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CURTAILING THE ECONOMIC DISTORTIONS OF THE MORTGAGE INTEREST DEDUCTION

William T. Mathias*

Many Americans consider the mortgage interest deduction a necessary fixture of the American tax system. In this Article, Mathias examines the economic underpinnings of the deduction and finds that it cannot be justified on purely economic grounds. He then evaluates the major policy arguments for the mortgage interest deduction and concludes that it is inefficient, inequitable, and too costly in its present form to be justified on policy grounds. Finally, the author advocates for the elimination or substantial reduction in the size and scope of the mortgage interest deduction.

The mortgage interest deduction generally allows taxpayers to reduce their taxable income by the amount of interest they pay on a home mortgage. A central policy objective of the mortgage interest deduction is to promote home ownership.

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1. Taxable income is the amount of income on which one must pay taxes. The starting point for computing an individual's tax liability is gross income. The Internal Revenue Code defines gross income expansively to include "all income from whatever source derived." I.R.C. § 61 (1994). For most taxpayers gross income consists of wages, dividends, and interest. The Code excludes from gross income certain enumerated sources of income, known as exemptions. See id. §§ 101–153. Next, the Code allows taxpayers to reduce gross income by subtracting certain expenditures, known as deductions. See id. §§ 161–220. In subtracting deductions, taxpayers have the option of either taking a standard deduction, which is an amount set by Congress, or itemizing their deductions. See id. § 63. To take advantage of the mortgage interest deduction, taxpayers must itemize their deductions and not use the standard deduction. See id. § 63(d). The amount that remains is an individual's taxable income. See id. § 63. The appropriate rate schedule is then applied to taxable income to arrive at the individual's tax liability. See id. § 1. See generally MARVIN A. CHIRELSTEIN, FEDERAL INCOME TAXATION: A GUIDE TO THE LEADING CASES AND CONCEPTS 1–7 (7th ed. 1994) (summarizing the process of calculating taxes).

2. Not all home mortgage interest may be deducted. See infra notes 17–35 and accompanying text. This Article generally uses the term "mortgage interest." However, this type of interest is also known as "qualified residence interest." I.R.C. § 163(h)(4)(A).

Considering that the mortgage interest deduction is one of the most costly provisions in the Internal Revenue Code, we should examine just what the American taxpayers will get for the more than $300 billion this nation will spend on the mortgage interest deduction over the next five years.

This Article begins with an explanation of the parameters of the mortgage interest deduction under current law. Part II introduces the concept of imputed rent, which is essentially the rent a homeowner would pay to live in her house if she did not own it. This Part then explores the extent to which the mortgage interest deduction is required under a broad economic definition of income, as opposed to the Code's definition of taxable income, and finds that under an economic definition of income the mortgage interest deduction is appropriate only if imputed rent is included as income.

Part III provides a discussion of whether the government should promote home ownership, the effectiveness of the mortgage interest deduction in encouraging home ownership, and the various drawbacks associated with the mortgage interest deduction. The Article contends that the mortgage interest deduction, particularly in its present incarnation, provides too much benefit to upper-income homeowners and too little to low- and middle-income renters who desperately want to become homeowners. Instead of increasing the rate of home ownership, the mortgage interest deduction exacerbates the inequalities resulting from not including imputed net rent in taxable income. The mortgage interest deduction also creates serious economic distortions that stymie economic growth and make our economy run less efficiently.

Finally, Part IV analyzes the various options for eliminating or reducing the mortgage interest deduction. The Article concludes that the only effective way to eliminate the inequalities

4. Each year the federal government analyzes how much various provisions of the Code cost in terms of lost tax revenue. This analysis is referred to as the Tax Expenditure Budget (TEB). For 1996, the TEB estimated the major tax expenditures to be: (1) exclusion of employer-provided medical insurance, $66.6 billion; (2) exclusion of employer-provided pension contributions, $59 billion; and (3) mortgage interest deduction, $54.2 billion. See EXECUTIVE OFFICE OF THE PRESIDENT, OFFICE OF MANAGEMENT AND BUDGET, BUDGET OF THE UNITED STATES GOVERNMENT: ANALYTICAL PERSPECTIVES 64 (1996) [hereinafter 1996 BUDGET]. Over the next five years, the TEB estimates that the major tax expenditures will be: (1) exclusion of employer-provided medical insurance, $398 billion; (2) mortgage interest deduction, $303 billion; and (3) exclusion of employer-provided pension contributions, $300 billion. See id.

5. See id.

related to the tax treatment of housing is to include imputed net rent as taxable income and allow a deduction for mortgage interest as an expense of earning the imputed rent. Unfortunately, the administrative complexities associated with taxing imputed rent raise serious doubts about whether Congress will ever enact this complete solution. While recognizing the limitations inherent in any partial solution, this Article suggests the elimination of the mortgage interest deduction or, at the very least, its substantial reduction.

I. THE MORTGAGE INTEREST DEDUCTION UNDER CURRENT LAW

From the inception of the income tax in 1913 until the passage of the Tax Reform Act of 1986 (the 1986 Tax Act), the general rule was that a taxpayer could deduct all personal interest payments, including interest payments on home mortgages. The early legislative history of the Code provides little insight into why Congress provided a deduction for all personal interest, let alone interest on home mortgages. In the 1986 Tax Act, Congress changed the treatment of interest by eliminating the deduction for "personal interest."


9. The Code restates this underlying principle as the general rule that all interest is deductible. See I.R.C. § 163(a) ("There shall be allowed as a deduction all interest paid or accrued within the taxable year on indebtedness."). Deductions are items that the Code allows a taxpayer to subtract from gross income to arrive at taxable income. See supra note 1; see also DOUGLAS A. KAHN, FEDERAL INCOME TAX § 4.0000 (3d ed. 1994).

The 1986 Tax Act defined personal interest to include all interest payments by a noncorporate taxpayer, except for interest on debt allocable to a trade or business, investment interest, interest deductible under the passive activity rules, interest on unpaid estate tax liability, and qualified residence interest.\(^1\)

Congress justified its decision to eliminate the deduction for personal interest as an effort to "eliminate[] from the present tax law a significant disincentive to saving."\(^1\) It explained that the pre-1986 tax system "provide[d] an incentive to invest in consumer durables rather than assets which produce taxable income and, therefore, an incentive to consume rather than save."\(^1\) Congress was particularly troubled by the incentive the Code provided for debt-financed consumer purchases.\(^1\) Use of credit cards and other consumer credit sources to buy luxury items such as cars, vacations, and jewelry as well as personal consumption needs such as food, clothing, and home appliances meant less money was available to invest in businesses and other income producing sources. The exception for qualified residence interest thus represented an explicit recognition by Congress of the important policy goal of encouraging home ownership.\(^1\)

A "qualified residence"\(^1\) is the taxpayer's principal residence and one other residence which the taxpayer selects and uses as a residence for a portion of the year.\(^1\) The term "qualified
residence interest,"19 refers to interest on a debt that is either "acquisition indebtedness"20 or "home equity indebtedness"21 with respect to the taxpayer's "qualified residence."22

"Acquisition indebtedness" is debt incurred in acquiring, constructing, or substantially improving a qualified residence of the taxpayer.23 To qualify, the debt must be secured by a qualified residence.24 Refinanced acquisition indebtedness also qualifies for the mortgage interest deduction, but only up to the unpaid principal of the old mortgage prior to the refinancing.25 Borrowing against the unrealized appreciation on a qualified residence, on the other hand, does not qualify as acquisition indebtedness.26 A taxpayer may not deduct interest on more than $1 million of acquisition indebtedness.27 The limitation does not apply to debt incurred before October 14, 1987, and secured by a qualified residence regardless of the actual use of the loan proceeds.28

"Home equity indebtedness" is debt that a taxpayer normally incurs after acquiring a home. Like acquisition indebtedness, it must be secured by a qualified residence.29 The amount that a taxpayer may borrow as home equity indebtedness may not exceed the difference between the fair market value of the qualified residence and the taxpayer's acquisition indebtedness

& Lee L. Rev. 459, 487 (1993). Consequently, the interest on a loan used to purchase a boat is deductible so long as the owner of the boat resides on it for the greater of 14 days or 10% of the number of days the boat was rented. See I.R.C. § 280A(d)(1) (stating the 14 day/10% definition for using a dwelling unit as a residence).
20. Id. § 163(h)(3)(B).
21. Id. § 163(h)(3)(C).
24. See id.
25. See id. In practice, this limitation prevents a homeowner who has repaid a portion of his mortgage from taking advantage of the mortgage interest deduction a second time by borrowing back the amount repaid. For example, if the taxpayer incurs $100,000 of acquisition indebtedness in acquiring a residence and pays down the debt to $75,000, then the taxpayer's acquisition indebtedness for the residence cannot be increased above $75,000 by refinancing or otherwise. See generally Chirelstein, supra note 1, ¶ 7.04, at 165; Joseph A. Snoe, My Home, My Debt: Remodeling the Home Mortgage Interest Deduction, 80 Ky. L.J. 431, 445 (1992).
29. See id. § 163(h)(3)(C)(i).
on the residence. Thus, home equity indebtedness allows the taxpayer to borrow against the equity that has built up in a residence through repayment of the original mortgage principal or through appreciation in the value of the residence. The Code limits the total amount of home equity indebtedness a taxpayer may incur to $100,000. The limitation does not apply to debt incurred before October 14, 1987, and secured by a qualified residence. In contrast to acquisition indebtedness, the Code imposes no limitations on the use of the proceeds of home equity indebtedness. Therefore, a taxpayer can use the proceeds of a loan to meet personal consumption needs and deduct the interest simply by using his residence as security for the loan.

In summary, then, the home mortgage interest deduction allows taxpayers who itemize their deductions to deduct the interest on loans of up to $1 million used to acquire or improve a primary or secondary home and an additional $100,000 used for any purpose. The Code provides no similar deduction for any other type of consumer interest.

II. IMPUTED RENT AND THE HAIG-SIMONS DEFINITION OF INCOME

Although it may be impossible to agree on a comprehensive definition of income, a general understanding of the concept of income is required to evaluate specific Code provisions that cause exclusions, inclusions, and deductions from income in calculating the income tax. In fact, a leading economist has

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\begin{align*}
30. & \text{See id.} \\
31. & \text{See CHIRELSTEIN, supra note 1, ¶ 7.04, at 165.} \\
32. & \text{See I.R.C. § 163(h)(3)(C)(ii). Thus, a taxpayer can deduct the interest on loans totaling $1.1 million (including acquisition indebtedness).} \\
33. & \text{See id. § 163(h)(3)(D)(i).} \\
34. & \text{See id. § 163(h)(3)(C).} \\
35. & \text{See 2 BITTKER & LOKKEN, supra note 15, ¶ 31.5, at 80; CHIRELSTEIN, supra note 1, ¶ 7.04, at 165.} \\
36. & \text{See HENRY C. SIMONS, PERSONAL INCOME TAXATION: THE DEFINITION OF INCOME AS A PROBLEM OF FISCAL POLICY 43 (1938) ("That it should be possible to delimit the concept [of income] precisely in every direction is hardly to be expected.").} \\
37. & \text{See Richard Goode, The Economic Definition of Income, in COMPREHENSIVE INCOME TAXATION 1, 2 (Joseph A. Pechman ed., 1977) ("A good definition of income is an indispensable intellectual foundation for the evaluation of an income tax statute. . . . Without such a basis, discussion is likely to be unnecessarily discursive and the ad hoc conclusions reached may lack force.").}
\end{align*}
\]
stated that "construction of a fair income tax is well-nigh impossible without the guidance of a basic income concept."38

The most widely supported definition of income among American tax specialists is the Haig-Simons definition, also referred to as the accretion concept or the economic definition of income.39 Under the Haig-Simons definition, personal income equals the sum of increase in net worth and consumption.40 Net worth consists of all receipts, including cash and the fair market value of property, that increase worth, regardless of the source.41 Consumption is defined expansively to cover all expenditures, including in-kind consumption, except those incurred as a cost of earning or producing income.42

Under the Haig-Simons definition of income, personal income should include the imputed net rental value of an owner-occupied house43 because a house is a capital asset that provides a return to the homeowner in the form of rent-free housing. To understand this benefit more clearly, remember that a homeowner could convert this asset into cash by moving and renting the house to someone else who would pay rent in cash.44

39. See Goode, supra note 37, at 2.
40. Robert Murray Haig defined income as

the increase or accretion in one's power to satisfy his wants in a given period in so far as that power consists of (a) money itself, or, (b) anything susceptible of valuation in terms of money. More simply stated, the definition of income which the economist offers is this: Income is the money value of the net accretion to one's economic power between two points of time.

Robert Murray Haig, The Concept of Income—Economic and Legal Aspects, in THE FEDERAL INCOME TAX 1, 7 (Robert Murray Haig ed., 1921). Likewise, Henry C. Simons defined personal income for tax purposes as

the algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in the value of the store of property rights between the beginning and end of the period in question. In other words, it is merely the result obtained by adding consumption during the period to 'wealth' at the end of the period and then subtracting 'wealth' at the beginning.

41. See SIMONS, supra note 36, at 50.
42. See SIMONS, supra note 36, at 61; see also Goode, supra note 37, at 7–20.
43. Both Haig and Simons explicitly stated that imputed income, in particular the imputed rent on owner-occupied houses, should be included in personal income. See Haig, supra note 40, at 14; SIMONS, supra note 36, at 112.
from a slightly different perspective, imputed net rental value is the amount a homeowner would have to pay to live in the house if she did not own it.\(^4\) Imputed net rent is calculated by estimating the gross rent that the house would obtain in an arm's length market rental agreement,\(^4\) and then reducing the gross rent by the expenses incurred in producing the income, namely mortgage interest, property taxes, depreciation, repairs and maintenance, and casualty insurance.\(^4\)

If the definition of gross income included the imputed net rental value of an owner-occupied house, then mortgage interest would be deductible as an expense of producing the rental income. The government has acknowledged that in a pure income tax, gross income would include imputed net rent from an owner-occupied house.\(^4\) Nevertheless, the government traditionally has excluded imputed income from consumer durable goods (such as an owner-occupied house) from gross income. Although the language of the Code appears to include such imputed income in the definition of gross income,\(^4\) the Internal Revenue Service (IRS) has never attempted to include such imputed income in the tax base.\(^5\) This decision has been justified as responding to concerns about valuating such imputed income, constitutional questions, and worries that taxpayers would consider the concept unusual and too theoretical.\(^5\)

Proponents of the mortgage interest deduction argue that the deduction corrects for the horizontal inequities\(^5\) between cash

\(^{45}\) See Chirelstein, supra note 1, ¶ 1.03; Melvin White & Anne White, Horizontal Inequality in the Federal Income Tax Treatment of Homeowners and Tenants, 18 Nat'l Tax J. 225, 228 (1965).


\(^{47}\) See Goode, supra note 44, at 121.


\(^{49}\) See I.R.C. § 61(a) (1994) (defining "gross income" as "all income from whatever source derived").

\(^{50}\) See Chirelstein, supra note 1, ¶ 1.03.

\(^{51}\) See id.

\(^{52}\) Horizontal equity or fairness is generally defined as equal taxation of taxpayers with equal income. See Daniel N. Shaviro, Selective Limitations on Tax Benefits, 56 U. Chi. L. Rev. 1189, 1190 (1989).
home buyers and mortgage home buyers. When income does not include net imputed rent, cash buyers have an advantage over mortgage buyers because mortgage buyers must pay taxes on the interest on their mortgages while cash buyers have no mortgage interest on which to pay taxes. The net result is that a mortgage buyer has to pay more than a cash buyer for the same home because of taxes.

The mortgage interest deduction is also touted as preventing an inequality from developing between homeowners who own businesses and those who do not. Because the Code provides a deduction for interest allocable to a business, a business owner could avoid any limitations on the deductibility of mortgage interest by borrowing against her business to pay for her home. Here is how it would work: The owner of a business would borrow $100,000 from a bank and use her equity in her business as collateral for the loan. She would then use the $100,000 to pay for her home. The interest she would pay on the loan would be deductible because the loan is secured by the business and thus allocable to the business. Thus, even though the loan was used essentially as a mortgage, the interest would be deductible. Persons who do not own businesses, on the other hand, would not have a similar method of deducting the interest on their mortgages and would be at a disadvantage compared to business owners if the mortgage interest deduction were limited.

Finally, proponents of the mortgage interest deduction charge that it eliminates inequalities between first-time home buyers and long-time homeowners. First-time home buyers borrow a larger percentage of the total cost of their homes than previous-owner buyers. In addition, in the early years of a typical home mortgage, a large percentage of the loan payments are interest as opposed to principal. Absent the mortgage interest deduction, long-time homeowners have a tax advantage over first-time home buyers. Because first-time home buyers generally have

56. See Steuerle, supra note 54, at 787.
57. See id.
58. See Woodward & Weicher, supra note 53, at 312 (noting that first-time buyers borrow slightly more than 90% of the value of their homes, while previous-owner buyers borrow only about 80% of the value of their homes).
mortgages with higher loan-to-value ratios and larger interest payments in the early years, they have more taxable income without a mortgage interest deduction and pay more taxes than long-time homeowners whose mortgages have lower loan-to-value ratios and smaller interest payments.59

Unfortunately, allowing a deduction for mortgage interest but not including imputed net rent in the definition of income exacerbates the horizontal inequities caused by not including imputed net rent in the definition of income in the first place.60 The Code produces an inequality between owner-occupiers and renters.61 Renters cannot deduct their cash rental payments and thus pay taxes on the income they use to meet their housing costs.62 Meanwhile, owner-occupiers do not include the imputed rental value of their homes as income and thus do not pay tax on the imputed income they use to meet their housing costs.63 In addition, owner-occupiers can deduct certain expenses of earning the imputed rent, such as mortgage interest.64 The mortgage interest deduction thus further disadvantages renters compared to owner-occupiers.

The Code also produces an inequality between owner-occupiers and other investors.65 Owner-occupiers have a tax advantage because they are not taxed on either the imputed rental income or the income used to pay the mortgage interest on their investment in their house. Real estate investors, on the other hand, must pay tax on the rental income they receive on their investments in rental properties,66 although they can deduct the mortgage interest as a business expense.67 Similarly, those who invest in other income-producing assets must pay taxes on the income they receive from their investments, and they can deduct the income used to pay the investment interest to the extent of investment income.

60. See Snoe, supra note 25, at 464–74 (describing the inequalities that result from allowing the mortgage interest deduction).
61. See Goode, supra note 44, at 505–06 (giving an example of the discrimination against renters and in favor of owner-occupiers).
62. See id.
63. See id.
64. See id.; see also Snoe, supra note 25, at 467–68.
65. See Goode, supra note 44, at 506; see also infra notes 95–97 and accompanying text.
67. See I.R.C. § 163.
In the end, the current tax system departs from the Haig-Simons definition of income by providing a deduction for mortgage interest without correspondingly including the imputed net rental value of owner-occupied houses. From a structural, economic perspective, the mortgage interest deduction is "not warranted." Any attempt to justify the mortgage interest deduction, therefore, must rely solely on policy grounds.

III. POLICY ARGUMENTS

A. To Subsidize Home Ownership or Not?

Many consider home ownership to be at the heart of the American Dream. For generations, presidents have extolled the virtues of home ownership. National housing policy recognizes the importance of having a home. Congress has stated directly that "encouraging home ownership is an important policy goal."

68. The Code additionally provides a deduction for real property taxes, see I.R.C. § 164(a)(1), the impact of which is analogous in many ways to the mortgage interest deduction. An extended discussion of the merits of the real property tax deduction is beyond the scope of this Article. For that discussion, see generally JB McCombs, Refining the Itemized Deduction for Home Property Tax Payments, 44 VAND. L. REV. 317 (1991).


70. See President William J. Clinton, Radio Address to the Nation on the Economic Plan (Feb. 27, 1993), in 29 WKLY. COMPILATION PRESIDENTIAL DOCUMENTS 331, 332 (1993) (stating that home ownership is "an essential part of the American dream we're working hard to restore"); President George Bush, Remarks on Arrival in Appleton, Wisconsin (July 27, 1992), in I PUBLIC PAPERS OF THE PRESIDENTS OF THE UNITED STATES: GEORGE BUSH, 1992–93, at 1188, 1188 (1993) ("I believe that those on welfare, what they really want is a piece of the American Dream: home ownership, a good job, opportunities for their children, and strong, loving families."); President Ronald Reagan, Remarks at the Midyear Meeting of the National Association of Realtors (May 10, 1984), in I PUBLIC PAPERS OF THE PRESIDENTS OF THE UNITED STATES: RONALD REAGAN, 1984, at 675, 677 (1986) ("I firmly believe that the opportunity to own a home is part of the American Dream."); President Lyndon Johnson, Crisis of the Cities, Message from the President of the United States (Feb. 26, 1968), in 114 CONG. REC. 3956, 3957 (1968) ("Home ownership is a cherished dream and achievement of most Americans."); President Franklin Roosevelt, Address to the United States Savings and Loan League (Nov. 16, 1942), quoted in Home Owners Hailed in Roosevelt Note, N.Y. TIMES, Nov. 17, 1942, at 35 ("[A] nation of home owners, of people who own a real share in their own land, is unconquerable.").

71. See 42 U.S.C. § 1441 (1994) ("The Congress declares that the general welfare and security of the Nation and the health and living standards of its people require . . . the realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family . . . .").

Despite such widespread political support, the basic concept of home ownership is not without its critics. Socialists oppose the gentrification of society and the buildup of wealth that they believe home ownership exacerbates; pure free-market economists argue that government preferences for home ownership lead citizens to divert resources from their most productive uses, thereby reducing economic efficiency and retarding economic growth.

Supporters of home ownership tout a number of advantages that they believe accrue to individual homeowners and to society as a whole from home ownership. The underlying premise is that individuals who own their own home have a vested financial interest in their home and the surrounding community and will take a greater interest therein. Individual benefits include increased stability and security, better neighborhood environments, and nicer housing. Home ownership also gives individuals enhanced social and financial status, and greater investment potential if houses appreciate in value. From a broader societal perspective, home ownership better preserves the housing stock through more thorough maintenance of homes by owner-occupants. Proponents of home ownership


74. See William Vickrey, Agenda for Progressive Taxation 23–24 (1947); Hellmuth, supra note 46, at 192 (“In terms of economic efficiency and the allocation of resources, too little capital is invested in areas other than housing and too much in housing.”); Joseph Isenbergh, The End of Income Taxation, 45 Tax. L. Rev. 283, 306–07 (1990) (“I believe there has been a slower rate of economic growth . . . as a result of overinvestment in housing.”); McCombs, supra note 68, at 326–27 (discussing the economic disincentives that result from encouraging home ownership).

75. Professor JB McCombs states:

Numerous social benefits are believed to flow from home ownership. Homeowners move less often than renters. Parents may be induced to take a greater interest in the school system. Voter turnout and other forms of local political involvement increase. Owners maintain their homes better than renters and landlords, thus providing aesthetic benefits to neighbors. Better maintenance of homes also supports local real estate prices, thereby likely increasing motivation of nearby owners to improve and maintain their property and motivation of lenders to finance such activities.


76. See Forrester, supra note 75, at 407; Zelinsky, supra note 75, at 1007–08.

77. See Forrester, supra note 75, at 407; Zelinsky, supra note 75, at 1007–08.
also argue that society benefits from increased savings by homeowners and more wealth accumulation by homeowners who can build up equity in their homes as they pay their mortgages. Finally, home ownership contributes to stronger communities because homeowners have a vested interest in their communities and thus are more responsible and involved citizens.

In reality, though, the disadvantages of home ownership outweigh the advantages, which are largely illusory. Little empirical evidence supports the individual psychological benefits often attributed to home ownership. Moreover, home ownership has significant disadvantages. From an economic perspective, home ownership reduces the efficiency of the economy. A home is an illiquid asset. Selling a home takes time and involves costs such as sales commissions and, possibly, the realization of a taxable gain. In addition, if an individual chooses to purchase a replacement home, then she must incur additional costs in the form of closing costs and points on her mortgage loan. These costs erode the value of a homeowner's investment in her home. Moreover, if the value of the home has fallen, selling the home results in a loss that is not deductible and so further reduces the investment. Home ownership also impairs mobility of the labor force. The lack of liquidity of homes and the

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78. See Forrester, supra note 75, at 406. But see Isenbergh, supra note 74, at 306–07 (suggesting that housing is a poor vehicle for savings and investment because the savings, in the form of unrealized appreciation, are not in a readily invested form).

79. Savings and wealth accumulation are also bolstered by the fact that a home, normally the largest asset an individual owns, cannot be easily converted into cash for consumption spending.

80. See Forrester, supra note 75, at 407; Zelinsky, supra note 75, at 1007–08.

81. See Henry J. Aaron, Shelter and Subsidy: Who Benefits from Federal Housing Policies? 70 (1972) (referring to "the alleged, but unsubstantiated, benefits accruing to the community when households come to own their own homes"); Goode, supra note 44, at 127 ("[T]he nature of the social advantages claimed for [home ownership] is somewhat vague.").

82. The Code provides that a taxpayer may defer any gain from the sale of a home if the taxpayer buys a new home of at least equal value within two years. See I.R.C. § 1034(o) (1994). In addition, the Code provides a one-time exclusion of up to $125,000 of gain from the sale of a home for taxpayers who are age 55 and older. See id. § 121.

83. With respect to home mortgages, the term "points" refers to a fee mortgage lenders charge home buyers at the inception of mortgage loans. A point equals one percent of the principal amount of the loan and is in addition to the stated rate of interest on the loan. See Black's Law Dictionary 1156 (6th ed. 1990).

84. See I.R.C. § 165.

85. See Forrester, supra note 75, at 407.

86. But see Richard E. Slitor, Rationale of the Present Tax Benefits for Homeowners, in Federal Housing Policy and Programs 163, 165–67 (J. Paul Mitchell ed., 1985) (arguing that home ownership does not impair mobility because of improvements in the
costs associated with selling them can cause workers to become fixed in a geographic area that does not have adequate job opportunities when it would be more economically efficient for the workers to move to other areas with more job opportunities.87 The impaired mobility of the labor force thus causes the economy to run less efficiently.

Additional economic costs associated with promoting home ownership result from the preference of homeowners for low density single-family homes.88 The construction of additional single-family homes leads to increased infrastructure costs because more roads, sewers, and utilities must be built.89 In addition, owner-occupied homes are generally larger then rental units, requiring increased energy usage because these larger homes must be heated, air conditioned, and lit.90

Governmental measures designed to promote home ownership, such as the mortgage interest deduction, also impose significant costs on society through higher tax rates, which negatively affect the economy.91 The government's support of home ownership reduces the price of home ownership compared to rental housing and other nondurable goods.92 It also increases the net rate of return on investment in owner-occupied housing above that of other income-producing investments.93

These economic effects seriously distort the housing market.94 Because rental housing is paid for with after-tax dollars,
owner-occupiers enjoy an advantage because neither imputed net rent nor mortgage interest is taxed.\textsuperscript{95} In this way, the mortgage interest deduction initially reduces the cost of home ownership compared to rental housing. This reduction in the cost of home ownership increases demand for owner-occupied housing. As demand increases, it begins to outstrip the supply of owner-occupied housing and causes the price to rise. As the price rises, demand falls. Over time, the mortgage interest deduction will result in an artificially high long-run equilibrium price for owner-occupied housing.\textsuperscript{96}

On the other side of the equation, the increase in the cost of rental housing and the increase in demand for owner-occupied housing initially reduces demand for housing. The result is an initial oversupply of rental housing. The excess supply of rental housing leads to a reduction in rental housing construction and a drop in the price of rental housing. As the price falls, demand begins to rise. Over time, the government subsidies for home ownership will lower the long-run equilibrium price for rental housing, reducing the supply of rental housing below the level it otherwise would have been without government subsidies for home ownership.\textsuperscript{97}

The conversion of middle-income tenants into homeowners that results from government subsidies of home ownership also distorts the rental market. From a landlord's perspective the "desirability" of tenants presumably is proportional to their income.\textsuperscript{98} Consequently, a loss of middle-income renters reduces the quality of tenants in the rental market, which, in turn, makes rental properties less attractive to investors. As investors lose interest in rental properties, the supply of rental units shrinks. With fewer rental units and a lower proportion of middle-income tenants, the quality of rental units tends to worsen. Moreover, the price of the remaining rental units tends to rise because of the decrease in the supply of rental housing and the need for a higher rate of return to induce investors to invest in rental housing.\textsuperscript{99}

\textsuperscript{95}. See supra Part II.

\textsuperscript{96}. See Hellmuth, supra note 46, at 190.


\textsuperscript{98}. See McCombs, supra note 68, at 326 ("One might surmise that the desirability of tenants increases with their income.").

\textsuperscript{99}. See id.
Government support for home ownership also increases the rate of return on investments in owner-occupied housing compared to other investments, which leads to an inefficient allocation of resources in the economy. Economists theorize that if all economic resources were allocated to the various segments of the economy in the proper proportions then the economy would run at peak efficiency; this situation is known as the optimal market allocation of resources.\textsuperscript{100} By artificially inflating the rate of return on investments in owner-occupied housing, the government diverts resources from their optimal market allocation. Investors place too much capital in owner-occupied housing and too little in other segments of the economy.\textsuperscript{101} At present, nearly one out of every three dollars of net private investment goes toward owner-occupied housing,\textsuperscript{102} thereby driving up the cost of capital in other segments of the economy.\textsuperscript{103} This misallocation of resources causes the economy to run less efficiently and stifles economic growth.\textsuperscript{104}

The misallocation of resources into housing also has an impact on our balance of trade. Because housing is a fixed asset that cannot be exported, the expansion of the housing segment of the economy occurs at the expense of other, potentially exportable, segments of the economy. Through this diversion of resources, incentives to increase home ownership negatively impact our balance of payments with other countries.\textsuperscript{105}

\textsuperscript{100} See Francis M. Bator, The Simple Analytics of Welfare Maximization, 47 Am. Econ. Rev. 22 (1957) (providing in Part I a rigorous technical discussion of the "best" configuration of inputs, outputs, and commodity distribution). Over the years, a dispute has arisen between economists over the extent to which an optimal market allocation of resources is achievable. See Milton Friedman, Capitalism and Freedom 197 (1962) ("[T]he difference between the actual operation of the market and its ideal operation . . . is as nothing compared to the difference between the actual effects of government intervention and their intended effects."). But see Zelinsky, supra note 75, at 996 ("[T]he model of perfect competition is an obviously inaccurate description of the contemporary American economy."); Adam Smith, The Wealth of Nations 424, 461 (Edwin Cannan ed., Random House, Inc. 1937) (1776) ("In every country it always is and must be the interest of the great body of the people to buy whatever they want of those who sell it cheapest. The proposition is so very manifest, that it seems ridiculous to take any pains to prove it. . . .").

\textsuperscript{101} See Hellmuth, supra note 46, at 190.


\textsuperscript{103} See McCombs, supra note 68, at 326 (asserting that government programs that make home ownership easier also raise "capital costs to other sectors of the economy"); CBO Report, supra note 102, at 342 ("Even a modest reduction in housing investment could raise investment significantly in other sectors.").

\textsuperscript{104} See McCombs, supra note 68, at 326.

\textsuperscript{105} See id.
A final, though somewhat recondite, argument challenges the economic underpinnings of preferring owner-occupied housing to rental housing. Specialization and economies of scale are central to increasing economic efficiency. Landlords, as specialists in providing housing, would likely provide housing at a lower cost than owner-occupants. Why, then, should the government promote a less efficient means of providing housing?

B. How to Subsidize Home Ownership

Most Americans want to own their own home. According to two recent studies, 86% of Americans believe that home owners are better off than renters and 80% of Americans identified the traditional single-family home with a yard as the ideal place to live. Although the author does not concede that the government should play a role in subsidizing home ownership, such high levels of public support for home ownership, suggest that continued government support for home ownership may be inevitable. The question, then, is whether the mortgage interest deduction is the best and most efficient way for the government to promote home ownership.

At present, the federal government promotes—or, more accurately, subsidizes—home ownership through myriad tax expenditures and direct spending programs. Direct federal spending on housing assistance amounted to almost $23.9 billion in Fiscal Year 1996. As Table 1 indicates, the major tax expenditures designed to benefit homeowners are the mortgage interest deduction, the property tax deduction, deferral of capital gains, and the one-time exclusion of capital gains. Together these provisions of the Code caused an additional $92.6

106. See Goode, supra note 44, at 127; see also Isenbergh, supra note 74, at 307 (arguing that organizing multi-unit dwellings as condominiums and cooperatives rather than as apartments is economically inefficient).


112. See id. § 164(a)(1).

113. See id. § 1034.

114. See id. § 121.
billion in lost revenue in Fiscal Year 1996.\textsuperscript{115} Not even considered as part of the tax expenditure budget is the failure to tax imputed net rent from owner-occupied housing.\textsuperscript{116} As Table 1 demonstrates,\textsuperscript{117} the mortgage interest deduction is the largest single federal expenditure (tax or otherwise) on housing.\textsuperscript{118} In addition, the public widely perceives it as providing the most encouragement to home ownership.\textsuperscript{119}

Public perception may not coincide with economic reality. Assuming that the goal of the mortgage interest deduction is to expand the rate of home ownership, how effectively has it achieved this goal? In the decades that followed World War II, the rate of home ownership grew, although in recent years that growth has plateaued. In 1940, 44\% of all dwellings were owner-occupied.\textsuperscript{120} By 1960, the number had risen to 62\%.\textsuperscript{121} In 1993, the number was 65\%.\textsuperscript{122} Although the mortgage interest deduction may have played a role in encouraging home ownership, a number of other factors also contributed to the increase in home ownership, including the rise in real income, gains realized by debtors during an inflationary period, and the movement of population away from central cities toward the suburbs.\textsuperscript{123}

If the mortgage interest deduction has contributed to rising rates of home ownership, who has it helped? Or, in tax policy parlance, does the deduction create vertical inequities?\textsuperscript{124} Under the current tax system, the benefits of the mortgage interest deduction vary directly with the taxpayer's income and marginal

\textsuperscript{115} See 1996 BUDGET, supra note 4, at 40.
\textsuperscript{116} See supra Part II. The U.S. Department of Commerce estimated that the annualized rental value of owner-occupied housing was $438 billion in 1992. See 1995 STATISTICAL ABSTRACT, supra note 88, at 458. This figure represents roughly 7\% of the nation's $6 trillion gross domestic product. See id. at 452. To arrive at imputed net rent, the Department of Commerce estimate of the rental value of owner-occupied housing must be reduced by mortgage interest and property taxes. This means that taxable income was understated by almost $400 million in 1992.
\textsuperscript{117} See infra tbl. 1.
\textsuperscript{118} See supra notes 109–13 and accompanying text.
\textsuperscript{120} See 1995 STATISTICAL ABSTRACT, supra note 88, at 733. The 1940 percentage may be unusually low because of the effect of the Great Depression. See GOODE, supra note 44, at 126.
\textsuperscript{121} See 1995 STATISTICAL ABSTRACT, supra note 88, at 733; see also GOODE, supra note 44, at 126.
\textsuperscript{122} See 1995 STATISTICAL ABSTRACT, supra note 88, at 733.
\textsuperscript{123} See GOODE, supra note 44, at 126.
\textsuperscript{124} Vertical equity concerns the relative tax burdens placed on taxpayers with different incomes. For a complete discussion, see Shaviro, supra note 52, at 1222.
tax rate, the market value of the taxpayer's house, and the size of the mortgage compared to the value of the house.\textsuperscript{125} To illustrate the correlation between the benefit of the mortgage interest deduction and marginal tax rates, consider two taxpayers, U (upper-income taxpayer) and L (lower-income taxpayer), who each pay $10,000 in mortgage interest. If U is in a 40% tax bracket, she would have to pay $4000 in taxes (40% of $10,000) if she could not deduct the $10,000 she paid in mortgage interest. Meanwhile, if L is in a 20% tax bracket, he would have to pay $2000 in taxes (20% of $10,000) if he could not deduct the $10,000 in interest he paid on his mortgage. Accordingly, the mortgage interest deduction is worth $4000 to the upper-income taxpayer, but only $2000 to the lower-income taxpayer.

This vertical inequity between upper- and lower-income taxpayers is heightened because upper-income taxpayers generally own more expensive homes with larger mortgages than lower-income taxpayers. Consequently, upper-income taxpayers pay more mortgage interest and get a larger benefit from the mortgage interest deduction. To illustrate this idea, again consider two taxpayers, U and L, who each pay 10% interest on their respective mortgages. U has a palatial home with a $500,000 mortgage and thus pays $50,000 in mortgage interest (10% of $500,000).\textsuperscript{126} Assuming that U is still in the 40% tax bracket, she would have to pay $20,000 in taxes (40% of $50,000) if she could not deduct mortgage interest. Meanwhile, L has a more modest home with a $100,000 mortgage and pays only $10,000 in mortgage interest (10% of $100,000). Assuming L is still in the 20% tax bracket, he would have to pay $2000 in taxes (20% of $10,000) if mortgage interest was not deductible. Therefore, in this hypothetical the mortgage interest deduction is worth $20,000 the upper-income taxpayer but only $2000 to the lower-income taxpayer.

These two hypotheticals show that upper-income taxpayers receive a greater proportion of the subsidy from the mortgage interest deduction than lower-income taxpayers. In fact, a study of tax receipts from 1988 found that more than 50% of the tax savings from the mortgage interest deduction accrued

\textsuperscript{125} See Hellmuth, supra note 46, at 194; see also Goode, supra note 44, at 127 (noting that "[t]he present provisions afford assistance for housing and home ownership that varies directly with the family's income and marginal tax rate").

\textsuperscript{126} For simplicity's sake, the hypothetical ignores the effects of amortization, which would cause the mortgage payments in the early years of the mortgage to reflect a large percentage of interest and only a small percentage of principal.
to taxpayers with incomes in the ninety-first percentile or higher. The mortgage interest deduction, thus, is an upside-down subsidy. In other words, it creates significant vertical inequities between upper-income taxpayers, who benefit greatly from the deduction, and lower-income taxpayers, who benefit only slightly if at all.

It is unclear how a program that provides the majority of its benefits to the richest people in the country furthers the stated policy goal of "encouraging home ownership." It is difficult to conceive of a defense for a direct spending program that would pay nearly 40% of the cost of a second home for a millionaire while providing no benefit to the average family making less than $42,500.

In sum, the vertical inequities associated with the mortgage interest deduction make it a poor tool for encouraging lower- and middle-income people to move from renting to homeownership. Instead, a significant portion of the benefit of the mortgage interest deduction subsidizes the purchase of larger homes for the wealthy.

C. The Real Estate Market, Personal Wealth, and Capitalization

Given the failure of the mortgage interest deduction as a tool for encouraging home ownership among lower- and middle-
income Americans, do other reasons justify retaining the deduction? Supporters of the mortgage interest deduction point to the size of the residential real estate market and charge that eliminating the deduction would have a devastating effect on the construction and real estate industries, the banking industry, personal wealth, and the economy as a whole.

The exact size of the impact on the economy of the mortgage interest deduction and other federal tax expenditures intended to promote home ownership is difficult to determine. Professor Henry Aaron suggests that federal tax expenditures may have increased housing consumption by as much as twenty percent. He attributes the increase in housing consumption to an expansion in the number of people who own homes and the value of the homes people own. Others, however, suggest that federal tax expenditures have affected only the choice between home ownership and renting rather than expanding total consumption of housing services.

A related concern is whether the subsidy provided by the mortgage interest deduction is capitalized into the market price of a house. If the tax subsidy is capitalized, then eliminating the mortgage interest deduction would precipitate a corresponding erosion in the value of owner-occupied housing. To illustrate how capitalization works, consider a home worth $80,000 without reference to the mortgage interest deduction. If the capitalized value of the mortgage interest deduction on that home is $20,000, then the home would sell for $100,000 if

133. In 1984, total home mortgages outstanding were estimated at $1.3 trillion, which is almost 45% of the outstanding debt held by individuals. See Koppelman, supra note 11, at 1155 n.44 (citing BOARD OF GOVERNORS OF THE FED. RESERVE SYS., BALANCE SHEETS FOR THE U.S. ECONOMY 1945–84 (Oct. 1985)).


135. See AARON, supra note 81, at 61; cf. Woodward & Weicher, supra note 53, at 312 (arguing that elimination of the mortgage interest deduction would raise the present value cost of a house by about 20%).

136. See AARON, supra note 81, at 61.

137. See, e.g., GOODE, supra note 44, at 125.

138. Capitalization occurs when the tax benefit accorded an item is factored into the item's market price. See generally Boris I. Bittker, Tax Shelters and Tax Capitalization or Does the Early Bird Get a Free Lunch?, 28 NAT'L TAX J. 416 (1975) (discussing the concept of capitalization).

139. See McMahon, supra note 18, at 486 n.144 (suggesting that the tax benefit of the mortgage interest deduction is mostly capitalized into the cost of a home).
the mortgage interest deduction were capitalized in the price. Assume that a taxpayer buys the home for $100,000. If the mortgage interest deduction is eliminated the next day, then the value of the home drops to $80,000 because the $20,000 capitalized value of the mortgage interest deduction becomes $0. Because a house is the largest asset owned by most Americans, any significant erosion in the value of owner-occupied housing would have a corresponding impact on personal wealth.

While there seems to be general agreement that some portion of the mortgage interest deduction is capitalized into the market price of owner-occupied housing, there is no agreement on the extent to which the deduction is capitalized. The market has trouble distinguishing between taxpayers who receive different levels of benefit from the mortgage interest deduction based on their marginal tax rate and so the market price for housing tends to reflect the highest benefit received from the deduction. Under such an assumption, the mortgage interest deduction is over-capitalized for some taxpayers, and eliminating the deduction will cause a larger price adjustment than otherwise would have been expected.

Nevertheless, any overcapitalization should be limited to the margins between tax brackets. The housing market is sophisticated; it generally responds quickly and efficiently to changes in mortgage rates, taxes, and other market conditions. Real estate brokers, mortgage lenders, and even home buyers and

140. See Follain & Ling, supra note 131, at 162–64 (discussing variations in the level of benefit from the mortgage interest deduction, thus demonstrating, unintentionally, the potential for capitalization across various incomes and tax brackets). Compare DRI ANALYSIS, supra note 134, at 3–4 (arguing that eliminating the mortgage interest deduction would cause a 15% reduction in the value of homes), with Stephen Entin, DRI STUDY DISTORTS FLAT TAX IMPACT ON HOME PRICES, (Institute for Research on the Economics of Taxation, IRET CONGRESSIONAL ADVISORY, Aug. 31, 1995) (suggesting that the value of homes would drop far less).

141. Cf. Shaviro, supra note 52, at 1238 (discussing how the benefits of realization vary over a particular group).

142. See id.

sellers closely monitor tax changes affecting real estate. In addition, a fairly close correlation exists between mortgage amount, home price, income of the buyer, income of the seller, and therefore their marginal tax rates. For instance, the buyer of a $400,000 home will most likely be in the top marginal tax bracket and will finance roughly the same portion of the purchase price as the seller of the home did. Therefore, both the buyer and seller will receive about the same benefit from the mortgage interest deduction, and any capitalization of the deduction will properly reflect the benefit conferred on the two parties. If, however, the buyer is not in the top marginal tax bracket or makes a large down payment to reduce the size of the mortgage, then the mortgage interest deduction likely will be overcapitalized. The extent of such overcapitalization should be limited to buyers near the margins between the tax brackets.

IV. POLICY OPTIONS

A. Include Imputed Net Rent in the Tax Base

Once the problems caused by the mortgage interest deduction are identified, eliminating it might seem the simplest and best solution, yet eliminating the mortgage interest deduction without including imputed rent in income gives cash home buyers a tax preference over mortgage home buyers. The only way to eliminate all horizontal inequities created by the current tax system is to include imputed net rent as taxable income. Unfortunately, the administrative complexities associated with valuating imputed net rent pose a substantial impediment to including it in the tax base. As one tax reformer bluntly put

144. See Eskridge, supra note 143, at 1086 (suggesting that many home buyers "defer to more sophisticated intermediaries" such as home builders, real estate brokers, and lenders); Reid Breitman, Note, Equating California Foreclosure Sales with Ordinary Residential Sales, 68 S. CAL. L. REV. 947, 972–73 (1995) (asserting that the average home buyer is not sophisticated and, instead, relies on real estate brokers and other professionals to assist them).

145. See supra note 53 and accompanying text; see also Snoe, supra note 25, at 466–67 (providing an illustration of the tax advantage that accrues to cash home buyers).

146. See supra notes 52–53 and accompanying text.

147. See GOODE, supra note 44, at 128.

148. A 1977 tax reform proposal drafted by the Treasury Department's Tax Policy Staff did not include imputed rent from owner-occupied housing in its tax base due in
it, "simplification will not be served by taxing imputed rent, no matter what method is used."149 On the other hand, the administrative difficulties associated with taxing imputed income are not novel. Appraisals of homes are conducted on a fairly frequent basis for property taxes and mortgage loans.150 In addition, a number of foreign countries have experience taxing imputed net rent.151 Thus, the government could calculate the imputed rental income.152

In the final analysis, the only effective means of eliminating all horizontal inequities from the tax system is to tax imputed net rent and allow mortgage interest to be deducted as an expense of earning the imputed rent. Any other change will produce horizontal inequities. Unfortunately, the perceived administrative difficulties involved in taxing imputed net rent make it unlikely that Congress will ever adopt such a proposal,153 so we must turn to other alternatives.

large part to concerns about administrative complexity:

[T]o tax this form of imputed income, however desirable it might be from the standpoint of equity or of obtaining neutrality between owning and renting, would severely complicate tax compliance and administration. . . . Even if market rental were estimated, perhaps as a fixed share of assessed value of the dwelling, the taxpayer would face the difficulties of accounting for annual maintenance and depreciation to determine his net income.

DAVID F. BRADFORD & U.S. DEP'T OF TREASURY TAX POLICY STAFF, BLUEPRINTS FOR BASIC TAX REFORM 78 (2d ed. rev. 1984). One of these difficulties involves distinguishing the costs of repairs and maintenance, which would be deductible, from the costs of capital improvements, which would not. Another difficulty arises because it is all but impossible to distinguish between repairs related to imputed rent and repairs that constitute personal consumption. For example, how would the Code deal with an owner-occupant who painted every two years when a landlord would only paint every five years? See Jerome Kurtz, Comments to Hellmuth, Homeowner Preferences, in COMPREHENSIVE INCOME TAXATION 197, 200 (Joseph A. Pechman ed., 1977).

149. Kurtz, supra note 148, at 198.
150. See, e.g., KAN. STAT. ANN. § 79-1412a (1989) (ordering county and district appraisers to perform annual appraisals of real estate for purposes of assessing property taxes); MD. CODE ANN., TAX-PROP. § 8-104 (1994) (mandating the valuation of real property over a three-year cycle for purposes of assessing property taxes); 12 C.F.R. § 34.43 (1996) (requiring appraisals for certain real estate loans by national banks).
151. As of the middle of the 1970s, 42 of the world's 115 income tax systems subjected imputed rental income from owner-occupied residences to a tax. See Paul E. Merz, Foreign Income Tax Treatment of the Imputed Rental Value of Owner-Occupied Housing: Synopsis and Commentary, 30 NAT'L TAX J. 435, 435 (1977). Some of these countries, however, no longer include imputed net rent in their tax base. See id. at 436.
152. For example, the government could use direct estimates or take a percentage of the home's value or the owner's equity in the home. See GOODE, supra note 44, at 129.
153. See HENRY J. AARON & HARVEY GALPER, ASSESSING TAX REFORM 90 (1985) ("The practical problem is that estimating a market rent for tax purposes would be inexact and open to challenge.").
B. Eliminate the Mortgage Interest Deduction

1. Under the Current Tax System—Given the administrative complexities associated with including imputed net rent in the definition of income, the next best option is to eliminate the mortgage interest deduction completely. As discussed above, the mortgage interest deduction is too large, too ineffective, and creates vertical and horizontal inequities. Moreover, eliminating the mortgage interest deduction would raise an estimated $313.3 billion in revenue over five years.\textsuperscript{154}

Eliminating the mortgage interest deduction would have a positive economic impact because most, if not all, of the revenue raised by eliminating the deduction should be funneled back to taxpayers through a reduction in overall tax rates. The reduction in tax rates would lead to a reduction in interest rates and an increase in economic growth.\textsuperscript{155}

Another economic advantage of eliminating the mortgage interest deduction is that owner-occupied housing would no longer enjoy a tax preference over other investment opportunities. Equalizing the rate of return on investments from a tax perspective should reduce or eliminate the overconsumption of housing. Theoretically, capital would flow freely to its optimal market allocation. The economy would run more efficiently and grow faster.\textsuperscript{156}

2. Under a Flat Tax—The arguments in favor of eliminating the mortgage interest deduction are even more persuasive in the context of a comprehensive restructuring of the tax system, such as a broad-based flat tax.\textsuperscript{157} First, a larger portion of the revenue

\begin{itemize}
\item \textsuperscript{154} See CBO REPORT, supra note 102, at 342.
\item \textsuperscript{155} See ENTIN, supra note 140, at 2.
\item \textsuperscript{156} See supra notes 94–99 and accompanying text.
\item \textsuperscript{157} Historically, there has been strong support for eliminating the mortgage interest deduction in the context of comprehensive tax reform. In 1975, the Commission to Revise the Tax Structure estimated that eliminating the mortgage interest deduction in the context of sweeping tax changes to broaden the tax base and reduce tax rates would cause a small reduction in residential construction that would eventually be offset by the larger flow of capital to business investment. See Hellmuth, supra note 46, at 169 (citing COMMISSION TO REVISE THE TAX STRUCTURE, REFORMING THE FEDERAL TAX STRUCTURE 35, 140 (1973)). Similarly, in 1972, noted economist Henry Aaron proclaimed: “Complete reform in tax treatment of homeowners seems the most attractive course, particularly if it were combined with overall tax reduction to offset the increases homeowners would experience.” AARON, supra note 81, at 73. In addition, he argued that such reform “would cause the personal income tax to generate substantially larger
\end{itemize}
raised by eliminating the mortgage interest deduction will likely be used to reduce overall tax rates because a primary political goal of a flat tax is to reduce tax rates, which will create tremendous political pressure to use the revenue to reduce rates rather than fund additional spending programs. Moreover, individuals who support a flat tax often also oppose big government, meaning that if Congress enacts a flat tax, it likely will also support reducing the size of government. Second, the reduction of marginal tax rates that would accompany the adoption of a flat tax would erode the value of the mortgage interest deduction, even if the deduction were retained. For example, consider the effect a modified 20% flat tax which retained the mortgage interest deduction would have on a taxpayer in the top marginal tax bracket who pays mortgage interest of $10,000. Under the current tax system, such a taxpayer saves $3960 in taxes (39.6% of $10,000) by deducting the interest she pays on her mortgage. Under a modified 20% flat tax, the mortgage interest deduction would have a value of only $2000 (20% of $10,000). A change to a flat tax would eliminate roughly half of the value of the mortgage interest deduction without any change in the mortgage interest deduction.

These benefits aside, eliminating the mortgage interest deduction would cause some negative effects on the residential real estate market. First, it would directly affect those taxpayers who currently take advantage of the deduction, because they would no longer have the benefit of the deduction and would have to pay taxes on their mortgage interest. This change would raise the cost of owning a home for these taxpayers. Second, the value of owner-occupied housing would decrease. The size of revenues, which could support direct expenditures for housing or other purposes, reductions in tax rates, or lowering of interest rates." Id.

158. For example, a leading proponent of a flat tax in the House of Representatives is Congressman Dick Armey (R-TX). See, e.g., Howard Gleckman, Tax Reform is Coming, Sure. But What Kind?, BUS. WEEK, Jun. 12, 1995, at 84. As the Republican Majority Leader, he is also a vocal proponent of reducing the size of the federal government. See Phil Kuntz, Crowning a Cannon, 50 CONG. Q. WKLY. REP. 3782, 3782 (Dec. 12, 1992) (indicating that Congressman Armey "quickly established himself within the House GOP's bomb-throwing set with acerbic attacks on left-leaning Democrats, pedantic lectures on the virtues of free markets and 'budget commando' raids aimed at reducing federal expenditures" and thus the size of the federal government).

159. See I.R.C. § 1(c) (1994) (setting the highest marginal rate at 39.6%).

160. See supra notes 126-28 and accompanying text.

161. See DRI ANALYSIS, supra note 134, at 3-4 (suggesting that the average homeowner would lose 15% of the value of her home within two years). But see ENTIN, supra note 140, at 1 (arguing that the DRI Analysis "grossly exaggerated" the effects of a flat tax).
the reduction in value would depend upon the extent to which the mortgage interest deduction is already capitalized into the price of owner-occupied housing.\textsuperscript{162}

These negative effects of eliminating the mortgage interest deduction could be mitigated, at least in part. The elimination of the mortgage interest deduction would not directly affect homeowners with older mortgages and small amounts of outstanding principal because their interest payments have dwindled.\textsuperscript{163} Homeowners with adjustable rate mortgages would see their interest rates decline, which would offset the loss of the mortgage interest deduction.\textsuperscript{164} Additionally, many homeowners with fixed rate mortgages would be able to refinance their mortgages to take advantage of lower interest rates.\textsuperscript{165}

Finally, a study of the effects of the 1986 Tax Act shows that a reduction in the value of owner-occupied housing may not have the devastating effects that some have predicted.\textsuperscript{166} In 1986, a reduction in marginal tax rates and an increase in the standard deduction sharply reduced the value of the mortgage interest deduction.\textsuperscript{167} The magnitude of the reductions in value were largest among middle-income taxpayers (see Table 2). One would expect such a large reduction in the value of the mortgage interest deduction to devastate middle-income taxpayers, yet numbers of home mortgage defaults do not appear to have increased appreciably during this period.\textsuperscript{168} Thus, it seems that homeowners were able to compensate for the reductions in the value of the mortgage interest deduction.

\textsuperscript{162} See supra notes 138–42 and accompanying text.

\textsuperscript{163} See Richard L. Doernberg, A Workable Flat Rate Consumption Tax, 70 Iowa L. Rev. 425, 479 (1985).

\textsuperscript{164} Proponents of the flat tax claim that it would “pull down interest rates immediately.” See HALL & RABUSHKA, supra note 134, at 80. With adjustable rate mortgages, commonly referred to as ARMS, the interest rate on the mortgage fluctuates during the life of the loan, usually annually, based on prevailing interest rates. See FANNIE MAE FOUNDATION, CHOOSING THE MORTGAGE THAT’S RIGHT FOR YOU 14–15 (1996) (on file with the University of Michigan Journal of Law Reform). Consequently, lower prevailing interest rates would translate into lower mortgage interest rates and lower payments for homeowners with ARMS, thereby offsetting the loss of the mortgage interest deduction. See HALL & RABUSHKA, supra note 134, at 82–85.

\textsuperscript{165} See Doernberg, supra note 163, at 479; see also ROBERT E. HALL & ALVIN RABUSHKA, LOW TAX, SIMPLE TAX, FLAT TAX 60–66 (1983).

\textsuperscript{166} See Follain & Ling, supra note 131, at 164–65.

\textsuperscript{167} See McDougall, supra note 94, at 751.

\textsuperscript{168} According to federal statistics, the percentage of mortgage loans delinquent 30 days or more was 5.8 in 1985, 4.7 in 1990, and 4.1 in 1995. See U.S. BUREAU OF THE CENSUS, STATISTICAL ABSTRACT OF THE UNITED STATES 515 (1996). The percentage of mortgage loans in the foreclosure process at year end was 1.0 in 1985, 0.9 in 1990, and 0.9 in 1995. \textit{Id}. 
Despite all of these factors mitigating the effects of eliminating the mortgage interest deduction, some segments of the population would feel the elimination of the mortgage interest deduction more than others. Younger, first-time home buyers would suffer substantially from eliminating the mortgage interest deduction because they receive substantial benefit from the mortgage interest deduction. On average, first-time home buyers have the highest loan-to-value ratios among homeowners and a higher percentage of their mortgage payments in the early years is interest as opposed to principal. On a positive note, though, younger home buyers have more years to benefit from the stronger economic growth that eliminating the mortgage interest deduction promises to produce, and eventually they should recoup the lost value of the mortgage interest deduction.

Older, long-time homeowners, on the other hand, have built up significant equity in their homes and often plan to draw off that equity to live during their retirement years. Consequently, longtime homeowners would feel little of the direct effects of eliminating the mortgage interest deduction, but they would feel the loss of value of owner-occupied housing. Stronger economic growth should eventually make up for the loss in value in the residential real estate market. Unfortunately, older longtime homeowners have less time to benefit from economic growth. Accordingly, some transition rules would be necessary in the short run to mitigate the negative effects of eliminating the mortgage interest deduction. Ideally, transition rules should

169. See supra text accompanying note 59.

170. See Deborah H. Schenk, The Effect of a Broad-Based Flat-Rate Income Tax on the Average Taxpayer, 23 Tax Notes 423, 432 (1984) ("[E]limination of the deduction can be expected to depress the value of residential property which . . . could be a major setback for the elderly or those about to retire . . . ."). Statistics raise some questions about whether many older people do, in fact, sell their homes and live off the built-up equity. In 1994, home ownership rates were highest among people aged 65 to 69 at 80.6%. See 1995 Statistical Abstract, supra note 88, at 736. There is only a small reduction in ownership rates among the upper age groups. In 1994, people aged 75 and older had a home ownership rate of 73.5%, higher than the home ownership rate for any age group under age 45. See id.

171. There is significant dispute in the academic community over whether taxpayers who entered into mortgages with sizable interest payments on the assumption that those payments would be deductible deserve transition relief based on their reliance. See generally Daniel S. Goldberg, Tax Subsidies: One-Time vs. Periodic; An Economic Analysis of the Tax Policy Alternatives, 49 Tax. L. Rev. 305 (1994) (criticizing Professors Graetz and Kaplow's arguments that transition relief is not necessary); Michael J. Graetz, Legal Transitions: The Case of Retroactivity in Income Tax Revision, 126 U. Pa. L. Rev. 47, 87 (1977) ("When a provision has outlived its usefulness, it should be
reduce windfall gains and losses without creating additional inequities or complexity.\textsuperscript{172} Direct spending programs designed to benefit first-time homebuyers could address the effects of eliminating the mortgage interest deduction on first-time homebuyers,\textsuperscript{173} but the loss in value suffered by longtime homeowners is best addressed through transition rules. The options for transition rules are a grandfather clause to protect existing homeowners for ten to twenty years,\textsuperscript{174} or a phase-in period of perhaps ten years.\textsuperscript{175}

Grandfathering the mortgage interest deduction creates several new problems and does not address the loss-of-value problem adequately.\textsuperscript{176} A grandfather clause would not protect owners of existing homes against the loss in value of their homes because potential buyers, who would not have the benefit of the mortgage interest deduction, would be unwilling or unable to pay the owner's value for a home.\textsuperscript{177} Furthermore, an expansive grandfathering clause would severely limit the revenue gains from eliminating the mortgage interest deduction, which, in turn, would cause less of a reduction in tax rates and slower economic growth.\textsuperscript{178}

Phasing in the elimination of the mortgage interest deduction over a period of years would be a better solution.\textsuperscript{179} Eliminating the deduction over a number of years gives the real estate and construction industries time to adjust production because many

eliminated without the delay and windfall gains inherent in grandfathering prior transactions."\textsuperscript{174}); Louis Kaplow, An Economic Analysis of Legal Transitions, 99 HARV. L. REV. 509, 615–16 (1986) (concluding that generally, government transitional relief is "undesirable" because it is inefficient). This Article does not take a position on whether such reliance requires transition relief, but instead argues that transition relief is necessary to address the short run negative effects of eliminating the mortgage interest deduction.

\textsuperscript{172}. See David I. Kempler, Transitional Rules as a Tool for Effective Tax Reform, 36 BAYLOR L. REV. 765, 774 (1984).

\textsuperscript{173}. Eliminating the mortgage interest deduction makes it difficult for potential first-time home buyers to afford a home. See supra text accompanying note 169. A direct spending program, which would provide cash assistance to potential first-time home buyers, could make up for the effects of eliminating the mortgage interest deduction. See generally SURREY, supra note 128, at 179–80 (discussing how items in the Tax Expenditures Budget can be structured as direct spending programs).

\textsuperscript{174}. See Doernberg, supra note 163, at 479–80.

\textsuperscript{175}. See Salsich, supra note 97, at 1635–36.

\textsuperscript{176}. See AARON & GALPER, supra note 153, at 92 (arguing that even with a grandfather clause "prices of existing houses would still tend to fall").

\textsuperscript{177}. See id.

\textsuperscript{178}. See Kempler, supra note 172, at 795.

\textsuperscript{179}. The deduction could be reduced by 10% each year for 10 years.
real estate projects develop over many years. In addition, the adjustment period would allow homeowners to amortize the benefit of the mortgage interest tax deduction over a period that approximates the time between moves by the average homeowner.\textsuperscript{180} Finally, because most of the benefit of the mortgage interest deduction accrues in the early years of a mortgage, when interest payments exceed principal payments, a ten-year phase-in period allows homeowners to enjoy most of the benefits of the deduction while preparing for its elimination.

The drawback of a phase-in period, as with any transition relief, is that it delays the implementation of the change. Because revenue gains would not be as high in the early years, the reduction in the tax rate would not be as large. In turn, economic growth would be less robust. Nevertheless, a phase-in should reduce the windfall losses in value from eliminating the mortgage interest deduction without adding new inequities or unnecessary complexity.\textsuperscript{181}

### C. Changes in the Mortgage Interest Deduction

Given the political realities in this country and the widespread public perception of home ownership as an intrinsic good, it may be difficult to completely eliminate the deduction even in the context of a comprehensive restructuring of the tax system. Under such conditions, the next best solution is to reduce the size and scope of the deduction.

1. **Eliminate Deduction for Home Equity Indebtedness**—As discussed above in Part I, home equity indebtedness is limited to $100,000 in debt secured by a qualified residence and used for any purpose.\textsuperscript{182} In enacting the 1986 Tax Act, Congress criticized the then-current tax system for providing "an incentive to invest in consumer durables rather than assets which produce taxable income and, therefore, an incentive to consume rather than save."\textsuperscript{183} Congress concluded that personal interest should not be deductible.\textsuperscript{184} The deduction for interest on home equity

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\textsuperscript{180} See Salsich, supra note 97, at 1636.

\textsuperscript{181} See Kempler, supra note 172, at 795; Munzer, supra note 97, at 454–55.

\textsuperscript{182} See supra notes 29–35 and accompanying text.

\textsuperscript{183} S. REP. NO. 99-313, at 804 (1986).

\textsuperscript{184} See 132 CONG. REC. 24154, 24453 (1986) ("Under the conference agreement, personal interest is not deductible."); see also S. REP. NO. 99-313, at 804 (1986); H.R. REP. NO. 99-426, at 297 (1985).
indebtedness, however, allows homeowners with equity built up in their homes through repayment of mortgage principal or appreciation in the value of the home to avoid the disallowance of personal interest. In effect, the deduction "encourages mortgaging homes to satisfy demand for consumption." The deduction of interest on home equity indebtedness also creates horizontal inequities between homeowners with little or no equity in their homes and renters on one side, and homeowners with large amounts of equity in their homes on the other. No rational policy justifies retaining a deduction for interest on items bought to satisfy personal consumption needs only because they are secured by equity in a home.

2. Eliminate Deduction for Second Homes—No clear policy justifies allowing homeowners to deduct mortgage interest on second homes. When Congress fashioned the current rules for the mortgage interest deduction, its stated goal was to foster home ownership. With few exceptions, though, second homes are a luxury. Because owners of second homes by definition own homes, allowing a deduction for second homes could not possibly increase the rate of home ownership. Consequently, there is no reason to use scarce federal tax dollars to subsidize the ownership of vacation homes for some middle- and upper-income taxpayers.

185. See McMahon, supra note 18, at 487.
186. Id. at 488.
187. See McMahon, supra note 18, at 487–88 (including homeowners with little equity in the group disfavored by the deduction); Snoe, supra note 25, at 491 (indicating that the use of home equity loans may hamper sales of higher priced homes by causing homeowners to deplete the equity in their homes for current consumption which prevents them from trading up to a more expensive home).
188. See McMahon, supra note 18, at 487 ("The legislative history of the provisions . . . provides no coherent explanation of the policy reasons underlying Congress's decision to allow the deduction.").
189. See Jeffrey H. Birnbaum & Alan S. Murray, Showdown at Gucci Gulch: Lawmakers, Lobbyists, & the Unlikely Triumph of Tax Reform 111 (1987) (suggesting that the American Land Development Association and its lobbyist played an influential role in the retention of the mortgage interest deduction for vacation homes); Snoe, supra note 25, at 482 ("Unless Congress is convinced the vacation home industry cannot prosper without the two qualified residence provisions, Congress should limit the home mortgage interest deduction to principal residences.").
190. See supra note 3.
191. See McMahon, supra note 18, at 487 ("Second homes are virtually always a luxury. There is absolutely no reason for subsidizing the ownership of vacation homes.").
192. See Snoe, supra note 25, at 480 ("Congress should reconsider allowing a taxpayer to claim two qualified residences.").
Not only does allowing a deduction for second homes not further Congress' stated purpose, it also produces negative economic effects. By reducing the cost of investing in a second home compared to some other income producing asset, the mortgage interest deduction creates an incentive for homeowners to overconsume housing, which then has a negative influence on the economy.193

The fact that luxury pleasure boats can qualify as second homes194 highlights the utter disconnect between Congress' stated goal of encouraging home ownership and the deductibility of mortgage interest on second homes. Because no policy justifies the retention of the deduction for second homes, the deduction should be eliminated.

3. Reduce the Mortgage Interest Deduction—If the goal of the mortgage interest deduction is to increase the number of homeowners, then there "is no good reason whatsoever for allowing a deduction for interest to purchase a home that costs many times the median home price."195 At present, the maximum principal eligible for the mortgage interest deduction is $1.1 million.196 In 1994, the median sale price was $130,000 for a new single family home and $109,800 for an existing single family home.197 Only California and Hawaii had statistical areas with median sales prices of existing single family homes above $200,000.198 Most homeowning taxpayers, then, do not use anywhere close to the full amount allowed.

Reducing the mortgage interest deduction is potentially more politically palatable than eliminating it completely because such a change would not affect most homeowners.199 The effects would largely be restricted to owners of expensive homes, the value of which would fall.200

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193. See supra notes 94–99 and accompanying text.
194. See McMahon, supra note 18, at 487.
195. Id.
196. See supra Part I.
198. See id. at 731.
200. See DRI ANALYSIS, supra note 134, at 3–4. Reducing the size of the mortgage interest deduction would also coincide with the practices of other countries. For example, England allows taxpayers to deduct interest on home mortgage indebtedness up to a maximum of £30,000 (about $50,000) of principal per year, which is substantially less than the current limit of $1.1 million in the United States. See James C. Smith, The Dynamics of Landlord-Tenant Law and Residential Finance: The Comparative Economics
The Congressional Budget Office (CBO) suggests two methods for reducing the mortgage interest deduction: reduce the maximum amount of principal eligible for the mortgage interest deduction, or limit the amount of mortgage interest that taxpayers can deduct from their returns. The major distinction between these two approaches is that under the second, fluctuations in interest rates would change the size mortgage that could be supported.

The CBO indicates that reducing the maximum principal eligible for the mortgage interest deduction to $300,000 would affect only about 1.2 million of the 28 million taxpayers who use the mortgage interest deduction. Yet, it would increase revenues by approximately $35 billion over five years. Alternatively, limiting the amount of mortgage interest a taxpayer could deduct from their return to $20,000 would affect about 1.5 million of the 28 million taxpayers who claimed the mortgage interest deduction. Based on current home mortgage interest rates, a $20,000 cap would support a $225,000 mortgage, and only 6% of new mortgages in 1994 exceeded $225,000. The CBO estimates that the cap would raise $52 billion over five years.

While entirely eliminating the mortgage interest deduction is preferable, there is no adequate justification for maintaining the mortgage interest deduction in its present form. Because the goal of the mortgage interest deduction is to expand home ownership, it should be substantially reduced in size to concentrate its impact on new homeowners.

CONCLUSION

In 1986, Congress overhauled the tax code but retained the mortgage interest deduction to promote home ownership. While there are critics of the very goal of the mortgage interest
deduction, home ownership has broad support among most Americans. In an effort to expand home ownership, taxpayers spend more than $50 billion a year on the mortgage interest deduction alone.

Unfortunately, the mortgage interest deduction, particularly in its current form, is inefficient, inequitable, and too costly. It provides too much of its benefit to upper-income homeowners and too little to low- and middle-income renters most of whom want desperately to own their own home. Instead of increasing the rate of home ownership, the mortgage interest deduction exacerbates the inequalities caused by not including imputed net rent as taxable income. In addition, the mortgage interest deduction creates serious economic distortions that limit economic growth and make our economy less efficient overall. The American taxpayers are not getting very much for the huge amount of money spent on the mortgage interest deduction.

The only completely effective solution to the inequalities related to the tax treatment of housing is to tax imputed rent as income and allow a corresponding deduction for mortgage interest as an expense of producing the imputed rent. While theoretically desirable, this solution is administratively daunting and unlikely to be adopted by Congress. The next best solution, then, is to eliminate the mortgage interest deduction phased-in over ten years. This solution would create its own horizontal inequities between cash homebuyers and mortgage homebuyers, but it would bring the income tax base closer to a true measure of economic income and reduce economic distortions.

If neither of these solutions proves politically attainable, the size and scope of the deduction should, nevertheless, be reduced. No clear justification exists for allowing a tax deduction for interest on home equity indebtedness, second homes, or homes costing well above the median home price. While admittedly only partial solutions, these reductions in the mortgage interest deduction would enhance tax equity, economic efficiency, and federal revenues.
# TABLE 1

**MAJOR TAX EXPENDITURES SUPPORTING HOME OWNERSHIP**

(IN MILLIONS OF DOLLARS)

<table>
<thead>
<tr>
<th>Tax Expenditure</th>
<th>FY 1984</th>
<th>FY 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage Interest Deduction</td>
<td>28,335</td>
<td>54,165</td>
</tr>
<tr>
<td>Property Tax Deduction</td>
<td>9,645</td>
<td>15,680</td>
</tr>
<tr>
<td>Deferral of Capital Gains</td>
<td>2,515</td>
<td>17,850</td>
</tr>
<tr>
<td>One-time Exclusion of Capital Gains</td>
<td>865</td>
<td>4,920</td>
</tr>
</tbody>
</table>

*See Executive Office of the President, Budget of the United States 50 (1984).

**See 1996 Budget, supra note 4, at 40.
TABLE 2

Effect of TRA 86" and the Elimination of the Interest Deduction on the Tax Subsidy to Owners

<table>
<thead>
<tr>
<th>Income (Thous.)</th>
<th>Typical Home Owner</th>
<th></th>
<th></th>
<th>Recent Home Buyer</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Owner</td>
<td>Average Owner</td>
<td>Average Subsidy w/o Int. Ded.</td>
<td>% Change</td>
<td>Average Owner Pre TRA</td>
<td>Average Owner</td>
<td>Average Subsidy w/o Int. Ded.</td>
<td>% Change</td>
</tr>
<tr>
<td></td>
<td>Pre TRA</td>
<td>TRA</td>
<td></td>
<td></td>
<td>Pre TRA</td>
<td>TRA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-0%</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-0%</td>
</tr>
<tr>
<td>5-10</td>
<td>71</td>
<td>56</td>
<td>55</td>
<td>-2%</td>
<td>11</td>
<td>8</td>
<td>8</td>
<td>-0%</td>
</tr>
<tr>
<td>10-15</td>
<td>231</td>
<td>132</td>
<td>129</td>
<td>-2%</td>
<td>207</td>
<td>22</td>
<td>19</td>
<td>-14%</td>
</tr>
<tr>
<td>15-20</td>
<td>391</td>
<td>335</td>
<td>326</td>
<td>-3%</td>
<td>543</td>
<td>119</td>
<td>55</td>
<td>-54%</td>
</tr>
<tr>
<td>20-25</td>
<td>518</td>
<td>426</td>
<td>414</td>
<td>-3%</td>
<td>899</td>
<td>232</td>
<td>73</td>
<td>-68%</td>
</tr>
<tr>
<td>25-30</td>
<td>885</td>
<td>582</td>
<td>555</td>
<td>-5%</td>
<td>1,257</td>
<td>593</td>
<td>107</td>
<td>-82%</td>
</tr>
<tr>
<td>30-35</td>
<td>1,164</td>
<td>685</td>
<td>630</td>
<td>-8%</td>
<td>1,655</td>
<td>821</td>
<td>127</td>
<td>-84%</td>
</tr>
<tr>
<td>35-40</td>
<td>1,509</td>
<td>847</td>
<td>765</td>
<td>-10%</td>
<td>2,161</td>
<td>1,112</td>
<td>174</td>
<td>-84%</td>
</tr>
<tr>
<td>40-45</td>
<td>1,864</td>
<td>927</td>
<td>802</td>
<td>-13%</td>
<td>2,616</td>
<td>1,434</td>
<td>212</td>
<td>-85%</td>
</tr>
<tr>
<td>45-50</td>
<td>2,196</td>
<td>1,707</td>
<td>1,320</td>
<td>-23%</td>
<td>3,130</td>
<td>2,223</td>
<td>353</td>
<td>-84%</td>
</tr>
<tr>
<td>50-60</td>
<td>2,884</td>
<td>2,285</td>
<td>1,610</td>
<td>-29%</td>
<td>4,092</td>
<td>3,485</td>
<td>498</td>
<td>-86%</td>
</tr>
<tr>
<td>60-75</td>
<td>3,972</td>
<td>3,129</td>
<td>2,012</td>
<td>-36%</td>
<td>5,798</td>
<td>4,652</td>
<td>916</td>
<td>-80%</td>
</tr>
<tr>
<td>75-100</td>
<td>5,831</td>
<td>4,164</td>
<td>2,583</td>
<td>-38%</td>
<td>8,468</td>
<td>6,125</td>
<td>1,271</td>
<td>-79%</td>
</tr>
<tr>
<td>100+</td>
<td>8,548</td>
<td>6,681</td>
<td>4,665</td>
<td>-30%</td>
<td>12,522</td>
<td>9,835</td>
<td>2,172</td>
<td>-78%</td>
</tr>
<tr>
<td>Average</td>
<td>$1,947</td>
<td>$1,379</td>
<td>$1,018</td>
<td>-26%</td>
<td>$2,794</td>
<td>$1,909</td>
<td>$363</td>
<td>-81%</td>
</tr>
</tbody>
</table>

*Table copied from Follain and Ling, supra note 131, at 163.