The Taxpayer Relief Act of 1997 and the Housing Boom of the 21st Century

Pete H. Oppenheimer
University of North Georgia

The 1997 revision of §121 of the Internal Revenue Code allows taxpayers to exclude up to $500,000 of a gain from the resale of their personal residences. The author argues that the revision of §121 acted as a catalyst for the boom in the real estate markets. The unexpected code change eliminated the capital gain tax lock-in effect that inhibited real estate sales and gave preferential tax treatment to the real estate industries that may have shifted capital from other investments. Also, §121 provides an opportunity for real estate participants to convert taxable ordinary income into excludable capital gain income.

INTRODUCTION

On August 5, 1997, President Bill Clinton signed into law the Taxpayer Relief Act of 1997 (TRA-1997), (P.L. 105-34) that included a major revision to Internal Revenue Code (IRC) §121 that defines the treatment of a capital gain from the sale of a principal residence. Essentially, TRA-1997 modifications to IRC §121 allows a taxpayer, subject to moderate limitations and conditions, to exclude the gain from the sale of his or her primary residence from gross income. Prior to the passage of TRA-1997, avoiding a capital gain tax liability from the sale of a primary residence required a taxpayer to either rollover the capital gain from the resale of his or her residence into another residence of equal or greater cost, or if the taxpayer is age 55 or older, he or she could take a one-time exclusion of up to $125,000 of the capital gain from gross income. As a result of the IRC §121 modifications, taxpayers could capture tax free gains on their investments in primary residences every two years.

It is the premise of the author of this paper that the 1997 change in the tax treatment of a capital gain from the resale of a principal residence acted as a catalyst for the boom in residential real estate that began in 1997. First, the changes brought about by TRA-1997 acted as a tax shock to the real estate economy. The act which President Clinton signed on August 5, 1997 was retroactive to May 7, 1997. As discussed further in this paper, the unanticipated change in the tax code suddenly created an opportunity for homeowners to receive tax free the accumulated equity in their homes. Subsequently, residential sales began to sharply increase. Second, the tax code change motivated homeowners to increase their capital investment in their principal residences. Prior to TRA-1997, the tax code lowered the after tax cost of housing. However, the IRC §121 modifications further facilitated the after tax advantages of home ownership. Consequently, households overcapitalized into housing by buying larger and more expensive residences. In addition, the growth of the sub-prime mortgage market in the 2000's with its loose credit standards added fuel to the booming investor demand for residential real estate. Third, the TRA-1997 revision of IRC §121 made it possible to convert capital gain income or ordinary income into tax free income. Specifically, the modified IRC §121 assisted real estate investors and professionals to achieve tax free income from sweat equity or by converting rental property into a personal residence. Post TRA-1997, IRC §121 also led to relaxed reporting requirements for individuals selling a principal residence which may have helped individuals convert income since there is very little oversight by the IRS. Hence, the author argues that these factors resulting from the TRA-1997 changes of IRC §121 acted as a catalyst for the residential real estate market boom cycle.

Since a residential sale occurs in a private transaction between the seller and buyer no data set exists that contains requisite variables for an empirical analysis to establish a causal relationship between the changes in the tax laws from TRA-1997 and the residential real estate boom. Such a data set would need to not only include the seller's capital gain from a resale but also identify the seller and certain demographic variables such as age, sex, education, occupation, income, and location. Whereas the Case/Shiller index includes repeat sales of single family residences collected from recordings of sales at county courthouses, it does not include information on the sellers or buyers, which would be essential for examining sellers' characteristics and motivations. Nonetheless, despite the lack of a suitable empirical data set, the correlation between the enactment of the law and the surge in residential sales is noteworthy.

This paper is organized as follows: The next section contains a discussion of the history of taxing a gain from the resale of a principal residence. It includes references to previous IRC sections that impacted the treatment of a capital gain from selling a primary residence and a brief review of economic theory supporting excluding a capital gain from the resale of a principal residence from taxable income. Section three presents the current IRC §121 following the major revision from TRA-1997 and subsequent amendments. Also, it contains the IRS reporting and compliance procedures associated with reselling a primary residence. The fourth section presents the author's theory that the changes made to IRC §121 by the TRA of 1997 acted as a catalyst for the housing boom that ran from 1997 to 2006. In this section the author argues that the unanticipated change to IRC §121 was instrumental in the sharp increase in residential sales as taxpayers extracted tax free gains from their principal residences. Furthermore, the author contends that the IRC §121 change facilitated conversion of ordinary income into tax free income by real estate investors and professionals.

HISTORY OF TAXATION OF A CAPITAL GAIN FROM THE RESALE OF A PRINCIPAL RESIDENCE

It is well known that owner occupied housing receives many explicit and implied preferential tax treatments under the current IRC. For example, Lai (2003) lists several tax benefits of homeownership including the popular deductions for home mortgage interest and property taxes. Chatterjee (1996) provides an example of how under the current tax code, housing serves as a tax shelter regardless of the deductibility of mortgage interest rates. Another source of preferential tax treatment afforded to owner occupied housing is the capital gain from the resale of a taxpayer's principal residence.

Prior to 1997, taxpayers often elected to rollover the capital gain from selling an old residence into a new residence of equal or greater value. IRC §1034 (originally codified as §112(n)(1) of the 1939 IRC) enacted in 1951 provided taxpayers with a method for deferring taxes on capital gains from the resale of their residences provided they met certain conditions. To qualify, a taxpayer had a two year window beginning on the date of sale of his or her old residence to purchase a new residence of equal or greater value. The basis of the new residence would be decreased by the capital gain from the sale of the new residence. Provided the taxpayer adhered to these qualifications, the entire tax on the gain could be deferred. Congress (U.S. Congress, 1951) equated the need to sell a home from a change in employment with an involuntary conversion. Under this scenario, a homeowner/taxpayer would face a hardship from the tax liability caused by the capital gain from the resale. According to Auten and Gravelle (2009) and Gravelle and Jackson (2007) Congress enacted the rollover provision to facilitate labor mobility related to post-war growth and industrialization of the economy. However, as noted by Auten and Gravelle, the rollover provision caused distortions in a homeowner's purchasing decisions. Since, homeowners could not downsize their housing as family sizes decreased, the rollover provision often forced them to purchase larger and more expensive homes than needed

Also, before 1997, certain taxpayers had a second option to avoid paying taxes on the gains from reselling personal residences. The initial version of IRC §121 enacted in the Revenue Act of 1964 (P.L. 88-272) allowed a taxpayer that had attained age 65 to take a onetime exclusion of up to $20,000 of the gain from selling a principal residence from taxable income. After its introduction in 1964, several modifications were made to IRC §121 that included reducing the ownership and use periods for qualifying a principal residence, reducing the minimum eligible taxpayer age to 55, and increasing the excludible gain limit to $125,000.

In spite of the tax avoidance and deferral benefits of IRC §§ 121 and 1034, the rules received criticism for forcing homeowners to invest in unnecessarily larger houses than needed (CBO, 2000, p. 38), reducing the mobility of labor, and adding to the complexity of calculating the capital gains from reselling residences. Newman and Reschovsky (1987) study of elderly taxpayers' decisions to resell their principal residences supported this position. Results of their analyses indicated that the 1981 version of IRC §121 may have facilitated residential mobility for taxpayers age 55 to 64, but it did not play a significant role in encouraging taxpayers eligible for the one time exclusion to downgrade their housing to lower market value housing.

The pre-1997 versions of IRC §§ 121 and 1034 also burdened taxpayers with extensive record keeping in order to determine the basis of their old principal residence at the time of resale. A taxpayer would want to maximize the basis of their old residences in order to minimize the gain from the resale. This required a taxpayer to maintain meticulous records throughout his or her ownership of the house and to correctly distinguish between capital improvements, which increase the basis, and routine maintenance of the residence, which do not affect the basis.

CURRENT IRC §121 CODE PROVISIONS

Section 312 of the TRA-1997 created the current version of IRC §121. The revision repealed the rollover provisions of IRC §1034 (TRA-1997, §312(b)) and eliminated the one time exclusion of $125,000 of capital gain for taxpayers age 55 or older that existed in the previous versions of IRC §121 (TRA-1997, §312(a)). The new IRC §121 eliminates capital gain tax on up to $500,000 (IRC §121(b)(2)) of gain from the sale of a principal residence for joint filers ($250,000 for all other filers, IRC §121(b)(1)) provided the taxpayer meets an ownership and use tests (IRC §121(a)). A taxpayer may use the exclusion clause of IRC §121 every other year (IRC §121(b)(3)). Furthermore, IRC §6045(e), as amended by TRA-1997 §312(c), exempts taxpayers filing jointly from reporting the sale of a qualified principal residence (within the meaning of IRC §121) when the sale price is under $500,000 ($250,000 for all other filers).

Joint filers qualify for excluding up to $500,000 of capital gain from the resale of their residence based on the conditions contained in IRC §121(b)(2). Either spouse may meet the 2 year ownership requirement, but both spouses must meet the two year use requirement. In addition, neither spouse may have used the exemption in the past 2 years. Also, if only one spouse meets the ownership and use test, IRC §121(b)(2)(B) treats the taxpayers as single and provides for a limitation on the exclusion based on the sum of the exclusion that each would have as single filers (up to $250,000 each). For example, a newly married couple may decide after living together for a year in the wife's home that she owned and used for over two years as a principal residence, to sell the property. Since the wife meets the ownership and use tests, the joint filers may exclude up to $250,000 of the capital gain from the resale. Furthermore, if the husband qualifies for any of the partial exclusions provided in IRC §121(c)(2)(B), the husband's qualifying exclusion is added to the wife's $250,000 exclusion. Note, if either the husband or the wife used an IRC §121 exclusion in the last two years, the sale will not qualify.

Prior to the addition and enforcement of IRC §121(b)(5) in 2009 (P.L. 110-289), the changes made to IRC §121 by TRA-1997 contained a loophole that facilitated tax avoidance by residential real estate investors (Hardin, 2009). Initially, a taxpayer could convert rental property or a vacation home into his or her principal residence, and after meeting the two year use test, sell the residence and exclude the capital gain up to the limits in IRC §121(b). The change to the code section in 2009 defined the effect of nonqualified use of the residence on the taxpayer's ability to take full advantage of the upper exclusion limits. Presumably, Congress added this subparagraph to the section to distinguish the treatment of a gain from reselling a vacation home or a rental residence that had been converted into a principal residence from the case where a qualified principal residence had a nonqualified use after the taxpayer moved from the residence prior to the sale by the taxpayer.

In the case where the taxpayer converts rental property to his or her primary residence, part of the resale gain will be allocated to the nonqualified use based on a ratio of the aggregate nonqualified use divided by the period the taxpayer owned the property. For example, suppose George, a single filer, purchased a vacation home on January 1, 2009 for $200,000. Four years later, on January 1, 2013 George moved into the vacation home and established it as his primary residence. Over two years later, on January 2, 2015, George sold the home for $500,000, realizing a gain of $300,000. Although George had established the home as a qualified principal residence by meeting the ownership and use tests, four of the six years that George owned the residence constituted nonqualified use. Consequently, George must recognize $200,000 (4/6 x $300,000) of the $300,000 realized capital gain and may exclude the remaining $100,000 of capital gain using IRC §121.

In the second case, a taxpayer has a nonqualified use of the property after establishing it as a qualified principal residence by meeting the ownership and use test of IRC§121(a). This period of nonqualified use is exempted by IRC §121(b)(5)(C)(ii)(1). Consequently, if the taxpayer sells the house within three years of changing residences, he or she does not need to allocate any of the property's gain to the period of nonqualified use. By example, suppose on January 1, 2009, Sally, a single filer, purchased her primary residence for $200,000. On January 2, 2011, Sally purchased and moved into a new residence. Simultaneously, she converted her previous residence purchased in 2009 into rental property. Finally, on January 2, 2013 Sally sold the residence she purchased in 2009 for $350,000. Since all of Sally's nonqualified use of the 2009 residence occurred after she established it as her qualified principal residence, none of the realized $150,000 capital gain from the sale must be allocated to the period of nonqualified use. As a result, Sally can exempt the entire realized capital gain using IRC §121. Note, had Sally sold the residence after January 1, 2014, she would have lost the capital gain exclusion under IRC §121 because she had not used the property as a principal residence for an aggregate of 2 of the last 5 years before the sale. If Sally attempted to reestablish the property as a qualified principal residence, her ownership period between January 2, 2011 and January 1, 2014 would be re-characterized as nonqualified use and she would be forced to allocate and recognize part of any subsequent capital gain from a resale to this period of ownership.

In an IRC §1031 like-kind exchange, a taxpayer has an opportunity to convert a rental property into a qualified principal residence and on a subsequent resale exclude the gain under IRC §121. A safe harbor for a §1031 like-kind exchange of rental residences defined in Rev. Proc. 2008-16 requires a taxpayer to use the acquired residence as rental property for a minimum of 14 days a year for the two years following the exchange. After this period, the owner could move into the residence, establish it as his or her principal residence, and then sell the property after two years. Prior to 2005, the owner could take full advantage of the applicable IRC §121 exclusion of gain from the resale after meeting the two year use requirement. However, the passage of the American Jobs Creation Act of 2004, (P.L. 108-357) added IRC §121(d)(10) that requires a taxpayer to own the residence for a minimum of 5 years from the date of acquiring the property through the §1031 like-kind exchange in order to use the capital gain exclusion benefits of IRC §121. Furthermore, the addition of IRC §121(b)(5) discussed above requires the owner/taxpayer to allocate part of the property's gain to the two year period of nonqualified rental use. This part of the gain would be ineligible for exclusion using IRC §121. Other examples of the interactions between IRC §§ 121 and 1031 can be found in Koski (2010) and Schell (2006).

Based on the amendments to IRC §121, ex-post TRA-1997, Congress realized that the new IRC §121 provided many tax avoidance tactics for real estate owners. Specifically, the addition of §121(b)(5) made it much more difficult to exclude all of the gains from the sale of rental properties or vacation homes. Also, excluding all of the gain from a principal residence originally acquired through a §1031 like-kind exchange became more difficult after the addition of the 5 year ownership period specified in IRC §121(d)(10). Nonetheless, the following discussion of the lax self-reporting requirements of a sale of a principal residence under IRC §121 and associated IRC sections probably facilitates abuse of the capital gain exclusion by taxpayers.

Prior to enactment of TRA-1997, taxpayers reported the sale of a "main" residence using IRS form 2119. On the form, taxpayers computed gains from the resale of their residences based on its adjusted basis and costs of selling the residence. Next, taxpayers 55 years and older could opt to take the one-time exclusion that the earlier version of IRC §121 offered taxpayers. As an alternative, taxpayers that purchased a new residence of equal or higher value could choose to use IRC §1034 and rollover the resale gain into a new residence by reducing its basis. Any reportable gain on IRS form 2119 would be transferred to Schedule D of IRS form 1040. Also, IRC §6045 required the real estate reporting agent, usually the closing agent or attorney, to report the gross proceeds of the sale on IRS form 1099-S, which included the seller's taxpayer ID. Although required by law, because of the large difference between the number of taxpayers filing form 2119 and the number of residential sales reported by the National Association of Realtors in a given year, past researchers have assumed that a significant number of home sales went unreported (Crowe and Dubin, 1998; Gravelle and Jackson, 2007; Auten and Gravelle, 2009). The under reporting of sales pre-1997 may have resulted from taxpayer assumptions that the exclusion provision of IRC §121 or the rollover provision of §1034 exempted them from reporting the sale of their residences.

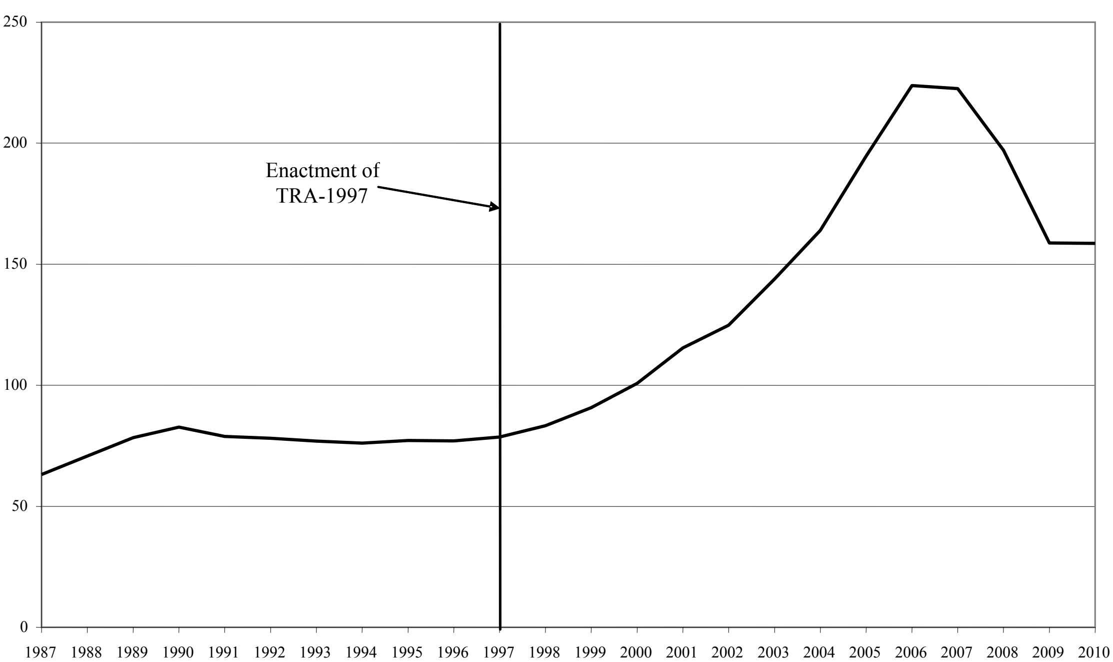
The passage of TRA-1997 radically changed the reporting requirements for sales of qualified principal residences. Section 312(c) of TRA-1997 added paragraph IRC §6045(e)(5) that excludes reporting by a real estate reporting agent of home sales under $500,000 for joint filers ($250,000 for all other filers). As defined in Rev. Proc. 2007-12, the real estate reporting agent must receive written assurance from the sellers that the gain from the resale qualifies for exclusion under IRC §121. Furthermore, the procedure requires the real estate reporting agent to retain for a period of 4 years the sellers' written assurance. No further actions are required of the seller, buyer, or reporting agent if the sale qualifies for exclusion under IRC §121. For sales of qualified principal residences that exceed $500,000 for joint filers ($250,000 for all other filers), the real estate reporting agent completes and submits to the IRS form 1099-S listing the sellers' tax ID and the gross proceeds of the sale. The selling taxpayers must complete IRS form 8949 and Schedule D of form 1040 to claim an exclusion of all or part of the gain using IRC §121. In all likelihood, since the median sale prices of homes (Census, 2010) in any region of the U.S. has never exceeded $500,000, most sales of principal residences are never reported to the IRS. In fact, when Auten and Gravelle (2009) examined the IRS Statistics of Income 2007 Sales of Capital Assets Study, they found that taxpayers reported only 368,000 transactions which included sales of principal residences, second homes, and vacation homes. The authors estimated that these reports equaled approximately 6.5% of the 5.675 million sales reported by the National Associations of Realtors in 2007. In addition, the IRS' reliance on taxpayers to self-comply with the rules of IRC §121 probably facilitates taxpayers omitting taxable gains from reselling principal residences, particularly for sales that fall within the exclusion limits of IRC §6045. Based on these lenient reporting standards, except for sales exceeding the limits of IRC §6045, the IRS may find it difficult to detect taxpayers' fraudulent use of IRC §121 capital gains exclusions. Auten and Gravelle concur that this could be a problem. Whereas their data analysis of taxpayers excluding capital gains from 2004 to 2007 revealed a small number of filers that claimed the exclusion more than once in the time period, the authors concede that it most likely reflects limits of the sample because of the reporting requirements of IRC §6045 that exempt reporting of residential sales under $500,000 for joint filers ($250,000 for all other filers).

EVIDENCE SUPPORTING THE CATALYTIC EFFECT ON OWNER-OCCUPIED HOUSING MARKETS FROM TRA-1997

In an interview of Robert Shiller, Ph.D. that appeared in Barron's magazine (Laing, 2005), Dr. Shiller identified 1997 as the start of the unprecedented rise in residential house prices (figure 1). In that year housing prices jumped by 2.1% and had accelerated to 5.8% in real terms by 2000. An examination of the Case-Shiller Home Price Index shows that prices increased by an average annualized rate of just over 2 percent from 1987 to the end of 1996 as compared to the period 1997 to 2006 when the index increased at an average annualized rate of nearly 10 percent. Dr. Shiller expressed doubt that the Federal reserve policies alone caused the inflation in housing since the correlation between housing prices and mortgage rates is not always consistent. He referenced several examples of local markets where home prices soared despite rising mortgage interest rates. Also, he implied in the interview that innovation in home financing found in the sub-prime mortgage markets may have played a role in perpetuating the demand for housing after 2000. Taylor (2009) argued that monetary excesses spurred by Federal Reserve policy after 2001 precipitated the low interest rates and easing of borrowing standards that eventually led to a failure in the financial sectors. In looking beyond the accommodative monetary policies that began in 2001, Dokko, Doyle, Kiley, Jinill, and Sherlund (2011) argued that their analyzes show that the lax underwriting standards from 2001 to 2006 had a greater influence on the sharp increases in housing demand and prices. Yet, both Taylor and Dokko et al. show in their papers that the shift in monetary policies and loose credit occurred three to four years after the sharp inflation of housing prices that began in 1997.

An astute investment manager wrote in a Barron's article (Everson, 2005) that the unexpected TRA-1997 revisions to IRC §121 eliminating taxing a capital gain from reselling a qualified residence caused the housing bubble. According to the author, the change in the law provided an opportunity for savvy investors to cash out their gains in investment properties by converting the properties (rentals or vacation homes) into principal residences. Furthermore, the author implied that the law benefits home contractors who could convert their labor/ordinary income into tax-free capital gains by living in a house for two years prior to selling. Auten and Gravelle (2009) made similar observations that the new law provides opportunities for taxpayer avoidance of capital gain taxation, although they did not examine whether the new IRC §121 increased home sales and pricing. Nobel Laureate, Dr. Vernon Smith, also observed that the change in the law boosted residential real estate sales and provided opportunities for homeowners to capture tax free income, possibly on a repetitive basis (Smith, 2007). He criticized the Clinton administration for passing the 1997 changes to IRC §121, which he described as facilitating the bubble by diverting excessive capital into residential real estate.

FIGURE 1
CASE-SHILLER COMPOSITE 10 INDEX



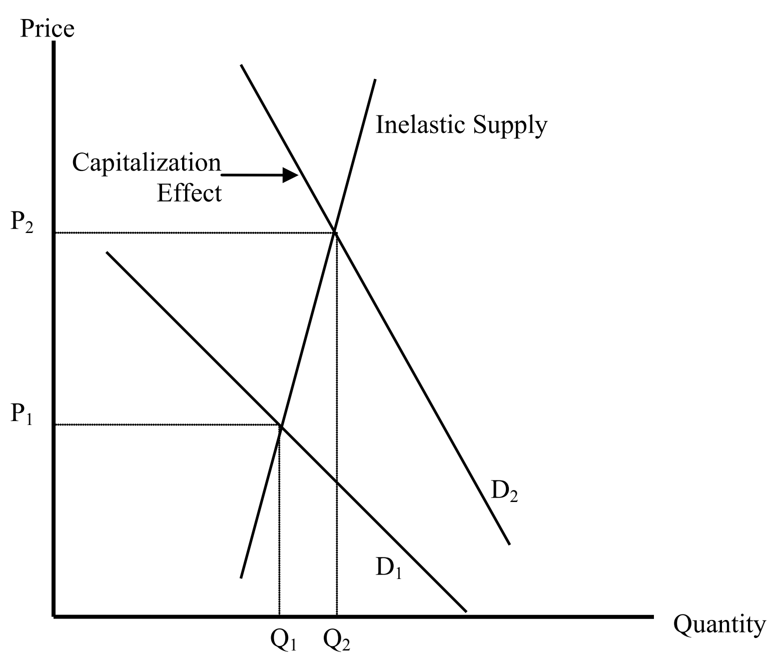
Past researchers have criticized taxing gains from the resale of principal residences because it creates a lock-in effect that limits homeowner mobility. As noted above, an early study by Newman and Reschovsky (1987) found that the 1978 change in IRC §121 that lowered the age to 55 for homeowners to qualify for the one time capital gain exclusion resulted in an increase in sales for homeowners aged 55 to 64. Cunningham and Engelhardt (2008) also examined the lock-in effect from taxing capital gains from selling personal residences. The authors examined the propensity for homeowners age 52 to 54 to sell their residences before and after passage of TRA-1997. Using census data for years 1996 and 1998, the authors found a significant increase in the number of taxpayers aged 52 to 54 who sold their residences after the passage of TRA-1997. Furthermore, their analyses showed for the 52-54 year age group, high income taxpayers were more likely to move post TRA-1997. Also of interest, the authors found taxpayers aged 52 to 54 living in states that had high appreciation rates for real estate were more likely to sell their residences after passage of TRA-1997. The net results of their findings showed that TRA-1997 and its subsequent changes to IRC §121 facilitated homeowners' decisions to sell their residences and receive tax free income. These findings are limited, however, as Cunningham and Engelhardt (2008) studied a narrow time period, 1996 and 1998, and a restricted age of taxpayers, age 52 to 54. In addition, the authors were unable to ascertain whether selling homeowners purchased new homes using the gains from the sale of their old residences, effectively rolling over the gains, or whether the home owners diverted the tax free income into other consumption. If it had been possible to determine that selling homeowners purchased new homes similar or greater in cost to their old residences and used mortgages with high loan to value ratios, it may have indicated taxpayers' motivation to reap the tax free capital gains from the appreciation of their old residences. Neither census data used by the authors nor any other data set tracks an individual taxpayer's home buying, selling, and financing decisions. Nonetheless, the study is significant because it shows that the change in the tax code motivated taxpayers to sell their residences. In another study, Quayes (2010) examined sales of new homes before and after the implementation of TRA-1997 and found significant evidence supporting the claim that the new law increased housing sales. However, since his study only examined the sale of newly constructed homes from 1971 to 2006, the data set does not reflect sales of qualified principal residences. Still, the author speculated that sales of existing homes would show a similar response to the enactment of TRA-1997.

Shan (2011) examined housing sales within 16 affluent cities in the Boston area before and after the passage of TRA-1997. His data consisted of home sales in the 16 cities from 1982 to 2008. Although the data provided an adequate description of the real estate, it lacked information regarding the demographics of the sellers. Hence, no inferences can be made from the data regarding sellers' age, marital status, income, occupation or education. He reported that in the 3 years following the enactment of TRA-1997 home sales and prices increased significantly. According to Shan, after this initial 3 year period, TRA-1997 appeared to have less effect on sales within these 16 cities. He indicated that after 1997, the data contained a large increase in sales with imputed capital gains exceeding the $500,000 exclusion limits of IRC §121. Most likely this reflects the elimination or significant reduction of a lock-in effect on residential sales from the pre-1997 capital gain tax. Prior to May 7, 1997, if a homeowner elected to recognize the capital gain from reselling a residence, the gain would be taxed at the prevailing capital gain tax rate at the time of sale, which in 1996 was a maximum rate of 28%. For sales of qualified principal residences after May 6, 1997 with recognized capital gains exceeding $500,000 for joint filers, TRA-1997 reduced the effective capital gain tax rate to 20% * (1 - $500,000/Capital Gain).

All of the above studies found evidence that changes to IRC §121 from the enactment of TRA-1997 significantly increased real estate sales and prices. The Case-Shiller indices clearly show a rapid appreciation in housing prices beginning in 1997. Explanations for these changes can be found in Dai, Maydew, Shackelford, and Zhang (2008) and Mertens and Ravn (2012), which provide complementary theories for the results of these studies. In Dai et al. (2008), the authors investigated the TRA-1997 influence on the pricing of stocks traded on U.S. exchanges. TRA-1997 lowered the long term capital gain tax rate from 28% to 20% for assets held 18 months or longer. As discussed in their paper, capital gain tax rates play an important role in asset pricing. Citing previous research, the authors identified two principal factors affecting asset pricing from changes in a capital gain tax rate, a capitalization effect and a lock-in effect. The capitalization effect causes buyers to demand a lower price for an asset that they have to pay a future capital gain tax from selling the asset. Hence, a decrease in a capital gain tax causes an increase in asset demand by shifting the demand curve upwards. The lock-in effect focuses on asset supply, i.e., investors require a higher price to sell an asset (supply assets for sale) for which they must pay a capital gain tax on the sale proceeds. So, a decrease in a capital gain tax increases the asset supply causing the supply curve to shift downwards. Since the capitalization effect and the lock-in effect work to cancel each other, the net result on asset prices is uncertain. Nevertheless, as demonstrated by Dai et al. (2008) the combined effects cause an increase in volume when capital gain taxes decrease. They show that the domination of one factor determines whether asset prices increase or decrease. When the capitalization effect dominates, prices increase, but when the lock-in effect dominates, prices decrease. In the case of real estate, TRA-1997 effectively sets the capital gain tax rate to zero for resales of qualified principal residences. Hence, as shown by the above research (Cunningham and Engelhardt, 2008; Quayes, 2010; Shan, 2011), the capital gain tax lock-in effect for most residential sellers was eliminated by passage of the act. Also, in the short term, residential real estate supply demonstrates inelastic behavior (McCarthy and Peach, 2004). As demonstrated in figure 2, an upward shift in demand caused by a decrease in capital gain taxes translates into an increase in housing prices which corresponds to the increases observed in the Case-Shiller Home Price Index. When new home construction catches up to the demand, the supply curve becomes less elastic and an increase in volume and price occurs at a new equilibrium.

Mertens and Ravn (2012) found that all tax cuts increase consumption, output, and investments. Furthermore, the economic boosts to these factors from unanticipated tax cuts or tax shocks on average peak 2.5 years after the implementation of the tax cut and account for approximately 20 to 25 percent of the volatility of output at business cycle frequencies. Although President Clinton signed TRA-1997 on August 5, 1997, the sections of the law affecting capital gains and IRC §121 were made retroactive to May 7, 1997. Dai et al. (2008) stated that the markets had not anticipated the inclusion of a capital gain tax cut in the TRA-1997, thus acting as a shock to the markets.

FIGURE 2
CAPITALIZATION EFFECT ON PRICE AND QUANTITY



Another factor contributing to the increased activity of the residential real estate markets beginning in 1997 came from the tax avoidance opportunities offered by the new IRC §121. As discussed above, the revisions to IRC §121 from TRA-1997 provided an opportunity to convert income sources into tax free income. Prior to the 2008 amendments to IRC §121, investors could easily convert years of accumulated gains in rental housing and vacation homes into excludible capital gains by establishing the properties as their principal residences (Everson, 2005; Lai, 2003; Auten and Gravelle, 2009). As discussed above, Congress partially closed this opportunity by adding IRC §121(b)(5). Auten and Gravelle identified another avoidance technique available to real estate investors, contractors, and professional fixer-uppers that consists of converting their "sweat-equity" into tax-free capital gains. McGrattan and Prescott (2010) discussed the role of "sweat equity" in explaining the 1990's economic boom associated with technology companies. According to the authors, owners of start-up companies expected to recapture their sweat equity investments through capital gains from selling the businesses in the future. Similarly, a residential contractor/developer could capitalize his or her management time and labor into the value of the house. Selling the house after "living" in it for two years would allow the home builder to convert his or her sweat equity into a tax free capital gain by using IRC §121. This option is available every other year. But, the lax reporting standards defined by IRC §6045 make it difficult, if not impossible, to directly assess the use of this avoidance technique.

The construct of the prime and subprime hybrid adjustable rate mortgages (ARM) used by many homebuyers during the housing boom of the 2000s had features that facilitated a homeowner with a short, 2 year investment horizon. These loans matched the needs of residential investors looking to maximize their use of IRC §121 exclusion clauses and may have facilitated the perpetuation of the boom started by TRA-1997. According to Sengupta and Liu (2012), the prime hybrid ARMs introduced before the start of the housing boom typically had a fixed rate for a period of 3, 5, or 7 years. Afterwards, the loans switch to an annually adjusted ARM. During the boom, the subprime market altered the hybrid ARMs so that they had a fixed teaser rate for the first 2 or 3 years of the loan, subsequently converting to an ARM with a 6 month adjustment interval. The popularity of these loans climbed during the boom such that they accounted for 60 percent of subprime originations from 2004 to 2006, and prime hybrid ARMs accounted for approximately 20 percent of prime originations (Sengupta and Liu, 2012). Bhardwaj and Sengupta (2012) described subprime hybrid ARMs as bridge financing designed as a credit accommodation to facilitate the immediate purchase of a home. Typically, these loans had high loan to value ratios. The authors found that most of these loans were prepaid shortly after the loans' prepayment penalties expired. Also, the viability of these loans depended on the house appreciating in value, in which case the owner could prepay the loan either by selling the house or refinancing the loan. So, the reduced payments in the beginning of the mortgage, high loan to value ratios, and falling origination fees and points made the hybrid ARM an ideal mortgage for a homebuyer with a 2 to 3 year investment horizon.

CONCLUSION

The Taxpayer Relief Act of 1997 played a significant role in facilitating the boom in the residential real estate market that began shortly after its enactment. Its changes to IRC §§121, 1034, and 6045 created an opportunity for homeowners to receive tax free income when they resold their principal residences for a capital gain. Also, it provides taxpayers with a mechanism to convert ordinary income and investment income into excludible capital gain income. For most cases TRA-1997 eliminated the requirement for taxpayers to report a principal residence sale to the IRS making it difficult to assess the actual capital gains from sales of principal residences. In addition, TRA-1997 may have launched a surge in principal residence sales by eliminating the lock-in effect caused by the imposition of a tax on the gain from the sale of a principal residence. Consequently, a capitalization effect caused the residential real estate markets to expand in volume and price as evidenced by real estate indices. No evidence has been found supporting the theory that eliminating a tax on capital gains from reselling principal residence motivates taxpayers to downsize their personal residences with age. To the contrary, taxpayers may increase their investment in their residences as a result of the preferential tax treatment afforded by the revised IRC §121. Lenient credit policies and development of alternative mortgage instruments helped prolong the demand for residential real estate and fed the boom started by the revisions to IRC §121. But, the catalyst of §121 could not prevent the boom cycle from ending. The closing of loop holes in IRC §121 in 2005 and 2008 made it more difficult to convert investment properties to principal residences and the surge of housing supply on the market made it difficult to sustain the price increases that began after passage of TRA-1997.

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