RECONCILING INTENTIONS WITH OUTCOMES:
A CRITICAL EXAMINATION OF THE MORTGAGE
INTEREST DEDUCTION

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I. INTRODUCTION

Benjamin Franklin once famously remarked: “in this world nothing can said to be certain, except death and taxes.”¹ The United States is no exception. Thanks to a tax statute that has been re-codified four times and amended dozens more it is hard for Americans to foresee exactly what taxes they will pay. Still, even in paying under a mercurial tax code, Americans can count on another certainty, the mortgage interest deduction.² Deeply ingrained in the law and the American consciousness, the nation understands that the government has set out to reward its citizens for the good behavior of homeownership with this special tax break.³ The mortgage interest deduction is so well ensconced in the Internal Revenue Code that it is often considered the immutable third rail of the tax code.⁴ Tax mythology says it has been around since the beginning of the income tax, and every indication is that it will stick around until the end.⁵ In commenting on its endurance, Representative Barney Frank recently quipped, “the sun will go away before it does.”⁶ The mortgage interest deduction is here to stay. It is as American as clichés about baseball and apple pie.

The mortgage interest deduction may be an essential part of American taxation heritage, but in its present form it is not a single, easily quotable rule in the tax code. It is more of an exception to an exception to a rule, and its complexity prohibits a direct recitation.⁷ However, the common understanding of the mortgage interest deduction

2. See Roger Lowenstein, Who Needs the Mortgage-Interest Deduction?, N.Y. TIMES, Mar. 5, 2006, at 79. Lowenstein provides an excellent summary of this mythology surrounding the mortgage interest deduction.
3. See id.
5. Lowenstein, supra note 2, at 79.
7. For those willing to brave the I.R.C in search of the mortgage interest deduction, it can be found as follows: I.R.C § 163(a) states: “[t]here shall be allowed as a deduction all interest paid or accrued within the taxable year on indebtedness.” I.R.C. §163 (West 2013). An exception to this rule is made under I.R.C § 163(h), which states that the general rule of I.R.C § 163(a) shall not apply to individuals. Id. To this exception, another smaller exception is carved out in I.R.C §§ 163(h)(2)(D) and (h)(3) that allows the I.R.C 163(a) deduction to apply to “qualified residence interest,” which is includes mortgages and home equity loans up to a certain amount. Id.
is generally correct and rather easy to summarize. Broadly speaking, American homeowners may deduct from their taxable income an amount equal to the interest they paid during the tax year on any loan which is secured by their first or second residence, up to a ceiling amount on the loan. The mortgage interest deduction covers both interest paid on primary mortgages—loans used to purchase the residence, and second mortgages, also known as home equity loans—loans with proceeds that can be applied to any purpose.

The mortgage interest deduction is generally defended as a tax incentive to encourage homeownership. More than some fanciful ideal of the American Dream, ownership of single family residential dwellings has been tied to legion social and economic benefits. Homeowners are more likely to have strong marriages that are less interrupted by legal separations and higher senses of self-worth and well-being. Homeowners’ children are more likely to finish high school and less likely to be arrested or have a teenage pregnancy. One study concludes that homeowners are generally more civically-minded citizens, more politically involved, more likely to attend church, and more likely to invest in local communal infrastructure such as public gardens. With such myriad benefits, Congress certainly has an interest in encouraging homeownership through whatever means available, including the tax code.

Despite the multitude of benefits homeownership has for individuals, the mortgage interest deduction does not seem to work.

9. Id.
10. Id.
toward this purpose. Numerous studies in government, academics, economics, and law have concluded that the mortgage interest deduction has little impact on homeownership.\textsuperscript{16} For instance, Gale, Gruber, and Stephens-Davidowitz argue, “[b]oth theoretical considerations and empirical evidence suggest that the [mortgage interest deduction] has little if any positive effect on homeownership.”\textsuperscript{17} Similarly, in 2005 the President’s Advisory Panel on Federal Tax Reform found “[a]lthough the deduction for home mortgage interest is often justified on the grounds that it is necessary for promoting home ownership, it is unclear to what extent rates of home ownership depend on the subsidy.”\textsuperscript{18} The Panel further concluded “[t]he tax preferences that favor housing exceed what is necessary to encourage home ownership or help more Americans buy their first home.”\textsuperscript{19} Recently Hilber and Turner analyzed the mortgage interest deduction’s effect on homeownership and housing supply in eighty-three metropolitan areas in the United States.\textsuperscript{20} In doing so, they concluded that the mortgage interest deduction has “no discernible impact in aggregate on U.S. homeownership outcomes,” but moreover that “rather than boosting homeownership attainment, much of the [mortgage interest deduction] is capitalized into housing prices.”\textsuperscript{21} Encouraging homeownership may be a worthwhile policy, but the mortgage interest deduction is at best an ineffective tool for accomplishing it.

So if the mortgage interest deduction does not increase homeownership rates, what does it do? An interesting first step toward answering this question is to step back and observe that while the mortgage interest deduction is intended as a tax incentive for increasing consumption of owner-occupied housing, it is actually an incentive located entirely within another market, the mortgage market. The housing market and mortgage market are closely related, yet they are still distinct. Generally lost in the discussions of the mortgage interest deduction’s effects on the housing market is a clear analysis of how the

\textsuperscript{17} Gale, Gruber & Stephens-Davidowitz, supra note 16, at 1179.
\textsuperscript{18} PRESIDENT’S ADVISORY PANEL, supra note 16, at 72.
\textsuperscript{19} Id. at 71.
\textsuperscript{21} Id. at 2.
The mortgage interest deduction has affected the American mortgage market. On some level, the absence of this discussion is understandable. It may be hard to assess how the mortgage interest deduction has affected the American mortgage market because, in a very real sense, the deduction and the market grew up together, inextricably intertwined throughout the second half of the twentieth century. But while the impact of the deduction may be difficult to observe on its own abstractly, it may be possible to observe the effects of a major alteration of the law. The Tax Reform Act of 1986 22 redefined the interest deduction by cutting off access to the deduction from a massive population of taxpayers and promising its continuance into the future for others. This Act refined and entrenched the mortgage interest deduction, and in doing so may have altered American mortgage consumption patterns. 23 Observing how these changes to the interest deduction coincide with shifts in the mortgage market may provide a better understanding of how the deduction affects the mortgage market.

This article will work to answer the question: What effect has the mortgage interest deduction had on the American mortgage market? The main examination proceeds in two ways. First, this article recounts the interrelated histories of the American mortgage market and the deduction of interest from taxable income throughout the twentieth century, giving special attention to the Tax Reform Act of 1986 and the events that led to the codification of the current mortgage interest deduction. Second, this article analyzes several sets of time series data and numerous pieces of qualitative evidence on mortgage consumption in and around the 1980s to determine if, and to what extent, the changes to the mortgage interest deduction has had an economic impact on the American mortgage market. Though it is impossible to prove single causation when analyzing a market as complex as the residential mortgage market in the United States, the analysis shows that the purposeful refinement and entrenchment of the interest deduction in the Tax Reform Act of 1986 correlated with an appreciable shift in the mortgage market in favor of consuming more mortgages and maintaining higher mortgage debt levels.

This article concludes with observations about the relationship between the mortgage interest deduction and the American mortgage market. The conclusion of this article will discuss possible reasons why the mortgage interest deduction may increase mortgage debt.

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23. See id.
consumption, yet may not increase homeownership rates. Furthermore, the conclusion will also touch upon the timely question of whether the mortgage interest deduction caused the American mortgage bubble, which collapsed with disastrous effects in 2008.

II. THE EARLY INTEREST DEDUCTION, 1913-1986

The present form of the mortgage interest deduction first appeared with the Tax Reform Act of 1986, but this was not the first time homeowners could deduct mortgage interest from their taxable income. To understand the importance of the Tax Reform Act of 1986, and the creation of the modern mortgage deduction to the American mortgage market, it is important to understand the underlying history of the original interest deduction, its purpose, and the way markets have responded to it throughout the twentieth century. Stated very briefly, the history of this interest deduction is that of an overly broad tax provision that failed to evolve with America’s changing economy, three distinct groups that took advantage of the deduction at different points, and the reckoning of the deduction with these groups through the Tax Reform Act of 1986. This section will consider each of these elements in turn.

A. The Overly Broad Deduction: The Revenue Act of 1913

In 1913, the United States ratified the Sixteenth Amendment, putting to rest more than a century of controversy over the constitutionality of federal tax efforts. The Sixteenth Amendment authorized Congress “to lay and collect taxes on incomes, from whatever source derived . . . ” Congress quickly acted on its new authority by passing the Revenue Act of 1913, which imposed the first permanent federal income tax. This income tax, which applied only to businesses and the wealthiest Americans, imposed a tax on “the entire net income arising or accruing from all sources in the preceding calendar year . . . ” Importantly, the critical word “income” was not—and to this day still is not—defined in the federal tax laws. Despite the lack of a statutory

26. U.S. Const. amend. XVI.
28. Id.
definition, Congress and the courts mutually developed jurisprudence that the income tax was not a gross receipts tax and would not seek a levy against every dollar that came in a taxpayer’s door. In 1918 the Supreme Court observed:

Whatever difficulty there may be about a precise and scientific definition of ‘income,’ it imports, as used here, something entirely distinct from principal or capital either as a subject of taxation or as a measure of the tax; conveying rather the idea of gain or increase arising from corporate activities. . . . 'Income may be defined as the gain derived from capital, from labor, or from both combined.'

Under this jurisprudence, the tax is on profit, gain, or generally the positive product of the taxpayer’s labor and investments. The Supreme Court has described this aspect of income as “[an] undeniable accession[] to wealth,” but economists simply call it the taxpayer’s portion of economic growth. In any case, Congress manifested its intent to tax only economic gain by incorporating a series of deductions in the Revenue Act of 1913 with a lodestar that expenses incurred in the course of earning profit should be deductible from income. The Revenue Act of 1913 lists eight specific deductions generally designed to allow profit makers to exclude their business expenses, deduct their losses, and avoid double taxation. Included in this list is a deduction for “all interest paid within the year by a taxable person on indebtedness.” Commentators observed that several of these deductions, including the deduction for interest paid on indebtedness, were written so broadly that individuals could use them to deduct personal expenses in addition to business expenses. Indeed, in the case of the deduction for interest on indebtedness, though Congress’s purpose was to allow businesses to deduct interest on business debt, there is not even an allusion to restricting this deduction to business debt in the

35. Revenue Act of 1913, supra note 24, at sec. II, para. B.
36. Id.
37. KAHN, supra note 29, at 4.
text. 38

Why would Congress write these deductions so broadly that they could be used for unintended purposes? 39 Some commentators observe that the Revenue Act of 1913 simply “was not clear on many points” and it lacked the abounding detail and precision of modern tax laws. 40 This imprecision may have been a natural consequence of the fact that the government had “not yet developed adequate assessment machinery” necessary to review, assess, and audit millions of complex tax returns, and was therefore only prepared to process a very simple income tax. 41 The deductions’ over-breadth may have been a consequence of this necessary imprecision or simplicity. Other commentators attribute the breadth of these deductions to the difficulty in separating personal expenses from business expenses at that time. As Professor Kahn observes, the best explanation for broad deductions “is simply the lack of distinction between personal expenses on the one hand and business expenses and losses on the other, which appears to have been of significance in drawing up the first income tax laws.” 42 Professor Koppelman applies this reasoning to the interest deduction, saying “[t]he deductibility of personal interest may have been less a matter of principle than a reflection of the practical difficulty of distinguishing personal from profit-seeking interest.” 43 Whatever the cause, the general interest deduction found in the Revenue Act of 1913 clearly was broad beyond its purpose and had the potential to include groups that were not intended.

As a point of some irony, in addition to being overly broad, the general interest deduction was also superfluous to its purpose. Any business seeking to use the interest deduction could have just as easily deducted its interest payments under the general deduction for “the necessary expenses actually paid in carrying on any business” that was also created in 1913. 44 As the Tax Court confirmed in 1962:

To the extent that interest paid on indebtedness also meets the test of [a business] expense, the two [deductions] may be said to ‘overlap’ and the interest may be deducted under either one of the two sections just

44. Revenue Act of 1913, supra note 24, at sec. II, para. B.
so long as it is not deducted under both. From a pure deduction standpoint it would make no difference in tax liability whether the interest deduction was claimed under [either deduction].

However, as the jurisprudence surrounding this point was not fully developed until 1962, the existence of a specific interest deduction provision may have seemed necessary in the early days of the income tax.

B. The Intended Group: Business Interest Deductions, 1913-1945

Despite being overly broad and generally superfluous, in its early years, the interest deduction worked as intended, primarily benefitting businesses holding debt. At the time of enactment, businesses were already encumbered by tremendous debt obligations. For instance, by 1913 the American railroad industry was carrying collective, funded debt in the mammoth amount of $11.2 billion. Moreover, businesses were continuing to acquire evermore debt by new and innovative instruments such as commercial credit bills and finance bills. At the start of the twentieth century, equity markets were still relatively unsophisticated and debt issues were by far the more common way to fund large scale business enterprise. As Baskin and Miranti observe, “debt issues were necessary in order to attract funds from distant investors with little knowledge of the business because asymmetric information impeded public markets in equity securities.” In the first decades of the twentieth century, debt was the lifeblood of large business endeavors that needed massive capitalization up front, like railroads and manufacturing. This debt was incurred in the course of seeking a profit, its interest was a necessary business expense, and deduction of this interest was prudent and appropriate under nearly every theory of income taxation.

While businesses were taking great advantage of the interest deduction during that time, average Americans were not. Two factors were important. First, the individual income tax was a class tax paid by

46. WILLIAM ZEBINA RIPLEY, RAILROADS: FINANCE AND ORGANIZATION 139 (1915).
49. Id. at 145-51.
50. Id.
only the wealthiest Americans.\textsuperscript{51} The income tax originally allowed initial exemptions of $3,000 for an unmarried individual and $4,000 for a married couple.\textsuperscript{52} This high exemption was more than enough to ensure that the average American, with an annual income closer to $1,500 per year, would not have an income tax burden.\textsuperscript{53} The exemption fluctuated in the decades following enactment, going down to broaden the base and increase revenue during World War I;\textsuperscript{54} and going back up again with lower tax rates to relieve the nation’s tax burden in the 1920s.\textsuperscript{55} In the 1930s, the exemption again went down and tax rates went up to fund the New Deal.\textsuperscript{56} As the incomes across the country were devastated by the Depression, however, these higher taxes raised almost no money from the average American.\textsuperscript{57} Thus, even though fluctuating, the exemption remained high enough to keep the tax burden on the wealthy and shield the common man from all but the lightest of income taxes. Indeed, the United States would not have a truly widespread income tax until the start of World War II.\textsuperscript{58}

As a second point, while the amount of consumer debt was generally trending upward during the 1910s and 1920s,\textsuperscript{59} such personal debts “were minimal” when compared with business debt and not prevalent enough to make major use of the interest deduction.\textsuperscript{60}

\begin{itemize}
\item \textsuperscript{51} Blakely, \textit{supra} note 41, at 35 (observing, “As compared with other countries, then, it is evident that our $3,000 [exemption] is high. It is most frequently criticized as being so high as to make the tax, in effect, a class tax upon the rich, which can be voted by the poor, and a sectional tax upon the East and Northeast, which is voted by the West and Southwest. There is much truth in these criticisms and a survey of the states and congressmen ranged on the different sides of the amendment and of the new law confirms this statement”).
\item \textsuperscript{52} Revenue Act of 1913, \textit{supra} note 24, at sec. II, para. C.
\item \textsuperscript{53} U.S. BUREAU OF LABOR STATISTICS, \textit{REPORT NO. 991, 100 YEARS OF U.S. CONSUMER SPENDING} 9 (2006).
\item \textsuperscript{54} War Revenue Act of 1917, Pub. L. No. 65-63, 40 Stat. 300, 301 (1917) (lowering the initial exemption from $3,000 for a single taxpayer and $4,000 for married couples to $1,000 and $2,000, respectively).
\item \textsuperscript{57} MARKHAM, \textit{supra} note 47, at 201.
\item \textsuperscript{58} MICHAEL J. GRAETZ & DEBORAH H. SCHENK, \textit{FEDERAL INCOME TAXATION: PRINCIPLES AND POLICIES} 8-9 (5th Ed. 2005); MARGARET MYERS, \textit{A FINANCIAL HISTORY OF THE UNITED STATES} 346 (1970).
\item \textsuperscript{59} Lendol Calder, \textit{The Evolution of Consumer Credit in the United States, in THE IMPACT OF PUBLIC POLICY ON CONSUMER CREDIT} 23, 24-27 (Thomas A. Durkin & Michael Staten eds., 2002); see also MARKHAM, \textit{supra} note 47, at 22-23.
\item \textsuperscript{60} Harvey S. Rosen, \textit{Housing Subsidies: Effects on Housing Decisions, Efficiency, and}}
Residential mortgages, though likewise trending upward, were especially in the minority. In 1910, only 38.4% of American non-farm dwellings were owner-occupied, and of those properties only 33.3% were encumbered by a mortgage. By 1920, 40.9% were owner-occupied and 39.8% had a mortgage. This means that from 1910 to 1920, only between 12.79% and 16.28% of all non-farm dwellings in the United States were both occupied by their owners and encumbered by a mortgage. Any increases in mortgage lending and homeownership in the 1920s were more than wiped out by the unemployment, lost property values, bank failures, defaults, and residential foreclosures of the 1930s. Efforts by the federal government to rescue and stabilize the mortgage finance market laid the groundwork for some financial infrastructure that would become important to the market later in the twentieth century, but generally failed to cure the market’s ills in the 1930s. By the time the United States entered World War II in December 1941, dwellings that were both owner occupied and mortgaged were still an insubstantial portion of the housing inventory.

In the first decades of the income tax, the interest deduction was primarily a tool for businesses. Any individual using the deduction was likely very wealthy, and his personal finances were probably inextricably interlinked with his business finances. It was not a device designed to encourage homeownership among average Americans. Indeed, before World War II, the average American had no income tax liability, had no mortgage, and therefore had no need to take notice of the interest deduction.

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61. This number does not consider vacant dwellings. If vacant housing were included, the numbers would be even lower.


63. *Id.*

64. *Bureau of the Census, Statistical Abstract of the United States: 2004-2005* 605, 618 (2006). In 2003, for the sake of contrast, 68.26% of dwellings were owner-occupied, of those properties 62.97% were encumbered by a mortgage, making a total of 42.98% of all American housing units owner occupied and under a mortgage.


68. *See Surrey, supra note 34, at 825; see also Koppelman, supra note 43, at 713.*
C. The Happy Accident: Mortgage Interest Deductions, 1945-1970

In addition to its countless other effects on the course of human history, World War II fundamentally altered the nature of the interest deduction in the federal tax code. Two elements are central in understanding this transformation.

First, World War II changed the federal income tax system from a narrow tax on the wealthy to a broad tax that reached every American. Even before it officially entered the war, the United States shipped supplies to Great Britain, France, the Soviet Union, and China under the Lend-Lease Act. Throughout the war the United States continued to supply the Allies with arms, munitions, and provisions, as well as mobilized its own army and navy, all at tremendous expense. In 1945, Secretary of the Treasury, Henry Morgenthau, estimated that the American war effort cost the country a total of $325 billion, roughly half of the total GDP for each year of the conflict. After the war ended, the United States would continue making massive outlays to aid in the reconstruction of Europe and Japan.

To pay for this massive war effort, the federal government turned to raising taxes on the once again prosperous and growing incomes of Americans. In each year from 1940 to 1944, Congress passed increases to the individual and corporate income taxes, as well as new measures to ensure adequate and timely collection. While these tax increases raised the rates on the wealthy, even putting the top marginal rate at 94% of income, they were not simply increasing burdens on the upper class. Rather, by lowering initial exemptions, Congress also broadened the base of the income tax so that more and more Americans would pay. As Professor Carolyn Jones observes, “[these laws] signaled a fundamental reconfiguration of the income tax from a class tax to a mass tax. . . . A tax intended at least symbolically to soak-the-rich during the

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70. MYERS, supra note 58, at 343-44.
72. MYERS, supra note 58, at 343-44.
73. MARKHAM, supra note 47, at 276.
75. See THE TAX FOUNDATION, FACTS AND FIGURES ON GOVERNMENT FINANCE 116 (38th ed. 2005).
Depression became a feature of everyday life for most Americans. It was an incredible transformation. This incredible transformation increased the tax base by more than a factor of ten. In 1939, there were 3.9 million taxable income tax returns; in 1945 there were 42.7 million as the income tax broadened its base to reach the majority of Americans.

Moreover, this incredible transformation was permanent. In 1945, Congress passed a small tax reduction which lowered the top marginal rate of the income tax from 94% to 86.45% and repealed an excess profit tax. But there was no indication that the income tax would return to its pre-war level. The Revenue Act of 1945 maintained the 1944 level of personal exemption at $500 per person, not nearly high enough to protect the average American from the income tax. Professor Jones notes, “[t]he income tax, by contrast, never returned to its ‘class tax’ character. It retained its wartime nature as a mass tax and as a substantial component of federal revenue receipts.” Subsequent tax law changes would alter the rates, exemptions, deductions, and methods of collection, but would never again shield the average American from paying.

The second element of the transformation was the rise of homeownership and residential mortgages in America. Following the war, American soldiers poured back into the United States from Europe and the Pacific. The government welcomed the troops home with the Servicemen’s Readjustment Act of 1944, better known as the G.I. Bill. Among the many provisions of this monumental legislation designed to help returning soldiers re-acclimate to American life was the Veterans Administration mortgage insurance program, which offered a federal guaranty to any residential mortgage taken by a veteran up to a cap of

76. Jones, supra note 69, at 699.
77. BUREAU OF THE CENSUS, HISTORICAL STATISTICS OF THE UNITED STATES, supra note 62, at 6110.
81. Jones, supra note 69, at 687.
82. Id.
$4,000 or 50% of the mortgage value. Veterans used this program en masse to buy new homes. But the G.I. Bill was just one policy amongst many that the Federal Government had implemented starting in the 1930s to stabilize and encourage growth in the U.S. housing market. For millions of Americans, the benefits of the G.I. Bill combined with support from agencies and programs, such as the Federal Housing Administration (FHA, 1934), the Federal National Mortgage Association (Fannie Mae, 1938), Federal Deposit Insurance Corporation (FDIC, 1933), and Federal Savings and Loan Insurance Corporation (FSLIC, 1934) to create a government supported homeownership renaissance in the United States from 1945 to 1970. This homeownership renaissance was marked first by a dramatic increase in homeownership rates after 1945, demonstrated in Figure 1:

**Figure 1**: Non-Farm, Owner-Occupied Dwellings as a Percent of Total Housing Inventory

This increase in homeownership rates is especially impressive considering that it coincided with a boom in new housing construction which greatly increased the housing inventory. From 1941 to 1945, there was an average of 344,000 new homes added to the housing inventory each year; from 1946 to 1950, this number increased to an average of 1.4 million new homes each year; and from 1951 to 1955,

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85. Id. at § 500.
86. See Green & White, supra note 14, at 96-97.
87. See Markham, supra note 47, at 304-05; see also Ernest M. Fisher, Changing Institutional Patterns of Mortgage Lending, 5 J. OF FIN. 307, 313 (1950).
there were on average 1.53 million new homes each year. Indeed, it seemed that the supply of new homes could hardly keep up with demand for owner occupied housing as the United States transformed from a country of “urban renters to suburban homeowners.”

The homeownership renaissance also saw a stunning increase in the use of mortgages to finance home purchases. Throughout the 1950s and 60s, of the increasingly owner occupied homes in the country, the proportion that were encumbered by a mortgage was also increasing dramatically. Figure 2 demonstrates this increase in the residential mortgage proportion:

**Figure 2:** Percent of Non-Farm, Owner Occupied Dwellings Encumbered with a Mortgage

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While mortgages became more common, the total amount of residential mortgage debt increased rapidly. In 1945 there was $25 billion in outstanding mortgage debt, in 1950 there was $55 billion, in 1960 there was $162 billion, and in 1970 there was $338 billion.

In sum, in the post-war era the average American had two obligations he never had before: an income tax liability and a mortgage on his new home. As these two obligations combined, Americans quickly discovered that their mortgage interest was deductible under the interest deduction. Millions of mortgage holders started taking advantage of this old tax provision in an aggressive new way. The interest deduction was still achieving its original purpose as businesses continued deducting interest incurred in the course of profit seeking. But as scores of homeowners deducted their mortgage interest every year, the general interest deduction took on a new life and grew beyond its original purpose into a residential mortgage interest deduction. Congress looked on this expansion with tacit approval and made no effort to repeal or alter the deduction. Indeed, as it grew, the deduction acquired the new rationale of encouraging homeownership and nestled itself among other similarly purposed federal policies, such as the G.I. Bill of Rights and Federal Housing Administration regulations. As Professor Ventry states, in the 1950s, “analysts were already observing that tax subsidies like the [mortgage interest deduction] were in line with, if not specifically designed for, encouragement of homeownership and consonant with the subsidy objective.” Though the drafters of the Revenue Act of 1913 may not have had mortgages in mind for the interest deduction, in the years following World War II the popularly dubbed mortgage interest deduction fit naturally into a system of federal policies designed to encourage homeownership.

92. Id. at 647.
93. Id.
95. See generally KAHN, supra note 29, at 110-16.
96. See, e.g., McNutt-Boyce Co. v. Comm’r, 38 T.C. 462, 465-66 (1962) (holding that business interest may be deducted under either the interest deduction or the general business expense deduction).
97. See generally KAHN, supra note 29, at 110-16.
D. A Deduction Too Far: Credit Cards and Consumer Interest Deductions, 1970-1986

In the early post-war period non-mortgage consumer credit was also on the rise. As Professor Ryan and her coauthors observe:

After the war, government policies and initiatives fostered new highway construction, federally insured home mortgages, and liberal land-use planning. New roads and new suburbs created a commuter culture that drove demand for automobiles. New houses required furniture and appliances. Furthermore, after the war, and coming off of savings rates as high as 26 percent, people were ready to begin spending again. Between 1941 and 1961, annual consumer spending for housing and cars more than tripled, from $718 to $2,513 per household in constant dollars. To buy these goods, many households relied on credit. By 1949, 49 percent of new cars, 54 percent of used cars, 54 percent of refrigerators, and 46 percent of televisions were being sold on credit.99

Professor Lendol Calder describes the 1950s as the consumer credit market’s “lively adolescence,” arguing that “[i]n this period, a number of trends (such as the Baby Boom, suburbanization, and the entry of more women into the work force) combined to make more consumers more willing than ever before to use credit for household consumption.”100 The largest portion of the personal debt growth in the 1950s and 1960s came from automobile loans, though retail and distributor credit cards101 were also on the rise.102 Bank-style credit cards103 would also emerge in the mid-1960s with the rise of Master Charge and Bank Americard (later MasterCard and Visa, respectively).104 But, despite its rapid rise, in the 1950s and 60s, consumer credit did not reach the stunning growth rate or high levels of outstanding debt of mortgage debt, and deductions of

101. Retail and distributor credit cards are those issued by someone whose primary business is the sale of other goods or services and which can only be used to purchase the issuer’s goods or services. Thomas A. Durkin, Credit Cards: Use and Consumer Attitudes, 1970-2000, Fed. Reserve Bulletin 623, 624 (Sept. 2000).
102. Myers, supra note 58, at 388.
103. Bank-style credit cards, also referred to as universal cards, are those issued by a third party financial institution, generally a bank or savings and loan, and may be used to make purchases with a wide variety of vendors. See Durkin, supra note 101, at 624.
consumer credit interest did not appear to have a major effect on the tax code.\textsuperscript{105}

By 1970, the consumer credit landscape was changing as a result of the new breakneck growth of universal credit cards. In the late 1960s, Master Charge and Bank Americard engaged in an enormous campaign of mass mailing unsolicited credit cards to potential customers.\textsuperscript{106} As a result, these two dominant credit providers had put their cards into the wallets of forty-four million Americans, thus establishing a large base of cardholders.\textsuperscript{107} Moreover, this base would expand throughout the 1970s as the number of universal credit cards in circulation more than doubled and charge volume on these cards increased by fourteen hundred percent.\textsuperscript{108} Bank style credit cards were 7.3\% of the credit card market in 1967, but grew at an average rate of 28.7\% per year, reaching a share of 38.4\% of the market in 1977.\textsuperscript{109} Technological innovations throughout the 1970s—such as normalized credit scoring with FICO, automated clearing house debits, automated teller machines, and point of sale systems for electronic payment processing—accelerated the credit card explosion by allowing debt issuers to more easily record and process loans and by making credit cards an even more convenient choice for consumers.\textsuperscript{110} Government deregulation also contributed to growth of the consumer credit market as states raced to have the most permissive credit terms to attract national lenders.\textsuperscript{111}

Crucially, the rise of bank-style credit cards coincided with the rapid growth of revolving credit in the United States during the 1970s and early 1980s.\textsuperscript{112} Revolving credit—credit lines that are extended indefinitely without a set repayment schedule or fixed numbers of payments—allowed consumers to carry tremendous debt burdens and make only interest payments.\textsuperscript{113} These interest payments were

\textsuperscript{105} See BD. OF GOVERNORS OF FED. RESERVE SYS., supra note 100, at 5.
\textsuperscript{106} MANDELL, supra note 104, at 33-37.
\textsuperscript{107} Ryan et al., supra note 98, at 474.
\textsuperscript{108} MANDELL, supra note 104, at 34.
\textsuperscript{109} Gillian Garcia, Credit Cards: An Interdisciplinary Survey, 6 J. CONSUMER RES. 327, 327 (1980).
\textsuperscript{110} Ryan et al., supra note 98, at 465.
\textsuperscript{111} Id. at 489.
\textsuperscript{112} Durkin, supra note 101, at 624; see also Dean M. Maki, The Growth of Consumer Credit and the Household Debt Service Burden, in THE IMPACT OF PUBLIC POLICY ON CONSUMER CREDIT 43, 45 (Thomas A. Durkin & Michael E. Staten eds., 2002); BD. OF GOVERNORS OF FED. RESERVE SYS., supra note 128, at 5.
\textsuperscript{113} Durkin, supra note 128, at 624-25 (Sept. 2000); BD. OF GOVERNORS OF THE FED. RESERVE SYS., supra note 100, at 4-5.
substantial as interest rates on credit card were often 18% of principle.\textsuperscript{114} And, as with business interest and mortgage interest, which were also continuing to grow at this time, consumer credit interest was fully deductible under the interest deduction.\textsuperscript{115} Just as residential mortgage holders had embraced the interest deduction previously, credit card debtors quickly learned that they could afford to maintain massive debts with credit card companies if they could deduct their interest payments from their taxable income.\textsuperscript{116} The role of the interest deduction in the American market was once again expanding past its original purpose.

Business interest deductions are a natural and necessary part of an income tax.\textsuperscript{117} Mortgage interest deductions may be defended, at least rhetorically, as a measure to encourage homeownership.\textsuperscript{118} But when the federal government started subsidizing credit card companies by forgoing large amounts of revenue to this new use of the interest deduction, something had gone terribly wrong. Congress could not approve of this new face for an old tax provision. More to the point, in the late 1970s and early 1980s interest deductions from Americans’ mounting revolving debt burdens and their growing mortgage debts were starting to seriously impede the income tax’s ability to produce revenue.\textsuperscript{119} By the early 1980s, tax reformers were calling for corrections to this and other corruptions of the Code.\textsuperscript{120}

\textbf{E. The Reckoning: The Interest Deduction and the Tax Reform Act of 1986}

In 1970, taxpayers used the interest deduction to deduct 3.78\% of their adjusted gross income.\textsuperscript{121} In 1975 and 1980, this number increased to 4.1\% and 5.65\%, respectively.\textsuperscript{122} By 1985, it had ballooned to 7.81\%.

\begin{itemize}
  \item \textsuperscript{115}  See Ryan et al, supra note 98, at 493.
  \item \textsuperscript{116}  Id.
  \item \textsuperscript{117}  See TODER, supra note 38, at 1.
  \item \textsuperscript{118}  KAHN, supra note 29, at 113-14.
  \item \textsuperscript{119}  Susan E. Woodward & John C. Weicher, \textit{Goring the Wrong Ox: A Defense of the Mortgage Interest Deduction}, 42 NAT’L TAX J. 301, 301 (1989).
  \item \textsuperscript{122}  Id.
\end{itemize}
as the outmoded and burgeoning interest deduction threatened to seriously erode the tax base.\footnote{123} And it was not alone. Tax credits for campaign contributions, coal royalties, and exploration for minerals and oil, as well as deductions for state taxes, medical expenses, adoption costs, and others contributed to creating an increasingly porous tax base in the late 1970s and early 1980s.\footnote{124} Congress employed high rates to collect revenue from this “swiss-cheese” base,\footnote{125} but the government’s take from the income tax was increasingly falling behind spending.\footnote{126}

In 1983, the Congressional Budget Office (“CBO”) submitted its annual Report to the Senate and House Committees on Budget.\footnote{127} This report spoke in stark terms of the government’s growing budget deficit and identified insufficient revenues as part of the cause.\footnote{128} The report indicated that revenue shortfalls could not be made up with simple rate adjustments, but instead suggested many large-scale revenue increasing strategies, several of which included limiting or eliminating the general interest deduction.\footnote{129} By 1984, President Reagan was ready to make comprehensive tax reform a legislative centerpiece for his second term.\footnote{130} In his State of the Union address, Reagan observed the need for broad tax reform, saying “[t]o talk of meeting the present situation by increasing taxes is a Band-Aid solution which does nothing to cure an illness that’s been coming on for half a century. . . . There’s a better way.”\footnote{131} He continued, “[l]et us go forward with [a] historic reform for fairness, simplicity, and incentives for growth. . . . And I believe such a plan could . . . make the tax base broader, so personal tax rates could come down, not go up.”\footnote{132} Though perhaps a bit reluctantly, Congress generally heeded this call and worked to enact comprehensive tax reform based on eliminating special tax expenditures, broadening the base, and lowering tax rates.\footnote{133}

\footnote{123} Id.
\footnote{124} Pechman, supra note 120, at 14.
\footnote{125} Ventry, Jr., supra note 98, at 253.
\footnote{127} CONG. BUDGET OFFICE, supra note 94.
\footnote{128} Id. at 15-17.
\footnote{129} Id. at 231.
\footnote{130} Pechman, supra note 120, at 16.
\footnote{132} Id.
\footnote{133} See JEFFREY BIRNBAUM & ALAN MURRAY, SHOWDOWN AT GUCCI GULCH (1988). Birnbaum and Murray offer a brilliant account of the political sausage making that embroiled Congress from 1984 to 1986 as they worked to churn out the Tax Reform Act of 1986. Id.
Where would reform put the interest deduction? One possibility may have been to leave the deduction untouched, but its erosion of the tax base was a real problem that could not go unaddressed. The CBO suggested capping the amount of interest a taxpayer could deduct, without regard to the source of the interest. The Treasury Department proposed indexing certain interest payments to the inflation rate and creating a fractional exclusion rate that would allow taxpayers to only deduct interest based on that index. And some commentators suggested simply eliminating the deduction altogether. But the interest deduction had powerful friends, especially for those using it to deduct mortgage interest. Homebuilders, homeowners, and realtors vociferously protested against the possibility of Americans losing their right to deduct home mortgage interest and threatened dire political consequences to reformers who disrupted this deduction. President Reagan was quick to feel the political winds, and within months of calling for fundamental tax reform he guaranteed protection for the home mortgage portion of the interest deduction. In May 1984, President Reagan addressed the National Association of Realtors:

At that time, I was trying to emphasize that the Treasury Department’s study of ways to simplify and reform the tax code, which I consider a real priority, is supposed to look at every aspect of the tax structure. However, in saying that, I also stressed that I strongly agreed with the home mortgage interest deduction, which is so vital to millions of hard-working Americans. And in case there’s still any doubt, I want you to know we will preserve that part of the American dream.

In the next two years, Congress would pass and President Reagan would sign the Tax Reform Act of 1986, the most significant and

135. CONG. BUDGET OFFICE, supra note 94, at 284.
137. See generally Pechman, supra note 120, at 21-22.
139. BIRNBAUM & MURRAY, supra note 133, at 57; McLure & Zodrow, supra note 138, at 45-46.
140. BIRNBAUM & MURRAY, supra note 133, at 57; McLure & Zodrow, supra note 138, at 45-46.
comprehensive tax reform act since the income tax was enacted. The story of the interest deduction in the Tax Reform Act of 1986 is the story of reconciling an outdated, overly broad tax provision with three distinct groups that had come to rely on it over time. The first group, those who deducted business interest and whose use fit with a theoretically correct understanding of the income tax, were the originally intended beneficiaries when the provision was passed in 1913. But by 1986, the interest deduction was no longer for this group, as it had been long determined that even if there were no interest deduction in the tax code, businesses could still deduct their interest under the general business expense deduction. The second group, individuals who deducted mortgage interest for their owner-occupied homes, were an unforeseen group when the provision was enacted, but their use of the deduction was quickly approved under the rationale of encouraging homeownership. The third group, holders of unsecured consumer debt, especially credit card debt, pushed the once minor deduction too far. In its final judgment, Congress blessed the second group and cursed the third. Under Section 511 of the Tax Reform Act of 1986, the deduction of interest on unsecured consumer debt was phased out over several years and then completely eliminated, but the deduction of interest on home mortgages and other loans secured on the home, such as home equity loans, continued to be allowed.

The Tax Reform Act of 1986 is important to the story of the interest deduction because it provides a knowable, observable, and measurable turning point in the life of the deduction. In the years prior to the Act, the interest deduction likely affected American mortgage consumption patterns. But, the early interest deduction was just one of a tangle of considerations that influenced the mortgage market and affected borrowers’ debt consumption patterns. Moreover, since the interest deduction preceded the rise of the widespread American mortgage market, scholars have never been able to compare a market without the deduction to one with it, or observe the effects of introducing the deduction as a new variable to the market. The Tax Reform Act of 1986

143. Pechman, supra note 120, at 11.
144. See Toder, supra note 38, at 1.
146. See generally Kahn, supra note 29, at 110-16.
is a turning point because it refined and entrenched the interest deduction. The Act refined the deduction by eliminating its application to consumer interest and confirmed it as a tool to encourage homeownership and mortgage consumption. The Act entrenched the deduction as it promised—both implicitly and explicitly—that the new mortgage interest deduction would survive into the future and that homeowners could rely on it when making mortgage consumption decisions. These changes combined to make the Act an important turning point in the life of the interest deduction and one that, if properly observed, can offer insights into the larger role of the mortgage interest deduction in the mortgage market.

The Tax Reform Act of 1986 had far reaching effects. One of the most straightforward was to stem the interest deduction’s erosion of the tax base. As the prohibition against deducting consumer credit interest phased in, the amount of adjusted gross income lost to the interest deduction dropped, eventually stabilizing near 5%. Table 1 shows the interest deduction’s rise and decline from 1970 to 2000:

Table 1: Amount of Interest Deduction as a Percent of Adjusted Gross Income

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<td></td>
<td>3.78%</td>
<td>4.1%</td>
<td>5.65%</td>
<td>7.81%</td>
<td>6.12%</td>
<td>5.13%</td>
<td>5.07%</td>
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Pinning down the other economic effects of the Tax Reform Act of 1986 may be somewhat more challenging. The change to the interest deduction was bound to have an impact on the American mortgage markets. But this change was indirect and tracking its effects requires more than just a cursory glance at the market. The next section is

149. Pechman, supra note 120, at 17-19.
150. Id. at 18.
devoted to an in-depth analysis of the effects the Tax Reform Act of 1986 may have had on the American mortgage market.

III. ANALYSIS OF AMERICAN MORTGAGE MARKET AND THE TAX REFORM ACT OF 1986

A. A Few Words on Methodology, Sources, and Causation

This section offers a very simple before-and-after comparative analysis of the effects the Tax Reform Act of 1986’s (hereinafter “the Act”) refinement and entrenchment of the mortgage interest deduction may have had on the American mortgage market. In the pages following, this article considers many pieces of data taken from several sources that show the movement and trends of different aspects of the American mortgage market. To eliminate distortive effects of inflation and prevent errors from continually converting actual dollars into constant dollars, the data considered is generally indexed to commonly measured values in the United States, such as Gross Domestic Product (“GDP”) and housing value.

This analysis will focus on two potential turning points for when the changes to the mortgage interest deduction may have altered mortgage debt consumption patterns. First, 1984 is highlighted as the year when President Reagan promised that the mortgage interest deduction would be preserved in the new tax system and assured its continuation in the future, coinciding with the entrenchment of the deduction. Second, 1987 is highlighted as the first year that the Act went into effect, and effectively refining the deduction. On each time series graph in this section there are two vertical lines, one at 1984 and one at 1987, representing these two possible turning points in mortgage debt consumption patterns.

There have been several articles analyzing the effects of the Act on the American housing and mortgage market using sophisticated econometric tools. Examples include Poterba (1992), Follain and Dunsky (1997), and Hendershott and Pryce (2006), each of which develop econometric models to account for specific aspects of the mortgage interest deduction’s effects on the market. This article is

purposely intended to have a much simpler, more intuitive examination of the historical data without trying to impose a model or regression on the numbers. Therefore, while future efforts may develop econometric models based on the work here, this article intentionally does not include such devices.

The data in this section comes from several different sources. The usual suspects are well represented: the Federal Reserve Board provides statistics of the flow of wealth and debt,\textsuperscript{156} the Bureau of the Census tracks various homeownership statistics,\textsuperscript{157} the General Accounting Office offers a thorough study of home equity debt,\textsuperscript{158} and the Bureau of Economic Analysis publishes estimates of historic GDP. But these sources have their holes. For example, the Census Bureau’s American Housing Survey contains a wealth of information on trends in the housing and mortgage markets, but the Survey only started in 1985 and its data is not statistically comparable to the data of its forerunner, the Annual Housing Survey.\textsuperscript{159} To shore up these holes, this analysis turns to the Panel Study of Income Dynamics (“PSID”).\textsuperscript{160} The PSID is an on-going, longitudinal panel survey on American household socioeconomic dynamics run by faculty of the Institute for Social Research at the University of Michigan.\textsuperscript{161} The PSID is free to access, well organized, reliable, and forms the data cornerstone of Hilber and Turner’s recent analysis.\textsuperscript{162} As the PSID contains valuable household mortgage data from 1968 to 2009 (though admittedly with a few holes as well), it provides the perfect supplement to other, less congruous, data

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{158} National Economic Accounts: Current Dollar and “Real” GDP, BUREAU OF ECONOMIC ANALYSIS, http://www.bea.gov/national/index.htm#gdp (last visited Mar. 3, 2013) [hereinafter Current Dollar and “Real” GDP].
\item \textsuperscript{160} The Panel Study of Income Dynamics -PSID - is the longest running longitudinal household survey in the world, PANEL STUDY OF INCOME DYNAMICS, http://psidonline.isr.umich.edu/ (last visited Jan. 5, 2013) [hereinafter Panel Study of Income Dynamics].
\item \textsuperscript{161} Id.
\item \textsuperscript{162} Hilber & Turner, supra note 20 at 19.
\end{itemize}
\end{footnotesize}
What the data may show is a correlation between the Act and substantial changes in the mortgage market. But dating back at least as far as David Hume, it has been well understood that showing correlation does not prove causation. Moreover, the mortgage market is highly complex. Each mortgage borrower must consider numerous different factors when deciding whether to take out a mortgage and what amount to borrow. And the American mortgage market as a whole is made of millions of different borrowers working through these numerous considerations individually and often arriving at different outcomes. The tax treatment of mortgage debt is just one of manifold factors in the decision calculus, and for many borrowers it may be insignificant. It remains a possibility that the Act had no impact on the mortgage market at all and that any changes in the mortgage market that correlate with the Act are entirely coincidental.

However, some qualitative evidence may serve to better link changes in the mortgage market to the changes to the interest deduction. The fact is that the tax benefits of mortgages were well known and well circulated as a selling point of mortgages at the time of the Act. Lenders were aggressively advertising the tax benefits of mortgage loans. For instance, in 1987, Chase Manhattan Bank sent a mass mailing to New York residents promoting its line of home equity loans and advertising their tax benefits. Moreover, the media also advertised the effects of the Act to the public by running articles describing financial strategies based around tax favored mortgages, hosting roundtables for tax experts to offer their mortgage advice and services, and offering

168. Robert A. Bennett, Consumer Spending: Fears and Reassurances; the Pitfalls of a Second Mortgage, N.Y. TIMES, May 17, 1987, at 45; see also Wendy Swallow, Equity Loan Competition Intensifies; Area Lenders Offering New Rates and Incentives to Borrowers, WASHINGTON POST, Mar. 14, 1987, at E1 (describing a boom in home equity loans and arguing, “The reason for the boom, lenders said, is the series of tax changes adopted by Congress last fall”).
question-and-answer forums for their readers. Based on this, scholars at the time predicted the Act would have some impact on the mortgage market. For instance, Manchester and Poterba observed in 1988, “restrictions on the tax-deductibility of non-mortgage interest payments contained in the 1986 Tax Reform Act are likely to spur continued growth of second mortgage borrowing.” This evidence suggests that mortgage borrowing and its tax advantages with the mortgage interest deduction were tightly linked in the American consciousness at the time of the Act.


Comparing total mortgage debt to GDP over time provides a broad view of the mortgage market from which to begin this analysis. Figure 3 shows this measure:

**Figure 3: Total Outstanding Mortgage Debt as a Percent of GDP**

![Figure 3: Total Outstanding Mortgage Debt as a Percent of GDP](image-url)

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The trend of America’s mortgage debt relative to GDP for the past fifty years has been marked with alternating periods of stability and growth, with substantial decline occurring only in the years following the start of the mortgage crisis in 2008.\textsuperscript{174} As Figure 3 demonstrates, throughout most of the 1960s and 1970s, the mortgage debt held steady at around 30% of GDP, increasing modestly and stabilizing just below 35% in the late 1970s and early 1980s.\textsuperscript{175} Starting in 1984, and continuing throughout the rest of the 1980s and into the 1990s, this proportion grew noticeably, until it plateaued just above 45%.\textsuperscript{176} The growth of the late 1980s gave way to stability in the 1990s, followed by greatly exaggerated growth in the early 2000s.\textsuperscript{177} This is a pattern that will be repeated, with varying degrees of definition, in much of the data.

The data tends to show that 1984 is a turning point that coincides with the start of dramatic growth in the mortgage market.\textsuperscript{178} Hereinafter this period of growth between 1984 and 1991 shall be referred to as the “1980s mortgage debt growth.” A period comparison may help to capture a sense of this growth. From 1977 to 1984, mortgage debt to GDP increased a total of 2.87 percentage points at an average rate of 0.41 percentage points per year, while from 1984 to 1991 the ratio increased a total of 12.25 percentage points at an average rate of 1.75 percentage points per year.\textsuperscript{179} Again, this does not prove that the tax reform efforts caused this shift in the mortgage market, however, there is enough information present to observe that President Reagan’s promise to preserve the mortgage interest deduction coincided with a marked increase in mortgage debt consumption as a proportion of GDP.

How was this increasing mortgage debt divided among homeowners? Figure 4 shows the percent of homeowners with at least one mortgage outstanding:

\textsuperscript{174} \textsuperscript{175} \textsuperscript{176} \textsuperscript{177} \textsuperscript{178} \textsuperscript{179}
Figure 4: Percent of Homeowners with at Least One Mortgage\textsuperscript{180}

Clearly, 1984 and 1987 provide no substantial turning point in this data. The pattern here differs from the pattern of mortgage debt to GDP above as the proportion of homeowners with at least one mortgage holds steady throughout the 1980s, makes a substantial dip in the early 1990s, and then climbs sharply upwards in the late 1990s and early 2000s.\textsuperscript{181} This data tends to show that the 1980s mortgage debt growth was not matched by an increase in the number of people holding mortgage debt.\textsuperscript{182} Moreover, there was not a surge of new homeownership during this period that may disrupt the proportions shown in this data.\textsuperscript{183} Instead, the homeownership rate held steady, staying between 63.49% in 1985 and 64.66% in 1993.\textsuperscript{184} Whatever effect the Act had on the increase of mortgage debt generally, it did not cause a general rush of entrants into the mortgage market.

\textsuperscript{180} Panel Study of Income Dynamics, supra note 160.  
\textsuperscript{181} Id.  
\textsuperscript{182} Id.  
\textsuperscript{183} Id.  
This leads to an important observation: as mortgage debt increased while the homeownership rate and proportion of homeowners with mortgages held steady, the amount of debt per mortgage holder increased. In other words, mortgage debt became more concentrated in the hands of those who participated in the mortgage market, rather than spread amongst even more participants. This may suggest either that new entrants who were joining the mortgage market were taking out increasing amounts of first mortgage debt to purchase their homes, or existing mortgage holders were taking out more debt (or maintaining more existing debt) against their homes. As the following data show, both seem to be true.

First, new homeowners were borrowing increasing amounts with their first mortgages in the late 1980s. The standard method of determining the amount of mortgage debt a homeowner acquires with a first mortgage is the “loan-to-value” metric, which measures the first mortgage debt as a percent of the purchased home’s value. Figure 5 shows this measure for years 1985 to 2009.

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This data show a sharp upward trend throughout the 1980s and early 1990s. The measure moves from below 50% to over 60% from 1985 to 1993, before leveling out between 55% and 60% in the rest of the 1990s and early 2000s. This corresponds to the pattern seen in the mortgage to GDP data with the 1980s mortgage debt growth, followed by a leveling off through the 1990s. Unfortunately, as lamented above, the American Housing Survey, from which this data come, began collecting data in 1985 and its results are not comparable with the

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187. Id.
188. Id.
forerunning Annual Housing Survey.\textsuperscript{190} This lack of prior data prevents observation of how the trend in the late 1980s may have differed from what came before.\textsuperscript{191} Regardless of when it started, this increase in first mortgage value accounts for at least part of the 1980s mortgage debt increase that coincided with and followed the Act.

Second, home equity debt\textsuperscript{192} was also on the rise in the 1980s, in both dollar amounts and relative share of the consumer credit market. In 1981, there was $60 billion in home equity debt outstanding, making up 2.9\% of all consumer credit; in 1986 there was $221 billion outstanding, making up 8.0\% of all consumer credit; and in 1991 there was $357 billion outstanding, making up 9.8\% of all consumer credit.\textsuperscript{193} Of this increase, the highest growth rates—often above 100\% increases over prior years—occurred in the early 1980s, before the advent of the Act.\textsuperscript{194} These growth rates dropped off substantially in 1987 and slowed further thereafter.\textsuperscript{195} But these numbers may be misleading. As the Government Accounting Office explains, “[a]lthough the annual growth rates were much higher prior to the tax code changes of 1986 and 1987, these [tax] changes may have further increased the use of such financing because the growth rate probably would have been lower in their absence.”\textsuperscript{196} In addition to growth rates it is also important to consider total levels of debt in the market. Figure 6 shows the number of lines of home equity credit added by year of line origination.

\begin{itemize}
\item[190.] See Panel Study of Income Dynamics, \textit{supra} note 160.
\item[191.] Some research indicates that the upward trend may have started as early as 1981. See Jonathan Skinner, \textit{Housing and Saving in the United States, in HOUSING MARKETS IN THE U.S. AND JAPAN}, 191, 194-95 (Yukio Noguchi and James Poterba eds., 1991) (but arguing also, “[s]ome part of the increase was caused by the relatively tax-favored status of housing mortgages following the Tax Reform Act of 1986”).
\item[192.] The terms “home equity loan” and “second mortgage” are synonyms and will be used here interchangeably. See U.S. \textit{GENERAL ACCOUNTING OFFICE, supra} note 189, at 20.
\item[193.] U.S. \textit{GENERAL ACCOUNTING OFFICE, supra} note 189, at 12-14.
\item[194.] \textit{Id.} at 8.
\item[195.] \textit{Id.}
\item[196.] \textit{Id.}
\end{itemize}
Though home equity lending may have higher growth rates in the early 1980s, it reached astoundingly high levels later in the decade. The study from which this data is collected confirms, “[m]ost outstanding home equity lines of credit were originated after 1987.” And as most home equity debt was carried for several years, each new line of home equity credit added to the growing total home equity debt.

Also, unlike the distribution of general mortgage debt considered above in Figure 4, the growth of home equity debt also may have become more widespread following the Act. Figure 6 shows this diffusion of second mortgages among homeowners who already have at least one mortgage.

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198. BUREAU OF THE CENSUS, Home Equity Lines of Credit: A Look at People who Obtain Them, in STATISTICAL BRIEF (June 1995); see also Manchester & Poterba, supra note 172, at 325-26.
As the data show, distribution of second mortgages among homeowners with first mortgages holds steady just above 10% starting in 1983, but then surges upwards in the late 1980s, topping out just above 14% in 1992. It seems 1987 may be a turning point in this growth. From 1983 to 1987 this measure of mortgage distribution grew by a total of 0.12 percentage points, while from 1987 to 1992 this measure surged by 3.75 percentage points at an average rate of 0.75 percentage points per year and added nearly 35% additional second mortgage holders to the market. Importantly, this data does not show a true spreading of the mortgage market to include more participants. Instead, this increase only represents a surge of new debt for homeowners who already hold debt and were simply taking out more debt. The data in Figure 6 also keeps with the general pattern of mortgage debt as the surge generally coincides with the 1980s mortgage debt growth, and the fall off in the period 1993 to 1999 matches the

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200. *Id.*
201. *Id.*
202. *Id.*
203. *Id.*
leveling off of the mortgage debt to GDP in the 1990s, with growth again in the 2000s.\footnote{204}

With new homeowners taking out increasingly high loan-to-value first mortgages and existing homeowners increasingly borrowing more in home equity debt, the 1980s mortgage debt growth is marked by homeowners generally raising their total debt leverage against their home values. Figure 8 demonstrates this point:

**Figure 8:** Remaining Principle of all Mortgages as a Percent of Home Value\footnote{205}

This PSID dataset is similar to the loan-to-value measure from the American Housing Survey, except that it tracks the remaining principle of all mortgages (not just first mortgages) relative to housing value.\footnote{206} The data show that homeowners were indeed increasingly leveraged against their home values throughout the 1980s mortgage growth, but also that neither 1984 nor 1987 appear as a turning point in this trend.\footnote{207} Rather this trend seems to start closer to 1981.\footnote{208} While changes to the interest deduction could not have caused this increased leveraging, the

\footnotesize
\begin{align*}
204. & \text{Id.} \\
205. & \text{Id.} \\
206. & \text{Id.} \\
207. & \text{Id.} \\
208. & \text{Skinner, supra note 191, at 194.}
\end{align*}
Act may have maintained, or even accelerated, this increasing debt leverage through the end of the 1980s and into the 1990s. How would the Act maintain or accelerate pre-existing growth in the mortgage market?

The best answer seems to be that the Act sharply altered consumer choices between general consumer debt and home equity financing. Professor Canner and his co-authors explain:

Although households have used home equity loans for many years, their appeal for homeowners was heightened by the Tax Reform Act of 1986, which mandated the phaseout of federal income tax deductions for interest paid on nonmortgage consumer debt. With this change in tax law, mortgage debt (on which the interest remained tax deductible) became more attractive to consumers for funding expenditures that previously were financed through auto loans, credit cards, or personal cash loans.

A simple calculation can show in real terms why home equity financing was more attractive than general consumer credit financing. In the following income computation, all variables, except for the type of interest payment and their corresponding tax deductibility, have been assumed away: gross income is held equal at $100,000, gross income is equal to adjusted gross income, there is no personal exemption, the tax rate is flat at 28%, and only an itemized deduction for mortgage interest paid is available. The following demonstrates the difference of tax deductibility when considering financing type:


210. See, e.g., Canner et al., supra note 172.

211. Id. at 242; see also Todd Zywicki & Joseph D. Adamson, The Law and Economics of Subprime Lending, 80 U. COL. L. REV. 1, 6 (2009) (arguing “This change to the tax code made mortgage debt more attractive than other forms of consumer debt, thereby increasing demand for homeownership and refinancing mortgages, as well as amplifying incentives for homeowners to borrow against the wealth in their homes through home equity loans or refinancing”).

212. This removes the above-the-line deductions available under IRC § 62(a).
As the calculation shows, the taxpayer who finances with a home equity loan, and is thus able to deduct the interest payments, has significant tax savings over the taxpayer who cannot deduct interest. This saving endures, even when other complexities of the Code are added back into the calculations.

Based on this, Americans had a strong incentive to abandon standard consumer financing and substitute home equity debt. The data suggests that in the years after the Act, consumers followed this incentive. Figure 9 compares the annual growth rates of mortgage debt and consumer debt:

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Figure 9: Annual Mortgage Debt Growth and Consumer Debt Growth

Prior to 1986, except for possible outliers in 1980 and 1984, consumer debt growth and mortgage debt growth trended strongly together, typically growing within two percentage points of each other.216 There is a turning point in 1986 or 1987,217 when consumer debt growth drops off relative to mortgage debt growth and stays consistently lower until 1993. Analysts have generally attributed this rise of mortgage debt relative to consumer debt to the Act.218 For instance, Maki observes, “[t]he data . . . hint strongly that the change in tax law may have induced households to substitute mortgage debt for consumer debt . . . ”219 Bartlett opines more directly that in response to the Act, “households simply converted their household debt into mortgage debt through home equity loans.”220

The trend of home equity debt growth relative to consumer debt is

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215. Id.
216. Id.
217. Maki, Household Debt, supra note 265, at 306 (arguing that “[q]uarterly data indicate that consumer debt fell off sharply in the fourth quarter of 1986 when [the Tax Reform Act of 1986] was signed into law, so even the 1986 falloff may be related to [the Tax Reform Act of 1986]”).
218. See, e.g. id.; Bartlett, supra note 4.
220. Bartlett, supra note 4, at 360
again broadly consistent with the general trend of mortgage debt patterns observed throughout this analysis: growth in the late 1980s, stability in the 1990s, and fast growth in the early 2000s. In this case, mortgage debt growth was consistently higher than consumer debt growth from 1986 to 1993, mortgage growth flattened off and consumer debt growth resurged in the mid-1990s, and mortgage debt once again grew quickly, noticeably faster than consumer debt growth, starting in 2001.221

This brings up an important final observation. While the Act may account for maintaining, accelerating, or perhaps even causing the mortgage debt growth of the 1980s, it is far less able to adequately explain the leveling off of mortgage debt in the mid-1990s and the return to mortgage debt growth in the early 2000s.222 Intervening causes, beyond the scope of this article, likely account for these subsequent shifts in the market. Therefore, whatever market-altering the Act had was temporary. After an initial period, the benefits of the interest deduction faded into the complex mix of considerations that consumers must weigh as they decide on their mortgage debt consumption. The mortgage interest deduction is important, but it became just another part of the calculus.

IV. CONCLUSION

For as long as there has been an individual income tax in the twentieth century there has been a deduction through which homeowners could deduct mortgage interest. But early on, this deduction, which was primarily used by businesses, had no discernible impact on the mortgage market as average Americans were not subject to the income tax and thus had no reason to take notice. Following World War II, the pattern changed, and soon millions of Americans were paying mortgages, filing tax returns, and deducting mortgage interest. But with the introduction of the G.I. Bill of Rights, the Veterans Administration mortgage insurance program, and the reinvigoration of Depression-era housing initiatives, there were too many variables changing all at once to determine exactly what effect the interest deduction had on the expanding mortgage market. All that can be said with certainty is that the deduction fit into the government’s general system of encouraging homeownership.

The growth of consumer debt during the 1970s further obscured the picture. During this time the debt market landscape was muddled by

221. Flow of Funds Accounts, supra note 156.
222. See id.
constant, rapid changes in consumer credit patterns, especially with the rise of the bank-style credit card industry. In that period, the interest deduction played a role in encouraging Americans to consume more debt generally, but it is not clear that the deduction affected mortgage consumption patterns specifically.

A moment of clarity for the interest deduction comes with the Tax Reform Act of 1986. This Act refined and entrenched the mortgage interest deduction. The refinement preserved the incentive for mortgage-based debt while casting off the incentive for all other consumer debt types. The entrenchment fortified the mortgage interest deduction as a sacred part of the tax code capable of surviving the biggest change to tax laws since their inception and continuing into posterity. This refinement and entrenchment created a simple message that was well communicated to the country: Mortgage debt shall be the only tax favored for Americans to borrow for years to come.

There is a strong case that the changes to the mortgage interest deduction in the Tax Reform Act of 1986 correlates with substantial increases in the amount of mortgage debt Americans consumed relative to GDP and housing value. This growth can be traced back to increases in both primary mortgage and home equity mortgage consumption, and though the growth may have started before the proposal or passage of the Act, there is reasonable evidence that the passage of the Act worked to maintain or accelerate it, especially by making home equity debt more attractive than standard consumer debt and encouraging consumer debtors switch. The caveat to this growth was that the 1980s mortgage debt growth resulted from a pattern of homeowners consuming more mortgage debt, not more people using mortgage debt to become homeowners. In concurrence with what many commentators have already observed, the mortgage interest deduction simply does not seem to affect homeownership rates.

Why would the changes to the mortgage interest deduction in the Tax Reform Act of 1986 correspond with an increase in mortgage consumption but not an increase in homeownership rates? The simple answer is that the refinement of the interest deduction into the mortgage interest deduction was enough to cause consumers to switch their mode of personal finance, but even the entrenchment of an already existing deduction was insufficient to alter Americans’ personal home buying calculations enough to push them into homeownership. A more elegant answer would be that though the mortgage market and the housing market are closely related and have tremendous overlap, they are not identical. The mortgage market and the housing market are distinct and
the government is targeting the wrong one with tax incentives. If the government wants to encourage homeownership, it should create an incentive within the housing market. It is not enough to incentivize consumption in a closely related, yet still distinct, market.

This article is not about the mortgage crisis of 2008, but it would be remiss if it did not comment on such an important and closely related topic. Pared down to its ultra-simplified core, the 2008 mortgage crisis was the consequence of Americans accruing more residential mortgage debt than they could sustain in the long term. As the unaffordability of this tremendous cumulative mortgage debt reached critical mass, the nation faced a wave of underwater properties, defaults, foreclosures, and an unprecedented loss of total marketable wealth in the United States.

As this article has shown, the refinement and entrenchment of the mortgage interest deduction in the Tax Reform Act of 1986 correlated with a substantial increase in mortgage debt consumption. Is it possible that the 1980s mortgage debt growth led directly to this unsustainable level of mortgage debt consumption? In other words, did the Tax Reform Act of 1986 and its changes to the mortgage interest deduction cause the 2008 mortgage crisis?

Probably not, at least not directly. The refinement and entrenchment of the mortgage interest deduction in the Tax Reform Act of 1986 did coincide with large gains in the mortgage debt relative to GDP and housing value. But whatever caused the 1980s mortgage debt growth, the 1990s generally acted as an intervening period of stability and relative moderation, before the breakneck growth of mortgage debt in the early 2000s. It is the stability of the 1990s that prevented the debt growth of the 1980s from being a straight line upward into the debt overgrowth and eventual meltdown of the 2000s. With such an intervening stability it can be confidently understood that the Tax Reform Act of 1980 did not directly cause the mortgage crisis of 2008.

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224. The crisis was exacerbated by the fact that many of these unaffordable mortgages were largely subprime—they were designed to be unaffordable and purposely marketed to people who could not afford them—and packaged as mortgage backed securities, which made them extremely hard to extricate, isolate, and write off. However the debt was structured, the central cause of the crisis remains that Americans consumed more mortgage debt than it could afford. See generally Sally Pittman, Arms but no Legs to Stand on: “Subprime” Solutions Plague the Subprime Mortgage Crisis, 40 TEX. TECH L. REV. 1089 (2008).

225. Refer to Figure 3, infra text accompanying note 222.

226. EDWARD V. MURPHY, CONG. RESEARCH SERV., RL33775, ALTERNATIVE MORTGAGES: CAUSES AND POLICY IMPLICATIONS OF TROUBLED MORTGAGE RESETS IN THE SUBPRIME AND ALT-
contributing factor in the crisis. Most likely it was. In the perfect storm of events that worked together to cause the mortgage crisis in 2008 the mortgage interest deduction was certainly pushing in the wrong direction, in favor of unsupportable mortgage debt. Considering this push towards mortgage consumption that does not correspond with an increase in homeownership, Congress should consider whether the mortgage interest deduction is a tax provision worth preserving, or an anachronism that’s purpose is lost in its history.

A MARKETS, 3 (Oct. 8, 2008).