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Housing Subsidies and Homeowners: What Role for Government-Sponsored Enterprises?

HOUSING SUBSIDIES IN THE United States are provided by a patchwork of different programs and serve a variety of constituencies. The best-known programs are designed to serve low-income households directly by expanding the stock of “affordable” housing through new construction or indirectly by increasing the effective demand for housing. The most expensive housing subsidy programs provide tax relief diffusely to homeowners of all income classes. The least well-understood programs provide government guarantees that reduce the cost of housing credit in the market. This paper considers these latter programs in the broader context of U.S. housing policy.

In the first section we provide a brief review and taxonomy of federal housing programs, including direct public expenditures on housing and indirect expenditures through the tax system. We also describe federal credit and guarantee programs that reduce the cost of credit to those purchasing housing. In the second section, we summarize estimates of the economic and budgetary costs of these programs. We also compare these estimates across housing programs that serve households of various income classes. In the third section, we consider reforms to credit and guarantee programs that would improve efficiency and reduce costs to the U.S. Treasury. A final section offers a brief conclusion.

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Federal Housing Programs

There are a variety of taxonomies for describing the role of the federal government in housing and the public resources devoted to these activities. Low-income housing programs may be distinguished from programs benefiting middle- or upper-income households. Programs based on direct congressional expenditures may be distinguished from those based on tax expenditures, and programs that directly add units to the housing supply may be distinguished from those that have indirect effects on the quality and quantity of housing. There is no simple correspondence mapping these taxonomies onto program types. We proceed by describing programs briefly from a budgetary perspective.

Direct Federal Expenditures on Housing

The federal government spends money directly on housing through two types of programs: construction programs and voucher programs.

CONSTRUCTION PROGRAMS. Direct federal expenditures on housing began with the Public Housing Act of 1937, which was intended to “remedy the acute shortage” of decent housing through a federally financed construction program that sought to eliminate “substandard and other inadequate housing.” For a quarter century, low-rent public housing was the only federal program providing housing assistance to the poor. Dwellings built under the program are financed by the federal government but are owned and operated by local housing authorities. An important aspect of public housing is that the rental terms specified by the federal government ensure occupancy by low-income households, currently at rents no greater than 30 percent of their income.

In the 1960s this program of government construction of dwellings reserved for occupancy by low-income households was supplemented by a variety of programs inviting the participation of limited-dividend and non-profit corporations. These programs, which directly increased the supply of privately owned “affordable” housing, were suspended in the early 1970s. But housing capital is long-lived, and at the turn of the century more than a half million of these subsidized units were still in the housing stock.¹

1. Quigley (2000, table 1).

Section 8 of the Housing and Community Development Act of 1974 increased the participation of private for-profit entities in the provision of housing for the poor. The act provided for federal funds for the “new construction or substantial rehabilitation” of dwellings for occupancy by low-income households. The federal government entered into long-term contracts with private housing developers, guaranteeing a stream of payments of fair market rents for the dwellings. Low-income households paid 25 (now 30) percent of their income on rent, and the difference between tenant payments and the contractual rate was made up by direct federal payments to the owners of the properties.

THE VOUCHER PROGRAM. Crucial modifications to housing assistance policy were introduced in the Section 8 housing program: the restriction that subsidies be paid only to owners of *new* or *rehabilitated* dwellings was weakened and ultimately removed, and payments were permitted to landlords on behalf of a specific tenant (rather than by a long-term contract with a landlord). This tenant-based assistance program grew into the more flexible voucher program introduced in 1987. Households in possession of vouchers receive the difference between the fair market rent in a locality—the median rent, estimated regularly for each metropolitan area by the Department of Housing and Urban Development (HUD)—and 30 percent of their income. Households in possession of a voucher may choose to pay more than the fair market rent for any particular dwelling, up to 40 percent of their income, making up the difference themselves. They may also pocket the difference if they can rent a HUD-approved dwelling for less than the fair market rent.

In 1998 legislation made vouchers and certificates “portable,” thereby increasing household choice and facilitating movement among regions in response to employment opportunities. Local authorities were also permitted to vary their payment standards from 90 to 110 percent of fair market rent. The 1998 legislation renamed the program the Housing Choice Voucher Program; it currently serves about 1.9 million low-income households.

Indirect Expenditures on Housing

Indirect expenditures on housing include tax expenditures and federal credit and insurance programs. Tax expenditures comprise income taxes, mortgage revenue bonds, and low-income housing tax credits, while federal credit and insurance programs comprise explicit insurance programs and mortgage credit.

TAX EXPENDITURES. The most widely distributed and notoriously expensive subsidy to housing is administered by the Internal Revenue Service (IRS). Since the introduction of the federal income tax in 1913, investments in owner-occupied housing have been treated differently from other household investments. If taxpayers invest in a “standard” asset (such as equity shares), dividends accruing under the investment are taxed as ordinary income, and profits realized at the sale of the asset are taxed as capital gains. At the same time, the costs of acquiring or maintaining the investment become deductible expenses in computing the net tax liability under the Internal Revenue Code.

In contrast, if a taxpayer makes an equivalent investment in owner-occupied housing, both the annual dividend (that is, the value of housing services consumed in any year) and the first \$500,000 (for married taxpayers) of capital gains on qualified housing are exempt from taxation. Nevertheless, two important investment costs—mortgage interest payments (up to \$1 million for married taxpayers) and local property taxes—continue to be allowed as deductible expenses, although depreciation, maintenance, and repair expenses are not deductible.

Significant benefits of this form have been in effect since the enactment of the Internal Revenue Code. The budgetary cost of the program (that is, the forgone income tax revenues resulting from these special provisions), detailed in the following section, are sensitive to monetary and tax policies. As interest rates rise, the value of the deduction for interest paid increases. If federal or local tax rates are reduced, the value of the homeowner deduction declines.

The second type of tax expenditure consists of mortgage revenue bonds. States have always been permitted to issue debt, and the interest payments made by states (and their local governments) on this debt have been exempt from federal taxation. Until 1986, states were free to issue debt for virtually any purpose, including tax-exempt bonds whose proceeds were used to build or buy residential housing. The Tax Reform Act of 1986 placed a cap on the volume of bonds that states could issue for “private purposes.” This cap was revised several times; in 2002 the cap for each state was set at the larger of \$225 million or \$75 per state resident. The cap is automatically adjusted annually for inflation. “Private purposes” include most tax-exempt facilities (such as airports), industrial development agencies, student loans, and housing (multifamily construction and homeowner subsidies). The allocation of private-purpose bond authority among these activities is undertaken by each state, and the priorities among states may vary substantially.

The subsidy provided by tax-exempt bonds—the net difference between the market interest rate and the rate for tax-exempt paper—varies with changes in federal tax rates and with interest rate policy. When interest rates are low and the spread between taxable and tax-exempt rates is small, tax-exempt bonds may not be issued at all, since the costs of issue (underwriting, bond counsel, and so forth) are relatively high.

The third type of tax expenditure consists of tax credits. The low-income housing tax credit (LIHTC) program was authorized by the Tax Reform Act of 1986 to provide direct subsidies for the construction or acquisition of new or substantially rehabilitated rental housing for occupancy by lower-income households. The LIHTC program permits states to issue federal tax credits that property owners can use to offset taxes on other income or can sell to outside investors to raise initial development funds for a project. For a property to qualify, owners must set aside 20 percent of units for households with incomes below 50 percent of the median income in the local area, or they may set aside 40 percent of units for households with incomes below 60 percent of the area median. Rents for these dwellings are limited to 30 percent of income. Qualification requires that these units be set aside for occupancy by lower-income households for a period of thirty years.

The aggregate amount of tax credits authorized by the LIHTC program has been increased several times since its inception, to \$1.75 per person in 2002, with automatic adjustments for inflation annually since 2003. Federal tax credit authority is transmitted to each state, on a per capita basis, for its subsequent distribution to developers of qualified projects. The amount of the credit that can be allocated to a specific project is a function of its (non-land) development costs, the proportion of units set aside for lower-income households, and its credit rate (4 percent for projects also financed by the tax-exempt bonds described above and 9 percent for other projects.) The credits are provided annually for ten years, so a “dollar” of tax credit authority issued today has a present value of \$6 to \$8.

FEDERAL CREDIT AND INSURANCE PROGRAMS. Federal credit and insurance programs consist of explicit insurance programs as well as mortgage credit.

The Federal Housing Administration (FHA) was established in 1934, in the depths of the depression, to oversee a program of home mortgage insurance against default. Insurance was funded by a fixed premium charged on the unpaid balance of mortgage loans. Subsequently, this was changed to a fixed premium at closing and ultimately to a sliding scale based on the initial loan-to-value ratio (a proxy for the riskiness of a loan). The mortgage

insurance fund overseen by the FHA was required to be “actuarially sound,” and for the most part it has remained so.

The Veterans Administration (VA) mortgage program was passed as a part of the GI bill in 1944 as a temporary “readjustment” program for returning veterans. It was transformed in 1950 into a liberal program of home loans available to veterans for a decade or more after their return to civilian life. In contrast to the mutual insurance concept of the FHA, the VA provided a federal guarantee for up to 60 percent of the face value of a mortgage loan made to a veteran, up to a legislated maximum. The difference between the actuarial risk of these VA mortgages and the fees paid by veterans represents the economic costs of the guarantee program to the federal government.

Over time, limitations in the legislated maximum loan size systematically reduced the fraction of new mortgages eligible for VA financing (and FHA financing, too), reducing the share of VA and FHA guarantees in newly issued home mortgages, from 37 percent in 1950 to about 9 percent in 2004.²

Federal support for housing credit also began in the aftermath of the great crash, with the establishment of the Federal Home Loan Bank (FHLB) system in 1932. Congress chartered FHLBs to provide short-term loans to retail mortgage institutions and thus help to stabilize mortgage lending in local credit markets. Interest rates on these advances were determined by the low rates at which this government corporation, the FHLB Board, could borrow in the credit market. In 1938 the Federal National Mortgage Association was established as a government corporation to facilitate a secondary market for mortgages issued under the newly established FHA mortgage program. The willingness of the Federal National Mortgage Association to buy these mortgages encouraged private lenders to make FHA, and later VA, loans.

In 1968 the association was reconstituted as a government-sponsored enterprise (GSE), Fannie Mae; the change allowed Fannie Mae’s financial activity to be excluded from the federal budget. Its portfolio of government-insured mortgages was transferred to the newly established Ginnie Mae, a wholly owned government corporation. In contrast, ownership shares in Fannie Mae were sold and publicly traded. Fannie Mae continued the practice of issuing debt to buy and hold mortgages, but focused on purchasing conventional mortgages not guaranteed or insured by the federal govern-

2. Quigley (2006, fig. 3). Of course, this is not the only reason for the decline in FHA and VA guaranteed mortgage finance. A large and competitive private mortgage insurance industry grew—and was facilitated by—these agencies.

ment. Freddie Mac was established as a GSE in 1970, but it did not become a publicly traded firm until 1989. Originally, Freddie Mac chose not to hold purchased mortgages in its portfolio. Instead, mortgages were pooled, and interests in those pools—mortgage-backed securities—were sold to investors with the default risk guaranteed by Freddie Mac.

The structure of mortgage credit has evolved, and today virtually all FHA and VA guaranteed mortgages are securitized by Ginnie Mae, whose guarantee is based on the full faith and credit of the U.S. government. Other mortgages, subject to specific balance limits and underwriting guidelines—referred to as “conforming conventional” mortgages—are securitized by Freddie Mac and Fannie Mae. These mortgage-backed securities are guaranteed against default risk by the GSEs themselves. Still other mortgages, which do not conform to the balance limits or underwriting guidelines imposed by the GSEs, are routinely securitized by investment banks and other private entities. These “private label” mortgage-backed securities are typically issued as “structured” products in which the credit risk is allocated among different tranches of the security, allowing final investors to tailor their holdings to their risk preferences.

The two mortgage GSEs—Fannie Mae and Freddie Mac—operate under congressionally conferred charters, which provide both benefits and obligations. Their foremost benefit is an implicit U.S. government guarantee of their debt and mortgage-backed-security obligations, as described in detail in the next section. The GSE charters affirm their primary obligations to:

- (1) provide stability in the secondary market for residential mortgages; (2) respond appropriately to the private capital market; (3) provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing; [and] (4) promote access to mortgage credit throughout the nation (including central cities, rural areas, and underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.

In short, the GSEs are obliged to support the secondary market for residential mortgages, to assist mortgage funding for low- and moderate-income families, and to be attentive to the geographic distribution of mortgage funding, including underserved areas.

The GSEs carry out their mission through two distinct business lines: (a) they create and guarantee mortgage-backed securities, and (b) they purchase and hold whole mortgages and mortgage-backed securities in their on-balance-sheet retained-mortgage portfolios. The GSEs state that both business lines are required to support the secondary mortgage market and to unify the geographic distribution of mortgage funding. Jaffee and Greenspan, among others, have pointed out, however, that the unhedged interest rate risk embedded in the retained-mortgage portfolios creates a large risk for the U.S. Treasury and a systemic risk for U.S. capital markets.³ These authors further argue that, since the GSEs issue mortgage-backed securities, the retained-mortgage portfolios are not at all necessary for the GSEs to carry out their charter obligations. This position underlies a current proposal (Senate Bill S. 190) to limit the size of the GSE retained-mortgage portfolios.⁴ This proposal is discussed below.

The GSE responsibility for assisting low- and moderate-income families and underserved geographic regions was formalized in the Federal Housing Enterprise Safety and Soundness Act of 1992, which requires the HUD secretary to establish annual GSE affordable housing goals. Table 1 reports the current housing goals for 2005 to 2008 as set in November 2004.⁵ The goals represent the proportion of each GSE's annual mortgage purchases that must satisfy the conditions for each category. Housing units may count toward more than one goal, and the mortgages may be either for home purchase or for refinance. The 2004 rules also introduced, for the first time, subgoals that can be satisfied only by home purchase loans, shown in part B of table 1. Finally, as shown in part C of table 1, HUD also established a multifamily subgoal for the dollar volume of multifamily mortgage purchases.

The annual housing reports by the GSEs to HUD have systematically confirmed that the firms are meeting their obligations for affordable housing goals.⁶ A substantial literature has now developed analyzing the efficacy of the HUD housing goals for promoting homeownership among lower-income

3. Jaffee (2003); Greenspan (2005).

4. See Jackling (2005); Wallison and Stanton (2005); Jaffee (2006).

5. HUD (2006).

6. However, in Fannie Mae's most recent report (Fannie Mae 2006), the firm indicated it had missed its home purchase subgoals for low- and moderate-income buyers and for underserved areas. Freddie Mac (2006b) also indicates that HUD has questioned the data used in the firm's 2005 annual housing report. HUD can impose penalties and restrictions if it finds that either firm has failed to meet its goals.

Table 1. GSE Housing Goals, as Set by HUD in November 2004^a**A. Primary housing goals (percent)**

<i>Area of focus</i>	2001–04	2005	2006	2007	2008
Low and moderate income	50	52	53	55	56
Special affordable	20	22	23	25	27
Underserved areas	31	37	38	38	39

B. Housing subgoals for home purchase^b (percent)

<i>Area of focus</i>	2005	2006	2007	2008
Low and moderate income	45	46	47	47
Special affordable	17	17	18	18
Underserved areas	32	33	33	34

C. Special affordable multifamily subgoals (billions of U.S. dollars)

<i>Institution</i>	2001–04	2005–08
Fannie Mae	2.85	5.49
Freddie Mac	2.11	3.92

Source: HUD (2004).

a. Goals are stated as the percentage of total mortgage purchases by each GSE that satisfies the stated value. A mortgage may count toward more than one goal. “Low and moderate income” is at or below 100 percent of area medium income (AMI). “Special affordable” is at or below 60 percent of AMI or at or below 80 percent of AMI for low-income families in low-income areas. “Underserved areas” refers to central cities, urban areas, and other areas with families living in low-income census tracts or in low- or middle-income tracts with high-minority populations. For full definitions, see HUD (2004).

b. According to 2004 regulation.

families. The consensus is that the affordable housing goals have not substantially increased homeownership among low-income families. This conclusion is based on four very recent studies.

Bostic and Gabriel find no evidence of enhanced housing market performance (as measured by the homeownership rate, vacancy rate, and median house values) in census tracts for which activity in support of the GSE housing goals should be particularly effective.⁷ Their study is designed to control for the effects of the Community Reinvestment Act (CRA) of 1977, which provides incentives for commercial banks to lend in lower-income census tracts. The GSEs and banks both receive “credit” for mortgage lending in census tracts at or below 80 percent of the area medium income threshold. Only the GSEs, however, receive credit for mortgage lending in census tracts above the 80 percent area medium income threshold. This forms the basis of the Bostic-Gabriel test to determine whether the affordable housing goals have observable effects on performance.

7. Bostic and Gabriel (2006).

Gabriel and Rosenthal investigate the key factors associated with the exceptional growth in U.S. homeownership rates during the 1990s, disaggregated by metropolitan area, minority status, and income class.⁸ They find that household characteristics (income, age, and marital status) explain most of the increases in homeownership rates and that correlates of credit barriers explain only a very small share. Based on this evidence, they conclude that mortgage market interventions, such as those mandated by the affordable housing goals, are unlikely to have large effects on homeownership.

Ambrose and Thibodeau analyze directly the link between the GSE goals and the supply of mortgage credit (in contrast to Bostic and Gabriel and to Gabriel and Rosenthal, who focus on indirect housing market outcomes).⁹ The analysis by Ambrose and Thibodeau allows for substitution effects from other lenders and controls for economic conditions and demographic factors. They conclude that the affordable housing goals have had a limited effect on the supply of mortgages.

Ambrose and Pennington-Cross use data gathered under the Home Mortgage Disclosure Act to study how local economic risk factors affect FHA and GSE activity.¹⁰ FHA and GSE activity is measured by their market share of new mortgages across metropolitan statistical areas, excluding refinancing mortgages and loans later sold from the GSE portfolios. They find that the FHA market share is significantly higher in metropolitan statistical areas with higher proportions of underserved households, whereas just the opposite is true for GSE shares in these areas.

The three major real estate trade associations have taken public positions regarding the GSE affordable housing goals. The National Association of Realtors and the Mortgage Bankers Association both claim that the affordable housing goals have been set too high.¹¹ Their concerns include possible overinvestment in multifamily rental units, negative impacts on the FHA program if the GSEs “cherry pick” the better risks, and a possible overall decline in lending to middle-income markets. The National Association of Homebuilders, in contrast, supports enforcement of the affordable housing goals.¹² This is not surprising, since its members gain from any increase in housing demand.

8. Gabriel and Rosenthal (2005).

9. Ambrose and Thibodeau (2004).

10. Ambrose and Pennington-Cross (2000).

11. National Association of Realtors (2004); Mortgage Bankers Association (2006).

12. National Association of Homebuilders (2006).

Finally, the General Accounting Office has reviewed HUD's oversight of the GSEs, making three primary recommendations.¹³ First, it recommended that HUD adopt less conservative goals; the agency responded by raising the goals in 2004. Second, it urged HUD to develop more expertise in assessing the GSE performance data and in evaluating whether the GSEs' financial activities are consistent with their housing mission. Finally, it urged HUD to conduct further research to determine the extent to which the affordable housing goals are creating a net increase in housing market opportunities for low-income families and underserved areas.

The Economic Costs of Housing Subsidies

Direct expenditures, tax expenditures, and guarantee costs are all public subsidies, representing either current or expected future liabilities of the U.S. Treasury. In this section, we review the economic costs of providing these subsidies.

Subsidies through Direct Expenditures

Among the subsidy categories, only direct expenditures are observable in federal budget documents, which report both government outlays (actual expenditures) in any fiscal year and budget authority (the aggregate new federal commitment of public funds that may be spent in current or future years). Table 2 reports the net budget authority and federal outlays for low-income housing assistance during the past three decades. All of these programs are administered by HUD with the exception of those administered by the Rural Housing Service of the Department of Agriculture. As indicated in the table, since 1976, federal expenditures on low-income housing have increased 225 percent in real terms, from \$16.8 billion to \$37.7 billion in 2006 dollars.

Federal spending on major HUD programs, public housing, project-based assistance, and vouchers has more than quadrupled, from \$7.9 billion to \$31.5 billion, while spending on other low-income housing programs has declined by more than a quarter, from \$8.9 billion to \$6.2 billion. This reduction is due entirely to the demise of the Rural Housing Program, whose expenditures have declined more than 90 percent in real terms.

Despite the large increase in expenditures on low-income housing programs, net budget authority issued by Congress has declined substantially, by

13. General Accounting Office (1998).

Table 2. Net Budget Authority and Government Outlays for Low-Income Housing Assistance, Fiscal Years 1976–2007

Millions of 2006 U.S. dollars

<i>Fiscal year</i>	<i>Net budget authority</i>			<i>Federal outlays</i>		
	<i>Major HUD programs^a</i>	<i>Other^b</i>	<i>Total</i>	<i>Major HUD programs^a</i>	<i>Other^b</i>	<i>Total</i>
1976	62,330	11,976	74,307	7,902	8,859	16,761
1977	85,096	14,169	99,265	8,664	10,332	18,996
1978	89,988	14,117	104,104	10,084	11,982	22,067
1979	63,384	15,761	79,145	10,974	10,275	21,249
1980	64,789	19,193	83,982	12,877	11,390	24,267
1981	56,411	16,523	72,935	16,045	10,901	26,946
1982	28,455	16,323	44,778	16,891	10,217	27,107
1983	19,480	14,188	33,668	18,527	9,094	27,621
1984	23,363	15,796	39,158	19,867	8,235	28,102
1985	45,652	13,041	58,693	43,269	8,819	52,089
1986	19,545	7,007	26,552	20,746	7,452	28,198
1987	16,181	6,259	22,440	20,761	2,976	23,737
1988	15,369	12,659	28,028	22,053	7,427	29,480
1989	14,203	9,587	23,790	22,568	7,444	30,011
1990	15,873	12,808	28,681	23,607	6,102	29,708
1991	27,278	6,973	34,251	24,115	6,696	30,811
1992	23,721	7,511	31,232	25,153	4,551	29,704
1993	25,027	5,371	30,398	27,618	3,209	30,827
1994	23,967	6,514	30,480	29,345	3,798	33,143
1995	15,376	6,545	21,921	32,553	4,864	37,417
1996	16,839	5,430	22,269	30,519	4,164	34,684
1997	10,472	4,911	15,383	30,808	4,205	35,013
1998	15,428	5,834	21,263	29,795	4,834	34,630
1999	18,145	6,350	24,495	27,565	5,138	32,704
2000	14,720	6,228	20,948	27,980	4,955	32,935
2001	21,868	6,899	28,767	28,513	5,747	34,259
2002	23,099	6,274	29,373	30,746	5,794	36,540
2003	24,428	7,076	31,504	32,237	5,626	37,863
2004	24,826	6,098	30,924	32,486	5,755	38,240
2005	24,547	5,376	29,923	32,297	5,613	37,910
2006	24,933	5,578	30,511	31,945	6,001	37,946
2007	24,731	5,488	30,219	31,525	6,200	37,725

Source: Office of Management and Budget, Public Budget Database, Budget of the U.S. Government, Fiscal 2007.

a. Includes public housing, project-based assistance, and voucher programs.

b. Includes programs for the elderly, disabled, homeless, Indians, and rural housing administered by the Department of Agriculture.

Table 3. Federal Outlays for HUD Supply- and Demand-Side Programs, Fiscal Years 2000–07

Millions of 2006 U.S. dollars

<i>Fiscal year</i>	<i>Supply side^a</i>	<i>Demand side^b</i>
2000	9,285	18,696
2001	9,370	19,143
2002	9,967	20,780
2003	9,278	22,959
2004	8,625	23,860
2005	8,259	24,037
2006	7,908	24,037
2007	7,428	24,097

Source: Office of Management and Budget, Public Budget Database, Budget of the U.S. Government, Fiscal 2007.

a. Supply-side programs include public housing and project-based assistance.

b. Demand-side programs include certificates and vouchers.

about 40 percent during the period, from \$74.3 billion in 1976 to \$30.2 billion in 2007. This reflects a gradual shift in low-income housing assistance from project-oriented to tenant-oriented subsidies. New long-term commitments under production-oriented approaches were curtailed sharply in the early 1980s, but preexisting commitments under the public housing and Section 8 new construction programs continue to provide shelter for a substantial number of low-income households. Table 3 reports the distribution of expenditures during the past few years among major HUD programs: public housing, other project-based assistance, and vouchers. By 1990, vouchers represented 64 percent of program expenditures. Vouchers are currently 73 percent of program expenditures. As long-term commitments entered into in the 1980s expire in the next few years, it is expected that tenants will be offered vouchers, further increasing HUD's reliance on demand-side assistance to provide housing support to low-income households.

Subsidies through Tax Expenditures

Table 4 reports comparable information on federal government tax expenditures. Tax expenditures for low-income households include tax credits distributed for the construction of low-income housing under the LIHTC and the forgone revenue on tax-exempt multifamily housing bonds. The LIHTC program has grown from \$1.2 billion in 1991 to \$4.0 billion in 2006 (in 2006 dollars). Multifamily housing bond programs adopted by the states are smaller; tax expenditures on them have declined from about a billion dollars to half that over the same period. In part, this reflects cyclical declines in interest rates, which have made these bonds less attractive to investors.

Table 4. Federal Tax Expenditures for Housing, Fiscal Years 1980–2011

Millions of 2006 U.S. dollars

Fiscal year	Owner-occupied homeowners					Investors			
	Imputed rental income	Mortgage interest	Property tax	Capital gains	Tax-exempt bonds		LIHTC	Other ^a	
					Homeowner	Multifamily			
1980	n.a.	36,372	17,027	3,599	1,041	722	n.a.	n.a.	
1981	n.a.	42,427	19,218	3,391	1,443	916	n.a.	n.a.	
1982	n.a.	45,820	16,437	4,345	1,779	777	n.a.	n.a.	
1983	n.a.	39,015	15,025	3,611	2,551	1,332	n.a.	1,304	
1984	n.a.	40,628	15,762	4,396	2,681	1,305	n.a.	1,215	
1985	n.a.	42,815	16,091	4,500	2,911	1,304	n.a.	1,382	
1986	n.a.	51,319	14,434	4,907	3,457	2,091	n.a.	4,570	
1987	n.a.	56,979	16,867	7,765	3,296	2,271	49	918	
1988	n.a.	53,604	16,077	10,570	2,810	1,966	255	2,714	
1989	n.a.	52,484	15,450	23,371	2,909	1,873	437	9,395	
1990	n.a.	55,850	14,148	23,578	2,608	1,575	171	13,227	
1991	n.a.	57,943	15,287	22,592	3,111	1,460	1,153	11,777	
1992	n.a.	58,832	16,859	24,136	2,582	1,487	1,542	10,739	
1993	n.a.	65,390	17,527	24,019	2,303	1,343	2,074	10,848	
1994	n.a.	63,728	18,449	28,068	2,316	1,276	2,533	8,981	
1995	n.a.	61,755	19,620	24,841	2,325	1,188	2,903	8,342	

1996	n.a.	59,681	19,967	24,657	2,216	948	3,265	7,654
1997	n.a.	60,443	20,840	30,474	2,156	998	2,834	8,008
1998	n.a.	63,065	21,676	21,316	1,049	183	3,806	9,899
1999	n.a.	68,400	25,494	21,630	1,088	186	3,389	12,041
2000	n.a.	70,600	25,935	21,718	925	187	3,760	12,265
2001	n.a.	73,846	25,653	21,853	916	183	3,686	12,626
2002	n.a.	71,453	24,451	22,102	978	202	3,697	9,360
2003	n.a.	67,000	24,199	22,194	997	307	6,803	8,775
2004	26,234	65,558	21,262	31,717	1,088	384	3,905	7,340
2005	29,528	64,176	19,730	37,157	960	423	4,006	17,758
2006 ^b	29,720	72,060	15,020	39,750	990	430	4,060	18,130
2007 ^b	32,497	78,146	12,535	42,958	1,018	440	4,159	18,455
2008 ^b	36,069	85,935	12,633	47,449	1,116	489	4,364	19,473
2009 ^b	39,758	92,461	12,555	58,614	1,184	519	4,609	20,451
2010 ^b	43,824	98,812	12,447	77,167	1,213	528	4,844	21,254
2011 ^b	48,304	105,955	22,438	85,230	1,253	538	5,108	22,369

Source: Office of Management and Budget, Budget of the U.S. Government, Fiscal 1982–2007.

n.a. Not available.

a. Includes "deferral of income from post-1987 installment sales," "exception from passive loss rules for \$25,000 of rental loss," and "accelerated depreciation of rental housing (normal tax method)."

b. Estimated.

Quantifying the tax expenditures that support owner-occupied housing is a surprisingly controversial undertaking, in good part due to the method applied by the Office of Management and Budget (OMB), the agency required to provide estimates of tax expenditures (under the Congressional Budget Act of 1974). Tax expenditures must be measured against some benchmark tax system, so the variances created by the actual tax system can be identified as revenue losses. The 1974 act did not specify a benchmark tax system, but the OMB budget documents, at least since 1985, have applied what is termed the “normal tax baseline.” In contrast, most economists would endorse a baseline derived from a “comprehensive” or a “Haig-Simons” concept of income—that is, the annual net increment to wealth created by an individual’s economic activities.

Income from owner-occupied housing is an important economic activity in which the two benchmark measures lead to significantly different estimates of tax expenditures. Specifically, if we apply the comprehensive income benchmark, the net income from an investment in owner-occupied housing is the imputed rental income yielded by the property minus the expenses incurred in producing that income: mortgage interest payments, property tax payments, maintenance, and economic depreciation. This definition of taxable net income conforms precisely to the definition applied in the current tax code to taxpayer investments in rental properties. This definition also provides the standard for evaluating the tax expenditures for owner-occupied housing that are embedded in the current tax code. Since imputed rental income is not currently taxed, it represents a tax expenditure. By the same token, since depreciation is not currently allowed as a deductible expense for owner-occupied housing, it is a negative tax expenditure: an instance of overtaxation. Mortgage interest and property tax payments are not tax expenditures, since they are appropriate deductions under the comprehensive income concept, and, indeed, the current tax law does allow these deductions.

In contrast, under the normal tax baseline concept, owner-occupied housing income and expenses are treated as fundamentally untaxed. Therefore, the currently allowed mortgage interest and property tax deductions are counted as tax expenditures for owner-occupied housing.¹⁴

14. Alternatively, it could be argued that property taxes are payments for state and local government services, in which case the imputed income from these services should also be included as part of comprehensive net income. Or, if the imputed services are not taxed, then the property tax deduction might be treated as a tax expenditure.

The U.S. budget for fiscal 2006 was the first one that provided proper estimates of aggregate tax expenditures for owner-occupied housing based on the comprehensive income benchmark, including historic values back to 2004. The appropriate total, shown in the first three columns of table 4, is the sum of tax expenditures on net imputed rental income (\$29.5 billion), the mortgage interest deduction (\$64.2 billion), and the property tax deduction (\$19.7 billion).¹⁵ The favorable treatment of capital gains on owner-occupied housing is another element of subsidy, although capital gains on other assets (such as corporate equities) also receive tax benefits, such as reduced tax rates and a step-up in basis on death.

The Distribution of Housing Subsidies by Income Class

The housing subsidies provided by direct federal expenditures and federal tax expenditures on owner-occupied housing can be calculated from federal budget data and from federal tax returns. For the most part, the distribution of these subsidies by the income class of the beneficiary can be calculated as well. For some of these subsidies, it is possible to estimate their distribution across households of various income classes. For example, the distribution of federal tax expenditures for owner-occupied housing can be calculated from IRS records of individual tax returns. It may be safe to assume that most of the subsidy in direct expenditures on low-income housing is enjoyed by households in the bottom quintile of the income distribution. (This assumes that the supply of low-income housing is sufficiently elastic that these subsidies do not increase prices.) Similarly, tax expenditures for multifamily housing bonds and for the low-income housing tax credit may be presumed to accrue to households in the bottom two quintiles of the income distribution. (But this is much less clear. For example, it is widely reported that the increased housing investment stimulated by the LIHTC is far less than the cost imposed on the U.S. Treasury.)¹⁶

Table 5 presents estimates of the distribution of these subsidies by income quintile in a representative year. The distribution of benefits by income is dominated by the distribution of homeowner subsidies. This table accounts for about \$167 billion of the roughly \$200 billion in housing subsidies distributed

15. This total is identical to the aggregate of gross rental income minus depreciation, repairs, and maintenance.

16. See Quigley (2000) for a discussion.

Table 5. Estimated Distribution of Housing Subsidies, by Income Quintile, 2004

2006 U.S. dollars

<i>Indicator</i>	<i>First</i>	<i>Second</i>	<i>Third</i>	<i>Fourth</i>	<i>Fifth</i>	<i>Total</i>
Average income	10,983	27,927	47,060	74,022	158,041	63,998
<i>Type of subsidy (billions)</i>						
Low-income housing assistance	32.4	4.8	1.8	0.6	0.1	39.8
Tax expenditure	1.5	7.0	17.9	39.7	61.0	127.3
Total	33.9	11.8	19.7	40.3	61.1	167.1

Source: Cushing and others (2004); Carasso and others (2005). See text for assumptions.

by the federal government. But it is hard to see that the remaining categories—homeowner bonds (\$1.1 billion, table 4), tax expenditures for housing investors (\$7.3 billion, table 4), and housing credit guarantees (\$25.2 billion in 2003, table 6)—provide much benefit to households in the bottom two quintiles of the income distribution. Indeed, as we discuss below, it appears that about half of the public expenditures for housing credit guarantees benefit investors and not housing consumers at all.

In any case, the distributions reported in table 5 do show that housing subsidies, as a fraction of income, decline at higher incomes. They are about ten times as large—as a fraction of income—for those at the lowest quintile, as they are for those at the highest quintile of the income distribution. In this sense, these housing subsidies are progressive with respect to income. But the table also indicates that the largest shares of these subsidies go to the richest households in the U.S. economy: 61 percent of the dollars go to the richest 40 percent of households, and 37 percent of the dollars go to the richest one-fifth of households.

Subsidies Provided through Credit Guarantees

For federal credit guarantees and federal insurance programs, the extent of the subsidy is somewhat more difficult to estimate, and the distribution of subsidies among recipients is a good bit more problematic. Large federal subsidies are provided to the GSEs. Some GSE benefits are a direct result of their federal charters, which allow them to be treated, for some purposes, as agencies of the federal government rather than as private profit-seeking firms. For example, the GSEs are exempt from state and local income taxation and from Securities and Exchange Commission registration requirements and fees. The GSEs may use the Federal Reserve as their fiscal agent, and they are provided

Table 6. Federal Subsidies for Housing Credit Insurance and Guarantees, Fiscal 1995–2003

Millions of 2006 U.S. dollars

<i>Fiscal year</i>	<i>Government-sponsored enterprises</i>				<i>Veterans Administration total</i>
	<i>Tax and regulation treatment</i>	<i>Debt issued</i>	<i>Mortgage-backed securities issued</i>	<i>Total</i>	
1995	812	4,752	3,211	8,775	442
1996	952	4,646	3,767	9,366	100
1997	1,002	5,544	3,450	9,995	764
1998	1,277	11,100	4,147	16,525	1,292
1999	1,416	12,257	5,047	18,720	1,441
2000	1,380	10,308	4,217	15,905	1,673
2001	1,962	13,966	8,013	23,941	591
2002	2,482	12,922	9,214	24,618	890
2003	1,457	13,694	10,078	25,229	1,524

Source: CBO (2001, 2004); Office of Management and Budget, Public Budget Database, Budget of the U.S. Government, Fiscal 2007.

a \$2.25 billion line of credit at the U.S. Treasury. GSE debt is eligible for use as collateral for public deposits, for unlimited investment by federally chartered banks and thrifts, and for purchase by the Federal Reserve in open-market operations. GSE securities are also exempt from the provisions of many state investor protection laws. These privileges provide direct monetary savings to the GSEs, privileges that have not been granted to any other shareholder-owned companies. Estimates by the Congressional Budget Office of the value of this special treatment are shown in the first column of table 6.

However, the more important public subsidy to the GSEs arises from the government's implicit guarantee of all their debt and all their mortgage-backed-security obligations. Other financial institutions would surely be willing to pay a significant fee to receive a comparable guarantee from the federal government. This special treatment of the GSEs arises, in part, because the federal government views the securities issued by these organizations as safe and sound; if not, the government would not exempt them from the protective regulations governing other similarly situated private entities. Thus, despite the explicit statement in every prospectus disavowing a federal guarantee, the GSEs enjoy lower financing costs than those of similarly situated private firms.¹⁷

17. This benefit can be measured either in terms of the subsidized cost of GSE borrowing or in terms of the expected costs that would be imposed on the government if it had to make restitution to GSE bondholders and investors in mortgage-based securities.

GSE debt obligations are classified as “agency securities” and are issued at interest yields somewhere between AAA corporate debt and U.S. Treasury obligations. This is despite the fact that the firms themselves merit a somewhat lower credit rating. (The Congressional Budget Office estimates that without GSE status the housing enterprises would have credit ratings between AA and A.)¹⁸ An estimate of the cost of this implicit federal subsidy for the debt issued by the GSEs can be derived from the spread between the interest rates paid by the GSEs for the debt they issue and the rates paid by comparable private institutions. This comparison, in turn, depends on the credit ratings, maturities, and other features of the bonds issued as well as market interest rates and credit conditions. Quigley provides a detailed review of estimates of this spread, reported in different studies using different methodologies.¹⁹ On the basis of this evidence, the Congressional Budget Office has concluded that the GSEs enjoy an overall funding advantage of about 41 basis points. The second column in table 6 shows the Congressional Budget Office estimates of the subsidies provided to the GSEs for the debt they issue. The subsidy provided to GSE debt, in 2006 dollars, is estimated to have been \$4.7 billion in 1995 and \$13.7 billion in 2003. In large part, the tripling of this subsidy reflects the rapid growth of Fannie Mae and Freddie Mac during this eight-year period.

The implicit federal guarantee provides an analogous advantage to GSE-issued mortgage-backed securities compared with mortgage-backed securities issued by other private entities. The market requires a greater capital backing for a private guarantee than for a guarantee made by Fannie Mae or Freddie Mac, and the provision of this additional capital reserve is costly to private firms. The Congressional Budget Office has also estimated that the GSEs enjoy an advantage of 30 basis points. When this is applied to the mortgage-backed securities issued by the GSEs in 1995, the estimated subsidy is \$3.2 billion (in 2006 dollars). By 2003, the subsidy had grown to \$10.1 billion, again reflecting the rapid growth in Fannie Mae and Freddie Mac during this period.

The combined GSE subsidies in 2003—the most recent estimates available—amounted to more than \$25 billion in 2006 dollars, as summarized in table 6. These subsidies could, in principle, either be passed through to mortgage borrowers in the form of lower mortgage rates or be retained as profits by the

18. See CBO (2001).

19. Quigley (2006).

GSEs. If an equivalent subsidy were provided to a competitive industry, it could be presumed that most, if not all, of the subsidy would be passed through to final consumers. There is evidence, however, that Fannie Mae and Freddie Mac exercise considerable market power.²⁰ However, even duopolists have incentives to pass forward part of a subsidy, and there is evidence that a part—perhaps about half—of this subsidy is passed through by Fannie and Freddie to mortgage borrowers.²¹ The residual fraction of this benefit is retained by the shareholders of the GSEs. This residual arises from the competitive advantage conferred on the GSEs over other financial institutions by their federal charter.

As noted, estimates of the reduction in mortgage interest rates attributable to this subsidy have some range—around, say, 40 basis points.²² If the conforming limit for GSE loans were set low enough, more of the benefits of this interest rate reduction would accrue to moderate-income households. But the limit is indexed to the national average home price, as estimated by the Federal Housing Finance Board. In 2007 conforming mortgages could be written for an 80 percent loan on a property selling for \$521,250 (\$781,875 in Alaska and Hawaii).

Summary

As indicated in tables 2, 4, and 6, the most recent estimates of federal subsidies for housing total \$221.1 billion: \$37.9 billion in 2006 dollars in government outlays for low-income housing assistance, \$156.5 billion in federal tax expenditures for housing, and \$26.7 billion in credit subsidies, including the GSEs and the VA. (The VA expenditure is only available for 2003.)

GSE Policy and Housing Policy Reform

Recent discussions of GSE reform were initiated by the Federal Housing Enterprise Safety and Soundness Act of 1992, which created a four-agency task force (composed of representatives of HUD, the Treasury Department,

20. See Hermalin and Jaffee (1996).

21. Differing estimates of the reduction in mortgage rates created by the subsidy have generated a contentious literature. Perhaps the lowest estimate, 7 basis points, is provided by Wayne Passmore, a staff economist at the Federal Reserve. See Passmore (2005); Passmore, Sherlund, and Burgess (2005). A much higher estimate is provided by Blinder, Flannery, and Kamihachi (2004) in a study funded and published by Fannie Mae. See Quigley (2006) for a detailed comparison.

22. See Quigley (2006, table 3).

the Government Accountability Office, and the Congressional Budget Office) to study the desirability and feasibility of privatizing Fannie Mae and Freddie Mac. The four agencies issued separate reports in 1996. HUD recommended against privatization, concluding that “the benefits achieved from full privatization would not offset the financial uncertainties and likely increases in borrowing costs that would be associated with full privatization.”²³ The other three agencies also provided extensive reports, but made no specific recommendations. Congress took no action on receipt of the agency reports, and activity that had been directed to GSE reform slowed, but did not disappear. For example, starting in 2000, the American Enterprise Institute and an organization now called FM Policy Focus initiated a series of conferences, publications, and web pages with a focus on GSE reform.²⁴ Congress also began to consider a series of GSE reform bills, starting with H.R. 3703, introduced in February 2000 by Congressman Richard Baker, chairman of the GSE subcommittee of the House Financial Services Committee.²⁵

Corporate scandals, starting with Enron in 2001, also focused concern on the safety and soundness of the GSEs, provoking renewed discussions of GSE reform. By 2002, Federal Reserve Chairman Alan Greenspan publicly expressed concerns for GSE “imbalances” and systemic risks.²⁶ Freddie Mac significantly added to these concerns when it announced in early 2003 that it had delayed the release of its audited financial results for 2002 and that a restatement of earnings was required going back to 2000. The proximate cause of the delay was the replacement of Freddie Mac’s auditing firm, Arthur Andersen (a casualty of the Enron debacle). The new auditors, PricewaterhouseCoopers, required the restatements. The details of an accounting and operational scandal at the firm were first publicly released in July 2003, in a report commissioned by the directors of Freddie Mac.²⁷ Later that year, the Office of Federal Housing Enterprise Oversight (OFHEO), the agency within HUD responsible for supervising GSE safety and soundness,

23. HUD (1996, p. 7).

24. The American Enterprise Institute activities were part of its Financial Deregulation Project, directed by Peter J. Wallison (www.aei.org/research/contentID.20040927152122935/default.asp [March 2007]). Details of FM Policy Focus are available at www.fmpolicyfocus.org/ [March 2007].

25. Wallison (2006) provides a careful analysis of these bills and others that were introduced, but not enacted.

26. Greenspan (2002).

27. See Baker Botts LLP (2003).

issued its own scathing critique.²⁸ Freddie Mac's annual financial reports are still delayed, and it has been unable to publish audited quarterly reports.

The Freddie Mac accounting errors, quite naturally, raised the concern that Fannie Mae might have comparable problems, and OFHEO began its own study of the firm, released in September 2004.²⁹ A special report commissioned by the directors of Fannie Mae and a final report by OFHEO followed.³⁰

There was also increasing recognition that the GSEs were imposing a potentially very large systemic risk on the U.S. financial system. Jaffee documented the extent of interest rate risk that was embedded in the GSE retained-mortgage portfolios and demonstrated that this risk was imperfectly hedged against interest rate volatility.³¹ Fed Chairman Alan Greenspan's 2004 testimony before the Senate Committee on Banking, Housing, and Urban Affairs contributed a more precise direction to GSE reform, by referring explicitly to limits on the size of the GSE retained-mortgage portfolios, as a means to control the systemic risks imposed on the financial system.³² Greenspan continued to promote quantitative portfolio limits in his speeches and testimony throughout 2004 and 2005. Several bills to limit or regulate the investment portfolios of the GSEs were considered by the 108th Congress, but none was enacted.

Current Congressional Proposals

In May 2005 the U.S. Treasury submitted a specific proposal for "portfolio limitations," which were reflected in Senate bill S. 190, which passed the Senate Banking Committee in July 2005. During the same period, an alternative House bill, H.R. 1461, was developed and subsequently passed. Common provisions of the two bills include a new agency to replace OFHEO with enhanced powers and oversight responsibility for the GSEs and the exemption of this agency from the annual appropriations process. The bills differ, however, in two key respects.³³

28. OFHEO (2003).

29. OFHEO (2004).

30. Paul, Weiss, Rifkind, Wharton, and Garrison LLP (2006); OFHEO (2006). Many believe that the Fannie Mae problems may be even more severe, since it seems the firm had overstated its earnings, in contrast to Freddie Mac, which had generally understated its earnings (in order to smooth its reported income).

31. Jaffee (2003).

32. Greenspan (2004).

33. See Jickling (2005) and Weiss (2005) for further discussion.

First, the Senate proposal would shrink the GSEs' retained-mortgage portfolio. In contrast, the House proposal would expand the pool of mortgages the GSEs could purchase and retain by raising the limits on conforming mortgage loans. Advocates of limitations on the GSE retained-mortgage portfolios have firmly criticized the proposed House bill on this basis. Wallison and Stanton, for example, argue that the status quo would be preferable to passage of the House bill.³⁴

Second, the House bill proposes to expand GSE support for low-income housing through an "affordable housing fund," fueled by an annual charge (increasing from 3.5 to 5.0 percent over five years) on each firm's after-tax income. Had this bill been in effect from 2000, it would have raised close to \$600 million from the two GSEs in 2003. The resources of this fund would be distributed to nonprofit entities chosen by the GSEs, which in turn would apply the funds in support of low-income housing endeavors based on five goals:³⁵

—To increase homeownership by families at or below 50 percent of area median income,

—To increase mortgage funds in designated low-income areas,

—To increase the supply of rental and owner-occupied housing for families at or below 50 percent of area median income,

—To increase investment in public infrastructure in connection with related affordable housing goals,

—To leverage funding from other sources.

The affordable housing fund provided for in the House proposal has been contentious. Advocates of the bill, most prominently Representative Barney Frank of Massachusetts, consider the affordable housing fund to be a sensible, housing-directed, quid pro quo for the subsidies provided to the GSEs.³⁶ However, critics of this legislation have suggested that the GSEs could direct the funds to politically friendly nonprofit entities.³⁷ During the floor debate, H.R. 1461 was amended to prohibit the use of any fund resources for "political purposes," but the bill's opponents remain skeptical. In particular, this proposed legislation aligns the incentives for affordable housing with the profit incentives of the GSEs: the greater the GSE profits, the greater the GSE contributions to the affordable housing fund.

34. Wallison and Stanton (2005).

35. Weiss (2005).

36. See Frank (2005).

37. For example, Wallison and Stanton (2005).

Current Policy Options

As embodied in the competing congressional proposals, there are two distinct policy objectives regarding the GSEs. First, there is wide concern, as illustrated by the Senate bill, that GSE retained-mortgage portfolios create significant risks for both U.S. taxpayers and the U.S. financial markets as a whole. Second, there is broad recognition, as illustrated by the House bill, that the advantages conferred on the GSEs should be directed toward expanding the opportunities for low-income families to own a home.

In principle, these two objectives are not incompatible. However, the House bill ties additional resources for low-income homeownership directly to the profits of the GSEs. In large part, these profits are derived from the retained-mortgage portfolios of the GSEs. The House bill also calls explicitly for raising the conforming limit for GSE mortgage purchases, a change that would raise GSE profits, but also would increase the size of the retained-mortgage portfolios and the risks they create. Thus, as drafted, the Senate and House bills are incompatible.

But there are actions that could further both objectives. Several concrete proposals have been offered for controlling the risks inherent in the retained-mortgage portfolios of the GSEs. Several decades ago the Congressional Budget Office advanced several proposals.³⁸ More recent and comprehensive proposals have been put forward by Frame and White, by Jaffee, and by Quigley.³⁹ These actions include direct and indirect controls on portfolio magnitudes and risks, regulating more tightly the mortgages eligible for purchase, and imposing fees for the issuance of debt. Many reform proposals have recommended the imposition of severe limits on GSE portfolios.⁴⁰ These limits could be imposed rather easily by the natural and orderly liquidation of existing positions.⁴¹ These limits would certainly reduce GSE profits and thus would limit possible support for affordable housing.

Alternatively, the systematic risk imposed by GSE portfolios could be reduced or controlled indirectly. For example, the GSEs could be required to hedge fully all interest rate risk in their portfolios, or they could be required to hold substantially larger capital reserves. The former policy would be difficult to monitor, especially since it is always in the profit interest of the

38. CBO (1996).

39. Frame and White (2005); Jaffee (2006); Quigley (2006).

40. Eisenbeis, Frame, and Wall (2006).

41. See Jaffee (2005) for a specific mechanism.

entities to remain incompletely hedged in interest rate exchanges. Either of these requirements would also affect GSE profits.

It would also be administratively easy to force the GSEs to direct their mortgage purchases to smaller mortgages, thus increasing their incentives to support the housing needs of lower-income families. Of course, this would also reduce GSE support of middle- and higher-income families, and this may explain why it has received little political support so far.

Finally, as an administrative matter, it would be rather easy to levy an explicit fee on the GSEs to compensate the federal government for the implicit guarantee it now provides without charge to the GSEs on all their debt issues. This would allow the GSEs to maintain, if they wished, their retained-mortgage portfolios, but also would provide a financial incentive for them to refocus on the issuance of mortgage-backed securities. An analogous policy was applied with remarkable success to another GSE, the Student Loan Marketing Association, Sallie Mae.⁴²

If implemented, this latter proposal would reduce the profits of the GSEs. But it also could raise considerable public revenue, compensating the federal government for the implicit guarantee provided. Of course, these revenues could be used to support the objective of making housing more affordable for lower-income households.

The appropriate guarantee fee is not obvious. But surely it is not zero. One way to further both objectives would be to impose a guarantee fee and to use the proceeds to support more affordable housing in some specific program. Suppose, for example, that an annual user fee of as little as 4 basis points were imposed on GSE debt. Based on the GSE debt outstanding at the end of 2005, the fee would raise about \$600 million. This is about the same revenue as would be raised through the tax on GSE income stipulated in the House bill. Suppose, instead, that an annual user fee of 40 basis points were imposed on GSE debt. This fee would raise about \$6 billion, roughly ten times the revenues expected from passage of the House bill. The revenue raised from a 40 basis point charge is also quite close to congressional estimates of the portion of the GSE subsidy that is retained by the two firms. This estimate is \$6.2 billion, which happens to equal that part of total GSE profits in 2003 that

42. The Omnibus Budget Reconciliation Act of 1993 imposed a 30 basis point annual fee on Sallie Mae's retained portfolio of student loans. As a result, Sallie Mae supported the Student Loan Marketing Association Reorganization Act of 1996, which ultimately led to the termination of all its GSE activities in 2004. See Lea (2006) for a discussion.

is in excess of an 11 percent allowed rate of return.⁴³ Thus this charge could also be viewed as a rough tax on the “excess profits” of the GSEs.⁴⁴

Of course, the GSEs are likely to respond to this higher user fee by reducing the size of their retained-mortgage portfolios, so a 40 basis point fee would raise less than \$6 billion. But, of course, a goal in imposing the fee is to induce the GSEs to rely more heavily on issuing mortgage-backed securities to third-party investors and less heavily on managing their retained-mortgage portfolios. This is, of course, the desired outcome. But the revenue raised in achieving this could provide more than inframarginal support for affordable housing.

Suppose further that the revenues generated by a 40 basis point guarantee fee were deposited in a trust fund managed by HUD to issue additional vouchers under the current housing choice voucher program. As indicated in table 3, these revenues could be used to increase the supply of vouchers by about 25 percent, contributing as much as \$6 billion to the existing expenditures of \$24 billion. Currently, less than 40 percent of American households below the poverty line are served by low-income housing programs. Thus this augmentation could make a real difference.

Conclusions

Federal support for housing in the United States is currently provided by a diverse array of programs: direct expenditure programs administered by HUD; tax expenditures based on the special treatment of owner-occupied housing and the low-income housing tax credit; and the operations of the government-sponsored enterprises, Fannie Mae and Freddie Mac. Among these, the HUD programs and the LIHTC are directed at housing for low-income families, while tax expenditures for owner-occupied housing and most GSE activities support middle- and upper-income housing. A political will to augment federal support for low-income housing remains, but budget resources are very scarce.

At the same time, there is much concern for the financial risks imposed by the GSEs on U.S. taxpayers and the financial system. This concern is recognized by the current Senate proposal to limit the size of the GSE

43. See CBO (2004, table 4).

44. The last year for which GSE profits are reported is 2003. In that year, the combined profits of Fannie Mae and Freddie Mac, in excess of an 11 percent return on equity, were \$6.2 billion.

retained-mortgage portfolios. An alternative proposal originating in the House would tax GSE profits and use the receipts for low-income housing. The Senate bill achieves GSE reform, while the House bill provides a creative approach to funding housing assistance. But neither bill appears to have sufficient political support for passage.

We propose instead imposing a user fee on the debt issued by the GSEs and using the proceeds to expand the existing HUD voucher program. Imposition of a very modest user fee, 4 basis points, would yield as much revenue for increased low-income housing support as the current House bill. Imposition of a 40 basis point fee would provide incentives for more efficient portfolio investment by the GSEs, and it would increase the resources available for housing vouchers for low-income households by as much as 25 percent.

Comment

Roger G. Noll: U.S. housing policy is a jumble of numerous programs, many of which appear to use similar means to accomplish the same objective. Professors Jaffee and Quigley do a comprehensive job of categorizing and assembling the financial costs of these programs. The only housing policy that is missing from the analysis is a group of programs that provide subsidies for housing the homeless, but collectively these programs are small compared to the programs analyzed in their essay.¹ For other direct housing assistance programs and tax benefits, the authors provide estimates of the distribution of the financial gains from these policies by income class. For programs that promote homeownership through mortgage guarantees, the authors summarize other research that evaluates these programs and offer a policy reform proposal. The policy recommendation is that mortgage assistance programs be more targeted toward low-income households, that the government tax the debt of federal mortgage assistance agencies (to reflect the risk to the government of guaranteed mortgages), and that the government use the revenue to expand the housing voucher program.

These comments address two issues that could affect an assessment of housing policy, including the authors' proposed reforms, but are not addressed by them. The first is whether there is a rational basis for the complexity of federal housing policy and the implications of the relationships among programs. The second is the appropriate method for estimating the benefits and costs of housing programs. Whether it makes sense to tax the mortgage programs to

1. Several agencies have programs for the homeless, but most of the money (around \$1.6 billion a year) is spent by the Department of Housing and Urban Development (HUD). For HUD's budget for homeless housing, see (www.gpoaccess.gov/usbudget/fy08/pdf/budget/hud.pdf [April 2007]); for a description of HUD's homeless housing programs, see (www.hud.gov/offices/cpd/homeless/programs/index.cfm [April 2007]).

expand the voucher program and to orient mortgage programs more toward low-income households assumes certain answers to these questions.

The Mismatch between Policies and Instruments

A major puzzle about U.S. housing policy is why the portfolio of programs is so large. As Jaffee and Quigley note, U.S. housing policy apparently has two goals: to increase housing consumption among low-income households and to promote homeownership generally. As do Jaffee and Quigley, this section assumes that these goals are valid and focuses solely on whether they could be achieved more efficiently.

The mechanism for achieving housing goals is to lower the relative price of housing by offering subsidies, but the number of separate housing subsidy programs is over a dozen. Jaffee and Quigley document some of the complexity of housing programs. Whereas direct housing assistance to low-income households now focuses mostly on rental assistance vouchers, expenditures to support public housing remain almost as large as the voucher program. Other direct expenditure, tax expenditure, and mortgage guarantee programs seek to induce housing construction and renovation of rental housing for the poor, while other programs subsidize both supply and demand for homeownership among low-income households.² In addition, most of the financial cost of tax expenditures and mortgage guarantee programs subsidizes families that are not poor.

Why the government needs numerous programs for each goal is a mystery. Jaffee and Quigley do not address why the federal government has so many housing programs and only implicitly address whether the efficiency of housing assistance could be significantly improved by simplifying the array of housing policies and programs or by reallocating effort among them. Implicit in their proposal to tax mortgage guarantee programs in order to expand voucher programs are three beliefs: the government's efforts in housing should be reallocated from promoting ownership to providing direct assistance; subsidized mortgage guarantees are an inefficient mechanism for promoting ownership (compared to direct and tax expenditures that do the

2. Among other direct expenditure programs are down-payment assistance, self-help grants for construction, and housing assistance for the elderly, the disabled, and Native Americans. For a review of HUD's housing programs, see (www.hud.gov/about/budget/fy08/fy08budget.pdf [April 2007]).

same thing); and as a means of reaching the poor rental vouchers are more effective than other housing programs, such as subsidized construction and renovation of rental housing or subsidized homeownership through down-payment and mortgage assistance. In context, their proposal arises from a discussion about how to internalize the fiscal risk of mortgage guarantees to the government, rather than more generally about how to improve the performance of the portfolio of housing assistance programs; however, the proposal implies two questions: whether the implicit subsidy in mortgage programs is ineffective as a means of promoting homeownership and whether this relatively modest change would capture most of the available gains from efficiency-enhancing reallocation.

In explaining the complexity of redistribution programs, some researchers focus on an answer that is derived from the economic approach to politics and policymaking. According to this argument, programs to assist a particular group sometimes arise from a coalition of the target beneficiaries and those who supply the benefits.³ Thus the array of housing assistance programs arises because advocates of the poor or of homeownership lack the political strength to enact the most efficient method for achieving their goal but can obtain a stable political majority by designing programs that add home builders and renovators, owners of rental housing, and mortgage credit institutions to their coalition. While the resulting hodgepodge of programs may be inefficient, coalition building may serve beneficiaries by increasing the net subsidy that flows to them. Nevertheless, this account does not seem to explain why, for example, direct public housing subsidies are not replaced by vouchers to residents and why public housing residents, but not recipients of vouchers for private housing, can obtain mortgage assistance vouchers.

Theoretically, another possible answer can arise if households are heterogeneous with respect to the likelihood that they will benefit from a particular program. Suppose that the probability that any particular program will reach a given household depends on characteristics of the household, such as geographic location, education of adult members, and the social networks of household members. In this case, for a given expenditure on subsidy payments plus administration (including the cost of recruiting beneficiaries into the program), a portfolio of subsidy programs might reduce the average probability of *not* receiving a subsidy for all households and thereby achieve greater coverage than any single program with the same budget.

3. See Aaron (1973), which contains the core idea, and Ferejohn (1983), which explains how the American system of representation and organization of Congress produces such results.

For this explanation to work, programs must differ among groups in their relative attractiveness, as represented by the financial benefit of the program net of the transaction cost that is borne by beneficiaries of the program. Here transaction cost is a catch-all that includes the time and effort required to obtain a program's benefit, including the delay in getting approval for assistance. Why this might be important is illustrated by considering the attractiveness of various assistance plans to a particular low-income household contemplating either renting or purchasing housing.

One alternative for a household is to seek assistance from the voucher program for a rental housing unit. Another is to seek admission to a public housing project. Another is to seek down-payment assistance or self-help assistance, a government-guaranteed mortgage, or a mortgage assistance voucher (for those now in public housing) to purchase a housing unit. Assuming for simplicity that the rental and purchase units provide identical housing services, the attractiveness of the various options depends on the costs.

For a rental unit, whether private or public, the cost is the present value of expected future rent (which is subsidized if the market rent exceeds 30 percent of income) and the economic cost of the process of qualifying and maintaining eligibility for rental vouchers or public housing. For a purchased unit, the cost is the present value of expected future maintenance and taxes, the stream of mortgage payments (which may be subsidized), and the economic value of qualifying for government assistance (down-payment assistance or self-help), a mortgage, and mortgage assistance. These alternatives can differ for two reasons: the net expected direct monthly expenditure (after rent subsidies or mortgage assistance subsidies) differs, or the transaction costs of qualifying for programs differ.

Jaffee and Quigley propose changes that will affect this calculation: an increase in the monthly mortgage payment from the fee to reflect mortgage risk, an increase in the availability of vouchers (which could be allocated to either rent or mortgage payment subsidies but which apparently would leave the formula for calculating these subsidies—30 percent of income—unchanged), and stricter limits on mortgage finance activity by federal mortgage guarantee entities. If the formula for calculating subsidies is unchanged, the price of rental units for a poor household is unchanged: households still pay 30 percent of their income for rental housing and have the same transaction costs. For purchased housing, monthly mortgage payments are higher (to reflect the tax to reflect risk). Otherwise, nothing has changed: neither the size of the down-payment assistance program nor the transaction cost of

qualifying for an ownership assistance program. Hence, for the poor, the proposal increases the relative price of ownership over rental.

Whether the proposal will improve housing for the poor depends on several factors that are discussed in the next section, but one is whether the voucher program has excess demand. A useful fact is that some housing authorities have waiting lists to receive vouchers, and some have closed waiting lists because the number seeking assistance is already long compared with the likely future availability of funds.⁴ Funds from the risk premium on guaranteed mortgages could shorten the list. At the same time, the proposed tax and increase in voucher funds would shift demand from ownership programs to rental programs unless the risk premium for low-income households were more than offset by increased ownership subsidies. Because only residents of public housing qualify for mortgage assistance vouchers, homeownership among low-income households that are not in public housing is likely to be adversely affected.

The empirical evidence summarized by Jaffee and Quigley indicates that homeownership programs, either through tax expenditures or mortgage programs, have had almost no effect on homeownership by the poor. The research on this question is based on empirical studies that take into account the effect of household characteristics on the propensity to own a home. By implication, if these factors matter in predicting ownership, then the attractiveness of policies to promote ownership is not identical across all low-income households. Thus their proposal plausibly could affect the distribution of the benefits of housing programs among types of households, which could affect both the net economic impact and the political acceptability of the proposal. In particular, families that now are likely to benefit from the implicit subsidies in mortgage guarantee programs but are unlikely to benefit from direct ownership subsidies (down-payment assistance and mortgage assistance) unambiguously will be hurt by the proposal. Perhaps this group is small or for some reason less worthy, but using the research on uptake of mortgage guarantee programs can identify which families are likely to be harmed.

For people who consider renting and owning to be close substitutes, the proposal is likely to reduce homeownership because it increases the relative

4. (www.hud.gov/offices/pih/programs/hcv/about/fact_sheet.cfm [April 2007]). Until HUD began recapturing unspent vouchers in 2003, some agencies were unable to spend all of their voucher allocations, implying excess supply (www.centeronbudget.org/5-15-03/hous.htm [April 2007]).

price of ownership. Hence tighter limits on government mortgage programs are unlikely to increase homeownership among low-income households unless these households also have substantial excess demand for government-guaranteed mortgages at interest rates that reflect the risk of the loan. Although some low-income households are denied loans at current interest rates for government-guaranteed mortgages, more work needs to be done to assert that there would be excess demand if interest rates were adjusted upward to reflect risk and rental vouchers were easier to obtain. Until this work is done, one cannot rule out the possibility that stiffer targets for government mortgage programs would be met by cutting back all mortgages, rather than increasing loans to low-income households. If so, the proposal implies a shift in policy away from promoting ownership and toward improving housing for the poor.

The preceding discussion has two important implications. The obvious point is that the proposed risk-premium fee for government-backed mortgages reduces the attractiveness of homeownership compared to rent subsidies. This conclusion may not matter in evaluating the overall effect of housing policy because the choice between rent or own, ignoring the subsidies, may have little implication for the welfare of the poor; however, if the shift reallocates subsidies among poor households because of differences in who participates in rental versus ownership programs, the overall impact of the proposal cannot be assessed without identifying the winners and losers. The less obvious point is that the source of demand for various subsidy programs cannot be ignored in assessing the likely impact of a change in policy. If the multiplicity of programs makes sense either economically (because of heterogeneous beneficiaries) or politically (because of heterogeneous constituencies), the likely net benefits of a program cannot be assessed without taking this heterogeneity into account.

The Benefits and Costs of Housing Assistance

This section ignores the complexity of housing assistance programs to focus on the mechanics of measuring their economic benefits and cost. Jaffee and Quigley treat the expenditures in each category of program as both its benefits and its costs. The benefits exceed the costs if one assumes that dollars going to the poor (or to promote homeownership) deliver an extra social benefit compared to the social cost of the dollars collected from taxation. The motivation for examining the distributional effects of a program is to

assess whether the poor derive proportionally more net benefits, since a dollar of net benefits for the poor presumably is more valuable than a dollar of net costs for others.

Using expenditures to measure benefits and costs (prior to distributional weighting) is likely to be highly inaccurate for two fundamental reasons. First, total expenditures (including implicit expenditures through tax subsidies and mortgage guarantees) substantially overstate the contribution of programs to their goals (either income transferred to the poor or greater homeownership) because a substantial amount of spending is for administration or for other transfers that do not advance program goals. Second, total expenditures are a poor measure of *economic* cost because they include some items that are not economic costs and exclude other items that are economic costs.

Benefits Estimation

Consider housing assistance for the poor. These programs generate two benefits: income transfer and increased housing consumption. Both benefits have a private component (the increased welfare of the subsidized households) and a social component (the value to other members of society from increasing consumption by the poor, both in general and of housing).

The transfer benefit applies only to households for which the fraction of income spent on housing declines because of the program. Under many programs, households pay 30 percent of their income for housing, while the government pays the rest, up to a limit that is called “fair market value” but is actually a limit on the amount of housing that the government will subsidize. The transfer benefit is the fraction of their income that households would have spent on housing if they were not subsidized, less 30 percent of their income. This transfer enables households to consume the same amount of housing services at a lower price and to spend the saving on other goods. If this were the only effect of housing assistance, housing programs would be equivalent to straight cash transfers, and there would be no coherent economic reason to suffer the administrative costs of passing the subsidy through the housing market.

For households that would not otherwise spend more than 30 percent of their income on housing, housing programs provide no transfer benefit. These programs may induce households to increase spending on housing because, by doing so, they receive a subsidy for housing expenditures in excess of 30 percent of their income. The sole benefit of housing programs for these households is the improvement in their welfare from consuming more housing at the subsidized price.

In evaluating housing policies, the benefits of a program depend on the distribution of households between those who would spend more and less than 30 percent of their income on housing in the absence of a subsidy. As the latter group becomes larger, the fraction of program benefits that are accounted for by income transfers declines, while the fraction of benefits accounted for by increased housing consumption increases. This fact is important because it affects the private benefits that are delivered for a given amount of expenditure: a dollar of transfers delivers more direct welfare to a poor household than a dollar spent on increased housing consumption.

The stated purpose of housing programs, of course, is not just to transfer income, but also to increase housing consumption. Housing subsidies lower the price of housing and, in doing so, shift consumption expenditures to housing and away from other things. The appropriate measure of the private benefit from the subsidy is the household's willingness to pay for incremental housing consumption. Of necessity, the willingness to pay for these incremental units of housing *must be less than the incremental market price of improved housing*, or else households would consume more housing if they were given enough cash to do so. The fact that housing programs tie financial aid to housing consumption indicates that households would rather spend at least part of their housing subsidy on other things that they regard as delivering more value. Consequently, program expenditures on additional housing consumption overstate these benefits.

For households that would spend more than 30 percent of their income on housing in the absence of a housing program, the private housing consumption benefit is their gross willingness to pay for the additional housing units that they consume because of the program. These households experience both a reduction in housing expenditures (a transfer benefit) and increased housing consumption. For households that pay less than 30 percent of their income on housing with no subsidy, but that participate in housing programs requiring them to increase their housing expenditures to 30 percent of their income, the private benefit is the net value to them of increased housing consumption. This private benefit is their gross willingness to pay for this additional housing consumption minus their additional expenditures on housing. These households receive no transfer benefit.

If homeownership programs have little effect on homeownership by low-income households, then mortgage guarantee subsidies and tax expenditures for homeownership go to people who would own homes anyway. Consequently, the only benefit of these programs for low-income households is the transfer effect. To the extent that these programs create administrative costs

that must be recovered either in interest rates or transaction costs imposed on beneficiaries, the magnitude of implicit expenditures on the risk premium overstates the actual transfer (and hence the benefits) of ownership programs for the poor.

For households that are not poor (and for which there is no societal benefit arising from income transfers), the entire social benefit of ownership programs arises from the increase in homeownership that these programs cause. These benefits are the sum of the private value of the incremental ownership to beneficiaries plus the social value of switching some households from renters to owners. The private benefit, in turn, has two components: a household's willingness to pay to own rather than rent a home, holding fixed the quality of the home, and the incremental amount of housing consumption by homeowners that arises because the subsidy lowers the price of owner-occupied housing. In addition, ownership presumably has a social benefit that apparently hinges not on *how much* housing is owned, but on *whether* housing is owned. If so, society derives no incremental benefit from the additional housing consumption that ownership subsidies induce.

The implicit gross expenditures on ownership for non-poor households (tax expenditures and mortgage guarantee subsidies) are not an accurate measure of the *economic* benefits of these programs. Most of these expenditures are transfers that are unrelated to the objective of the program, which is to *increase* homeownership. For example, suppose that the fraction of qualifying non-poor households that own a home due to policies promoting homeownership is 25 percent, as contrasted with the estimate of 0 percent for the poor. Ignoring the effect of the program on housing consumption, 75 percent of the expenditures for the program then must be distributionally neutral transfer payments. The value of the remaining 25 percent of expenditures depends on the social value of ownership, not the amount of the subsidy to obtain this outcome.

In estimating benefits, the private benefits of the incremental housing consumption that these programs create also must be considered; however, as with housing assistance programs, the willingness to pay for incremental housing consumption must be less than its cost, or else households would consume the incremental housing if given a cash payment equal to the implicit subsidy. The private component of social benefits is the incremental housing consumption for all households, with the amount depending on the price elasticity of demand for housing consumption. As an illustration, assume that ownership promotion programs increase housing consumption among beneficiaries by 10 percent and also induce homeownership among 25 percent of beneficiaries.

If so, the proportion of the financial cost of ownership programs that actually serves the purpose of increasing homeownership is 25 percent of 90 percent—or 22.5 percent—of total expenditures. Total program benefits are then the private value of the incremental consumption (less than 10 percent of expenditures) plus the social value of increasing the number of homeowners.

There is still another reason to believe that expenditures misstate private benefits, which arises from considering the appropriate way to measure the social cost of housing programs. Hence attention must turn to the economic costs of housing programs to complete the analysis of the benefits.

Economic Costs

The true economic cost of housing programs bears little relationship to expenditures. Just as transfers to households that are not poor are not regarded as a program benefit, transfers from citizens to pay for these transfers are not an economic cost. The true economic costs of housing programs have four forms: the cost of the incremental housing consumption that is induced by housing programs, the part of tax collections that represents transfers from others that pay for the part of the program that improves the welfare of the poor, the administrative cost of program implementation to both the government and private actors, and the cost to society of raising taxes to pay for the program.

The production of more units of housing involves several inputs: land, labor, and various building materials. Subsidies for housing increase the demand for housing consumption, as measured by the quantity and quality of housing. Hence subsidies implicitly increase the demand for each of these inputs. The economic cost of the additional housing consumption that is induced by housing programs is the cost of the additional resources that are used in the provision of housing services. To the extent that a program causes an increase in the price of these resources, expenditures to cover these price increases are not an economic cost, but another form of transfer payment.

Land at a given location is fixed in supply, so an increase in the demand for housing that is generated by a subsidy program will, in part, be dissipated by causing the price of a unit of housing services (holding quantity and quality fixed) to rise. Housing subsidies, therefore, increase the market price of housing for all households, including the poor, regardless of whether they receive housing assistance. Consequently, some expenditures on housing programs go for paying higher prices and constitute a transfer of income from citizens in general to landowners (and owners of any other fixed factors in housing production). Presumably this transfer is at best distributionally

neutral and so should not be regarded as a benefit of the program, in which case measuring benefits as total expenditures again leads to overstatement.

The preceding statement superficially appears to be inconsistent with the claim that in some cases the creation of new low-income housing reduces local property values. To the extent that this claim is true, it does not refute the preceding observation. Notwithstanding the localized effect of some low-income housing projects, the issue is the effect on average housing prices as seen by each consumer. The argument is that low-income households face higher prices because, among these households, housing consumption is increased, and high-income households also face higher prices because some land that would have been used for housing for them is now allocated to housing for low-income households. Hence both groups face higher prices, although for low-income households who participate in the program, the private benefits exceed the financial cost arising from the price effect.

While expenditures that cover price increases for fixed factors are not, for the most part, an economic cost of the program, there is one exception. The exception arises for low-income households that are not beneficiaries of a housing program. For this group, the income transfer to landowners is not distributionally neutral. To the extent that these households pay more for housing (and therefore less for other consumption), the cost to society is the social loss arising from the regressive redistribution of income.

The significance of the price effect of housing programs is unknown, but a plausible conclusion is that it is substantial, especially in large urban centers. In late 2006, the median price of houses sold in the United States was about \$219,000, but in some metropolitan areas the median price was more than three times this amount.⁵ These differences arise in part from differences in the quality of housing, but a substantial proportion is likely to represent the scarcity of land in big cities. In the forty-six largest metropolitan areas, which house more than half the population, one estimate reports that the proportion of housing prices that is represented by land cost rose from 32 percent in 1984 to 51 percent in 2004.⁶ During the same period, real disposable income rose 78 percent, while the relative price of housing rose more than 17 percent, which roughly equals the change in the relative proportion of land values in the top forty-six metropolitan areas.⁷

5. ([www.realtor.org/Research.nsf/files/MSAPRICESF.pdf/\\$FILE/MSAPRICESF.pdf](http://www.realtor.org/Research.nsf/files/MSAPRICESF.pdf/$FILE/MSAPRICESF.pdf) [April 2007]).

6. Walsh (2006).

7. Council of Economic Advisers (2006, pp. 319, 351–52).

Although a more detailed econometric analysis is required to determine the effect of increased purchasing power on price increases for fixed factors of production in housing, these numbers imply that more than 20 percent of an increase in the demand for housing is dissipated in relative price increases. If so, more than one-fifth of housing subsidies may be accounted for by transfers to landowners. This portion of program expenditures produces neither transfer benefits nor housing consumption benefits nor ownership benefits.

While transfers normally are ignored in benefit-cost analysis, one part of the transfer away from citizens in general must be included. This component of costs exactly equals the proportion of program expenditures that transfers income to the poor. The net social benefits of increased income by the poor derive solely from the fact that transferring a dollar of consumption from people in general to the poor is regarded as socially desirable.

Another component of economic cost represents expenditures that pay for increased housing consumption. To estimate this component requires determining the increase in housing consumption that is due to housing programs. True economic cost only measures the value of other uses of the resources used and excludes payments to resources in excess of those needed to induce their use. Consequently, the economic cost of incremental housing consumption is less than actual expenditures because some expenditures cover price increases for fixed inputs that, had housing programs been smaller, still would have been allocated to housing at a lower price. Part of expenditures on additional housing, therefore, are transfers to landowners that are not counted as economic costs.

Another component of economic cost consists of the social costs (deadweight loss) of raising revenues to finance programs. Researchers in public finance argue about the magnitude of the deadweight loss of the tax system, but none concludes that it is unimportant, and a reasonable estimate is that the deadweight loss of taxation lies in the range of 20–30 percent and could be even higher.⁸ For our purposes, a reasonable estimate of the deadweight loss is approximately 25 percent of total expenditures (including tax expenditures and implicit, but not yet realized, mortgage guarantee liabilities).

The last component of economic cost is administration. Administrative costs arise from determining the eligibility of program beneficiaries and then collecting and disbursing funds to them. For housing assistance programs, the federal government pays for its own administrative costs plus some adminis-

8. Ballard, Shoven, and Whalley (1985); Fullerton (1991); Snow and Warren (1996); Goulder and Williams (2003).

trative costs of local housing authorities that run voucher systems and public housing projects. Payments for administrative costs of local housing authorities are about 8 percent of federal program expenditures.⁹ I am not aware of estimates of other components of administrative costs, including the costs to beneficiaries in undertaking the work to qualify for programs, of builders and owners of housing units that are occupied by households that qualify for housing assistance programs, and of federal government officials who implement and oversee housing programs. A plausible guess is that these costs are sufficient to push administrative costs into the range of 10 to 15 percent of expenditures.

Net Social Benefits

The preceding analysis is insufficient to provide anything remotely close to a bottom line estimate of net social benefits. Indeed, such an estimate is impossible without knowing the distributional weight (some number, w , greater than 1) that is given to benefits delivered to poor people and the ownership weight (some other number, h , greater than 0) that measures the value to society of converting a renter into a homeowner. But if one buys the rough assumptions made in this section, one can derive a crude formula for these benefits. Let T be the transfers to low-income households, $V_p(7H_p)$ be the value of incremental housing consumption to poor households arising from housing programs, $C_p(7H_p)$ be the economic cost of this incremental housing (which is less than the actual expenditure owing to the price effect), $V_o(7H_o)$ be the value of the increment to housing consumption by other households due to other housing programs, $C_o(7H_o)$ be the cost of the increment to housing consumption by others, $7O_p$ be the increase in the number of poor homeowners due to housing programs, $7O_o$ be the increase in homeownership among other households, and X_p and X_o be total direct and implicit expenditures on programs for the poor and for ownership, respectively.¹⁰ Given the estimated deadweight loss of taxation (25 percent) plus administrative costs (at least 10 percent), the net social benefits (NSB) of housing assistance programs for the poor are given by the net benefit to the poor plus ownership benefit minus the cost of administration and taxes, or

$$(1) \quad \text{NSB} = \{(w - 1)[T + V_p(7H_p)] - C_p(7H_p)\} + (h7O_p) - 0.35X_p.$$

9. See, for example, Stegman (1994); (www.cbpp.org/2-17-06hou.htm [April 2007]).

10. Note that $V_o(7H_o) - C_o(7H_o)$ is negative.

The magnitude of transfers plus incremental housing is the expenditure on programs less administration (at least 10 percent) and increased input prices (at least 20 percent). Thus, assuming that the homeownership effect on the poor is negligible and that the value of housing to the poor is less than its cost, the net social benefit is less than the following:

$$(2) \quad \begin{aligned} \text{NSB} &< (w - 1)(0.70X) - 0.35X - C_p(7H_p) \\ &= w(0.70X) - 1.05X - C_p(7H_p). \end{aligned}$$

Equation 2 can be used to calculate the minimum value for w that is necessary for the net social benefit to be positive, given an assumption about the fraction of expenditures that is accounted for by the cost of incremental housing. For example, if 10 percent of expenditures for housing assistance programs covers increments to housing consumption, then total social costs are $1.15X$. Equation 2 then implies that w must be at least $1.15 / 0.7 = 1.65$. As the fraction of expenditures that is accounted for by incremental housing construction increases, the minimum necessary value for w rises, in part because costs rise and in part because the true value of the expenditures to poor households falls in relation to actual expenditures on their housing. In addition, for housing assistance programs to be worthwhile, other methods of assisting the poor must be no more effective in delivering their benefits. All programs will have the same deadweight loss of taxation, so the crucial variables are administrative costs and the gap between expenditures on the poor and the value of those expenditures to them that arises from restrictions on the use of these subsidies.

For homeownership programs that are not directed at the poor, the net social benefit is the value of more ownership plus the net benefit of more housing minus the cost of taxes and administration, or

$$(3) \quad \text{NSB} = [h7O_o] + [V_o(7H_o) - C_o(7H_o)] - 0.35X_o.$$

Ignoring the net loss to society of encouraging more housing consumption, this equation relates the necessary value of h to the fraction of beneficiaries of assistance who become owners because of the program. Suppose that 20 percent of homeowners receive benefits and houses only because of these benefits. Then the equation reduces to:

$$(4) \quad \text{NSB} = 0.2h - 0.35(X/O_o) \Rightarrow h = 1.75(X/O_o),$$

where X/O_o is expenditures of ownership programs per beneficiary family. Thus, assuming that tax expenditures on homeownership are \$130 billion (as

estimated by Jaffee and Quigley) and are allocated among 65 million households that itemize deductions, the value of h must be \$3,500 a year. Using a discount rate of 10 percent, the present value of the annual stream of h must be close to \$35,000. For the median house (market value \$219,000), then, the social value of ownership must be more than 15 percent of its market value, not counting the subsidy from mortgage guarantee programs. One can quibble with these calculations, but they are offered as methodological examples of how such programs ought to be evaluated.

Conclusions

The purpose of these comments is to clarify how one should measure the effects of housing programs. Several features of housing policy must be taken into account to evaluate these programs. One is whether a coherent rationale exists for the enormous portfolio of programs that seemingly all do more or less the same thing. A second is to bear in mind that transfers are benefits and costs only if they serve a policy goal regarding income distribution. A substantial fraction of expenditures on housing programs is transfers that do not count as either benefits or costs. A third is that the act of transferring income is costly because of the deadweight loss of taxation and the administrative costs of implementing transfer programs. Finally, expenditures on incremental housing are a poor measure of the benefits of housing programs. Expenditures on increments to housing consumption overstate the value of this consumption to beneficiaries and, in any event, are not the goal of ownership programs.

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