 in 2015 and $53,900 in 2016. For joint, married filers the exemption amount is $83,400 in 2015 and $83,800 in 2016. Under the phase-out, these exemption amounts are reduced by $0.25 for every $1 of AMTI over the threshold. Personal exemptions ($4,000 per exemption in 2015, and $4,050 per exemption under the regular tax in 2016) are not allowed against AMTI.

AMT Exemption Phaseout Thresholds, by Filing Status, Tax Years 2015 and 2016

Filing Status	2015	2016
Single/Unmarried	$119,200	$119,700
Married, Filing Jointly	$158,900	$159,700
Married, Filing Separately	$79,450	$79,850

Source: Internal Revenue Service (IRS), Revenue Procedure 2014-61; and Revenue Procedure 2015-53.

Impact

These provisions are designed to increase taxes on higher income taxpayers. According to the Joint Committee on Taxation, 91.8 percent of taxpayers affected by the provision in 2014 have an AGI of $200,000 or greater. These taxpayers also accounted for 96.6 percent of the additional revenue collected due to the provision.

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, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.0
$30 to $40	0.0
$40 to $50	0.0
$50 to $75	0.0
$75 to $100	0.0
$100 to $200	3.2
$200 and over	96.6

Note: Percentages may not total to 100 percent due to rounding.

Rationale

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 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.

In 2012, ATRA 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.

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.

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ABLE ACCOUNTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	([1])	-	([1])
2016	([1])	-	([1])
2017	([1])	-	([1])
2018	([1])	-	([1])
2019	0.1	-	0.1

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

Authorization

Section 529A.

Description

Authorized by the Stephen Beck, Jr., Achieving a Better Life Experience Act (ABLE Act) of 2014 (Division B of P.L. 113-295), qualified ABLE programs are state-sponsored, tax-advantaged savings plans through which contributions may be made to the investment account of a designated beneficiary to pay for disability-related expenses. Accounts established under qualified ABLE programs (i.e., ABLE accounts) are designed to assist eligible disabled individuals in meeting their current and future financial needs without risking their eligibility for most federal means-tested programs. There are two tax advantages to ABLE accounts. First, earnings in an ABLE account can grow tax-free annually until they are withdrawn. Second, distributions (i.e., withdrawals) from an ABLE account are tax-free if they are used to pay for qualified disability expenses. If the distribution is used to pay for nonqualified disability expenses, a portion of the distribution is taxable and generally also subject to a 10 percent penalty.

Qualified ABLE programs are modeled loosely on Qualified Tuition Programs (QTPs), also known as "529 plans." As with QTPs, the rules governing qualified ABLE programs are set forth in federal law and regulations; however, the features of a particular ABLE program (e.g., residency requirements, program fees, investment options) are determined by the sponsoring state. (If a state does not sponsor a qualified ABLE program, it may contract with another state to provide an ABLE program for its residents.) Among other requirements, qualified ABLE programs 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 the investment direction of any contributions to no more than two times in any calendar year, and (4) prevent any interest in the program (or portion thereof) to be used as security for a loan.

The Protecting Americans from Tax Hikes Act of 2015 (Division Q of P.L. 114-113) eliminated the requirement that an ABLE account be established only in the designated beneficiary's state of residence. Consequently, eligible disabled individuals in one state may open an ABLE account in another state, provided the sponsoring-state permits out-of-state residents to participate in its qualified ABLE program. However, designated beneficiaries are still limited to one ABLE account at a time, unless they make a timely rollover or program-to-program transfer to an ABLE account under a different qualified ABLE program.

A designated beneficiary is the eligible individual who established and owns the ABLE account. However, if an 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. To establish an ABLE account, an individual must have a qualifying impairment that began before age 26. Specifically, the individual must be

- entitled to Social Security or Supplemental Security Income (SSI) benefits due to blindness or disability and such impairment occurred before the date the individual attained age 26; or
- certified by a physician that his or her impairment meets the blindness or disability standards used for children under the SSI

program, regardless of the individual's age, and such impairment occurred before the date the individual attained age 26.

Contributions to an ABLE account are not tax deductible and must be made in cash from the contributor's after-tax income. Total annual contributions to an ABLE account of a designated beneficiary must not exceed the annual gift tax exclusion, which is $14,000 in 2016. (This amount is adjusted annually for inflation.) Thus, the maximum amount that an ABLE account can receive in 2016 from all contributors (the designated beneficiary, family, and friends) is $14,000. Contributors may fund up to $14,000 per designated beneficiary and are not limited in the number of different beneficiaries to which they may contribute. A contribution made to an ABLE account that has reached its annual limit imposes on the designated beneficiary a 6 percent tax penalty on the amount of the excess contribution unless such contribution is returned in a timely manner.

A qualified ABLE program must ensure that cumulative contributions to an ABLE account on behalf of a designated beneficiary (including the proceeds from a preexisting ABLE account) do not exceed the sponsoring-state's limit for aggregate contributions under its QTP. In most states, this limit is between $250,000 and $500,000 per beneficiary. No additional contributions may be made to an ABLE account once its balance 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 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 disabled individual and a recognized sibling of the former designated beneficiary.

If the total amount disbursed from an ABLE account to or for the benefit of the designated beneficiary during the year exceeds the total amount of qualified disability expenses (QDEs) for that year, then the earnings portion of the total amount disbursed 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 distributions used for non-QDEs.

QDEs 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. QDEs include costs related to education, housing, transportation, employment training and support, assistive technology and personal support services, health and wellness (including long-term services and supports), financial management and administrative services, legal fees, expenses for oversight and monitoring, funeral and burial expenses, and other expenses identified in guidance published in the Internal Revenue Bulletin. The Internal Revenue Service has determined that QDEs 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 who participated in Medicaid are used to reimburse the state for the total amount of medical assistance paid for the designated beneficiary under the state's Medicaid plan after establishment of the ABLE account. However, this reimbursement is made only after the payment of all outstanding QDEs and is net of any premiums paid by or on behalf of the designated beneficiary to the state's Medicaid Buy-In program.

Impact

The tax deferral and exclusion of earnings from income benefits tax filing units based on their marginal tax rate (see Appendix A). Qualified ABLE programs are more likely to benefit higher-income families that 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 current maintenance costs or to use income that might otherwise be saved to meet the disabled family member's current medical and other disability-related expenses. 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 assistance programs that use income or other financial resource tests to restrict program eligibility to individuals or families with limited financial means. Federally supported means-tested programs include SSI, Medicaid, and the Supplemental Nutrition Assistance Program (SNAP; formerly called the Food Stamp Program). The ABLE Act specifies that assets in an ABLE account and distributions from the account for QDEs are disregarded (i.e., not counted) in determining a designated beneficiary's eligibility for and the amount of assistance provided by most federal assistance 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 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 QDEs is counted against the resource limit unless the distribution is spent in the month of receipt. According to a 2015 study published in the *Social Security Bulletin*, ABLE programs are likely to provide the greatest benefit to higher income families whose disabled children would otherwise be financially ineligible for SSI.

Rationale

The stated purpose of the ABLE Act (Division B of P.L. 113-295) 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.

People with disabilities generally experience additional costs related to the services and supports necessary to meet their maintenance needs. For example, a 2009 Mathematica study found that health care expenditures per capita were over four times higher for working-age adults with disabilities than for those without disabilities. Additional costs associated with having a disability may also include personal attendant care, assistive technology to communicate with others, special clothing, modifications to the home or car, or special dietary requirements.

During consideration of the ABLE Act, several of the legislation's sponsors noted that the federal tax code provides for tax-advantaged savings accounts for individuals to meet expenses related to retirement, health care, education, and other significant life events but that no special tax treatment existed for individuals to meet additional maintenance costs related to their disability. Some supporters argued that the status quo was discriminatory to individuals with disabilities and their families because those with the most severe disabilities are often unable to take advantage of 401(k)s, health savings accounts, or QTPs, because their impairment prevents them from working and earning income to save for the applicable life event or, in the case of individuals with significant mental disorders, their impairment prevents them from pursuing college. 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 for the individual's future financial needs without risking his or her eligibility for the necessary services and supports provided by federal assistance programs. The ABLE Act was cosponsored by about 85 percent of Congress.

Assessment

From the stated purpose of the ABLE Act discussed earlier, 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 qualified ABLE program depends, in part, on family income. For the most part, higher-income families already save for their 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 qualified ABLE programs may increase the level of savings by higher-income families that 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 and for the family to appoint a trustee to administer disbursements from the trust and to file tax returns for the trust. In contrast, ABLE accounts are relatively easy to establish and the related administrative costs are generally low.

As discussed earlier, lower-income families are less likely to be affected by qualified ABLE programs 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 standard of disability are unlikely to save because their impairment, by definition, limits their ability to perform basic daily activities such as working. In December 2014, 4.3 percent of all blind or disabled SSI recipients worked for pay or profit, with 0.8 percent earning above the federal poverty threshold for an individual.

Another possible justification for the tax exclusion of ABLE accounts is that it is a way of easing financial burdens on individuals with disabilities and on their families, who often act as caretakers. Individuals with disabilities face significant barriers to self-sufficiency due to their impairment. 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 disability. These impediments contribute to lower employment and earnings outcomes for individuals with disabilities compared with those without disabilities. In 2015, the poverty rate for working-age adults with disabilities was 28.5 percent compared with 11.0 percent for working-age adults without disabilities.

To address the challenges faced by individuals with disabilities, Congress has 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.

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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
2015	([1])	-	([1])
2016	([1])	-	([1])
2017	([1])	-	([1])
2018	([1])	-	([1])
2019	([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.

Impact

The exclusion is available to all surviving spouses who qualify, regardless of income level.

Rationale

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).

Assessment

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.

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EXCLUSION OF UNTAXED SOCIAL SECURITY AND RAILROAD RETIREMENT BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	37.6	-	37.6
2016	39.6	-	39.6
2017	41.9	-	41.9
2018	44.2	-	44.2
2019	46.8	-	46.8

Authorization

Sec. 86

Description

In general, Social Security and Tier I Railroad Retirement benefits are not subject to the income tax. (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.) 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.)

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.

The 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. Proceeds from taxation of Social Security benefits and Tier I Railroad Retirement benefits at the 85 percent rate are credited to the Hospital Insurance Trust Fund (for Medicare).

Impact

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. The

Congressional Budget Office (CBO) projected that 49 percent of Social Security beneficiaries (or 25.5 million people) will be affected by the income taxation of Social Security benefits in 2014. This result compares to 39 percent of Social Security beneficiaries affected by taxation of benefits in 2005, 34 percent in 2000 and 26 percent in 1998.

The distribution of the tax expenditure by income class is shown below.

Distribution by Income Class of Tax Expenditure, Untaxed Social Security and Railroad Retirement Benefits, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.6
$20 to $30	6.8
$30 to $40	13.1
$40 to $50	14.1
$50 to $75	26.9
$75 to $100	19.1
$100 to $200	12.9
$200 and over	6.4

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.

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.

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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
2015	([1])	([1])	([1])
2016	([1])	([1])	([1])
2017	([1])	([1])	([1])
2018	([1])	([1])	([1])
2019	([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 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 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 Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.*

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 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.

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EXCLUSION OF VETERANS' DISABILITY COMPENSATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	6.8	-	6.8
2016	7.6	-	7.6
2017	7.4	-	7.4
2018	7.1	-	7.1
2019	7.9	-	7.9

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 ranking 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 in 2016 ranges from $133.17 to $2,906.83 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 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. 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 veterans

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 FY2013, while 44.8 percent of veterans receiving disability compensation had a combined rating of 30 percent or less, their disability compensation payments were 9.7 percent of all disability compensation payments in FY2013.

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EXCLUSION OF VETERANS' PENSIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	0.2	-	0.2
2016	0.2	-	0.2
2017	0.2	-	0.2
2018	0.2	-	0.2
2019	0.2	-	0.2

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. (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 with the payment for December 1, 2014 (which was made in January 2015), the maximum annual amount for the pension benefit is $12,868 for a veteran and $16,851 for a veteran with one dependent. Since there was no 2016 Social Security COLA, these amounts are the same for payments made in 2016. If two veterans are married to each other, the maximum annual amount is $16,851, the same as for a veteran with one dependent. 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.

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 with the payment for December 1, 2014 (which was made in January 2015), the maximum annual benefit amount was $8,630 for a surviving spouse without a dependent child and $11,296 for a surviving spouse with a dependent child. Since there was no 2016 Social Security COLA, these amounts are the same for payments made in 2016. (An incremental benefit is paid for each additional 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 $2,198.

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 very 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.

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EXCLUSION OF VETERANS' READJUSTMENT BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.6	-	1.6
2016	1.8	-	1.8
2017	1.8	-	1.8
2018	1.9	-	1.9
2019	2.0	-	2.0

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 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.

Assessment

The exclusion of veterans' benefits alters the distribution of payments and favors higher-income individuals.

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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
2015	25.6	9.7	35.3
2016	26.0	9.8	35.8
2017	26.7	10.1	36.8
2018	29.1	10.3	39.4
2019	29.9	10.6	40.5

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 serves the general public interest, such as highways, schools, and government buildings. These bonds can be issued in unlimited amounts, although state governments do have of a variety of self-imposed debt limits.

Tax exemption 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, however, many of these tax-exempt, private-activity bonds may not be issued in unlimited amounts. Each state is subject to a federally imposed 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 by (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 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 15 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 5.95 percent which is greater than the 5 percent after-tax return on the tax-exempt bond. But a high-income taxpayer facing a 39.6 percent marginal tax rate is better off buying a tax-exempt bond because the after-tax return on the taxable bond is 4.23 percent, and on the tax-exempt bond, 5 percent. These "inframarginal" investors in the 39.6 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 39.6 percent individual rate that prevailed in 2016 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 adjusted gross income for a variety of income ranges. In 2014, 77.3 percent of individuals' tax-exempt interest income is earned by returns with adjusted gross income in excess of $100,000, although these returns represent only 16.0 percent of all returns. Returns below $30,000 earn only 7.2 percent of tax-exempt interest income, although they represent 44.8 percent of all returns.

Distribution of Adjusted Gross Income and Tax-Exempt Interest Income, 2014

	Percentage Distribution of:		
Income Class (in thousands of $)	Total Returns	Net Adjusted Gross Income	Tax-Exempt Interest Income
Below $10	16.2	-0.8	4.1
$10 to $20	15.9	3.6	1.6
$20 to $30	12.7	4.8	1.5
$30 to $40	9.8	5.2	1.9
$40 to $50	7.7	5.3	1.9
$50 to $75	13.1	12.2	6.6
$75 to $100	8.6	11.4	5.1
$100 to $200	11.8	24.2	17.6
$200 to $500	3.4	14.5	20.4
$500 to $1,000	0.6	5.8	10.9
$1,000 to $1,500	0.1	2.2	5.4
$1,500 to $2,000	0.1	1.4	3.5
$2,000 to $5,000	0.1	3.3	8.1
$5,000 to $10,000	< .05	2.0	4.2
$10,000 and over	< .05	6.0	7.6

Source: IRS, Statistics of Income Division, Publication 1304, Table 1.4, August 2016.

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 the 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 public 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). Currently, the highest current rate on individuals and corporations is 39.6 and 35 percent, respectively. The partial expiration (in 2012) of the tax cuts originally provided for in the Economic Growth Tax Relief and Reconciliation Act of 2001 (P.L. 107-16) and extended by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312), increased the inefficiency of the subsidy. The American Taxpayer Relief Act of 2012, (P.L. 112–240) made permanent the higher individual income tax rates.

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.

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DEDUCTION OF NONBUSINESS STATE AND LOCAL GOVERNMENT INCOME, SALES, AND PERSONAL PROPERTY TAXES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	62.2	-	62.2
2016	65.1	-	65.1
2017	68.4	-	68.4
2018	71.7	-	71.7
2019	74.9	-	74.9

Note: An element of this provision expired at the end of 2014, but was made permanent in December 2015 at a cost of $14.5 billion from FY2016 through FY2019.

Authorization

Section 164.

Description

State and local income, sales, and personal property taxes paid by individuals are deductible from adjusted gross income. 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.

Business income, 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.

Impact

The deduction of state and local individual income, sales, and personal 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.

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, 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 income, sales, and personal property tax deductions is concentrated in the higher income classes. Roughly 92 percent of the tax expenditure was taken by families with adjusted gross income in excess of $100,000 in 2014. As with any deduction, it is worth more as marginal tax rates increase. Personal property tax deductions (typically for cars and boats) are but a small fraction of the state and local taxes paid deduction.

Distribution by Income Class of Tax Expenditure for State and Local Income and Personal Property Tax Deductions, 2014

Income Class (in thousands of $)	Percentage Distribution
Below $10	0.0
$10 to $20	0.0
$20 to $30	0.1
$30 to $40	0.2
$40 to $50	0.5
$50 to $75	2.8
$75 to $100	4.8
$100 to $200	24.2
$200 and over	67.5

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, 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.

Assessment

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. Modern theories of the public sector also suggest that:

(1) deductibility does provide 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

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General Purpose Fiscal Assistance

BUILD AMERICA BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	3.2	([1])	3.2
2016	3.2	([1])	3.2
2017	3.2	([1])	3.2
2018	3.2	([1])	3.2
2019	3.2	([1])	3.2

([1]) Positive tax expenditure of less than $50 million. Estimates include outlay effects associated with the refundable portion of BABs. These outlay effects are $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 allows issuers the option of receiving a direct payment from the U.S. Treasury or tax credits for investors 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 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 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 7.2 percent for FY2014; 7.3 percent for FY2015; and 6.8 percent for FY2016. The cuts applied to all direct pay tax credit bonds. With these percentage reductions, the 35 percent direct payments were reduced to 32.48 percent for FY2014, 32.45 percent for FY2015, and 32.62 percent in FY2016.

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. Through December 31, 2010, when the authority to issue BABs expired, $181.5 billion of BABs had been issued, over one-fifth

of all municipal issuance over the same period (21.5 percent). A U.S. 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 support extension of BABs, however, propose a credit rate lower than the current 35 percent. Some observers are concerned that BABs will completely displace tax-exempt bonds, creating uncertainty in a market that has existed since inception of the federal income tax.

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Interest

DEFERRAL OF INTEREST ON SAVINGS BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	1.2	-	1.2
2016	1.3	-	1.3
2017	1.3	-	1.3
2018	1.3	-	1.3
2019	1.3	-	1.3

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. Before September 1, 2004, EE bonds could be also 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. 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. All E bonds no longer earn interest after June 2010, because they have matured. 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.

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. The committee reports 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.

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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 eventually reaches an average rate of 35 percent in two steps. Below $10,000,000 taxable income is taxed at graduated rates: 15 percent on the first $50,000, 25 percent on the next $25,000, and 34 percent on the next $25,000. The limited graduation provided in this structure was intended to furnish tax relief to smaller corporations. The value of these graduated rates is phased out, via a 5 percent

income additional tax, as income rises above $100,000. Thus the marginal tax rate, the rate on the last dollar, is 34 percent on income from $75,000 to $100,000, 39 percent on taxable income from $100,000 to $335,000, and returns to 34 percent on income from $335,000 to $10,000,000. The rate on taxable income in excess of $10,000,000 is 35 percent, and there is a second phase-out, of the benefit of the 34-percent bracket, when taxable income reaches $15,000,000. An extra tax of three percent of the excess above $15,000,000 is imposed (for a total of 38 percent) until the benefit is recovered, which occurs at $18,333,333 taxable income. Above that, income is taxed at a flat 35 percent rate. Most corporate income is taxed at the 35 percent marginal rate.

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.

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 of 10, 15, 25, 28, 33, and 35 percent, with brackets varying across types of tax returns. These rates enacted in the 2001 and 2003 tax bills are technically temporary (expiring in 2013). At that time the 10% rate will return to the 15% rate and the four top rates will return to 28, 31, 36, and 39.6 percent, with brackets varying across types of tax returns. For joint returns, in 2010, rates on taxable income are 10 percent on the first $16,750, 15 percent for amounts from $16,750 to $68,000, 25 percent for amounts from $68,000 to $137,300, 28 percent for incomes from $137,300 to $209,250, 33 percent for taxable incomes of $209,250 to $373,650, and 35 percent for amounts over $373,650. These amounts are indexed for inflation. There are also phase-outs

of personal exemptions and excess itemized deductions so that marginal tax rates can be higher at very high income levels. These phase are scheduled to be eliminated in 2010, but will be reinstated absent legislative change in 2013.

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 $35 in tax for every $100 of interest for the taxpayer in the 35-percent bracket, whereas for the taxpayer in the 15-percent bracket the saving is only $15. 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 28-percent bracket as to one in the 15-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, certain unreimbursed business expenses of employees, charitable contributions, expenses of investment income, union dues, costs of tax return preparation, uniform costs and political contributions. (Certain of these deductions are subject to floors or ceilings.)

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 the first $75,000 of corporate income) 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 five 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 2015-2019 by the Joint Committee on Taxation (JCT),[8] but were included in the previous year's document.

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.

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[8] U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2015-2019*, December 7, 2015 (JCX-141R-15).

Commerce and Housing:
Insurance Companies

EXCLUSION OF INVESTMENT INCOME ON LIFE INSURANCE AND ANNUITY CONTRACTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2015	15.8	1.6	17.4
2016	17.1	1.7	18.8
2017	21.4	2.0	21.4
2018	26.6	2.4	29.0
2019	31.2	2.6	33.8

Source: 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).

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 and those earning above an inflation-adjusted threshold ($115,000 for 2014; see 26 USC 414(q)) also fall within that definition. The Joint Committee on Taxation estimated that these limits will have a negligible effect on revenues.

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Medicare

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 2016, according to CBO projections, 55 million aged and disabled persons were enrolled in Part A. Mandatory outlays for Part A, before offsets for deductibles and copayments, were estimated at $278 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.

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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 $166 for 2016, the Part B program generally pays 80 percent of Medicare's fee schedule or other approved amounts for covered services. In 2016, according to CBO projections, 51 million aged and disabled Americans were enrolled in Part B. Mandatory outlays on Part B were estimated at $279 billion in 2016.

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 2016 monthly premium is $121.80, which is automatically deducted from Social Security benefit checks of Part B enrollees, only about 30 percent of enrollees pay this amount. The remaining 70 percent continue to pay the 2015 monthly premium of $104.90 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 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 2016 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.

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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 2016, the standard benefit includes a $360 deductible. Once that deductible was paid, a beneficiary would then pay 25 percent of drug costs until costs paid by the beneficiary and the plan totaled $3,310. Once that level is reached, beneficiaries have minimal coverage until out-of-pocket costs of $4,850 are reached. Once a beneficiary's out-of-pocket drug costs reach $4,850, 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.

In 2016, more than 41 million aged and disabled beneficiaries were enrolled in Part D drug plans. Monthly premiums vary among plans and regions. The base premium for 2016 is $34.10 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 ($17,505 for individuals in 2014) and modest assets (less than $13,440 for individuals in 2014) 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 $75 billion in 2016. 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 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.

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Income Security

EXCLUSION OF CASH PUBLIC ASSISTANCE BENEFITS

Authorization

The exclusion of public assistance payments 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 FY 1997, 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.

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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.

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