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Unmasking the Mortgage Interest Deduction: Who Benefits and by How Much?

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By Dean Stansel and Anthony Randazzo

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Executive Summary

The deduction of mortgage interest from federal income taxes subsidizes homeownership, making it more affordable to become a homeowner. It is a highly popular tax break, yet one that is not without criticism. For example, the mortgage interest deduction (MID) primarily benefits those who would choose to own homes anyway while encouraging them to simply buy bigger and more expensive homes. Those who are on the margin between renting and owning tend not to itemize deductions, thus they cannot benefit from the MID. As a result, if the goal is to increase the homeownership rate, the MID is an ineffective tool. Furthermore, it creates a distortion in the choice between financing owner-occupied housing with debt or other assets, and in the choice between investing in residential real estate or other assets.

Despite its popularity among voters, the mortgage interest deduction has long been a target for elimination. Most recently, President Obama's deficit reduction commission (Simpson-Bowles) had it in its sights. While there is general sentiment among voters that the mortgage interest deduction is a good idea, there is little understanding of its effects. In order to understand the potential effect of closing this loophole, this study examines specifically who benefits from the MID and how much they benefit. It also provides an estimate of how much tax rates could be reduced if the deduction were eliminated but revenues were held constant.

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Part 1

Introduction

The United States federal income tax code is full of complicated deductions, credits and loopholes, the largest of which is the mortgage interest deduction (MID). According to the Internal Revenue Service (IRS), itemized deductions excluded $1.2 trillion in income from the 2011 tax base, amounting to 14 percent of total adjusted gross income (AGI).[1] The MID was the largest of these deductions, accounting for about 35 percent of the total. As Congress continues to discuss and debate the future federal budgetary philosophy of the United States—particularly considering the ongoing debate over how to reduce the Federal deficit—it should consider reforming the overly complex, highly inefficient American tax code, particularly the mortgage interest deduction.

There were some changes made to itemized deductions at the end of 2012 that might affect the MID, but the need to address the economic distortions it creates remains strong. Given the importance of recovery in the housing market to economic growth in general, it is especially critical to review who would be affected by reforming the MID.

All taxes on income create distortions in economic decision making. The more something is taxed, increasing its relative cost, the more individuals will consume a substitute good that is relatively cheaper than the thing being taxed. That is as true of taxes on income produced by labor and capital as it is of taxes on goods and services.

Those distortions in economic decision making reduce efficiency, creating what economists call excess burden or deadweight loss.[2] The higher the tax rate, the larger the change in relative prices—and the larger the excess burden of taxation.[3]

The least distortionary income tax system is the one with the broadest possible tax base and the lowest possible marginal tax rates. Consider that if the tax base was broadened to include the $1.2 trillion in itemized deductions for 2011, the average tax rate could be reduced by nearly one-fifth, from 17.3 percent of taxable income to 14.2 percent.

Such a reduction in marginal tax rates would directly increase the reward for productive (income-generating) activity by increasing the amount of income that individuals are allowed to keep after taxes. As a result, closing loopholes such as the MID and lowering overall rates would likely lead to a more prosperous economy, one with higher levels of economic output and higher incomes.[4]

The mortgage interest deduction, which allows individual taxpayers to each deduct up to $1.1 million in home loan-related interest payments from taxable income, has been in existence as long as the income tax itself.[5] On the very first tax form in 1913, taxpayers were allowed to deduct "All interest paid within the year on personal indebtedness of taxpayer."[6] Initially, very few people actually paid income taxes. The exemptions and income bracket levels were set very high and rates very low, so only the very rich owed any taxes, and the mortgage interest deduction only benefited a small number of taxpayers. As a result, the distortions in individual decision making created by the MID were relatively small.

During World War II, in order to increase tax revenue to fund the war effort, rates were substantially raised, and exemptions and tax brackets were substantially lowered. The broadening of the income tax to more than just the highest income individuals, combined with an increase of homeownership rates, greatly expanded the influence of the mortgage interest deduction. That is, the distortions it created were greatly increased.

In 1986, the Reagan administration embarked on an ambitious plan to eliminate a majority of the loopholes from the tax code in order to reduce the marginal tax rates. Though many loopholes remained, major changes were made in an effort to widen the base and lower the rates. Those changes included eliminating the deductibility of interest on credit card balances, car loans, and many other loans, since the majority of interest being deducted was no longer related to the purchase of income-producing assets (as was originally intended). But the MID remained. Due to its widespread popularity, mortgage interest remained deductible, as politicians feared a political backlash from putting it on the chopping block.[7]

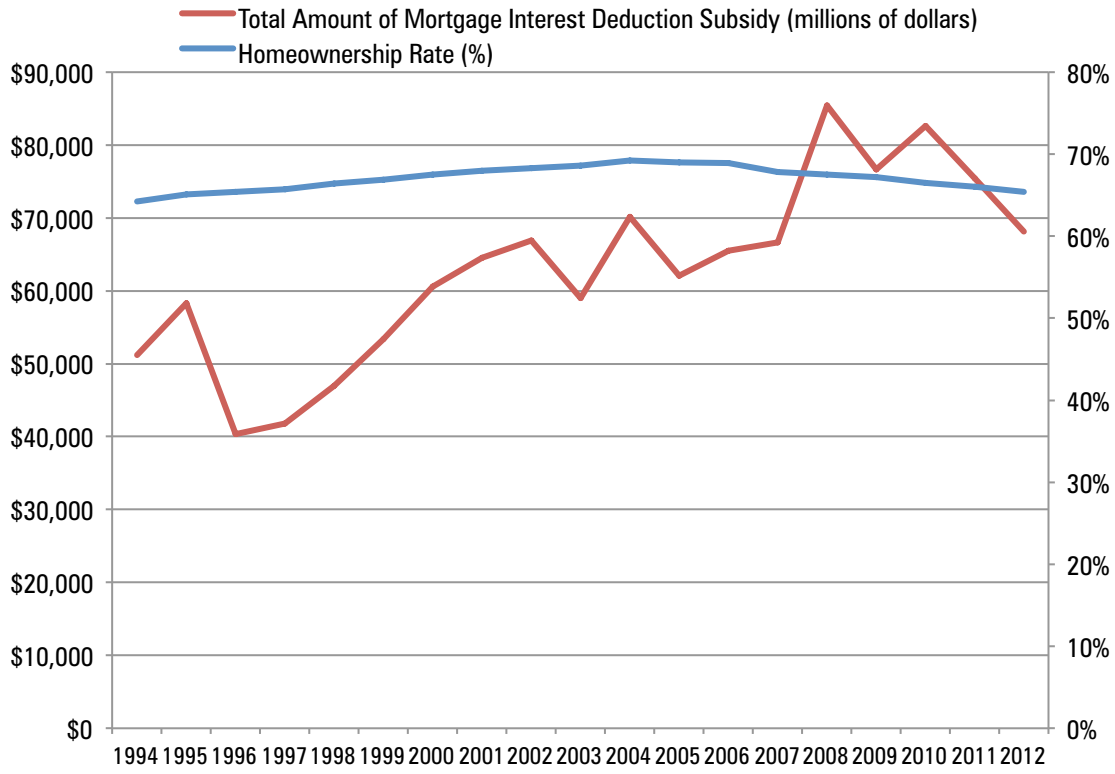
One of the reasons often cited for preserving the mortgage interest deduction is the belief that it helps increase the homeownership rate.[8] Homeownership is typically viewed as beneficial because homeowners tend to treat their property better than renters do (just like car owners treat their own cars better than cars they rent while on vacation). The idea is that by taking better care of their property (e.g., better maintenance of lawns and home exteriors), homeowners increase the value of that property. In theory this benefit offsets the costs of owning a home and also increases the value of neighboring properties.[9]

But as it turns out, the MID is a fairly ineffective tool for increasing homeownership.[10] Those households that rent but would prefer to own a home if they had just a bit more financial flexibility tend to be low-income families. As such, even if they bought a home they would be much less likely to itemize their deductions and unlikely to claim the MID. As a result, rather than increasing the homeownership rate, the primary effect of the MID is to increase the amount spent on housing by consumers who would choose to own anyway, subsidizing spending on housing rather than homeownership.[11]

Figure 1 shows that the amount of the MID has increased since 1994, while the homeownership rate has been fairly constant.[12] If the MID had a significantly positive effect on homeownership,

we would expect to see a faster and continuous increase in homeownership, rather than a gradual increase and subsequent decline. (See Table D4 in the appendix for the data relating to this figure.)

Figure 1: MID Subsidy Increases but Homeownership Rate Remains Relatively Constant



Source: U.S. Census Bureau; U.S. Congress, Joint Committee on Taxation (JCT), Estimates of Federal Tax Expenditures for Fiscal Years 2012-2017, JCS-1-13 and previous editions.

The mortgage interest deduction also creates numerous distortions to the allocation of capital, such as encouraging housing consumers to use debt rather than their own assets to finance home purchases.

For example, suppose John and Jane Richie are empty nesters. They've just sold their four-bedroom, three-bathroom house on Long Island and are in the market for a condo in West Palm Beach. They have $500,000 in liquid assets and have found a condo for $300,000. They could pay cash and still have $200,000 in liquid assets left. Or, with the encouragement of record-low interest rates, they could take out a mortgage. The existence of the mortgage interest deduction makes that latter decision more attractive than it would otherwise be. This creates a distortion in how financial capital is allocated, which leads to greater amounts of mortgage debt.

In fact, economists James Poterba and Todd Sinai estimate that taxpayers could reduce their mortgage debt by nearly 30 percent by using other financial paper assets, such as savings and brokerage accounts, to pay off loans. Many like John and Jane Richie would surely do this if there were no deduction for mortgage interest. If all nonhousing assets, such as retirement accounts, trusts, and annuities, were liquidated to pay off mortgage debt, Poterba and Sinai estimate that the reduction could be 70 percent.[13]

Furthermore, the marginal effective tax rate for owner-occupied housing in 2003 was only 2 percent, compared to 18 percent for noncorporate investment and 32 percent for corporate investment.[14] By creating favorable tax treatment for housing compared to other investments, the mortgage interest deduction encourages individuals to over-invest in housing, a partial contributing cause of the recent housing bubble.[15] Research by an economist at the Federal Reserve Bank of Philadelphia has shows that government incentives for homeownership, including the MID, have skewed distribution of resources so much that the American housing stock is 30 percent larger than it otherwise would be.[16]

By default, this over-investment means less capital is put toward productive assets in the rest of the economy, like machines and equipment used to produce goods and services. If there are fewer productive assets, there will be less economic growth and a lower standard of living, which most everyone would view as a policy failure. The Philadelphia Fed study found that the resource distortion toward housing has resulted in a 10 percent smaller gross domestic product.[17]

Given that the MID is such a poorly designed tax-incentive program that fails to promote homeownership while creating problems through economic distortion, the logical reaction would be to simply remove it from the tax code. Yet the mortgage interest deduction remains popular, possibly because of a misunderstanding by the public of its true effect.[18]

A revenue neutral change that eliminated the mortgage interest deduction, as some have proposed, would enable tax rates to be reduced without reducing the amount of revenue collected. Those rate reductions would benefit all taxpayers. However, the adverse effect of the elimination of the deduction would only pertain to some taxpayers.

The goal of this study is to identify which taxpayers would be affected by the elimination of the mortgage interest deduction—whether directly through higher tax bills or indirectly through housing prices—and how they would be affected.

Part 2

Who Benefits from the Mortgage Interest Deduction?

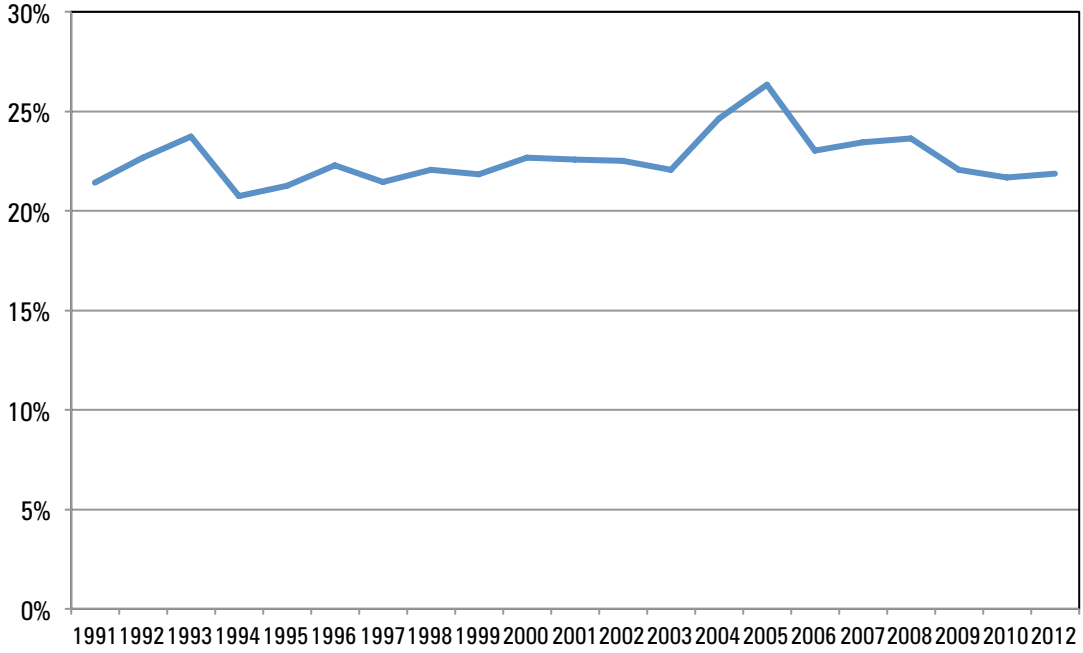
The mortgage interest deduction affects individuals and families depending on homeownership status, mortgage size, ability to itemize and income level (including tax rate). Since the size of an MID varies by mortgage size, and income tax rates vary by income, all taxpayers do not reap the same benefit.

> The mortgage interest deduction is almost exclusively claimed by households in the top income brackets and younger individuals with large mortgages who have not paid off much of their loans, and provides little to no benefit to low-income families, seniors, and Americans without mortgages.

In 2011, only about 32 percent of income tax returns filed with the IRS contained itemized deductions, automatically eliminating most taxpayers from receiving any direct benefit from the mortgage interest deduction. And not everyone who itemizes has mortgage interest to deduct: about 21 percent of itemizers do not take the MID. As a result, only one-fourth of taxpayers in 2011 claimed the mortgage interest deduction.[19] And this has been the historical trend. As Figure 2 shows, the percentage of all taxpayers claiming a mortgage interest deduction has been relatively stable at between 21 and 26 percent since 1991 (also see Appendix A).

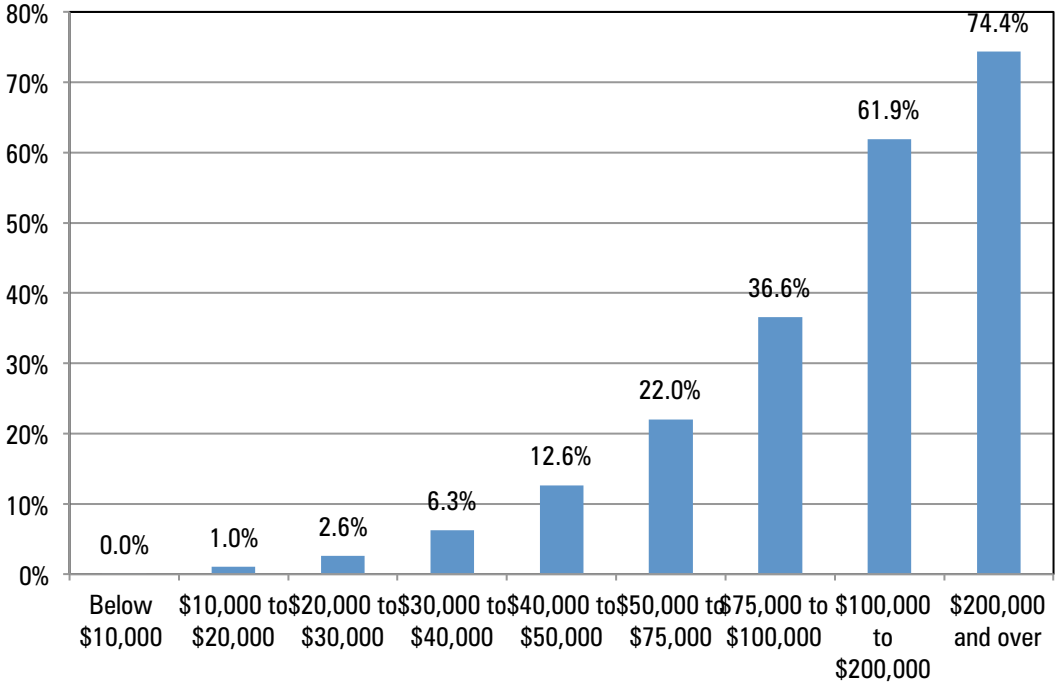
Who are these individuals claiming the mortgage interest deduction? Looking at data from the U.S. Congress's Joint Committee on Taxation (JCT) by income level, we see that only a small portion of taxpayers with incomes below $50,000 claim the mortgage interest deduction. In contrast, about two-thirds of those with incomes above $100,000 do so (see Figure 3 and Appendix A).

Figure 2: Percent of Returns Claiming Mortgage Interest Deduction Relatively Stable



Source: JCT, Estimates of Federal Tax Expenditures for Fiscal Years 2012-2017, JCS-1-13 and previous editions.

Figure 3: Percent Claiming MID Varies Across Income Levels

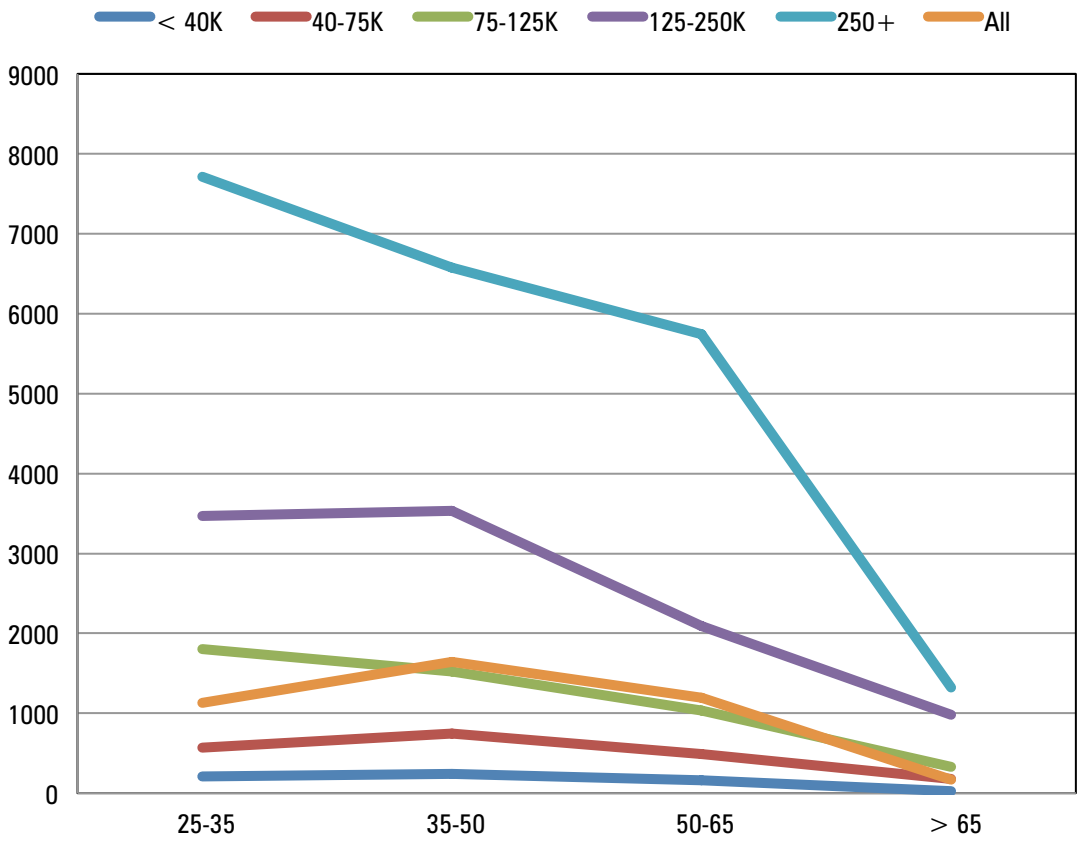


Source: JCT, Estimates of Federal Tax Expenditures for Fiscal Years 2012-2017, JCS-1-13 and previous editions.

The reason for this disparity is two-fold. First, homeownership rates are much lower in lower-income groups, so fewer of them have mortgages (see Appendix B). Second, lower-income taxpayers are far less likely to itemize deductions because the sum of those deductions would be lower than the standard deduction, and even when they do itemize, the incremental benefit over and above the standard deduction is often quite small.[20] Furthermore, for those who do claim the MID, higher income taxpayers tend to benefit more because they face higher marginal tax rates and tend to have larger mortgages.

The benefits of the MID also vary by age and by location. Younger taxpayers benefit more because they tend to have higher mortgage debt. That benefit declines with age as mortgages are paid off. As Figure 4 shows, no matter what the income level, the tax savings from the mortgage interest deduction declines substantially as households grow older.

Figure 4: Age Group Distribution of Tax Savings from the MID Per Household



Source: James Poterba and Todd Sinai, "Revenue Costs and Incentive Effects of the Mortgage Interest Deduction for Owner-Occupied Housing," *National Tax Journal*, vol. 6, no. 2 (June 2011), pp. 531–564.

The MID benefit also varies by geographic location, primarily due to the differences in housing prices, state and local taxes, and incomes. A 2003 study published in *Public Finance Review* found that about 60 percent of the regional variation in the usage of the MID can be explained by differences in housing prices and taxes.[21] Similar reviews of all housing tax benefits have found that the biggest benefits go to homeowners in states and metro areas with high housing prices, taxes and incomes.[22]

Pease Limits Reintroduced

On January 1, 2013, in an effort to avoid the consequences of the "fiscal cliff," Congress passed the American Taxpayer Relief Act of 2012, which President Obama signed into law the next day. That legislation will affect MID filers because it reintroduced the "Pease Limitations" on itemized deductions for upper-income taxpayers, named after former Congressman Donald Pease who helped create them as part of the Omnibus Budget Reconciliation Act of 1990. The reintroduction of these limits, phased out of the tax code starting in 2006, will reduce the amount of itemized deductions that high-income earners can claim.[23]

Pease limits are based on how much the taxpayer's adjusted gross income exceeds a certain threshold. In 2013, the threshold is $300,000 for joint filers and $250,000 for single filers. This threshold will be indexed to inflation in future years. The limits reduce itemized deductions by 3% of the amount by which AGI exceeds the threshold. For example, for a married couple filing their 2013 taxes, if their adjusted gross income is $400,000, the Pease limits will reduce the actual itemized deductions that couple can claim by $3,000 (($400,000 - $300,000 threshold) x 3% reduction = $3,000).

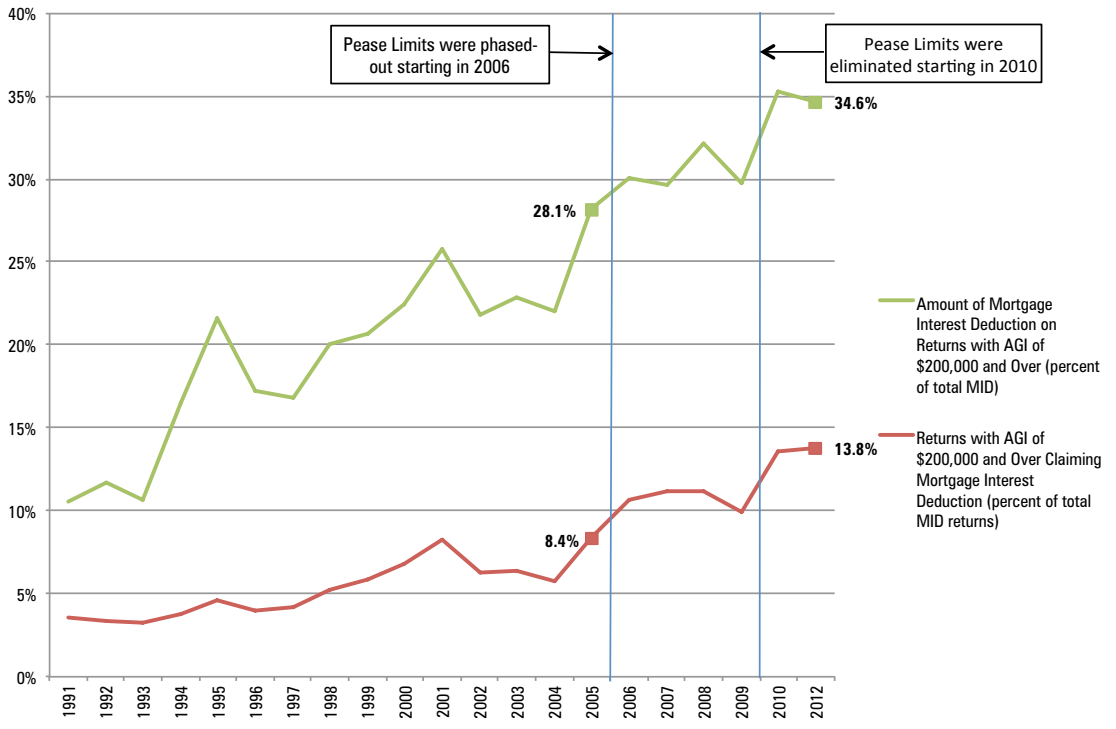
Because the limit is based on income, not the amount of deductions, it does reduce the benefit of itemized deductions in general, but does not change the *marginal* benefit of additional deductions (e.g., the MID, charitable contributions, etc.). It is therefore unclear whether or not this change in tax law will have a significant impact on taxpayer usage of the mortgage interest deduction. However, since the Pease limits are not a new policy, it is possible to look at past trends in the MID to see how these changes might affect the MID in coming years.

The Economic Growth and Tax Relief Reconciliation Act of 2001 included a phase-out of the Pease Limits. In 2006 and 2007, the reduction in allowable itemized deductions was cut to two-thirds of the full amount (the full amount being the 3% of the excess of AGI over the threshold). It was reduced to one-third of the full amount in 2008 and 2009. The Pease Limits reductions were completely eliminated starting in 2010, thereby allowing taxpayers to once again claim the entire amount of their itemized deductions. As Figure 5 shows, after that phase-out began, the distribution of the MID skewed upwards. Specifically, the percentage of the total savings from the mortgage interest deduction that went to taxpayers with AGI of $200,000 and above increased from 28.1% in 2005 to 34.6% in 2012. In addition, the percentage of the total number of returns

claiming the MID that were filed by taxpayers with AGI of $200,000 and over increased from 8.4% in 2005 to 13.8% in 2012.

There are plenty of other factors that could have been influencing that change in the distribution of the MID. Nevertheless, it is reasonable to assume that the change in tax law had some influence. Now that the Pease Limits are being reintroduced for 2013, they will reduce the itemized deductions (including the MID) of upper-income taxpayers, so we should expect to see the distribution of the benefit of the MID become somewhat less skewed toward the highest income bracket. However, since the limits will only apply to those with incomes above $300,000 (for married taxpayers; $250,000 for singles), we would expect any such change to be quite small.

Figure 5: MID Usage in Top Income Bracket Before and After Pease Limits Phase-Out



Source: Internal Revenue Service; Joint Committee on Taxation.

Table 1 provides an analysis of the impact of the Pease Limit reinstatement for four hypothetical taxpayers: 1) a single filer with AGI of $375,000; 2) a married couple with AGI of $375,000; 3) single with AGI of $750,000; and 4) a married couple with AGI of $750,000. These income numbers were chosen because they represent the midpoint of the two lowest-income groups that will be directly affected by the change and for which IRS data is available ($250,000-$500,000 and $500,000-$1,000,000). The change in income tax liability for those taxpayers ranges from a low of 0.7% to a high of 2.3%. Those relatively small increases provide support for the idea that any change in the distribution of the MID will also be relatively small.

In summary, the mortgage interest deduction is almost exclusively claimed by households in the top income brackets and younger individuals with large mortgages who have not paid off much of their loans. Those with significant mortgage debt and high marginal tax rates benefit the most from being able to itemize their deductions and write off much of their mortgage interest. At the same time, the MID does not provide a benefit to renters or to those with low incomes who do not itemize. Nor does it provide much of a benefit to senior citizens with little mortgage debt.

Table 1: Change in Income Tax Liability for Itemizers Due to the Reinstatement of the Pease Limits

	Adjusted Gross Income:			
	$375,000	$375,000	$750,000	$750,000
	Single	Married	Single	Married
Percent who itemize deductions	96.4%		97.0%	
Percent who take MID	77.5%		72.6%	
Average Amount of Itemized Deductions*	$55,000		$100,000	
Average Amount of MID*	$20,000		$25,000	
Average tax rate (% of taxable income)	26.1%		28.7%	
Taxable income without Pease Limits	$320,000	$320,000	$650,000	$650,000
Total income tax liability without Pease Limits	$83,475	$83,475	$186,332	$186,332
Pease Limit reduction in Itemized Deductions**	$3,750	$2,250	$15,000	$13,500
Itemized Deductions WITH Pease Limits	$51,250	$52,750	$85,000	$86,500
Taxable income WITH Pease Limits	$323,750	$322,250	$665,000	$663,500
Total income tax liability WITH Pease Limits	$84,453	$84,062	$190,632	$190,202
Change in total income tax liability ($)	$978	$587	$4,300	$3,870
Change in total income tax liability (% of liability)	1.2%	0.7%	2.3%	2.1%
Change in total income tax liability (% of AGI)	0.3%	0.2%	0.6%	0.5%

Source: Authors' calculations based on data from the Internal Revenue Service.

Note: Data are for 2010. Amounts represent averages for the following income groups: $250,000-$500,000 and $500,000-$1,000,000.

*For simplicity the amounts were rounded from $55,991, $101,502, $20,278, and $25,900. The MID is shown for display purposes only. That amount is included in "Average Amount of Itemized Deductions".

**The Pease Limits reduce the amount of itemized deductions by 3% of the amount that AGI exceeds $250,000 for single taxpayers and $300,000 for married taxpayers.

Part 3

How Much Benefit Does the Mortgage Interest Deduction Provide?

According to the IRS, the average MID claimed in 2011 was $10,660 per return. At the 2011 average tax rate of 12% of adjusted gross income, the potential tax savings was about $1,275, or about $105 a month. However, those averages substantially overstate the effect of the MID.[24]

The crucial issue is that in many cases if the MID did not exist, taxpayers' itemized deduction amounts would fall short of the standard deduction, so they would take the standard deduction instead of itemizing. As a result, the true influence of the MID is the amount by which it exceeds the standard deduction, not the total amount of the MID itself. Congress's Joint Committee on Taxation provides annual estimates of the effects of the MID using precisely that methodology.[25]

For example, if John and Jane Doe are "married filing jointly" and have itemized deductions of $18,000—including mortgage interest of $9,000—the effective deduction provided by the MID is only the amount by which the $18,000 exceeds the standard deduction for a "married filing jointly" return.[26] In 2010, that standard deduction was $11,400, so the benefit of itemizing and taking the MID was a reduction in taxable income of $6,600, not $9,000. At the average tax rate of 12 percent, which amounts to a tax savings of $792, or $66 a month, nearly 40 percent lower than what the IRS data indicate. This corresponds fairly closely to an independently estimated average benefit of $1,066 by Poterba and Sinai.[27]

However, even these averages often provide an incomplete picture since the tax savings from the MID can vary substantially based on income level, age, and location. For example, using the most recent data from the JCT and IRS, we broke up taxpayers into nine income brackets and used the combined data to show how many taxpayers actually claim an MID and what the relative values are of the deduction's benefit.[28] Table 2 shows the results of our analysis (also see Appendix C to see how selected aspects of the MID's effects have varied over time).

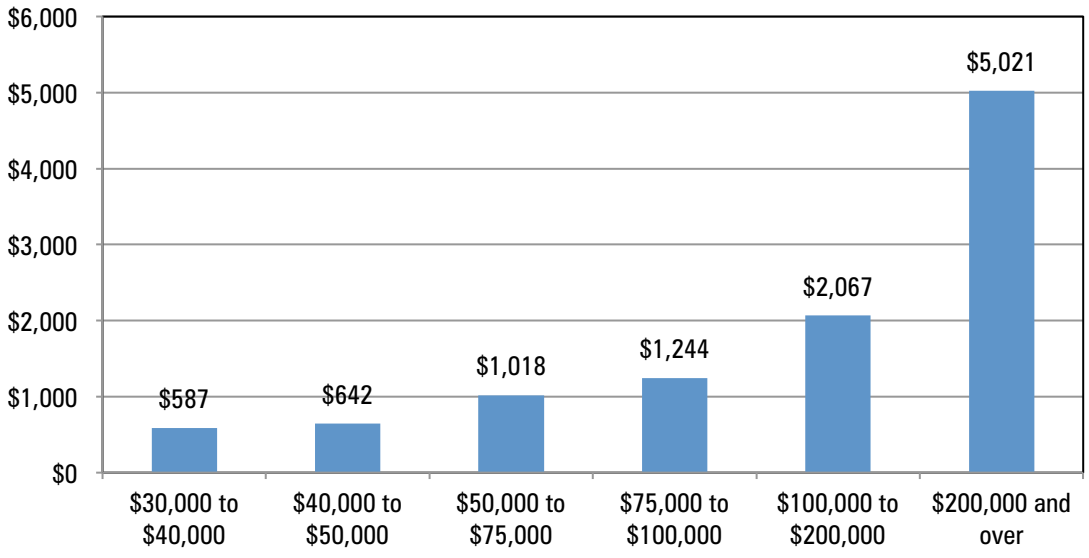
Table 2: Who Benefits from the MID and by How Much?
(Distribution by Income Class of Mortgage Interest Deduction, at 2012 Rates and Income Levels)

Income Class[29]	Total Tax Returns Claiming MID	Percent of All MID Returns	Total Amount of MID (millions)	Average Tax Savings	Average Tax Bill	Average Tax Savings as a % of AGI*
Below $10,000	1,000	0.0%	$1	NA	-$454	NA
$10,000 to $20,000	177,000	0.5%	$48	NA	-$1,416	NA
$20,000 to $30,000	489,000	1.4%	$235	NA	-$760	NA
$30,000 to $40,000	997,000	2.9%	$585	$587	$9	1.7%
$40,000 to $50,000	1,792,000	5.3%	$1,151	$642	$958	1.4%
$50,000 to $75,000	5,799,000	17.0%	$5,906	$1,018	$2,764	1.6%
$75,000 to $100,000	6,081,000	17.8%	$7,567	$1,244	$5,528	1.4%
$100,000 to $200,000	14,065,000	41.2%	$29,068	$2,067	$12,917	1.4%
$200,000 and over	4,701,000	13.8%	$23,606	$5,021	$88,830	NA
Total	34,102,000	100%	$68,166	$1,999	$6,330	

*AGI is estimated as the midpoint of each range. Since the top bracket does not have a ceiling, there is no midpoint to use.
Source: IRS; JCT; some entries are blank because the percentages to be calculated are based on negative numbers.

Higher income individuals pay the largest share of the taxes and claim the largest share of the mortgage interest deductions. Figure 6 measures the estimated tax savings from the mortgage interest deduction in dollars, indicating that the largest benefit goes to upper income taxpayers.

Figure 6: Average Tax Savings from MID (in dollars), 2012



Source: Authors' calculations based on data from JCT and IRS.

Taxpayers with incomes below $50,000 save less than $650 per year. Those with incomes above $200,000 save more than $5,000. However, when the tax savings from the MID is measured as a percentage of adjusted gross income, taxpayers with incomes under $75,000 benefit more. Those with incomes between $30,000 and $40,000 save 1.7 percent. Taxpayers with incomes above $100,000 save 1.4 percent.

Clearly, how one measures "tax savings" has a substantial role in determining how much benefit the MID provides. Taxpayers earning $35,000 a year save only $587 a year from taking the MID, compared to $2,067 for those earning $150,000. However, those lower income taxpayers get a tax savings of 1.7 percent of AGI, compared to only 1.4 percent for the higher income earners. So for low-income households that qualify for the MID, there will be a slightly higher effect on behavior.

As we have already noted, the MID benefit varies greatly by income level, but as Poterba and Sinai found, it also varies by age. Table 3 provides their estimate of the amount of the tax savings for these categories and notes that the benefit in dollars rises substantially with income level, with the highest-income earners getting by far the largest benefits. Furthermore, when looking at age differences, the benefit peaks at $1,639 in the 35-to-50-year-old range and nearly disappears for those over 65 ($166).[30] That disparity is because younger households typically have more mortgage debt, as they have not had time to pay down much of the principal, and most of each payment goes toward interest.

Table 3: Estimated Change in Income Tax Liability from Eliminating the Mortgage Interest Deduction

	Annual Household Income					
Head of Household Age	**<40K**	**40–75K**	**75–125K**	**125–250K**	**250+**	**All**
25–35	$212	$571	$1,801	$3,468	$7,711	$1,132
35–50	$244	$747	$1,525	$3,534	$6,575	$1,639
50–65	$161	$491	$1,034	$2,095	$5,741	$1,194
> 65	$21	$178	$329	$981	$1,322	$166
All	$109	$542	$1,262	$2,697	$5,408	$1,066

Source: James Poterba and Todd Sinai, "Revenue Costs and Incentive Effects of the Mortgage Interest Deduction for Owner-Occupied Housing," *National Tax Journal*

In addition to the differences in the amount of the MID benefit based on age and income, tax savings from the deduction vary by geographic location. Looking at 1999 data for all housing tax subsidies provided by the federal government (not just the MID), Gyourko and Sinai found that the biggest benefits went to homeowners (in descending order) in Washington, D.C., Hawaii, California, New York, Massachusetts, Connecticut, and New Jersey, with benefits per owner-occupied unit exceeding $8,000 in each of those high-income, high-tax states. Only 16 states were above the national average of $6,024.[31]

Looking at metropolitan areas, a 2001 study found that the benefits were similarly skewed toward large areas with high incomes, taxes, and housing prices, primarily in California and the Northeast corridor. In fact, just three large metro areas—New York-Northern New Jersey, Los Angeles-Riverside-Orange County, and San Francisco-Oakland-San Jose—received over 75 percent of the net positive benefits of the MID.[32]

While the effects of the MID vary widely, the fact remains that more than 75 percent of tax returns do not claim the mortgage interest deduction, so they see no direct effect. However, the MID may nevertheless have indirect effects on those taxpayers through its influence on the housing market.

Part 4

How Does the Mortgage Interest Deduction Affect the Housing Market?

The number of taxpayers directly benefiting from the mortgage interest deduction is small, and the value of the benefits for low- to middle-income households is limited at best. But for some, there remains an indirect argument in favor of the MID: housing prices.[33] Proponents of keeping the mortgage interest deduction often claim that repealing it would cause housing prices to fall and subsequently the homeownership rate. For example, Lawrence Yun, chief economist for the National Association of Realtors (NAR), recently stated that getting rid of the MID would lower housing prices by 15 percent, and that this would be a negative effect on the market.[34]

However, higher house prices are not a good thing in and of themselves. Typically we view an increase in quality and a decrease in price as a sign of innovative growth, and the same should be said for housing. Indeed, an increase in nominal housing prices is only "good" if housing is viewed as a pure investment asset. In contrast, lower housing prices increase the affordability of homeownership. (You don't hear many people complaining that the price of gas has fallen; that's because the majority of people don't own gas as an investment asset.)

In this way, even if the NAR estimate were correct, the increase in affordability of housing from falling prices would mitigate at least some of the reduction in demand (from repealing the MID) by encouraging new consumers to enter the market for homeownership who were not previously potential buyers.[35] But while there is a strong argument that lowered home values may actually be beneficial for the recovery of the housing market, there are strong reasons why the claims of the MID as a way to boost housing prices are substantially overstated.

In its most simplistic relationship, the mortgage interest deduction provides a subsidy to consumers of owner-occupied housing, artificially stimulating demand, which in turn drives up prices. However, the reality is more complicated. Since, less than 25 percent of taxpayers actually claim the MID, the number of consumers whose demand is directly affected is relatively small. For those taxpayers, it effectively increases their after-tax income. However, that additional income can be used for saving or consumption—it is a mistake to assume that all of the income benefits of the MID are specifically spent on housing.

First, if used for consumption, MID benefits can be used for a variety of goods, including housing. This reduces the effects of MID benefits because the entire subsidy is not used for housing in the first place.

Second, for the MID to be an effective subsidy to the consumption of housing, consumers need accurate information as to the size of that subsidy. It needs to be highly visible to them. In theory, homebuyers could explicitly incorporate the value of an MID into their calculations of how much they can afford to spend. But if they do not, then the role of the mortgage interest deduction subsidy in decisions to buying a home is quite limited.

Third, the effects on pricing may be relatively small. Independent research over the past fifteen years also contradicts price-impact claims from the NAR (an organization that has built a substantial amount of its business because of the perceived value of the MID subsidy). A 1996 paper estimated that at most, the MID pushed housing prices up 10 percent. And this estimate assumed that the supply of housing remained absolutely stable.[36] Of course, in reality the housing stock is not fixed in the long run, so the expected price effect would actually be smaller than 10 percent.

More recently, a 2011 study that examined the effects of the MID across income levels and age groups found that, based on the costs over time of homeowners (the "user cost"), the mortgage interest deduction pushes prices up by about 3 percent to 6 percent.[37] Table 4 shows the estimated increase in user cost due to the MID.[38]

Table 4: Last-Dollar User Cost of Owner-Occupied Housing, Percentage Increase Due to the MID

	Annual Household Income					
Head of Household Age	**<40K**	**40–75K**	**75–125K**	**125–250K**	**250+**	**All**
25–35	4.4%	9.1%	15.9%	18.6%	19.6%	10.8%
35–50	4.4%	9.2%	11.5%	15.5%	13.2%	11.1%
50–65	2.9%	3.3%	6.8%	10.7%	13.2%	6.6%
> 65	1.4%	1.7%	3.4%	3.6%	2.0%	1.5%
All	1.4%	6.3%	10.0%	12.3%	13.2%	6.3%

Source: Authors' calculations based on data from James Poterba and Todd Sinai, "Revenue Costs and Incentive Effects of the Mortgage Interest Deduction for Owner-Occupied Housing," *National Tax Journal*, June 2011

The estimated change in housing price would be between the numbers listed in Table 3 and about one half of those numbers, depending on a range of variables such as geographic location and neighborhood amenities.

One final way to consider how housing prices might be influenced by a reduction or removal of the mortgage interest deduction is to consider how the MID benefit raises the amount of monthly mortgage payments that homeowners can afford to make. Using IRS and JCT data, we created an

estimate of the tax savings from the MID, broken down by income group. Those tax savings figures in Table 1 (in the previous section) represent the increase in after-tax income available to individuals due to the MID. Using those annual figures, we can estimate how much the MID increases the size of the mortgage that a hypothetical consumer could afford.

We selected four hypothetical homebuyers from a broad range of income levels and divided their estimated annual tax savings from the MID (based on the latest 2010 data) by 12 to get a monthly amount. This enabled us to calculate the maximum increased mortgage principal the homebuyer could afford because of the MID. Table 5 shows the results, and Appendix D provides more detail about our methodology.

Table 5: Percentage Increase in Home Purchasing Ability Due to MID

Adjusted Gross Income	Average Tax Savings from MID	Monthly Tax Savings	Maximum Mortgage Principal*	Maximum Mortgage Principal Including Tax Savings	Increase in Mortgage Purchasing Power	% Increase in Purchasing Power
$45,000	$642	$53.52	$141,113	$144,914	$3,801	2.7%
$62,500	$1,018	$84.87	$244,728	$250,755	$6,027	2.5%
$87,500	$1,244	$103.70	$366,434	$372,163	$5,729	1.6%
$150,000	$2,067	$172.22	$654,252	$663,771	$9,519	1.5%
					average:	2.0%

*Maximum mortgage principal based on income level, calculated (in July 2013 using the default interest rate of 4.5%) at http://www.interest.com/mortgage/calculators/how-much-can-i-borrow/
Source: IRS, JCT, authors' calculations.

These estimated increases in consumer purchasing power because of the MID are fairly small, 2 percent on average. However, the actual increase in home prices would be less than the listed increase in purchasing power because the supply of housing is not fixed (i.e., since the supply curve is not vertical, when the demand curve shifts out due to the increase in consumer purchasing power from the MID, the new equilibrium price would not rise as much as the increase in demand). In layman's terms, homeowners selling their houses will adjust prices based on both the increase in the ability of buyers to pay more and on how many homes are currently on the market. Since the supply of homes in any area can change regularly, an increase in purchasing power of 2 percent will not necessarily mean housing prices will rise by the same amount. Therefore, a complete elimination of the deduction would not cause a substantial reduction in home values.

Furthermore, in making these estimates, we assumed that homebuyers have perfect information and foresight, so that they are aware of the size of the subsidy, and that the entire increase in after-tax income goes toward housing. In reality, the size of the subsidy is hidden in the itemization process of filing tax returns, and consumers can spend their additional income from the tax subsidy on things other than housing. Given the lack of perfect information and foresight in the real world, the actual increase would likely be substantially lower. The values developed from our experiment represent a maximum estimated increase in housing prices because of the subsidy.

Groups such as the National Association of Realtors have tried to argue that getting rid of the mortgage interest deduction would have a negative affect on housing prices, by as much as 15 percent. But our own estimates from IRS and JCT data, confirmed by the findings of other independent economists, suggest that those arguments are overstated. It is more likely that the affect on prices would be relatively small for homeowners, especially when compared to the decline in prices we have seen over the last few years.

Any such reductions in housing prices, however, would be beneficial to renters who are seeking to become homeowners. To the extent that repealing the MID might lead to a reduction in the number of real estate transactions, it would likely lower profits for realtors as well as those in the mortgage-lending and servicing industries.[39] Those reductions would likely be larger for those who specialize in higher-priced houses, since most of the MID benefits go to owners of such properties.

Part 5

Policy Prescriptions

The mortgage interest deduction has certainly been a third rail of politics over the past two decades, and Congress has largely ignored the MID despite its distortion of capital flow and the concentration of its benefits largely in upper income households.

However, if Congress chooses to address the mortgage interest deduction, it has three reform paths: a change in the MID to meet a specific policy goal, a full repeal of the MID, or the complete elimination of the MID with adjustments in the tax code to make it revenue neutral.

Option 1: A Partial Change of the MID

As the mortgage interest deduction currently stands, it does little other than redistribute taxpayer resources from those without mortgages to households with mortgages. Most proposed changes to the MID seek to balance out the tax favoritism of wealthy individuals among homeowners, or otherwise change the tax code to promote homeownership. But in fact, there is little reason to keep any kind of favorable tax treatment for homeownership other than to promote a public policy goal of increasing the number of Americans who own a home, a job for which the MID is a particularly ineffective tool.

If the MID is not going to be fully eliminated, then policymakers should first determine whether promoting homeownership is an appropriate role for government. We would argue that it is not, and that recent events in the housing market indicate that trying to do so has been harmful to the economy as a whole, though that discussion is beyond the scope of this study.[40]

A recent report by the National Commission on Fiscal Responsibility and Reform (Simpson-Bowles) outlined one way to make the MID more equitable to taxpayers and better promote homeownership: create a nonrefundable tax credit for mortgage interest that would give homeowners in all income brackets access to the MID benefit. They suggest this credit be capped at 12 percent of paid interest and that the maximum debt this could apply to be lowered from $1.1 million to $500,000. Endorsing a similar idea, UC-Davis School of Law professor Dennis J. Ventry, Jr. argued that “a tax credit would apply more equitably than the MID in that it would be available to all taxpayers regardless of income or whether they itemize or take the standard

deduction."[41] Other proposals have suggested lowering the maximum mortgage interest eligible for deduction, rather than creating a tax credit.

If Congress decided to continue the mortgage interest deduction subsidy, these changes would at least more effectively promote homeownership by targeting the subsidy at those who are on the margin between renting and owning, rather than simply encouraging higher spending on housing by those who are already homeowners. But like other recent tax policy attempts to jump start the housing market, it is likely that these types of changes would have unintended consequences and simply be a different means of creating distortions in economic decision making.[42]

Option 2: Full Repeal of the MID

While politically challenging, from the perspective of minimizing intervention in the housing market the most desirable reform of the mortgage interest deduction would be to completely eliminate it from the tax code. This would influence young wealthy homeowners, who itemize the most, but have little negative effect on most other households.

Housing prices may be lowered some, but not enough to be the sole trigger for another recession or foreclosure crisis. In fact, low-income families would likely be positively affected, since any decline in home values would make housing more affordable. The housing market, which as of this writing has a three- to four-year supply of homes available, would be able to clear some of its inventory, possibly boosting homeownership rates in the near term.

However, total elimination of the MID without any other adjustments would increase taxes for the one-fourth of taxpayers who use the MID to lower their taxable income. Had the MID been fully eliminated in 2010, households earning between $100,000 and $200,000 a year would have seen a collective tax hike of $29.1 billion that year. Households making less than $100,000 would have paid $15.5 billion more in taxes (see Table 2). While it is true that the MID negatively distorts the economy, a sharp increase in tax liabilities from removing the subsidy would also have consequences.

For policymakers more concerned about the increasing burden of debt that will likely require higher taxes on future generations than the potential negative effects of raising income taxes now, the extra revenue could help to reduce the deficit.[43] According to a report by the JCT, ending the MID without any other income tax adjustment could eliminate as much as $68 billion from the FY2012 federal budget deficit.[44] This would mean a roughly 6 percent reduction in the deficit from a full MID repeal.[45]

And, as mentioned in the introduction, mortgage interest is the largest personal income tax deduction. In 2010, it totaled $394 billion; the next largest deduction was the one for state and local income taxes ($246 billion).[46] The question for policymakers is whether this deficit cutting cash is worth a not-so-tacit increase in income taxes by about 5.5 percent.[47]

While some in Congress would want to use repeal of the MID to raise revenue and combat the deficit, it may be preferable to keep the reform of an ineffective and costly tax provision separate from the budget debate. If tax rates were reduced proportionally to maintain revenue neutrality, as we recommend next, there would be zero deficit reduction but also zero tax liability increases.

Option 3: A Revenue-Neutral Elimination of the MID

We believe the most appropriate policy action would be a complete elimination of the mortgage interest deduction combined with reductions in marginal income tax rates to make the repeal revenue neutral.

As Table 6 shows, given that a full repeal of the MID would have broadened the tax base by $68.2 billion in 2011, we estimate that the 2011 average tax rate of 18.2 percent could have been lowered by more than 6 percent, to an average rate of 17.1 percent, without reducing the amount of revenue collected.[48] (See Appendix E for a more detailed description of the calculations.)

Table 6: Estimated Rate Reduction from a Revenue-Neutral MID Elimination (in millions)

	Actual With MID	Estimated Without MID
Taxable income*	$5,695,766	$6,069,996
Total income tax liability	$1,037,485	$1,105,651
Tax savings from mortgage interest deduction (MID)**	$68,166	
Revenue neutral tax rate 9as a percentage of taxable income)	18.2%	17.1%
Percentage change in average tax rate for revenue neutrality		-6.2%

Source: Author's calculations based on 2011 data from the IRS and JCT.

Note: Data are for 2011. Amounts are in millions of dollars.

*See Appendix E for a detailed description of the calculation of taxable income without the MID.

**Based on JCT calculations, which measure the amount of tax liability compared to what would occur when taking the standard deduction (i.e., the reduction in taxable income is only the amount by which the MID and other deductions exceed the standard deduction).

While not nearly as large as the MID, the real estate tax deduction is yet another way in which the government intervenes in housing markets. In 2012, it produced tax savings equal to about 36% of the tax savings from the MID. If it were repealed at the same time, income tax rates could be reduced another 2.2% (without reducing revenue collections), for an overall reduction of 8.4%.[49]

We acknowledge that since only about 25 percent of taxpayers take the MID, combined with the fact that the rate reduction would go to all taxpayers, the net effect for those who continue to itemize would still be an effective tax increase. Returning to our hypothetical homebuyer experiment, Table 7 shows the largest increase in dollar terms would be for those with the highest income ($150,000), although the other three taxpayers see a fairly similar increase. In percentage

terms, the largest increase by far is for the lowest income taxpayer ($45,000). Those who continued to itemize in that lowest tax bracket would see their tax bill increase 29.1 percent. The smallest percentage increase (4%) is for those with the highest income ($150,000). However, for the two lowest-income groups, less than half of taxpayers in that income range take the MID, so that net increase would not apply to most of them.

Table 7: Change in Income Tax Bill for Itemizers from a Revenue-Neutral MID Elimination

Adjusted Gross Income:	$45,000	$62,500	$87,500	$150,000
Percent who itemize deductions	36.1%	50.1%	66.7%	84.8%
Percent who take MID	27.4%	40.4%	56.2%	73.3%
Total itemized deductions	$16,305	$18,211	$21,122	$27,729
Mortgage interest deduction (MID)*	$7,951	$8,580	$9,869	$12,220
Exemptions	$7,543	$8,349	$9,389	$10,293
Taxable income	$21,152	$35,940	$56,989	$111,978
Average tax rate (% of taxable income)	11.6%	12.2%	12.7%	16.5%
Total income tax liability	$2,449	$4,387	$7,225	$18,429
Taxable income (without MID)	$29,103	$44,519	$66,858	$124,198
Avg. tax rate (% of taxable income), reduced by 8%	10.9%	11.4%	11.9%	15.4%
Total income tax liability (without MID)	$3,161	$5,097	$7,951	$19,173
Change in total income tax liability	$712	$710	$726	$744
Change in total income tax liability	29.1%	16.2%	10.0%	4.0%

Source: Author's calculations based on 2011 data from the IRS and JCT

On the flip side, for those who cease to itemize, eliminating the largest deduction actually reduces their tax bill because the affect of the tax rate reduction is larger than that of the MID elimination. Table 8 shows that for each of our hypothetical four income levels, the revenue-neutral elimination of the MID would reduce tax liability by the 6.2 percent reduction in tax rates. Since most taxpayers in the two lowest-income groups do not itemize, this is the more applicable result.

For the three lowest-income taxpayers, the tax increase indicated in Table 7 can be reduced somewhat by switching to taking the standard deduction instead of itemizing. The highest income taxpayer cannot moderate the tax increase by so doing. And in this way, lower income taxpayers would be protected from a sharp increase in their tax bill. However, wealthy taxpayers could avoid part of the tax hike form a repeal of the MID by using other taxable assets to pay off (at least part of) their mortgage debt.[50] This would mean reducing part of their taxable investment income, but it would also mean less debt.

Table 8: Change in Income Tax Bill for Nonitemizers from a Revenue-Neutral MID Elimination

Adjusted Gross Income:	**$45,000**	**$62,500**	**$87,500**	**$150,000**
Basic standard deduction	$8,436	$9,398	$10,380	$10,680
Additional standard deduction	$1,692	$1,682	$1,771	$1,787
Exemptions	$7,543	$8,349	$9,389	$10,293
Taxable income	$27,329	$43,070	$65,961	$127,239
Average tax rate (% of taxable income)	11.6%	12.2%	12.7%	16.5%
Total income tax liability	$3,165	$5,257	$8,363	$20,940
Average tax rate (% of taxable income), reduced by 8%	10.9%	11.4%	11.9%	15.4%
Total income tax liability (with lower rates)	$2,969	$4,931	$7,844	$19,642
Change in total income tax bill	-$196	-$326	-$518	-$1,298
Change in total income tax bill	-6.2%	-6.2%	-6.2%	-6.2%
Total income tax liability for itemizer (with MID)	$2,449	$4,387	$7,225	$18,429
Change in total income tax bill for switch to nonitemizer ($)	$519	$544	$619	$1,213
Change in total income tax bill for switch to nonitemizer (%)	21.2%	12.4%	8.6%	6.6%

Source: Author's calculations based on 2011 data from the IRS and JCT

It is likely that a full and immediate repeal would face staunch opposition. And an overnight change may also be poor tax policy considering that some individuals depend on the MID to afford their home. Therefore, we suggest a phased-out approach for existing mortgages, in much the same way deductions for credit-card and car-loan interest were phased out in the 1980s. Policymakers could end the MID for new mortgages but target a specific tax year that the MID would go away for existing mortgage holders, and reduce the mortgage interest cap a certain percentage each year. This would soften the affect on taxpayers by allowing existing mortgage holders to retain the MID for a certain period of time.

Part 6

Conclusion

While the mortgage interest deduction is one of the most popular provisions of the federal income tax code, its actual effects are poorly understood. Since only a quarter of tax returns even claim deductions, the number of taxpayers directly benefited by the MID is relatively small. It is profoundly ineffective at promoting homeownership and has a very negative affect on the housing market, distorting the allocation of capital in the economy.

High-income households (those in the top tax brackets) and young people with large mortgages who have not paid off much of their loans are almost exclusively the claimants of the mortgage interest deduction. Those with large mortgage debt and high marginal tax rates—mostly concentrated in wealthy states like California, New York, Massachusetts and Connecticut—benefit the most from being able to itemize their deductions and write off much of their mortgage interest. By contrast, low-income households that do not itemize and senior citizens with little mortgage debt get almost no direct benefit from the MID.

In this way, instead of promoting homeownership, the MID promotes an increase in personal debt for young and high-income households. This unintended consequence was a growing problem during the build up of the housing bubble during the early-2000s, with more and more debt used to finance homes. In the end, when the price bubble collapsed, individuals were left with very little equity in their homes, erasing all gains of the last decade and putting the market back to levels seen in the 1990s.

If the elimination of the MID leads to more financing by other means than excessive debt, we would likely see a much healthier housing market in the future. One estimate suggests that taxpayers might reduce their mortgage debt as much as 70 percent if the MID was repealed.[51] The likely outcome would be lower than this maximum estimate, but even a 50 percent mortgage-debt reduction would be beneficial, putting households on more-stable financial footing and making them less vulnerable because of sharp downturns in the market like the one that followed the recent housing bubble.

However, this and other benefits have not been enough to encourage policymakers to take on this persistent political third rail. Even the bipartisan tax policy overhaul of 1986 avoided ruffling any MID feathers, albeit at President Reagan's insistence. And despite the present intense debate over

tax reform in Washington, D.C., it is possible that this political timidity will continue. Never mind that Canada and most other Western nations get on just fine without an MID.[52]

Should Congress act to remove the distortions created by the mortgage interest deduction, it would be a historic feat. The Congressional Joint Committee on Taxation noted in 2007 that of the 128 tax expenditures on the books from 20 years earlier, 100 remained in effect. And 202 of the 270 tax expenditures adopted in the intervening two decades also were still on the books.[53] Once a tax subsidy is created, getting rid of it poses an incredibly difficult political and policy challenge.

As a result if Congress chooses to address the MID, it should set aside ideas of simply reforming it, as outlined in Option 1 of the policy change section. There is little reason to promote homeownership as a public policy, and a tax credit replacing the deductibility of mortgage interest would have similar distortional effects (though it might not be as bad as the current system). Policies that try to fight income inequality by subsidizing homeownership ultimately wind up redistributing resources in an unintended manner.[54]

So with tax savings relatively modest and the benefits concentrated with high-income individuals—most of whom would be homeowners whether there was an MID or not—repealing the mortgage interest deduction is the most desirable path for policymakers to pursue, as presented in Option 3. If it were repealed, income tax rates could be reduced by more than 6 percent without reducing the amount of revenue collected. And switching to such a broader tax base with lower tax rates would create a more efficient tax system, one that produces fewer distortions in market decision making and encourages economic growth.

The case for supporting the mortgage interest deduction has been resoundingly refuted, both as an effective tool for social engineering and as fiscally responsible tax policy. It is time to end support for the mortgage interest deduction.

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Appendices A - E

Appendix A

Table A1: Returns Claiming Mortgage Interest Deduction (percent of total returns)

	Below $10,000	$10,000 to $20,000	$20,000 to $30,000	$30,000 to $40,000	$40,000 to $50,000	$50,000 to $75,000	$75,000 to $100,000	$100,000 to $200,000	$200,000 and over	Total
2012	0.0%	1.0%	2.6%	6.3%	12.6%	22.0%	36.6%	61.9%	74.4%	21.9%
2010	0.0%	1.1%	2.6%	6.5%	13.4%	35.3%	36.7%	61.7%	76.8%	21.7%
2009	0.0%	1.3%	5.5%	13.1%	22.9%	33.0%	47.1%	64.0%	72.9%	22.1%
2008	0.0%	1.2%	4.7%	10.3%	18.8%	30.1%	45.6%	66.7%	71.1%	23.6%
2007	0.0%	1.2%	4.4%	10.7%	18.4%	31.9%	48.8%	70.3%	72.9%	23.4%
2006	0.0%	1.0%	4.6%	10.5%	18.3%	30.4%	47.7%	69.6%	73.2%	23.0%
2005	1.6%	3.8%	8.2%	14.6%	23.7%	35.9%	53.5%	71.4%	75.4%	26.3%
2004	0.3%	3.5%	11.5%	21.1%	31.6%	43.0%	53.0%	51.1%	62.0%	24.6%
2003	0.4%	3.5%	9.0%	16.0%	26.2%	39.1%	49.6%	49.5%	61.4%	22.1%
2002	0.3%	3.9%	9.5%	16.6%	26.8%	40.6%	52.6%	52.2%	62.5%	22.5%
2001	0.2%	1.4%	6.0%	12.1%	20.5%	33.9%	54.2%	69.6%	69.1%	22.6%
2000	0.1%	1.1%	4.6%	13.2%	23.1%	37.4%	59.8%	72.0%	69.8%	22.7%
1999	0.1%	1.6%	6.2%	16.7%	25.9%	43.1%	61.9%	71.5%	70.2%	21.8%
1998	0.1%	1.4%	5.6%	14.7%	24.8%	42.1%	65.3%	75.2%	73.0%	22.1%
1997	0.1%	1.5%	6.0%	15.0%	24.6%	43.4%	66.3%	75.9%	72.4%	21.4%
1996	0.1%	1.7%	6.8%	17.1%	27.6%	48.2%	70.9%	78.4%	74.6%	22.3%
1995	0.1%	1.6%	6.6%	16.0%	28.1%	48.1%	71.5%	77.8%	82.5%	21.3%
1994	0.1%	1.8%	7.3%	16.1%	28.5%	49.3%	68.5%	74.8%	71.5%	20.7%
1993	0.1%	1.8%	8.7%	20.4%	34.0%	55.8%	72.8%	80.1%	72.5%	23.7%
1992	0.2%	2.9%	10.7%	23.9%	36.3%	58.8%	75.2%	82.2%	78.9%	22.7%
1991	0.1%	3.2%	11.7%	22.8%	36.0%	57.1%	70.7%	76.1%	73.0%	21.4%

Source: U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2010-2014*, JCS-3-10 and previous editions.

Appendix B

Table B1: Homeownership Rates (1994 to 2010)			
	All Households	Households With Family Income Greater than or Equal to the Median Family Income	Households With Family Income Less than the Median Family Income
2012*	65.4%	80.4%	50.3%
2011*	66.0%	80.8%	51.3%
2010*	66.5%	81.7%	51.4%
2009	67.2%	81.8%	50.2%
2008	67.5%	82.9%	51.2%
2007	67.8%	83.0%	50.9%
2006	68.9%	84.5%	52.9%
2005	69.0%	84.3%	53.1%
2004	69.2%	84.6%	52.5%
2003	68.6%	83.6%	52.1%
2002	68.3%	83.2%	52.4%
2001	68.0%	82.2%	53.0%
2000	67.5%	81.6%	51.8%
1999	66.9%	81.6%	51.2%
1998	66.4%	80.7%	51.1%
1997	65.7%	80.5%	50.0%
1996	65.4%	80.1%	49.8%
1995	65.1%	79.8%	49.4%
1994	64.2%	78.8%	48.6%

Note: Figures are for fourth quarter of each year.

Source: U.S. Census Bureau, www.census.gov/hhes/www/housing/hvs/qtr410/files/tab5.xls.

* Footnote from Census Bureau Data file: "Beginning in 2010, we began imputing missing values for the family income question. Previously, householders not responding to this question were excluded from the homeownership calculations for those below/above the median family income level. When compared to previous procedures, this change resulted in an increase in the homeownership rate of 1.8 percentage points for those at or below the median family income and an increase of 0.4 percentage points for those above the median family income level for the first quarter 2013. Under previous procedures (not imputing missing values) for the first quarter 2013, the homeownership rate was 48.2 percent for those at or below the median family income and 79.6 percent for those above the median family income level. Data users should keep this in mind when comparing data from 2010 and later to earlier data."

Appendix C

Table C1: Returns Claiming Mortgage Interest Deduction (in thousands)										
	Below $10,000	$10,000 to $20,000	$20,000 to $30,000	$30,000 to $40,000	$40,000 to $50,000	$50,000 to $75,000	$75,000 to $100,000	$100,000 to $200,000	$200,000 and over	Total
2012	1	177	489	997	1,792	5,799	6,081	14,065	4,701	34,102
2010	0	196	481	985	1,797	5,750	5,966	13,932	4,575	33,682
2009	0	311	1,000	2,023	2,923	7,603	6,754	10,594	3,424	34,632
2008	3	247	732	1,478	2,426	7,033	7,044	13,622	4,082	36,668
2007	5	266	736	1,566	2,307	6,998	6,821	13,510	4,059	36,269
2006	12	237	733	1,515	2,261	6,929	6,957	12,888	3,759	35,292
2005	342	754	1,459	2,262	3,112	8,073	7,326	11,656	3,188	38,171
2004	65	787	2,271	3,501	4,140	9,834	7,198	7,353	2,141	37,291
2003	80	918	1,900	2,772	3,352	9,038	6,734	6,557	2,143	33,494
2002	67	1076	1,938	2,759	3,233	8,879	6,666	6,976	2,110	33,704
2001	32	336	1,114	1,905	2,693	7,421	7,023	8,904	2,653	32,081
2000	12	272	906	2,141	3,016	8,071	7,130	8,097	2,164	31,809
1999	24	414	1,265	2,656	3,394	8,540	6,211	6,048	1,773	30,324
1998	14	345	1,134	2,375	3,080	8,201	6,538	6,306	1,554	29,548
1997	20	373	1,186	2,464	3,064	8,510	6,131	5,545	1,193	28,486
1996	30	433	1,299	2,780	3,334	8,946	6,117	5,326	1,181	29,446
1995	29	420	1,364	2,661	3,436	8,516	5,590	4,540	1,293	27,849
1994	31	452	1,520	2,687	3,403	8,883	5,130	4,024	1,013	27,142
1993	26	432	1,666	2,963	3,807	9,292	4,697	3,691	895	27,470
1992	34	700	2,031	3,360	3,710	8,560	3,784	2,836	879	25,893
1991	27	742	2,137	3,103	3,662	7,826	3,321	2,371	869	24,058

Source: U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2010-2014*, JCS-3-10 and previous editions.

Table C2: Returns Claiming Mortgage Interest Deduction (percent of total MID returns)									
	Below $10,000	$10,000 to $20,000	$20,000 to $30,000	$30,000 to $40,000	$40,000 to $50,000	$50,000 to $75,000	$75,000 to $100,000	$100,000 to $200,000	$200,000 and over
2012	0.0%	0.5%	1.4%	2.9%	5.3%	17.0%	17.8%	41.2%	13.8%
2010	0.0%	0.6%	1.4%	2.9%	5.3%	17.1%	17.7%	41.4%	13.6%
2009	0.0%	0.9%	2.9%	5.8%	8.4%	22.0%	19.5%	30.6%	9.9%
2008	0.0%	0.7%	2.0%	4.0%	6.6%	19.2%	19.2%	37.1%	11.1%
2007	0.0%	0.7%	2.0%	4.3%	6.4%	19.3%	18.8%	37.2%	11.2%
2006	0.0%	0.7%	2.1%	4.3%	6.4%	19.6%	19.7%	36.5%	10.7%
2005	0.9%	2.0%	3.8%	5.9%	8.2%	21.1%	19.2%	30.5%	8.4%
2004	0.2%	2.1%	6.1%	9.4%	11.1%	26.4%	19.3%	19.7%	5.7%
2003	0.2%	2.7%	5.7%	8.3%	10.0%	27.0%	20.1%	19.6%	6.4%
2002	0.2%	3.2%	5.8%	8.2%	9.6%	26.3%	19.8%	20.7%	6.3%
2001	0.1%	1.0%	3.5%	5.9%	8.4%	23.1%	21.9%	27.8%	8.3%
2000	0.0%	0.9%	2.8%	6.7%	9.5%	25.4%	22.4%	25.5%	6.8%
1999	0.1%	1.4%	4.2%	8.8%	11.2%	28.2%	20.5%	19.9%	5.8%
1998	0.0%	1.2%	3.8%	8.0%	10.4%	27.8%	22.1%	21.3%	5.3%
1997	0.1%	1.3%	4.2%	8.6%	10.8%	29.9%	21.5%	19.5%	4.2%
1996	0.1%	1.5%	4.4%	9.4%	11.3%	30.4%	20.8%	18.1%	4.0%
1995	0.1%	1.5%	4.9%	9.6%	12.3%	30.6%	20.1%	16.3%	4.6%
1994	0.1%	1.7%	5.6%	9.9%	12.5%	32.7%	18.9%	14.8%	3.7%
1993	0.1%	1.6%	6.1%	10.8%	13.9%	33.8%	17.1%	13.4%	3.3%
1992	0.1%	2.7%	7.8%	13.0%	14.3%	33.1%	14.6%	11.0%	3.4%
1991	0.1%	3.1%	8.9%	12.9%	15.2%	32.5%	13.8%	9.9%	3.6%

Source: U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2010-2014*, JCS-3-10 and previous editions.

Table C3: Returns Claiming Mortgage Interest Deduction (percent of total returns)										
	Below $10,000	$10,000 to $20,000	$20,000 to $30,000	$30,000 to $40,000	$40,000 to $50,000	$50,000 to $75,000	$75,000 to $100,000	$100,000 to $200,000	$200,000 and over	Total
2012	0.0%	1.0%	2.6%	6.3%	12.6%	22.0%	36.6%	61.9%	74.4%	21.9%
2010	0.0%	1.1%	2.6%	6.5%	13.4%	35.3%	36.7%	61.7%	76.8%	21.7%
2009	0.0%	1.3%	5.5%	13.1%	22.9%	33.0%	47.1%	64.0%	72.9%	22.1%
2008	0.0%	1.2%	4.7%	10.3%	18.8%	30.1%	45.6%	66.7%	71.1%	23.6%
2007	0.0%	1.2%	4.4%	10.7%	18.4%	31.9%	48.8%	70.3%	72.9%	23.4%
2006	0.0%	1.0%	4.6%	10.5%	18.3%	30.4%	47.7%	69.6%	73.2%	23.0%
2005	1.6%	3.8%	8.2%	14.6%	23.7%	35.9%	53.5%	71.4%	75.4%	26.3%
2004	0.3%	3.5%	11.5%	21.1%	31.6%	43.0%	53.0%	51.1%	62.0%	24.6%
2003	0.4%	3.5%	9.0%	16.0%	26.2%	39.1%	49.6%	49.5%	61.4%	22.1%
2002	0.3%	3.9%	9.5%	16.6%	26.8%	40.6%	52.6%	52.2%	62.5%	22.5%
2001	0.2%	1.4%	6.0%	12.1%	20.5%	33.9%	54.2%	69.6%	69.1%	22.6%
2000	0.1%	1.1%	4.6%	13.2%	23.1%	37.4%	59.8%	72.0%	69.8%	22.7%
1999	0.1%	1.6%	6.2%	16.7%	25.9%	43.1%	61.9%	71.5%	70.2%	21.8%
1998	0.1%	1.4%	5.6%	14.7%	24.8%	42.1%	65.3%	75.2%	73.0%	22.1%
1997	0.1%	1.5%	6.0%	15.0%	24.6%	43.4%	66.3%	75.9%	72.4%	21.4%
1996	0.1%	1.7%	6.8%	17.1%	27.6%	48.2%	70.9%	78.4%	74.6%	22.3%
1995	0.1%	1.6%	6.6%	16.0%	28.1%	48.1%	71.5%	77.8%	82.5%	21.3%
1994	0.1%	1.8%	7.3%	16.1%	28.5%	49.3%	68.5%	74.8%	71.5%	20.7%
1993	0.1%	1.8%	8.7%	20.4%	34.0%	55.8%	72.8%	80.1%	72.5%	23.7%
1992	0.2%	2.9%	10.7%	23.9%	36.3%	58.8%	75.2%	82.2%	78.9%	22.7%
1991	0.1%	3.2%	11.7%	22.8%	36.0%	57.1%	70.7%	76.1%	73.0%	21.4%

Source: U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2010-2014*, JCS-3-10 and previous editions.

Table C4: Amount of Mortgage Interest Deduction (in millions of dollars)										
	Below $10,000	$10,000 to $20,000	$20,000 to $30,000	$30,000 to $40,000	$40,000 to $50,000	$50,000 to $75,000	$75,000 to $100,000	$100,000 to $200,000	$200,000 and over	Total
2012	1	48	235	585	1,151	5,906	7,567	29,068	23,606	$68,166
2010	0	63	258	654	1,324	6,855	8,748	35,609	29,142	$82,654
2009	0	$88	521	1,292	2,329	9,332	10,066	30,261	22,768	$76,656
2008	0	$75	358	944	1,836	8,370	10,136	36,278	27,468	$85,465
2007	0	$73	321	842	1,513	7,062	8,150	28,868	19,771	$66,600
2006	$1	65	330	814	1,523	6,827	8,360	27,936	19,663	$65,518
2005	$4	83	426	982	1,914	7,545	8,587	25,081	17,475	$62,097
2004	$22	250	1136	2,195	3,738	11,325	12,793	23,248	15,457	$70,164
2003	$10	226	898	1,681	2,919	9,829	11,091	18,818	13,512	$58,984
2002	$13	239	817	1,646	2,930	10,704	14,070	21,945	14,570	$66,934
2001	$11	117	433	981	2,235	7,927	12,204	23,978	16,644	$64,530
2000	$1	105	386	1,194	2,591	8,165	12,423	22,131	13,619	$60,615
1999	$2	166	537	1,623	2,825	9,449	11,106	16,697	11,014	$53,419
1998	$3	128	466	1,238	2,270	7,667	10,029	15,739	9,438	$46,977
1997	$3	137	463	1,312	2,234	7,799	9,436	13,391	7,043	$41,818
1996	$5	167	501	1,360	2,197	7,687	8,900	12,564	6,962	$40,345
1995	$47	173	685	1,919	3,270	11,005	12,253	16,359	12,624	$58,335
1994	$8	186	781	1,938	3,213	11,245	11,201	14,131	8,457	$51,161
1993	$5	164	797	1,888	3,232	10,955	8,774	11,401	4,436	$41,652
1992	$6	237	883	2,538	3,045	11,451	8,023	9,815	4,769	$40,767
1991	$9	313	1102	2,478	2,996	11,219	7,429	7,367	3,872	$36,785

Source: U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2010-2014*, JCS-3-10 and previous editions.

Table C5: Amount of Mortgage Interest Deduction (percent of total MID)									
Gross Income	Below $10,000	$10,000 to $20,000	$20,000 to $30,000	$30,000 to $40,000	$40,000 to $50,000	$50,000 to $75,000	$75,000 to $100,000	$100,000 to $200,000	$200,000 and over
2012	0.0%	0.1%	0.3%	0.9%	1.7%	8.7%	11.1%	42.6%	34.6%
2010	0.0%	0.1%	0.3%	0.8%	1.6%	8.3%	10.6%	43.1%	35.3%
2009	0.0%	0.1%	0.7%	1.7%	3.0%	12.2%	13.1%	39.5%	29.7%
2008	0.0%	0.1%	0.4%	1.1%	2.1%	9.8%	11.9%	42.4%	32.1%
2007	0.0%	0.1%	0.5%	1.3%	2.3%	10.6%	12.2%	43.3%	29.7%
2006	0.0%	0.1%	0.5%	1.2%	2.3%	10.4%	12.8%	42.6%	30.0%
2005	0.0%	0.1%	0.7%	1.6%	3.1%	12.2%	13.8%	40.4%	28.1%
2004	0.0%	0.4%	1.6%	3.1%	5.3%	16.1%	18.2%	33.1%	22.0%
2003	0.0%	0.4%	1.5%	2.8%	4.9%	16.7%	18.8%	31.9%	22.9%
2002	0.0%	0.4%	1.2%	2.5%	4.4%	16.0%	21.0%	32.8%	21.8%
2001	0.0%	0.2%	0.7%	1.5%	3.5%	12.3%	18.9%	37.2%	25.8%
2000	0.0%	0.2%	0.6%	2.0%	4.3%	13.5%	20.5%	36.5%	22.5%
1999	0.0%	0.3%	1.0%	3.0%	5.3%	17.7%	20.8%	31.3%	20.6%
1998	0.0%	0.3%	1.0%	2.6%	4.8%	16.3%	21.3%	33.5%	20.1%
1997	0.0%	0.3%	1.1%	3.1%	5.3%	18.6%	22.6%	32.0%	16.8%
1996	0.0%	0.4%	1.2%	3.4%	5.4%	19.1%	22.1%	31.1%	17.3%
1995	0.1%	0.3%	1.2%	3.3%	5.6%	18.9%	21.0%	28.0%	21.6%
1994	0.0%	0.4%	1.5%	3.8%	6.3%	22.0%	21.9%	27.6%	16.5%
1993	0.0%	0.4%	1.9%	4.5%	7.8%	26.3%	21.1%	27.4%	10.7%
1992	0.0%	0.6%	2.2%	6.2%	7.5%	28.1%	19.7%	24.1%	11.7%
1991	0.0%	0.9%	3.0%	6.7%	8.1%	30.5%	20.2%	20.0%	10.5%

Source: U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2010-2014*, JCS-3-10 and previous editions.

Appendix D

To show how the affect of the MID varies by income, we constructed estimates for four hypothetical homeowners. Their income levels were the median income in each of the second- through fifth-highest income ranges of our experiment represented in Table 1: $45,000, $62,500, $87,500, and $150,000.

The estimates were performed using a mortgage calculator to determine how much a consumer could afford to borrow. The calculator was at http://www.interest.com/mortgage/calculators/how-much-can-i-borrow/. The default interest rate of 4.5 percent was used. For each hypothetical consumer, two calculations were performed: one at the income level listed above, then another at that income level plus the estimated tax savings from the MID (e.g., $45,000 and $45,642) calculated in Table 1.

The highest income range was excluded because there is no upper limit, thus no median, and the four lowest income ranges were excluded because only a very small percentage of those taxpayers claim the MID.

$45,000: For consumers earning $45,000, the annual tax savings from the MID is $642, so those consumers could afford to make monthly mortgage payments that are about $53.50 higher. That translates to an increase in the maximum mortgage principal amount of $3,801, a 2.7 percent increase (from $141,113 to $144,914).

$62,500: For consumers earning $62,500, the annual tax savings from the MID is $1,018, so those consumers could afford to make monthly mortgage payments that are about $85 higher. That translates to an increase in the maximum mortgage principal amount of $6,027, a 2.5 percent increase (from $244,728 to $250,755).

$87,500: For consumers earning $87,500, the annual tax savings from the MID is $1,244, so those consumers could afford to make monthly mortgage payments that are about $104 higher. That translates to an increase in the maximum mortgage principal amount of $5,729, a 1.6 percent increase (from $366,434 to $372,163).

$150,000: For consumers earning $150,000, the annual tax savings from the MID is $2,067, so those consumers could afford to make monthly mortgage payments that are about $172 higher. That translates to an increase in the maximum mortgage principal amount of $9,519, a 1.5 percent increase (from $654,252 to $663,771).

Appendix E

The estimated taxable income number without the MID was calculated as follows.

Tax Liability = Taxable Income * Tax Rate

Since we know the amount of tax liability with the MID and the taxable income with the MID (from the IRS tax return data), we can calculate the average tax rate with the MID (18.2 percent).

Tax Rate = Tax Liability / Taxable Income
= $1,037,485 mil. / $5,695,766 mil. = 18.2%

However, our data for the MID reflect the reduction in tax liability, not the reduction in taxable income. Tax liability without the MID would have been higher by the amount of the MID. Using that higher value for tax liability and the 18.2 percent tax rate yields a value for taxable income of $6,069,996 mil.

Taxable Income = Tax Liability / Tax Rate
= $1,117,046 mil. / 18.2% = $6,069,996 mil.

Based on that estimate for taxable income without the MID, raising the same amount of income tax revenue from this larger tax base would require a tax rate of 17.1 percent, which is 6.2 percent lower than the existing rate.

Endnotes

[1] As of the date of this study, the most recent IRS data available on this was preliminary data for tax year 2011, from the Winter 2013 issue of the *Statistics of Income Bulletin* (Washington, D.C.: Internal Revenue Service), available at http://www.irs.gov/pub/irs-soi/13inwinbulincomeprlim11.pdf .

[2] See for example Chapter 10 in Randall Holcombe, *Public Sector Economics* (Upper Saddle River, NJ: Pearson Education Inc., 2006).

[3] As the Ramsey rule states, that excess burden can be minimized by setting tax rates inversely proportional to the elasticity of demand for the good being taxed. In theory, the excess burden could be eliminated by only taxing goods that have perfectly inelastic (or fixed) supply, such as land. In practice, even land is not in fixed supply, as is illustrated by beach erosion and renourishment, as well as the building of private islands off the coast of Dubai in the Persian Gulf.

[4] While not the central focus of this study, the issue of achieving revenue neutrality through rate reduction is an important one. Taxes remove money from the hands of private individuals and give it to government. Private individuals can directly reap the benefit of using that money wisely and directly bear the cost of not doing so. Politicians and government employees do not face those same incentives to use resources productively. As a result, closing the loopholes without simultaneously reducing tax rates proportionately would likely lead to a less productive economy, with lower levels of economic output and lower incomes. But a comprehensive analysis of whether the amount of revenue collected should be lower, and the benefits thereof, is beyond the scope of this study.

[5] See Internal Revenue Service, "Definition of Home Equity Indebtedness," 2009 at www.irs.gov/pub/irs-wd/0940030.pdf.

[6] See Internal Revenue Service, "Return of Annual Net Income of Individuals," at www.irs.gov/pub/irs-utl/1913.pdf.

[7] Anthony Randazzo and Jesse Kline, "Time to End the Mortgage Interest Deduction," *Reason.org*, February 2011, http://reason.org/news/show/time-to-end-mortgage-interest-deduc.

[8] A September 2010 poll by the National Association of Home Builders found that 72 percent of voters opposed repealing the mortgage interest deduction. National Association of Home Builders, "Voters Warn: Don't Mess with the Mortgage Interest Deduction," www.nahb.org/news_details.aspx?newsID=11370. However, this poll is extremely suspect as its source is highly financially vested in the continuation of the subsidy for homeownership provided by the mortgage interest deduction. The association has lobbied directly on behalf of legislation that would preserve the MID and spent considerable sums fighting efforts to rein it in. In contrast, a May 2011 Reason-Rupe poll found 44 percent favor, and 36 percent oppose, giving up the mortgage interest deduction and other tax breaks if it results in a simpler system

with lower overall tax rates. But even if the homebuilders' poll were credible and 72 percent of voters opposed repealing the MID, that would not change the fact that the MID has had little effect on homeownership. The poll is either incorrect, or Americans have been misinformed on the value of the MID, or both. For more, see: http://reason.com/poll/2011/05/03/cut-debt-poll-finds

[9] Increased maintenance and upkeep, as well as more neighborly behavior in general, also provides a benefit to the neighbors, what economists call an "external benefit" or "positive externality." Efficiency is defined as the quantity where marginal benefit equals marginal cost. When there's a positive externality, the benefit to the individual decision maker is lower than the overall benefit to society as a whole. Since the individual decision maker typically only considers the benefits he receives and ignores the external benefits created for others, the quantity of maintenance and upkeep he chooses falls short of the efficient quantity. The standard approach to this inefficiency is to provide a subsidy. The MID is an example of such a subsidy.

[10] Edward L. Glaeser and Jesse M. Shapiro, "The Benefits of the Home Mortgage Interest Deduction," in *Tax Policy and the Economy*, vol. 17, ed. James M. Poterba (Boston: MIT Press, 2003), pp. 37–82.

[11] Furthermore, recent research has challenged the normative belief that homeownership always provides enough benefit to offset ownership versus rental costs. See "Lessons from Over 30 Years of Buy Versus Rent Decisions: Is the American Dream Always Wise?" by Eli Beracha and Ken H. Johnson (April 2011) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1814227

[12] While the homeownership rate did rise gradually from 1994 to 2004, it has fallen gradually since then and has remained in a relatively narrow range between 64 and 70 percent over that entire period.

[13] James Poterba and Todd Sinai, "Revenue Costs and Incentive Effects of the Mortgage Interest Deduction for Owner-Occupied Housing," *National Tax Journal*, vol. 6, no. 2 (June 2011), pp. 531–564.

[14] Jane Gravelle, "The Corporate Tax: Where Has It Been and Where Is It Going?" *National Tax Journal*, vol. 57, no. 4 (December 2004), pp. 903–923.

[15] Another important factor for this distortion of economic activity is the lack of taxation of imputed rents, though that is outside the scope of this study.

[16] Viral V. Acharya, Matthew Richardson, Stijn Van Nieuwerburgh and Lawrence J. White, *Guaranteed to Fail: Fannie Mae, Freddie Mac, and the Debacle of Mortgage Finance*, Princeton: Princeton University Press, April 2011, pp. 168–169, citing Edwin S. Mills, "Dividing up the Investment Pie: Have We Overinvested in Housing?" *Federal Reserve Bank of Philadelphia Business Review*, March-April 1987, pp. 13–23.

[17] Ibid.

[18] There is also support for maintaining the mortgage interest deduction at the present time because of fears that hasty action might negatively affect the housing market. However, this is a common refrain in any economic climate. In the eyes of policy makers, the housing market will almost always be too fragile or should not have its growth derailed by reform. There are also arguments outside the scope of this paper that housing prices need to fall from their present value before recovery in the housing market can take off. Because of these concerns,

we believe discussion of the mortgage interest deduction should not be slowed down by concerns about its affect on housing recovery.

[19] As of the date of this study, the most recent IRS data available on this was preliminary data for tax year 2011, from the Winter 2013 issue of the *Statistics of Income Bulletin* (Washington, D.C.: Internal Revenue Service), available athttp://www.irs.gov/pub/irs-soi/13inwinbulincomeprlim11.pdf.

[20] All taxpayers are eligible to take a standard deduction off their taxable income. For 2010, the standard deduction was $5,700 for singles and $11,400 for married joint filers; for 2013, singles can take a $6,100 standard deduction and married couples $12,200. If the total of itemized deductions, including the one for mortgage interest, is less than the standard deduction, there is no incentive to itemize, and, therefore, no direct benefit from the existence of the mortgage interest deduction.

[21] Peter Brady, Julie-Anne Cronin and Scott Houser, "Regional Differences in the Utilization of the Mortgage Interest Deduction," *Public Finance Review*, vol. 31, no. 4 (July 2003), pp. 327–366.

[22] Joseph Gyourko and Todd Sinai, "The Spatial Distribution of Housing-Related Ordinary Income Tax Benefits," *Real Estate Economics*, vol. 31, no. 4 (2003), pp. 527–575.

[23] "Economic Growth and Tax Relief Reconciliation Act of 2001," *107th Congress Public Law 16*, available at http://www.gpo.gov/fdsys/pkg/PLAW-107publ16/html/PLAW-107publ16.htm.

[24] It's not that the IRS numbers are incorrect. They are just documenting what has been claimed on tax returns. They're not claiming to provide an estimate of the actual affect of the MID.

[25] See U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2012-2017,* JCS-1-13, February 1, 2013, available at www.jct.gov/publications.html?func=select&id=5.

[26] These hypothetical amounts for the deductions represent the average amounts for an average AGI filer based on IRS data for 2010. The average AGI that year was about $57,000. The data is available here: http://www.irs.gov/pub/irs-soi/10in03id.xls.

[27] James Poterba and Todd Sinai, "Revenue Costs and Incentive Effects of the Mortgage Interest Deduction for Owner-Occupied Housing," *National Tax Journal*, vol. 6, no. 2 (June 2011), pp. 531–564.

[28] Methodology: Our data set excludes individuals who are dependents of other taxpayers and taxpayers with negative income. The income concept used to place tax returns into classes is adjusted gross income (AGI) plus: (a) tax-exempt interest, (b) employer contributions for health plans and life insurance, (c) employer share of FICA tax, (d) workers' compensation, (e) nontaxable Social Security benefits, (f) insurance value of Medicare benefits, (g) alternative minimum tax preference items, and (h) excluded income of U.S. citizens living abroad.

[29] See Appendix C for details on the income concept used to place tax returns into classes.

[30] The authors take a slightly different approach than we did above, using different income brackets, measuring the cost of repeal rather than the savings of the MID, and using a different data source. Their results come from a computer simulation using 2003 data from the Federal Reserve's Survey of Consumer Finances.

[31] Joseph Gyourko and Todd Sinai, "The (Un)changing Geographical Distribution of Housing Tax Benefits," in *Tax Policy and the Economy*, vol. 18 (Cambridge: MIT Press/NBER, 2004), pp. 175–208.

[32] Joseph Gyourko and Todd Sinai, "Spatial Distribution of Mortgage Deduction Benefits across and within Metropolitan Areas in the United States," in *Using Tax Policy to Increase Homeownership among Low- and Moderate-Income Households,* eds. Richard Green and Andrew Reschovsky (New York: The Ford Foundation, 2001), pp. 137–186; and Eric Toder, Margery Austin Turner, Katherine Lim and Liza Getsinger, "Reforming the Mortgage Interest Deduction" (Washington, D.C.: Urban Institute, April 2010).

[33] IRS and JCT data do not break down the portion of the MID that is claimed between actual mortgage debt and home-equity loans (which can be up to $100,000). But some distortion is almost certainly created by this provision of the mortgage interest deduction code, with more money going to home improvement or consumption than would otherwise be the case without the tax break. This distortion is yet a further argument against the MID from our perspective, however, it could be claimed as a benefit by those wanting to use the tax code to stimulate consumption.

[34] Lawrence Yun, "Why the MID Deserves to Stay," *Realtor Mag*, September 2010 at http://www.realtor.org/rmonews_and_commentary/economy/1009_economy_mortgageinterestdeduction.

[35] So if the goal is an increase in homeownership, falling prices may be the way to achieve that. Unfortunately, though, because of policies like the MID subsidizing homeownership, many families have come to view their home as primarily an asset, even though inflation adjusted housing prices remain relatively flat decade after decade (the most recent bubble period exempt). See Anthony Randazzo, "The Myth of Homeownership Wealth Creation," *Ahead of the Curve* newsletter no. 3, Reason Foundation, April 26, 2011, at http://reason.org/news/show/homeownership-wealth-creation-myth.

[36] Dennis R. Capozza, Richard K. Green and Patric H. Hendershott, "Taxes, Mortgage Borrowing, and Residential Land Prices" in *Economic Effects of Federal Tax Reform*, eds. Henry J. Aaron and William G. Gale (Washington, D.C.: Brookings Institution Press, 1996), pp. 171–198; and Toder, Turner, Lim and Getsinger, "Reforming the Mortgage Interest Deduction."

[37] Poterba and Sinai, "Revenue Costs and Incentive Effects of the Mortgage Interest Deduction for Owner-Occupied Housing."

[38] Methodology: Since estimates of price elasticity of demand (the sensitivity of quantity demanded to changes in price) range from about -0.5 to -1.0, the user cost changes in the table represent the upper end of that range, with the lower end being the number in the table multiplied by one-half. The price effects range from a high of 10 to 20 percent for high-income young households to a low of 0.7 to 1.4 percent for low-income households over 65 years of age. In order to get the estimated price change, Poterba and Sinai took the 6.3 percent increase in user cost (for all incomes and all ages as shown in Table 3) and factored in an estimated elasticity of -0.5 to -1.0, thereby yielding the 3 to 6 percent estimate. The numbers in that table are "user cost" changes, not price changes.

[39] Andrew Hanson found in a 2011 paper that for every $1,000 borrowed in 2004 without the mortgage interest deduction, interest rates decease 3.3 to 4.4 percent. Hanson argues that this means mortgage lenders are capturing between 9 and 17 percent of the MID subsidy by putting

upward pressure on mortgage interest rates. See Andrew Hanson, "The Incidence of the Mortgage Interest Deduction: Evidence from the Market for Home Purchase Loans," *Public Finance Review,* November 7, 2011.

[40] Historically, policymakers have promoted homeownership because it is often seen as a good investment and a means of wealth creation for households to pursue the American Dream. However, adjusted for inflation, the Case-Shiller/S&P Housing Index—a leading indicator of housing prices—grew little more than 5 percent from post-World War II to the mid-1990s. Only after the Government Sponsored Enterprise Act of 1992 ramped up subsidies for housing through Fannie Mae and Freddie Mac did housing prices double through 2006. Since then, prices have nearly returned to their mid-90s levels, and all homeownership rates have returned to levels seen in the mid-'90s. Policies to promote homeownership, including the mortgage interest deduction during that time, all failed in their goal and only caused the distortion of capital investments to create a housing bubble and the subsequent Great Recession.

[41] Dennis J. Ventry, Jr., "The Fake Third Rail of Tax Reform," *Tax Notes Special Report*, April 9, 2012, pp. 196

[42] Anthony Randazzo, "The Post-Housing Tax Credit Slump Begins," *Out of Control Policy Blog*, Reason Foundation, June 17, 2010, at http://reason.org/blog/show/housing-numbers-down-may-2010.

[43] An important caveat to this is that it is likely that a repeal of the MID would cause a change for some in the type of debt that households use to finance purchasing a home. The implication of that kind of portfolio reshuffling is that it could mitigate much of the revenue increase that it is typically assumed would take place if the MID were eliminated, because revenues from those other taxable assets used to pay down mortgage debt would be reduced. For more, see James R. Follain and Lisa Sturman Melamed, "The False Messiah of Tax Policy: What Elimination of the Mortgage Interest Deduction Promises and a Careful Look at What It Delivers," *Journal of Housing Research*, vol. 9, no. 2 (1998), pp. 179–199.

[44] U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2012-2017,* JCS-1-13, February 1, 2013. Also, higher estimates of tax receipts can be found from the Congressional Budget Office and academic studies, see Congressional Budget Office, "Reducing the Deficit: Spending and Revenue Options" March 2011, pp. 146-147; Eric Toder et al., "Reforming the Mortgage Interest Deduction," *Tax Policy Center*, April 2010, pp. 10-11.

[45] Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2013 to 2023*, February 2013, at http://www.cbo.gov/sites/default/files/cbofiles/attachments/43907-BudgetOutlook.pdf..

[46] See Figure E, p. 9 in Justin Bryan, "Individual Income Tax Returns, 2010," *Statistics of Income Bulletin* (Washington, D.C.: Internal Revenue Service), vol. 32, no. 2 (Fall 2012), pp. 5–78, available at http://www.irs.gov/PUP/taxstats/productsandpubs/12fallbul.pdf.

[47] This number comes from dividing the $68 billion budget deficit savings estimate from the JCT by the CBO's 2013 estimate for income tax revenue of $1,264 billion, yielding a 5.4 percent increase. However, the underlying problem with America's fiscal woes is not a lack of revenue, but rather excessive spending. Federal spending as a percentage of GDP is a historically unsustainable high and the tax burden on individuals and businesses today is a partial reason for the lack of private sector economic growth in the past several years.

Therefore, since eliminating the MID without making any other adjustments would increase taxes and not address the core problems with the deficit, we do not think this is the best possible approach.

[48] This is a static analysis, assuming no change in individual behavior. When tax rates are lowered, individuals tend to engage in more of the taxed activity (in this case, income-earning activity). A dynamic analysis would predict that the rate could have been lowered even further due to that increased activity. An estimate of that rate is beyond the scope of this study, but suffice it to say that it could be reduced by more than 6.2 percent.

[49] According to the JCT data, the real estate tax deduction produced savings of $24.3 billion in 2012, which is 36 percent of the $68.2 billion for the MID. So repealing it would allow for an additional 2.2 percent reduction in rates (2.2% = 6.2% * 36%).

[50] James R. Follain and Robert M. Dunsky, "The Demand for Mortgage Debt and the Income Tax," *Journal of Housing Research*, vol. 8, no. 2 (1997), 155–199

[51] Poterba and Sinai, "Revenue Costs and Incentive Effects of the Mortgage Interest Deduction for Owner-Occupied Housing."

[52] The United States is one of five Western economies with a mortgage interest deduction, the others being Canada, France, India, and Netherlands. Canadian housing prices have gotten along just fine without a mortgage interest deduction, and Canada's homeownership rates are higher than America's. For more see Steven Cinelli, "A Simple Response: Thoughts on the US Housing Finance System Reform," *Minyanville.com*, May 19, 2011, at www.minyanville.com/businessmarkets/articles/real-estate-the-housing-reform-white/5/19/2011/id/34657.

[53] Joint Committee on Taxation, "Background Information On Tax Expenditure Analysis And Historical Survey Of Tax Expenditure Estimates," JCX-15-11, p. 16, available at https://www.jct.gov/publications.html?func=startdown&id=3740

[54] Acharya, Richardson, Van Nieuwerburgh and White, *Guaranteed to Fail*, p. 171.

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