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THE ECONOMICS OF FEDERAL SUBSIDY PROGRAMS

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CONGRESS OF THE UNITED STATES

PART 5—Housing Subsidies

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LETTERS OF TRANSMITTAL

OCTOBER 6, 1972.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Members of the Joint Economic Committee and other Members of Congress is the fifth part of a compendium of papers entitled, "The Economics of Federal Subsidy Programs," submitted to the Joint Economic Committee.

The views expressed in these papers do not necessarily represent the views of members of the committee or the committee staff. They represent studies of a number of subsidy programs, which it is hoped will provide a focus for further hearings and public debate.

WILLIAM PROXMIRE,
Chairman, Joint Economic Committee.

OCTOBER 5. 1972.

Hon. WILLIAM PROXMIRE,
Chairman, Joint Economic Committee, Congress of the United States, Washington, D.C.

DEAR MR. CHAIRMAN: Transmitted herewith is the fifth part of a compendium of papers entitled "The Economics of Federal Subsidy Programs."

The Joint Economic Committee has invited some 40 experts to contribute papers to this compendium which will be published in several parts. The papers in this part are concerned with the overall approach to federally assisted housing, the distribution of housing benefits, and some specific Federal housing programs.

The committee is indebted to these authors for their excellent contributions which, in conjunction with the study prepared by the staff, should stimulate widespread discussion among economists, policymakers, and the general public on the Federal subsidy system. It is hoped that, by focusing attention on the subsidy system, this study will contribute substantially to improvements in public policy and the efficient management of public funds.

Mr. Jerry J. Jasinowski of the committee staff is responsible for planning and compiling this compendium with suggestions of other members of the staff. He was assisted in research and editorial work by Douglas Lee and in administrative and secretarial work by Beverly Park.

The papers contained herein should be interpreted as representing only the opinions of their authors, and not necessarily reflective of the views of committee members or staff.

Sincerely yours,

JOHN R. STARK,
Executive Director, Joint Economic Committee.

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FEDERAL HOUSING SUBSIDIES

By HENRY AARON*

SUMMARY AND CONCLUSIONS

This paper describes the major Federal housing programs and presents estimates for selected recent years of the benefits they generate for families in various income brackets. The paper then suggests an alternative system of housing subsidies through allowances based on income and net worth and on local housing costs.

The major existing programs include:

Special tax benefits for homeowners.
FHA mortgage insurance and VA loan guarantees.
Low rent public housing.
Homeownership and rental assistance.
Rent supplements.
Below market interest rate loans.
Insured loans of the Farmers Home Administration.

Each of these programs reduces the cost of housing for selected economic groups. Overwhelmingly the largest housing subsidy is favorable tax treatment of homeowners which in 1966 left homeowners with about $7 billion more indisposable income than they would have had if they were treated like other property owners. This estimate ignores tax savings arising from the excess of allowed over true depreciation on rental housing and from other tax provisions. Income tax savings to homeowners are more than 10 times as large as benefits under the next largest program, low rent public housing. These benefits accrue largely to middle- and upper-income households, 64 percent to households with 1966 incomes of $10,000 or more, 36 percent to households with incomes of $15,000 per year or more.

Low rent public housing produced $510 million in benefits in 1966, 86 percent of which accured to families with incomes of $5,000 per year or less. Benefits from public housing have risen substantially since 1966 as the number of units under management has increased and general rent levels have risen.

Benefits from the newer rent supplement program also accrue primarily to low-income households. Total rent supplement payments are projected to rise from $21 million in 1970 to $91 million in 1972. According to present plans this program will remain much smaller than low rent public housing.

Homeownership and rental assistance, however, are projected eventually to surpass low rent public housing in size. The national

* Senior Fellow, The Brookings Institution; the University of Maryland.

NOTE.—This paper is a condensed version of parts of a book *Shelter and Subsidies: Who Benefits From Federal Housing Policies* (Brookings Institution, 1972).

housing goal projects 2.7 million units under these programs. Benefits will reach $299 and $151 million, respectively, in 1972. These programs primarily serve lower middle income households with incomes of $4,000 to $7,000 per year. The superseded below-market interest rate loan program also reached families in these income brackets, as does the system of Government loans administered by the Farmers Home Administration, principally for households in thinly settled areas.

The operations of the Federal Housing Administration and the Veterans' Administration in protecting lenders against default by borrowers generated measurable subsidies of about $141 million in 1966. In addition, the operations of these agencies have probably helped spur a revolution in home financing procedures. The measurable subsidies arise because these agencies do not charge each borrower (or lender) the actuarial cost of default protection which the agencies provide. The benefits accrued primarily to lower middle income families.

Important faults with existing housing programs include:

Inequities.—Most benefits accrue to middle and upper middle income families. Since not all families eligible for assistance on the basis of income receive, jealousy and resentment are growing.

Cost.—Existing subsidies plus housing expenditures required of subsidized households exceed greatly the amount the Bureau of Labor Statistics (BLS) estimates is necessary to buy standard housing in a "low cost" budget.

Rigidity.—Subsidies are tied to units under existing programs, so that an assisted household loses benefits if it moves. This characteristic reduces mobility and consumer choice of the assisted household.

An alternative housing subsidy program, the Housing Assistance Plan, is described that is free of these faults. A nationwide program costing $3.2 to $6.2 billion could provide housing assistance to all households sufficient to enable them to match housing outlays called for by the BLS "low cost" budget. These estimates would be substantially reduced if welfare reform were enacted.

The Federal Government undertakes numerous programs directly to improve the quality of housing in the United States. Some of these programs provide subsidies to encourage the construction, rehabilitation, and purchase of housing. During the late 1960's these programs brought benefits to selected households worth about $8 billion. Since then a number of these programs have expanded rapidly and benefits now exceed $10 billion. The value of these subsidies will continue to grow rapidly.

Subsidies of this magnitude deserve careful scrutiny. Housing subsidies, however, largely escape even periodic review by either the legislative or executive branches because the major subsidies arise through provisions of the Internal Revenue Code which concern only tax lawyers and some economists. Other programs, such as mortgage insurance administered by the Federal Housing Administration, operate under authorizations requiring infrequent renewal and generate no budget expenditures although they produce substantial benefits.

Still other programs, such as homeownership and rental assistance or rent supplements, are subject to the normal budget cycle.

Three questions confront anyone interested in evaluating housing subsidy programs:

(1) What service does each program provide?
(2) Who benefits from these services?
(3) How efficiently are these services provided?

This paper deals primarily with the first two questions although references to efficiency are scattered throughout. Part I describes the major housing subsidy programs. Part II summarizes the distribution of benefits under each program. Part III examines certain serious problems endemic to all existing housing subsidy programs. Part IV suggests an alternative approach to housing subsidies—housing allowances—discusses issues in the design of such a program, and presents estimates of the budgetary cost and regional distribution of an illustrative system of housing allowances.

I. Major Housing Subsidy Programs

The major programs which generate housing subsidies are:

Income tax treatment of homeowners.
Low-rent public housing.
Homeownership and rental assistance.
Rent supplements.
Below market interest rate loans on multifamily housing.
Veterans' Administration guaranteed loans and Federal Housing Administration mortgage insurance.
Farmers Home Administration insured home loans.

A number of other programs that generate subsidies are not discussed here because they are much smaller in size than those listed.[1]

Also not discussed are many housing programs which do not provide subsidies in the usual sense, but which improve the operational efficiency of certain housing markets. In so doing they permit certain buyers and sellers who would not otherwise come to terms to complete a mutually beneficial transaction. For example, the Federal National Mortgage Association (FNMA), for many years a Government-controlled corporation, creates a secondary market for federally insured and guaranteed mortgages. Although the secondary market operations in recent years have provided no subsidies—in the sense that FNMA consistently bought mortgages for more or sold them for less than the market price—these operations presumably both increased the willingness of financial intermediaries to make home loans and improved the terms on which borrowers could obtain them.[2] Various other programs facilitate mutually beneficial transactions, but since their operations result in no expenditure or dissipation of capital, they are not discussed further.

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[1] For a listing of most housing subsidy programs, see Henry J. Aaron, *Shelters and Subsidies: Who Benefits From Federal Housing Policies?* App. A, "Characteristics of Selected Federal Housing Programs" (Brookings Institution, 1972).

[2] Dwight M. Jaffee casts considerable doubt on the durability of these effects in "An Econometric Model of the Mortgage Market: Estimation and Simulation" (Apr. 1, 1970; processed).

Income Tax Treatment of Homeowners [3]

The murky provisions of the Internal Revenue Code contain the most important housing programs currently administered by the Federal Government. One program cost the Treasury $7 billion in 1966, and may well cost it $10 billion today. It subsidizes nearly every homeowner in the United States. Other tax programs provide $270 million in additional benefits to most renters. Despite their cost and pervasiveness, these programs receive negligible scrutiny within Government and, except for occasional academic analysis, almost none from outside the Government.

TABLE 1.—PERSONAL TAX LIABILITIES OF RENTER AND HOMEOWNER WITH EQUIVALENT EARNINGS, ASSETS, AND EXPENSES [1]

Item	Renter	Homeowner
Income:		
Earnings	$15,000	$15,000
From assets of $37,500:		
Interest (at 4 percent)	1,500	900
Imputed net rent on $15,000 equity in house		(600)
Money income	16,500	15,900
Housing cost: [2]		
Money expenditure	3,750	3,150
Imputed net rent		(600)
Residual money income	12,750	12,750
Taxable income:		
Money income	16,500	15,900
Less standard deductions and personal exemptions	5,000	5,000
Less mortgage interest and property taxes		2,100
Total	11,500	8,800
Tax liability	2,150	1,556

[1] Based on 1972 tax rates for a 4-person household with no members age 65 or over. Renter claims standard deduction of $2,000 and personal exemptions of $3,000; homeowner itemizes and claims as deductions $2,100 in mortgage interest and property taxes, $2,000 in other deductions, and personal exemptions of $3,000.

[2] Real housing costs are 25 percent of earnings for both renter and owner. Costs of homeownership include $601 net imputed rent, $1,350 in mortgage interest (6 percent on a $22,500 mortgage), $750 in property taxes, and $1,050 for maintenance and depreciation.

Source: Adapted from Richard Goode, "Imputed Rent of Owner-Occupied Dwellings Under the Income Tax," Journal of Finance, vol. 15 (December 1960), pp. 505—506.

The personal income tax encourages taxpapers to buy rather than rent housing by making the tax bill of homeowners smaller than that of renters in otherwise identical circumstances. Table 1 shows the tax liability of a renter and owner, both of whom earn $15,000 per year, occupy similar housing with a market value of $3,750 per year, and have $37,500 in assets. All assets of the renter yield taxable income. The homeowner holds $15,000 of his assets as equity in his home. He receives no cash income from his home, but he could have invested in the same asset as the renter and earned $600, or he could have rented the house to some other family for $3,750 which would have netted him $600, after he had paid $3,150 in housing expenses. Actually, the homeowner is playing two separable roles; he is a tenant who pays imputed rent to the landlord, and he is a real estate investor who receives imputed rental income from his tenant. Since the same person plays both roles, no cash changes hands.

A neutral tax system regarding homeownership would levy the same tax on the owner and renter described in table 1. In fact, the U.S. personal income tax collects $594 more from the renter than from

[3] For a full discussion of the impact of income tax provisions on homeowners see Henry J. Aaron, "Income Taxes and Housing," *American Economic Review*, vol. 60, No. 5 (December 1970), pp. 789–806; reprinted as Brookings Institution, reprint No. 193.

the homeowner. Three aspects of the Internal Revenue Code explain this differential. If the homeowner were taxed like other investors, he would have to report as gross income the rent (R_G) he could have obtained had he rented the house to another person—$3,750 in table 1. He would be allowed deductions for maintenance expense (M), depreciation (D), mortgage interest (I), and property taxes (T) as expenses incurred in earning income. The difference, or net rent (R_N), would be taxable income. Symbolically, $R_N = R_G - (M+D+I+T)$. In fact, the homeowner need not report imputed net rent (R_N) as income, but he may deduct mortgage interest and property taxes ($I+T$). Current tax treatment thus understates taxable income of homeowners relative to income of other asset holders by (R_N+I+T). In table 1, this understatement, $2,700, explains the difference between tax liabilities of owner and renter.

Homeowners paid $7 billion less in taxes in 1966 than they would have paid had they been taxed according to the same rules applicable to investors in other assets. This amount is 16.7 percent of the $42 billion collected from homeowners under the personal income tax in 1966. The change in the 1966 tax liabilities of homeowners under three alternative sets of rules would be as follows:

TABLE 2.—*Increase in tax revenues under 3 alternative laws compared with 1966 income tax provisions*

[In billions of dollars]

	Change in tax
Disallow deductions for property tax and mortgage interest	2. 9
Include imputed rent in taxable income	4. 0
Include net imputed rent and disallow deductions	[1] 7. 0

[1] The revenue effect of this law exceeds the sum of the other 2 laws separately because some taxpayers become subject to higher marginal brackets when all changes are made simultaneously than they are subject to when each change is made independently.

Source: Author's estimates.

The distribution of these tax savings by income class is shown in table 5, page 585.

By 1971 the tax saving from deductibility of mortgage interest and property taxes had risen to $5.7 billion according to Treasury Department estimates. While comparable estimates of the revenue effect in 1971 of excluding net imputed rent are unavailable, they probably exceed the $4 billion of 1966. The combined tax saving to homeowners in 1971 almost certainly exceeded $10 billion.

Low-Rent Public Housing

On June 30, 1969, 2.6 million Americans lived in 785,000 federally supported low-rent public housing units. By July 1972, 1,065,000 units will be available for occupancy. The number of public housing residents is about one-tenth of the number of people officially counted as poor, but not all public housing residents are poor. Federal, State, and local governments have been cooperating in the construction of low-rent public housing units for more than three decades. A few State and municipal governments have built additional public housing without Federal aid. Low-rent public housing is the major federally supported program intended solely for low-income Americans.

Over the years public housing has acquired a vile image—high-rise concrete monoliths in great impersonal cities, cut off from surrounding neighborhoods by grass or cement deserts best avoided after dark, inhabited by large, mostly black families, exhibiting the full range of social and economic difficulties. This image suggests that any benefits inhabitants derive from physical housing amenities are offset by the squalid environment.

In contrast, actual and prospective tenants seem to regard public housing as a better buy than alternative housing available to them on the free market. Most projects have extremely low vacancy rates and long waiting lists for admission.[4] The bad image of public housing contrasts also with the extremely heterogeneous architecture, tenant population, management efficiency, availability of social services, and other amenities.[5] Despite its unfavorable image and political opposition that threatened the program with extinction, public housing construction has been accelerated in recent years.

Public housing redistributes real incomes in two different ways.[6]

First, tenants buy housing services at a "bargain" and their real incomes thus increase.

Second, public housing alters real incomes of owners and tenants of other housing. As former occupants of free market housing become public housing tenants, some unsubsidized housing is vacated. In addition, local housing authorities build housing that would not otherwise be built. On the other hand, they often raze some private housing to clear sites for public housing. Rehabilitation generally reduces the number of units per building. Since doubling up and overcrowding are prohibited in public housing, an increase in public units may increase the number of households seeking housing.[7] If public housing reduces demand for unsubsidized housing more than it reduces supply, rents paid for low-cost, but unsubsidized, housing will tend to be somewhat lower than they would have been in the absence of public housing, at least until the unsubsidized housing stock adjusts to the advent of public housing. During this period, real incomes of tenants in unsubsidized housing will tend to be higher and incomes of owners will tend to be lower than they would have been in the absence

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[4] Waiting lists exceeded vacancies in public housing in 47 of the 49 largest cities with public housing programs in November 1967. Waiting lists were more than 10 times larger than the number of vacancies in 32 of those cities. "Building the American City," report of the U.S. National Commission on Urban Problems, H. Doc. 91-34, 91st Cong., 1st sess. (1969), p. 131. The vacancy rate for all public housing units on June 30, 1969, was 2.2 percent; it was 1.5 percent or less in 18 States including New York, California, and Illinois. U.S. Department of Housing and Urban Development, "1969 HUD Statistical Yearbook," Washington, p. 204.

[5] See George Schermer Associates, "More than Shelter: Social Needs in Low- and Moderate-Income Housing," Research Report 8; prepared for the National Commission on Urban Problems (U.S. Government Printing Office, 1968). This report evaluates specific public housing programs in various cities, thinly disguised by pseudonyms made transparent by complementary information, for example, Chicago (alias Babylon, population 3,550,000), Detroit (alias Carsington, population 1,630,000).

[6] Previous estimates of the subsidy value of public housing include Robert L. Bish, "Public Housing: the Magnitude and Distribution of Direct Benefits and Effects on Housing Consumption," *Journal of Regional Science*, vol. 9 (December 1969), pp. 425-38; James Prescott, "Rental Formation in Federally Sponsored Public Housing," *Land Economics*, vol. XLII (August 1967), pp. 341-346, and "The Economics of Public Housing: A Normative Analysis," unpublished Ph. D. dissertation, Harvard University, 1964, Eugene Smolensky, "Public Housing or Income Supplements: The Economics of Housing for the Poor," *Journal of the American Institute of Planners*, vol. 34 (March 1968), pp. 94-104; Edgar O. Olsen, "A Welfare Economic Evaluation of Public Housing" (Rice University, Ph. D. dissertation: processed); Eugene Smolensky and J. Douglas Gomery, "The Redistributive Effects of the Public Housing Program in 1965" (processed).

[7] The balance between supply of and demand for unsubsidized housing would not change if (*a*) all public housing consisted of converted rather than new units and if public housing tenants were required to consume exactly the same quantity of housing services as they had consumed before or (*b*) public housing consisted of new construction only to the extent that consumption of housing services by public housing tenants was allowed to exceed what it had been before such tenancy.

of public housing. In addition, public housing will probably raise construction—more public housing construction, partially offset by some drop in unsubsidized construction. As a result, the demand for different factors of production will probably shift.[8]

Construction costs may rise, thus increasing the supply price of unsubsidized housing services. Moreover, public housing as a new competitor for expenditures on housing services may alter the prices people are willing to pay for unsubsidized housing, thereby affecting unsubsidized rents.

Untangling these rather complex interrelationships would be hard enough if housing markets functioned without important lags or imperfections. The prevalence of racial discrimination, zoning restrictions, and other imperfections makes it completely impossible. Accordingly, estimates of the distribution of benefits from public housing will refer to benefits for tenants only. In addition, the improvement in housing conditions and living standards of public housing tenants may bring benefits to other members of society.

Public housing tenants enjoy a better standard of living than they would enjoy if they lived in ordinary housing. In order to bring these benefits to tenants, and to provide the larger community with whatever broader improvements public housing produces, the Federal Government incurs certain costs and municipal governments forego some property tax revenues. To measure the benefits to tenants, it would be desirable to know what they think the subsidy is worth. Unfortunately, such data are unobtainable.

The estimates presented below are based on the assumption that the total benefit from public housing equals the difference between public housing rents and rents on equivalent unsubsidized units. The estimates also presume that all benefits accrue to public housing tenants. This assumption is strong and highly unrealistic because improved housing may bring social benefits.

The difference between rents charged public housing tenants and rents charged privately for equivalent housing totaled $510 million in 1966. Table 5 shows the distribution of benefits by income bracket. More than half of estimated benefits accrued to households with incomes of $3,000 per year or less, 86 percent to households with incomes of $5,000 per year or less.

Public housing is clearly aimed at low-income households. The large proportion of benefits going to low-income families arises from admissions policies alone, as benefits per family vary little among income brackets.

Homeownership and Rental Assistance

Congress enacted homeownership and rental assistance (sec. 235 and 236 of the National Housing Act) in 1968, to help in the construction of 6 million federally assisted housing units as called for by the national housing goal.

The homeownership assistance program (sec. 235) requires homeowners to pay at least one-fifth of their adjusted income for mortgage amortization as a condition for assistance; the adjustment consists in deducting 5 percent of gross income in lieu of social security

[8] See Henry J. Aaron, *Shelter and Subsidies: Who Benefits From Federal Housing Policies*, ch. IV, "Housing Policies and Income Distribution" (Brookings Institution, 1972).

and $300 for each minor child from income. If the homeowner's payment is less than amortization, the Department of Housing and Urban Development pays the lender the difference. HUD's subsidy may not exceed the difference between amortization over 30 years at market rates and amortization at 1 percent interest. In 1968 when the program was enacted and mortgage interest rates were about 6½ percent, plus one-half percent insurance premium, the maximum subsidy was about 50 percent of mortgage payments. By 1970 with FHA rates at 8½ percent, the maximum subsidy was about 60 percent. For a family of five or more persons in a high-cost area with a $24,000 mortgage, the largest allowed under the program, the subsidy would be more than $117 a month. The rental assistance program (sec. 236) requires renters to pay one-fourth of adjusted income as rent. HUD pays the difference between this sum and fair market rents or the difference between amortization over 40 years at market interest rates and amortization at 1 percent, whichever is less. Since market rents include maintenance costs, taxes, vacancy allowances, and depreciation, the maximum subsidy at time of enactment was an estimated 35 percent. By 1970, when interest rates on FHA mortgages including insurance premiums had risen to 9 percent, the maximum subsidy had risen to 44 percent of market rents.

Only limited information is available on recipients of homeownership and rental assistance (see table 3). Most owners under section 235 have annual incomes in the $4,000–$7,000 range. Most tenants in 236 projects have slightly lower incomes—in the $3,000–$7,000 range. However, the larger family size in 235 units more than offsets the small amount of extra income.

TABLE 3.—DISTRIBUTION OF TENANTS IN HOMEOWNER AND RENTAL ASSISTANCE PROGRAMS, BY INCOME AND OTHER CHARACTERISTICS, VARIOUS DATES, 1968–71

Characteristic	Percentage of all tenants in program			
	Below-market-interest-rate loans (1968)	Rent supplements (1969)	Homeownership assistance (1971)	Rental assistance (1970)
Income bracket:				
Under $1,000	0.3	7.7	----------	----------
$1,000 to $1,999	2.5	41.1	----------	----------
$2,000 to $2,999	4.7	27.3	[1] 1.1	[1] 10.7
$3,000 to $3,999	10.1	17.0	4.2	13.5
$4,000 to $4,999	17.0	5.7	15.2	23.5
$5,000 to $5,999	22.6	1.2	25.7	25.6
$6,000 to $6,999	21.6	[2] .1	25.0	17.6
$7,000 to $7,999	12.5	----------	16.8	6.6
$8,000 to $8,999	5.3	----------	7.7	1.9
$9,000 to $9,999	1.9	----------	2.8	.4
$10,000 and over	1.5	----------	1.5	.2
Age of head:				
Under 20	NA	3.0	2.7	7.5
20 to 29	NA	26.0	50.1	61.7
30 to 39	NA	14.5	29.2	14.1
40 to 49	NA	7.4	11.8	6.3
50 and over	NA	[3] 49.1	6.2	10.4
Family size:				
1 person	9.5	32.8	.2	13.6
2 persons	30.3	13.4	10.7	24.9
3 persons	29.4	15.4	24.9	31.6
4 persons	17.3	13.3	21.2	17.2
5 persons	8.2	12.5	17.2	7.9
6 or more persons	5.1	12.5	25.8	4.9

TABLE 3.—DISTRIBUTION OF TENANTS IN HOMEOWNER AND RENTAL ASSISTANCE PROGRAMS, BY INCOME AND OTHER CHARACTERISTICS, VARIOUS DATES, 1968–71—Continued

Characteristic	Percentage of all tenants in program			
	Below-market-interest-rate loans (1968)	Rent supplements (1969)	Homeownership assistance (1971)	Rental assistance (1970)
Monthly mortgage payment or rent:				
Under $40		32.9	.2	NA
$40 to $49		25.8	.2	NA
$50 to $59		14.2	1.9	NA
$60 to $69		10.3	6.9	NA
$70 to $79	[4] 3.8	10.6	16.1	NA
$80 to $89	10.2	3.4	22.7	NA
$90 to $99	12.8	1.9	20.0	NA
$100 to $109	14.6	[5] .9	13.9	NA
$110 to $119	18.9	----------	9.2	NA
$120 to $129	17.2	----------	5.1	NA
$130 to $139	11.1	----------	2.0	NA
$140 to $159	9.0	----------	[6] 1.2	NA
$160 and over	2.4	----------	----------	NA
Subsidy per month:				
Under $20	NA	----------	.4	NA
$20 to $29	NA	----------	.5	NA
$30 to $39	NA	----------	1.3	NA
$40 to $49	NA	[7] 10.5	3.0	NA
$50 to $59	NA	6.3	6.5	NA
$60 to $69	NA	13.8	13.5	NA
$70 to $79	NA	16.2	23.8	NA
$80 to $89	NA	17.2	29.3	NA
$90 and over	NA	36.1	21.7	NA

NA—Not available.
[1] Less than $3,000.
[2] $6,000 and over.
[3] Those 60 and over accounted for 43.2 percent.
[4] Less than $80.
[5] $100 and over.
[6] $140 and over.
[7] Less than $50.

Sources: For below-market-interest-rate loan program, U.S. Department of Housing and Urban Development (HUD), Federal Housing Administration (FHA), Division of Research and Statistics, machine tabulations, May 25, 1970. For rent supplement program, derived from HUD, "Report of Rent Supplement Tenant Characteristics," with data for June to December 1969 (processed), and "Rent Supplement Tenant Characteristics," with data for May 31, 1969 (processed). For homeownership program, 1971 Housing and Urban Development Legislation, Hearings before the Subcommittee on Housing and Urban Affairs of the Senate Committee on Banking, Housing and Urban Affairs, 92 Cong. 1 sess. (1971), pt. 1, pp. 13–16, 27. For rental assistance program, HUD, Housing Management, Statistics Branch, unpublished tabulations, Feb. 8, 1971, and April 2, 1971. Percentages are rounded and may not add to 100.

Housing under sections 235 and 236 is too costly for very low-income households, unless they are renters who also qualify for rent supplement payments. Up to 20 percent of the units in any 236 project may be occupied by tenants who also receive rent supplements. The annual Federal payments under sections 235 and 236 are projected to reach $299 million and $151.4 million respectively by fiscal year 1972 and to rise rapidly thereafter. Unfortunately, data on subsidy payments or average mortgage amount by income class or other relevant categories are not available, so that the distributional effects of homeownership assistance cannot be measured. Moreover, recent reports of corruption suggest that some portion of these Federal outlays may benefit not the occupant, but builders, land owners, agents, and other middlemen.

Rent Supplements

The rent supplement program works as follows: A nonprofit or limited dividend corporation or a cooperative contracts with the Department of Housing and Urban Development to make rent supplement payments. The contract stipulates the maximum payments

per year which HUD may be required to make. The contract authority refers to this maximum liability. Contract authority, therefore, gives rise to maximum Federal payments of this amount in each of 40 years for which the contracts run. Having secured this commitment, the housing developer then begins construction. Rent supplement payments start only after units are completed and occupied. Since some tenants pay more than the minimum 30 percent of market rents required of all tenants, actual rent supplement payments are less than the contracted maximum on some units. HUD estimates that over the 40-year estimated life of rent supplement projects, actual payments authorized from 1967 through 1971 will be about 83 percent of the maximum obligation.[9] Rent supplement housing may be financed in several ways. Rent supplements may be provided in combination with interest subsidies under a housing program for the elderly and handicapped (sec. 202), housing for lower income families (sec. 236), or sec. 221(d)(3) below market interest rate projects, or on State-aided projects.

Families on whose behalf rent supplements are paid have lower incomes but are smaller than those living in low-rent public housing. Rent supplement payments amount to nearly two-thirds of market rents on assisted units. Unfortunately, it is not possible with available data to compute the distribution of benefits from rent supplement payments. To do so it would be necessary to know the rent supplement payments made on behalf of each income bracket or other relevant classification. This information is not now available. The annual benefits under rent supplements approximately equal Government expenditures on the program, $91 million in fiscal year 1972. The present value of benefits over an estimated 40-year project life to tenants in 22,000 rent supplement units estimated to be completed during fiscal year 1971 was approximately $1.2 billion or about $14,338 per unit.[10]

Below Market Interest Rate Loans on Multifamily Housing

In 1961 Congress authorized loans at low-interest rates to nonprofit or limited dividend corporations or cooperatives for the construction of modest housing for lower middle-income households. By the end of fiscal year 1970, 131,000 units had been completed under this program, named 221(d)(3) BMIR after its section number in the National Housing Act and the "below market interest rates" charged. This program never worked quite as intended. It was plagued by administrative delays; the myth grew up that it assisted households with higher incomes than Congress or the administration originally intended; the coup de grace came from reforms in budgetary accounting which increased the apparent current cost of the program. As a result the program was superseded by rental assistance under section 236 of the National Housing Act and by rent supplements. Units constructed under this program continue to be occupied, however, at rents below those which would have been feasible if the units were financed at market interest rates.

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[9] *Independent Offices and Department of Housing and Urban Development Appropriations for 1971*, hearings before a subcommittee of the House Committee on Appropriations, 91st Cong., 2d sess. (1970), pt. 3, pp. 654–55. The estimates do not discount payments to present value. If discounted, actual payments would be a higher fraction of maximum payments because tenant incomes are assumed to increase more rapidly than operating costs.

[10] This estimate presumes annual 1st year payments of $1,000 per unit (above the 1967–70 average and below the 1971 average for units begun under contract authority for those years), that over 40 years actual payments have a present discounted value equal to 90 percent of what they would be if all annual payments were $1,000, and that the appropriate discount rate is 8 percent.

This is the way the program operated. Under the 221(d)(3) BMIR program qualified builders could obtain loans at 3-percent interest from banks and other lenders.[11] Lenders made such loans only because the Government National Mortgage Association[12] immediately purchased the mortgage at par. Under this arrangement, FNMA was the real lender, the bank merely a middleman or broker.

The reduction in cost from such loans clearly depends on the rate at which the developer otherwise would have to borrow. With market interest rates at 6.5 percent, a 3-percent loan makes possible an estimated 27 percent reduction in rents.[13] With market interest rates at 9 percent, a rate prevailing during the later years of the program, a rent reduction of 37 percent is possible. The rental saving in 1970 from this program totaled an estimated $28 million. The breakdown of benefits by income class is shown in table 5. Somewhat more than half of all benefits accrued to whites, about two-fifths to blacks and small amounts to other groups. The characteristics of tenants are shown in table 3.

Mortgage Insurance and Loan Guarantees

The Federal Housing Administration (FHA) insures mortgages on single and multifamily housing. By far the largest of these programs concerns purchases of single family housing without Federal subsidy and occurs under section 203 of the National Housing Act. FHA insures lenders against most losses should borrowers default on payments. In return FHA charges borrowers an insurance premium equal to 0.5 percent of the unpaid mortgage balance. Ostensibly this program is financially balanced, with insurance premiums projected to cover claims.

The Veterans' Administration (VA) runs a similar program for veterans. VA guarantees lenders against loss from default and foreclosure up to a stipulated fraction of the loan or a specified maximum loss. In 1971 the guarantee was limited to $12,500 or 60 percent of the mortgage, whichever is less. Unlike FHA, VA charges nothing for this service beyond a one-time fee of 0.5 percent of the home loan imposed on veterans eligible because of service after 1955.

The major consequence of these two programs has been to facilitate a revolution in home financing. During the 1920's and 1930's lending institutions typically required a downpayment of one-third to one-half of the purchase price and would not lend for 20, 30, or 40 years. Mortgage insurance and loan guarantees encouraged financial intermediaries to lend more and for longer terms. The result was smaller down payments and longer repayment periods, not only on Government insured and guaranteed loans, but on conventional mortgages as well. Because they do not need cash, many families can buy a house who would not have been able to do so under the more stringent terms of the past. A large part of the liberalization in home mortgage terms might have occurred even if mortgage insurance and loan guarantees

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[11] The original rate of 3⅛ percent was increased to 3⅜ percent for fiscal year 1964, to 3⅞ percent effective July 1, 1964, and modified in 1965 to not exceed 3 percent.

[12] The Federal National Mortgage Association before 1968.

[13] George von Furstenberg and Howard R. Moskof, "Federally Assisted Rental Housing Programs: Which Income Groups Have They Served or Whom Can They Be Expected to Serve?" in *The Report of the President's Committee on Urban Housing; Technical Studies* (U.S. Government Printing Office, 1967), vol. 1, p. 153. These estimates are based on a comparison of average costs per unit under section 665(d)(3) BMIR and those under the basic unsubsidized multifamily housing program, section 207. The estimates include allowances for other fees and for vacancies.

had not existed. The receding fear of economic depression might have encouraged lenders to make longer term loans than they did previously. But it seems likely that some significant part of easier home mortgage terms was due to the prodding of these two Federal programs.

By facilitating institutional changes these programs have brought substantial benefits to those families who wanted to buy houses and were enabled to do so. These institutional changes do not constitute subsidies in the usual sense.

In addition, however, both of these programs redistribute income. On the assumption that FHA mortgage insurance is financially balanced, some redistribution occurs within the program because borrowers pay the same premium for mortgage insurance but do not generate the same risk of loss from default or foreclosure. Loans made to low-income households on the average are riskier than loans to high-income households. Mortgages equal to a high fraction of the appraised value of the property which secures them are riskier than mortgages equal to a low fraction of property value. On the assumption that FHA mortgage insurance is financially balanced, it tends to redistribute income from high-income borrowers and from those whose mortgages carry a low ratio of loan to value, to low-income borrowers and to those whose mortgages carry a high ratio of loan to value. If FHA mortgage insurance is underfinanced—in the sense that losses over the long run exceed premium income—then FHA borrowers are receiving implicit transfers or subsidies from other taxpayers equal to the overall longrun deficit in the FHA fund.

VA loan guarantees distribute income from nonveterans and veterans who do not buy homes to veterans who buy homes. They do so because VA incurs certain expenses through its guarantees which must be met out of other VA funds or from general revenues. The aggregate benefits to borrowers who received VA loan guarantees in 1966 was approximately $141 million.

The combined benefits of VA loan guarantees and the redistribution which occurs among FHA borrowers is shown in table 5, broken down by income class.

Farmers Home Administration Loans to Low-to Moderate-Income Households

The Farmers Home Administration (FmHA) runs one of the Federal Government's largest, but least noticed, housing programs. Between 1967 and 1972, FmHA will have provided more than $4.5 billion in loans and grants for the purchase, rehabilitation, or construction of new or existing housing. The largest of the several programs FmHA administers is a system of loans to low- and moderate-income households in rural areas. Despite the magnitude of FmHA's housing activities, discussion of Federal housing policy seldom accords them attention in proportion to their size, and it frequently ignores them entirely.

Large-scale housing assistance for farmers began with the Housing Act of 1949. In 1961 legislation made the nonfarmer eligible for FmHA housing assistance if he (1) owned real estate in rural areas,

(2) lacked sufficient resources "to provide the necessary housing and buildings on his own account," and (3) was unable to obtain credit "from other sources upon terms and conditions which he could reasonably be expected to fulfill." [14] Some owners of properties within standard metropolitan statistical areas and some wealthy and high-income families have received loans. The great majority of loans, however, are made to households located in small towns or in open country and with modest incomes and wealth. Relatively few households with very low incomes have received loans. Fewer than one loan in 10 is made to farmers (see table 4).[15] FmHA is a "lender of last resort," since applicants must show that they cannot obtain credit elsewhere at fair terms. Since FmHA charges less than market rates and lacks sufficient funds to satisfy all rural credit demands, however, some significant discretion remains with the FmHA loan officer.

TABLE 4.—DISTRIBUTION OF BORROWERS UNDER FMHA LOAN PROGRAM, BY INCOME AND OTHER CHARACTERISTICS, 1969

[In percent]

Characteristic	Distribution	Characteristic	Distribution
Income (dollars):		Net worth (dollars):	
Under 3,000	5.8	Under 5,000	82.9
3,000 to 3,999	8.0	5,000 to 9,999	12.0
4,000 to 4,999	12.7	10,000 to 14,999	2.3
5,000 to 5,999	20.4	15,000 to 49,999	2.1
6,000 to 6,999	24.7	50,000 to 74,999	.6
7,000 to 7,999	17.2	75,000 and over	0
8,000 to 8,999	5.2	Region: [1]	
9,000 to 9,999	2.4	Southeast	56.4
10,000 and over	3.6	Northeast	15.4
Residence:		West	7.4
Farm	6.6	Central	20.8
Open country	48.4	Age of family head:	
Place under 1,000 population	16.6	Under 30	39.3
Place of 1,000 to 2,499 population	15.2	30 to 39	29.2
Place of 2,500 to 5,500 population	13.2	40 to 49	17.0
		50 to 59	8.7
		60 and over	5.8

[1] Distribution is for 1968.

Source: Department of Agriculture (USDA), Farmers Home Administration (FmHA), tabulations, April 1970. The program coverage of the tabulations varies slightly among the characteristics presented.

After it makes a loan, FmHA may either (1) retain the loan in its portfolio or (2) guarantee payment of principle and interest and sell the guaranteed loan to private lenders. In the former case, the loan is called a direct loan; in the latter case, an insured loan. Whether or not FmHA insures and sells a loan does not affect the borrower in the slightest. The amount he can borrow, his repayment period, and the interest rate he must pay are all decided beforehand. The economic impact of direct and insured loans is identical.

[14] Housing Act of 1949, title V, sec. 501(c), as amended.

[15] As indicated in the notes to table 7, cross tabulation of FmHA borrowers refer to different subsets of all FHA borrowers.

In addition, FmHA administers the Federal Housing Administration's section 235 homeownership assistance; it placed 2,382 such loans in fiscal year 1970 in rural areas. FmHA also administers "interest credit assistance" on both single family housing and rental projects and two forms of rental assistance, one resembling the Federal Housing Administration's 221(d)(3) below market interest rate program, the other resembling section 236, rental assistance.

Borrowers receive two kinds of benefits from FmHA's home mortgage programs. First, FmHA provides home mortgage credit in some communities where private lenders do not operate. Other lenders adhere to lending procedures of the 1920's and earlier—short-term, large downpayment, renewable loans. Without FmHA some borrowers, low- and high-risk alike, would obtain no credit, or would be offered it on such onerous terms that some transactions would be prevented. Second, FmHA borrowers receive a subsidy when they get a loan. Most FmHA borrowers have paid less than commercial interest rates in most recent years.

The estimates of benefits to FmHA borrowers rest on the presumption that those households could have obtained credit from private sources at the yield of Federal Housing Administration mortgages. This assumption, if anything understates benefits to FmHA borrowers. Private lenders almost certainly would have charged FmHA borrowers more than they charged conventional mortgagers, much more if one accepts FmHA's claim that credit would be unavailable to its borrowers at reasonable rates.

The first year benefits under insured loans to low- to moderate-income households who secured FmHA loans in 1969 and 1968 totaled $10.8 million and $7.4 million, respectively. The present value of interest savings to these FmHA borrowers over the life of their loans was far larger, $123 million and $92 million, respectively. For fiscal year 1970, the present value of benefits rose to an estimated $188 million, based on the $729 million in loans reported in the 1972 budget, a yield on FHA mortgages of 9.20 percent (including 0.5 percent insurance premium) and on FmHA interest charge of 6¼ percent.

Borrowers under other FmHA programs also receive implicit subsidies, but these are small by comparison with those under section 502 and are not included in the foregoing estimates.

II. Distribution of Housing Subsidies

The distribution of implicit and explicit housing subsidies is shown in table 5. The table is divided into five parts. The top part shows the distribution of benefits by income bracket where such calculations were feasible. Then the table indicates the annual flow of benefits from the program to all beneficiaries under the program.[16] Next, the table shows the present value of benefits—the value of the stream of benefits initiated in the indicated year discounted at the then prevailing market rate of interest.

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[16] The stream of benefits under Farmers Home Administration insured loans and Veterans' Administration insured loans are assumed to vest in the borrower when he obtains the loan. Accordingly, the annual flow of benefits and the present value of benefits both refer to the cohort of borrowers who obtained credit in the indicated year.

TABLE 5.—DISTRIBUTION OF BENEFITS FROM FEDERAL HOUSING POLICIES

[Millions of dollars]

Income bracket [1]	Subsidy provided by—							
	Income tax laws, 1966 [2]	FHA and VA programs, 1966 [2]	Public housing, 1965 [2]	Below-market-interest-rate loans, 1970 [3]	Home-ownership assistance, 1972 [4]	Rental assistance, 1972 [4]	Rent supplements, 1972 [4]	Rural housing loans, 1969 [5]
Under $1,000	253	5	27	30	(6)	299	151	91	(6)
$1,000 to $2,000			138		1			
$2,000 to $3,000			128		1			
$3,000 to $4,000	328	22	91		3			1
$4,000 to $5,000			57		5			1
$5,000 to $6,000	544	36	38		6			2
$6,000 to $7,000		34			6			3
$7,000 to $8,000		24			4			2
$8,000 to $9,000	1,359	14			2			1
$9,000 to $10,000					1			(6)
$10,000 to $15,000	1,986	5	2					(6)
$15,000 to $25,000	1,256							
$25,000 to $50,000	770				(6)			
$50,000 to $100,000	318							
Over $100,000	169							
Total, annual benefits	6,982	(7)	510	28	299	151	91	11
Present value of benefits	(7)	141	(7)	94	[8] 2,078	[8] 1,172	[8] 1,185	123

[1] Definitions of income vary slightly from one program to another.
[2] Median family income was $7,500 (U.S. Bureau of the Census, Current Population Reports, Series P–60, No. 75, "Income in 1969 of Families and Persons in the United States" 1970).
[3] Median family income was $8,632 (ibid.).
[4] Benefits by income brackets were not estimated; total benefits indicated are estimated Federal program costs as reported in the Budget of the United States Government, 1972; Appendix, p. 521.
[5] Median family income outside metropolitan areas was $7,982 (ibid.).
[6] Less than $500,000.
[7] Not estimated.
[8] Calculated from requested budget authority for 1972 (see note d) and data in table 8–3 in Shelter and Subsidies: Who Benefits from Federal Housing Policies, Brookings Institution, 1972.

Overwhelmingly the largest housing subsidy is favorable tax treatment of homeowners which, in 1966, left homeowners with about $7 billion more in disposable income than they would have had if they were treated like other property owners. The $7 billion estimate understates the housing subsidies awarded by the tax system, since it excludes tax savings arising from accelerated depreciation on rented housing and other items. Income tax savings to homeowners are more than 10 times as large as benefits under the next largest program, low-rent public housing. These tax savings accrue largely to households with comfortable incomes. Only 8 percent of this subsidy accrues to taxpayers with incomes of less than $5,000, while 84 percent of all benefits to taxpayers with incomes of $7,000 per year or more, 64 percent to taxpayers with incomes of $10,000 per year or more, and 36 percent to households with incomes of $15,000 per year or more. Indeed, yearly tax savings to households with incomes of $50,000 per year or more are nearly as great as annual benefits under low-rent public housing and larger than annual benefits under any other housing program. These implicit tax subsidies are inequitable and as instruments for improving housing quality they are defensible only if it is a national goal to encourage the relatively well-to-do to buy even better housing than they would buy in the absence of such subsidies. Despite the high cost, inequity, and inefficiency of this accident of tax history, there is little prospect that this aspect of the tax code will be reformed in the near future.

Low-rent public housing is the major housing program aimed at low income Americans, and it lands squarely on target. While the very poorest may not be able to afford even low-rent public housing, the typical public housing tenant has very modest means. More than 86 percent of the $510 million in benefits in 1966 from that program accrued to families with incomes under $5,000. Benefits from public housing have risen substantially since 1966 as the number of units under management has increased and general rent levels have risen. Benefits from the newer rent supplement program also accrue primarily to low income households. Total rent supplement payments are projected to rise from $21 million in 1970 to $91 million in 1972, and to rise continuously thereafter, but according to present plans, this program will remain much smaller than low-rent public housing.

Homeownership and rental assistance are projected to grow more rapidly than low-rent public housing, a distinctly bullish assumption in light of the failure of past projections of growth in housing programs and of recently reported corruption and administrative problems. The national housing goal projects the construction of 2.7 million units under homeownership and rental assistance. These programs concentrate on lower middle income households with annual incomes of $4,000–$7,000. The 221(d)(3) below market interest rate program, predecessor to rental assistance, generated approximately $27 million in benefits in 1968, the most recent year for which data are available. Most of the benefits under this program accrue to relatively small households with incomes of $4,000–$7,000 per year.

Residents of rural areas and small towns whose access to conventional credit sources is limited may obtain loans from the Farmers Home Administration (FmHA) at subsidized interest rates. This program also reaches households in the $4,000–$7,000 income range. It provided approximately $11 million in benefits in 1969, the latest year for which data are available. The President has requested authority for expanded lending activity by FmHA.

The operations of the Federal Housing Administration and the Veterans' Administration in protecting lenders against default by borrowers provided measurable subsidies of about $141 million in 1966. In addition, the operations of these agencies have probably helped spur a revolution in home financing procedures. The measurable subsidies arise because these agencies do not charge each borrower (or lender) the acturial cost of default protection which the agencies provide. The amount of these subsidies was modest in 1966; even if they were much greater in other recent years, these actuarial subsidies cannot have been large. They accrued primarily to lower middle income families.

FHA and VA regulations may also have contributed to the relaxation of terms on home mortgages by lenders in general. Even if FHA and VA "caused" only a small part of this relaxation—in the sense that most of it might have occurred even in their absence—these benefits would dwarf those indicated above. Part of the benefits FHA and VA produce by making homeownership more accessible are tax benefits already included in another calculation. Part of the benefits arise from the improved operation of the home mortgage market as a result of which families who simply prefer homeownership (and would do so without tax benefits) can secure unsubsidized

mortgage terms that make homeownership possible. While it is not possible to estimate the size of these benefits, they are almost certainly vastly larger than the subsidy benefits from FHA–VA programs shown in table 5.

III. The Equity of Existing Housing Programs

Should the Federal Government continue its present housing policies? If not, how should it deal with America's housing problems? Answers to these questions require a knowledge of the way housing markets work or fail to work, an understanding of how existing policies affect housing markets and whom they benefit, and judgments about which problems are most important.

Among the basic questions every country faces in designing a housing policy are whether the Government should concern itself with new or existing housing, or both; what kind of standards—if any—it should set for the quality of housing; whether policies should be directed at demand or supply, or both; whether subsidies should be channeled directly to the poor or to other income groups in the expectation that filtering will carry benefits to the poor; whether policies should be operated within the competitive housing market or independently of it; whether they should be designed to improve competition in housing markets; and whether they should be designed to affect housing services alone or the full range of residential services collectively.

The answers a country gives to such questions represent its housing strategy. Its strategy helps determine the cost of its housing policy, the distribution of income, the cleanliness, safety, and design of cities, the importance of markets, and other important political and economic conditions. Its answers will be affected by the level, distribution, and rate of growth of per capita income; the rate of population growth; migration; and construction costs. Rich countries can choose high mandatory housing standards and large subsidies that poor countries could not afford. How income is distributed affects the character of housing and the dispersion of political power. A rapidly growing or migrating population must make a considerable investment in new housing just to maintain standards and prevent overcrowding.

Even after a housing strategy has been adopted, many important tactical issues will remain. For example, should subsidies be provided directly to occupants or indirectly through construction subsidies, tax incentives, or various credit market devices? Should reliance be placed on statutory prohibitions and requirements or on incentives? Although the selection of a housing strategy does not settle such tactical questions, it is the basis decision, the expression of the goals a nation sets for itself.

Among the housing strategies the United States might plausibly adopt are three sketched by Anthony Downs:

Filtering strategies.—Involve strict enforcement of high or moderate quality standards for all new construction, and either (a) no public housing subsidies at all or (b) public subsidies focused mainly on middle-income or high-income households. Thus, nearly all new housing units are occupied by non-poor households. Poor households receive decent units through filtering down of older units from higher income households.

Low-income subsidy strategies.—Also involve strict enforcement of high or moderate quality standards (usually the latter) for all new construction, but include large scale public housing subsidies allocated directly to low-income households. High standard versions require either larger total public subsidies or reach fewer poor households than moderate standard versions. The latter are better able to use the economies of mass produced or industrialized housing.

Minimal standard strategies.—Involve only partial enforcement of any housing quality standards in urban areas, primarily in existing good quality neighborhoods. A great deal of the new construction under such strategies consists of zero standard units built by their occupants. Any housing subsidies employed can be either concentrated on the poor or spread over all income groups.[17]

A country's choice of strategy should reflect the rationale of its housing policy.[18] If that rationale favors a weak and vague housing policy—no more perhaps than removal of discriminatory and monopolistic practices—the "minimal standards" strategy is appropriate. Under such a position bad housing would be seen as a problem of low income; low income, but not bad housing, might be a matter of collective concern. No construction standards should be imposed, for the market should generate the kinds and amounts of housing people demand. The zero standards approach assumes that in a country as rich as the United States few shacks or hovels would be built and few would persist because nearly everyone would demand housing consistent with his income and taste and would get it. Some construction might be far below standards now permitted, but it would satisfy the demand for housing by consumers who feel such housing best satisfies their needs. A few hovels and shacks might continue to exist for the destitute few who could not afford anything better.

The minimal-standards position is not inconsistent with radical income redistribution to aid the poor, and even with complete income equality. It presumes that the market reliably reflects individual tastes and it downgrades the importance of nonmarket social and economic interaction, but it does not necessarily involve passive acceptance of poverty. An advocate of both zero housing standards and major income redistribution might rationally foresake zero housing standards if the prospects for direct redistribution of income were poorer than for indirect redistribution through housing policy.

The choice on economic grounds between filtering and low income subsidy strategies hinges on which of the various reasons for Government actions in the housing market seem most compelling. If market imperfections, social costs of bad housing, racial discrimination, and other types of market failures are most often associated with housing inhabited by the poor, a low income subsidy strategy would be indicated. If such imperfections occur throughout the housing market, a filtering strategy, or some hybrid filtering—low income subsidy strategy—would be called for.

The simple laws of division decree that with a given sum of money, more families can be helped under a filtering strategy than under a low income subsidy strategy.

The amount of subsidy per household needed to close the gap between a household's own ability to pay and the cost of a new decent unit is larger, the lower the household's income. Therefore, any given sized public housing subsidy

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[17] "Housing the Urban Poor: The Economics of Various Strategies," *American Economic Review*, vol. 59 (September 1969), p. 649.

[18] Many reasons can be advanced for adopting policies that interfere with the free operation of the housing market. In regrettably few areas does hard evidence suggest specific remedies, but in a disquietingly large number a widespread consensus supports collective action. See *Shelter and Subsidies; Who Benefits from Federal Housing Policies*, Brookings, 1972, chap. 1, "Rationale For a Housing Policy."

can generate more new production of decent units if concentrated upon middle-income and upper-income groups than if concentrated upon the poorest groups. True, the frictions of the housing market mean that the immediate impact of such larger outputs upon the poorest households will be far less than a lower total output directly distributed to them. Yet focusing housing subsidies upon middle-income groups . . . enables the Government to assist more households per million dollars of subsidy, and therefore may be considered *politically* more efficient than direct housing aid to the poor.[19]

The crucial question is how serious the frictions are that defer the benefits of filtering for the poorest households. If filtering proceeds smoothly and quickly, the costs of delay may pale before the political gain of securing support from other income groups. If filtering works sluggishly, or if certain segments of the housing market remain largely unaffected, then a dilemma may exist between politically feasible programs that help least those who need help most and programs of direct aid for the poor around which no consensus can be formed.

At no time has Congress or the President publicly attempted to develop a housing strategy. Instead, legislation has been proposed, debated, amended, and enacted piece by piece. Despite this lack of neatness, the record indicates that the United States rather consistently has pursued a filtering strategy.

The pattern of benefits from housing programs, summarized in table 5, may be criticized on at least three grounds.

First, existing housing programs provide more direct assistance to middle and upper income households than to low and lower middle income households, although bad housing is not primarily an affliction of the well-to-do. Moreover, all housing programs intended for low and lower middle income households provide large amounts of help to a small fraction of eligible households and no direct help at all to all the rest.

Second, housing assistance is provided primarily in connection with newly constructed units. As a result, the sum of the subsidy per unit and housing expenditures by assisted households much exceeds the cost of standard housing as estimated by the Bureau of Labor Statistics in its "low cost" budget.

Third, housing assistance is linked to particular structures rather than to households. As a result, an assisted family cannot choose freely among vacant units and risks loss of benefits if it moves from an assisted unit. These features inhibit mobility and consumer choice.

Whether to help the poor directly or to help the nonpoor and hope the poor benefit is indeed a difficult choice. However, other circumstances have assured that even direct aid to middle-income families reaches only a fraction of eligible households. Although housing programs described here absorbed over $8 billion in Federal resources in 1966 and absorb far more today, most benefits drain away unsupervised through income tax benefits to homeowners. Given the resulting expenditure limitations on other housing subsidy programs and average benefits per recipient, there is simply not enough money to provide assistance for all who are eligible on the basis of income. The most straightforward courses would be to increase expenditure limitations and accommodate all eligible families within a set number of years. Unfortunately, this course raises another problem. As a practical matter, assistance is linked to new construction and assisted

[19] Downs, "Housing the Urban Poor," *op cit.*, pp. 647–48. Emphasis added.

construction cannot be extended much beyond currently projected levels. The Department of Housing and Urban Development recognized this limit when it rejected as infeasible the construction of 6 million assisted units in 5 rather than 10 years under the national housing goal. Either residential construction activity would have ballooned to unsustainable levels or unassisted construction would have been squeezed to intolerably low levels.

The linkage between most overt subsidies and new housing units creates another equity issue. A household ineligible for subsidies on the basis of income may have poorer neighbors living in better subsidized housing than it can afford. This situation creates resentment and political resistance to housing assistance.[20]

The linkage between subsidies and new construction also makes the cost of housing assistance higher than the cost of housing families in socially acceptable existing housing. Housing assistance under the newest subsidy programs (homeownership and rental assistance) has run at about $1,000 per household per year. In addition, households must pay 20–25 percent of income toward housing costs. According to the Bureau of Labor Statistics, the cost of shelter within its low cost budget in 1967 was $1,013. Median housing costs under homeownership assistance were $1,608 in 1969.[21] It is clear that the Government paid a considerable premium to house assisted families predominantly in new units.

One reason for linking housing subsidies with new construction was a fear that subsidies alone would drive up the price of housing available to the poor. This concern reflects an implicit assumption that subsidy recipients will be unable to choose new neighborhoods or different residences, that existing landlords can jack up rents with impunity, and that little effective competition exists in the housing market.

Housing subsidies and new construction were linked in addition, because policymakers hoped to provide improved housing for some groups without causing other groups to be housed less well. The increased demand for housing would be met by new units, not by units captured from other households. Most evidence, however, suggests that the housing stock a nation will support depends on such factors as the number of households, income, and the price of housing relative to other goods; residential construction, in turn, depends on household formation, changes in income, changes in the relative price of housing, and credit market conditions. Federal subsidies may cause a temporary increase in residential construction or influence the kind of units built, but there is no evidence that linking subsidies to new construction results permanently in a larger housing stock than would exist if housing subsidies alone were provided. Federal subsidies reduce the amount of bad housing since they place at the disposal of households too poor to support adequate housing from their own income enough resources to demand adequate housing. This objective is achieved,

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[20] As one man wrote to his senator: "One thing struck my eye today. An ad for new houses in the $17,000 class being offered to low-income families for $200 down and $100 a month. This made possible by Government subsidy. In the meantime, my wife and I both work to make payments on our 30-year home of $136 a month and support our family without aid of the Government. Can you explain to me why I should be taxed to help someone else buy a home that I myself could not afford to live in?" Statement of Carl L. Curtis in "Housing and Urban Development Legislation of 1970," hearings before the Subcommittee on Housing and Urban Affairs of the Senate Committee on Banking and Currency, 91st Cong., second sess. (1970), p. 706.

[21] Median subsidy was $54 per month; median payment by mortgagor was $80 per month. The median of the sum of two series is not necessarily the sum of the two medians, but it is assumed here that median housing costs are $134 per month ($54+$80) and that annual costs are therefore $1,608.

however, at greater cost than would be necessary if existing, rather than new, housing were used.

IV. Alternative Housing Strategy and Tactics, the Housing Assistance Plan

The existing system of housing subsidies is inequitable and excessively costly. It aids a minority of lower middle-income families and a miniscule few among the poor. Those not directly aided may gain through filtering, but the benefits are probably random and irregular. The quality of housing for the eligible few may be superior to that of more comfortable neighbors. The limitation of most subsidies to new units results in high costs per households served.

Recognition of the inequities and excessive cost of subsidy programs has led many analysts to recommend a general subsidy payable to all (or nearly all) households with incomes below stipulated levels.[22] Although housing allowance plans differ in major respects, all would provide eligible households with cash or special certificates to defray part of the cost of new or existing housing selected by the recipients. The Department of Housing and Urban Devleopment has announced plans to support a variety of experimental housing allowance plans.[23]

Answers to a number of policy questions would shape the precise character of the housing assistance plan.[24]

Should benefits be paid in cash or rent certificates? Recipients would be free to spend cash benefits on goods other than housing, and the assistance might add no more to housing expenditures than would general cash assistance. Administrative costs, however, would be minimized since there would be no need to verify the uses to which the benefits were put. Payments tied to actual housing outlays—in the form of rent certificates or mortgage payment coupons, or as the exact difference between housing costs and some fraction of income—would encourage households to spend more on housing than they would if benefits were unrestricted. Efforts to tie payments to housing expenditures would raise administrative costs since it would be necessary to verify rents paid (a difficult task since tenants and landlords would have incentives to collude) or to make sure that a black market for certificates or coupons did not arise.[25] Moreover, introduction of large tied housing subsidies might drive up the price of housing without improving quality commensurately; coupons or certificates would be "funny money," applicable to housing but nothing else. If the housing market were competitive, property owners would bid for tenants (or buyers) by improving housing quality.

Should housing benefits be combined with requirements that private landlords or homeowners upgrade low quality housing? The Government could undertake a vigorous program of code enforcement. Or

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[22] See Edwin Kuh, "A Basis for Welfare Reform," *Public Interest*, No. 15 (Spring 1969), pp. 112–17; William D. Nordhaus, "Tax Incentives for Low Income Housing," in National Tax Association, *Proceedings of the Sixty-First Annual Conference on Taxation* (1968), pp. 396–414; Eugene Smolensky, "Public Housing or Income Supplements—The Economics of Housing for the Poor," *Journal of the American Institute of Planners*, Vol. 34 (March 1968), pp. 94–101; Frank de Leeuw, Sam H. Leaman, and Helen Blank, "The Design of a Housing Allowance," Working Papers 112-25 (Urban Institute, Oct. 6, 1970; processed).

[23] See Jack Rosenthal, "HUD To Give Poor Funds for Homes," *New York Times*, Dec. 19, 1971.

[24] This discussion leans heavily on de Leeuw, Leaman, and Blank, "The Design of a Housing Allowance."

[25] See Gordon Tullock, "Subsidized Housing in a Competitive Market: Comment," and Edgar O. Olsen, "Subsidized Housing in a Competitive Market: Reply," *American Economic Review*, Vol. 61 (March 1971), pp. 218–19 and 220–28.

benefits could be withheld from households residing in units that do not meet minimum standards. Deficient units would either become vacant or their owners would be subject to fines. Presumably, standards would be set at a level that could be supported and maintained from housing allowance payments. Direct efforts to control housing quality are especially attractive to those who fear that landlords would simply raise rents if large tied housing subsidies were paid. Past governmental efforts effectively and honestly to administer a program of code enforcement or some other measure to upgrade housing quality by fiat have failed repeatedly, perhaps because tenants were not able to pay enough to support housing at code standards.[26]

Who should be eligible for benefits? The plan might be limited to renters, on the assumption that homeowners must be less needy since they could amass a downpayment and undertake a commitment to monthly mortgage payments. The plan might include homeowners, but only if they are making monthly mortgage payments. Households who owned their residence free-and-clear might be excluded on the theory that any benefits to them would necessarily support consumption of goods other than housing. Single persons or couples under 65 years old might be excluded on the grounds that resources should be concentrated on the aged and families with children. While limitations based on other criteria than measurable need dilute equity, limited resources might compel policy makers to curtail eligibility. Ideally such limitations should not be based on criteria subject to control by potential beneficiaries; for example, a household that owned its residence free-and-clear could easily mortgage its house if the making of mortgage payments were a condition for benefits.

TABLE 6.—PROJECTED ANNUAL COST AND NUMBER OF BENEFICIARIES UNDER HOUSING ASSISTANCE PLAN, BY COVERAGE AND HOUSING COSTS, 1967

Coverage	Cost of plan (billions of dollars)		Number of beneficiaries (millions of households)	
	Stable housing costs	Housing costs rise 10 percent	Stable housing costs	Housing costs rise 10 percent
Universal	4.9	6.2	12.3	14.1
All families and all persons 65 and over	3.7	4.8	8.2	9.7
Families with children and all persons 65 and over	3.2	4.1	6.8	8.0
All families and all persons 65 and over, except homeowners without mortgages	3.2	4.1	6.9	8.0

Source: Author's estimates.

[26] There is no doubt that some slumlords exploit tenants and earn unconscionable profits. This behavior cannot explain the large and increasing number of abandoned units in major cities. See Michael A. Stegman, "Slum Housing: Cash Flow, Maintenance and Management" in Stephen D. Messner (ed.), *Proceedings, American Real Estate and Urban Economics Association, 1969*, vol. 4 (1970), pp. 231–52; and George Sternlieb, *The Tenement Landlord* (Rutgers University Press, 1969).

Cost Estimates

Tables 6 and 7 contain estimates of the costs of several variations of the housing assistance plan, an illustrative housing allowance system. Each household is presumed to spend one-fourth of adjusted income (the sum of income from all sources and one-fifth of net worth) on housing. Housing costs are set equal to shelter costs reported in the low-cost budget for a family of four estimated by the Bureau of Labor Statistics for spring 1967. Benefits are equal to the difference between these two amounts.[27] Since BLS estimates of housing costs vary from one region to another, the amount of the subsidy would also vary. For example, in San Francisco the BLS rental was set at $1,519 for a family of four, and in Austin, Tex., at $1,056;[28] a family with an income of $3,000 and no net worth would receive $769 per year in San Francisco and $306 in Austin. Table 6 presents estimates of the costs of benefits (exclusive of administrative costs) under a universal coverage plan and three limited coverage plans. Because the cost of a housing assistance plan and the number of households it reaches are quite sensitive to the behavior of housing costs, one set of estimates is based on rental costs unaffected by benefits and another on a 10-percent rise in rents. If housing allowances raise rental costs 10 percent, payments to recipients rise roughly 25 percent and the number of households eligible for assistance 15 percent. Exclusion of single people under age 65 from the benefits reduces the cost by more than one-fourth and the number of eligible households by more than one-third. Narrowing eligibility further, either by excluding childless couples under 65 or by excluding homeowners without mortgages, reduces the size of benefits and the number of beneficiaries modestly. Other changes in the housing assistance plan would increase costs. For example, if households were presumed to spend less than one-fourth of adjusted income or if a small amount of net worth were disregarded in computing adjusted income, the number of beneficiaries and their payments would go up.

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[27] Estimates are based on income including public assistance and other welfare programs reported for 1967. Welfare reform would substantially reduce these estimates.

[28] Bureau of Labor Statistics, *Three Standards of Living*, p. 25.

TABLE 7.—PROJECTED DISTRIBUTION OF ANNUAL BENEFITS AND OF BENEFICIARIES UNDER A UNIVERSAL HOUSING ASSISTANCE PLAN, BY INCOME BRACKET, REGION, AND RESIDENCE, 1967

Income bracket	Total	Census region				Residence				Incidence (average annual benefit)
						Standard metropolitan statistical area				
		Northeast	North-central	South	West	Central city	Outside central city	Other urban	Rural	
Benefits (millions):										
Under $1,000	$1,459	$279	$367	$561	$252	$532	$256	$208	$462	$550
$1,000 to $1,999	1,338	232	347	602	208	555	247	185	402	381
$2,000 to $2,999	863	130	215	385	133	339	159	100	266	373
$3,000 to $3,999	621	95	168	229	130	251	148	64	159	408
$4,000 to $4,999	339	59	94	116	70	138	89	39	74	304
$5,000 to $7,499	209	27	75	57	49	97	58	26	28	202
Total	4,880	822	1,126	1,949	842	1,911	955	622	1,391	397
Beneficiaries (millions of households):										
Under $1,000	2.7	0.5	0.7	1.1	0.4	1.0	0.4	0.4	0.8	[1] (82.3)
$1,000 to $1,999	3.6	0.8	0.9	1.4	0.6	1.5	0.6	0.6	1.0	[1] (67.8)
$2,000 to $2,999	2.3	0.4	0.5	0.9	0.4	0.9	0.4	0.4	0.6	[1] (47.2)
$3,000 to $3,999	1.5	0.3	0.3	0.6	0.3	0.6	0.4	0.2	0.4	[1] (32.2)
$4,000 to $4,999	1.1	0.2	0.3	0.4	0.2	0.4	0.3	0.1	0.3	[1] (24.7)
$5,000 to $7,499	1.0	0.2	0.3	0.3	0.2	0.4	0.3	0.1	0.2	[1] (8.1)
Total	12.3	2.4	3.1	4.7	2.1	4.7	2.4	1.8	3.3	[1] (19.9)
Percent of population receiving benefits	19.9	15.5	17.4	26.3	19.7	23.3	11.9	21.2	26.4	

[1] Percent of population receiving benefits.

The distribution of benefits and beneficiaries by region and income bracket for a universal plan under which housing costs remain stable is shown in table 7. The South receives benefits for a larger percentage of households and in a larger total amount than any other region. The fact that incomes in the South are lower than in other regions explains both results. Most payments go to households living in central cities or in rural areas. Roughly one-fourth of households in these areas would receive housing allowances. Exclusion of households only eligible for small benefits, say, under $100 per year, would lower the number of beneficiaries by 1.8 million but would cut benefits only $89 million. Such a limitation might be justified on administrative grounds.

The administrative costs of a loosely administered Housing Assistance Plan—spot income verification and untied benefits, for example—might be as low as $15–$20 per household, the cost of administering veterans' benefits, or $70–$95 million in the aggregate.[29] For a tightly administered plan—detailed applications, universal income checks, and tied benefits, for example—annual administrative costs might run as high as $100–$130 per household, the administrative cost per case under public assistance, or $500–$600 million in the aggregate. Tight administration would reduce benefits by uncovering some cheating and by discouraging applications from some eligible applicants who dislike obtrusive investigations. Besides administrative outlays, program costs should include the costs of code enforcement or of other direct efforts to raise housing quality.

Initially, benefits probably should not be tied to housing outlays. To do so would run the risk that benefits would be eroded by increased housing costs. Such risks might be reduced if benefits were gradually tied to housing expenditures,[30] and particularly if independent actions to upgrade housing quality were undertaken.

The housing assistance plan is a possible substitute for direct subsidy programs such as homeownership and rental assistance, rent supplements, low rent public housing, below-market-interest-rate loans, and Farmers Home Administration loans to low to moderate income households. It is not a substitute for programs such as mortgage insurance and loan guarantees, secondary market operations, or Federal Home Loan Bank advances to members that influence the markets for mortgage credit. Nor is it designed to satisfy those who feel that the supply of housing for the poor is unresponsive to market forces and that governmental efforts to raise the supply of such housing are required to prevent subsidies from raising costs rather than quality. Housing markets seem to contain certain rigidities, notably those based on racial discrimination, that are not present in other markets; however, housing quality, in the narrow sense of better structures, has improved as income and wealth have increased. If the poor had adequate income to demand acceptable housing, if monetary conditions assured a plentiful supply of housing in the aggregate, and if laws against discrimination were vigorously enforced, the market for housing would probably respond by providing adequate housing

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[29] Sam H. Leaman, "Estimated Administrative Cost of a National Housing Allowance," Working Paper 112–17 (Urban Institute, May 13, 1970; revised, May 22, 1970; processed), pp. 4–5.

[30] For example, a household with a $1,600 income per year and basic housing costs of $1,200 per year would be expected to spend $400 of its own resources on housing and would be eligible for $800 in benefits. During the first year the household might receive $800 in cash, during the second year $500 in cash and $300 in housing certificates, and during the third year $200 in cash and $600 in certificates; during the fourth year it might receive $900 in certificates for which it would pay $100, and during the fifth year $1,200 in certificates for which it would pay $400 in cash.

for all. These conditions have never been fully satisfied. In their absence, special measures to channel adequate units to recipients of subsidies may be necessary.

The housing assistance plan would complement a more comprehensive system of income supplements to poor households. Living costs vary from one region to another principally because of variations in housing costs. Yet no national system of income supplements has provided for variations in support levels based on living costs because Congress, it is thought, would not accept such a plan. Housing benefits paid in addition to a general system of income support would meet this problem by removing housing from the needs the basic system would have to support.

Limits of the Plan

The housing assistance plan, like the less equitable programs it might replace, does not squarely meet the bad housing problem. It enables all households with incomes below stipulated levels to demand a larger quantity of housing services than they can now afford. If housing markets are even sluggishly responsive to demand, the quality of housing services for assisted households will improve as low quality units are upgraded or removed from the housing stock and as units presently occupied by nonrecipients filter to beneficiaries of the program. But housing services are only one element of residential services, and inadequate housing services are only one element of the bad housing problem. Housing subsidies alone can do nothing, of course, to improve schools, to reduce crime rates, to make neighborhoods cleaner, or to improve transportation. These residential services depend on private behavior or on other public programs, largely under the control of State and local governments. Good schools and safe and convenient neighborhoods will always command a premium.

Since the essence of an equitable program of housing assistance lies precisely in the fact that all poor households are assisted *but not made better off than unassisted households*, recipients of housing benefits will continue to be least able to pay the premium for residential services. Even an equitable housing assistance plan will leave most aspects of the bad housing problem untouched. Though the housing assistance plan may lead to better housing structures, it is very far from a panacea for squalid neighborhoods.

FEDERAL HOUSING SUBSIDY PROGRAMS

By HENRY B. SCHECHTER*

SUMMARY AND CONCLUSIONS

This paper is concerned with the purposes, operations, and present and projected budgetary costs of current Federal housing subsidy programs. The latter heading is defined to include those programs requiring overt, nonrecoverable subsidy expenditures. Other types of subsidies related to programs, such as special tax benefits will be noted in describing program operations, but their costs to the Federal Government will not be estimated. The operational methods and costs of each program will be treated separately.

At times, federally assisted housing programs have been enacted to stimulate construction and general economic activity. To generalize about program purposes, however, it could be said that the primary purpose of all the housing subsidy programs is to provide low- and moderate-income families with housing of acceptable standards at rental or homeownership charges equal to a reasonable proportion of their income. In the course of an evolutionary legislative history of more than 35 years, however, different programs were added to serve different income groups, to provide different types of housing under public and private ownership, in different areas, with different budgetary impacts.

Following the great depression of 1929 through the early thirties, among the various legislative enactments to stimulate economic recovery were a number of far-reaching housing programs. They were primarily to support private, nonsubsidized home financing and construction. The subsidized housing program to serve low-income people enacted in 1937 was the low-rent public housing program. The main subsidy element was a Federal contractual annual debt service grant. Tax-exempt local financing was also an element, although it does not require an overt Federal budgetary expenditure.

Privately owned low- and moderate-income subsidized housing, financed with direct loans bearing below market interest rates, was authorized in the late fifties for elderly (section 202) and in the early sixties for nonelderly families (section 221(d)(3)). In order to avoid the large initial budgetary impacts occasioned by such programs, however, new private mortgage subsidy programs were introduced to provide low- and moderate-income housing. These were the rent-supplement, section 235 home-ownership and section 236 rental housing programs. The latter two are interest rate subsidy programs; the former may cover more than interest costs. All of the new programs, however,

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NOTE.—The author wishes to acknowledge the helpful comments of Julius A. Allen, Senior Specialist in Business Economics.

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operate through contractual annual payments which assure that the debt service on privately held mortgages will be met. The Farmers Home Administration programs have also become primarily an annual payment, interest rate subsidy program.

After the programs have been in effect a few years, the cumulative annual subsidy payment burden becomes quite sizable. This is indicated by the magnitude of average annual payments shown in the summary table.

It should be noted, first, that the table represents housing subsidy payments only for housing units covered by program activities authorized through fiscal year 1971.[1-2] The table would encompass only about 2.5 million subsidized housing units, including about 1 million that preceded the 1968 housing goal which was to add 6 million subsidized units. It is conceivable, therefore, that by the time the 1968 goal was met the aggregate and annual average maximum contractual subsidy payments could be two to three times as great as the amounts shown in the summary table. The estimated minimum payments would not rise proportionately because of the growth of new programs in which subsidy is reduced as incomes rise.

The maximum contractual average annual payment of $1,927,372,000 shown in the table is in line with fiscal year 1972 appropriations of $1,373,800,000 for only the HUD programs. Many of the units that are conceptually included in the summary table, because the payments would be made under fiscal year 1971 or earlier program authority, are still to be completed, and actual subsidy payments are not made until after completion, and occupancy in most programs.

The average annual estimate of minimum aggregate payment would run some 14 percent lower than the contractual maximum. The difference is so small, however, primarily because the pre-fiscal year 1972 completed subsidized housing stock is dominated by public housing, where little reduction in subsidy below the contractual maximum is expected. Also, some of the older programs, with below-market, fixed interest loans have little, if any flexibility for subsidy reduction. Finally, there are certain fixed annual amount estimates, such as for SBA disaster loan forgiveness and HUD section 115 rehabilitation grants.

By looking at maximum and estimated minimum annual subsidy payments under the new and growing (sections 235 and 236) programs, however, it is obvious that the minimum might be reduced to 50 percent of the maximum for those programs. The effect, therefore, will be to bring the estimated minimum payments more than 14 percent below the contractual maximum shown for activity through fiscal year 1971.

The summary table also highlights the much lower "present worth" of contractual payments to be made over the life of subsidized housing loan. Thus, before discounting for present worth the aggregate maximum contractual housing subsidy payments, for authorized activity

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[1-2] In testimony before an Appropriations Subcommittee of the House of Representatives on April 10, 1972, HUD Secretary Romney estimated that maximum contractual payments for all units that could be supported by authorizations for contractual payments under HUD programs through fiscal year 1973 would be about $100 billion. This is more than 50 percent above the estimated total for all federally subsidized housing committeed through fiscal 1971, shown below in the summary table of this paper. Although most of the difference would be accounted for by the greater number of units covered by Secretary Romney's estimate, a continued rapid rise in residential construction costs (for example, 8.5 percent in 1971) makes for a greater increase in the dollar amount of projected subsidy payments over 40 years than in the number of subsidized housing units to be supported by such payments.

through fiscal year 1971, could add up to $65 billion. After accounting for the lesser value of dollars to be paid in the future, however, the magnitude is about $29 billion. Comparable estimated minimum aggregate payments are about $46 billion and $20 billion.

A comparison of per unit annual subsidy costs, shown in the summary table, reveals some very definite program differences. First, the older direct loan, below-market interest rate programs had a very low per-unit annual subsidy cost. This was due in part to a limit on the subsidy, to reduce the interest rate to 3 percent. It also reflected, however, the lower average cost of Treasury borrowing than of mortgage borrowing. Today it would be a difference of about 2 percentage points in the annual interest rate.

As had been mentioned, the shift away from direct loans was in order to avoid an increased budget deficit. Such a deficit has generally been regarded as inflationary, regardless of its genesis. It is no more inflationary to finance the same volume of subsidized homes with direct loans than with private mortgage loans. In fact, the latter might be more inflationary because it requires greater (interest) payments for the same amount of product. It would make for a significant saving in subsidy if the budget bookkeeping were changed by setting up a capital account for repayable direct housing loans which would be recognized as a noninflationary component of the budget.

The individual program figures also indicate a lower subsidy cost and high potential for reduction below contractual maximum payments for homeownership units. This reflects, in part, self-maintenance by the occupant, as well as an expectation that an owner will more often remain in occupancy than a tenant as income rises.

Furthermore, the advantage of the homeownership program, from the viewpoint of Federal cost minimization, is understated. In addition to the overt budgetary expenditures for subsidy payments, subsidized private rental housing built by for-profit sponsors involves substantial tax-benefits to the sponsors, and equivalent revenue losses to the Treasury. A shift in the provision of subsidized housing toward more homeownership units, thus, would have long-run cost advantages.

Finally, there are some types of housing subsidy expenditures that could be very large in future individual years, depending on certain conditions. The first is the use of the tandem plan to support reasonable interest rates for home buyers (including some purchasing "nonsubsidized" housing). This must be related primarily to dependence upon restrictive monetary policy, instead of more selective controls, to combat an overheated economy. Even under such conditions, direct loans for subsidized housing could probably serve to alleviate the situation.

The other unknown potential for high subsidy lies in disaster loan forgiveness grants. Funds to cover disaster damage losses can be accumulated under insurance plans, such as the National Flood Insurance program, so that there would be no need for disaster relief. As long as the latter remains available as retroactive free insurance, however, there is no need for funding through nominal insurance premium payments, and there is no economic penalty attached to occupancy of flood-prone or earthquake-prone land.

SUMMARY TABLE—ESTIMATES OF FEDERAL HOUSING SUBSIDY PAYMENTS

Program	Payments supporting units under program authority through fiscal year 1971 (in thousands of dollars)								Estimated average annual per-unit subsidy, fiscal year 1972 commitments	
	Maximum contractual payments				Estimated minimum payments					
	Dollar amount		Present worth [1]		Dollar amount		Present worth [1]			
	Total	Annual average	Total	Annual average	Total	Annual average	Total	Annual average	Maximum contractual	Estimated minimum
Publicly-owned public housing	$30,030,080	$750,772	$12,453,431	$311,336	$29,430,262	$735,757	$12,204,369	$305,109	1,603	1,571
Private leased public housing	1,335,880	133,588	1,018,529	101,853	1,335,880	133,588	1,018,529	101,853	1,525	1,525
Sec. 221(d)(3) BMIR	425,000	10,625	176,242	4,406	425,000	10,625	176,242	4,406	[2] 112	[2] 112
Sec. 202 (elderly)	90,000	1,800	31,630	633	90,000	1,800	31,630	633	[2] 115	[2] 115
Sec. 236 (rental)	13,000,000	325,000	5,390,398	134,760	5,578,000	253,545	3,262,642	81,566	812	620
Rent supplement housing	7,080,000	177,000	2,935,988	73,400	3,377,000	112,567	1,682,190	56,073	984	[3] 604
Sec. 221(h) rehabilitation home	30,000	1,000	14,944	498	[4] 30,000	[4] 1,000	[4] 14,944	[4] 498	NA	NA
Sec. 235 home ownership	9,750,000	325,000	4,856,768	161,892	3,344,000	222,333	2,269,242	151,283	654	491
Farmers Home Administration (homes)	1,864,500	56,500	877,326	26,586	950,640	55,300	611,977	35,999	183	183
Sec. 312 rehabilitation loans	34,589	1,729	21,098	1,055	34,589	1,729	21,098	1,055	NA	NA
Sec. 115 rehabilitation grants	NA	60,000	NA	60,000	NA	60,000	NA	60,000	NA	NA
SBA disaster relief home loans	38,348	5,113	30,957	4,128	38,348	5,113	30,957	4,128	NA	NA
SBA forgiveness grants	NA	33,000	NA	33,000	NA	33,000	NA	33,000	NA	NA
College housing loans	1,849,698	46,245	767,088	19,177	1,849,698	46,245	767,088	19,177	NA	NA
Tandem plan	[5]	[5]	[5]	[5]	[5]	[5]	[5]	[5]	NA	NA
Total fo estimates shown [6]	65,527,595	1,927,372	28,574,399	932,724	46,483,417	1,672,602	20,090,878	854,780	NA	NA

[1] Payments discounted at 5¼ percent.

[2] Estimated average annual subsidy for all units covered through fiscal 1971 rather than estimates for units to be committed during fiscal year 1972, since the program is being phased out, and there are no new commitments in fiscal year 1972.

[3] Weighted average of estimated minimum average annual payment for payments in rent supplement projects and for rent supplement payments serving as a "piggyback" subsidy for units receiving a basic subsidy under another program.

[4] Minimum payments shown equal to maximum payments in absence of any basis for measured adjustment, because of desire to create as logically balanced table as possible an amount is relatively small, although actual payments will, no doubt, be less than the contractual maximum.

[5] Indeterminable.

[6] Totals for each column, but "annual average" column totals are the annual average for more than the preceding column or total, because the annual average includes grants which are not included n total contractual payments.

Note: NA—Not applicable.

Source: Data for 1st 8 lines are either from HUD estimates or derived from HUD estimates published in "HUD-Space-Science Appropriations for 1972" House Hearings, pt. 2, 1971, pp. 248–249. Line 9 estimates were made on the basis of data shown in the Budge. of the United States, 1973, Appendix, (pp. 175–176) and projected program data for fiscal year 1972 provided by Farmers Home Administration staff. Lines 10 and 11 estimates made on the basis of data in the Budget of the United States, 1973, Appendix, (p. 525). "Summary of the HUD Budget, Fiscal Year 1973" and "1970 HUD Statistical Yearbook." Lines 12 and 13 estimates made on the basis of data in the Budget of the United States, 1973, Appendix, p. 940 and information provided by SBA staff. Line 14 estimates made on basis of data in Budget of the United States, 1973, Appendix, p. 493, "Summary of the HUD Budget, Fiscal Year 1973", and information provided by HUD staff. All present values derived by discounting at 5¼ percent per annum. Present and discounted values are the same for grant programs in which full grant disbursement is made in 1 year. Also, in such instances only an annual expenditure is shown, generally related primarily to fiscal year 1971 experience. The maximum and minimum amounts are the same when the subsidy formula requires a fixed annual subsidy payment.

I. The Evolution of Federal Housing Programs

A wave of mortgage foreclosures, a loss of confidence in residential property values, and a deep decline in residential building in the early 1930's set the stage for the development of housing policies and programs.

The earliest measures enacted were designed to restore confidence and stability in residential real estate markets, and to provide greater protection for the savings and loan home financing system of the country. In 1932, the Federal Home Loan Bank system was created, to provide savings and loan associations with an independent source from which funds could be borrowed to meet seasonal and emergency liquidity needs. The associations would no longer be so heavily dependent, during periods of liquidity crises, upon commercial banks, which were, themselves, subject to a lack of liquidity during such periods.

In 1933, the Home Owners Loan Corporation was established, to provide liberal term mortgage loans to homeowner mortgagors who were in financial distress. This was to counteract the spread of foreclosures.

The National Housing Act in 1934 established the Federal Housing Administration to insure residential mortgage loans with limited interest rates, long maturities and high loan-to-value ratios, and thus, to encourage a resumption of a higher level of homebuilding which would create employment.

All of the foregoing programs did not involve nonrecoverable Federal housing subsidy payments. The first program involving such Federal subsidies was the low-rent public housing program authorized by the U.S. Housing Act of 1937. This program had three purposes:

(1) To provide decent, safe, and sanitary housing for people whose incomes were too limited to pay for it;

(2) To create employment; and

(3) To eliminate slum housing.

The latter purpose was to be served by an equivalent elimination requirement that a substandard dwelling unit was to be eliminated in a locality for every new low-rent public housing unit that was created.

During World War II, Government housing activity was focused upon the creation of housing for defense production workers, and other types of housing production were severely restricted. A VA home loan guaranty program for veterans was also enacted before the end of World War II. After World War II, there was a veterans emergency housing program, to stimulate the production of housing for veterans in a housing-short country. None of these wartime and post-World War II measures were intended to be long-term subsidized housing programs that would serve low- and moderate-income households, although some of them had minor elements of subsidy.

The first significant post-World War II measure was the Housing Act of 1949. This act established several precedents. First, it contained the adoption of a national housing policy by the Congress, for the realization as soon as feasible of the goal of a decent home and suitable living environment for every American family. Title I of the act established a slum clearance and community development and redevelopment program (urban renewal), a much broader approach

toward slum clearance than the equivalent elimination provision of the Public Housing Act. Title III authorized Federal subsidy support for 810,000 units of public housing to be built over a 6-year period. Title V authorized 4-percent, 33-year home loans for farm housing to be made by the Farmers Home Administration of the Department of Agriculture.

The Housing Act of 1950 authorized two new Government housing programs. One was a program of direct low-interest-rate loans for college housing (changed by 1968 legislation to permit annual debt service grants). The second was a VA direct loan program for rural areas and small towns where VA-guaranteed loans at the maximum allowable interest rates were unavailable. The latter program has been one of limited volume in recent years. It also does not involve any significant or readily measurable subsidy since the loans are made at the maximum interest rate permitted on VA-guaranteed loans (e.g., currently 7 percent), and would involve a tangible cost to the Federal Government only if it had to pay a higher rate for borrowed funds.

In section 202 of the Housing Act of 1959, the first below-market interest rate direct-loan program was established. It was the section 202 housing for the elderly program. The section 202 program is currently being phased out in favor of the section 236 program under which special projects for the elderly may be built. A direct-loan program, such as 202, has a large budgetary impact because the entire loan adds to the budgetary outlays total in the year that it is made. The section 236 program, although providing a deeper interest rate subsidy, has a moderate initial impact, since the loans come from private sources and the subsidy is paid in annual installments. The aggregate annual installments became greater in succeeding years as more units are completed under the program.

A below-market interest rate loan program for moderate-income rental housing was enacted in 1961. This program, section 221(d)(3) below-market interest rate (BMIR), was in effect a direct-loan program. Since private lenders would not make mortgage loans at below-market interest rates, the funds would be provided through purchase of the mortgages by FNMA, under its special assistance functions, carried out for the account of the Federal Government (and administered by GNMA since 1968). Congress, in the same act, added $1.51 billion in authority for special assistance mortgage purchases. The 221(d)(3) BMIR program, like the section 202 program, is currently being phased out in favor of the section 236 program.

In the Housing Act of 1964, the urban renewal statutes were amended to authorize a new (section 312) program of 20-year, 3 percent loans to property owners or long term tenants in urban renewal areas to finance rehabilitation required to make the property conform to the local housing code or to carry out the objectives of the urban renewal plan. The same act also contained a new step in the provision of public housing subsidy. It authorized a special subsidy of up to $120 per year for a housing unit occupied by an elderly household that could not pay rent required for the project to be able to maintain its solvency with the regular Federal annual contribution that was limited to amortization of the capital debt on the project. It marked the first allowance of a subsidy toward meeting operating expenses, in addition to capital costs.

The rent supplement program was enacted in 1965. It authorized payments to be made on behalf of certain low-income tenants who were required to pay at least one-fourth of their income for rent in privately-financed projects that were privately owned by nonprofit, cooperative or limited dividend corporations. Rent supplements constituted a private counterpart of public low-rent housing. In the act, the public housing program was expanded to permit local housing authorities to lease units in private structures for occupancy by eligible low-income families. The Housing Act of 1965 also authorized the use of urban renewal capital grant funds for limited grants to low-income owners of homes in urban renewal areas to pay for necessary repairs and rehabilitation.

A limited program of homeownership subsidization was introduced in 1966 with the enactment of section 221(h). It authorized 3 percent mortgage loans (as under 221(d)(3) BMIR) to nonprofit sponsors who would buy and rehabilitate at least four homes, for subsequent resale to low-income home purchasers. The low-income home purchaser would also receive a 3 percent mortgage (via FNMA special assistance). The 221(h) program has been displaced by a similar 235(j) program, under which the effective interest rate to be paid by the occupant can be as low as 1 percent.

Subsidized homeownership for new, as well as existing, homes was established by the Housing and Urban Development Act of 1968. That act authorized the two most rapidly growing subsidized private housing programs, section 235 for home ownership, and section 236 for rental housing. Both are moderate-income programs, financed with private, market interest rate mortgages. There is an interest rate subsidy, permitting occupants to make monthly payments that may be as low as an amount that would be required if there was a mortgage with a 1-percent interest rate. Homeowners must pay at least 20 percent of income toward regular monthly payments (principal, interest, taxes, and insurance). Renters under section 236 must pay at least 25 percent of income toward rent, which includes items that the homeowner has to pay for separately, such as utilities and fuel. The balance of the required monthly payment or rent is made up by contractual Federal payments.

The last major change in public housing subsidies came through the 1969 Brooke amendment. It was designed to preclude (1) the charge of more than 25 percent of income for rent and (2) inadequate maintenance and operations in public housing projects. Many local housing authorities had been adopting one or both of the aforementioned practices because rising costs of maintenance and operations made it impossible to meet all necessary expenses with existing Federal contributions. The Brooke amendment provided, therefore, that no public housing tenant could be charged more than 25 percent of income for rent and that Federal contributions could be used to maintain the low-rent character of public housing; that is, meet operating expenses, as well as to amortize the capital debt on the projects.

A relatively limited middle-income program was authorized in the Emergency Home Finance Act of 1971. Administered by the Federal Home Loan Bank Board and the FHL banks through member savings and loan associations, it provides eligible limited-income home buyers with $20 per month assistance payments for a 5-year period.

One other subsidy that needs to be included is best identified as the tandem plan. It is a housing finance subsidy that is not necessarily tied to any particular program, having been used in conjunction with several different housing programs. It is an added subsidy when used in conjunction with another subsidized program, and a new subsidy when used in conjunction with unsubsidized housing. The tandem plan evolved from an administrative interpretation of the authority for GNMA (formerly FNMA) special assistance mortgage purchase authority in section 301(b) of the National Housing Act, enacted in 1954. The tandem plan, originated in 1969, received congressional blessing first through its countenance and, then, in December 1971 through enactment of Senate Joint Resolution 176 which permitted special assistance purchases of mortgages of above previous amount limitations in order to avoid excessive discounts.

Finally, a form of subsidy for which an experimental program has been authorized, will only be mentioned at this point. An experimental housing allowances program was authorized in the Housing Act of 1970 (but had not yet been initiated at the end of 1971). In general, a housing allowance would be given to an eligible family, to be applied toward payments required for housing that the beneficiary has found in the private market. There are numerous variations in procedures, housing quality criteria and other details, which should be tested for differences in costs. More important would be the effects on rent levels in a local market, depending upon the size of the housing allowances program and the availability of the type of housing needed by housing allowance recipients. Under certain (not uncommon) market conditions, a housing allowances program could generate strong inflationary pressures. Under other conditions, it could work to provide housing efficiently and effectively. That is why more precise knowledge is needed about the operation and effects of a housing allowances program, under different local market conditions, before it could be employed advantageously, with appropriate geographic selectivity.

II. Concept of Costs

In the context of arriving at present and projected costs of housing subsidy programs, only those programs which involve a non-repayable Government expenditure will be included. Mortgage insurance and guarantee programs are excluded; they are supposed to be self-sustaining, and thus far, in the aggregate, they have been. Also, in dealing with the subsidized housing programs, the relatively minor amounts of expenditure for program administration will be ignored. The focus will be on housing assistance or subsidy payments intended to benefit low- and moderate-income occupants under the various programs.

Estimates of projected subsidy costs will be made only for housing under Federal subsidy payment contractual commitment by the end of fiscal year 1971, or the closest date thereto for which data are available. The projected costs will be shown on current and discounted present value bases. Whether the subsidy payments can be calculated as accruing solely to the benefit of subsidized housing occupants is not a matter for consideration in this paper.[3] The payments must still

[3] For an analysis of this question, see "Federally Subsidized Housing Program Benefits," by Henry B. Schechter, Congressional Research Service, Library of Congress, Report HD 7287, USF 71-226, E, Oct. 15, 1971.

be included as a budgetary cost, even if some of the net benefits accrue to the suppliers of land, labor, and capital required to produce and finance housing.

There are other Federal costs, in the form of tax benefits accruing to private individuals and corporations, which are related to some of the housing programs. Certain tax benefits, such as accelerated depreciation, are intended to induce greater housing production, both subsidized and nonsubsidized. Other tax benefits, such as through tax-exempt financing of public housing, are part of a broader State and local government tax-exempt financing system, albeit it also supports federally assisted public housing and some private housing under State programs. Such tax benefits will be noted, but the costs will not be included among the projected budgetary costs under each program discussed in this paper. Tax benefits will be discussed by authors of other papers in this compendium.

There also will be no attempt to estimate the value of social benefits from the program, or the value of fully amortized low-income housing which may continue to serve the intended purpose and provide a value offset to past subsidy payments.

III. Low-Rent Public Housing

Under the heading of public housing, there are now several programs to provide low-rent housing, and also some that are designed to lead to homeownership.

The basic public housing subsidy formula and program mechanism can best be described with regard to the original public housing program, now identified as the "conventional" public housing program. Under this program, a local housing authority acquires the site for a project, has project design plans prepared, and takes competitive bids for the construction of the project.

There is some hidden subsidy involved in construction financing, which is obtained primarily through the sale of short-term, tax-exempt notes by the local housing authorites. The notes are backed up by the local housing authority's right to borrow an equal amount from HUD, if necessary. The short-term notes are usually repaid from the proceeds of long-term (40-year), tax-exempt bonds issued by the local authority after the project is completed. Such bonds are, in effect, guaranteed by the U.S. Government through an annual contributions contract between HUD and the local housing authority. It calls for Federal annual contributions, up to a maximum amount sufficient to meet the debt service on the bonds. Less than the maximum annual contribution may be required if there are residual receipts from rents charged to the low-income occupants after all operating expenses have been met.

Over the past decade, as project operating costs increased while tenant incomes and rents lagged behind, there were fewer and fewer local authorities with residual receipts, with the result that Federal annual contributions approached the contractual maximum for annual contributions. In many local public housing programs operating costs exceeded rental income and local authorities resorted to rent raises to avoid insolvency. Initial attempts to cope with the problem consisted of authorizations for additional subsidy of up to $120 per year for units occupied by elderly or handicapped persons, displacees, disaster

victims, large families, and very low-income families. This proved to be insufficient. Then Congress enacted in 1969, and clarified in 1970, the Brooke amendment. It stipulates that no public housing tenant should pay more than 25 percent of income for rent, and it authorizes Federal public housing subsidies for operating and maintenance expenses, where needed, to assure the low-rent character of the projects and to achieve and maintain adequate operating and maintenance services.

Thus, Federal subsidy consists of four parts: (1) annual contributions to pay the debt service on the bonds issued to raise the capital costs; (2) special subsidies for the elderly, handicapped, and so forth; (3) additional subsidy for operating expenses—and also for deferred maintenance, repair, and modernization at this time; and (4) tax-exempt financing benefits. There is also a local contribution of partial tax exemption, as 10 percent of shelter rents collected are paid in lieu of property taxes under cooperative agreements entered into with local governments. Only the first three of the above enumerated types of subsidies appear as budgetary expenditures.

Public housing is the oldest subsidized housing program in the country, established by the U.S. Housing Act of 1937. By the end of fiscal year 1971, there were 892,651 units in projects under management and the estimated comparable number for the end of fiscal 1972 is over 1 million. Most of these units had been built under the conventional public housing program. As the newer units are brought into the program at higher costs, as modernization expenditures for older projects are added, and as operating subsidies are added, the average subsidy expenditure per unit rises. Federal subsidy payments (excluding the Federal cost of tax-exempt financing) were about $700 per unit annually or $58 monthly for fiscal year 1971, and are estimated to average about $875 annually or $73 monthly for fiscal year 1972.[4] In fiscal 1972 about 5 percent of the subsidy funds will be used for modernization and about 21 percent for operating expenses.[5]

This amount of per unit subsidy reflects the low construction costs of many older projects built over the past 33 years, and the lower bond interest rates which were prevalent during most of the period. The per unit monthly subsidy payment for public housing units owned by local authorities, for which commitments will be made in fiscal 1972 is estimated at $131, and for leased units at $127.[6] (These figures do not mean that subsidy costs for leased units are lower than for units owned by local housing authorities, since they may be due to differences in geographic locations of each type of unit and/or differences in incomes of occupants.)

The largest "other" program than the "conventional" new construction is the "turnkey" method. There are different variations under the "turnkey" label, but turnkey I is the program under which most of the new public housing is now being built. Under this method, local housing authorities invite proposals for the provision of a specified number of public housing units with a given unit-size distribution and certain other general characteristics. Any private builder or developer having a site or a structure, or an option to buy, can submit a proposal to the local housing authority to build or rehabilitate in accordance

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[4] Based on HUD data in "Summary of the HUD Budget for Fiscal Year 1971" p. HM-1.
[5] "The Budget of the United States 1973: Appendix" p. 511.
[6] Based on data in hearings before a subcommittee of the Committee on Appropriations, House of Representatives, on "HUD-Space Science Appropriations for 1972," 92d Cong., first sess., pt. 2, p. 469.

with his prepared plans and specifications. The local authority selects the best proposal and enters into a contract with the builder or developer to purchase the property upon satisfactory completion. The turnkey I method, thus, eliminates the preparation of plans and issuance of invitations to competitive bidding by the local authority. The other chief departure from the conventional method is the provision of the site by the builder or developer.

The turnkey developer receives a developer's fee and an overhead allowance, which covers many of the planning and administration costs incurred by the local housing authority under the conventional method. It should be noted, also, that there are still significant costs of administration, negotiation, et cetera, incurred by the local authority under the turnkey method.

There would appear to be potentials for less time-consuming construction with lower square-foot costs under the turnkey method. Whether the savings are reflected in lower subsidy, or whether they result in net subsidy benefits accruing to land suppliers, builders and/or local housing authorities will depend on (1) turnkey prices negotiated by the local housing authorities and (2) their efficiency in carrying forward such negotiations and other functions in connection with turnkey projects.

Other "turnkey" programs have objectives other than the provision of public housing owned by local housing authorities; these programs are relatively small at this time. They will be discussed at a later point in this section.

Before proceeding to other forms of public housing, we should note that local housing authorities may also acquire existing structures or projects through purchase.

A third major program or method for provision of low-rent public housing is through leasing. Under section 23 of the U.S. Housing Act of 1937, as amended, local housing authorities may lease units in private structures which are made available to low-income families at subsidized rents. The local housing authorities receive annual contributions from HUD which are used to pay the balance of the required rents. The Federal subsidy may not exceed the subsidy that would be required for a comparable newly built structure to be owned by the local housing authority.

The Housing Act of 1970 provides that at least 30 percent of the new annual contributions authorized in that act or subsequently must be used with respect to units leased in private accommodations. Leased units are generally in existing structures, but agreements may be made with a builder for new housing to be constructed for lease by the local authority for low-rent public housing. Lease terms, including optional renewals, can be for up to 20 years for new housing and 15 years for existing housing.

Subsidized rent for privately owned housing focuses attention upon other subsidies than those involving Federal budgetary expenditures. One of these is the value reflected in equity accumulation. To the extent that value in land and usable structures exceeds unamortized debt on the property, there is an equity accumulation which reflects subsidy payments on behalf of public housing occupants. Such payments contribute to the capital debt amortization. In public housing owned by a local housing authority that equity interest accumulates to the benefit of the public body, the local housing authority. A stock

of publicly owned housing to meet low-income rental housing needs is accumulated. In leased private housing, the accumulated equity interest which reflects debt amortization through subsidy accrues to the property owner in the form of a stock of privately owned housing.

When new private housing is constructed and leased for low-rent public housing, pursuant to a preconstruction agreement with a local housing authority, the property owner can also take advantage of accelerated depreciation tax benefits. The maximum 20-year lease can assure rental income on a 100-percent occupancy basis, so that buildings can be held and operated profitably for at least 16⅔ years, after which all sales proceeds above depreciated book value are taxed at a capital gains rather than at a regular income rate.

The tax benefits are no greater than those available to an owner of nonsubsidized new rental housing. However, the long-term leases remove a great deal of the risk in rental housing investment which creates the need for tax incentives for rental housing production. If the rents nevertheless provide the owner with a return equal to that enjoyed by other rental property owners—and perhaps higher in view of the allowable leases assuring 100-percent occupancy rental income—the rents and supporting subsidy may be providing a higher return on the owner's equity investment than other rental housing owners are earning in the market. There may be higher management expenses in connection with public housing, however, which offset rental income based on a 100-percent occupancy rate.

Among the other turnkey public housing programs, turnkey II is not concerned with the provision of additional public housing units. It is the label used to cover management by private firms of housing projects owned by local public housing authorities, for a fee. This management procedure is used in relatively few localities.

Another public housing program which is still small in volume is the turnkey III homeownership program for low-income families. Under this program, an occupant of a dwelling unit owned by a local authority can acquire ownership of the property. He makes monthly payments based on a percentage of his income and also provides all maintenance and repairs. His monthly payments are sufficient to cover all operating expenses and reserves, including a budgeted amount for maintenance and repair. The latter amount is credited to a home ownership reserve account set up for him. At the same time, the local housing authority utilizes Federal annual contributions to make debt-service payments, amortizing the capital debt. When the homeowner's income and assets, including the reserve account set up for him, improve so that he can assume ownership with FHA-insured or conventional financing at a price equal to the unamortized capital debt on the structure, he may acquire it at that price. Under this program, therefore, the occupant benefits from the rental housing subsidy while he is a tenant and also receives the benefit of the accumulated equity.

Turnkey IV is also designed to promote homeownership but it involves the leasing of privately owned structures by the local housing authority, prior to homeownership by the occupant. A nonprofit corporation or association may acquire land for the construction of one-family homes which collectively constitute a project. The owner-developer obtains from FHA–HUD a commitment for section 221(d)(3) market interest rate mortgage insurance, plus an agreement that indi-

vidual structures could be released from the 221(d)(3) mortgage and financed with 221(d)(2) individual home mortgages. The owner also enters into an agreement with the local housing authority that the local authority will pay the necessary subsidy on behalf of eligible tenants who will occupy the units. HUD enters into an annual contributions contract to provide the local housing authority with the necessary subsidy funds. The prospective homeowner, in effect, has a subsidized lease with option to purchase. When the occupant can assume full ownership with an annual expenditure of 25 percent of his income, however, he would have to assume ownership or vacate the unit.

The estimated subsidy payments for public housing are shown separately for publicly owned and leased private units. In making the basic estimates,[7] HUD distinguished primarily by assuming that the estimated "minimum" payments would equal 98 percent of contractual maximum annual contribution, based on experience trends, while the leased units would always require the maximum. The minimum payments might turn out to be 95 or 96 percent, instead of 98 percent of maximum for the publicly owned units, but that is not too significant. A more significant distinction, which is not reflected in the dollar estimates of subsidy payments shown below, is the fact that after the capital debt is amortized, the publicly owned properties constitute a public stock of low-rent housing. The buildings, although depreciated, will often have a remaining life of 10, 20, or more years and commensurate value. As a minimum, the land value will be available to the local public body. This is not an academic matter, since some public housing projects are over 30 years old and will be debt free by 1980.

Such value remainders have not yet been realized, and no dollar estimates of potential value have been made. It is possible, however, that the remaining use value plus land value of the public housing projects, after all capital debt has been amortized, may offset a significant proportion of the subsidy payments that have been made. There will, of course be no such offset against subsidies paid to private owners of leased housing, nor for subsidies paid to limited distribution (for-profit) sponsors of private subsidized housing under other HUD programs. Subsidized housing owned by private nonprofit groups also may in many instances, provide offsets to subsidy payments that will be in the public interest through continued low-rent leasing after full debt repayment.

Four estimates of total subsidy payments for units under contractual payment commitments as of the end of fiscal year 1971 are shown below. The first two estimates are the contractual maximum and the "estimated minimum" total payments, each expressed in terms of full current dollar value, that is, the cumulative dollar amounts to be paid. The "estimated minimum" payments assumes a rise in occupants' incomes which will require higher rent payments by the occupants and a reduction in required subsidy payments below the contractual maximum.

The other two estimates are the total of the stream of future annual subsidy payments discounted to their present worth total. Maximum

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[7] The basic estimates, on a current dollar value basis, are by HUD, published in "HUD-Space-Science Appropriations for 1972 " hearings before a subcommittee of the Committee on Appropriations, House of Representatives, 92d Cong., first sess., pt. 2, Department of Housing and Urban Development.

and "estimated minimum" payments were each divided by the number of years of payment to derive an average annual payment amount. The annual payments were then discounted at annual rate of 5¼ percent, which represented the approximate average interest cost on all outstanding Treasury debt as of December 31, 1971.[8]

The same discount rate will be used in similar estimates of present worth throughout this paper.

By assuming the same average annual amount of payments in each year, there probably is an overstatement of payments in early years and an understatement of payments actually to be made in later years, since most of the existing units have been built in the last few years and will continue to be amortized for 30 to 40 years. Relatively fewer and lower cost units will have been fully amortized by the end of the next 10 years. The effect of the averaging is to have a smaller discount (and greater present worth) of future payments than would occur if actual future year payments were available for discounting. This will be less of a problem in the younger subsidized housing programs than in the case of public housing. For all programs, however, it should be recognized that only the contractual maximum payments estimates are accurate measures. The estimated minimum payments measures provide useful magnitudes of the likely aggregate subsidy payments.

A significant element in the total subsidy payments under the public housing program is the amount of payments already made over more than 30 years in connection with some of the older projects. This amount, and the amounts to be paid subsequent to fiscal 1971 on all units committed through that date, are also shown in the following estimates:

PUBLICLY OWNED HOUSING SUBSIDY PAYMENTS

[Payments in thousands of dollars for fiscal years]

Memorandum:	
Number of units supported	1,054,271
Period covered	1937–71
Maximum years commitment	40
Estimated minimum average years of payment	40

	Total	Annual average
Total payments under commitments:		
Maximum contractual	$30,030,880	$750,772
Estimated minimum	29,430,262	735,757
Present worth of total payments:[1]		
Maximum contractual	12,453,431	311,336
Estimated minimum	12,204,369	305,109
Payments made prior to fiscal 1971	[2] 3,641,484	----------

[1] Payments are discounted at 5¼ percent.

[2] All public housing annual contributions prior to 1971 counted here as being for publicly owned units, although the figure includes a relatively small amount for leased units.

Sources of data before discount for present worth: "HUD-Space-Science Appropriations for 1972," House hearings, pt. 2, p. 248, and "Summary of HUD Budget, Fiscal 1973."

[8] The average annual interest rate being paid by Treasury was calculated, as of Dec. 31, 1971, at 5.290 percent on all outstanding marketable debt and 5.207 percent on all outstanding interest bearing debt. The market yield on outstanding bonds of 10 or more years remaining maturity was 5.62 percent. Source: Treasury staff.

PUBLIC HOUSING LEASED UNITS SUBSIDY PAYMENTS

[Payments in thousands of dollars for fiscal years]

Memorandum:	
Number of units supported	122,000
Period covered	1966–71
Maximum years commitment	10
Estimated minimum average years of payment	10

	Total	Annual average
Total payments under commitment [1]	$1,335,880	$133,588
Present worth of total payments [2]	1,018,529	101,853

[1] Significant reductions below the contractual maximum over a 10-year period are considered unlikely. Therefore, no minimum is estimated.

[2] Payments are discounted at 5¼ percent.

Sources: "HUD-Space-Science Appropriations for 1972," House hearings pt. 2, p. 248 for all data except present worth.

IV. Below-Market Interest Rate Rental Housing Programs (Section 202 Direct Loans for Housing for the Elderly and Section 221(d)(3) BMIR Moderate-Income Housing)

The below-market interest rate loan programs are being phased out. HUD budget presentations for fiscal year 1972 contemplated that no new commitments would be issued for housing projects under either the section 202 elderly housing program or the section 221(d)(3) BMIR program. The phaseout of the programs is confirmed by their absence from the fiscal 1973 HUD budget presentation. Since there are approximately 115,000 completed units under these programs which will continue to involve a Federal budgetary cost, however, they are described briefly here.

Direct loans for housing for the elderly were authorized under section 202 of the Housing Act of 1959, and amended in 1964 to include housing for the handicapped. A revolving fund was established under the Secretary of HUD (originally under the Housing and Home Finance Administrator) from which 3-percent, 50-year loans could be made to nonprofit sponsors of housing projects.

In 1961, cooperatives were made eligible as mortgagor-sponsors under section 202 and in 1968 limited profit sponsors were made eligible.[9]

The section 221(d)(3) BMIR program was authorized in 1961 to provide housing for families of moderate income. Eligible sponsors were nonprofit organizations, cooperatives, and limited dividend corporations, or other publicly regulated or supervised mortgagors. Housing projects under this program were financed through below-market interest rate 40-year mortgage loans. Originally the 221(d)(3) mortgages were to bear a rate of interest equal to the average yield on all marketable obligations of the United States plus one-eighth of 1 percent, but after this rate moved upward and increased the effective rate to be borne by occupants, the interest rate was changed to 3 percent in 1965. Such loans had to be obtained from FNMA (now GNMA) special assistance funds, since no private lender would make them, and they were, in effect, direct Federal loans.

[9] Public agencies other than those receiving financial assistance under the U.S. Housing Act of 1937 (i.e., other than local housing authorities) were also eligible sponsors under the 1959 legislation, but such agencies never assumed a role in the production of sec. 202 housing.

Both programs are "shallow subsidy" programs that can serve primarily moderate-income rather than low-income households. The income limits were established at roughly the local median income limit for a given size family under 221(d)(3) BMIR, and there were limits in the same general range for 1- and 2-person households under section 202. Part of the rationale for replacing these programs with the section 236 program enacted in 1968, therefore, was that the new program could provide a deeper subsidy—down to an effective interest rate of 1 percent—to reduce rents, so that low as well as moderate-income families would be eligible.

Another characteristic of the two older programs, that was considered to be undesirable, was the fixed nature of the subsidy through a fixed below-market interest rate. Occupants continued to receive the full subsidy benefit even though their incomes might rise. Subsequently a procedure was adopted to raise rents when incomes rose above a certain level.

At least as powerful a consideration as any other that entered into the decision to phase out the 202 and 221(d)(3) BMIR programs was the fact that they were direct loans and, therefore, had a large initial budgetary impact.

When it was decided to phase them out, a large number of projects that were in the section 202 and 221(d)(3) program processing pipelines were converted to section 236 projects.

In part because they were moderate-income programs, the average annual subsidy, calculated as the difference between the cost of funds borrowed from the U.S. Treasury (by HUD) at the time of the loan and the 3-percent interest rate, is only $112 per unit under 221(d)(3) BMIR and $115 under 202.[10] In addition to the moderate-income character of the project occupants, the low subsidy costs also reflect the low interest cost of funds borrowed by the U.S. Treasury, as compared with interest rates on mortgage loans from private sources which are used in the newer section 235 and 236 programs and in the rent supplement program.

The basic HUD estimates of subsidy payments covered the period 1966–71 although the section 221(d)(3) BMIR and section 202 programs were initiated several years earlier. The rationale for the exclusion of pre-1966 program activity presumably lies in the fact that before 1966 the (direct) loan interest rates were the same as the average cost of money to the Government and, therefore, did not involve any Government expenditure. That concept is accepted in the estimates which follow:

SECTION 221(d)(3) BMIR HOUSING SUBSIDY PAYMENTS[1]

[Payments in thousands of dollars for fiscal years]

Memorandum:	
Number of units supported	95,200
Period covered	1966–71
Maximum years commitment	40
Estimated minimum average years of payment	40

	Total	Annual average
Total payments under commitment[2]	$425,000	$10,625
Estimated present worth of payments[3]	176,242	4,406

See footnotes at end of table.

[10] "HUD-Space-Science Appropriations for 1972," House hearings, op. cit., pp. 246–248.

SECTION 202 BMIR HOUSING (ELDERLY) SUBSIDY PAYMENTS[1]

Memorandum:	
Number of units supported	19,700
Period covered	1966–71
Maximum years commitment	50
Estimated minimum average years of payment	50

	Total	Annual average
Total payments under commitment[2]	$90,000	$1,800
Estimated present worth of payments[3]	31,630	633

[1] Difference in interest costs between cost of money to Government and 3 percent direct loan interest rate.
[2] Subsidy fixed due to 3 percent interest and fixed rent charged to occupants; therefore, no minimum has been estimated. Also, no pre-1971 estimate of payments is shown because data are not available, and it would not be a significant amount, since most units are only a few years old.
[3] Payments discounted at 5¼ percent.

Source: "HUD-Space-Science Appropriations for 1972," House Hearings, pt. 2, p. 248.

V. The Section 236 Moderate Income Rental Housing Program

Section 236 is the moderate-income program enacted in 1968 along with the section 235 homeownership program. The subsidy formula is similar under both programs, although the mechanics of the section 236 subsidy payment are geared to a rental housing operation. A monthly housing assistance payment is made by HUD to the project owner on behalf of an eligible tenant. The established local income limit for elegibility is generally 135 percent of the local public housing admission income limit. The assistance payment may not exceed the lesser of (*a*) the difference between the FHA-established "market rent" based on the full mortgage interest rate (currently 7 percent) and rent based on a 1-percent mortgage interest rate; or (*b*) the difference between the "market rent" and 25 percent of the tenant's income.[11]

As under the rent supplement program, eligible sponsors include nonprofit, cooperative and limited (profit) distribution organizations. Nonprofit and cooperative owners may obtain a mortgage equal to 100 percent of replacement cost, but the limited distribution owner can obtain only a 90-percent mortgage.

The builder-sponsor of a limited distribution project is allowed certain fees and other expenses which greatly reduce the amount of cash needed to meet the 10-percent equity investment requirement. These include:

(1) A builder-sponsor profit and risk allowance equal to 10 percent of total costs exclusive of land and legal and organization fees.

(2) Builder's general overhead allowance of 1½ percent of such costs.

(3) Organization expense allowance of 1½ percent of such costs.

These fees are probably reasonable for most projects in the light of risk, effort and know-how required of the builder-sponsor. There is an opportunity, however, to build up the required 10-percent equity largely or wholly from such fees, and the builder can then recoup his payment by selling equity shares in a limited partnership to investors in high-income tax brackets.[12] For them, tax benefits can be realized through losses that are established by virtue of accelerated depreciation allowances. Since such allowances are available with respect to

[11] A 25-percent proportion of income is required as a minimum rental payment in contrast with 20 percent for the sec. 235 homeowners' payment toward housing expenses because the homeowner separately must pay for maintenance, repair, fuel, and utilities which are included in the rent.
[12] There are also architectural design and supervision fees of 4 percent and 1⅓ percent respectively which might be paid for partly through equity stock shares.

all new rental housing, however, the tax benefits are primarily an incentive benefit to rental housing production in general, rather than a subsidy for section 236 or other subsidized housing programs.

The equity investment equal to at least 10 percent of the total project development cost, which a limited distribution sponsor of a section 236 project must have, may come in whole or in part from a cash investment, from land owned by the project owner, or from a builder's profit and risk allowance (of 10 percent on construction costs exclusive of land). A limited return of 6 percent, calculated on the basis of that equity, may be distributed from project income. Such cash distributions are only a small part of the return to investors, however, after taking account of the value of annual tax deductions. These deductions permit book operating losses to be established which can then be offset against other income earned by the owner or owners. Losses can be passed through to limited partnership shareholders in proportion to their percentage of equity ownership. The losses are established primarily through deductions for accelerated depreciation allowances which are very high in the early years of ownership. Since depreciation is allowed on the entire value of buildings (equal to roughly 90 percent of total property value) there is a great deal of leverage for deductions created by a 10-percent equity. Thus, assuming a building value equal to 90 percent of total (land and improvements) investment, the deductions during the first year on a 40 year-life project, using double declining balance depreciation might be 4.5 percent of total project investment. Furthermore, there are also one-time nonoperating deductions, such as construction financing interest costs and local taxes which will raise total deductions in the first year or two to over 5 percent of the total project investment. Against a 10-percent equity, such deductions are equal to 50 percent of the equity investment. For an equity investor in the 50-percent income tax bracket the aftertax value of the deduction would be equal to 25 percent of the equity investment.

The value of the depreciation plus the 6-percent cash distribution that is permitted, can give the equity investor in the 50-percent tax bracket a return of roughly 30 percent in the construction and initial operating year of a section 236 project. As the depreciation base, and the mortgage interest rate deductions are decreased in ensuing years, the annual rate of return to the equity investor will decline, reaching perhaps 20 percent by the fourth year, 15 percent by the eighth year and 12 to 14 percent in the 10th year. The undiscounted annual rate of return on equity, from cash flow distributions plus depreciation allowances, could average about 20 percent for the first 10 years of ownership, as the total of the returns could have a value equal to roughly twice the initial equity investment.

As has been noted, the main factor in producing a high annual rate of return, is the accelerated depreciation, which is available to the owners of new nonsubsidized rental housing, as well as for subsidized rental housing. The nonsubsidized rental project owner might also be able to set rents high enough to obtain a higher annual cash flow return than 6 percent. On the other hand, a nonsubsidized project, over a period of years is much more likely to experience higher vacancy rates which would reduce rental income and the rate of cash flow return. That risk is to a large extent eliminated in a section 236 project

where occupancy is likely to average better than 95 percent, the rate upon which rental income to provide the 6-percent cash flow return was calculated.

There is another tax benefit which is available to owners of section 236 projects, upon disposition after 10 years, which is not available to owners of nonsubsidized projects. That is the provision for capital gains treatment of sales proceeds representing depreciated book value in excess of straight line depreciation. Such "recapture" of excess depreciation is entirely taxable as income if the section 236 project is sold during the first 20 months of ownership. Thereafter the amount subject to recapture is reduced by 1 percent per month. All proceeds from sale of a section 236 project are subject to capital gains treatment after 10 years of ownership by the original owner. The total of accelerated depreciation over the 10 years may equal about 40 percent of the total original property cost.[13] Assuming that the property is sold for an amount equal to original cost, the capital gains tax would equal 10 percent of the original project cost, reducing the potential average annual return on equity from about 20 percent to about 19 percent. However, the remainder of sales proceeds above the outstanding mortgage balance,[14] available for aftertax distribution would raise the average annual return by about six-tenths of 1 percent. The net effect of the sales transaction, therefore, would be to make for a potential annual average return on equity of 19.6 percent.

In contrast if a nonsubsidized property is sold during the first 100 months, all sales proceeds representing depreciation in excess of straight line depreciation are subject to income tax "recapture." Thereafter, the excess depreciation subject to recapture reduces by 1 percent a month. Therefore, if a nonsubsidized rental housing project, is sold at original cost after 10 years, about 80 percent of the excess depreciation is subject to regular income tax. The income plus capital gains taxes then would equal about 13 percent of the original project cost, in contrast with the 10 percent in the case of the section 236 project sale.[15] After subtracting taxes and adding the value of mortgage amortization in the sales proceeds, the potential average annual rate of return would be 19.2 percent, in contrast with 19.6 percent for the subsidized project. That difference in return represents an additional tax revenue loss to the Treasury.

There is one other possible tax benefit that the owners of a section 236 project might be able to realize. If the project is sold at a net profit to the tenants (or a cooperative or other nonprofit organization of the tenants) and the profit is reinvested in another section 236 project the capital gains taxes may be indefinitely deferred and the recapture of sales proceeds representing excess depreciation for income taxation can be avoided entirely.[16]

If such sales can be arranged after a few years of ownership the average annual returns on equity to investors in section 236 limited

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[13] This is more than would be possible on a 40-year life for the entire property because certain components, such as plumbing, appliances, and others are depreciated on a shorter life basis.

[14] That amount representing amortization of the original mortgage loan amount would be equal to about 6.6 percent of the original mortgage amount or 6 percent of the total original cost.

[15] The 13 percent is derived from a 50-percent income tax on 80 percent of the excess depreciation. The latter is equal to 20 percent of original cost, and 80 percent equals 16 percent so that income tax accounts for 8 percent. The balance of the tax is capital gains on the balance of depreciated book value (equal to 20 percent of original cost) at a 25-percent rate.

[16] The excess depreciation represented in the reinvested sales proceeds is subject to recapture upon sale of the new property although the holding period to avoid recapture is reduced by the period of ownership of the property that has been sold.

distribution projects, from tax savings and cash distributions, would be 25 percent or more. In such instances the 6- to 7-percent greater return than on a nonsubsidized housing project would represent an additional tax benefit for low- and moderate-income housing producers who also organize tenant ownership organizations to purchase the property.

The maximum estimated annual contractual assistance payment per unit in section 236 projects for which FHA mortgage insurance commitments were made from the (fiscal year 1969) inception of the program through fiscal year 1971 is $900. The estimated minimum annual payment, after allowing for assumed income increases of occupants in excess of increases in operating expenses, however, is $702.[17] The latter figures do not include an additional rent supplement payment on behalf of some 54,000 eligible tenants in section 236 units. An estimated minimum annual rent supplement payment of $568 in such cases is probably realistic since the rent supplement would be reduced first as incomes rise. The rent supplement payments will be shown in estimates under that program.

The difference between the contractual maximum and estimated minimum average subsidy payments under section 236 arises, because, as in all of the interest rate subsidy programs, as the occupants income increases his required rent payment is increased and the subsidy payment is reduced. In making the basic subsidy payments estimates, HUD assumed that incomes of occupants would increase at a rate of 5 percent annually, while operating expenses (which account for less than one-half of rent) would increase at 4.5 percent annually. The increased rental payments by tenants, in proportion to their income increases, therefore, could provide for necessary rent increases to cover increased operating expenses, as well as reductions in subsidy payments. Under the foregoing assumptions, the average occupant would not require any subsidy after 20 years.

It must be noted the aggregate program subsidy estimates for units covered by commitments through fiscal year 1971 probably reflect a different per unit subsidy level than will be encountered for section 236 units in subsequent years. An important factor probably making for higher subsidies will be increasing per unit development costs, entailing higher per unit mortgage amounts. Between (calander) 1969 and 1970, for example, the average per unit mortgage amount for new units increased from $14,817 to $16,416.[18] An influence toward reduction of required subsidies probably will be the rising incomes in excess of operating expenses, as described above. The "swing factor" which will determine whether the per unit subsidy level rises or falls, is likely to be the mortgage interest rate. Given the rent-to-income ratio control over the occupant's rental payment, any increase or decrease in interest costs will be reflected in an equal amount of increase or decrease in subsidy costs.

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[17] "HUD-Space-Science Appropriations for 1972"—Hearings op. cit. pp. 246–248.
[18] HUD 1970 Statistical Yearbook, table 257, p. 244.

SEC. 236 RENTAL HOUSING SUBSIDY PAYMENTS

[Payments in thousands of dollars for fiscal years]

Memorandum:	
Number of units supported	361,300
Period covered	1969–71
Maximum years commitment	40
Estimated average minimum years of payment	22

	Total [1]	Annual average
Total payments under commitment:		
Maximum contractual	$13,000,000	$325,000
Estimated minimum	5,578,000	253,545
Present worth of total payments: [2]		
Maximum contractual	5,390,398	134,760
Estimated minimum	3,262,642	81,566

[1] Includes about $13,000,000 in payments made prior to end of fiscal 1971 or 1/10 of 1 percent of maximum contractual payments. Therefore, separate estimates for before and after the end of fiscal 1971 have not been made.
[2] Payments discounted at 5¼ percent.

Source of date before discounting for present worth: "HUD-Space-Science Appropriations for 1972"—House hearings, pt. 2, p. 248.

VI. The Rent Supplement Program

The rent supplement program that was proposed, by the Administration in office in 1965, was intended to fill the gap between public and private housing. It provided that families eligible for admission to rent supplement housing projects would be those with incomes too high for public housing eligibility, but too low to be able to pay for standard private housing with a reasonable proportion of income. In the course of the legislative process the proposal was altered, however, and emerged so that eligibility for admission was limited to tenants with incomes within prescribed low-income limits (equal to public housing limits) and who also qualify in one of the following ways: are elderly or handicapped (or have an elderly or handicapped wife or husband); are displaced by governmental action; are occupants of substandard housing; or are present or former occupants of dwellings damaged or destroyed by a natural disaster since April 1, 1965.

As enacted in 1965, therefore, the rent supplement program was designed to establish a financing mechanism whereby private nonprofit, cooperative and limited distribution corporations could provide housing for low-income families. The income limits for admission were not to exceed those that can be established for public housing. As a practical matter the income limits for admission have been established by adoption of public housing limits in localities that have a public housing program.

The law requires that each tenant shall pay at least 25 percent of his adjusted gross income for rent. Gross income is adjusted by a deduction of $300 for each minor in the family and by exclusion of any income earned by minors. Thc balance is paid by HUD to the owner as a rent supplement on behalf of the eligible tenant, under a contract calling for necessary rent supplements for a given number of units over the 40-year term of the mortgage. As the tenants income rises, his rent payments rises and the subsidy is reduced.

Although there is no statutory requirement for a minimum rental payment, and theoretically a zero income family might pay zero rent, regulations provide that a tenant must pay at least 30 percent of the required market (i.e., full economic) rent. By permitting a subsidy of up to 70 percent of market rent, the regulations permit a subsidy that is deep enough to cover part of the operating expense, as well as required debt service.

A rent supplement project is financed with a market interest rate mortgage insured by FHA under section 221(d)(3). Since such mortgages are obtained from private lending sources, there is no large budgetary impact in the initial year such as occurs with a direct loan bearing a below market interest rate. Rent supplement housing was viewed as a program that could eventually replace below market interest rate loans, such as the section 221(d)(3) (BMIR) below market interest rate program that had been enacted in 1961.

The rent supplement program was the first of several subsidized private housing programs to be adopted in which the subsidy would be paid in installments over the life of the loan. This subsidy system, basically patterned after the public housing annual contributions plan, avoided a large initial budgetary impact of the full capital cost financing for housing produced in a given year. As the number of units being subsidized under such a program grows cumulatively over a number of years, however, the aggregate annual subsidy payments which are contractual obligations assume sizable proportions. (When several programs based on similar annual payment formulas grow to a combined total of a few million units, aggregate annual payment requirements will be a few billion dollars.)

In addition to allowing rent supplements, to be used in projects built under the rent supplement program, the 1965 legislation allowed a limited proportion of authorized subsidy funds to be used for rent supplements on behalf of tenants who occupied units in section 221(d)(3) BMIR projects and in section 202 elderly housing projects, also financed with below market interest rates. Rent supplement payments may be applicable to no more than 20 percent of the units in a project under another subsidized program. Subsequently, rent supplements were also allowed for 20 percent of the units in a section 236 project, with discretionary authority vested in the Secretary of HUD to go up to 40 percent where he considers it necessary and desirable. A double subsidy could thus be used to assist very low income families in projects built under other subsidized programs. The latter use of the rent supplement authority apparently has become its major use.

Based on HUD budget projections for fiscal year 1973, it would appear that more than 50 percent of the units for which rent supplement contract authority will be reserved in fiscal year 1972 are to support additional subsidies for very low income families in section 236 projects, and also for rent supplements used in connection with units in projects built under State-aided programs.[19]

The effectiveness of the double subsidy was illustrated by HUD in the following example presented for fiscal year 1972 appropriations hearings:

> Assuming an average mortgage amount per unit of $18,000 and a gross monthly market rent of $228 including operating expenses, the maximum interest reduction payment under the section 236 program, based on subsidizing the interest rate down to 1 percent, would be $74. This would leave a monthly basic rent of $154 to be paid by the tenant. For a family of four (two minor children) to live in this project and pay no more than 25 percent of its income for rent, would require a minimum annual adjusted income of $7,390. But by combining subsidies under the section 236, and rent supplement programs, a family with an annual adjusted income as low as $2,208 could live in this project.
>
> The maximum rent supplement payment is 70 percent of the monthly market rent and in the event rent supplement is piggybacked with section 236 the 70 percent applies after the full amount of section 236 interest subsidy has been

[19] "Summary of the HUD Budget, Fiscal Year 1973," HUD, January 1971, p. HPMC-1.

subtracted. Using the illustration above, the monthly rent after the section 236 subsidy is $154. Seventy percent of $154 is $108. This would be the maximum rent supplement payment. The tenant would be required to pay the remaining rent of $46. Based on the requirement that tenants pay no more than 25 percent of their income for rent, a family with an annual adjusted income of $2,208 would be able to afford the $46 monthly rent and thus live in the section 236 project.[20]

The double subsidy use, by piggybacking rent supplements (and also public housing leasing) with section 236 subsidies, has other effects, besides enabling very low-income families to become occupants. It makes possible the use of the subsidized private housing programs in high cost areas, where high land and construction costs might preclude housing for low-income people, even with a maximum single subsidy under either section 236 or rent supplements. Permitting the piggybacking of a certain proportion of the units may also produce a greater income range or eccnomic mix among occupants of a project, which may also support a racial mix in some instances.

On the negative side, it might be argued that the double subsidy tends to support higher construction costs in an area, by making the subsidized projects feasible at high construction costs. There is often a great deal of local pressure to provide low-income housing by using rent-supplement piggybacking in section 236 projects to the maximum extent possible because the rent supplement housing has been more restricted in amenities. The limitations upon amenities permitted in rent supplement housing are imposed by regulations that were adopted in response to congressional apprehensions about privately owned subsidized housing in the mid-1960's. Finally, while the double subsidy permits housing of acceptable standards to be provided to families with lower incomes than can be reached with a single subsidy, the total number of subsidized housing units that can be supported is reduced.

The average amount of a piggyback rent supplement payment, understandably, is lower than a rent supplement which constitutes the entire subsidy. For rent supplement commitments to be made during fiscal year 1972, HUD estimated that in projects financed with section 221(d)(3) market interest rate mortgages (that is, not piggybacked) the estimated minimum rent supplement payment, over the years that it would be made, would average $921 per year.

The comparable estimated average payment in projects with subsidized interest rate financing was $562.[21]

The published HUD estimates of units to be supported with rent supplements commitments made during the 1966–71 period reflecting the earlier years experience when piggybacking was a minor part of the program, show 35 percent of the rent supplement payments as being for units within a subsidized rate program, that is, piggybacked.[22] In such cases, the rent supplement payments would be reduced (and eliminated), as the occupant's income rises, before a reduction is made in the basic subsidy (for example, section 236) for the housing unit. Therefore, the estimated minimum subsidy payments for all rent supplement units will show a greater decrease relative to contractual maximum payments than in other programs.

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[20] "HUD-Space Science Appropriations for 1972" hearings before a subcommittee of the Committee on Appropriations, House of Representatives, 92d Cong., pt. 2, p. 451.
[21] Ibid. p. 249.
[22] Ibid. p. 248.

RENT SUPPLEMENT HOUSING SUBSIDY PAYMENTS

[Payments in thousands of dollars for fiscal years]

Memorandum:	
Number of units supported (including 54,100 piggy-backed on another subsidy)	154,600
Period covered	1966–71
Maximum years committed	40
Estimated minimum average years of payment [1]	30

	Total [2]	Annual average
Total payments under commitment:		
Contractual maximum	$7,080,000	177,000
Estimated minimum	3,377,000	112,567
Present worth of payments: [3]		
Contractual maximum	2,935,988	73,400
Estimated minimum	1,682,190	56,073

[1] Weighted average of estimates by HUD for piggybacked and nonpiggybacked rent supplements.

[2] Includes about $67,000,000 (less than 1 percent of the contractual maximum) in payments made prior to end of fiscal 1971. The amount is too small relatively, to consider a separate estimate of payments subsequent to fiscal 1971.

[3] Payments discounted at 5¼ percent.

Sources: "HUD-Space-Science Appropriations for Fiscal 1972," House hearings, pt. 2, p. 248 and "HUD Budget Summary, Fiscal year 1973."

VII. Rehabilitated Homes—Subsidized Ownership (Section 221(h) and Section 235(j))

The first subsidized urban homeownership program was designed to encourage the rehabilitation of deteriorating or substandard homes, for owner-occupancy by families of limited income. Enacted in 1966, section 221(h) of the National Housing Act, permitted insurance of a mortgage on four or more single-family units acquired, with the intention of rehabilitation and resale, by a private nonprofit sponsor.

The sponsoring mortgagor would receive a blanket mortgage on the property, with a stipulation that the homes would be sold only to families with income below the limits established for admission to rent supplement housing in the locality. Upon sale to an eligible family, the home would be released from the blanket mortgage and placed under an individual mortgage insured under section 221(h). Both the blanket mortgage and the individual home mortgage could be made at a 3 percent interest rate. This meant that the homeowner would have a fixed subsidy, regardless of whether his income was well below the limit or almost up to the limit. There was no provision for reduction of subsidy as the owner's income increased, so that the fixed subsidy, via the below-market interest rate remained in effect when the homeowner's income increased.

Since they were below-market interest rate loans which could not be financed with mortgage loans from private sources, the funds had to come from FNMA (now GNMA) special assistance authorizations. Consequently the full amount of the mortgage loans were budget expenditures in the fiscal year in which they were made.

In 1968, when the section 235 program, encompassing new, existing, and rehabilitated housing under a subsidized interest rate homeownership program was enacted, section 235(j) was included to continue essentially the 221(h) program, except for the change in the subsidy and source of financing. Under section 235, the FHA-insured mortgage loans bear the market rate of interest (i.e., the ceiling rate established by the Secretary of HUD) and are made by private lenders. As spelled out below, under the 235 program, the homeowner must pay at least 20 percent of his income toward a regular monthly mortgage payment,

but the payment cannot be lower than it would be if the mortgage interest rate was 1 percent. The balance of the required payment is made by HUD on behalf of the owner-occupant. As the owner-occupant's income increases, his payment increases and the subsidy payment is reduced.

The 1968 Act also amended that section of 221(h) dealing with the interest rate of the individual home mortgages, to permit a 1 percent interest rate, instead of 3 percent.

Perhaps due to various program requirements, such as nonprofit sponsorship, rehabilitation, income limits for prospective buyers, etc., the 221(h)–235(j) program has been the vehicle for rehabilitation of only a few thousand units since its inception. Its significance probably lies primarily in its precedent-setting authorization for subsidization of homeownership in other than rural areas.

As far as subsidy payments are concerned, the section 235(j) housing subsidies come from the section 235 homeownership assistance authorization, and subsidy payments will be included among the section 235 program payment estimates shown at the end of the next section of this paper.

Under section 221(h), through fiscal year 1971, total mortgages insured were, cumulatively, $18 million in home mortgages and $30 million in multifamily mortgages.[23] These figures are not additive, however, since the home mortgages arose from sale of homes that had been rehabilitated under multifamily mortgages. The total outstanding amount of mortgages insured under 221(h) both home and multifamily was $32 million at the end of fiscal 1971.[24] The maximum housing subsidy payments (over a 30-year period) might be roughly $30 million. The present worth of those payments, averaging $1 million per year, would be $14,943,900.[25]

VIII. Section 235 Homeownership Assistance Program

The HUD section 235 homeownership assistance program was enacted in 1968, with authority for insurance of new and existing homes provided in section 235(i).

To be eligible for purchase of a home and subsidy benefits under the 235 program, a family's adjusted income generally may not exceed 135 percent of local public housing admission limits. Under an alternative income limit formula, 20 percent of the subsidy funds may be used for somewhat higher income families. The adjusted annual income is the gross income minus 5 percent of income of adults and $300 per minor, exclusive of all incomes of minors.

An eligible buyer purchases a home with a private FHA-insured mortgage bearing the prevailing rate of interest, currently 7 percent. A monthly assistance payment, made on his behalf by HUD, is the lesser of either (*a*) the difference between 20 percent of monthly adjusted income and the required monthly payment (for principal, interest, mortgage insurance premium, hazard insurance, and property taxes); or (*b*) the difference between the total monthly debt service (excluding hazard insurance and property taxes) and the monthly principal and interest and mortgage insurance premium obligation at a 1-percent interest rate.

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[23] "The Budget of the U.S. Government 1973: Appendix," p. 497.

[24] Ibid.

[25] An average payment of $1 million per year discounted at 5¼ percent per annum.

Although up to 30 percent of the subsidy funds may be used to assist purchasers of existing homes, the section 235 program has become primarily a new home program. New homes accounted for about 90 percent of homes financed under the program in the first half of 1971.[26]

Per unit mortgage amounts may not exceed $18,000, or $21,000 in the case of a family of five or more. Where the Secretary of HUD finds that it is necessary due to high costs, he may increase the foregoing limits in a designated locality to $21,000 and $24,000 respectively.

The median monthly subsidy for a new home buyer under section 235 was $77 during 1970 and it had gone up to $81 by the first half of 1971.[27] These amounts represented about 47 percent of the regular total monthly payment. In 1970, the regular total monthly payment was divided about as follows:[28]

	Percent
Mortgage principal and interest	79
Mortgage insurance premium	5
Hazard insurance	2
Real estate taxes	14

However, the entire subsidy may be greater than the cash payment. The Internal Revenue Service now has under consideration the question of whether an owner of a subsidized home may deduct the full mortgage interest on the mortgage and the full real estate taxes from his income for Federal income tax purposes, even though close to one-half of those expenditures are covered by subsidy. For the median income, median-family size section 235 homeowner, the deductions for that part of interest and property taxes paid by subsidy would be worth about an additional $10 per month.

On a per unit annual basis, subsidy payment data for section 235, published in the appropriations hearings for fiscal 1972, was as follows:

Period covered	Maximum payments		Minimum payments	
	Number of years	Annual amount	Number of years	Annual amount
Through fiscal year 1971	30	$914	15	$627
Fiscal year 1972 commitments	30	654	13	491

The difference between the per unit annual amount prior to fiscal year 1972 and during fiscal year 1972 reflects basically the difference in mortgage interest rates. The fiscal year 1972 estimates are predicated on the current 7-percent mortgage interest rate. Prior program activity reflects mortgage interests rates of 7½, 8, and 8½ percent.

The substantial difference between the contractual maximum and estimated minimum reflects the fact that under homeownership the operating expenses are not subsidized by the subsidy payment. Therefore, as income increases, 20 percent of income increments have to be devoted entirely to increased monthly payments by the homeowner, producing equal reductions in subsidy payments.

These factors are reflected in the aggregate program subsidy payments estimates which follow:

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[26] Based on information in HUD–FHA quarterly reports on "Characteristics of Home Mortgage Transactions Insured by FHA under Section 235(i)."

[27] FHA annual and quarterly reports on characteristics of transactions and profiles of homebuyers.

[28] Based on data in "1970 HUD Statistical Yearbook," table 237, p. 235.

SECTION 325 HOMEOWNERSHIP ASSISTANCE SUBSIDY PAYMENTS

[Payments in thousands of dollars for fiscal years]

Memorandum:	
Number of units supported	355,700
Period covered	1969–71
Maximum years committed	30
Estimated minimum average years of payment	15

	Total	Annual average
Total payments committed:		
Contractual maximum	$9,750,000	$325,000
Estimated minimum	3,344,000	222,333
Present worth of total payments: [1]		
Contractual maximum	4,856,768	161,892
Estimated minimum	2,269,242	151,283
Payments made through fiscal 1971	141,673	----------

[1] Payments discounted at 5¼ percent.

Source: "HUD-Space-Science Appropriations for 1972," House Hearings, pt. 2, p. 248 and "Summary of the HUD Budget for Fiscal Year 1973, p. HMPC–3.

IX. Farmers Home Administration Section 502 Rural Home Loans

The Farmers Home Administration was authorized to make direct loans to farm owners under title V of the Housing Act of 1949. By an amendment in the Housing Act of 1961, the authority was extended to insurance of home mortgage loans, and borrower eligibility was extended to nonfarm rural residents.

Under the major Farmers Home Administration program, section 502, practically all loans are in the insured loan category and most of them are to nonfarm rural area residents. Nonfarm rural areas are defined to include places of up to 10,000 population, and this may include unincorporated suburbs of metropolitan areas.

The loans may be for construction or purchase of new homes, the purchase of existing homes, and the purchase or refinancing of homes needing rehabilitation. In fiscal year 1971, a total of some 103,000 low-to-moderate income housing loans were made under section 502. This total included over 71,000 loans for new home purchases, almost 20,000 for existing home purchases and under 12,000 for purchase or refinancing of homes requiring rehabilitation. The average loan was for between $13,000 and $14,000. The maximum maturity is 33 years.

Low- and moderate-income families may purchase homes under income limits determined for local areas, subject to an adjusted income limit established for each State. The adjustment of income is the same as under section 235—$300 per minor, plus 5 percent of income are deducted.

There are two layers of subsidy. At times, a "thin layer" of subsidy is received indirectly by all home purchasers under the program through a below-market interest rate on the mortgage loans. Thus, during fiscal year 1971, the interest rate on the section 502 mortgage loans was 7¼ percent (also maintained in fiscal 1972). These loans are insured but made directly by Farmers Home Administration, pending later sale to private investors of either the mortgage loans or of 5- to 15-year participation notes. However, the Farmers Home Administration services the loans and the notes are fully guaranteed, as to principal and interest. The notes are in effect Government bonds,

but carry a higher interest rate because they are not direct Treasury obligations. In borrowing money in the market for purposes of making additional loans, Farmers Home Administration paid about 8¾ percent during 1971 on notes that it issued. Therefore, there was about a 1½ percent interest rate subsidy to all home purchasers that is made up from appropriations.[29] In dollar terms, that subsidy amounted to about $195 per year, or $16 per month on a $13,000 loan. (Recently Farmers Home Administration has been able to pay investors 6⅞ percent for money while still charging 7¼ percent on mortgage loans.)

In addition, about 38 percent of the section 502-financed homes—those of buyers with the lower incomes—also received an interest credit to reduce their effective interest rate to 2½ percent, adding an additional 4¾-percent interest rate subsidy for the lower one-third. The interest credit in dollar terms averaged about $608 per year, or $51 per month on the average loan amount of about $13,000. For the one-third of section 502 home purchasers who received both layers of subsidy, the total initial subsidy amounted to about $800 per year, or $66 per month. The interest credit is subject to reduction in later years if incomes of the borrowers rise.[30] Estimates provided by FmHA staff for fiscal 1972, indicated that over the 33-year life of the loan, average annual subsidy payments per year would be $183 per year.

Few of the section 502 homebuyers would also be able to receive a tax benefit from an income deduction of interest paid by the Government. Their family size is larger than other homebuyers and their median gross income is less than $4,000; 80 percent had incomes of under $5,000.[31] Their adjusted income after personal exemptions, therefore, would in most cases be below the minimum taxable amount for a joint return filed by a married couple.

The basic mechanism for subsidy under the section 502 program is the payment to private investors, who purchase either insured mortgage loans or participation notes of an effective interest rate that is generally higher than the rate charged to the mortgage borrowers. The difference is paid out of a Rural Housing Insurance Fund and deficits that accrue due to payments of interest rate differential losses are made up through appropriations.

Although the loans are "insured" loans, they are originated directly by Farmers Home Administration in one of its approximately 1,750 offices and also serviced directly. The investor who buys either the mortgages or participation notes issued by Farmers Home Administration is insured against loss of principal or interest. There is little distinction, therefore, between Farmers Home Administration insured private money mortgage loans and direct loans. There is a distinction insofar as program costs are concerned, however, because the Farmers Home Administration securities require a measurably higher yield in the market than Treasury securities, at times as much as between 1 and 1½ percentage points on maturities of 10 or 15 years.

There are other minor Farmers Home Administration housing loan programs for which disbursements and losses are also made through the rural housing insurance fund. These include insured rural rental housing loans which were used to finance about 26,000 units during fiscal year 1971.

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[29] If the subsidy is measured as the difference between the interest rate that the homebuyer would have had to pay on an insured mortgage loan from a private lender and the 7¼ percent that he paid, it would be, a 1¾ to 2 percent interest rate subsidy in fiscal 1971. In 1972, however, Farmers Home Administration borrowed at rates below 7¼ percent.

[30] Based on data provided by Farmers Home Administration.

[31] Ibid.

Repair and improvement loans are made directly to very low-income families in amounts up to $2,500, or $3,500 if plumbing is involved. The loans are made at a 1 percent interest rate, with a 10 year maturity term.

Under all of the programs which operate under the rural housing insurance fund, at the end of fiscal year 1971 a cumulative total of 461,373 loans had been made with an original principal amount of $4.6 billion, of which $3.6 billion was still outstanding. Since all but a very small percentage of the outstanding aggregate loan amount had been originated during the last 5 fiscal years,[32] the fiscal year 1971 interest subsidies might be assumed as a maximum annual payment on loans outstanding as of the end of fiscal year 1971.

In fiscal year 1971, the net operating loss for the insurance fund was $59.8 million, resulting form "operating costs" of $89.2 million minus gross income of $35.6 million. Since all but $3.3 million of the "operating costs" consisted of interest payments and expenses on borrowed funds, Farmers Home Administration notes, participation certificates, et cetera, the Government interest subsidy payment might be viewed as $56.5 million (59.8—3.3).[33] That figure multiplied by 33 years, the loan term, would make for maximum subsidy payments of $1,864,500,000 over 33 years for loans made through fiscal year 1971. The present worth of those maximum payments discounted at 5¼ percent per annum would be $877,326,000, or an annual average present worth figure of $26,586,000.

However, it is unlikely that maximum payments would have to be made, or that they would be made for 33 years. Based on estimates prepared by Farmers Home Administration staff for fiscal 1972 loan commitments, an estimated minimum average number of annual payments is 17 years and the aggregate amount of payments, on the minimum basis would equal only 51 percent of the maximum. The aggregate minimum interest costs for loans made through fiscal 1971, therefore, would be $950,640,000, with annual average of $55.3 million during the 17 years. The present worth of the aggregate estimated minimum payments discounted at 5¼ percent per annum would be $611,977,000, with an annual average of $35,999,000.

X. Urban Renewal Section 312 Rehabilitation Loans

Under section 312 of the Housing Act of 1964, as amended, HUD may make loans to owners or tenants for repair, remodeling, and restoration of residential and nonresidential buildings that are (1) in an urban renewal area or an area covered by a program of concentrated code enforcement, (2) residential and owner-occupied in an area where the governing body certifies a substantial number of structures are in need of rehabilitation, or (3) uninsurable because of physical hazards. The loans may be for up to 20 years at not more than 3 percent annual interest.

Priority is given to loan applicants whose income is limited. Generally, the loan amount is limited to $12,000 per dwelling unit for residential structures. Local public agencies engaged in redevelopment and rehabilitation activities handle initial contacts with the loan applicants. Qualified local agencies have been authorized to approve

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[32] Data from Farmers Home Administration statistical reports.
[33] Data from "The Budget of the U.S. Government 1973: Appendix," pp. 175–176.

rehabilitation loans in some areas, but generally approval is by HUD field offices. Private lending institutions service the loans under arrangements made and supervised by GNMA.

At the end of fiscal year 1971, the cumulative amount of residential rehabilitation loans that had been approved under section 312 was $138,870,000, including $48,374,000 that had been approved in fiscal year 1971. In terms of the number of housing units to be rehabilitated with the approved section 312 loans, the cumulative number was 35,523, including 11,553 in fiscal year 1971. The average number of units per structure is about 1⅔. The average loan amount is about $4,000.[34]

Through fiscal 1971, $125,197,000 in section 312 loans had been disbursed of which at least $121 million represented residential loans, since only $4 million in nonresidential loans had been approved and and there is a lag between loan approvals and loan disbursements.[35]

The equivalent of subsidy payments by the Federal Government on the 3 percent, 20 years section 312 loans is the difference between the interest cost to the Government for borrowed funds (currently 5¼ percent) and the 3 percent collected annually. The interest cost differential over 20 years would total $34,589,000 on the $121 million outstanding at the end of fiscal 1971. The average annual interest cost would be $1,729,000. The present worth of the total payments over the 20 years, discounted at 5¼ percent per annum is $21,098,000 with an annual average present worth of $1,055,000.

XI. Section 115 Rehabilitation Grants

Section 115 rehabilitation grants may be made to low-income homeowners in generally the same areas in which section 312 loans may be made, namely, urban renewal, code enforcement and certified rehabilitation areas. These are 100-percent Federal grants of up to $3,500 to assist owner-occupants of one- to four-family dwellings, generally with annual incomes below $3,000 to bring their properties up to local area or project standards. The grants are one-time Federal expenditures in contrast with the continuing interest rate subsidies.

In calendar year 1970, these 10,939 section 115 grants made at an average of slightly more than $3,000 per grant. In the preceding year there had been 6,053 grants at an average of about $2,675. The annual data going back to the inception of the program in 1965 show a continued growth in annual number of grants and average amount.[36]

HUD statistics made available for the first 9 months of (calendar) 1971 indicate 15,733 grants made during that period, including 12,281 that were made in combination with section 312 loans. Based on the latter figures and annual program level trends, an annual volume of 20,000 grants is a reasonable estimate. At a $3,000 average, aggregate grant disbursements would be $60 million. Since the funds are all disbursed in the year the grant is made, the disbursed amount and the present worth of the amount are identical.

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[34] "Summary of the HUD Budget Fiscal Year 1973 " p. CD-13 and "The Budget of the U.S. Government 1973 Appendix" p. 525.

[35] *Ibid.*

[36] See cumulative year end data in "1970 HUD Statistical Yearbook", table 3F p. 46.

XII. SBA Disaster Relief Home Loans

The Small Business Administration makes loans to homeowners and to small business property owners to finance the repair of damages caused by natural disasters, such as floods and earthquakes. The loans are generally second mortgages and have a maturity that has averaged about 7½ years. Parts of loan amounts may be forgiven, as discussed below.

Prior to 1971, all the disaster relief home and small business loans carried an interest rate of 3 percent. The interest rate on loans made after 1970, in accordance with provisions of the Disaster Relief Act of 1969, have been related to yields on all interest bearing obligations of the United States having maturities of 20 years or more, as of the end of the preceding fiscal year. However, SBA must pay Treasury an interest rate tied to all interest bearing marketable public debt of comparable maturities, leaving out the low-interest rate securities held by Government trust funds. Under the formulas, in fiscal year 1971, SBA charged 6¾ percent on loans made and paid the Treasury 7¾ percent on funds borrowed.[37]

The interest rates charged by SBA on the loans are the established rate when the loans are approved, rather than when they are disbursed. The SBA makes all payments from a Disaster Loan Fund and obtains funds for the accumulated interest deficiencies through appropriations to that fund.

It has been estimated (by SBA staff) that on loans made subject to the 1969 act provisions the forgiveness amount averaged about $1,500 per loan and on those made subject to provisions of the 1970 act the average amount of forgiveness per loan is about $2,200.

SBA records on loans disbursed and the outstanding loan amounts are combined for business and home loans, so that various elements concerning the home loan component of the disaster relief loan portfolio can only be estimated.

It is known that about two-thirds of the aggregate amount of disaster relief loans approved in fiscal year 1971 were home loans and about one-third were business loans. The 1971 experience is considered atypical, however, because it was influenced by the Los Angeles earthquake experience which involved more small business property damage than the more usual disaster which generally occurs in areas where residential properties account for a greater proportion of the damages and loans. In the estimates which follow, therefore, it is assumed that in all years prior to fiscal year 1971 home loans accounted for three-fourths of the disaster relief loans made.

As of June 30, 1971, there was $560.8 million of disaster relief loans outstanding. An estimated division of that sum into business and home loans is as follows:

	Total (millions)	Estimated home loans	
		Percent of total	Amount (millions)
Outstanding June 30, 1971	$560.8		
Loans made during fiscal year 1971 (assumed all outstanding June 30, 1971)	193.5	66	116.1
Outstanding from loans made before 1971	367.3	75	275.9
June 30, 1971 outstanding home loan balance			392.0

[37] "Department of State, Justice and Commerce, the Judiciary and Related Agencies, Appropriations for 1972," House hearings, pt. 4, p. 639.

The magnitude of the interest subsidy on the SBA Disaster Relief Home Loans can be estimated by the difference between debt service of 3 percent on the $276 million made before fiscal year 1971 and the average cost of money to the Government. With a 7½-year term the payments at 5¼ percent would exceed the payments at 3 percent by $5,113,000 per year. (That represents the cost to the Government, although SBA may have to cover a greater deficit in its individual accounts.)[38] Over 7½ years the aggregate interest loss would be $38,348,000. The present worth would be about $30,957,000, or an average annual present worth of $4,128,000.

In fiscal year 1971, forgiveness credits were recorded in the aggregate amount of $28,440,000 subject to terms of the Disaster Relief Act of 1969 ($1,800 maximum and estimated $1,500 average per loan), and $1,483,000 under terms of the Disaster Relief Act of 1970 ($2,500 maximum and estimated $2,200 average). There is a great lag between time of loan approval, when the loan and grant terms are established, and the time when the loan is acutally disbursed and the credit recorded.[39]

Using the above figures, there were about 19,600 forgiveness credit grants in fiscal year 1970. Since disaster damage will probably continue to grow an estimate of 20,000 forgiveness credits per year most likely is on the low side. Nevertheless, that number multiplied by an average forgiveness credit amount of $2,200 would total $44 million, of which perhaps three-fourths or $33 million would represent housing loan forgiveness.[40] Since the entire amount is disbursed at once, the present worth is the same as the disbursed amount.

XIII. College Housing Loan Program

A program of direct loans to institutions of higher education, that is colleges, universities and hospitals, to assist them in the provision of housing and related facilities for students and faculty was authorized in 1950. The maximum interest rate that could be charged on the loans was tied to the average annual interest rate on all interest bearing obligations of the United States. This was changed in 1953 to the average yield on long term U.S. bonds; in 1955 the maximum rate was pegged at 2¾ percent; in 1965 at 3 percent. The direct loans could be made (by HHFA and, later, by HUD) only if private financing on equally favorable terms was not available. There were many college housing bond issues that were divided between direct loans and private financing. Private lenders would buy the short-maturity bonds, for example up to 10 years, and the Federal Government would provide the longer-term bonds (which could be up to 50 years, but generally have been up to 40 years).

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[38] The fact that much of the outstanding loans are financed through participations sold against the SBA portfolio that bears higher interest rates, does not invalidate the use of the average cost to the United States of all borrowed funds to measure subsidy payments.

[39] Amounts of loans made from 1973 U.S. Budget Appendix, p. 940; average grant amount estimates provided by SBA staff.

[40] Sec. 1314(a) of the Housing and Urban Development Act of 1968, a section of the National Flood Insurance program legislation provided that no Federal disaster assistance would be made available to an owner of property in an area where flood damage occurred 1 year subsequent to the time that flood insurance was made available in the area. The purpose was to discourage dependency upon disaster relief when protection was available under a subsidized insurance program. Flood insurance under the national program had become available in 795 communities, by the close of fiscal year 1971. By an Act approved Dec. 21, 1971, sec. 1314(a) was made inapplicable with respect to any property damage which occurs before Dec. 31, 1973. In the Wall Street Journal of Feb. 9, 1972 (p. 1), it was reported that since the Los Angeles earthquake one year earlier, SBA had disbursed $200 million in disaster loans to 51,000 homeowners and businessmen, of which approximately $70 million would be covered by forgiveness. The news story also reported cases where the SBA loan funds had been used for other purposes than the repair of earthquake damage to the home.

In 1969, a debt service grant program authorized in the HUD Act of 1968 was initiated. Under the new program, contractual annual grants are made in amounts equal to the difference between average annual debt service on loans at market rates and the debt service that would otherwise be required on a direct Federal loan at a (currently) 3 percent rate. In a manner similar to most of the housing subsidy programs, the effect of the debt service grant is to make for a smaller immediate budgetary impact.

The new debt service grant program did not rule out direct loans. Where an institution cannot obtain appropriate private financing, a direct loan is made.

As of the end of fiscal 1971 there was outstanding a total of $3,238,442,000 in direct college housing loan balances, reduced from an aggregate original loan amount of $4,743,712,000.[41] The average interest rate on the college housing direct loans made since the inception of the program is 3⅜ percent.[42] On the $3,328,442,000 outstanding loan balance at the end of fiscal 1971, over a 40-year term, the difference between average annual payments at 3⅜ percent and at 5¼ percent interest rates would be $46,244,952. Over 40 years the interest differential payments would total $1,849,698,080. On a present worth basis (discounted at 5¼ percent), the aggregate payments value would be $767,088,141 and the average annual interest differential payment would be $19,177,203.[43]

No attempt will be made to estimate future subsidy costs of debt service grants related to private college housing loans that had been closed by the end of fiscal 1971. The number and amount of such loans apparently was limited. Debt service grant payments actually made during fiscal 1971 amounted to only $270,000. As is usual with debt service (or interest) subsidy grant programs, however, the annual payment volume is projected to rise to $8 million per year by fiscal year 1973.[44]

XIV. The Tandem Plan—Interest Rate Subsidies

The tandem plan originated during the tight money period of 1969, to help provide mortgage financing for the subsidized private housing programs, primarily sections 235 and 236, which are financed with private FHA-insured mortgages. During the tight money period, lenders required that discount points be paid by the builder or developer, or other seller of a house to be financed with FHA-insured loans, in order to increase the yield above the ceiling interest rate on such mortgages. In many instances this would have made it economically infeasible to produce subsidized housing.

Under special assistance authority of section 301 of the National Housing Act, the President could authorize the Government National Mortgage Association, GNMA, to purchase subsidized housing mortgages at par or at modest discounts. However, this would involve very substantial Federal outlays—billions of dollars—which would add to budget deficits.

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[41] "The Budget of the U.S. Government 1973: Appendix," p. 493, and "Summary of the HUD Budget, Fiscal Year 1973," p. HPMC-10.

[42] Provided by HUD staff.

[43] About $2.2 billion of the college housing loans had been funded for a few years through the sale of participation certificates which have a higher rate of interest than direct Treasury borrowing, but this device to show budgetary receipts should not becloud the issue of Federal subsidy expenditures which is best measured as the difference between the average cost of money to the Federal Government and the interest rate charged on the program loans.

[44] "Summary of the HUD Budget, Fiscal Year 1973," p. HPMC-10.

The tandem plan gets around the budgetary problem. GNMA issues a commitment to purchase a section 235 mortgage, for example at 96, so that the builder would not have to pay more than four points; that is, 4 percent of the mortgage amount, when he delivers the mortgage after completion and sale of the house. Simultaneously, GNMA obtains a commitment from the privately owned, federally sponsored Federal National Mortgage Association to purchase the mortgage at its free market price. If that price should be less than 96, GNMA would absorb the loss, which might be, for example two points, if the free market price were 94. In effect, an additional subsidy is added through this process.

In July 1971, when mortgage discounts were again climbing, the tandem plan was extended to all FHA-insured and VA-guaranteed mortgages of up to $22,000 and $24,500 for homes of four or more bedrooms.[45] Certain FHA-insured multifamily mortgages were also made eligible. Special assistance funds in the amount of $2 billion was made available. In this way, the present FHA and VA 7-percent mortgage interest rate ceiling could be maintained, instead of raising it to a level competitive with other security yields. The financing subsidy was thus made available for "nonsubsidized housing."

The subsidy contributes to the payment of higher effective mortgage interest rates. In one sense, home buyers and renters are the beneficiaries, since the higher effective interest rates are occasioned by market supply and demand for long-term funds, and have to be met for the housing to be made available. Viewed in a broader framework, fiscal and monetary policies (and the lack of other credit allocation policies) have permitted the rise in effective interest rates, which cause a redistribution of income in favor of savers and lenders, the creditors. In that framework, the savers and lenders are the beneficiaries of the subsidy distributed via the tandem plan.

There is no reliable basis for projecting future annual housing subsidy costs related to the tandem plan. The need for such subsidies will depend upon the relationship of the maximum FHA and VA mortgage loan interest rate to competitive long-term securities rates, and the resultant secondary mortgage market discount.

In the HUD budget for fiscal 1973, GNMA requests $119.4 million to restore depletion of special assistance fund capital, including $84.5 million which results from the payment of discount allowances applicable to the tandem plans.[46] That amount probably covers tandem plan activities overlapping 2 or 3 fiscal years. The magnitude of the amount involved suggests that, in a future tight money period, the tandem plan could be a mechanism for substantial housing subsidy payments, including payments related to nonsubsidized housing.

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[45] Public Law 92-213, approved Dec. 23, 1971, increased those limitations by 50 percent for a 6-month period in areas where the Secretary of HUD found it necessary to avoid excessive discounts.

[46] Summary of the HUD Budget, Fiscal Year 1973, p. HPMC-23.

THE DISTRIBUTION OF FEDERALLY ASSISTED RENTAL HOUSING SERVICES BY REGIONS AND STATES

By George M. von Furstenberg*

Summary and Conclusion

It is argued that in all housing markets containing a significant number of low-income families at least some federally assisted rental housing should be supplied to supplement the private market and to provide for income transfers. The more that assisted housing is offered in one locality to the neglect of any other, the lower the marginal net benefits which may be expected. In spite of this, the variation in service levels is very large. For instance, in Utah, Wyoming, and Idaho there are only five assisted units for every 1,000 low-income households, while in Connecticut, Nevada, and the District of Columbia there are 120 per 1,000. The distribution of the existing stock of assisted housing across the Nation thus appears to be seriously unbalanced in relation to current needs.

I. Introduction and Premise

The major assisted rental housing programs of the Federal Government fall into two classes. Public housing and rent supplement projects serve primarily low-income families, 50 percent of whom had total annual incomes of less than $3,000 in 1969–70. Families with median incomes of $5,000 to $6,000 are the intended beneficiaries of moderate income housing. This includes both the section 221(d)(3) below market interest rate (BMIR) program, involving up to 100 percent mortgage financing at 3 percent interest, and the more recent section 236 program in which interest costs are lowered further to 1 percent. In spite of the differences in tenant incomes, it has been estimated that annual subsidies of between $600 and $900 per household will be required under all programs, on the average over the life of the projects,[1] provided the existing section 221(d)(3) BMIR projects will eventually all be converted to section 236 status.

Although income redistribution has been identified as the primary objective common to all of these heavily subsidized rental programs,[2] assisted housing services are supplied unevenly to different groups of eligibles. Interprogram differences in the demographic composition of

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[1] These estimates were prepared under Sol Ackerman, until recently with the U.S. Department of Housing and Urban Development (HUD). Subsidy costs per apartment were higher in 1970, partly because most of the projects were still fairly new and because interest rates were unusually high during that year.

[2] In the program memorandum of HUD, income redistribution has long been identified as the principal objective of the assisted programs, while the declared function of those programs not involving major planned subsidies is to supplement the private market. See William B. Ross, "A Proposed Methodology for Comparing Federally Assisted Housing Programs," *American Economic Review*, Papers and Proceedings (May 1967), pp. 91–100.

tenants, for instance by age, race, or size of family, have already been commented upon elsewhere.[3] However, inequalities in the geographic coverage of each program, and of all programs combined in relation to need, have hitherto received very little attention.

It can be argued that in all housing markets containing a significant number of low-income families, at least some federally assisted rental housing should be supplied both to supplement the private market and to serve as vehicles for income transfers. Some low-income families in any size class may desperately need housing assistance and have the greatest preference for—the least aversion to—living in the kinds of projects to which it is tied. On the other hand, the more assisted housing is offered in one locality to the neglect of any other, the lower the marginal net benefits which may be expected to result. For in that case, the program might reach well down the hierarchy of needs in one area, while in another, even the most pressing needs go unanswered. Hence, spatial balance in the distribution of housing assistance is not only of political interest as a matter of regional equity in the federal system, but it may also involve important dimensions of program efficiency.

II. The Record of Assisted Housing Production in Relation to Needs, by States

As of September 30, 1969, just over 900,000 households were living in federally assisted rental housing under the main subsidized programs. Public housing, which goes back to 1937 but now includes projects acquired through leasing and Turnkey methods, accounted for 78 percent of the total, while the 3 percent BMIR mortgage insurance program authorized in 1961 accounted for 18 percent. The newer rent supplement and section 236 programs, dating from 1965 and 1968 respectively, each contributed around 2 percent of the total volume. Under the last two programs, rents remaining to be charged to tenants are reduced to 25 percent of family income, but no less than 30 percent of full-cost rent or costs remaining after mortgage financing at 1 percent interest, respectively.

The number of units occupied under each of these programs in the 50 States and the District of Columbia is shown in table 1. While it is interesting to observe, for instance, that no rent supplement units at all had been provided in some small, generally Northern States, this table of the absolute numbers supplied is used mainly as an input for later tabulations involving comparison with needs. Since housing assistance is not strictly limited to low-income urban populations,[4] several definitions of the main group of eligibles must be tried to establish the fractions actually being reached in any State (columns 3 and 6 of table 2). We can then test how sensitive the ranking of states by relative service levels is to variations in the definition of the target group.

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[3] See, for instance, Walter Smart, et al., *The Large Poor Family—A Housing Gap*, research report No. 4, the National Commission on Urban Problems (Washington, 1968). Also see the author's "The Impact of Rent Formulas and Eligibility Standards in Federally Assisted Housing on Families of Different Size." in *Report of the President's Committee on Urban Housing, Technical Studies*, vol. 1: Housing Needs and Federal Housing Programs (Washington, 1968), pp. 103–112.

[4] For instance, by 1970, 1,805 units of assisted housing were available for occupancy on Indian reservations in region 8, while 1,260 units were available in region 6. HUD region 8 (Denver) includes Montana and the Dakotas, while region 6 (Fort Worth) contains Oklahoma and New Mexico. "Indian housing" is included in the respective program totals, often low-rent public housing—Turnkey III.

TABLE 1.—FEDERALLY ASSISTED UNITS UNDER THE MAIN RENTAL HOUSING PROGRAMS: UNITS OCCUPIED AS OF SEPT. 30, 1969, BY STATES[1]

	Public housing	Rent supplements sec. 221(d)(3) MR	Sec. 221(d)(3) BMIR[2]	Sec. 236	Total
	(1)	(2)	(3)	(4)	(5)
Alabama	29,214	90	638	----------	29,942
Arizona	3,468	86	615	70	4,239
Arkansas	7,789	528	644	----------	8,961
California	40,883	895	13,064	2,541	57,383
Colorado	4,371	308	702	----------	5,381
Connecticut	13,118	6	7,534	----------	20,658
Delaware	1,909	----------	253	----------	2,162
Florida	22,007	2,159	1,760	470	26,396
Georgia	37,616	108	3,929	102	41,755
Idaho	336	----------	32	----------	368
Illinois	54,448	----------	15,298	219	69,965
Indiana	8,479	70	8,475	2,453	19,477
Iowa	902	352	382	347	1,983
Kansas	1,778	550	2,505	149	4,982
Kentucky	15,516	12	1,099	573	17,200
Louisiana	19,521	726	2,159	62	22,468
Maine	657	----------	471	----------	1,128
Maryland	12,838	150	5,337	713	19,038
Massachusetts	25,403	772	13,146	----------	39,321
Michigan	15,552	525	12,674	1,402	30,153
Minnesota	9,750	121	1,518	22	11,411
Mississippi	6,189	252	344	----------	6,785
Missouri	12,053	118	5,689	----------	17,860
Montana	1,007	60	73	----------	1,140
Nebraska	5,497	40	844	120	6,501
Nevada	2,176	100	772	----------	3,048
New Hampshire	1,970	----------	----------	150	2,120
New Jersey	38,138	309	5,911	----------	44,358
New Mexico	2,070	645	694	140	3,549
New York	89,593	568	11,141	134	101,436
North Carolina	17,735	144	2,176	400	20,455
North Dakota	755	----------	44	----------	799
Ohio	30,280	1,098	3,952	1,106	36,436
Oklahoma	3,004	196	2,023	481	5,704
Oregon	4,313	304	536	92	5,245
Pennsylvania	51,730	131	3,652	238	55,751
Rhode Island	6,317	94	1,204	40	7,655
South Carolina	6,777	384	572	688	8,421
South Dakota	785	198	50	----------	1,033
Tennessee	25,542	2,014	2,252	219	30,027
Texas	37,175	2,809	11,351	2,802	54,137
Utah	30	45	----------	----------	75
Vermont	330	----------	336	----------	666
Virginia	13,669	125	2,997	276	17,067
Washington	9,244	1,107	2,084	1,334	13,769
West Virginia	2,791	----------	----------	----------	2,791
Wisconsin	6,448	163	1,007	104	7,722
Wyoming	55	60	----------	----------	115
District of Columbia	10,321	66	3,399	----------	13,786
Alaska	620	----------	56	----------	676
Hawaii	3,502	----------	1,859	126	5,487
Total	715,671	18,488	157,253	17,573	908,985

[1] The source for col. 1 was USHA run 223.0, table 7, "Units Occupied by Tenants or Project Employees Required to Live in Public Housing as of Sept. 30, 1969." The distribution in col. 2 gives insured rent supplement projects with units under payment as of the same date. Units in projects with insurance in force as of Mar. 31, 1970 and Feb. 28, 1970 are given in cols. 3 and 4, respectively. Sources for cols. 2 through 4 were the "02" reports of HUD, specifically, 302, 2102, and 3602.

[2] BMIR signifies below-market interest rate financing at 3 percent in contrast to the rent supplement program under the same section which involves market rate (MR) insured mortgage financing.

Column 4 of table 2 presents indexes of the provision of federally assisted rental units in relation to the interstate distribution of males at least 14 years of age and with some income of less than $2,000. Such males are regarded as potential heads of household. For column 7, families and unrelated individuals living in urban areas and having a total annual income of less than $4,000 in 1959 are used to define the need base. In either case, the definition of the indexes is simple. A

number of 150, for instance, means that service levels in relation to needs were 50 percent higher in a particular State, than on the average for the Nation. Put differently, a low-income household in that State is 50 percent more likely to receive housing assistance than the typical low-income household in the United States as a whole.

TABLE 2.—DISTRIBUTION OF FEDERALLY ASSISTED RENTAL HOUSING IN RELATION TO THE NEEDS OF LOW-INCOME PERSONS OR FAMILIES, BY STATES

	Concentration index[1] of low-income males (rank from lowest poverty concentration)		Federally assisted rental units in relation to distribution of low-income males			Federally assisted rental units in relation to urban families and unrelated individuals		
	Index	Rank[2]	Percent assisted	Service index	Rank (lowest relative frequency)	Percent assisted	Service index	Rank (lowest relative frequency)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Alabama	140	43.5	8.28	134	40.0	10.83	191	49.0
Arizona	87	12.5	3.92	64	22.0	3.58	64	17.0
Arkansas	174	50.0	3.54	58	17.5	5.93	105	33.0
California	79	7.0	5.09	83	29.0	3.47	61	15.0
Colorado	95	19.0	3.70	60	19.0	3.13	55	14.0
Connecticut	67	3.0	14.02	227	49.0	10.63	186	48.0
Delaware	78	6.0	7.14	114	36.5	7.28	126	38.0
Florida	100	23.0	5.71	92	31.0	3.99	70	18.0
Georgia	127	39.0	9.68	157	42.0	12.24	215	50.0
Idaho	111	26.0	.62	10	3.0	.87	15	3.0
Illinois	83	10.0	10.51	170	45.0	7.86	139	40.0
Indiana	91	14.5	5.78	93	33.0	5.52	97	29.0
Iowa	125	37.5	.78	13	4.0	.94	17	4.0
Kansas	116	30.0	2.54	41	14.0	2.79	50	12.5
Kentucky	149	47.0	4.89	79	27.0	8.31	147	42.0
Louisiana	117	31.5	7.01	114	36.5	6.87	121	36.0
Maine	133	40.0	1.19	19	5.0	1.44	24	5.0
Maryland	75	4.0	9.27	150	41.0	8.44	148	43.0
Massachusetts	87	12.5	11.33	183	47.0	7.44	132	39.0
Michigan	83	10.0	5.66	92	31.0	5.20	92	26.5
Minnesota	112	27.0	3.78	61	20.0	4.48	79	22.0
Mississippi	182	51.0	2.16	35	11.0	4.27	76	19.5
Missouri	122	36.0	4.32	70	24.0	4.32	76	19.5
Montana	121	34.5	1.88	32	10.0	2.43	45	8.5
Nebraska	125	37.5	4.91	80	28.0	6.01	107	34.0
Nevada	59	1.0	15.47	262	50.0	13.85	243	51.0
New Hampshire	92	16.5	4.41	70	24.0	4.39	77	21.0
New Jersey	65	2.0	13.04	211	48.0	8.65	153	44.0
New Mexico	104	24.5	4.73	76	26.0	5.27	93	28.0
New York	77	5.0	9.90	161	43.0	5.79	102	32.0
North Carolina	140	43.5	3.84	62	21.0	6.67	118	35.0
North Dakota	153	48.0	1.17	20	6.0	2.50	45	8.5
Ohio	82	8.0	5.66	92	31.0	4.66	82	23.0
Oklahoma	134	41.5	2.28	37	12.0	2.38	42	6.5
Oregon	99	21.5	3.55	58	17.5	3.52	62	16.0
Pennsylvania	91	14.5	7.10	115	38.0	5.57	98	30.0
Rhode Island	104	24.5	11.05	179	46.0	6.97	124	37.0
South Carolina	141	45.0	3.03	49	16.0	5.03	89	24.0
South Dakota	158	49.0	1.35	21	7.0	2.49	42	6.5
Tennessee	144	46.0	7.20	117	39.0	9.75	172	45.0
Texas	114	29.0	5.82	94	34.5	5.19	92	26.5
Utah	83	10.0	.12	2	1.0	.11	2	1.0
Vermont	118	33.0	1.73	27	9.0	2.72	47	10.0
Virginia	117	31.5	4.29	70	24.0	5.14	91	25.0
Washington	96	20.0	5.81	94	34.5	5.62	99	31.0
West Virginia	134	41.5	1.57	26	8.0	2.70	48	11.0
Wisconsin	99	21.5	2.52	41	14.0	2.81	50	12.5
Wyoming	113	28.0	.45	6	2.0	.55	8	2.0
District of Columbia	93	18.0	25.30	408	51.0	10.21	180	46.0
Alaska	121	34.5	2.62	41	14.0	9.14	140	41.0
Hawaii	92	16.5	10.26	169	44.0	10.20	185	47.0
Total average	100	----------	6.17	100	----------	5.66	100	----------

[1] The proverty concentration index is derived by dividing the fraction of all U.S. low-income males living in any State by that State's share of the national population, and multiplying by 100. An index number above 100 indicates above-average frequency of poverty.

[2] Ranked are 51 units, or the 50 States and the District of Columbia. The ranking is from the lowest incidence of poverty in col. 2 and from the lowest relative frequency of housing assistance in cols. 5 and 8.

The latest income distributions available in this detail can be computed only from the 1960 census and some risk is involved in assuming that they have remained sufficiently constant over time to establish the need distributions relevant to the stock of assisted housing existing in 1969. Also, no adjustment for equivalence—the different incomes required by families of varying size and in different places to support some equally low standard of living—is attempted. Furthermore, the choice of appropriate income cutoffs is inevitably somewhat arbitrary though it must be kept in mind that 1959 incomes of $4,000 would correspond to more than $5,500 in 1970, on account of inflation alone.

Not surprisingly, the consistency of the manifestations of poverty or low-income status is such that a disproportionately large share of poor persons in any State also implies a disproportion of poor families. Little variation in the interstate distribution of low-income households is observed if the poverty threshold is varied in either direction. The coefficient of rank correlation between the order of States by the index of assisted housing provision in relation to low-income males (column 5 of table 2) on the one hand, and in relation to urban families and unrelated individuals (column 8) on the other, for example, is 0.87 with standard error of 0.14. A coefficient of 1 would indicate perfect consistency between the rankings while zero would suggest the absence of any correlation. Hence we do not believe that our results are overly sensitive to variations in definitions and concepts within the relevant range.

To assess the degree of balance in the distribution of supply over States, we check the service level indexes just described for deviations from 100. An index above 100 indicates relative oversupply of assisted rental units while an index below 100 signifies undersupply in relation to the average frequency of housing assistance for all low-income population units—however defined—nationwide.

There are several reasons why "imbalance" as evidenced by the chosen criterion may be perfectly desirable. For instance, if the price of rental housing services relative to that of other "necessities" is unusually low in any particular area, the case for Federal assistance and additions to supply is correspondingly weak. We doubt, however, that variations in excess demand are nearly as wide and policy-significant over areas as large as States or regions, as they would be for individual locations. Intraregional variations are likely to be much greater than interregional variations, though some persistent differences in regional vacancy rates remain.[5]

One might, however, welcome another deviation from an allocation strictly in proportion to the number of low-income households in any State. With the data already assembled we can easily test for the presence of such a deviation. It can be argued that if the percentage of households with low incomes is exceptionally small in any State, filtering is much more likely to produce an adequate supply for them since there is more housing to filter down and fewer low-income households to filter to. In addition, certain external costs imposed by the poor on each other and on the rest of society may be expected to

[5] These differences seem to have narrowed in recent years. For instance, in 1964, rental vacancy rates in the Northeast, North Central, South, and West were 4.7, 7.3, 8.2, and 10.5 percent, respectively. Corresponding preliminary estimates for 1970 are 2.7, 5.6, 6.4, and 5.4 percent. It should be noted that differences in vacancy rates do not necessarily allow one to infer equivalent differences in excess supply, since normal (equilibrium) vacancy rates must be expected to be higher in regions with greater gross and net rates of population movement.

increase more than in proportion to their population share in any area. Much current thinking on shrinking local tax bases, "tipping points," and the breakdown of municipal services and school systems depends on such notions.[6] Within HUD, the popularity of "open communities planning" and the fostering of socioeconomic and, correlated therewith, racial mix reveals a similar conviction.

Accepting the premise, we postulated that the percentage of the low-income population served should be higher in relation to the average service ratio with index 100, the greater the share of poor persons in the total population of any State. Unfortunately this normative expectation was defeated decisively with the coefficient of rank correlation (r) between the orderings in column 2 and 5 of table 2 significantly negative (−0.53), rather than positive. Doubling the percentage of low-income persons in a State does not cause the supply of assisted rental housing to double, let alone more than double as we had hoped. Instead, it appears to affect the supply of assisted housing hardly at all.[7] In relation to need, our index of Federal housing provision is thus about halved as the low-income population share (the denominator) doubles, thereby accounting for the negative correlation between the two sets of rankings.

While there are wide and as yet unexplained variations, proportionality to the simple head count of population comes closest to defining the rule of the distributive calculus. As a result, most low-income States are undersupplied in relation to need while high-income States are oversupplied. Specifically, the States of Connecticut and Nevada and the District of Columbia, whose average rank in the distribution of low-income concentration indexes (column 1) is 7 (the seventh richest), had over twice as many federally assisted rental units in relation to need as are supplied on the average for the Nation. On the other hand, taking the mean of the indexes in columns 4 and 7, the frequency of housing assistance is found to be less than half of the national level in the States of Idaho, Iowa, Kansas, Maine, Montana, Oklahoma, the Dakotas, Utah, Vermont, West Virginia, Wisconsin, and Wyoming. Their average rank of 34 placed them way down in the distribution of the 51 "States" from the lowest to the highest concentration of low-income persons.

Let us accept the rough rule inferred from the historical distribution of assisted housing production for the moment and grant that the relevant need distribution is established not on the basis of the low-income population of States, but on the basis of their total population irrespective of income. Even under these conditions, significant differences still remain as shown in the last column of table 3. New England States (HUD Region 1, Boston), for instance, would have a service level index of over 130 in 1969, while northern Mountain States (HUD Region 8, Denver) would have an index of less than 40

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[6] Cf. Jay W. Forrester, *Urban Dynamics* (Cambridge, Mass.: MIT Press, 1969), "passim," especially pp. 65–101.

[7] This conclusion cannot fully be substantiated with rank correlation analysis alone. Rather, it is based on an ordinary least squares regression of the service level index (SLI) in column 4 on the poverty concentration index (PCI) in column 1 of table 2. With the standard error in parentheses, the results were: SLI=240–1.339 (0.335) PCI, r=−0.50, F−Value=16, S_e=66, n=51. A distribution strictly in proportion to population implies that a one point increase in PCI reduces SLI by about the same amount. In fact, the absolute value of the coefficient of PCI is even greater than unity, though not significantly so.

If both need criteria agree in the identification of regions which have experienced relative oversupply or undersupply, a *de minimis* case for corrective action may have been made in any man's book.

On balance, both service level indexes in table 3 decrease from East to West, but there is no systematic division between North and South. If the comparison is based on only those urban families and unrelated individuals who are defined as poor by referring to a single national poverty threshold (in 1960), income deficiencies in the South are exaggerated compared to those in the high-cost Northeast and West.[8] The South would be somewhat better supplied than appears from table 3, but then it also contains a disproportionately large share of all substandard housing units. The East-West differential would remain largely intact [9] if an adjustment were made for income equivalence.

TABLE 3.—THE SUPPLY OF FEDERALLY ASSISTED RENTAL HOUSING UNITS COMPARED TO THE DISTRIBUTION OF LOW-INCOME URBAN HOUSEHOLDS OR THE TOTAL POPULATION, BY HUD REGIONS [1]

New HUD region [2]	Index of provision of federally assisted rental housing in 1969 in relation to the distribution of low-income urban families and unrelated individuals in 1960		Index of provision of federally assisted rental housing in relation to the distribution of population in 1969	
	Index	(1) Percent	Index	(2) Percent
(1) Boston	128	7.86–6.12	138	7.86–5.71
(2) New York	114	16.04–14.12	127	16.04–12.61
(3) Philadelphia	107	12.16–11.39	105	12.16–11.59
(4) Atlanta	132	19.90–15.13	126	19.90–15.85
(5) Chicago	99	19.28–19.52	89	19.28–21.59
(6) Fort Worth	92	10.44–11.39	103	10.44–10.14
(7) Kansas City	61	3.45–5.67	62	3.45–5.55
(8) Denver	40	.94–2.37	35	.94–2.69
(9) San Francisco	67	7.73–11.53	70	7.73–11.08
(10) Seattle	80	2.20–2.76	69	2.20–3.19
Total	100	100–100	100	100–100

[1] The regional distributions are derived by summing over the States belonging to each region. (Sources: U.S. Census of Population: 1960, General Social and Economic Characteristics, State Reports PC(1)–2C to PC(1)–52C, and U.S. Bureau of the Census, Current Population Reports, Series P–25, No. 436.) The percentage of assisted housing in each region is then divided either by the percentage of all low-income urban households in that region (col. 1 above) or by the percentage of the total U.S. population living there (col. 2). The resulting quotient is converted to index form by multiplying by 100.

[2] Region 1 consists of New England with the States: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont all contained in census region Northeast. Region 2 consists of New Jersey, and New York, which form part part of the Middle Atlantic region of the Northeast. Puerto Rico and the Virgin Islands are excluded above. Region 3 contains Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia, which, except for Pennsylvania, form the northeastern parf of census region South. Region 4 embraces Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee, all in the South. Region 5 includes Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin, all in North Central. Region 6 consists of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, all South except for New Mexico. Region 7 covers Iowa, Kansas, Missouri, and Nebraska, which form the western part of North Central. Region 8, with Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming, follows on with all except the Dakotas already in the West. Region 9 contains Arizona, California, Hawaii, and Nevada. Guam is excluded from our figures. Region 10 includes Alaska, Idaho, Oregon, and Washington—like region 9, all in the West.

[8] Equivalence indexes for the measurement of poverty have been estimated for the Northeast, North Central, South, and West for places of varying size. For cities with over one million inhabitants they were in order, 1.500, 1.275, 1.050, and 1,200, while for cities with under one-quarter of a million they were 1.125, 0.975, 0.900, and 1.050, respectively. In 1966, application of the implied cost-of-living adjustment to the regions from the Northeast to West would have changed the distribution of the poor (by headcount), as follows: instead of 15.6, 23.3, 49.9, and 11.2 percent one would get 21.9, 23.7, 42, and 12.4 percent. In other words, the South now appears relatively less poor while the Northeast appears less rich. On the other hand, the share of the poor in the west and north-central regions changes little. See Harold W. Watts, "The Measurement of Poverty—An Exploratory Exercise," mimeo.

[9] The largest States in both the Northeast and the West have housing programs which are to some extent substitutable for the Federal programs here discussed. Under California's Cal-Vet program, around $2 billion has been lent at low interest rates to veterans for the purpose of buying homes (or farms). Under New York's Mitchell-Lama program, about 40,000 rental units have been completed to date in New York City alone. Both programs aim at families in the middle income range, although the veterans tend to have low measured incomes for a year or two after discharge.

III. Regional Differences in Program Impact

Having considered the regional distrubution of federally assisted rental housing units for all programs combined, we turn to a program-by-program investigation. From table 4 it appears that regional biases differ substantially. Public housing, which of course accounts for the bulk of all assisted units and thus dominates the totals, is concentrated in the Northeast but underrepresented in the West and South. The rent supplement program has precisely the opposite incidence with comparatively heavy concentrations in the South and West and undersupply in the Northeast. The BMIR and section 236 programs have both been unusually productive in the north-central region, but they are underrepresented relative to the needs in the South. Disproportionately many BMIR projects have also been built in the Northeast. Since up-to-date regional distributions of low-income families, derived by using 125 percent of the relevant poverty thresholds, could be used to define the need base in this comparison, problems of income equivalence and the intertemporal stability of poverty distributions do not arise.

TABLE 4.—THE PROVISION OF FEDERALLY ASSISTED RENTAL HOUSING UNITS UNDER THE MAIN PROGRAMS IN 1969 COMPARED TO THE DISTRIBUTION OF LOW-INCOME FAMILIES IN 1968, BY CENSUS REGIONS [1]

Region	Low-income families, percent	Public housing, percent	Index of distribution	Rent supplement 221(d)(3) MR, percent [2]	Index of distribution	221(d)(3) BMIR, percent	Index of distribution	Sec. 236, percent	Index of distribution	Total, percent	Index of distribution
	(1)	(2)	(3)(=(2)/(1))	(4)	(5)(=(4)/(1))	(6)	(7)(=(6)/(1))	(8)	(9)(=(8)/(1))	(10)	(11)(=(10)/(1))
Northeast	19.4	31.8	164	10.2	53	27.6	142	3.2	16	30.0	155
North Central	22.1	20.5	93	17.5	79	33.4	151	33.7	152	22.9	104
South	45.3	37.7	83	52.8	117	26.0	57	38.6	85	36.0	79
West	13.2	10.0	76	19.5	148	13.0	98	24.5	186	11.1	84
Total	100.0	100.0	100	100.0	100	100.0	100	100.0	100	100.0	100

[1] The census regions are defined in the notes to the preceding table. The distribution of low-income families by region (col. 1) is obtained from "Manpower Report of the (U.S.) President" (March 1970) p. 127. The low-income cutoffs used in that source are 25 percent above the poverty thresholds. The weighted averages of the latter were for 1 to 7 or more person households $1,742, $2,242, $2,754, $3,531, $4,158, $4,664, and $5,722, respectively (1968). Cols. 2, 4, 6, 8, and 10, giving the regional distribution of federally assisted housing units under various programs, are derived from table 1. By relating to the distribution of needy families in col. 1, the indexes in columns 3, 5, 7, 9, and 11 are then derived. An index of 100 indicates correspondence between the population and assisted housing shares of any region, while an index of 200 would show that low-income families in a particular region are twice as heavily supplied as the average for the Nation (=100) indicates.

[2] The distribution of substandard housing units in 1968 was quite similar to that of rent supplement (apartment) units. For the 4 census regions, the breakdown was 12.9 percent, 25.8 percent, 53.3 percent, and 8.0 percent, respectively, indicating a greater frequency of substandard than of rent-supplement units in North Central and a lesser frequency in the West, with almost precise correspondence in the Northeast and South. Since rural housing is much more likely to be substandard than urban housing and more important in the South, not too much weight should be given to the similarity in these not strictly comparable distributions. See U.S. Bureau of the Census, "Current Housing Reports, Housing Characteristics," series H121, No. 17 (Washington 1970), p. 6.

One of the historical reasons for the basic East-West split in public housing is perhaps obvious. The eastern housing stock tends to be older and is thus more likely to be underequipped or dilapidated, although the South has the major share of all substandard housing units. In the past, when public housing was most frequently built in the wake of slum clearance or removal of substandard units, projects were therefore concentrated in the Northeast and Southeast. Remnants of pioneer spirit or "the new conservatism" in the West may also be cited but hardly qualify as adequate explanations. There is, however, tangible evidence of opposition to public housing in several Western States. For instance, until March 26, 1969, the legislature of Utah did not see fit to have a Housing Authorities Act enabling public housing to be built. Similarly, around 1950, Californians passed a constitutional amendment stipulating that low-rent public housing could not be built in any locality unless first approved by local referendum.

There are more compelling physical causes of the uniquely Southern and Southwestern orientation of the rent supplement program. Basic economic rent limits per apartment have been figured so tightly and the 25 percent maximum adjustment for high-cost areas has been so inadequate as to make the program inoperative in all but the lowest-cost locations. In 1967, for instance, it was estimated that the resulting total development cost limits for one- and two-bedroom apartments in Detroit, even with the maximum 25-percent adjustment, are still more than 20-percent below the equivalent limits implied by dwelling construction room cost constraints in public housing.[10] Not surprisingly, therefore, not a single rent supplement project has hitherto been completed in the Detroit area. For these reasons, the Kaiser committee stated bluntly that construction cost restrictions would have prevented any large volume outside the South and Southwest even if the program had been more adequately funded.[11] Since families moving out of substandard units are one of the few groups eligible for rent supplements, the distribution of substandard housing may also have influenced that of rent supplement units, as suggested in table 4.

The explanations which can be advanced to explain the North Central and Northeastern bias in the BMIR program are highly tentative. The volume produced under section 236 has as yet been insufficient to allow firm inferences, but first indications are that the regional distribution of BMIR projects will be replicated. Urban renewal activity is heavily concentrated in North Central and Northeast, with the new HUD regions 1, 2, and 5 having received almost 50 percent out of a total of $7 billion in project grants approved by the end of 1968. Hence, one hypothesis might be that the BMIR distribution has simply followed that of urban renewal. However, since only 23 percent of all BMIR projects are constructed in urban renewal areas, this factor cannot account for much of the difference in the regional impact of the program. Another partial explanation may be that builders and limited-dividend sponsors in the South and West have found BMIR projects less attractive because the cost of capital, and with it both effective mortgage interest rates and the required return

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[10] See the author's paper with Howard R. Moskof, "Federally Assisted Rental Housing Programs," in "Technical Studies," vol. 1 (a supplement to report cited in the next footnote), p. 154 (note to table 5).

[11] "A Decent Home," *Report of the President's Committee on Urban Housing* (Washington 1968), pp. 64–65.

on equity, are typically higher there than in the rest of the Nation.[12] Almost 42 percent of all BMIR projects are undertaken by limited-dividend sponsors and the regulations applied to them are uniform with no allowance for regional differences in profit requirements.

IV. Summary of Findings

On the average for the Nation, there are about six units of assisted rental housing available for every 100 low-income households. However, in States like Utah, Wyoming, and Idaho there would be only one-half per 100. By contrast, in Connecticut, Nevada, and the District of Columbia, at least 12 units per 100 households are available, or around 25 times as many as in the least supplied States. Hence, the probability of a low-income family receiving Federal housing assistance varies drastically from State to State. In general, the richer the State, the more assisted housing units are provided for its (relatively fewer) low-income families, and the poorer the State, the worse the odds.

Combining the States into either HUD or Census regions shows that there is a systematic undersupply in the West and oversupply in relation to the needs of the East. The middle tier of States, from the Great Lakes to the Gulf, is about average.

Given this aggregate outcome, regional biases still differ among the various rental programs with the inverse relation between public housing and rent supplement units and the concentration of BMIR units in the North Central region being the most remarkable. While public housing is heavily concentrated in the Northeast, the rent supplement program is serving primarily the South and Southwest. Several hypotheses were advanced about what might account for the differences in the geographical coverage of these programs. Suffice it here to note that as long as the biases specific to each program remain, changes in the relative importance of programs will also affect the regional incidence of housing assistance benefits in a manner which should be anticipated in policy planning.

V. Policy Considerations

For reasons of both equity and efficiency, it seems imperative that the spatial distribution of housing assistance be made to mirror the distribution of low-income families much more closely. The probability of a low-income family receiving housing assistance should not depend critically on where it lives. The distribution of substandard housing units may perhaps be used as a secondary criterion in funding, since its adoption would serve, in effect, to give added weight to heavy concentrations of low-income households. Since any adjustment in the existing housing stock—now seriously unbalanced in relation to needs—can only be achieved gradually, a long-term plan is required first to compensate for past "mistakes" and then to maintain a better balance between changing needs and long-lived stocks. On the part of HUD, this requires active management of the spatial distribution of the annual additions to supply, and redirection rather than passive reliance on applications backlogs, past funding and performance, and "local interest."

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[12] For documentation see the author's article, "Interstate Differences in Mortgage Lending Risks: An Analysis of the Causes," *Journal of Financial and Quantitative Analysis* (June 1970), pp. 229–47.

THE SECTION 23 LEASING PROGRAM †

By FRANK DE LEEUW* *and* SAM H. LEAMAN**

SUMMARY

The section 23 leasing program, under which local housing authorities lease dwellings from private owners and sublet them at reduced rents to low-income families, was enacted in 1965 and now covers about 85,000 units. The present report on the program draws heavily on interviews with executives of 38 housing authorities with leasing programs. It describes the beneficiaries and benefits of the program and compares the costs of the program with costs of conventional and turnkey public housing.

The findings of the report are generally favorable to the program. Compared to conventional or turnkey public housing, section 23 provides important benefits in the form of location in existing neighborhoods and anonymity. There are indications that families with children place high value on these benefits. At the same time the full cost of an additional unit of leased housing—at least at the present scale of the program—appears to be appreciably lower than the full cost of an additional unit of conventional or turnkey public housing. The maintenance and administration of leased units present problems because of diversity of building type and scattered locations; but these problems appear to be under control in most localities. The delay between authorization of a new unit and bringing it under management is shorter for section 23 than for other forms of public housing. Community acceptance of the leasing program is decidedly better than community acceptance of public housing.

The report concludes with a discussion of some current policy issues facing the section 23 program.

I. BACKGROUND AND GOALS

A. Introduction

Section 23 leasing was added to the public housing program in 1965. Under section 23, the local housing authorities which administer public housing may lease dwellings in the private housing market and then sublet them to low-income tenants, with the Department of Housing and Urban Development (HUD) paying the difference between the full cost of the dwelling and a formula determination of what the tenants can afford.

Legally the distinction between section 23 and conventional or the newer turnkey public housing is that under section 23 the housing

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†EDITOR'S NOTE.—The section 23 leasing program has been referred to in previous papers as the "Rent Supplement Program."

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authority is a renter, while under the other forms the housing authority is an owner. This legal distinction has in fact meant that under section 23, housing authorities use existing dwelling units scattered through existing neighborhoods to a large extent; whereas under other forms, housing authorities typically purchase new dwelling units concentrated in projects. There are exceptions to this characterization of the two forms of tenure; under the ownership form, housing authorities may acquire existing properties and may follow a scattered-site policy, while under the section 23 program, housing authorities may execute long-term contracts for the leasing of specially designed new units or may lease into new HUD subsidized moderate-income projects. The use of new dwellings under the section 23 program is in fact growing; but it remains true that section 23 relies on the existing market and existing neighborhoods much more than the other forms of public housing.

Since the section 23 program was enacted in 1965, about a quarter of all units added to the stock of public housing have been section 23 units. The Housing Act of 1970 includes the requirement that 30 percent of all future annual contributions contracts for public housing be devoted to section 23. The program is thus growing fairly rapidly, although the approximately 85,000 units now in existence represent no more than 1 percent of the number of households in poverty according to most definitions.

Not much has been known about the tenants, the housing, the costs, and the problems of the section 23 program. It is for this reason that the authors of this paper have spent some time during the last year going through available HUD records on the financing and occupancy of these units and conducting interviews with executives of 39 housing authorities with leasing programs. Of the 39 interviews, three were discarded either because of seriously incomplete replies or because much of the leasing by the housing authority was not under the section 23 program. The second and third sections of this paper summarize our findings based on the remaining 36 interviews and HUD records, organized around the beneficiaries and benefits of the program (sec. II) and the costs of the program (sec. III).[1]

On the whole, our findings are favorable to the program. Compared to conventional or turnkey public housing, section 23 provides important benefits in the form of location in existing neighborhoods and anonymity. There are indications that families with children place high value on these benefits. At the same time the full cost of an additional unit of leased housing appears to be appreciably lower than the full cost of an additional unit of conventional or turnkey public housing. The maintenance and administration of leased units present problems because of diversity of building type and scattered locations; but these problems appear to be under control in most localities. The delay between authorization of a new unit and bringing it under management is shorter for section 23 than for other forms of public housing. Community acceptance of the leasing program is decidedly better than community acceptance of public housing projects.

These comments of course apply to the present scale of the section 23 program. If the program were to be greatly expanded it is possible

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[1] We are most appreciative of the helpful cooperation of the housing authorities and regional HUD offices we visited. A list of the locations we visited is appended to this report. Our colleague, John Heinberg, helped conduct the housing authority interviews. Exchanges of information with Irving Welfeld, of HUD, and Assistant Professor Arthur Solomon, of MIT, have also been helpful in the preparation of this report.

that it would generate more community opposition or that it would encounter an inelastic supply of existing housing and drive up rents. These and some other problems are discussed in the concluding section of this report.

B. Goals and Assumptions of the Program

The section 23 program departs from traditional housing programs in important ways. Before a presentation of detailed data on the benefits and costs of the program, it is helpful to understand what these departures are and what we may be able to learn about general housing policy from the section 23 experience.

Since their inception in the 1930's Federal low-income housing programs have had the twin goals of helping households in economic need and of replacing low-quality dwellings with "standard" dwellings. Low-income housing programs are thus antipoverty programs and at the same time they are public interventions in the housing market.

There are several possible justifications for this combination of income assistance and specific intervention in market outcomes. One of them is the feeling that the public takes special interest in making sure that all members of society have decent housing—a stronger interest in housing than in, say, recreation or transportation. A second possible justification is a political one; the programs represent a workable alliance between supporters of income assistance and supporters of new construction. A third possibility is the view that, as one eminent city planner has expressed it:

> The market has not been effective in housing—as it has been in the field of most consumers' goods—in calling for the best product possible at the existing level of technology.[2]

Whether this alleged failure is due to the externalities or "neighborhood effects" associated with housing, to monopolistic restraints in the housing industry, or to other forms of market failure, is not often stated explicitly; but views like the one just quoted are deep seated among those concerned with housing policy.

It is this third possible reason for intervention in the housing market that is of special interest in connection with the leasing program. Because the leasing program uses the private real estate market to a much greater extent than other housing programs, it can be viewed as a test of what the market can deliver in the way of decent but not luxurious housing services when effective demand for such services is increased.[3] It is a test which makes heavy use of existing neighborhoods and which affects the amount of housing services supplied by stimulating maintenance and improvements and by causing chains of moves rather than by directly demanding new dwelling units.

Now this view of the leasing program as a test of what the private real estate market can supply can be carried too far. For one thing, housing authorities continue to perform important functions under the program in addition to simply paying subsidies. Typically it is the housing authority which searches for units, inspects and reinspects dwellings, negotiates the lease with the landlord, and pays and collects rents. This is a larger role than public bodies would play under most

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[2] Hans Blumenfeld, *The Modern Metropolis*, Massachusetts Institute of Technology Press, 1967, p. 183.

[3] It was probably not intended as such a test; for when the program was enacted in 1965, testimony before Congress emphasized the temporarily high vacancy rate in the rental housing market and the possibility of taking quick advantage of that temporary situation to supplement the public housing stock (Cf. Secretary Robert Weaver's testimony, Housing and Urban Development Act of 1965, hearings before the House Subcommittee on Housing, pt. I, p. 203). The persistence and growth of the program since 1965, however, has made it more than a temporary exception to the main stream of housing policies.

versions of a housing allowance or rent certificate scheme, or than they in fact play in the public assistance program.[4] Furthermore, the section 23 program so far has been conducted on too small a scale to provide guidance as to the overall market effects of a measurable shift in aggregate housing demands. Finally, any operating program has a great many specific features that make broad generalizations hazardous. It is probably true of leasing and even more so of conventional public housing that successes or failures depend on many details of the management and financial arrangements of the program as much as on general characteristics of housing markets or low-income tenants.

With all these qualifications, however, it remains true that the section 23 program uses the private housing stock and existing neighborhoods with some success. Experience under the program is therefore worth the careful attention of all those concerned with housing policies.

II. Beneficiaries and Benefits of the Program

Housing programs, like other in-kind programs, provide a wide range of services and delivery systems. The benefits of housing programs cannot simply be equated with dollar transfers. Two programs with identical subsidies per dwelling or per tenant may provide packages of services which tenants or communities value far from equally.

The present section of this paper accordingly attempts to go beyond simply identifying beneficiaries and amounts of money transferred. After presenting some information about the beneficiaries, it goes on to characterize the housing services and the neighborhoods involved in the program. It concludes with some summary measures and judgments as to the value of the benefits of the program.

A. The Tenants

The occupants of section 23 units, like other public housing tenants, are a low-income group. About half of section 23 tenants are recipients of public assistance.[5] Income limits for admission into the leasing program are higher than income limits for conventional public housing in about a third of the programs with both types of units. But median income of nonelderly families in the leasing program is probably no higher than $3,500 to $4,000 per year, while median income of elderly households under section 23 is probably in the neighborhood of $2,000.

Higher income limits for leasing than for conventional public housing in some programs is one example of tenant selectivity under the program. There are other examples as well; about a third of the authorities report that they favor "responsible or well adjusted" households over others for admission to the leasing program, and

[4] Under the public assistance program, furthermore, amounts of money devoted to housing are typically far below the full cost of a section 23 unit. The poor quality of much "welfare housing" surely is associated with the small amounts of money welfare families spend on housing.

[5] This estimate and many of the other estimates presented in the remainder of the paper are based on our survey of 36 housing authorities with leasing programs. To convert the information provided by the 36 housing authorities into estimates for the program as a whole, we classified the 36 authorities by census region and by size-class and assumed that the programs from our sample within each size-region cell were representative of all sec. 23 programs in that cell. Estimates for the total program are accordingly weighted averages of the 36 responses we found in our survey with weights reflecting the relative importance of different regions and size-classes in our sample and in the sec. 23 program as a whole.

there are instances of programs where owner approval is required before a tenant is placed in a unit. These selective practices apply to a distinct minority of units under the program, however. It is our impression that for the most part tenants are admitted to the leasing program using very much the same criteria as are used in the rest of the public housing program.

There are some differences in regional composition, racial composition, and age composition between the leasing program and the rest of the public housing program. Regionally the leasing program is heavily concentrated in the West; more than a quarter of units under lease as of 1969 were in California alone, while less than 5 percent of other public housing units under management were in California. Of the households currently occupying leased units, about 35 percent are black, 58 percent white, and 7 percent other races. The percent of black households is smaller than the corresponding percent in the entire public housing program, partly because of the concentration of leased units in the West as compared to a concentration of conventional public housing in the South. A minor factor contributing to the lower percentage of black households is the age distribution under the program. The elderly comprise about two-fifths of households under the leasing program, compared to about a third in the overall public housing program.

B. The Dwelling Units

The dwelling units under the section 23 program are "standard" units in existing neighborhoods. Almost all the authorities in our sample require full kitchen facilities in units brought under lease; and all of them require full bathroom facilities. Almost all have requirements as to minimum square feet per person. Local housing codes are generally used as the guide for determining whether a unit is acceptable or not under the program.

As of mid-1970, 62 percent of the units under the program were existing units without major rehabilitation,[6] 23 percent were existing rehabilitated units, and 15 percent were newly constructed units. Since then, the proportion of new units has increased somewhat. A small proportion of units are in projects already receiving some other type of HUD subsidy. On the whole, it has been possible to bring units into the program with much less delay than is typical in subsidized housing programs.

While most of the dwellings under the program are apartments, a substantial minority—between a third and two-fifths—are single-family houses. On the assumption that elderly households in the program are very largely concentrated in apartments, this single-family proportion implies that most of the nonelderly families under the program occupy single-family houses rather than apartments. Typical units under the program might include small tract houses built in the 1950's in northern California, or 40-year-old apartments in fairly good condition in the Minneapolis-St. Paul area.

The effect of the program itself on the housing units brought under lease is naturally of the greatest importance in any long-run evaluation. Initially the program apparently stimulates a significant amount of upgrading of existing units. While less than a fourth of the units

[6] "Major rehabilitation" following HUD practice, refers to units with improvements valued at more than 20–25 percent of total value after rehabilitation.

under the program fall in the category "substantially rehabilitated" as HUD defines the term, the majority of existing units brought into the program apparently have some work done on them beyond normal painting and cleaning before they are accepted by housing authorities. Furthermore, owners continue to be interested in offering units for lease under the program; 90 percent of the authorities reported "receiving unsolicited contracts by owners" as one of the three most effective procedures for finding units.

Once units are brought in under the program their maintenance is a continuing concern of housing authorities. Most housing authorities report plumbing stoppages as a recurring problem, and about half of them report problems with floors and walls and with locks and doors. Almost none reported any basic structural problems and very few reported roofing problems. To the question: "Do you think leased units are being maintained in about the condition they were when first leased, are deteriorating, or are being upgraded?" a weighted average of responses yields 72 percent of units "about the same," 17 percent "deteriorating," and 11 percent "upgraded."

Comparing leased units and conventional public housing units, most authorities felt that the level of maintenance was about the same. A minority felt that leased units were better maintained and no authorities felt that leased units were worse maintained. A few authorities emphasized to us the headache of keeping up with maintenance in a scattered-site, nonstandardized housing stock. But in most of the programs maintenance appears to be under control.

C. The Neighborhoods

Most units under the leasing program are in scattered sites within existing neighborhoods. This is not to say, however, that they are scattered equally throughout all the neighborhoods under a housing authority's jurisdiction. They tend to be concentrated in neighborhoods of older, modest but adequate (as most of us would define these terms) housing. There are very few units in neighborhoods with the best housing; but neither are there many in neighborhoods with the worst housing.

These generalizations are based on a study of maps showing the approximate location of leased units in 30 of the local housing authorities we visited. We were able to identify the census tracts in which units were located and compare some of the characteristics of these tracts with the distribution of the characteristics in the city or county as a whole. The characteristics we compared were crowding, rent levels, and racial composition.[7]

In terms of crowding, our estimate is that 26 percent of the population of cities and counties with leasing programs lives in neighborhoods where the average number of persons per room in families with children is more than 1.0. For the typical leasing neighborhood, the proportion of "crowded" neighborhoods defined in this way is 33 percent rather than 26 percent. But 30 percent of the population lives in neighborhoods with a crowding proportion still higher than the typical neighborhood under the leasing program.

In terms of rent, the average contract rent adjusted to a four-room basis in cities and counties with leasing programs is about $113 per

[7] The 1970 census data available at the time of our analysis were "complete-count" items—items asked of every household in the population. We were not able to obtain data on income, education, or other characteristics which were obtained from only a sample of households.

month. The average leased unit is located in a neighborhood with a rent of $99 per month. Again a significant proportion of the population—more than a third—lives in neighborhoods where the average rent is less than $99.

With respect to racial composition, the overall proportion of blacks is about 10 percent for the cities and counties in which leasing programs are located. The average leased unit is in a census tract where slightly fewer than 20 percent of the households are black. If we choose to define census tracts which are between 10 and 70 percent black as "integrated," then a little less than a quarter of leased units are in integrated tracts, whereas only about an eighth of the population in places with leasing programs lives in "integrated" neighborhoods.

What do these facts imply as to the effect of the leasing program on some hypothetical "index of residential segregation"? It is impossible to say from our data; for our data do not indicate the neighborhoods in which leasing tenants used to live before they joined the leasing program, nor do they indicate the separate locations of white, black, and other households under the program. If the black households under the program formerly lived largely in heavily black neighborhoods, then the program may well have worked to decrease the degree of residential segregation. With the present scale of the program, however, any effect on overall patterns of segregation, whatever its direction, is sure to have been very small.

D. Evaluation of Benefits

One way to measure the tenant benefit when a unit is brought in under the section 23 program is in terms of money. As we shall see in the next section, the typical two-bedroom unit under the program has a market rent of about $123, of which the tenant pays about $56. Thus, the typical tenant of such a unit is receiving a subsidy of at least $67 and possibly more if some of the other housing authority expenditures under the program are providing additional services to the tenant. Amount of subsidy varies with size of unit, though data are not available for constructing a complete table of subsidy amounts by unit size.

The subsidy is largely, but not entirely, earmarked for housing. Probably the tenant was spending more on housing before he entered the program than after; and so the program in effect permits households some increase in expenditure for goods other than housing. We have no measure of the amount of this decline; but $10 to $20 a month is a plausible guess. The rest of the subsidy is then earmarked for housing.

The package of housing services the program provides appears to be valued highly by many tenants and by communities, compared to the value they place on conventional public housing. This is the overall judgment implied by answers to a number of questions we put to the housing authority officials we interviewed. The questions were subjective ones and the answers perhaps influenced by the goals and point of view of housing authorities. But judgments were consistent enough from one authority to another and backed up by concrete evidence in enough cases that we feel the answers deserve to be taken seriously.

The first of these judgments has already been mentioned. It is that units brought in under the leasing program are on the whole maintained in about the same condition as they were when brought under lease,

and that maintenance experience under the leasing program is equal to or better than maintenance under conventional public housing. None of the officials we spoke to judged that leased units were worse maintained than conventional public housing.

The second judgment is the unanimous one that there have been very few problems of community acceptance of the program. The care which a number of authorities obviously exercise in selecting leasing tenants for middle-income neighborhoods suggests to us that there is a potential opposition to leasing in at least some communities which authorities are careful not to activate. But community acceptance of leasing appears distinctly better than acceptance of conventional public housing.

The final set of answers is to the question: "If given a choice, do you think most tenants of conventional public housing would prefer to be under the leasing program, prefer to be where they are, or be indifferent between the two?" The question was asked separately about the elderly and about other tenants. For the elderly, 56 percent were viewed as preferring conventional public housing compared to 4 percent preferring leasing (the rest were mixed (32 percent) or no reply (8 percent)). For other tenants, only 3 percent were viewed as preferring conventional public housing compared to 72 percent preferring leasing (21 percent were viewed as mixed, and for 4 percent there was no reply). In explanation of these judgments, housing authorities regularly reported that new elderly public housing projects are quite popular with tenants; but that families with children place a high value on the anonymity and the existing-neighborhood features of the leasing program. For these families, the Section 23 program appears to be a well-designed package of housing services.

III. Costs of the Program

Perhaps the most striking finding of our work on the leasing program is that costs per unit are substantially less than costs per unit of conventional or turnkey public housing. This section presents evidence to support that finding, focusing on the full cost of a two-bedroom unit in 1971 in an area with local housing costs equal to the average of localities with leasing programs.[8] It first presents estimates of the full cost of leasing then it discusses costs of conventional and turnkey public housing. It concludes with a section on how these costs are allocated among the tenants, HUD, and local and Federal tax revenue losses.

The focus of the section is on the existence of a cost differential. not on the reasons why a differential should exist. Our feeling is that a principal reason for the existence of a differential is that rising incomes and technological changes have produced a relative oversupply of nonluxury but decent housing in older neighborhoods, and that this oversupply has reduced the relative price of such housing. A full treatment of these ideas, however, lies well beyond the scope of this paper.

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[8] "Full cost" in this context means the value of all the resources devoted to supplying a service, as opposed to the cost to one particular participant such as the tenant or HUD. The full cost estimates in this section are higher than earlier, unpublished estimates we made of costs under the leasing, conventional and turnkey programs. The main reasons for the higher estimates are that (1) the new estimates refer to 1971, whereas the old ones referred to 1969, and (2) the new estimates refer to housing costs in the average locality with a leasing program, whereas the old ones referred to an area with housing costs equal to the average for the Nation.

A. The Full Cost Per Month of a Typical Leased Unit

The largest item in the cost of a leased unit is the rent paid by the housing authorities to owners of leased units. Our survey of 38 leasing programs indicates that typical rents of units recently brought under lease vary from under $100 for an efficiency to nearly $190 for a five- or six-bedroom unit. The precise figures appear in table 1. As in the previous section, "typical" here refers to a weighted average of the 36 leasing programs we surveyed with weights designed to produce estimates for the entire program. Rents generally averaged below the "typical" figures in the South and averaged above the "typical" figures in suburban counties.

TABLE 1.—*Typical rents under the section 23 leasing program, spring 1971*

Number of bedrooms:	*Typical rent*
0	$98
1	110
2	123
3	145
4	166
5–6	188

Other costs besides rent paid to landlords can be grouped into three categories. The first is other expenses by local housing authority—for administering the program and for everything else connected with the leasing program. The second is expenditures other than rent paid by tenants;[9] specifically, utility costs not covered in the lease and not paid by housing authorities. The third consists of income tax benefits to landlords (and hence tax loss to the Federal Government) due to accelerated depreciation of rental properties.

Administering the section 23 program costs an average of $12 per unit per month, an average which conceals a good deal of variation from surprisingly high administrative costs in the West to low costs in the South and in New England. Other local housing authority expenses connected with the program include expenses on utilities, maintenance, and certain minor items. Most of the maintenance expense on leased units is paid for by landlords out of the monthly rent; what is being counted here is outlays by housing authorities in addition to rent. Housing authority expenses on these items average $6 per unit per month. Total housing authority expenses other than rent thus work out to $18 per unit per month.

Utilities paid for directly by tenants are estimated at $8 per unit per month. According to our survey, heat and other utilities are covered in the rent for most of the apartments under the program but not for most of the single-family homes under the program. When utilities are not covered in the rent, it is the tenant (rather than the housing authority) who pays in most cases. Our estimate of $8 per unit per month overall is an average of $16 tenant costs per unit per month applied to half of all units and zero tenant costs to the other half.

The final item in the cost of the leased unit consists of the Federal tax revenue foregone because of the accelerated depreciation which landlords are permitted to apply to their properties. In counting this

[9] Rent paid by tenants to local housing authorities serves to cover a portion of housing authority expenses and hence should not be counted in addition to those expenses.

item as part of the full cost of a unit, we are implicitly comparing a section 23 unit with some other form of investment with no special tax benefits; to the extent that no such form exists, the cost of a leased unit is overstated. We estimate that the effect of this provision of the tax law amounts to roughly $5 per unit per month. The estimate depends on a whole string of assumptions about the proportion of landlords benefiting from accelerated depreciation, the amount of "excess" depreciation, the average tax bracket of those who benefit, and so forth. We feel that while our estimate is crude, it is unlikely to be more than a few dollars away from the true figure.

For a two-bedroom unit of leased housing, the sum of these four categories of costs—rent, other LHA expense, tenant utility payments, and income tax revenue foregone—amounts to $154 per month. This figure refers to an average of the areas in which the leasing program is located and refers to early 1971. For a one-bedroom unit, the corresponding figure would be about $15 lower; for a three-bedroom unit, about $25 higher.

B. Full Cost Per Month of Conventional and Turnkey Public Housing

As against the $154 per month estimated cost of leasing a two-bedroom unit, we estimate that the current cost per month of a newly constructed public housing unit is in the neighborhood of $219 per month for conventional construction and $211 for turnkey construction. These estimates present many more problems than the estimate for the leasing program. One source of problems is the fact that under the conventional and turnkey public housing programs units are purchased, and it is therefore necessary to convert the purchase price to a monthly payment. A second source of difficulty is the fact that a much larger portion of the full cost is in the indirect form of foregone tax revenues in the case of conventional and turnkey public housing than in the case of leasing. The foregone tax revenues are of two major types: foregone Federal income tax revenues, due to the tax-exempt character of public housing bonds; and foregone local property tax revenues due to the special arrangements local housing authorities make with the jurisdictions in which they are located.

The estimates of conventional public housing costs presented below refer to a unit newly constructed as of 1971. Of course, units purchased a long time ago often have much lower costs, mainly because they were purchased when construction costs were much lower than they are at present. But for a cost estimate which can serve as a guide to future program expansion, these units purchased in the past are not relevant. It is important, however, to adjust current costs as far as possible for any difference expected in the future trends of costs in a unit brought under lease and a unit newly constructed. The paragraphs below attempt to make such an adjustment.

1. *Development cost.*—The monthly cost of a new unit of public housing consists of (*a*) development costs of the unit (covering site, site improvement, construction, and installed equipment), converted to a monthly basis through the use of some interest rate and timespan; and (*b*) the monthly cost of operating the unit. The development cost

of a four-room unit of conventional public housing is estimated to be $20,500 in 1971, and the corresponding figure for turnkey public housing is estimated to be $19,300. The starting point for these estimates is average development costs per unit by HUD region in 1969, available separately for conventional and turnkey units. These regional averages were converted to a four-room (approximately equivalent to two bedrooms) basis using data on average new-unit size by region. The regions were then combined into a weighted average using as weights the relative importance of the leasing program in each region (in order to make the results comparable to the leasing cost estimates). Finally, the averages were raised by 10 percent to reflect the rise in housing costs from 1969 to 1971.

The interest rate chosen to convert capital costs to an annual basis is 7.5 percent. This is a rate higher than housing authority bonds actually pay; but the housing authority bond yield is artificially low because interest income from this source is tax exempt and because the risk of payment default is practically zero. For evaluating the full cost of public housing it is appropriate to use the rate which the economy normally applies to investment in housing. The figure of 7.5 percent is below the recent FHA secondary market mortgage rate; it represents an average of the high rates of the last 3 years and the somewhat lower rates of the mid-1960's.

Capital costs on an annual basis for a four-room unit of conventional public housing are taken to be the annual payments on a $20,500 loan at 7.5 percent amortized over 40 years (the average term of a housing authority bond issue). These amount to $1,626 or $136 per month.[10] For turnkey public housing, the comparable figure is $128 per month. As detailed below, most of these amounts represent housing authority bond payments; the rest represent tax revenue loss to the Federal Government.

2. *Operating costs.*—The operating costs of a four-room unit of conventional public housing is estimated to be $55.26 per month in early 1969.[11] As in the case of development costs, this estimate is based on averages by HUD region combined with weights reflecting the relative importance of the leasing program in each region. The figure refers to all units, not just new units; but the effect of age on operating cost appears to be quite small. Operating costs have been rising rapidly in recent years; on the basis of data submitted by HUD to the House Subcommittee on Appropriations in 1971, the 1969 estimate has been raised by 12 percent to an estimate of $62 (rounded) for 1971.

To these actual operating expenses must be added the cost to local governments in the form of foregone property tax revenues. The estimate above includes an average of $4 per month paid to local govern-

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[10] The formula relating annual payments, P, to interest rate, r, maturity, m, and loan amount, L, is:

$$P=\left[\frac{r(1+r)^m}{(1+r)^m-1}\right]L$$

[11] The dating in "early" 1969 reflects the fact that the figure is based in part on reports covering 1968.

ments in lieu of taxes. This is far below what would be paid if local housing authorities were subject to the full property tax, and far below what owners of leased existing units actually pay in property taxes. We have used an estimate of 2 percent of $15,000 as the normal property tax equivalent for a two-bedroom public housing unit. The 2 percent is derived from the 1966 Census of Governments survey of property taxes in relation to market values. The $15,000 is below the full development cost of new housing, on the assumption that appraised values for such units, were they to pay full property taxes, would be influenced by the general value of units in the neighborhood.

The normal property tax on a two-bedroom public housing unit of the kind constructed for the public housing program is thus estimated at $300 per year or $25 per month. Foregone property taxes are equal to this $25 less the $4 actually paid by local authorities, or $21 per unit per month.

3. *Total monthly cost.*—The full monthly cost of a four-room unit of conventional housing as of 1971 is equal to the capital cost of $136 plus the actual operating cost of $62 plus the foregone property tax revenue of $21. These three add up to $219 per month. For turnkey public housing using a lower capital cost but the same other cost components yields a total of $211 per month. Thus, a two-bedroom unit of newly constructed housing currently costs about $211–$219 per month or about 40 percent higher than the $154 of a typical unit under the leasing program.

A limitation of these figures is that they refer to 1 year only. If our interest is in providing adequate housing over a period of years, it is necessary to consider how costs are likely to change over a time for a unit initially leased in 1971 and for a conventional or turnkey unit initially constructed in 1971.

Costs are likely to rise in both cases. For the leased unit they are likely to rise mainly because of the general upward trend in market rents. For newly constructed units they are likely to rise because of the upward trend in prices of operating inputs—managerial and maintenance labor, materials, and supplies. The provision of Federal operating subsidies in recent legislation is likely to raise costs in both cases, though probably more for conventional or turnkey units than for leased units. The existence of wage and price controls may hold down costs in both cases, but experience with controls is too limited so far to guess as to their effects. The capital costs of a newly constructed unit are fixed at the time of construction; and so conventional and turnkey public housing have the advantage that the capital component of their cost is not subject to increase in the future.

Allowing for probable cost increases in the future reduces the cost differential below the 40 percent of the first year, but does not eliminate the differential. How much the differential is reduced depends on how much costs are estimated to rise under the two programs and on how much weight we give to the far future as compared to the present and near future. Under plausible ranges of assumptions, the excess of

conventional and turnkey costs over leasing costs is reduced from 40 percent to 18–35 percent when account is taken of future costs.[12]

C. The Allocation of Costs

The costs of public housing are paid for by four groups. There are first of all, tenants who make monthly rent payments to housing authorities related to income and family size, and who in some cases pay directly for heat and other utilities. There is secondly, the Department of Housing and Urban Development (HUD) which arranges for payments to be made on housing authority bonds, makes contributions to local housing authorities to pay for a portion of leasing expenses, and subsidizes a portion of operating costs of local housing authorities. Thirdly, there are the localities (and their taxpayers) which forego property tax revenue when housing investment takes the form of conventional or turnkey public units rather than leasing or other forms. Finally, there is the Federal Government (and its taxpayers) apart from HUD, which loses income tax revenue when tax exempt public housing bonds rather than other financial instruments are issued and when accelerated depreciation is taken on rental housing rather than income being generated in some other form.

Table 2 summarizes our estimates of how costs are allocated among the four groups. The word "estimates" deserves emphasis; for data are simply not available to calculate many of the costs with any precision. Furthermore, the estimates refer to first-year costs, not lifetime costs; and they take no account of effects of the public housing program itself on housing costs, interest rates, or other magnitudes. Table 2 should therefore be interpreted as no more than a rough guide to orders of magnitude.

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[12] To take account of future costs, we constructed estimates of the "discounted present value" of costs over the next 40 years for a leased unit, a unit of conventional public housing, and a unit of turnkey public housing. We made two sets of assumptions about costs: (a) leasing costs will rise by 3 percent per year and public housing operating costs by 5 percent per year and (b) leasing costs will rise by 5 percent per year and public housing operating costs by 7 percent per year. Capital costs of units already purchased will not rise at all, of course; when account is taken of this fact, then it turns out that both (a) and (b) imply a faster rise in total leasing costs than in total conventional or turnkey costs.

At a discount rate of 7.5 percent, these assumptions lead to the following discounted values:

	(*a*)	(*b*)
Leasing	$36,100	$48,500
Conventional	48,200	58,500
Turnkey	46,900	57,200

At a discount rate of 10 percent, the assumptions lead to these somewhat lower discounted values:

	(*a*)	(*b*)
Leasing	$26,900	$34,700
Conventional	36,200	42,000
Turnkey	35,200	41,000

The excess of conventional and turnkey discounted costs over leasing discounted costs ranges from 18 percent to 35 percent in these estimates.

TABLE 2.—COST ALLOCATION; SEC. 23, CONVENTIONAL, AND TURNKEY PUBLIC HOUSING

	Sec. 23	Conventional	Turnkey
Total cost per unit per month	$154	$219	$211
Tenant payments:			
Rent	56	54	54
Utilities	8		
HUD Payments:			
Housing bonds		106	100
Annual leasing contribution	84		
Operating subsidies	1	8	8
Local tax revenue foregone:			
Property tax loss		21	21
Federal tax revenue foregone:			
Accelerated depreciation	5		
Interest differential due to tax exemption		30	28
Total tax loss		(36)	(34)

Note: These estimates refer to a 2-bedroom unit brought under lease or newly constructed in 1971 in an area with cost levels equal to the average for localities with sec. 23 programs.

Tenant costs, even apart from extra utility payments, are estimated as slightly higher under the leasing program than under conventional public housing, because of indications that the income of leasing tenants is slightly above the average for public housing. Tenant utility payments, as discussed earlier, are estimated as $16 per month for half of leasing tenants and zero for the other half. In all, tenants pay for about two-fifths of the full cost of leased units and about a quarter of the full cost of other public housing.

Payments by HUD are estimated as higher for conventional and turnkey public housing than for leasing, though by a smaller margin than the differential in total costs. Payments on housing bonds are figured on the basis of a 5.5 percent 40-year bond for $20,500 (conventional units) and $19,300 (turnkey unit). HUD annual contributions for leasing are estimated as a residual between total leasing costs and payments by other groups. Operating subsidies for the three kinds of units are rough estimates based on recent experience. They should be interpreted as subsidies net of any increase in LHA reserves, though the average amount of such increase has been too small recently to make any significant difference in the figures.

Local tax revenue foregone is the difference between a property tax which a newly constructed unit of public housing might be expected to pay if it were subject to normal taxation and the actual average payment in lieu of taxes. The implied standard of comparison for public housing here is thus private housing investment, such as existing housing under the leasing program.

Finally, Federal tax revenue foregone arises from two different sources. One is the accelerated depreciation advantage to owners of leased housing, discussed earlier. The other is the tax-exempt and low-risk character of public housing bonds. The interest differential due to these features of public housing bonds is estimated as the difference between total payments on a 7.5 mortgage and payments on a 5.5-percent housing authority bond.

There is convincing evidence that the income tax revenue actually foregone when investment is financed by a tax-exempt bond is somewhat greater than this net reduction in interest payments.[13] The

[13] Ott and Meltzer, *Federal Tax Treatment of State and Local Securities*, The Brookings Institution, 1963, ch. 5.

figures in parentheses at the bottom of the table are based on the assumption that the tax loss is 20 percent greater than the net reduction in interest payments, the difference being in effect a transfer payment from the Federal Government to bondholders. If the figures in parentheses are accurate, then the sum of all payments on conventional and turnkey public housing add up to more than the total costs on the top line, since the financing method used involves a small additional subsidy to holders of public housing bonds.

In summary, table 2 suggests that tenants pay slightly more for a typical leased unit than they do for a typical conventional or turnkey unit; that HUD pays somewhat more for a conventional or turnkey unit than for a leased unit; and that local and Federal taxpayers bear a significant share of the cost differential between a leased unit and a conventional or turnkey unit.

IV. Some Policy Questions

The theme of this paper is that the section 23 program has made relatively successful use of the existing stock and existing neighborhoods. The program is able, at least at its present scale of operation. to provide decent housing at lower costs than other programs, to provide an environment which nonelderly families (though not elderly persons) appear to prefer to conventional public housing projects, to acquire units rapidly, to maintain them in generally good condition, and to arouse a minimum of community opposition. With these conclusions as a background, we now examine a number of changes in the program which have been suggested or in some cases are taking place.

A. Alternative Goals for the Program

The section 23 program to date has followed the primary goal of finding decent housing at moderate cost for low-income households. That goal is broad enough to leave room for difference of emphasis from one locality to another—emphasis on the elderly for example, versus emphasis on families with children. But the goal does limit the degree to which the program can emphasize new construction, can promote racial or economic integration, or can attempt to stem housing deterioration in older parts of cities. These three alternative possible goals are the subjects of the paragraphs below.

The goal of maximizing the degree to which the program adds to the new supply of housing is one to which HUD has given increasing weight recently. Naturally, this alternative goal would direct the program away from the existing stock of housing and toward newly constructed dwellings or major rehabilitation. The program already makes some use of new construction and major rehabilitation, and an expanded program would perhaps use them more even without any change from the present primary goal. But heavy emphasis on a new supply goal could bring about major changes in the program.

Findings of this paper point up some possible dangers of a major shift toward new construction. The effect of the program on maintenance or upgrading of the existing stock would be reduced. The cost and timing advantages of the program might also be reduced if these advantages derive from the use of the existing stock of older dwellings. Finally, a new construction emphasis which involved

clusters of units could reduce the scattered site and anonymity advantages of the program.

Since the mechanics of the section 23 program make it well suited as a locational subsidy, two alternative possible goals of the program have to do with location rather than housing type. One such goal is to encourage racial or economic integration. The other is to attempt to support housing demand in deteriorating or grey areas of cities by leasing in those areas. The program has in fact had effects in both these directions; but our feeling is that the effects to date have been largely incidental to the search for improved housing for low-income tenants at moderate rents.

It is hard to know how much the operation of the program would change if one or both of these goals were emphasized more. It is worth pointing out, however, that these two locational goals point in opposite directions in many of their implications. Using the program to encourage integration would probably divert resources away from certain deteriorating neighborhoods and might carry the danger of arousing community opposition. Using the program to support rental demand in grey areas might minimize the amount of integration achieved, but it is hard to see how such a use would arouse any community opposition. Giving some weight to both these locational goals might result in much the same program that we now have.

B. Efficient Operation of the Program

An issue which we feel deserves more thought is the fragmentation of housing authorities in many large metropolitan areas. Typically there are four or more separate housing authorities in a large area, each operating within its own jurisdiction. In addition, there are usually areas not within the jurisdiction of any housing authority. Clearly, these geographic restrictions limit the effectiveness of the leasing program. A housing authority in one jurisdiction cannot take advantage of housing bargains or convenient locations elsewhere, nor can a housing authority meet its emergency needs (relocation families, for example) by looking for units outside of its territory.

Discussion of the legal problems of leasing across jurisdictional boundaries is beyond our competence. Apart from any legal obstacles, there does appear to be a danger of increased community opposition to the program if wider geographic coverage brings with it an influx, or the possibility of an influx of low-income outsiders into middle-income communities. Nevertheless, we feel there are instances in which wider geographic coverage of the program can increase its effectiveness without significantly increasing community opposition.

Another possible operational change which the leasing program could make is to move in the direction of a housing allowance or even a general income assistance program. To move in this direction the section 23 program would have to encourage tenants to locate their own units and would have to minimize the role of the housing authority in inspecting units and in paying or collecting rents. Housing authorities could even stop attempting to channel the subsidy into housing rather than other goods and services, though they would not need to give up this earmarking requirement even if they reduced their role in searching for units and negotiating leases.

At present, we can do no more than speculate as to the effect of such a change. On the one hand, a move toward a housing allowance might reduce administrative costs and might reduce rents paid to landlords in instances where housing authorities are paying more than the market rent of a unit (we made no attempt to detect such instances in our survey and have no judgment as to how significant they may be). On the other hand, a move toward a housing allowance might mean losing the benefit of housing authority expertise in locating units and in negotiating about rents and lease provisions. It might also increase the risk to landlords of rent delinquency and cause higher security deposits or other charges to cover that risk. Possibly the housing allowance experiment now under design at the Department of Housing and Urban Development will permit some comparison of an allowance approach with the present section 23 approach.

C. The Scale of the Program

The most serious deficiency in our present understanding of the section 23 program is our ignorance about the responsiveness of supply. The scale of the section 23 program in any one locality has been too small to date to test how a significant increase in effective demand affects housing services and rent levels. We don't know the extent to which the program adds to the supply of housing services through stimulating better maintenance or through causing chains of moves which eventually result in more demand for new construction. Not knowing the size of these effects, we can't compare section 23 and other housing programs with respect to effects on housing supply.

One indication that housing services may adjust readily to effective demand is the fact that the majority of existing units under the program have work done on them in addition to normal cleaning and painting before being accepted for leasing. On the other hand, almost all of the authorities we visited felt that they would have an extremely difficult time finding additional, suitable four- to six-bedroom units at any rents they could afford to pay; and this response seems consistent with an inelastic supply at least for these large units (responses were much more encouraging for smaller units).

Statistical research on the elasticity-of-supply question suggests that rents might be driven up in relation to services provided even in the long run by an increase in the effective demand for rental housing such as a large expansion of the leasing program would cause.[14] The results of the statistical work are at presently highly tentative, however, and will remain so until a great deal of additional empirical analysis is completed.

Decisions about the future course of the leasing program cannot be postponed until this research is complete. Researchers, however, may be excused for concluding this report with the observation that if there is to be a substantial expansion of the leasing program, careful observation of the expansion in certain communities might prove an excellent way to help settle the question of how responsive the quantity of housing services is to expansion of demand.

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[14] See Frank de Leeuw and Nkanta F. Ekanem, "The Supply of Rental Housing," *American Economic Review*, December 1971.

Appendix

LOCATIONS OF LOCAL HOUSING AUTHORITIES INTERVIEWED

Georgia:
- Atlanta
- Decatur
- Hampton
- Lithonia

Massachusetts:
- Boston
- Cambridge
- Fall River
- New Bedford
- Waltham
- Medford
- Quincy
- Malden
- Lynn
- Brockton
- Brookline
- Newton

Minnesota:
- St. Paul
- Minneapolis
- Duluth

California:
- San Francisco
- Oakland
- Sacramento
- Richmond
- Contra Costa County
- San Mateo County
- San Joaquin County
- Vallejo
- San Jose
- Berkeley
- Santa Clara County
- Pittsburg

Indiana:
- Gary
- South Bend

Maryland and Virginia:
- Montgomery County, Md.
- Prince Georges County, Md.
- Richmond, Va.

FEDERAL HOUSING CREDIT PROGRAMS: COSTS, BENEFITS, AND INTERACTIONS

By Rudolph G. Penner* *and* William L. Silber**

Summary and Conclusions

This paper attempts to provide a conceptual framework for the study of the effectiveness of Government credit programs. Using housing credit programs as an example, we emphasize the fact that the social costs of most credit programs are generally very different from their budget costs, and further we show that the conditions which make interest subsidies effective are opposite to those which increase the effectiveness of direct lending and portfolio restrictions. In addition, the interactions between programs are explored, and it is shown that various guarantee and insurance programs and secondary market operations enhance the impact of explicit interest subsidy programs while detracting from the effectiveness of portfolio restrictions and direct lending.

Because the conditions which make some programs effective are opposite to those determining the effectiveness of other programs and because we know little about the conditions which actually prevail in credit markets, it makes good sense to aim a diversified set of programs at a particular sector if one wishes to be sure of influencing its relative size. However, as Government tries to increase credit flows to a large number of different sectors, the programs begin to work against each other, as one subsidized sector begins to draw credit resources away from other subsidized sectors. This indicates the need to carefully coordinate credit programs with each other and with the regular spending activities of Government. In the past, credit programs have not received the attention that they deserve because they usually impose relatively small budget costs. However, it is likely that they impose gross social costs far in excess of their budget costs, and for this reason, we suggest that the Office of Management and Budget should take a more active role in this coordination and planning. The task might be facilitated by the complete privatization of credit agencies wherever possible. Implicit subsidies represented by lines of credit and other devices should be eliminated for such agencies and where Government still wished to influence the pattern of private economic activity this could be accomplished with explicit subsidies. Because such subsidies would appear in the budget there would be more of an incentive to monitor them carefully.

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I. Introduction

In recent years there has been an explosion in the number and size of Federal credit programs. Total direct lending and other Federally assisted credit is expected to grow from $13.2 billion in fiscal 1969 to $31 billion in fiscal 1972, or at an annual growth rate of almost 33 percent.[1] In addition, Federal and State Governments influence the flow of funds with a variety of restrictions on financial intermediaries. Consequently, the allocation of a very large portion of the total flow of funds through credit markets is directly affected by some sort of Government credit policy. Housing is the most important beneficiary of credit assistance, and in fiscal 1972 it is expected that 80 percent of the loans guaranteed and insured by Government and about two-thirds of direct and Government-sponsored lending will be directed toward this sector.

There have been a number of excellent studies of housing and other credit programs,[2] but the emphasis has been on their effect on aggregate demand and on their ability to insulate particular sectors from shifts in monetary policy. Moreover, there has been a tendency to study individual programs separately without a detailed analysis of the interactions among various forms of credit assistance. This paper will examine these interactions and discuss their importance in determining the effectiveness of credit programs in reallocating resources in a full employment economy. To do this it will be necessary to outline the conditions determining the effectiveness of individual programs considered in isolation, and here our efforts depend heavily on the prior work of Break,[3] Guttentag,[4] and Rao and Kaminow.[5] There will be no attempt to provide a detailed study of the distributional impact of various programs despite the importance of this topic.

Government possesses a large number of policy instruments which can be used to expand housing construction. All real inputs can be subsidized equally; the consumer can be subsidized; or particular inputs can be subsidized. If housing requires a subsidy because it confers social benefits in excess of private benefits, it is generally believed that, in the absence of market imperfections, a uniform subsidy to all of the costs of producers or consumers is more efficient than a subsidy to particular inputs. However, where imperfections exist in input markets, input subsidies can be justified, even if housing does not produce beneficial externalities.

The U.S. Government utilizes virtually every possible type of subsidy. The costs of public housing are generously subsidized; particular consumers receive rent supplements; and various manpower programs train construction workers. But the widest array of pro-

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[1] U.S. Executive Office of the President. *Special Analysis Budget of the United States Government, 1972*, p. 82. above totals do not include direct lending contained in the expenditure account of the budget.

[2] See the two Commission on Money and Credit volumes, *Federal Credit Programs* and *Federal Credit Agencies*, Prentice-Hall, Inc., Englewood Cliffs, N.J., 1963; George F. Break, *Federal Lending and Economic Stability*, Brookings Institution, Washington, 1965; George F. Break, *The Economic Impact of Federal Loan Insurance*, National Planning Association, Washington, 1961; R. J. Saulnier, Harold G. Halcow and Neil Jacoby, *Federal Lending and Loan Insurance*, Princeton University Press, Princeton, 1958: and Charles M. Haar, *Federal Credit and Private Housing*, McGraw-Hill, New York, 1960.

[3] George F. Break, *Federal Lending . . .*, op. cit., and *The EconomicImpact . . .*, op. cit.

[4] Jack M. Guttentag, "The Federal National Mortgage Association," *Federal Credit Agencies*, pp. 97-104.

[5] D.C. Rao and Ira Kaminow, "Selective Credit Controls, and the Real Investment Mix: A General Equilibrium Approach," unpublished manuscript, Federal Reserve Bank of Philadelphia.

grams focuses on subsidizing credit inputs. It is not always clear whether this emphasis on credit assistance is due to the policymakers' belief that mortgage markets are highly imperfect, or whether Government has simply chosen a convenient, seemingly low cost, technique for expanding housing construction beyond the levels attainable in perfect markets. The latter possibility is quite plausible, because many credit programs can be implemented at low budget cost, even though they may impose significant social costs. Frequently, this makes them very attractive to decisionmakers who have a tendency to discount hidden social costs heavily.[6] On the other hand, identifiable imperfections do exist in mortgage markets and these will be explored in the following discussion of particular programs. Unfortunately, the complexity of the problem frequently makes it impossible to say whether existing programs over or undercompensate for these imperfections.

At full employment, credit flows to housing can only be increased by reducing the flow of savings available to other sectors or by reducing consumption. The gross social cost of a program includes first, the value of the social return that these resources would have provided in other sectors; second, the cost of the inefficiencies created by the Government regulations or restrictions required to implement the program; third, the administrative costs of the program; and fourth, the cost of the distortions created by the taxes or debt issues needed to finance the program if it imposes budget costs. The first and second sets of costs are most important and they will be emphasized in this paper. Only a qualitative description is possible, since quantitative estimates would require an enormous research effort and may not even be conceptually possible given the current state of the art.[7]

The gross social benefit of a program consists of the private benefit plus the value of the beneficial externalities accruing from the resulting addition to the housing stock. While market data might be used to evaluate private benefits, the evaluation of beneficial externalities depends heavily on political value judgments, and there is no attempt to discuss their characteristics in this paper. We confine our efforts to a discussion of the conditions determining a program's impact on the housing stock and we do not attempt to evaluate the social benefits which result.

Assumptions Underlying the Analysis

1. It is assumed that there is a significant inverse relationship between the mortgage rate of interest and the real demand for housing. This relationship tends to be weakened by the fact that the typical consumer is able to draw on a variety of credit sources. Although one liability might be labeled "mortgage" and another "consumer loan," various types of credit are substitutable and it is not always possible to associate a particular source of credit with the acquisition of a particular asset. Consequently, there is a danger that the main effect of a program which lowers mortgage rates will be to induce a consumer to substitute mortgage borrowing for other forms of credit without greatly increasing his demand for housing. Some would argue that housing credit programs are relatively ineffective for this

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[6] Dick Netzer suggests this explanation for the concentration on credit programs. See *Economics and Urban Problems*, Basic Book, New York, 1970, p. 84.

[7] Arnold C. Harberger has suggested that economists agree on a more or less arbitrary set of assumptions which would allow quantitative measures of social costs and benefits much as they now accept arbitrary techniques for measuring GNP. See "Three Basic Postulates for Applied Welfare Economics: An Interpretive Essay," *Journal of Economic Literature*, vol. IX, No. 3 (September 1971), pp. 785–797.

reason.[8] Although we admit this possibility, it is not analyzed in this paper. Instead, we confine our efforts to an analysis of the conditions determining a particular program's impact on the mortgage rate of interest, and we accept the assumption implicit in all housing credit programs, that is, housing demand is affected significantly by changes in that rate.

2. For the most part, the analysis proceeds as though the rates of return on nonhousing real assets and nonmortgage financial securities are constant. In fact, other rates of return are constantly changing and an individual will examine the whole spectrum of real and financial rates of return in deciding the optimum amount of housing in his portfolio. However, the relative change in mortgage rates will be of prime importance and it is this change which is emphasized in all that follows.

3. Most programs are only available to particular groups in the population, such as veterans, poor people, and so forth. Different groups will have different elasticities of demand for housing with respect to the mortgage rate, and this will be an important determinant of the relative effectiveness of different programs. A detailed comparison of elasticities is beyond the scope of this paper and may be impossible given the limitations of existing data. Therefore, the analysis proceeds as though the effectiveness of programs is related solely to their ability to lower the mortgage rate of interest paid by the borrower. It must be remembered that some conclusions may have to be modified because a small fall in the relative borrowing rate to one group may stimulate more additional housing than would a larger fall to some other group.

4. It is assumed that various Government programs are well managed and pursue an optimum strategy in trying to achieve their stated goals. For example, we ask what conditions determine whether a well-run secondary market will have a positive impact on the supply of credit. We do not ask whether the actual secondary market is, in fact, well managed. Recent disclosure of management problems in some of the housing programs add greatly to the significance of this assumption.

5. For simplicity of language, we refer to the mortgage rate of interest as though it was the only determinant of the supply and demand for mortgage funds. The amortization period and the loan-value ratio are other important components of a mortgage's credit terms, and we use the phrase "rate of interest" as a proxy for some composite credit terms variable.

Classification of Programs

Credit policies can be classified in the following manner:

I. Policies providing explicit interest subsidies. Typically, a subsidy lowers the rate of interest paid by the borrower while raising the rate of interest received by the lender.[9]

II. Policies which lower the rate of interest paid by the borrower by increasing lenders' demand for mortgages at all interest rates, but which do not insert a wedge between the contract rate paid by the borrower and that received by the lender. Two very different

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[8] See D. Hodgman, "Selective Credit Controls," *Journal of Money, Credit, and Banking*, forthcoming, for a discussion of the problems encountered by selective credit controls due to the lack of a firm tie between the type of credit instrument used and real economic activity.

[9] It is assumed that neither the supply nor demand curves for funds is perfectly elastic or inelastic.

techniques are used in pursuit of this goal: (*a*) There are programs which change the characteristics of the mortgage instrument so that it becomes a more desirable asset. For example, the lender's risk is lowered by Government insurance and guarantee programs and by making mortgages more liquid through the creation of Government sponsored secondary markets. (*b*) There are policies which increase the demand for mortgages at all interest rates without changing their characteristics. Government can purchase mortgages directly or it can impose portfolio restrictions which force financial institutions to hold mortgages instead of other securities.

The analysis of each class of programs will be divided into subsections. First, a description of the characteristics of the most important, existing programs is provided. Second, we analyze the conditions determining the impact and costs of particular programs when they are considered in isolation. Third, the main interactions between programs are described. Because most programs have some influence on the effectiveness of all other programs, it would be repetitious to describe all of the main lines of interaction under each program classification. Therefore, under each classification, we examine only the relationships between the programs being discussed and the programs described in earlier sections. In this way a complete inventory of the major lines of interaction is accumulated as the analysis proceeds.

II. Explicit Interest Subsidies

Major programs.—Currently, a variety of programs provide differing subsidies to different groups in the population. Sections 235 and 236 of the Housing and Urban Development Act of 1968 provide for interest subsidies on FHA and VA mortgages for low-income single- and multifamily housing. In 1970 housing starts under these programs totaled 116,000 units, and budget requests for fiscal 1972 amount to $350 million. Needless to say, it does not follow that the program increased housing construction by 116,000 units in 1970. Many of these units would have been constructed in the absence of a subsidy, and therefore, the addition to the housing stock directly resulting from these programs is much smaller than the number of units actually receiving a subsidy.

An indirect subsidy is provided by the Federal Home Loan Bank (FHLB) under title I of the Emergency Home Finance Act of 1970 which subsidizes the mortgage rate charged by savings and loan institutions. For fiscal 1972, they requested budget authority of $85 million.

A more complicated subsidy program is administered by the Government National Mortgage Association (GNMA). It buys FHA–VA mortgages at par (or some specific discount) when the effective market rate of interest is above the ceiling rate applied to such mortgages. Subsequently, GNMA sells the mortgages at a discount to the Federal National Mortgage Association (FNMA) and in absorbing a capital loss, it provides an equivalent subsidy. This program is known as the "tandem plan," and it insures that the borrower will not be forced to pay discount points on the FHA–VA mortgages.[10] In yet another program the Emergency Home Finance Act of 1970 authorizes subsidies

[10] Although the borrower is not permitted to pay points on an FHA–VA loan, the homebuilder usually arranges the mortgage and sometimes he gets "points" by charging a higher price for the house.

for middle-income families, but this program has not yet been implemented.

In addition to the explicit subsidies provided by various Government and Government-sponsored institutions, the deductibility of mortgage interest from the taxable income of homeowners lowers the cost of a mortgage by an amount which varies according to a person's tax bracket. If the imputed rental income derived from homeownership was taxed, the mortgage interest deduction could be considered a legitimate business expense, but since the income from owner-occupied housing is tax free, the deductibility of mortgage interest must be considered a true subsidy.[11]

Direct impact and costs.—If an interest subsidy is given to borrowers, the interest rate that they are willing to pay a lender for a given amount of funds exceeds the rate that they are willing to bear themselves by the amount of the subsidy. From the point of view of lenders, the demand curve for funds shifts upward. The resulting increase in the supply of funds will depend on the extent to which an increase in the mortgage rate of interest causes investors to shift out of other assets and into mortgages. If the subsidized security is similar to non-subsidized securities in the type of risk and other characteristics which it possesses, a large shift can be expected. In this case, it is said that the subsidized mortgage is highly substitutable for other securities, and the supply of funds will be highly interest elastic. If the degree of substitutability is low, the interest subsidy will have less of an impact on the volume of credit, or in other words, a higher budget outlay will be necessary to achieve a given increase in mortgage credit.[12]

Where the investor is a financial intermediary, the degree of substitutability between the liabilities it offers the public and other securities is also relevant. A higher rate of return on mortgages will allow it to pay a higher rate of return to its creditors and if this induces a large inflow of funds into intermediaries which specialize in mortgages, the effectiveness of the interest subsidy will be increased.

Because existing programs provide different subsidies to different groups in the population and because different mortgages are likely to be good substitutes for each other in the portfolio of investors, one would expect that the main effect of a differential subsidy program would be to draw funds away from mortgages receiving lesser subsidies and toward those receiving high subsidies. This will push up the lender's rate of return on mortgages receiving little or no subsidy, and some, but not all, of the funds drawn away will be replaced by funds flowing in from other security markets, the amount of replacement again depending directly on the degree of substitutability between the relevant securities. There will, of course, also be a direct flow of funds from other security markets to the subsidized mortgages.

Occasionally, the subsidized mortgage may have special characteristics which make it a poor substitute for both other mortgages and other securities. For example, the risk of default on a mortgage issued to the very poor may be considered to be very high, and because of the special characteristics of mortgages it may be considered a poor substitute for other high risk securities. Then, the supply curve of funds to this market will be quite inelastic and the main effect of the subsidy

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[11] Of course, the lender pays a tax on interest received, so that his after-tax return may be lower than the after-tax burden on the borrower. In this case, it might be said that the wedge is negative, but it is not as highly negative as it would be if interest deduction were disallowed by the personal income tax.

[12] This condition as well as others to be discussed below are examined more rigorously in our paper "The Interaction Between Federal Credit Programs and the Impact on the Allocation of Credit."

will be to drive up the rate of return to the lender without greatly increasing the volume of lending.

Because most explicit subsidy programs have been in effect only for a relatively short time period, empirical estimates of their effectiveness are not yet available. Indirect estimates could be made if reliable estimates of the elasticity of the supply of funds and demand for houses existed for subsidized groups. However, even studies of the aggregate demand for housing provide widely different results,[13] and, in any case, the elasticities pertinent to the groups being subsidized may differ significantly from those estimated for the whole economy. Moreover, the elasticity of substitution between mortgages and other securities is a vitally important determinant of the elasticity of supply, and as will be shown later, other programs are constantly changing the degree of substitution between securities. Therefore, a program which is relatively ineffective at one point in time may have a significant impact at a later date. This makes it extremely difficult to design statistical studies of the problem.

Because an interest subsidy increases borrowing to a point where the interest rate paid to the lender exceeds the marginal private benefits of additional funds, it can only be justified if the lender's interest rate exceeds the marginal social cost of funds because of imperfections in the capital market or if the addition to housing credit provides social benefits in excess of private benefits. If the subsidy overcompensates for these discrepancies, it will create inefficiencies in the allocation of resources, and it is, of course, possible to make the situation worse than if no subsidy program had been implemented.

It is important to note that the budget costs of a program are a poor reflection of its gross social costs. A part of the subsidy will apply to borrowing which would have occurred even in the absence of a subsidy program. This provides a windfall which is divided between borrowers and lenders in a manner determined by the elasticities of the supply and demand for mortgage funds. This windfall is simply a transfer payment to the borrowers and lenders paid for out of Government funds. The only social costs incurred by this transfer result from the inefficiencies in resource allocation created by the additional taxes or borrowing needed to finance it. These inefficiencies are likely to be minor relative to the budget cost of the program and the major social cost of a subsidy is the benefit which the additional funds drawn to the mortgage market would have provided in other sectors of the economy.

III. Programs Which Lower Both the Borrower's and Lender's Interest Rate

A. Guarantees and Insurance

Major programs.—Currently, the Government provides a multitude of insurance and guarantee programs, only a few of which can be described here. The Veterans' Administration guarantees loans to eligible veterans free of charge. In fiscal 1972, it is expected that the number of loans guaranteed will rise to 265,000 from 235,000 in 1971. Total guarantees outstanding at the end of 1972 will amount to approximately $39.4 billion. The FHA has 40 major insurance pro-

[13] For a brief summary of some earlier results, see David S. Huang, "Further Analysis of Residential Mortgage Credit Flows," unpublished paper, p. 14.

grams, most of which charge a fee for the insurance provided. However, the fee may be somewhat smaller than would be necessary if the insurance was provided privately, because Congress has provided the FHA with backup reserves in case its own resources are exhausted. As of June 30, 1970, FHA insurance covered 6.3 million contracts worth $68.5 billion.

The programs described above directly insure or guarantee mortgages. In an indirect program, GNMA guarantees securities issued to private investors by institutions holding FHA–VA mortgages. The FHA–VA mortgages act as collateral. During 1970, $441 million of securities were guaranteed under this program.

Direct impact and costs.—A guarantee or insurance program eliminates almost all of the risk of default generally covering up to 90 percent of any losses. If no subsidy is provided for the guarantee or insurance program, that is to say, the Government charges a fee or premium equal to expected losses plus administrative expenses, the impact is identical to that of privately provided insurance. The lender is offered the opportunity of making a certain premium payment in order to avoid a large share of the risk of default. Even though the premium cost exceeds the expected value of the risk of default by the amount of administrative costs, the fact that many lenders are willing to bear this extra cost in return for a reduction in risk indicates that the program has made particular mortgages more attractive, and more funds will be attracted to mortgage markets.

It is not clear whether the major FHA programs are completely without subsidy. Previously, it was noted that the backup reserves provided by Government should allow premiums to be lower than those which would be required by a private insurance firm. In fact, the existing premiums have more than covered losses and administrative expenses; paid-in reserves have accumulated over time; and it has not been necessary to draw on the backup reserves. It might be argued that the backup reserves are still necessary to cover the possibility of large scale defaults in the event of a major recession, but the fact that a significant surplus now exists raises the possibility that the programs are not subsidized and that they could be taken over by private firms. It is not surprising that a vigorous private market has not risen to compete with Government, because the latter has a large number of advantages over private firms. Its vast resources facilitate a higher degree of diversification than is possible privately. Moreover, it is unlikely that Government would fail to honor its obligations, whereas this possibility cannot be ruled out for a private firm. In addition, the Government is better able to absorb the risk represented by moral hazard, that is, the risk that the insured or guaranteed lender is likely to be more careless in selecting his debtors than one who is uninsured.[14] For these reasons significant public and private programs are unlikely to coexist, and since Government got a headstart in the 1930's, it would take a major institutional reform to develop a vigorous private market.

Obviously, a subsidized guarantee or insurance program will have a larger impact on mortgage markets than one which is not subsidized, but it is interesting to note that if administrative costs are ignored,

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[14] For a more extensive discussion of this problem, see Kenneth J. Arrow, "The Organization of Economic Activity: Issues Pertinent to the Choice of Market Versus Nonmarket Allocation," published in Joint Economic Committee, *The Analysis and Evaluation of Public Expenditures: The PPB System*, vol. 1, U.S. Government Printing Office, 1969, p. 55.

a subsidized guarantee or insurance program will have more of an impact on mortgage markets per dollar of net budget outlay than an interest subsidy. This is easy to see intuitively because guarantees and insurance financed by fees can have a beneficial impact on mortgage markets without imposing any budget costs at all, whereas interest subsidies must always impose budget costs in order to have an impact. Put more precisely, if administrative costs are ignored, the costs of providing either an interest subsidy or a subsidized guarantee on a particular mortgage are measured by the extent to which the lender's expected return on that mortgage is raised. However, the guarantee increases the expected rate of return by eliminating a part of the negative portion of the probability distribution of returns, whereas a subsidy moves the entire probability distribution rightward with little effect on its variance.[15] Consequently, a guarantee or insurance program increases the desirability of a particular mortgage to the normal, risk-averting lender much more than a subsidy with the same expected cost.

While the budget cost of the typical guarantee or insurance program is relatively low or nonexistent, the social cost is more difficult to assess. Where a fee is charged which covers expected losses and administrative expenses, the Government is simply using its vast resources to pool risks. Some would argue that Government should encourage all risky investments in similar ways, but this controversial issue need not be confronted in this paper. Even if the view that Government should encourage risk taking is accepted in theory, the fact is that Government does not provide guarantees and insurance to all risky investment. Therefore, in encouraging risk taking in housing, it is reducing the amount of credit available for risk taking in other fields. While the total amount of risk taking in society may still go up, this result is not certain.[16] Consequently, it is dangerous to justify guarantee and insurance programs on the grounds that Government is taking appropriate steps to encourage risky investments.

This does not necessarily mean that guarantees and insurance are socially inferior to explicit interest subsidies as a means of encouraging housing. The pattern of housing encouraged by the two programs will differ significantly with the former being more favorable to riskier housing investments. Likewise, the nature of the credit flows drawn away from other sectors by the two programs will differ significantly. In other words, different programs provide society with quite different real investment portfolios, but there are no obvious reasons for preferring the portfolio resulting from guarantees to the one resulting from interest subsidies. The fact that guarantees and insurance have a more significant impact on housing than an interest subsidy with the same expected budget cost is a point in their favor, because the tax rates and consequent economic distortions will be lower for any increase in housing demand. However, this is a minor point which can easily be

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[15] An interest subsidy will lower the variance a little, because it lowers the interest burden on the borrower and hence slightly lowers the probability of default. However, a significant probability of loss remains. It must be emphasized that the discussion pertains to the effect of different programs on a particular mortgage. As a result of the programs the mix of mortgages will be altered significantly. Some individuals who could not afford houses previously will now become mortgagees and they may be high-risk borrowers. Others will buy larger houses than they would have in the absence of the programs.

[16] The situation is analogous to one in which Government removes the excise tax on one product while all other products are still subject to a variety of different excise tax rates. It is possible that such an action makes the economy more efficient but this result is far from certain.

swamped by other factors. In the section on secondary market institutions, we shall compare their role in reducing risk to that of guarantees and insurance and there more definite conclusions are possible.

Empirical evidence on the impact of guarantees and insurance programs is extremely scarce. Break in his pioneering study found the impact to be highly significant.[17] He estimates that these programs increased housing 8 to 30 percent in the period 1948–56. Saulnier, Halcrow, and Jacoby found no significant impact in an earlier study,[18] but their methods are much less sophisticated than those used by Break. After a survey of the literature, Law strongly favors the Break results.[19] Since the Break study, the number and size of these programs has expanded relative to the size of the mortgage market, and it is more likely that their impact has increased rather than decreased.

Interactions with other programs.—By reducing the risk associated with mortgages, guarantee and insurance programs not only increase the supply of funds to mortgage markets, but they also increase the similarity between mortgages and corporate bonds, thereby making them better substitutes for each other.[20] Therefore, a combination of guarantees or insurance and an interest subsidy may be extremely effective in drawing funds to the mortgage market, because, as noted previously, the effectiveness of an interest subsidy depends crucially on the extent to which mortgages are good substitutes for other securities. The section 235 and 236 subsidy programs and the tandem plan, described earlier, represent such a combination, because they apply only to FHA–VA guaranteed and insured mortgages. Therefore, it is likely that the supply curve of funds to the subsidized markets is fairly elastic and if housing demand is also responsive to the borrower's rate of return the program will have a significant impact. Even if one segment of the mortgage market receives only subsidies while another receives only guarantees, the two programs can be considered complements, because funds drawn from the nonsubsidized to the subsidized mortgage markets are more likely to be replaced if the guarantees have been successful in making nonsubsidized mortgages good substitutes for other securities.

It is conceivable that guarantee and insurance lower the lender's risk so much that mortgages become more desirable than corporate securities at each market rate of return. Then, they might be considered good substitutes for Government securities, and interest subsidies will draw more money away from these markets than from corporates.

B. Portfolio Restrictions

Major programs.—Savings and loan associations are only permitted to hold mortgages, Government bonds, and the debts of U.S. Government agencies. Similarly, there are several Government-sponsored institutions, such as the Federal Home Loan Mortgage Corporation and FNMA, which were created for the sole purpose of investing in and making a market for mortgages.

Whenever an institution is forced to specialize in a particular type of investment, it must accept a higher risk for any expected rate of

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17 George F. Break, *The Economic Impact of Federal Loan Insurance*, op. cit., app. A.

18 Saulnier, Halcrow, and Jacoby, op. cit., pp. 336–341.

19 Warren A. Law, "The Aggregate Impact of Federal Credit Programs on the Economy," *Federal Credit Programs*, op. cit., p. 258.

20 Huang's study substantiates this statement. He finds that FHA–VA guaranteed and insured mortgages are much better substitutes for corporate bonds than are conventional mortgages. Ibid., p. 10.

return than it would if it was able to diversify freely. In the absence of any other Government policies, restricted institutions would therefore be poor investments and would be greatly reduced in size or eliminated entirely by unrestricted competitors. Consequently, the Government is forced to counter the competitive disadvantage of the restricted institutions with a whole array of complementary policies which encourage their expansion and allow them to be a major force in mortgage markets. Hence, these complementary policies are of crucial importance and must be discussed in conjunction with any analysis of portfolio restrictions.

Until recently, regulation Q was a classic example of policy designed to complement portfolio restrictions. It limited the interest rate paid on time deposits in commercial banks and hence gave savings and loan institutions an important advantage in competing for such deposits. In effect, the regulation allowed savings and loans to pay a lower interest rate on time deposits than would otherwise be necessary, or in other words it allowed them to shift some of the burden imposed by portfolio restrictions on to the people who provided them with funds.

While regulation Q gave restricted savings and loans a competitive advantage over somewhat less restricted commercial banks, Federal deposit insurance gives both an advantage over other financial intermediaries. It implies that the risk of making deposits in a restricted, and therefore artificially risky, institution is greatly reduced. It has also been alleged that the complicated regulations and examination requirements imposed along with deposit insurance restrict entry to the banking industry and thereby help to protect existing savings and loans and commercial banks from competition.

The Federal Savings and Loan Insurance Corporation is mainly financed by premiums. An implicit Government subsidy exists, however, in the form of backup authority of $750 million from the U.S. Treasury. In 1970, its paid-in reserves totaled $2.4 billion.

Another program designed to complement portfolio restrictions is that savings and loans are also permitted to borrow from the FHLB. There are no explicit subsidies provided for these loans, because the rate paid by savings and loans depends on the rate paid for funds by the FHLB. However, a small implicit subsidy probably exists because the FHLB has a backup borrowing capability of $4.0 billion provided by the U.S. Treasury. This safety device undoubtedly lowers the interest rate which the FHLB must pay for funds. More recently, title I of the Emergency Home Finance Act of 1970 authorizes the FHLB to provide explicit subsidies on loans to savings and loans, but the program has not yet been implemented.

In addition to the above implicit and explicit subsidies, savings and loans received highly favorable tax treatment in the past. The degree of tax discrimination was significantly reduced, but not eliminated entirely, by the Tax Reform Act of 1969.

The FHLMC and FNMA are not protected from competition by as wide an array of public policies as the savings and loans. However, they do have a backup line of credit at the U.S. Treasury of $2.25 billion and this allows them to borrow at lower interest rates than would otherwise be possible.

Direct impact and costs.—The portfolio restrictions on savings and loans, combined with the complementary policies which increase their scale of operations, undoubtedly increase the demand for mortgages

and reduce mortgage rates. Similarly, the FHLB and FNMA periodically increase demand in order to counter depressing cyclical influences on housing construction and more generally to help achieve Government housing goals.

An increase in the demand for mortgages will be most successful in reducing the relative rate of return if mortgages are poor substitutes for other securities. If they are good substitutes, the increase in demand by restricted institutions will be counteracted by other investors shifting out of mortgages into other investments. It is important to note that the substitutability condition which makes portfolio restrictions most effective is exactly opposite to that which makes interest subsidies effective.

Because portfolio restrictions can initially be implemented without cost to the Government's budget, they provide the illusion of being costless to society. In fact, the social costs of restrictions can be quite high as the many complementary policies of Government reduce the competition for savings deposits and otherwise distort credit markets. With the recent implementation of explicit subsidies to restricted institutions, portfolio restrictions now indirectly impose budget costs along with their less obvious social costs.

Interactions with other programs.—It has been noted previously that guarantees and insurance are likely to make mortgages better substitutes for other securities. Consequently, they will reduce the impact of increases in demand financed by restricted institutions. At the same time they reduce the burden imposed by restrictions, because as mortgages become more like other securities, the restricted institutions are able to attain a risk-return ratio closer to that which would be available if they were not restricted. This has allowed restricted institutions to expand and to become a much more important force in mortgage markets. They now hold a much larger share of total outstanding mortgages than they did before guarantee and insurance programs were initiated.[21]

C. Secondary Market Institutions

Major programs.—FNMA and the FHLMC were described in the previous section as institutions whose portfolio was restricted to mortgages and whose function was to add to the demand for mortgages periodically in order to assist in achieving Government housing goals. These institutions also have the responsibility for "making a market for mortgages" or in other words they are supposed to convert mortgages into fairly liquid investments. Until 1970, FNMA was only allowed to hold FHA–VA guarantee and insured mortgages, but since that time it has been empowered to buy conventional mortgages as well. The FHLMC was created in 1970 to establish a secondary market in conventional mortgages.

Obviously conflicts can arise between a secondary market institution's role in aiding Government to achieve a housing goal and their role in making a market. In the former role they are expected to add vigorously to their portfolio when housing is below the goal and to ease off when the goal is approached or exceeded. When they reduce their mortgage purchases, or in the extreme become net sellers, they put

[21] George F. Break, "Federal Loan Insurance for Housing," in *Federal Credit Agencies*, op. cit., pp. 39–41.

upward pressure on mortgage rates imposing capital losses on those who bought mortgages while the secondary institution was engaged in lowering the equilibrium rate of interest. Put another way, it is extremely difficult to be saddled with the responsibility both for manipulating the equilibrium rate of mortgage interest and for stabilizing the rate in order to reduce illiquidity risk.[22] Currently, FNMA's activities are primarily focused on lowering the equilibrium rate and it is expected to add $3.6 billion to its holdings of mortgages and other loans in fiscal 1972.

Direct impact and costs.—To the extent that the secondary market institutions are able to resolve their conflicts and actually reduce illiquidity risk, their impact is very much like that of guarantee and insurance programs, that is to say, they make mortgages more desirable thereby lowering the rate of interest demanded by the lender. However, there is an important difference between the type of risk reduced by guarantees and insurance programs and that reduced by secondary market institutions. Guarantees and insurance primarily protect the lender against the risk of default. Since defaults occur only when an investment in housing has gone sour, they reflect a loss of resources to society as a whole. With guarantees and insurance, the Government absorbs the bulk of this loss, causing the risk to the lender to be lower than the social risk created by the housing investment which he finances. In the section on guarantees and insurance we questioned the wisdom of Government encouragement to social risk taking in a particular sector such as housing.

Secondary markets protect mainly against illiquidity risk rather than default risk. Without such markets a mortgage holder might have to sell the mortgage at a price lower than that which he could receive if he could afford to hold the asset for a longer period of time. While this is an important risk to the lender it is not a social risk, because a forced sale simply redistributes wealth from a seller to a buyer who was fortunate enough to be in the right place at the right time.[23] Whenever a risk exists for a lender which is not also a risk to society as a whole, there is an obvious imperfection in capital markets, and the Government can achieve a superior allocation of resources by reducing this lender's risk. Consequently, Government encouragement to the formation of secondary market institutions is easier to justify than Government guarantee and insurance programs.

Because secondary market operations are profitable if operated correctly, private institutions often evolve in security markets without Government subsidy. FNMA was originally created as a Government-owned institution in 1934, but was converted to private ownership in 1968. The FHLMC has been privately owned since its inception in 1970. Both are subject to Government influence and receive a modest subsidy in the form of a line of credit at the Treasury, but as noted previously, this can be considered as compensation for the portfolio restrictions imposed on these institutions.

In passing it is interesting to note that certain aspects of guarantee and insurance programs have some bearing on a different type of illiquidity risk. When a lender forecloses, he swaps an illiquid mortgage for another illiquid asset—a house. Private lenders who have acquired property as a result of a foreclosure on defaulted guaranteed or insured

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[22] Guttentag, op. cit., pp. 124–132.

[23] Some social cost may be imposed, because the buyer who can get a mortgage at an artificially low price will have less incentive to use his funds efficiently.

property may elect to convey that property to the Veterans' Administration. In effect, the Government has established a secondary market for houses along with its VA guarantee and insurance programs. Presumably, similar secondary markets could be established along with other credit programs or even offered to institutions whose portfolio is restricted by Government regulation.

Interactions with other programs.—By reducing the illiquidity risk attached to mortgages secondary market institutions make mortgages better substitutes for other securities. It is ironic to note that this will make these same institutions less effective when they try to lower mortgage interest rates by adding to their portfolio. Similarly, portfolio restrictions imposed on savings and loan institutions become less effective in lowering mortgage interest rates. In contrast, interest subsidies become more effective in directing a higher volume of credit to mortgage markets.

IV. Policy Conclusions

Only a portion of the vast array of Government housing credit programs has been described in this paper. We know little about the effectiveness of particular programs, but we do know that the same conditions which make some programs ineffective add to the effectiveness of others. Therefore, a diversified set of programs makes considerable sense, if one wishes to be certain of achieving an increase in the amount of mortgage credit and, presumably, housing construction. For example, it is shown that interest subsidies will be relatively ineffective if mortgages are poor substitutes for other securities, but this situation increases the effectiveness of portfolio restrictions and increases in demand resulting from direct purchases of mortgages by Government or Government-sponsored institutions.

Some programs, such as guarantees and insurance and secondary market operations, increase the demand for mortgages regardless of the original degree of substitutability between mortgages and other securities, but they have the important byproduct of simultaneously increasing the degree of substitution, thus making interest subsidies more effective and lowering the impact of portfolio restrictions and direct purchases.

The steady expansion of guarantee, insurance, and secondary market activities have reduced the burden of portfolio restrictions at the same time as they were reducing their effectiveness. Consequently, these policies combined with explicit subsidies to restricted institutions have reduced the need for policies which protect the restricted institutions from competition. Hence, it was possible to suspend regulation Q temporarily, and it is now possible to contemplate a permanent suspension.

Our paper has suffered from the important weakness that it has studied housing credit policies in isolation without considering Government activities in other credit markets. Credit assistance has been expanding in a number of sectors at the same time as housing credit subsidies have been increased. Since new subsidies to additional sectors tend to neutralize existing subsidies to other sectors, the explosive expansion of credit assistance probably indicates that Government is beginning to work against itself. At the current rate, Government will soon be subsidizing all borrowers, and resource allocation at full employment will only be affected to the degree that subsidies differ to

different sectors. The subsidies raise the rate of return to saving, but most studies indicate that saving is quite insensitive to the rate of interest. Therefore, even the consumption-saving mix is likely to remain relatively unaffected by the extensive effort invested in Government credit programs. Given that credit programs impose administrative costs on the institution administering them and significant compliance costs on borrowers, it is not difficult to foresee a situation in which the large scale bureaucratic effort is not worth whatever social benefits follow from the modest reallocation of resources which results.

Such an outcome might be avoided if credit programs were carefully reviewed and coordinated, but, at present, an effective review mechanism does not exist. Technically, the Office of Management and Budget has the responsibility for the review and coordination of the portion of credit assistance still in the budget, but since there is a strong tendency for OMB to focus on programs with significant budget costs and since many credit programs have little net budget costs, their review receives a relatively low priority despite the social costs which they might impose. Moreover, many programs are escaping even this modest constraint. It has been proposed that the Environmental Financing Authority and the National Student Loan Association be created outside of the budget and the Export-Import Bank has escaped budget review. Seven major Government-sponsored institutions either escaped the budget in 1968 or have been created since that time.

The administration is well aware of the problems posed by the lack of coordination of credit programs and has proposed legislation which would create a Federal Financing Bank to provide a control mechanism. It would act as a source of funds for most smaller credit programs while financing its activities with its own security issues. At the same time the Secretary of the Treasury would be given enhanced power over the borrowing and guarantee activities of credit agencies. OMB would also be expected to influence the volume and allocation of Government assisted credit when overall credit conditions become stringent, but it is not yet crystal clear how this provision would be interpreted.

While such legislation might help to coordinate various programs with each other, it is not clear that it would greatly enhance the coordination of credit programs with the ordinary expenditure activities of Government. Since direct expenditures and credit programs are both policy instruments which can be used to reallocate resources in a manner consistent with national priorities, such coordination is essential for the efficient management of Government activity. If this goal is to be achieved, it is hard to escape the conclusion that credit programs should be subject to some type of continual review and coordination by OMB rather than by Treasury, and that there should be careful studies of their social costs.

The counterargument used by agencies which have either escaped or wish to escape the budget review process is that it limits their flexibility in meeting situations which arise quickly and occasionally their activities are distorted arbitrarily by aggregate spending limits imposed by Congress. Of course, the same problems afflict expenditure programs, but if they are particularly serious for particular credit agencies, it may be preferable to privatize such institutions completely. The implicit subsidies provided by lines of credit and other mechanisms could be eliminated entirely, and they could be replaced by

explicit subsidies where necessary to achieve social goals. Being a direct expenditure, the explicit subsidies would receive a more careful budget review. If, at the same time, the review of guarantees and insurance activities of agencies still in the budget was given a higher priority consistent with the social costs which they impose, credit activities could be more carefully coordinated with the other spending activities of Government.

FEDERAL INCOME TAX INCENTIVES IN LOW- AND MODERATE-INCOME RENTAL HOUSING

By JAMES E. WALLACE*

I. INTRODUCTION AND SUMMARY

When income tax allowances are intended to encourage investment for some purpose, it is important to understand just how the capture of capital works. The tax shelter provided by accelerated depreciation allowances and favorable capital gains treatment has become a primary source for generating development funds for low- and moderate-income rental housing, especially under the program for mortgage insurance and interest subsidy established under section 236 by the Housing and Urban Development Act of 1968. The limited dividend allowed in these projects is too small to attract investment interest. But the magnitude of the tax losses generated (especially by qualifying rehabilitation expenditures) has made it possible for developers to sell ownership claims to these losses to high tax bracket investors for amounts equivalent to between 15 and 25 percent of the mortgage amount. Since the Government-insured mortgage loan covers almost all of the out-of-pocket costs, the builder/developer obtains, in effect, a handsome fee at the outset of the project.

This paper examines the magnitudes of the tax incentives created by Federal income tax law, evaluates the cost to Government of these incentives, then compares the present system with several alternative means for accomplishing the same purpose. The policy of building new or substantially rehabilitated units and subsidizing households otherwise unable to afford them has been criticized as an inefficient policy for providing adequate housing for low-income persons.[1]

This paper makes no attempt to deal with that question; rather, it is assumed that production of these subsidized rental units is desired and that the question is one of incentives to the real estate industry for development and operation. The incentive created is shown to be of arbitrary magnitude and not closely geared to the effort required or the alinement of the units produced with Federal policy on ownership, location, composition, upkeep and so on. While direct payments of lesser amounts might be adequate, it is assumed in this paper that when alternative schemes are considered, the developer and builder receive the same aftertax benefits as at present.

Operating incentives are more difficult to assess. One thing is clear—the tax savings which can be realized from such a project are not geared directly to the quality of housing services provided; the tax advantages

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[1] See particularly papers by Isler, Kummerfeld, Frieden, Lowry, and de Leeuw in "Papers Submitted to Subcommittee on Housing Panels Part 2," Committee on Banking and Currency, H.R. 92d Cong., 1st Sess. (Washington, D.C.: Government Printing Office, 1971).

are threatened only if premature sale or foreclosure forces the curtailment of the annual depreciation claim and the payment of gains taxes. Some assurances are demanded by investors that the developer will in fact keep the project out of trouble, but once committed to a particular project, the investor has little control and the developer has weak incentives to provide high quality housing services. To replace the investment value of these projects, created mostly by the tax allowances, the Government could make direct payments to the developer. Then the Government, having provided both the debt capital (insured mortgage loan) and equity capital (payments to builder-developer for services), could claim ownership of the project (in much the same fashion as the public housing "turnkey" program) and assign it to a qualified tenant group to operate as a cooperative. The "rollover" option for owners of such projects created by section 1039 of the Tax Reform Act of 1969 is found to be a seriously inadequate tool for accomplishing transfer of ownership of such projects to tenant groups.

This paper evaluates the cost of several alternatives for substituting direct payment for tax allowances and compares these costs with those of the present system. Options for transfer of ownership to tenants as well as continued ownership by the developer are considered. Tax incentives have been criticized by Prof. Stanley S. Surrey of Harvard Law School for several years—before, during and after his tenure as an Assistant Secretary of the Treasury. This paper is intended to be in the spirit of, and in some sense responsive to, Professor Surrey's proposals about direct subsidies for rental housing in a recent article.[2]

II. Rental Housing Under Section 236

The 236 rental housing program established by the Housing and Urban Development Act of 1968 basically offers insurance for a mortgage covering most of the costs of development for either new construction or rehabilitation and also annual payments to the lender for part of the mortgage payment for the project. (Public Law 90–448, 82 Stat. 476, 478.) Because of this Federal assistance with the mortgage payments, the owner is required to reduce the rents commensurately. Since this Federal payment can be as much as the difference between the mortgage payment at the FHA-established market interest rate and the mortgage payment for a 1 percent mortgage, a substantial rent reduction is possible and virtually assures the developer of nearly full occupancy by eligible tenants.

The mortgage amount for which Federal insurance is available depends upon the form of the sponsor, whether limited dividend or nonprofit. For a limited-dividend sponsor the mortgage amount is 90 percent of total replacement cost, where total costs include a builder's and sponsor's profit and risk allowance (BSPRA) of 10 percent of all other allowable costs (except land costs). The result is that a mortgage of approximately 99 percent of actual costs (exclusive of the BSPRA) is possible.[3]

Costs not recognized by the Federal Housing Administration in the mortgage calculation—such as excessive fees or construction loan

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[2] Stanley S. Surrey, "Federal Income Tax Reform—the Varied Approaches Necessary to Replace Tax Expenditures with Direct Government Assistance," *Harvard Law Review*, Vol. 83, Dec., 1970, pp. 399–408.

[3] Let actual total costs be denoted cost and assume land costs are 5 percent of total costs. The total replacement cost for FHA mortgage calculations is: cost + 0.1 (cost − .05 cost) = 1.095 cost. The mortgage is 90 percent of total replacement costs, or 0.9 × 1.095 cost = 0.9855 cost. If actual costs were $1 million, the mortgage amount would be 90 percent of the sum of ($1 million plus a BSPRA of $95,000) or $985,500.

interest over the FHA market rate and the salaries and overhead expenses of the developer/builder and his staff—often increase the effective cash investment to approximately 3 percent. The actual cash requirements may differ from 3 percent in a particular project, of course, depending on cost overruns not accepted by the FHA, organizational expenses, relocation expenses in the case of rehabilitation, the cost of working capital, and so on. Furthermore, if the developer and the building contractor do not have an identity of interest, then the BSPRA allowed is reduced by the amount of the builder's profit fee. In such a case, the mortgage amount is unaffected, but the builder's profit becomes an additional cash expense to the developer, who, in turn, claims full ownership. The examples in this paper consider only the identity-of-interest case for simplicity.

On the operating side of the project, a 6-percent annual dividend is included in the rents. For purposes of computing the allowed dividend, the developer/builder is deemed to have an equity of 10 percent of total replacement costs invested in the project, even though his actual investment may be much smaller.[4] Another area of potential profit from the project in operation is the management fee, which is typically 5 percent of the rent. This depends entirely on the scale and efficiency of the management, however, and is considered as a fee for services, not a source of profit, in the remainder of the paper. All other elements of rent must represent actual costs (or reserves for replacement); thus the dividend, if earned, is the only remaining source of before-tax profit. The cash dividend is small, however, compared with the tax savings which result from the depreciation allowances.

III. Tax Shelter Syndication

Because the 6-percent dividend allowed in rental projects such as those under section 236 is not only small but not guaranteed, there would be little development occurring under profit-motivated sponsorship except for the tax advantages. Appendix I uses a greatly simplified example to illustrate the way in which these tax advantages come into play. Briefly, the advantages lie in the allowance for accelerated depreciation deductions and for payment of tax at capital gains rates on the gain realized at the sale of a project. The large losses which can be claimed for tax purposes as a result of the depreciation allowances have value to taxpayers in high tax brackets because the losses can shelter some of their taxable income from tax.[5] When the project is sold, typically at a price comparable to the initial price, the "losses" are found not to be losses at all and income tax must be paid—but now at capital gains rates. Income tax payments are thus not only deferred but converted to lesser amounts upon sale. The example in appendix I and the summary of tax rules in appendix II outline the workings of the tax advantages for a project as well as pointing out some qualifications on the ability of the taxpayer to completely escape tax at ordinary income rates on this type of property.

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[4] A nonprofit sponsor receives no dividend from the rents but obtains a mortgage of 100 percent of total costs, including an allowance for sponsor expenses and a fee for a housing consultant. There is no sponsor's profit and risk allowance, of course, in the mortgage computation for a nonprofit sponsor. Since nonprofit sponsors pay no income taxes and are unable to use the depreciation, attention is devoted entirely to the limited dividend sponsor in the remaining discussion.

[5] For property rented to low-income persons the Tax Reform Act of 1969 permits the rehabilitation expenditures to be written off (depreciated) over a 5-year period. New construction is eligible for accelerate depreciation but at rates slower than rehabilitation. (See app. II.)

Developers of rental property subject to limited dividend restrictions (such as the Federal 236 program or some State-sponsored programs) find that the profitability of these projects is sufficiently enhanced by the favorable tax treatment that development is economically advantageous, frustrations and paperwork requirements of Government agencies notwithstanding. For the developer who is not himself in a position to use the tax losses generated by these projects, a limited partnership is often formed in which the developer acts as general partner, and the limited partners are passive investors to whom the laws allow the tax losses to be passed. This approach to organizing a real estate venture is referred to as a form of syndication. The advantage for the developer of a section 236 project is that it allows him to raise much more money from the limited partner investors than is required to develop the project.

Calculations of investment value of typical section 236 rental projects have been made under assumptions typical of those used in syndicating these projects. The calculations were made for both new construction and rehabilitation under the following basic assumptions (see app. III for further details):

Mortgage terms.—40-year mortgage at 7 percent interest plus one-half percent mortgage insurance premium.

Holding period.—21 years (sale occurs after 1 year of development plus 20 years of operation).

Sale price.—Mortgage balance outstanding at time of sale.

Investor tax status.—An annual after-tax return of 15 percent for new construction and 25 percent for rehabilitation is expected by investors able to use the tax losses in the 50-percent income tax bracket. (Investors in the 70-percent bracket invest the same amount as 50-percent bracket investors but obtain larger after-tax returns.) The minimum tax on "preference income" is paid where applicable (see app. II).

Investor payments.—Of the total investment amount, one-third is paid at the outset, one-third at the completion of construction (1-year later), and the final one-third after 1 year of operation.

Under these conditions, the developer/builder can raise an amount equivalent to 15 percent of the mortgage amount for a new construction project and an amount equivalent to 25 percent of the mortgage amount for a rehabilitation project. Since the actual cash expenses over and above the mortgage loan often are the equivalent of as little as 3 percent of the mortgage amount, the developer/builder team can extract a large fee at the outset—roughly 12 percent for new construction and 22 percent for rehabilitation in these examples. The developer/builder may net less than it would appear if, as is often the case, a broker must be used to develop an offering brochure and market the tax shelter by locating investors and assuring them of the viability of the particular project. The tax shelter broker may charge for these services in the range of 15 to 25 percent of the amount raised.

The amounts which can be raised from the limited partner investors do not vary strongly with the aftertax rate of return demanded by these investors. The investment market establishes approximate aftertax rates of return according to the riskiness of investments. As the investor's assessment of risk and demand for rate of return rise, the amount of investment he is willing to make decreases. As shown

in figure 1 the total contributions which can be demanded of the investors vary only a few percentage points over a wide range in the investor's discount rate (or aftertax rate of return demanded).

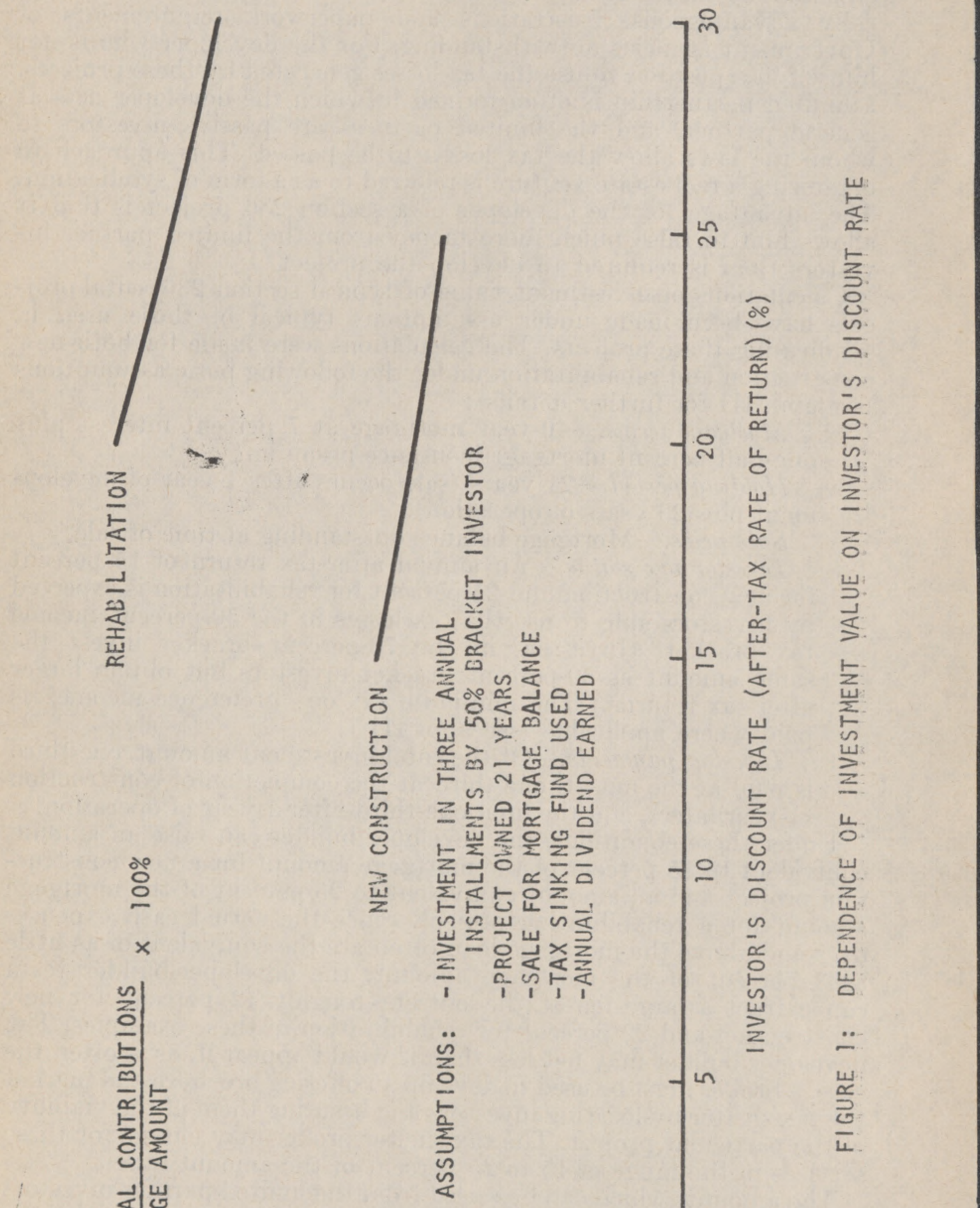

FIGURE 1: DEPENDENCE OF

The limited partner investors will be particularly interested in whatever guarantees and assurance the general partner can offer that the project will be kept in operation (hopefully earning the allowed annual dividend) for the intended investment period. If the project gets into difficulty and must be sold prematurely or if the project mortgage is foreclosed, the tax consequences are quite undesirable.[6]

Figures 2 and 3 show what happens if a project is sold prematurely or if the dividends are lost in a project in which the investor anticipated a 21-year period of ownership with full dividends. The problem of premature sale is reflected in the sharp drops seen in the rates of return as the holding period is shortened: sale before about the 10th year can result in negative returns—the initial investment is never recovered. Figures 2 and 3 also show that the loss of dividends is more serious in the new construction case than for rehabilitation, because the 5-year writeoff of rehabilitation expenditures generates tax losses so large that the resulting tax savings dominate the after-tax return. The windfall for the 70-percent bracket investor can also be seen in these figures: if held for the full 21-year period the rate of return on a new construction project is 25 percent (compared with the 15 percent the 50-percent bracket investor gets) while the rate of return on a rehabilitation project reaches over 40 percent (compared with a 25-percent return for the 50-percent bracket investor).

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[6] A foreclosure will generally be treated, for income tax purposes, as a sale at mortgage balance. The gain realized at sale is the difference between the sale price and the "adjusted basis," or the value for tax purposes after the depreciation deductions have been taken. Since the mortgage balance decreases very slowly while the adjusted basis drops rapidly with accelerated depreciation, a large tax at sale may have to be paid even though no cash is realized from the sale. This is just the other side of the depreciable basis coin. That is, the owner of a property is allowed to depreciate not only his actual investment but the development expenses (or purchase price) covered by the mortgage loan as well. But the day of reckoning comes at the time of sale, when the IRS does not regard the mortgage obligation as an expense of sale. Both principles are regarded as having been established by a Supreme Court decision in 1947. (*Crane* v. *Commissioner*, 331 U.S. 1).

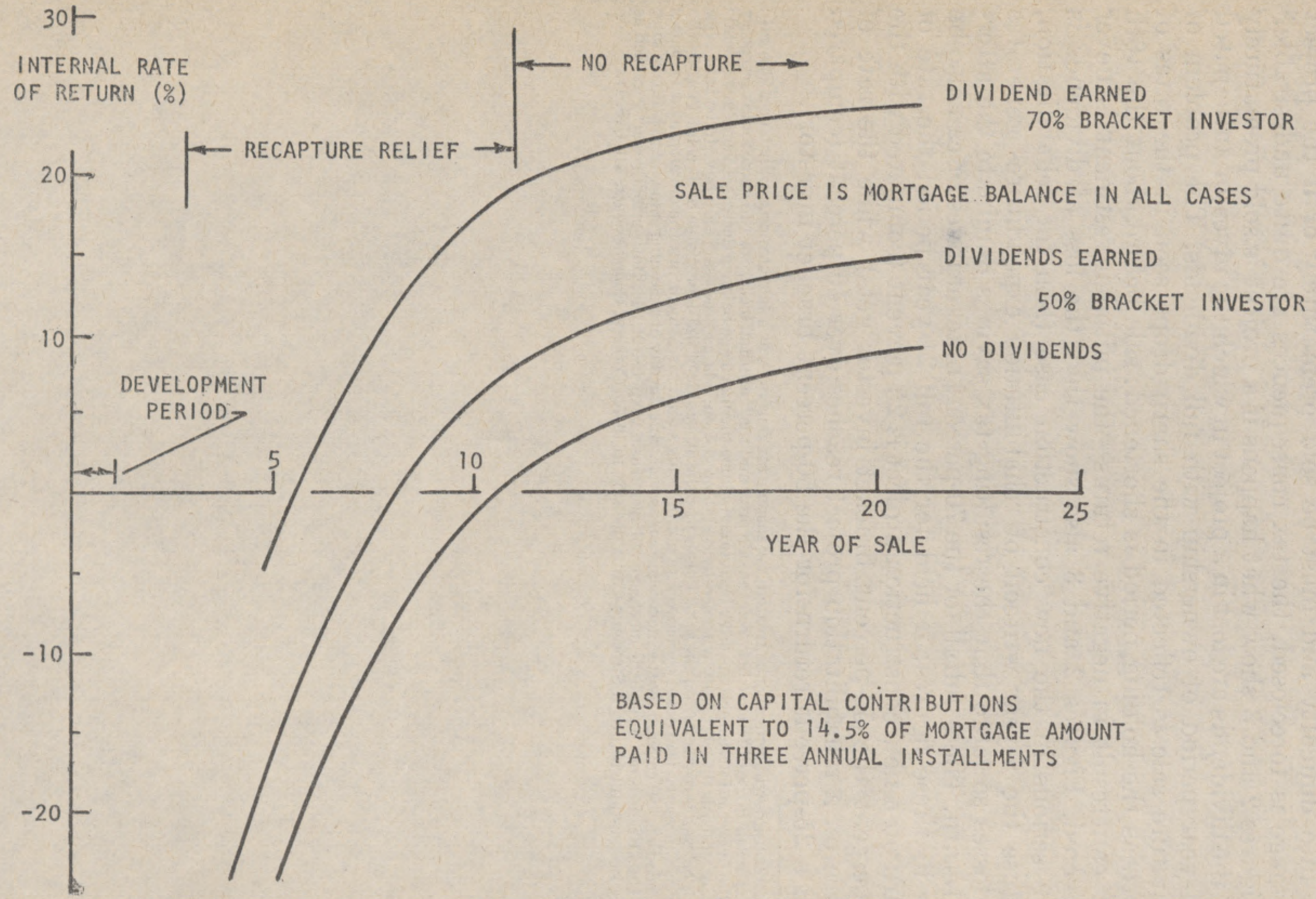

FIGURE 2: DEPENDENCE OF AFTER-TAX RATE OF RETURN ON HOLDING PERIOD, NEW CONSTRUCTION

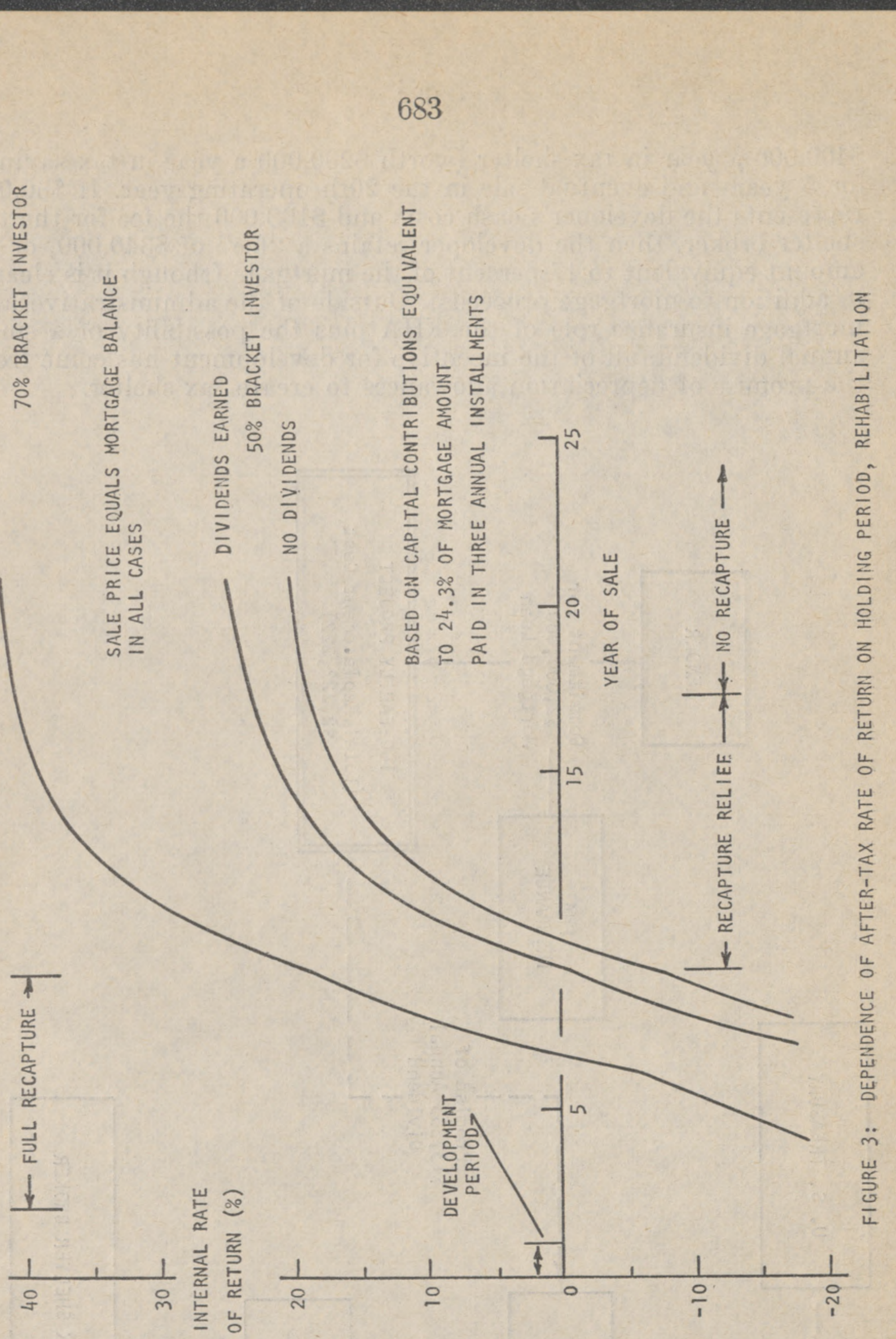

FIGURE 3: DEPENDENCE OF AFTER-TAX RATE OF RETURN ON HOLDING PERIOD, REHABILITATION

IV. Budgetary and Administrative Impact of Income Tax Incentives

Figure 4 indicates schematically the elements of the tax incentive for development of a simplified section 236 rehabilitation project.[7] To cover costs and raise his fee, the developer relies both upon a mortgage commitment ($2 million) and capital contributions from investors ($500,000) who invest in anticipation of obtaining substantial paper losses as shelter for their income, or in this case approximately

[7] While rehabilitation is an extreme case it is chosen for simplicity, since depreciation allowances are constant over the 5-year depreciation period.

$400,000 a year in tax shelter (worth $200,000 a year in tax saving) for 5 years and eventual sale in the 20th operating year. If $60,000 represents the developer's cash costs and $100,000 the fee for the tax shelter broker, then the developer retains a "fee" of $340,000, or an amount equivalent to 17 percent of the mortgage (though it is clearly in addition to mortgage proceeds). Outside of the administrative and mortgage insurance role of the FHA plus the possibility of a small annual dividend, all of the incentive for development has come from the promise of depreciation allowances to create tax shelter.

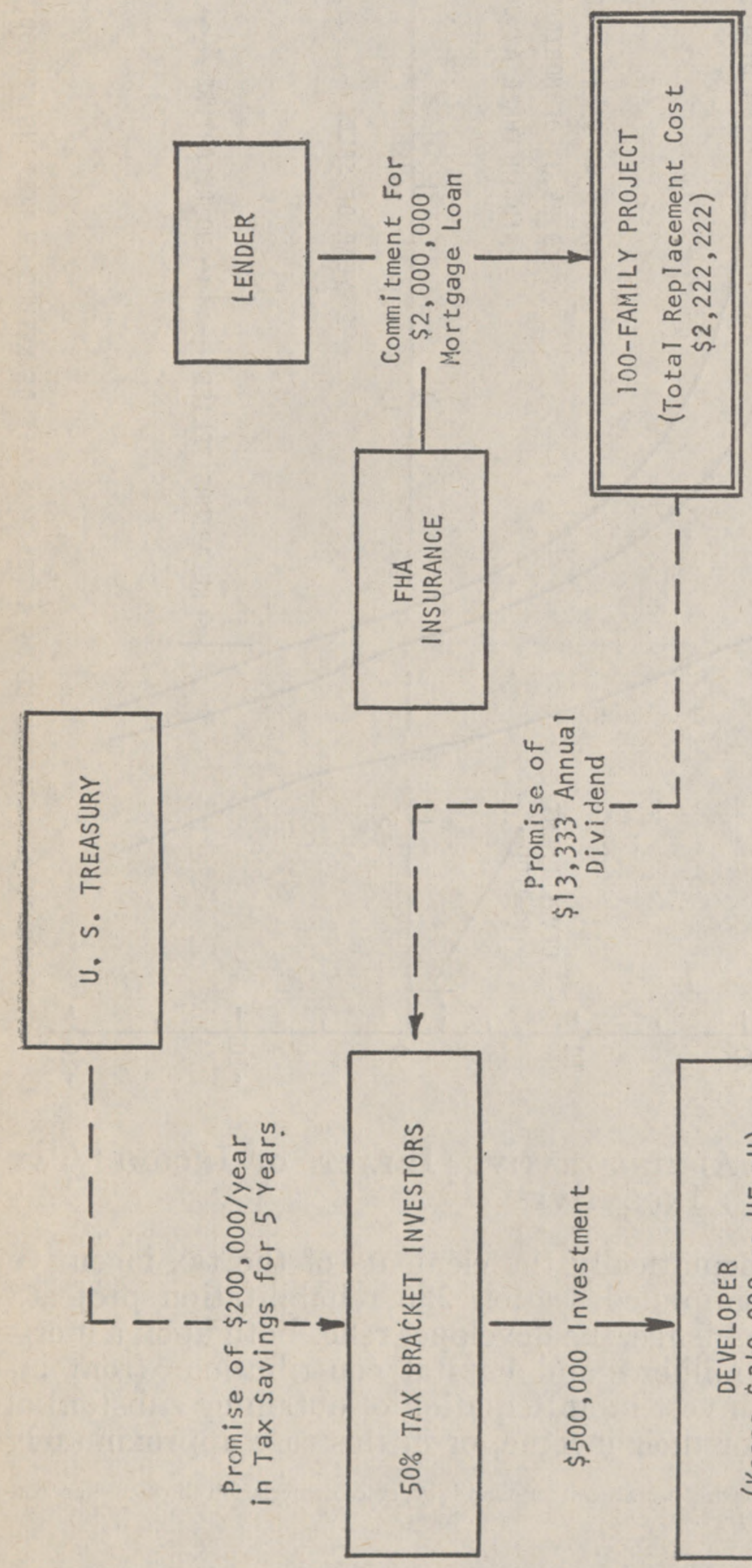

FIGURE 4: REHABILITATION TAX INCENTIVE FOR DEVELOPMENT

Figure 5 indicates how the tax incentive works during the operating period of the property. The 50-percent bracket investors receive $200,000 a year for 5 years in tax savings from the Treasury and $13,333 a year (for the life of the project) in dividends from tenant rent payments.[8] The tenant subsidy is approximately $100,000 per year for 40 years to make up the difference between the tenants' payments via rents on a 1-percent interest rate mortgage and an assumed market rate of 7½ percent.

[8] The allowable dividend is computed as 6 percent of an implied equity of 10 percent of the total replacement cost, amounting to $2,222,222 in this example. See appendix 1.

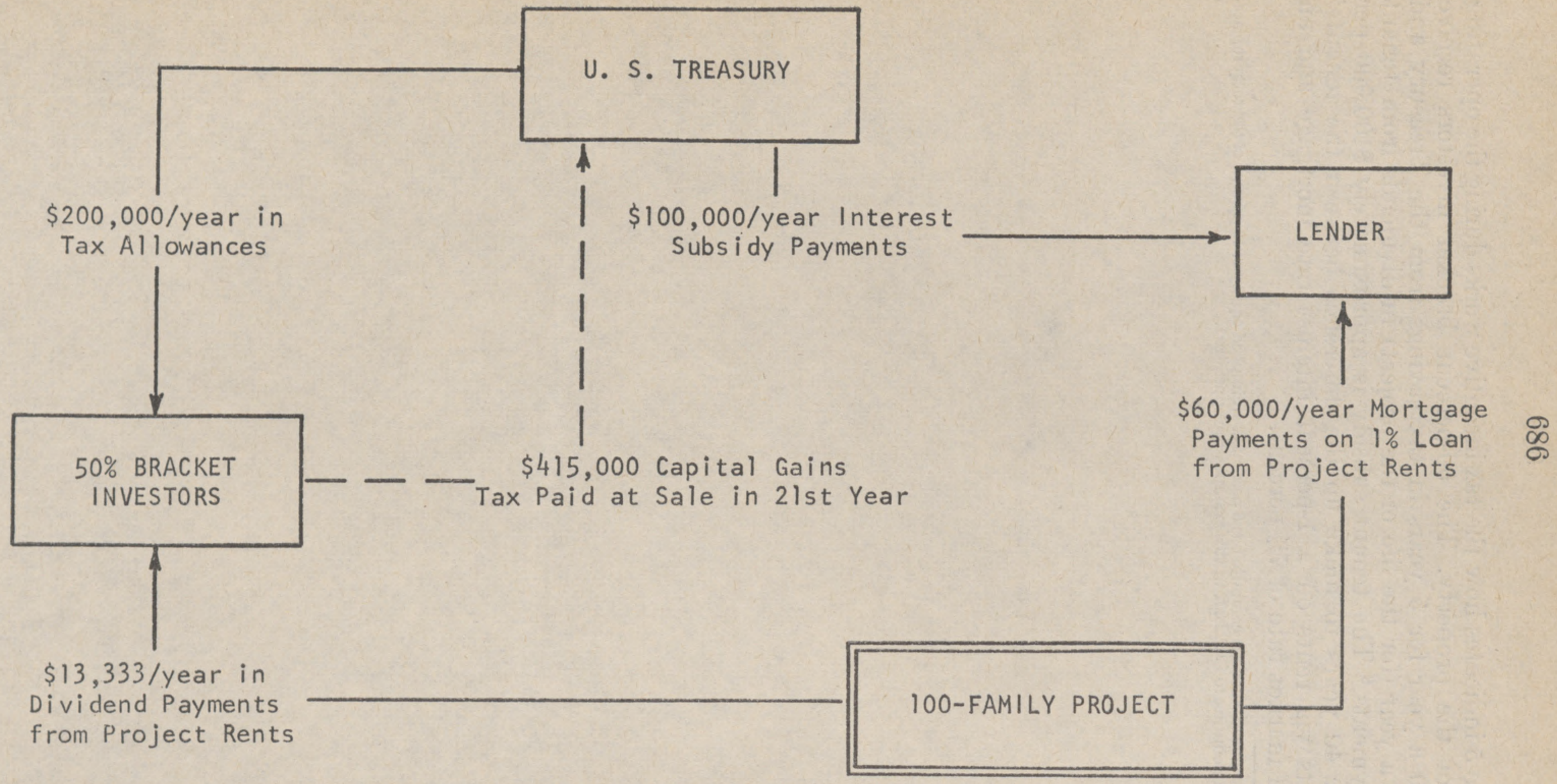

FIGURE 5: REHABILITATION TAX INCENTIVE DURING OPERATION

As the diagrams illustrate, use of the tax incentive device causes at least two extraneous parties to enter the system, namely the tax shelter broker and the high bracket investors. Had the returns from the property not been tied to tax savings, the original investor need not have become eligible solely on the basis of his tax bracket. In fact the developer might have retained ownership on the basis of operating for profit the property in question.[9] On the other hand, the investors do serve the purpose of screening the developer because they scrutinize the capabilities and integrity of the developer before entrusting their funds to the project. While the Department of Housing and Urban Development already has administrative responsibilities for processing the application for mortgage insurance and interest subsidy and for periodic reviews of the operating performance of the project, the IRS must also make rulings on the primary source of return—tax aspects of the project.

A suggestion of the administrative difficulties of this system of bifocal incentives is found in the efforts of the IRS to establish regulations for the 5-year writeoff for qualifying rehabilitation expenditures. The tentative IRS regulations published August 4, 1970, set the eligible income level for tenants at 150 percent of public housing admission, with the apparent intent that this would be well above the 135 percent of public housing admission income used in section 236 housing. However, the HUD program makes a number of adjustments in gross income which were neglected in the IRS regulation, and the section 236 program also allows a number of projects to rent under "exception" income limits based on 90 percent of 221(d)(3) income limits for the area. The upshot would be that many projects qualifying for 236 mortgages and interest subsidy would nevertheless have tenants with incomes too high for the units to be eligible for the special depreciation allowance for rehabilitation expenditures. This particular issue is apparently being resolved in favor of the HUD guidelines.[10]

Among many other candidates for resolution by IRS, however, are such questions as:

Must a low-income tenant be actually living in the unit for it to qualify for the special write-off?

How shall project costs be allocated to units?

What happens in the case of an eviction?

The point is that the tax incentive approach is not a mechanism obviously free of administrative problems. If the IRS makes these determinations, then it is implicitly making housing policy. If it does so independently of HUD, there is a danger of either mistaken judgments being made by IRS personnel inexperienced in housing matters or of a new housing administration bureaucracy being established within IRS. If HUD rulings and policy are allowed to govern, then the IRS has less control over the tax equity and revenue questions. Are there other unintended drawbacks in the tax incentive mechanism? The cost to Government of the tax allowances is certainly one area of concern. Operating incentives for a rental project and tenant benefits are other important concerns.

What of the costs to Government for the tax incentive in low- and moderate-income rental housing? A consistent framework for evaluat-

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[9] Inequities are another issue with the tax incentive approach. The use of a tax device insures that it will be of most value to persons with the highest income tax bracket rates, thereby lowering their effective tax rate and thus subverting the "ability to pay" principle of progressive income taxation.

[10] Remarks of the Honorable Edwin S. Cohen, Assistant Secretary of the Treasury for Tax Policy, before the Tax Section, New York State Bar Association, New York, N.Y., Jan. 28, 1971.

ing the costs of the revenue losses the Federal Government incurs as a result of the depreciation allowances, and favorable capital gains treatment requires the assumption that except for these provisions of the tax law the revenues lost would be collected. I do not concede that taxpayers in high income tax brackets should be assumed to be capable of escaping taxation through some other device if not through real estate. More comment on this issue is made below in section VII, "Government Costs for Direct Payment Options." If one takes the progressive income tax seriously, then the costs to Government are largely borne through the tax savings enjoyed by the high bracket investors in projects such as section 236 rental projects.[11]

I believe that a helpful approach to evaluation of Government costs is to take the position of the Treasury and observe the money flows resulting from the project in question. From this perspective, the Treasury sees an effective outflow of funds in the early years of the project as revenues headed to the Treasury from high tax bracket taxpayers are diverted back into their own pockets. Finally, upon sale of the project the Treasury collects the gains taxes paid by the owners of the project on the difference between the sale price and the "adjusted basis" remaining after the annual depreciation deductions have been subtracted from the initial value of the project.

If we are to evaluate these costs in any meaningful way, some account must be taken of the timing of the revenue losses and collections. Clearly the Treasury is not indifferent to the question of whether a dollar is lost (or gained) today or 20 years from now. The conventional investment analysis technique for this problem is to use discounted present values based upon appropriate discount rates. Based on a recent review of this issue by the Joint Economic Committee, the appropriate range of discount rates for evaluating Government investments runs as low as about 5 percent (or a running average of the interest rates on long-term Government securities) or as high as about 10 percent (reflecting the effects of resources diverted from the private allocations as a result of Government spending).[12] I do not propose to enter the debate about the appropriate discount rate here. For the moment, I choose a discount rate of 6 percent as being reasonable. In the later discussion in section VIII on policy alternatives the full range from a zero-percent discount rate (i.e., no discounting at all, simply summing arithmetically all costs) to a discount rate of 10 percent is used.

For the typical 236 rental project, the discounted present values of the net revenue costs of these projects have been calculated. The results are conveniently scaled to the initial mortgage amount.

PRESENT VALUE OF GOVERNMENT COSTS AS A PERCENTAGE OF THE INITIAL MORTGAGE AMOUNT

	50-percent bracket investors	70-percent bracket investors
New construction	11	16
Rehabilitation	27	40

[11] I do not mean to imply by my constant reference to 236 projects that these are the only sources of tax losses in real estate. In fact the depreciation allowances for other new residential construction are exactly the same as for a 236 project; if both are held at least 17 years, the gains taxes at sale (for comparable prices) are also the same. Key differences lie in the more favorable financing available through the federally insured 236 mortgage and the direct role which HUD already plays in administering the development and interest subsidy of these projects.

[12] U.S. Congress, "Economic Analysis of Public Investment Decisions: Interest Rate Policy and Discounting Analysis," Report of the Subcommittee on Economy in Government, Joint Economic Committee (Washington, D.C.: Government Printing Office, 1968).

The windfall gain to the 70-percent bracket investors noted earlier is seen to occur at considerable expense to the Government. Given the magnitude of these costs and the administrative complications suggested above, it is tempting to look for alternative policies by which the same results could be achieved at less cost to Government and perhaps under more direct policy control. I shall yield to that temptation, but only af'er a brief examination of operating incentives and the perspective of the tenants (the intended beneficiaries?) in this system.

V. Transfer of Ownership to Tenant or Community Groups

A. Problems of Operating Incentives

The landlord-tenant relationship has seldom been a comfortable one, especially so in the case of tenant families at the lower income levels whose housing options are limited. The usual tenant-landlord conflicts have been compounded in 236 projects located in areas in which the rent ceilings allowed are marginal. When operating costs (chiefly utilities, repairs, and, sometimes, real estate taxes) rise, the owner is faced with either a cutback in services or applying to FHA for a rent increase. Neither option will be viewed favorably by the tenants. Although some owners choose to forego the dividend as an additional source of operating funds, this only provides a small margin. Eventually repairs may be deferred, and in some cases, owners defer principal payments on the mortgage for lack of funds.

We note at this point that the tax benefits in a 236 project continue to accrue to the owner, regardless of the condition of the buildings or of the adequacy of the services being provided, as long as he remains the owner and does not suffer a foreclosure on the mortgage. The owner will, of course, wish to avoid foreclosure both to protect his stream of tax savings in the early years and to avoid the large gains taxes that would result from a foreclosure in later years. While there is no tax incentive for superior housing services, there is some incentive in maintaining some minimum level of quality in most buildings in anticipation of appreciation in value over the years which could be realized in a voluntary sale.

In practice, the FHA has become reluctant to foreclose on these mortgages, whether the mortgage payments have been deferred to cover operating expenses or whether they have been deferred to cover excessive vacancies, because it has no desire to become a real estate operator and because assignments to new owners often can be accomplished only with a lower mortgage amount than the one foreclosed. We thus see a mixed set of incentives from tax treatment during the operating period.

From the tenants' side, it is often felt that rental property could be operated more to their satisfaction if they were in more direct control, either through direct ownership or through ownership by a community-based entity acting on their behalf. Local control of a project might both allow the tenant families a greater degree of control over their own lives, and also minimize management and operation problems by making the persons having particular complaints also the ones responsible for remedy of the problem.

Two possibilities are examined below: (1) development directly by a community-based group or tenant cooperative, and (2) development by a private developer with a "rollover" sale to the community group or tenant cooperative after a short period.

B. Syndication by Subsidiaries of Community-Based Sponsors

While nonprofit sponsors of low- and moderate-income housing are eligible for 100-percent mortgages, the costs covered do not make adequate allowance for the resources and energies required of the sponsor to get the project together, despite the allowance for paying a housing consultant and the "allowance to make project operational," supposedly intended to cover any necessary costs not covered in the basic buildup of costs.[13]

Sponsoring groups are thus experimenting with arrangements in which a for-profit subsidiary is set up purely for the purpose of syndicating the project and obtaining investment money from high income-tax bracket individuals who can use the tax shelter. Unfortunately, the investment objective of the limited partners is likely to encourage long holding periods, while the community development group seeks early control of the buildings as well as the operating policies. Adding a party to the general partner entity who is responsive to the investors' interests—for example, the builder—may be required of the sponsor by the investors as a balance to the interests of the sponsoring community group. The device of the tax incentive for producing a development fee is leading to complex ownership arrangements with conflicting internal objectives, heavily influenced and shaped by Internal Revenue Service rulings or attitudes on investment for tax shelter.

C. Rollover

We have seen that the tax treatment of real estate encourages an extended period of ownership, largely to defer the gains taxes upon sale. In an effort to remedy this negative incentive for those cases in which a project owner would otherwise be interested in selling to a tenant group, a new section (sec. 1039) was added to the Revenue Code in the Tax Reform Act of 1969. This part of the legislation recognizes the social value of encouraging local ownership of rental housing either by a tenant organization, cooperative, or other nonprofit organization formed solely for the benefit of such tenants. It provides that if (1) such a sale is approved by the Secretary of Housing and Urban Development and (2) the owner reinvests (within a period of a year before or after the sale) in another 236 project, then the only gain subject to tax is the net amount not reinvested. These taxes at sale would otherwise be quite large, especially in the case of rehabilitation, so that this possibility of deferring taxes at sale is a great incentive to accomplish such a qualifying "rollover." [14]

However, the inducement of reduced taxes in the transfer is substantially compromised by the requirement that the tax basis (depreciable value) of the new property be reduced by the amount of

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[13] HUD contracts with groups providing "front money" loans to nonprofit sponsors under section 106(b) of the HUD Act of 1968 have not proved adequate to filling these gaps, partly because of the low level of funding. Fiscal year 1971 funds of approximately $5.4 million assisted a total of 135 projects. *Budget of the U.S. Government, Fiscal Year 1972, Appendix*, pp. 497–498. Section 106(a) for providing outright grant assistance to these groups has not been funded thus far.

[14] The "rollover" option might be attractive both to tenants and owner/investor alike in the case of rehabilitation, since practically all of the tax savings from depreciation occur in the first 5 years of operation.

gain not recognized on the preceding property. The value of the second property as a generator of tax shelter is therefore substantially diminished. In a typical case, the depreciation will generate little additional tax shelter; tax benefits accrue only from the tax loss which can be taken from the expendable costs incurred in the development of the second project (primarily construction loan interest and real estate taxes). The investment value of the second project is thus greatly reduced if it is used as a "rollover" project. Moreover, gains taxes are not forgiven in a "rollover." They are deferred. The owner of the initial project obviously has another way of deferring the payment of taxes at sale—holding the property longer and not selling for a few more years.

The fundamental problem is that the "rollover" section in the tax law fails to recognize that the developer will expect some new reward for the new effort required to develop the second project. The developer of a project always has the choice of offering a newly developed project as an investment to new investors. The prospective "rollover" project does not offer the investors as much investment value (because of the reduced tax basis) as it offers to investors who are not using the second project as a "rollover" candidate. While a detailed analysis of "rollover" options gets into technical questions of tax law and investment analysis, suffice it to say here that "rollover" would appear to be a live option under only two situations:

(1) The tenants in the project are willing and able to pay a price for the project in which they live well above the amount of the outstanding mortgage balance and that new proceeds from sale to tenants of the first project can be added to the amounts the investors in the first project will be willing to offer to the developer for the "rollover" into a second project; or

(2) The developer of a second project is willing to sacrifice the maximum profits which could be obtained by selling interests in the second project to new investors.

These options hardly seem to be in the best interests of the tenants as apparently intended by section 1039 in the tax law. The tenants have the choice of paying a premium price for gaining control of their own housing or of being convinced to buy a project considered undesirable and in trouble both by the original investors in the project and by the original developer.

VI. Policy Recommendations for Alternative Incentives

In view of the costs to Government and the problems in manipulating depreciation allowances and administering them so that they create the desired results, a natural question to ask is, "Could we better accomplish these objectives by using more direct incentives?" This section of the paper will attempt to deal with some possible answers to that question. It is assumed that the objectives to be achieved are (1) development of housing for low- and moderate-income families, and (2) responsible operation of the property over a period of years, including an option for tenant ownership. With respect to development incentive, fees could be directly paid to the developer. With respect to operation, the initial owner could

be encouraged to turn the property over to a tenant group after stable operation and management ability is established; alternatively a combination of higher allowed cash return (dividend) and larger rent subsidies could encourage long-term operation by the original owner in cases where this might be desirable.

A. Direct Fees

Since the effect of the present accelerated depreciation allowances is to provide a mechanism for the developer to extract a development fee, the direct approach would be to pay this fee outright and avoid the passive (and remote) investors as well as the legal and administrative expenses of syndication. HUD could administer direct fees to the developer just as it now administers the mortgage insurance and interest subsidy on behalf of the tenants. Fee schedules could be negotiated with individual developers or set by regional offices and could reflect the more risky nature of central city rehabilitation by allowing higher fees there. Similarly, fees for new construction projects could be set higher in those areas, such as suburban municipalities, where the local HUD office determines there is the greatest need.

B. Fees in Project Mortgage

Alternatively, development fees could be included in the mortgage of a subsidized low- and moderate-income housing project. Little administrative cost would be added to the mortgage insurance mechanisms by allowing the insuring office to set fees for development at rates required in each local area, just as is now done with architect's fees, legal fees, builder's overhead allowance and so on. If it is acknowledged that the Government is actually paying a developer fee (in addition to insuring the mortgage) through the costly and clumsy method of offering tax savings to investors, then there is no reason why the BSPRA could not be increased from 10 to 20 or 25 percent or whatever local experience showed was necessary to induce development. The developer's fee would then come from the mortgage proceeds at completion of construction.[15] If larger developer fees were allowed in the mortgage calculation (and nonprofit sponsors were allowed to include a fee), the annual mortgage payment for the project would be higher than is presently the case. Without additional interest subsidy, of course, this would raise the required rent and eligible incomes. It would be necessary, therefore, to make up the difference in the interest subsidy, but Government payments would thereby be spread over the life of the project rather than concentrated near the beginning.

C. Operating Incentives

Either approach for providing the development fee must assure that the developer has some responsibility for seeing that the construction is of adequate quality and that the project is operated responsibly.

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[15] There is an irony about this proposal in that it looks very much like the post-World War II "608" rental housing program (so named because of the section in the National Housing Act creating it). In the 608 program the mortgage did not have to reflect certified costs and could include as much allowance for profit as the builder/developer thought he could get. Several hundred thousand units were built under this program before congressional and public criticism of the pattern of federally insured mortgages greater than direct development costs brought the program to a halt in the mid 1950's. (See Charles Abrams, *The City is the Frontier* (New York: Harper and Row, 1965), p. 88.) Clearly the tax incentive technique is just a much more complicated, but also better hidden scheme to accomplish the same thing. Whether the public is better prepared to acknowledge the necessity of development fees now, in a time when Government contracting for all sorts of goods and services routinely includes allowances for profit, is a matter of conjecture.

The same issue is, of course, present now, since the developer extracts his fee at the outset through syndication. Most developers, though, wish to continue their business both with the investment community and with the FHA mortgage insurance programs. This adds some motivations over and above those which are limited to a particular project. The desire to stay in business with FHA mortgages would presumably provide similar motivations even if the developer's dependence on investors were reduced under a program of substituting direct fees for tax allowances. One mechanism for building in appropriate incentives for the developer would be for the insuring office to withhold a portion of his fee for the first few operating years and pay part of it each year provided certain minimum tests of responsible operation were met.

D. Fees to Community-Based Sponsors

The same mechanisms for providing a development fee could be used both for profit-motivated developers and for a housing development group which acts as the developer for a local community group or for a tenant cooperative. Payment of a development fee to community housing development groups could provide them with not only the administrative costs of development and front money requirements, but also with some additional resources with which to undertake related social programs and services in the areas where housing was being developed.[16] Assuming continued ownership by a nonprofit community group or tenant cooperative, there would presumably be no requirement for including dividend payments in the rents to promote stable operation.

E. Magnitude of Fees

Development fees provided under this proposal would have to be competitive with the fees available in nonsubsidized rental housing and in commercial real estate development. Thus, the fee structure would need to take into account the tax treatment of other real estate as well as the type of aftertax return available from subsidized rental housing. Competition with other real estate development would, in part, depend upon whether depreciation allowances were removed from all real estate uniformly. Should the allowances be removed only from the subsidized units, the development fees for them would probably be pulled upward to the present arbitrary level of aftertax return (and development proceeds) of other real estate. Depreciation is such a thoroughly accepted practice, however, that it is probably unreasonable to expect all depreciation allowances to be removed from real estate.[17] Probably the best that could be expected is

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[16] See Langley C. Keyes, Jr., "The Role of Nonprofit Sponsors in the Production of Housing," *Papers Submitted to Subcommittee on Housing Panels*, pt. 2, Committee on Banking and Currency, House of Representatives, 92d Cong., 1st sess. (Washington, D.C.: Government Printing Office, 1971), pp. 159–182.

[17] For the tax system to be neutral with regard to real estate operation, the depreciation allowance would have to match the real economic loss in value of the property when that loss was realized. Work by Paul Taubman and Robert Rasche suggests that real economic depreciation of an apartment building may be very low for the first 40 or 50 years of the life of the building. (See Taubman and Rasche, "The Income Tax and Real Estate Investment" in *Tax Incentives* by the Tax Institute of America (Lexington, Mass.: D. C. Heath, 1971), pp. 113–142.) Or the rug could be pulled from under depreciation allowances if only actual investment were depreciable (not including value covered by a mortgage loan). See William McKee, "The Real Estate Tax Shelter: A Computerized Exposé," *Virginia Law Review*, Vol. 57, May 1971, pp. 521–573, and Adams, "Exploring the Outer Boundaries of the Crane Doctrine: An Imaginary Supreme Court Opinion," *Tax Law Review*, Vol. 21, 1966, pp. 159–181.

a reversion to allowance of straight-line depreciation only, such as is now the case for used commercial property (see app. II). In that case direct payments would not have to cover the full amount of developer fee. Other more direct incentives for nonsubsidized rental housing could certainly be developed, especially in the area of used housing; positive incentives might be used to reward modest rehabilitation and compliance with housing codes, for example.

F. Precedents for Direct Fees

The proposal for a direct fee in subsidized housing is not a new one. In fact, a form of it has been found quite successful in developing new units for public ownership under the public housing Turnkey program. In that program, of course, the developer is not expected to own or to operate the property, but he does get his fee in a lump sum as part of the overall contract. What is being proposed in this paper is that for privately developed and privately owned subsidized rental housing, a development fee could replace the tax incentive. The arrangement for payment of the fee could conceivably take several forms:

(1) "Turnkey" development for ownership by a nonprofit group or tenant cooperative, in which case the fee would be paid at completion. This already occurs with a builder's profit being included in the 100 percent mortgage. What is needed is an additional source of funds for administrative costs of the developer entity and for project set-up costs (such as training in tenant management).

(2) Development for short-range ownership (1 to 5 years), in which case part of the fee would be paid at completion and part at the end of each year of successful operation, with "success" measured in terms of the quality of housing services delivered (physical state of buildings and tenant satisfaction) and in terms of efforts made by the developer/owner to establish a capability for a tenant group or other local entity to manage and/or own the units. A possible form here would allow for a bonus paid to the owner when sale to the tenant group occurred; this would constitute an alternative to the "rollover" tax incentive.

(3) Long-term ownership and operation, in which case the developer would receive an initial fee (as in public housing Turnkey) and an annual bonus for successful operation administered by HUD. This would be quite analogous to the present option for contracted management by a private party of units owned by the local public housing authority.

VII. Government Costs for Direct Payment Options

Advantages can be seen in terms of administering housing policy more directly via the direct fee payment approach, but what of the costs to Government? The net drain on the Treasury of direct incentives should be smaller than the losses of revenue through the depreciation device. For this net saving to be achieved, however, it could be argued that one would have to be assured that the revenue foregone was actually collected and not simply lost through shifting to one of the many other tax shelters available (such as oil or railroad rolling

stock investment). However, competition in the capital markets tends to equalize the aftertax rate of return from tax shelters and the aftertax rate of return on nontax favored investments of equal risk. There should, therefore, be little escape of the revenue recovered by the removal of the real estate tax concessions. Furthermore, if a public service is performed in other tax favored areas, then the revenues from whatever housing investment is shifted are not "lost." It would be very important to act simultaneously on instituting direct fees and removing the depreciation allowances lest developers of subsidized rental projects be offered either a double development incentive or none at all.

In making calculations of Government costs under direct payment options I have made conservative assumptions. First, I have assumed that the Government payments must match in amount and timing the payments which are currently made to a developer/builder by limited partner investors. No reduction is made for the fee often taken by a tax shelter broker. Second, I have assumed that the Government cost with which these alternatives are to be compared is that for the typical "base case" projects discussed earlier, but assuming they are held entirely by investors applying the tax losses in the 50-percent income tax bracket. This underestimates the Government costs at present to the extent that actual projects may have investors able to shelter income which would otherwise be taxable in tax brackets ranging up to 70 percent, although the Tax Reform Act of 1969 reduced the maximum tax on earned income to 50 percent.

A. Government Purchase

If Government payments provide a complete substitute for payments to the developer/builder by investors, the question arises, "Who actually should 'own' the project?" The property itself supports the mortgage loan, guaranteed by Federal mortgage insurance. The remaining costs and developer fee would be covered by Government payments. As suggested earlier, this situation would be analogous to the public housing "Turnkey" program, in which a developer performs all of the tasks of development and is paid in full by the local housing authority, which then becomes the owner. In the case of 236 rental housing projects, HUD could retain ownership (highly unlikely), or assign ownership to a tenant management organization, or some other private party (including the original builder/developer) contingent upon satisfactory operation of the project. In these cases an accounting of Government costs should take into account the project dividends. If we hold everything constant except for the mechanism for financing the developer's fee, then the project dividends, to the extent earned, reduce the net Government costs.

Tables 1 and 2 summarize the cost to Government calculations for full replacement of the investor capital contributions by direct Government payment to the developer/builder. The important variables are:

(1) The discounted present value of Government costs. Discount rates of zero, 4, 6, 8, and 10 percent are used. (I do not propose the evaluation of Government costs by just adding them all up—using a zero discount rate. This calculation is simply included for completeness.) The results are divided by the amount of the mortgage loan as a scaling factor.

(2) Project dividend—dividends may be earned or not.

(3) Payment method—direct payment assumes three payments matching the investors' typical payment schedule. Payment through the project mortgage assumes that the mortgage amount is increased by an amount sufficient to cover the three payments to the developer/builder and the annual interest subsidy is increased by enough to cover the additional increment in mortgage payment (tenant rents are unaffected).

(4) Change from base cost—base costs assume the project dividend is earned.

TABLE 1.—GOVERNMENT COSTS FOR NEW CONSTRUCTION

	Government discount rate equals 0 percent		4 percent		6 percent		8 percent		10 percent	
	Percent value of Government cost (percent mtg.)	Percent change from base cost	P.V.	Percent change	P.V.	Percent change	P.V.	Percent change	P.V.	Percent change
Developer/investor owned:										
1. Dividends earned (base case)	8.1		10.8		11.0		10.9		10.6	
2. No dividends	14.8	Up 82.0	15.1	Up 40.4	14.6	Up 32.8	13.9	Up 27.8	13.2	Up 24.4.
Government purchase:										
1. Outright payment to developer:										
(a) Dividends applied	1.2	Down 85.9	5.2	Down 51.5	6.5	Down 41.2	7.4	Down 32.3	8.0	Down 24.0
(b) Dividends lost	14.5	Up 76.8	13.9	Up 29.3	13.7	Up 24.3	13.4	Up 23.4	13.2	Up 24.7
2. Payment from mortgage with increased annual subsidy:										
(a) Dividends applied	15.1	Up 85.9	9.9	Down 8.5	8.2	Down 25.7	6.9	Down 32.3	5.9	Down 44.6.
(b) Dividends lost	28.5	Up 250.0	18.6	Up 72.4	15.4	Up 39.9	12.9	Up 18.8	11.0	Up 4.1.

Note: P.V. equals discounted present value; Mtg. equals amount of mortgage loan.

TABLE 2.—GOVERNMENT COSTS FOR REHABILITATION

	Government discount rate equals 0 percent		4 percent		6 percent		8 percent		10 percent	
	Percent value of Government cost (percent mtg.)	Percent change from base cost	P.V.	Percent change	P.V.	Percent change	P.V.	Percent change	P.V.	Percent change
Developer/builder owned:										
1. Dividends earned (base case)	15.9		25.2		26.7		27.2		27.0	
2. No dividends	22.5	Up 41.9	29.6	Up 17.3	30.3	Up 13.5	30.2	Up 11.2	29.6	Up 9.6.
Government purchase:										
1. Outright payment to developer:										
(a) Dividends applied	11.0	Down 30.9	14.7	Down 41.8	15.7	Down 41.2	16.5	Down 39.4	17.0	Down 37.
(b) Dividends lost	24.3	Up 53.2	23.4	Down 7.2	22.9	Down 14.2	22.5	Down 17.1	22 2	Down 17.9.
2. Payment from mortgage with increased annual subsidy:										
(a) Dividends applied	34.4	Up 116.7	22.4	Down 10.9	18.6	Down 30.4	15.6	Down 42.5	13.3	Down 50.6.
(b) Dividends lost	47.7	Up 201.1	31.2	Up 23.7	25.8	Down 3.4	21.7	Down 20.2	18.5	Down 31.5.

The new construction results in table 1 and the rehabilitation project results in table 2 show that in almost every combination of these variables the net Government cost for a project could be reduced by full replacement of the investor capital contributions through direct payment. For example, Government costs could be reduced by 40 percent through direct payment if the appropriate interest rate for discounting future cash flows is taken to be 6 percent. Note that in cases where the project dividend is not earned the comparisons must be made consistently; Government costs under developer ownership with dividends lost must be compared with the no-dividend case after Government purchase. As might be expected, the option to finance the payment through increased mortgage amounts tends to yield reduced or increased Government costs depending upon whether the discount rate is greater than or less than the assumed mortgage interest rate (7 percent plus ½ percent mortgage insurance premium).

B. Government Supplements With Reduced Tax Allowances

If political opposition to complete replacement of the tax incentives by direct payments were found to be too great, other alternatives could be considered which leave the project in the hands of the builder/developer. That is, the tax allowances could be reduced, but the drop in investment value in projects such as 236 rental housing could be maintained by direct payments, again either outright or through the mortgage loan with increased annual subsidy. Calculations have been performed for several cases of interest:

(1) Restriction to straight-line depreciation.

(2) No depreciation at all allowed.

(3) No capital gains exclusion allowed (i.e., capital gains taxed at ordinary income tax rates).

(4) No taxes whatever (i.e., a tax-free dividend, since the depreciation losses have no value unless they are used to shelter taxable income).

(5) Taxable dividend only; no depreciation allowances nor other tax considerations.

In each case the discount rate used is 6 percent.

Table 3 summarizes the results, again scaling discounted present values of Government costs by the mortgage loan amount and comparing the alternative scheme with the base case cost. With the sole exception of the rehabilitation case in which depreciation is limited to straight-line and Government payments made to match the investment value of the current 5-year writeoff, every other alternative would result in a net reduction in Government costs, in some cases by as much as a third.

TABLE 3.—GOVERNMENT COSTS WITH REDUCED TAX ALLOWANCES

	Cost without supplementary payments—Present value of Government costs (percent mortgage)[1]	Costs of direct payments to restore current investment value			
		Outright payment		Payment from mortgage	
		Present value of added Government costs (percent mortgage)	Percent change from base case costs	Present va'ue of added Government costs (percent mortgage)	Percent change from base case costs
New construction:					
Base case	11.0				
Straight-line depreciation [2]	7.1	3.1	Down 7.0	3.5	Down 3.5.
No depreciation	[3] (3.0)	9.5	Down 40.3	10.7	Down 29.4.
No capital gains exclusion	7.8	2.0	Down 10.8	2.3	Down 8.5.
No taxes (tax-free dividend)	0	9.8	Down 11.3	11.0	No change.
Taxable dividend only	[3] (3.6)	11.7	Down 26.2	13.2	Down 12.9.
Rehabilitation:					
Base case	26.7				
Straight-line depreciation [4]	17.5	9.8	Up 1.8	11.0	Up 6.3.
No depreciation	[3] (2.7)	18.5	Down 40.8	20.8	Down 32.1.
No capital gains exclusion	20.2	4.7	Down 7.1	5.3	Down 4.9.
No taxes (tax-free dividend)	0	20.5	Down 23.3	23.1	Down 13.7.
Taxable dividend only	[3] (3.6)	21.7	Down 32.2	24.4	Down 22.1.

[1] Government discount rate, 6 percent.
[2] Economic life, 40 years.
[3] Net income from project (negative loss).
[4] Economic life, 20 years.

C. Moving Toward Direct Incentives

Since almost any scheme which moves in the direction of replacing tax allowances with direct payments results in net reductions in costs to Government, the important issue would seem to be that of focusing the attention of the Congress on the present costs via tax expenditures. Once convinced of the magnitude of the costs involved and that they are as real a drain on the Federal budget as those revenues which are collected and disbursed, virtually any alternative which provided the funds to make up for tax reductions would be more efficient.

It should be underscored that in all of the numerical calculations just presented the investment values based on current tax law were matched. Since the investment values created by the tax incentives are almost arbitrary, direct incentives would not necessarily have to be so large. They could be adjusted to bring forth the desired degree of private response. In particular, for section 236 rental projects, it would be illogical to provide more funds for direct payment of development fees than were necessary to elicit enough developer response to produce the number of units which were funded for interest subsidy.

Once the idea of replacement of tax incentives in real estate is successfully applied in a case as clear-cut as 236 rental housing, more general revisions might be regarded more favorably. The calculations for Government cost for the new construction case, for example, apply to any new residential construction held for comparable periods (20 years) and with the depreciable value scaled roughly to the mortgage amount. The administration of direct replacement is less obvious for nonsubsidized than for subsidized rental housing. For market-interest-rate FHA programs for multifamily mortgage insurance, such as is available in urban renewal areas (under section 220), the FHA could also administer a direct payment scheme. For conventionally financed apartment development, developers could be offered an election between (1) the current tax treatment, and (2) reduced tax allowances (as, for example, restricting the property to straight-line

depreciation and/or removing the capital gains exclusion) combined with direct payments, again made by HUD. Eventually the favorable tax allowances could be cut entirely with the HUD direct payment oriented to those projects which met some particular public objective—modest rents, inclusive racial policy, desired location—other than the mere provision of housing to those who will pay the market price.

Still more diffuse applications of the funds now being applied to real estate through tax expenditures are conceivable. For example, housing subsidies might be provided to eligible families which are applicable only on moving into a newly constructed unit. The developer could achieve his return in the conventional manner—either through net profits from rentals or through the capitalized value of the project based on market rents. Such an approach would begin moving to augment the demand side of housing more directly.

VIII. Primary Observations and Conclusions

The primary function of the special depreciation allowances for residential rental property, especially in Government-subsidized low- and moderate-income family housing, is to provide a device for the developer to extract a fee for his development efforts which he is unable to obtain from the mortgage proceeds. Increasingly, developers are recognizing the advantage of selling interests in the property to individuals in high-income tax brackets who are interested in the tax shelter the property generates. This device draws in parties who would not otherwise be interested in investment in housing nor in its successful operation, except to obtain and protect their tax shelter once funds are invested. Furthermore, because these investors demand high after-tax rates of return, the net loss to the Government in taxes is greater than the costs of direct payment of the "fee" to the developer.

It is recommended that in the interests of simplifying an already complex housing production system, of centralizing administrative responsibility and of improving efficiency in Government, a more direct system of development fees be established in lieu of the depreciation allowances. These fees could either be paid directly by Government (as on Government contracts) or could be included in the actual mortgage amount, in which case some additional subsidy should be added to the project interest subsidy to cover the increment in mortgage payment arising from the development fee. Outright replacement of the investment value of these rental projects would enable the Government to assign ownership, where feasible, to tenant organizations. Even if ownership is left in the hands of the developer/builder, reduced tax allowances coupled with direct payments to the developer/builder to make up for the reduction in investment value could also produce net savings in costs to Government. In either case, development and operation of subsidized housing would be under more direct policy control because Government would control the economic incentives directly rather than indirectly through the tax system.

The "rollover" incentive to sell a rental project to tenant groups and reinvest in another low- and moderate-income project supposedly created in the Tax Reform Act of 1969 is not likely to work. That is, the owner will be motivated to hold the original property to defer gains taxes attached to sale and the developer will likely start the new project afresh because this is a more lucrative approach than the election of the

"rollover" option. It is suggested that the incentive to sell to tenants and the incentive to start new projects be separated. The recommended approach is to pay directly and separately development fees and bonuses for the sale of a project to the tenants.

Appendix I

THE ROLE OF TAX SHELTER

Tax laws permit large paper (not cash) losses to be claimed for real property in the form of depreciation that owner/investors can apply to offset ordinary income on which Federal income tax would otherwise be due.[18] The result is that a large part of the aftertax return from such projects is in the form of tax savings, that is, income which would have been paid as Federal income tax had the owner not been able to claim the depreciation. In order to gain an appreciation for the importance of accelerated depreciation in the returns available from a section 236 rental project, consider first the situation without tax benefits.

A. Investment Criteria

Fundamental requirements for undertaking development of rental housing include: (1) marketability of the units, with respect to location, type and level of rent, (2) sufficient net income from rents after payment of operating expenses to cover mortgage payments and have left sufficient aftertax profit for the owner, (3) willingness of a lender of mortgage funds to take a mortgage for the property for a high fraction of the actual total development costs. A 236 project suitably located would satisfy the marketability and mortgage requirements, but the cash dividend alone would not provide sufficient profit. A greatly simplified example may help to illustrate the developer's perspective and to show why the tax aspects of a 236 project are essential for its profitability to the developer. (The more exact computations used in this paper are discussed in app. III; readers already familiar with the workings of tax shelter in real estate may wish to skip the remainder of this appendix.)

A typical 236 project of 100 units might have the following costs:

Total direct costs	$2, 020, 202
Builder's and sponsor's profit and risk allowance (10 percent)	202, 020
Total replacement costs	2, 222, 222
Mortgage amount (90 percent) (rounded)	2, 000, 000
Builder/developer's cash investment (3 percent)	60, 000

In this project the annual dividend is 6 percent of an assumed equity of $222,222 (10 percent of total replacement costs) or $13,333. The before-tax profit, or return, is thus actually 22 percent on the actual cash investment ($13,333/$60,000). Neglecting depreciation for the moment and assuming the developer is in the 50-percent income tax bracket, his aftertax return is only 11 percent.[19] Since this return is not competitive with the returns available from conventional real estate, we see the need for additional incentives and turn now to the role of allowances for accelerated depreciation.

B. Depreciation Allowances [20]

Straight-Line Depreciation

If, in addition to the dividend, depreciation of the value of the building is allowed at a steady rate (straight-line depreciation) over the economic life of the building, a paper loss for tax purposes of $50,000 per year is created. (Assume that

[18] The term "paper loss" is used to indicate that the loss taken in depreciation for tax purposes is not a cash expense but a loss existing only on paper (the tax forms).

[19] Actually, neglecting depreciation for the moment, taxable income is gross rents less all cash expenses except the principal repayment portion of the mortgage payment. The owner thus would have to pay tax on the principal repayment as well as the cash dividend, leaving him with an after-tax cash return of even less than 11 percent.

It could also be argued that the builder and developer could have earned a straight fee of 10 percent for their services if they had not chosen to own this project. In this case their "sweat equity," or imputed equity, would be 10 percent before tax and 5 percent after tax (for a builder/developer in the 50-percent marginal income tax bracket). The total equity would then be the 5-percent aftertax sweat equity plus the cash expense, $141,111 in this example. The aftertax rate of return from the project dividend would then be only about 4¾ percent—again hardly attractive.

[20] Internal Revenue Code, section 167.

the value of the building is $2 million and that its economic life is 40 years.)[21] The taxable income from real estate operation is the sum of the cash profit left after all costs (including mortgage interest but not mortgage principal repayments) and the depreciation. The $50,000 paper loss would more than offset the taxable income from the cash dividend and mortgage principal repayments, at least in the early years, when the mortgage payment is mostly interest, and no income tax would be due. The dividend from the rents is converted by the allowance of straight-line depreciation into at least a 22 percent aftertax return in our simplified example and begins to look more attractive.

Accelerated Depreciation

If, in addition, the property is eligible for accelerated forms of depreciation, which allow more annual depreciation to be taken in the early years than the straight-line rate, additional paper losses are created. (See app. II for a list of the available forms of accelerated depreciation.) New residential construction and qualifying rehabilitation expenditures are eligible for this favorable tax treatment. If our example is a new construction project, it is eligible for a $100,000 paper loss in the first year rather than the $50,000 straight-line depreciation allowance above. Since the income from the property itself could already have been sheltered from tax under straight-line depreciation, the allowance for accelerated depreciation creates excess paper losses which have value as a tax shelter for persons with taxable incomes from other sources. The higher the income (hence the higher the tax bracket) of the person claiming this loss, the greater the value of the tax savings. For example, a $50,000 paper loss used by a person with $50,000 of income in the 50-percent tax bracket saves him $25,000 in taxes, while for a person in the 70-percent tax bracket use of the loss saves $35,000 in taxes. (I refer here to average marginal bracket in the range of income sheltered.)

C. Taxes on Gain From Sale

To the extent that the sale price (less expenses of sale) exceeds the depreciated value of a building, the owner is subject to tax on the gain. Because it is recognized that the allowance of accelerated depreciation is an inducement to investment and generates returns in the form of tax savings, tax law provides that for a period of time the amount of gain realized that is attributable to the excess of accelerated depreciation over what straight-line depreciation would have been is to be taxed, or recaptured, at ordinary income rates.[22] For new rental housing with limited dividends (basically State and Federal interest subsidy programs) the "recapture" of tax at ordinary income tax rates on excess depreciation recovered at sale is relieved, or shifted to tax at capital gains rates, at 1 percent per month beginning with the 20th month, so that all of the gain realized is taxed at capital gains rates after the 120th month, or 10 years from original completion. The corresponding interval for rehabilitation and all other real estate is from the 100th to the 200th month. This incentive is obviously to hold the property longer to diminish taxes at sale based on ordinary income tax rates.

It should be noted that even after the recapture period is over, taxes at capital gains rates are still due on the difference between the sale price and the depreciated value of the property. Expiration of the recapture period simply means that there is no portion of the gain taxed at ordinary income tax rates; all of the gain is taxed at capital gains rates. The recapture provisions and other essential features of the tax treatment of real estate are summarized in appendix II. The taxes at sale thus reduce the net benefit from the depreciation allowances. Investment value has been enhanced in two ways, however: (1) the tax shelter defers payment of income taxes, and (2) to the extent that these taxes are eventually converted to capital gains taxes, the tax has been not only deferred but converted to a lower amount.

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[21] Note that the total value of the building is depreciable, not just the fraction representing direct investment by the owner.

[22] Internal Revenue Code, section 1250.

Appendix II

SUMMARY OF THE TAX REFORM ACT OF 1969

This appendix summarizes the essential features of the tax treatment of real estate in the Tax Reform Act of 1969: [23]

Rehabilitated Housing (Internal Revenue Code, Sections 167(K) and 1250)

(1) Depreciation of rehabilitation expenditures of at least $3,000 but not more than $15,000 per unit at a straightline rate over 60 months.[24]
(2) Recapture period, 200-month rule: recovery at sale of excess depreciation taken over normal straight-line is taxed at ordinary income tax rate; at 100th month, 1 percent per month of excess depreciation taken is subject to capital gains tax rather than ordinary income tax; all gain recovered at sale after 200 months is taxed at capital gains rate.[25]
(3) Eligible for rollover only if 221(d)(3) or 236.[26]

New Housing (IRC, Sections 167 and 1250)

(1) Depreciation deduction may be computed using (a) 200 percent declining balance, or twice the normal straight-line rate applied to the undepreciated balance, or (b) sum of the years digits.
(2) Recapture period: 200-month rule for unsubsidized housing; 120-month rule for 221(d)(3) and 236.
(3) Eligible for rollover only if 221(d)(3) or 236.

Used Housing (IRC, Sections 167 and 1250)

(1) Depreciation at 125 percent declining balance (only if useful life of 20 years or more, otherwise, straight-line).
(2) Recapture: 200-month rule.

Other New Property (IRC, Sections 167 and 1250)

(1) One-hundred-fifty percent declining balance depreciation.
(2) Two-hundred-month recapture rule.

Other Used Property (IRC, Sections 167 and 1250)

(1) Straight-line depreciation.
(2) No recapture (no excess depreciation allowed).

Minimum Tax (IRC, Sections 56–58)

A tax of 10 percent is imposed on certain tax preference income:
(1) One-half of the net long-term capital gain;
(2) Excess depreciation (amount in addition to that at the straight-line rate including the accelerated portion of depreciation rehabiliation expenditures).

The minimum tax is paid on tax preference income (income which would be taxed but is not because of a tax preference) to the extent it exceeds $30,000 plus the regular income tax. Computations in this paper assume that the $30,000 allowance has already been applied to cover tax preference items other than the project being considered.

Excess Investment Interest (IRC, Section 163)

One-half of excess investment interest over net investment income is disallowed as a deduction. However, most real estate operations can be structured to avoid this provision.

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[23] H.R. 13270, 91st Cong., Public Law 91-172. For additional discussions, see U.S. Cong., Joint Committee on Internal Revenue Taxation, "General Explanation of the Tax Reform Act of 1969" (Washington, D.C.: Government Printing Office, Dec. 3, 1970); C. Willis Ritter and Emil M. Sunley, Jr., "Real Estate and Tax Reform: An Analysis and Evaluation of the Real Estate Provisions of the Tax Reform Act of 1969," *Maryland Law Review*, XXX (winter, 1970), and Phillip David, *Urban Land Development* (Richard D. Irwin, Inc., 1970), pp. 89–109.

[24] Depreciation rules in Internal Revenue Code, section 167.

[25] Recapture provisions, Internal Revenue Code, section 1250.

[26] The term "221(d)(3)" refers to rental housing developed under this section in the National Housing Act and having a 3-percent mortgage loan. The section 236 program is replacing the section 221(d)(3) program.

Capital Gains Tax Rate (IRC, Section 1201)

Corporate capital gains rate is now 30 percent. For individuals, the first $50,000 of capital gains is taxed at the lesser of half the ordinary income tax rate or 25 percent. Capital gains over $50,000 are taxed at one-half the ordinary income tax rate, meaning that 70-percent bracket individuals will pay an effective capital gains rate of 35 percent. Computations in this paper assume that the taxpayer already has had $50,000 in capital gains from other sources.

Appendix III

INVESTMENT AND GOVERNMENT COST CALCULATIONS

The detailed calculations used in this paper were performed using a computer program developed for use in the author's thesis research. The program allows specification of a number of details about a rental housing project for purposes of investment analysis and evaluation of government costs. The base case parameters used in the calculations summarized in the text of the paper and a discussion of the tax sinking fund assumed for payment of taxes at sale are presented in this appendix.

A. Base Case Parameters

Cost elements (presented as a percentage of the mortgage amount):

Land, 3 percent.

Construction expenses (taken as an expense for tax purposes in the year of development; expenses are real estate tax, interest on the construction loan, and certain fees), 8.5 percent (new construction); 9.2 percent (rehabilitation).

Original structure (rehabilitation only), 6.75 percent.

Mortgage terms: 40 years, 7-percent interest rate plus ½ percent mortgage insurance premium.

Development period: 1 year.

Economic life: 40 years (new construction); 20 years (rehabilitation).

Depreciation methods:

New construction, 200 percent, declining balance (twice the straight-line rate applied to the undepreciated balance).

Rehabilitation, 5-year straight-line depreciation on the first $15,000 per unit of rehabilitation expenditures, 200 percent declining balance on excess over $15,000 per unit—$2,185 in these examples; 125 percent declining balance on original structure.

Depreciable basis, mortgage loan amount plus investors' capital contributions less costs expensed during development less land costs.

(Note.—Unlike some syndication offerings, the calculations performed here do not assume component depreciation for replaceable equipment items. However, the replacement reserve which must be included in rents is treated as being spent in each year. These two assumptions have small and opposing effects on investment value. Switch to straight-line depreciation is made where advantageous.)

Minimum tax: The minimum tax of 10 percent is imposed on preference income from excess depreciation (over straight-line) and on the excluded portion of capital gains.

Sale terms: Projects are sold for the outstanding balance on the mortgage loan in the 21st project year unless otherwise noted.

B. Tax Sinking Fund

In cases for which the after-tax cash proceeds from sale are negative (because of the large gains taxes and small cash proceeds after paying off the mortgage loan balance) a conservative assumption is made: sufficient aftertax returns from the latest possible years of operation of the project are placed into a tax sinking fund such that by accumulating at a modest aftertax rate of interest (4 percent) the value of the tax sinking fund is exactly enough to match the cash loss at sale. In such a case, the present value is computed only for the aftertax returns remaining after the tax sinking fund is established. This approach is taken because typical investors in tax shelter syndications do not want to be presented with in investment having a period of years of return terminated with a large loss. The tax sinking fund assumption is the practice currently used for presenting the investment value of projects.

Some analysts insist upon discounting even such a negative return at the investor's discount rate. However, at the high rates of return being demanded by investors in real estate syndications (in the range of 15 to 25 percent) using those

rates to discount negative returns is the equivalent of assuming those are the interest rates with which the tax fund (outlined above) accumulates or, alternatively, that a small amount of funds in addition to those given the builder/developer can be invested at the outset elsewhere, not in this project, and compound at his rate over the entire holding period.

The tax sinking fund approach is admittedly a conservative one. If the investors demand 15 percent aftertax return in a new project or 25 percent in a more risky rehabilitation project, then these rates could be assumed to represent their opportunity costs, the implication being that the investor could always invest his money during the period of ownership and earn these rates of return. However, this requires that investment opportunities equivalent to the projects at hand continue to be available and that accumulated cash returns could be withdrawn from such investments on demand in the year of sale of the project. These assumptions are apparently too speculative for the average tax shelter investor. The tax sinking fund analysis is the practice used. This does not mean that the investor must actually use a sinking fund, of course. He is free to do as he likes with his aftertax returns. Use of the tax sinking fund in the investment analysis is simply a conservative way of satisfying the investor's concern with the eventuality of large losses in the year of sale because of the gains taxes.

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