August 2017

Issue Brief: The costs and risks of using a reverse mortgage to delay collecting Social Security

Office for Older Americans

Consumer Financial Protection Bureau

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1. Introduction

For millions of Americans, Social Security and accrued home equity are likely to be their primary source of wealth in later life as a growing number of them are expected to reach retirement with limited savings and/or income from traditional pensions.[1]

Recognizing that a majority of older Americans rely upon Social Security benefits as their primary or only regular source of inflation-protected income in their later years, many financial professionals recommend that consumers increase their monthly benefits by claiming Social Security at their full benefit age or later instead of collecting early.[2] By claiming at their full benefit age or later age as opposed to collecting early, beneficiaries receive a permanent increase in monthly payments, and possibly a higher cumulative amount over their lifetime.

[1] *See e.g.*, Jack VanDerhei, *What Causes EBRI Retirement Readiness Ratings to Vary: Results from the 2014 Retirement Security Projection Model*, EBRI Issue Brief, No. 396 (Feb. 2014), *available at* http://www.ebri.org/pdf/briefspdf/EBRI_IB_396_Feb14.RRRs2.pdf; *see also*, Alicia Munnell, *et al.*, *NRRI update shows half still falling short*, CRR Issue Brief 14 (Dec. 2014), *available at* http://crr.bc.edu/wp-content/uploads/2014/12/IB_14-20-508.pdf.

[2] *See e.g.*, AARP and the Financial Planning Association, *Social Security Planning in 2015 and Beyond: Perspectives of Future beneficiaries Beneficiaries and Financial Planners*, (2015), at 25, *available at* http://www.aarp.org/content/dam/aarp/research/surveys_statistics/econ/2015/fpa-soc-sec-and-beyond-res-econ.pdf.

With that in mind, one strategy that varied financial professionals promote is for older homeowners to borrow a reverse mortgage at age 62 in order to delay claiming Social Security.[3] A reverse mortgage loan is a unique type of mortgage for homeowners age 62 and older. Borrowers do not need to repay the loan until the last borrower dies or moves from the home as long as they live in the home, maintain the home in good repair, and pay their real estate taxes and homeowner's insurance.[4]

According to this strategy, a retiree would use the reverse mortgage loan proceeds to fund a delay in Social Security benefit claiming. That is, an older homeowner could use reverse

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[3] The following examples are not meant to be an exhaustive or representative list of all professionals or mediums used to promote this strategy. *See, e.g.* Michael Lazar, *Yes, You Can Delay Social Security with a Reverse Mortgage,* Huffington Post (April 2016), http://www.huffingtonpost.com/michael-lazar/yes-you-can-delay-social_b_9773640.html (last visited Aug. 21, 2017); Jason Oliva, *New Social Security Rules Play Into Reverse Mortgage Retirement Strengths*, Reverse Mortgage Daily (Sept. 2016), http://reversemortgagedaily.com/2016/09/12/new-social-security-rules-play-into-reverse-mortgage-retirement-strengths/ (last visited Aug. 21, 2017); The Mortgage Professor, *Using a HECM Reverse Mortgage to Delay Taking Social Security* (Apr. 16, 2015), https://www.mtgprofessor.com/A%20-%20Reverse%20Mortgages/Using_Calculator_To_Delay_Social_Security.html (last visited Aug. 21, 2017); Sean Bryant, *Should You Delay Your Social Security Benefits?*, One Reverse Mortgage (Jan. 19, 2017), https://www.onereversemortgage.com/blog/2017/01/should-you-delay-your-social-security-benefits/ (last visited Aug. 8, 2017); Alain Valles, *Social Security and reverse mortgages* (Aug. 31, 2016), http://www.fiftyplusadvocate.com/archives/11091 (last visited Aug. 21, 2017); Genworth Financial Home Equity Access, *Defer Social Security with a Reverse Mortgage* (Dec. 6, 2010), http://www.creditunions.com/articles/defer-social-security-with-a-reverse-mortgage/ (last visited Aug. 21, 2017); Tom Davison, *Reverse Mortgage Funds Social Security Delay* (March 31, 2014), https://toolsforretirementplanning.com/2014/03/31/ss-delay/ (last visited Aug. 21, 2017) (providing a scenario of a homeowner who uses a reverse mortgage to delay Social Security from age 62 to age 70. The scenario assumes the borrower has other sources of income and assets, and withdraws savings from a retirement account as part of the strategy to delay Social Security).

[4] *See* Department of Housing and Urban Development (HUD), *FHA Reverse Mortgages (HECMs) for Seniors*, https://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/hecm/hecmabou (last visited Aug. 21, 2017). (Referred to as *HUD Reverse Mortgages for Seniors*). Nearly all reverse mortgage loans originated today are insured by the Federal Housing Administration (FHA) under the Home Equity Conversion Mortgage program (HECM). In 2016, nearly 50,000 reverse mortgage loans were endorsed. *See* National Reverse Mortgage Lenders Association (NRMLA), *Annual HECM Endorsement Chart*, https://www.nrmlaonline.org/2017/05/02/annual-hecm-endorsement-chart (last visited Aug. 21, 2017).

mortgage proceeds as income to replace the money the homeowner would otherwise receive in Social Security benefits in the years between the minimum benefits age (age 62), up to their full benefits age (between ages 66 and 67, depending on the person's date of birth) or their maximum benefits age (70).

As nearly five million homeowners will turn age 62 by 2020,[5] the Consumer Financial Protection Bureau (CFPB) is concerned that the broad promotion of this strategy could result in an increased number of homeowners borrowing a reverse mortgage for this purpose.

This issue brief explores the tradeoffs of borrowing a reverse mortgage loan in order to delay claiming Social Security.[6] The CFPB examined different scenarios and found that, in general, the reverse mortgage loan costs exceed the cumulative increase in Social Security that homeowners would receive in their lifetime by delaying Social Security benefits.[7] Furthermore, using this strategy will likely diminish the amount of home equity available to borrowers later in life. As a result of the diminished equity, borrowers that seek to sell their homes after using this strategy may have limited options for moving to a new location or handling a financial shock.

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[5] Consumer Financial Protection Bureau (CFPB) analysis of the U.S. Census American Community Survey, 2015 using Dataferret, https://dataferrett.census.gov/ (last visited Aug. 21, 2017). This estimate is based on the number of households headed by homeowners between ages 55 and 61 in 2015.

[6] For more information about the importance of the Social Security retirement benefits claiming decision, *see* CFPB, *Issue Brief: Social Security claiming age and retirement security* (Nov. 2015), *available at* http://files.consumerfinance.gov/f/201511_cfpb_issue-brief-social-security-claiming-age-and-retirement-security.pdf.

[7] More details about the assumptions used in these examples can be found in Appendix A.

2. Social Security and home equity provide retirement security for millions of older Americans

Social Security

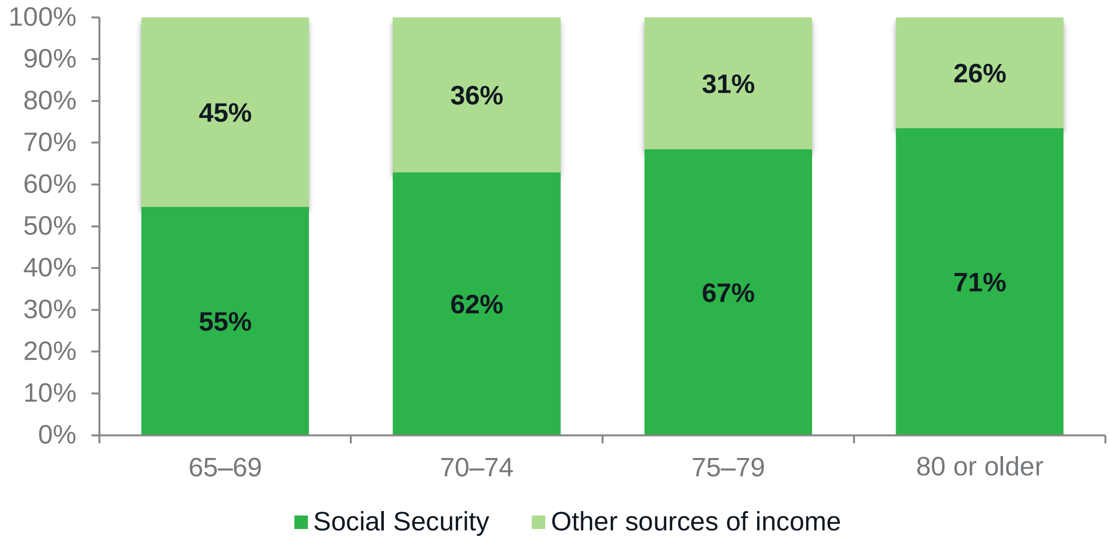
About 85 percent of consumers age 65 and older receive income from Social Security.[8] On average, Social Security benefits account for 63 percent of the income of Social Security beneficiaries aged 65 and older.[9] For beneficiaries aged 80 and older, Social Security benefits account for 71 percent of their income. (Figure 1) In 2015, the average Social Security retirement

[8] *See* SSA, *Income of the Population 55 or Older*, 2014 Table 2.A1 Percentage with income from specified source, by marital status and age, 2014 (Apr. 2014), https://www.ssa.gov/policy/docs/statcomps/income_pop55/2014/sect09.html (last visited Aug. 21, 2017).

[9] *See* SSA, *Income of the Population 55 or Older, 2014*, Table 9.A1 Relative Importance of Social Security for Beneficiary Aged Units (Apr. 2014), https://www.ssa.gov/policy/docs/statcomps/income_pop55/2014/sect09.html (last visited Aug. 21, 2017).

monthly benefit was $1,296.[10] As coverage and benefits paid under traditional defined benefit pensions continue to decline, Social Security is likely to become the only source of regular lifetime income for the majority of the older population.[11]

FIGURE 1: AVERAGE SHARE OF INCOME FROM SOCIAL SECURITY AND OTHER SOURCES BY AGE GROUP (2014)



Source: Social Security Administration, 2014

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[10] *See* SSA, *Monthly Statistical Snapshot*, Table 2. Social Security benefits, December 2015 (Jan. 2016), https://www.ssa.gov/policy/docs/quickfacts/stat_snapshot/2015-12.html (last visited Aug. 21, 2017).

[11] *See e.g.*, Barbara Butrica, *et al.*, *The Disappearing Defined Benefit Pension and Its Potential Impact on the Retirement Incomes of Baby Boomers, Social Security Bulletin*, 69 (2009), at 20, *available at* https://www.ssa.gov/policy/docs/ssb/v69n3/v69n3p1.pdf; *See also*, Melissa Favreault, *et al.*, *Boomers' Retirement Income Prospects* (2012), *available at* http://www.urban.org/sites/default/files/alfresco/publication-pdfs/412490-Boomers-Retirement-Income-Prospects.PDF.

One way in which people can increase their monthly benefit is by claiming at the age when they are expected to receive their full benefits, which is between ages 66 and 67 depending upon the person's date of birth. Approximately 40 percent of eligible individuals claim their benefits at 62, the earliest eligibility age, thereby receiving a permanently reduced monthly Social Security benefit.[12]

For people born after 1960, who are eligible to get a full benefit at age 67, Social Security monthly benefits are reduced by as much as 30 percent when they claim at age 62.[13] Social Security provides inflation-adjusted payments for the rest of a beneficiary's life. And consumers who live to or beyond the average life expectancy of a 62 year old today (approximately age 85) will receive more money cumulatively from receiving an increased monthly benefit than consumers who claim earlier and therefore receive lower monthly payments for a longer period.[14] For example, a woman age 62 today who lives to age 85 [15] will receive $29,640 more in cumulative benefits during her lifetime if she claims a monthly benefit of $1,300 at age 67 than if she claims a monthly benefit of $910 at age 62.[16]

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[12] *See* CFPB analysis of SSA's *Annual Statistical Supplement, supra*. An alternative analysis that focused on claiming patterns by individuals born in the same year found that nearly 40 percent of consumers that reached age 62 in 2013 claimed their benefits at their *earliest eligibility age*. *See* Alicia Munnell & Anqi Chen, *Trends in Social Security Claiming*, CRR Issue Brief 15 (May 2015), at 3, *available at* http://crr.bc.edu/wp-content/uploads/2015/05/IB_15-8.pdf.

[13] *See* SSA, *Benefit Reduction for Early Retirement*, https://www.ssa.gov/oact/quickcalc/earlyretire.html (last visited Aug. 21, 2017).

[14] *See* John Shoven & Sita Nataraj Slavov, *Does It Pay to Delay Social Security?,* Journal of Pension Economics and Finance (2013), a*vailable at* http://www.nber.org/papers/w18210.pdf; Wei Sun & Anthony Webb, *How Much Do Households Really Lose by Claiming Social Security at Age 62?,* CRR Working Paper No. 2009–11 (2009), a*vailable at* http://crr.bc.edu/wp-content/uploads/2009/04/WP_2009_11-508.pdf.

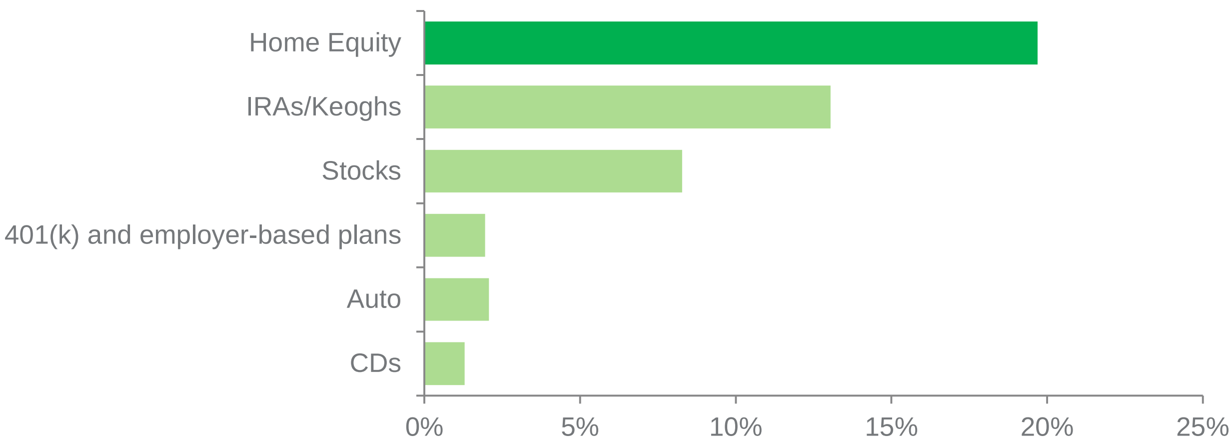
[15] *See* SSA, *Actuarial Life Table*, https://www.ssa.gov/oact/STATS/table4c6.html (last visited Aug. 21, 2017).

[16] Calculations of lifetime benefits are done in today's dollars without adjustments for present net value of benefits or costs of living adjustments.

Home equity

In addition to Social Security benefits, home equity is an important financial resource for older consumers. In 2015, 80 percent of consumers 65 and older owned their homes– 30 percent of them with a mortgage and 70 percent without. [17] Nearly 90 percent of older homeowners have net equity in their home.[18] Compared to other financial resources, home equity is the most valuable asset for the largest number of older consumers. In 2013, home equity accounted for nearly 20 percent of all the assets held by consumers age 65 and older.[19]

FIGURE 2: SHARE OF ASSETS OF HOUSEHOLDS 65 AND OLDER BY SOURCE (2013)



Source: Survey of Consumer Finances, 2013

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[17] *See*, Census Bureau, American Housing Survey 2015, Table: 2015 National - Mortgage Characteristics - Owner-occupied Units by Age of Householder, *at* https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html (last visited Aug. 21, 2017).

[18] CFPB analysis of the Federal Reserve Board, Survey of Consumer Finances 2013, *at* https://www.federalreserve.gov/econres/scfindex.htm (last visited Aug. 21, 2017).

[19] *Id*.

For the majority of older homeowners, homeownership provides affordable housing in retirement.[20] On average, older homeowners spend a smaller proportion of their income on housing costs than renters.[21] In addition, many older homeowners have a potential source of savings in the equity accrued in their homes that can help some meet their financial needs in retirement. For example, homeowners can access their home equity by selling their home or by borrowing against their equity. Homeowners with an existing mortgage can do so through a cash-out refinancing either via a forward or reverse mortgage, or by taking out a second mortgage or home equity line of credit. Homeowners who no longer have a mortgage have the option of a new forward mortgage, a home equity loan, or a reverse mortgage.

[20] *See*, Census Bureau, American Housing Survey 2015, Table: 2015 National – Housing Costs – All Occupied Units by Age of Householder and Tenure, *at* https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html (last visited Aug. 21, 2017).

[21] *Id*.

3. Using a reverse mortgage loan to delay claiming Social Security carries financial risks

A homeowner that borrows a reverse mortgage loan to delay collecting Social Security benefits receives loan proceeds secured by the equity in their home during the period of the delay. In doing so, they assume debt for the principal loan amount, as well as for interest, mortgage insurance premiums (MIP), and monthly servicing fees, which are added to the principal every month.[22] In addition, origination and closing costs are often added to the loan balance since most consumers choose to finance these costs using the reverse mortgage proceeds.[23] Over time, the balance of the loan increases as a result of compounding interest and MIP, and fees. The

[22] *See HUD Reverse Mortgages for Seniors*, *supra*, note 4.

[23] *See* CFPB, *Reverse Mortgage Report to Congress* (June 2012), at 99, *available at* http://files.consumerfinance.gov/a/assets/documents/201206_cfpb_Reverse_Mortgage_Report.pdf.

increasing loan balance will slowly reduce the available home equity to homeowners who wish to sell and move.[24]

Costs of using a reverse mortgage

Below we report the results from a series of scenarios that quantify the costs of a reverse mortgage for a hypothetical retired homeowner and compare these costs to the expected additional benefits received from delaying Social Security claiming from age 62 to 67.

We find that, in general, the reverse mortgage loan costs (i.e. origination costs, interest, mortgage insurance premium and fees) will exceed the additional amount of money in lifetime Social Security benefits a homeowner will realize by using this strategy. For example, a homeowner with an expected monthly benefit of $910 at age 62 who delays claiming Social Security benefits until age 67 will get a higher benefit of $1,300 per month. Given that the average life expectancy of a 62 year old today is about age 85, this homeowner is likely to receive a cumulative lifetime benefit that is $29,640 more by age 85 if she claims at 67 than an average 62-year-old would receive if she claimed at 62.

As shown in Figure 3, the reverse mortgage loan costs generally exceed the cumulative amount gained by collecting full Social Security benefits (i.e., claiming benefits at the full retirement age). This is specifically the case if the loan is repaid by the average length of a reverse mortgage

[24] A paper examining housing transitions found that one third of American homeowners move from their home at age 50 and older, and nearly 70 percent of these movers purchase another home. James Banks, *et al.*, *Housing Price Volatility and Downsizing in Later Life*, National Bureau of Economic Research, Research Findings in the Economics of Aging (2010), *at* http://www.nber.org/chapters/c8210 (last visited Aug. 21, 2017).

(approximately 7 years, or age 69 for a loan borrowed at age 62),[25] or by the average life expectancy (age 85).

Average length of a reverse mortgage: Based on a study of reverse mortgage loans issued before 2006, the average borrower holds a reverse mortgage for seven years.[26] In seven years, when the borrower turns 69 and terminates the loan, the reverse mortgage loan costs will be $31,900, approximately $2,300 more than the lifetime amount of money gained from an increased Social Security benefit if the consumer lives to age 85 ($29,640).

Average life expectancy: By age 85, approximately the average life expectancy of a 62 year old, the reverse mortgage loan costs will be $178,000, approximately $149,000 more than the lifetime amount of money gained from an increased Social Security benefit if the consumer lives to age 85 ($29,640).

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[25] *See* Edward Szymanoski, *et al.*, *Home Equity Conversion Mortgage Terminations: Information to Enhance the Developing Secondary Market*, Cityscape: A Journal of Policy Development and Research, 9, no. 1 (2007), at 21-22, *available at* https://www.huduser.gov/periodicals/cityscpe/vol9num1/ch1.pdf (showing that reverse mortgage loans are terminated on average within six to seven years for younger borrowers, ages 64-66). (Referred to as *Szymanoski HECM Terminations*). For recent trends in reverse mortgage borrowers' pay off behaviors, *see* CFPB, *Reverse Mortgage Report to Congress*, *at* 63 (June 2012), *available at* http://files.consumerfinance.gov/a/assets/documents/201206_cfpb_Reverse_Mortgage_Report.pdf.

[26] *See* footnote 26 above.

FIGURE 3: BREAKDOWN OF LOAN BALANCE AT SELECTED AGES OF A REVERSE MORTGAGE ORIGINATED AT AGE 62[27]

Age	Principal[28]	(a) Origination Costs[29]	(b) MIP (1.25%)[30]	(c) Interest (4.65%)[31]	(d) Servicing Fees[32]	Total Costs (a, b, c, d)	Total debt[33]
age 67	$54,600	$7,700	$2,500	$9,300	$2,100	$21,600	$76,200
age 69	$54,600	$7,700	$4,500	$16,800	$2,900	$31,900	$86,600
age 85	$54,600	$7,700	$34,100	$127,000	$9,700	$178,500	$233,200

Source: CFPB Calculations

27 Amounts are rounded to the nearest hundredth. Due to rounding, amounts presented may not add up precisely to the totals provided.

28 The principal loan amount is approximately the amount of money in Social Security benefits that the borrower would have collected between ages 62 and 67. In order to approximately substitute the Social Security benefit that the consumer would otherwise receive, we assume that the borrower is borrowing $54,600 using the reverse mortgage's line of credit feature and receiving equal monthly installments of $910 over the course of the five year period.

29 For a detailed list of closing costs, *see* NRMLA, *Application, Fees, and Disclosures*, http://www.reversemortgage.org/Your-Roadmap/4-Application-Fees-Disclosures (last visited Aug. 21, 2017). Appendix A provides the specific amounts used for calculating the origination costs.

30 *Id*. Percentage shown is the annual MIP rate.

31 This is the annual average interest rate for an adjustable rate reverse mortgage in December 2016. See Appendix A for information about the assumptions about interest rates.

32 A servicing fee of $35 is typically added monthly to a borrower's loan balance. *See* NRMLA, Application, Fees, and Disclosures, *supra* note 29. See Appendix A for a detailed table of assumptions about reverse mortgage costs.

33 Origination and closing costs are included in the loan balance.

Figure 3 shows that reverse mortgage costs exceed the amount gained from delaying claiming Social Security unless the loan is repaid at age 67. For example, a borrower who terminates the loan at his full retirement age of 67 will pay approximately $21,600 in loan costs (i.e. origination costs, interest, mortgage insurance premium and fees), which is lower than the additional lifetime amount gained by collecting full Social Security ($29,640). However, many older homeowners, especially those for whom their home is their main asset, are unlikely to have the resources to repay the loan immediately upon claiming full benefits unless they sell the home at that time.[34]

In addition, Figure 3 shows that borrowing a reverse mortgage loan is an expensive way to delay collecting Social Security benefits. For instance, at age 67, the loan costs are $21,600 or approximately 40 percent of the principal borrowed. At age 69, only two years later, the loan costs are $31,900 or approximately 60 percent of the principal borrowed.

Diminished home equity could limit options for some borrowers

The effects of using a reverse mortgage loan to delay collecting Social Security benefits is also reflected in the reduced equity that homeowners are likely to have in their homes as a result of taking out a reverse mortgage at age 62. This is problematic if, for example, it becomes necessary and desirable for homeowners to sell their homes after taking out the reverse

[34] *See* Stephanie Moulton, *et al.*, *Aging in Place: Analyzing the Use of Reverse Mortgages to Preserve Independent Living Summary Report of Survey Results* (Mar. 2016), *available at* https://ssrn.com/abstract=2749368. (Referred to as Moulton, *Aging in Place Study*) (showing that half of homeowners who obtained and retained a reverse mortgage had less than $21,500 in non-housing assets).

mortgage.[35] For these consumers, having borrowed from a reverse mortgage to delay collecting Social Security benefits could eventually limit their options for moving to a new location[36] or handling a financial shock. The options for reverse mortgage borrowers may become even more limited over time because their loan balance is likely to grow at a faster rate than their home will appreciate.[37]

Consider the following example for a typical 62-year-old homeowner with a home worth $175,000. Assume the home appreciates in value at a rate of 4 percent per year and that the homeowner borrows a reverse mortgage with an interest rate of 5.9 percent. At age 67, this homeowner will have a home valued approximately at $212,914, and at age 85, the home will be valued at $431,325.[38] At age 67, the homeowner who borrowed $54,600 from a reverse mortgage to delay collecting Social Security will have only 64 percent of the total value of his home available if he decides to sell the home and move. (Figure 4) By age 85, this homeowner will have only 46 percent of his home value available as equity.

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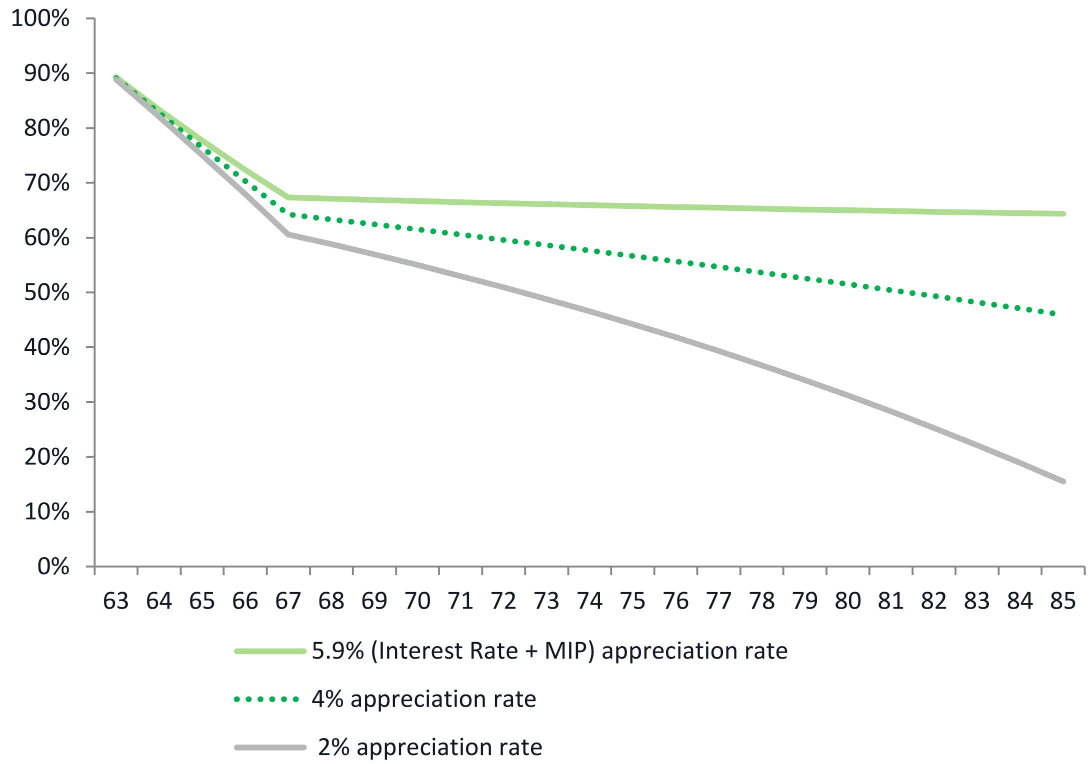
[35] A 2007 study shows that over 70 percent of reverse mortgages are terminated by non-mortality related events, such as refinancing, foreclosure, and moving. *See* UBS, Mortgage Strategist, *Repayment Profile of Reverse Mortgages.* (Sept. 2007) at 33, *available at* https://www.nrmlaonline.org/app_assets/public/d24a71d1-88ea-4508-acb6-c1242333e9d7/Repayment%20Profile_UBS%2010-04-07.pdf.

[36] Reverse mortgage borrowers typically move to downsize, live closer to family or friends, or reduce the costs associated with homeownership. *See Moulton Aging in Place Study*, *supra,* note 34.

[37] Historical LIBOR (London Interbank Offered Rate) rates, on which adjustable reverse mortgages are based, have varied significantly over time. *See* Macrotrends, 1 Month LIBOR Rate - 30 Year Historical Chart, http://www.macrotrends.net/2518/1-month-libor-rate-historical-chart (last visited Aug. 21, 2017). While current LIBOR rates are at historic low levels, when combined with the average lender's margin and private mortgage insurance (PMI), the combined interest rate is likely to be higher than the average home appreciation rate during the same period.

[38] For information about home value assumptions, see Appendix A.

FIGURE 4: PERCENT OF HOME VALUE AVAILABLE TO HOMEOWNERS WHO BORROW A REVERSE MORTGAGE TO DELAY SOCIAL SECURITY[39]



Source: CFPB Calculations

The reduction on home equity is even greater for homeowners when homes appreciate at a lower rate than the reverse mortgage interest rate. For example, a 62-year-old homeowner who has a home worth $175,000, with an appreciation rate of only 2 percent per year, will have only 61 percent of the total value of the home available as equity at age 67. By age 85, this homeowner will have only about 16 percent of the home value available in equity when selling the house and moving.

[39] For methodology and assumptions, see Appendix A.

For homeowners who occupy their home as a primary residence until death, using a reverse mortgage to delay collecting Social security provides the use of an additional $54,600 worth of loan proceeds over their lifetime. However, the home equity available to heirs will be diminished.

4. Conclusion

We find that borrowing a reverse mortgage loan to get an increased Social Security benefit carries significant costs that generally exceed the additional lifetime amount gained from delaying Social Security. In addition, the amount that a consumer will need to borrow from a reverse mortgage loan to delay claiming Social Security benefits could negatively affect the consumer's ability to move or use their home equity to meet a large expense later in life.

For consumers who have the option, working past age 62 is usually a less costly way to increase their monthly Social Security benefit than borrowing from a reverse mortgage.[40] The extra years of work often provide people more time to save for retirement and pay off debts. The extra years of work may also result in an increase in Social Security benefits—separate from the increase that arises from deferring the start of benefits—by replacing years with low or no earnings from the person's earnings record.[41] Consumers may also consider other options to increase their Social Security benefit, such as coordinating their claiming decision with their spouses.

As consumers consider borrowing a reverse mortgage loan in order to delay claiming Social Security benefits or defer withdrawing funds from retirement savings, it is important for them to be aware of the risks and costs associated with this strategy. This is especially true for

[40] For more information about considerations when claiming Social Security, *see* CFPB, *5 things to consider before you collect your Social Security benefits* (Nov. 2015), at https://www.consumerfinance.gov/about-us/blog/5-things-to-consider-before-you-collect-your-social-security-benefits/ (last visited Aug. 21, 2017).

[41] *See* SSA, *How Work Affects Your Benefits* (2017), at 7, *available at* https://www.ssa.gov/pubs/EN-05-10069.pdf.

consumers whose primary source of income is Social Security and whose main asset is their home. For those consumers, the costs of a reverse mortgage loan will likely exceed the lifetime amount of money gained from an increased Social Security benefit, which in turn may threaten their financial security later in life.

Additional resources for consumers

- Learn more about reverse mortgages at consumerfinance.gov/ask-cfpb or contact a HUD approved counselor at https://entp.hud.gov/idapp/html/hecm_agency_look.cfm, or by phone at 800.569.4287
- If you have a problem with a reverse mortage, you can submit a complaint at consumerfinance.gov/complaint. We'll forward your complaint to the company and work to get you a response – generally within 15 days.
- If you don't have a complaint but would like to share your experience – good or bad – with a reverse mortgage, you can tell us your story at consumerfinance.gov/your-story.
- Learn more about your Social Security claiming options and other factors to consider when making this decision at consumerfinance.gov/retirement.

APPENDIX A: METHODOLOGY AND ASSUMPTIONS

This issue brief relies on an example of a typical retiree taking a reverse mortgage at age 62 in order to delay collecting Social Security benefits until age 67, the full retirement age for people born after 1960. The example is constructed using a combination of assumptions based on key figures drawn from different sources, some of which are published at different times. These assumptions were used in our analysis:

Social Security monthly benefit- The examples assume a retirement benefit at full retirement age of $1,300, which is approximately the average Social Security retirement benefit for all beneficiaries receiving retirement benefits in 2014 according to the Social Security Administration.[42]

Claiming age- The examples assume that homeowners are using a reverse mortgage to delay claiming their benefits from the earliest eligibility age (age 62) to their full retirement age (age 67, if born after 1960).[43] We applied the maximum reduction in benefits (30 percent) for claiming at age 62. This reduction is the equivalent of 36 months times 5/9 of 1 percent plus 24 months times 5/12 of 1 percent.[44]

Life expectancy- The examples assume an average life expectancy of age 85, which is approximately the combined average life expectancy of a 62 year old woman and man in 2015

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[42] *See SSA Monthly Statistical Snapshot*, *supra* note 10.

[43] *See* SSA, *Retirement Planner: Full Retirement Age*, https://www.ssa.gov/planners/retire/retirechart.html (last visited Aug. 21, 2017)

[44] *See* SSA, *Early or Late Retirement?*, https://www.ssa.gov/oact/quickcalc/early_late.html (last visited Aug. 21, 2017).

based on the actuarial life table.[45] According to a recent study, reverse mortgage borrowers' self-reported life expectancy is age 88.[46]

Discount rates- The examples do not assume a discount rate or a cost of living adjustment. The cumulative value of Social Security benefits for future years is presented in today's dollars.

Home value- The examples assume a home value of $175,000, which is the median home value for consumers 65 and 74 according to the 2013 Survey of Consumer Finances.[47] The examples also assume an average appreciation rate of 4 percent per year.[48] Readers should note that appreciation rates for homes owned by older homeowners are expected to be lower than the average population.[49]

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[45] *See* SSA, *Actuarial Life Table*, *supra*, note 15.

[46] *See Moulton Aging in Place Study*, *supra*, note 34.

[47] *See* Federal Reserve Board, *Survey of Consumer Finances Chartbook*, *2013* (Sep. 2014) at 586, *available at* https://www.federalreserve.gov/econres/files/BulletinCharts.pdf.

[48] Historical home price data shows that home values have increased at an average of 3.5 percent per year since 1991. See Federal Housing Finance Agency (FHFA), FHFA House Price Index Up 0.8 Percent in February (Apr. 2017), at 5, *available at* https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/MonthlyHPI_42517.pdf. When choosing an appropriate rate we considered the requirements in the Truth in Lending Act (TILA) related to disclosures for reverse mortgages. TILA requires that creditors provide information about the assumed home appreciation rates in the disclosures using three possible appreciation rates 0, 4 or 8 percent. *See* 12 CFR §226.33.

[49] *See* David Rodda & Satyendra Patrabansh, *The Relationship Between Homeowner Age and House Price Appreciation* (2005), at 31-33, *available at* https://www.huduser.gov/Publications/pdf/HouseAppreciation_and_age_relationship.pdf.

Reverse mortgage type- The examples assume that homeowners borrowed in equal monthly installments from an adjustable rate reverse mortgage which is the only type of mortgage that allows for a line of credit feature and multiple withdrawals.[50]

Reverse mortgage interest rate- The interest rate used in our example is the average adjustable interest rate for traditional adjustable HECM loans originated in December 2016 (4.625%).[51] While the examples are based on a person that has an adjustable rate mortgage, in order to limit the number of assumptions, we assumed a constant rate of 4.625 percent[52] and a Mortgage Insurance Premium (MIP) of 1.25 percent for the rest of the loan life. Market trends show that 1-month LIBOR rates on which adjustable rates are based have increased in recent years.[53] A long term increase in the 1-month LIBOR rate will result on increased interest rates and borrowing costs.

Reverse mortgage costs- The examples assume that the homeowner financed the origination and closing costs with the loan. To estimate these costs we relied upon NRMLA's and HUD's breakdown of costs as listed in Figure 5.[54] Several closing costs listed in Figure 6 vary significantly by state and locality.

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[50] *See* HUD, *Frequently Asked Questions about HUD's Reverse Mortgages*, https://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/hecm/rmtopten (last visited Aug. 21, 2017).

[51] *Id.*

[52] *See* HUD, *HECM Snapshot December 2016*, https://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/oe/rpts/hecmsfsnap/hecmsfsnap (last visited Aug. 21, 2017).

[53] *See* Macrotrends, *1 Month LIBOR Rate - 30 Year Historical Chart*, http://www.macrotrends.net/2518/1-month-libor-rate-historical-chart (last visited Aug. 21, 2017).

[54] *See* NRMLA, Application, Fees, and Disclosures, *supra*, note 29.

FIGURE 5: AVERAGE REVERSE MORTGAGE ORIGINATION AND CLOSING COSTS

Origination Costs	
Origination fee	2%
Initial MIP	0.50%
Appraisal Fee	$450
Closing Costs	
Credit report fee	$50
Flood Certification	$20
Settlement or closing fee	$800
Document fee	$150
Recording fee	$500
Courier fee	$50
Title insurance	$1,000
Pest inspection	$100
Survey	$250

Mortgage debt- The examples assume that homeowners own their homes free and clear. A recent study of reverse mortgage borrowers found that many consumers who borrow reverse mortgage have an outstanding mortgage.[55] If an outstanding mortgage were to be considered as part of the calculations for these consumers, nearly half of the borrowers would have to use most

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[55] *Id.*

of their equity to delay Social Security or would not have enough money in their reverse mortgage line of credit to borrow the amount needed to delay collecting Social Security. Consider for example a reverse mortgage borrower with a home value at origination of $200,000 and a mortgage of $43,000.[56] Based on the Principal Limit Factor of about 52 percent,[57] this homeowner will have approximately $61,000 available to cover the estimated $54,600 needed to cover the amount not collected in Social Security benefits, after paying the outstanding mortgage.

Taxes- The examples do not take into account the effects of taxes on the calculations.

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[56] *Id.* The example uses the median home value and home debt at origination for homeowners who were counseled and borrowed a reverse mortgage loan amounts found in the Moulton study. *See Moulton, Aging in Place Study, supra,* note 34.

[57] *See* HUD, HECM Principal Limit Factor Tables - Effective Aug. 4, 2014, http://portal.hud.gov/hudportal/documents/huddoc?id=PLF_Tables_18-99.xls (last visited Aug. 21, 2017).

APPENDIX B: REVERSE MORTGAGE LOAN BALANCES, HOME VALUE, HOME EQUITY, AND SOCIAL SECURITY[58]

Age	Principal	Origination Costs	Accrued Interest	Accrued MIP	Servicing Fee	Total Loan Balance	Home Value	Remaining Home Equity	Social Security Cumulative amount (claiming at age 62)	Social Security Cumulative amount (claiming at age 67)
62	$10,920	$7,745	-	-	-	-	$175,000	$175,000	-	-
63	$10,920	-	$619	$167	$420	$19,871	$182,000	$162,129	$10,920	-
64	$10,920	-	$1,199	$322	$420	$32,732	$189,280	$156,548	$21,840	-
65	$10,920	-	$1,813	$487	$420	$46,373	$196,851	$150,478	$32,760	-
66	$10,920	-	$2,465	$663	$420	$60,840	$204,725	$143,885	$43,680	-
67	-	-	$3,156	$848	$420	$76,185	$212,914	$136,729	$54,600	-
68	-	-	$3,649	$981	$420	$81,235	$221,431	$140,196	$65,520	$15,600
69	-	-	$3,890	$1,046	$420	$86,591	$230,288	$143,697	$76,440	$31,200

[58] The amounts reported at each age represent the total value of each data point at the end of the prior year. For example, the loan balance at age 63 represents the loan balance at age 62 with 12 months. As a result interest, fees and MIP accrued for amounts borrowed at age 62 are first reported at age 63.

Age	Principal	Origination Costs	Accrued Interest	Accrued MIP	Servicing Fee	Total Loan Balance	Home Value	Remaining Home Equity	Social Security Cumulative amount (claiming at age 62)	Social Security Cumulative amount (claiming at age 67)
70	-	-	$4,146	$1,115	$420	$92,272	$239,500	$147,227	$87,360	$46,800
71	-	-	$4,418	$1,188	$420	$98,298	$249,080	$150,782	$98,280	$62,400
72	-	-	$4,706	$1,265	$420	$104,688	$259,043	$154,355	$109,200	$78,000
73	-	-	$5,011	$1,347	$420	$111,466	$269,404	$157,938	$120,120	$93,600
74	-	-	$5,335	$1,434	$420	$118,655	$280,181	$161,526	$131,040	$109,200
75	-	-	$5,678	$1,526	$420	$126,279	$291,388	$165,108	$141,960	$124,800
76	-	-	$6,043	$1,624	$420	$134,366	$303,043	$168,677	$152,880	$140,400
77	-	-	$6,429	$1,728	$420	$142,943	$315,165	$172,222	$163,800	$156,000
78	-	-	$6,839	$1,838	$420	$152,040	$327,772	$175,731	$174,720	$171,600
79	-	-	$7,273	$1,955	$420	$161,689	$340,883	$179,194	$185,640	$187,200
80	-	-	$7,734	$2,079	$420	$171,922	$354,518	$182,596	$196,560	$202,800
81	-	-	$8,223	$2,211	$420	$182,776	$368,699	$185,922	$207,480	$218,400
82	-	-	$8,742	$2,350	$420	$194,288	$383,447	$189,159	$218,400	$234,000
83	-	-	$9,292	$2,498	$420	$206,498	$398,784	$192,287	$229,320	$249,600
84	-	-	$9,875	$2,655	$420	$219,447	$414,736	$195,288	$240,240	$265,200
85	-	-	$10,494	$2,821	$420	$233,182	$431,325	$198,143	$251,160	$280,800