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HECM Reverse Mortgages: Now or Last Resort?

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Executive Summary

- This study outlines recent changes in the reverse mortgage market and investigates plan survival rates for distribution strategies that establish a Home Equity Conversion Mortgage (HECM) reverse mortgage line of credit at the beginning of retirement and as a last resort.
- Calculations were based on Monte Carlo simulations using a 4 percent to 6 percent real withdrawal rate, in 1 percent increments, for a client who has a \$500,000 nest egg and \$250,000 in home equity at the beginning of retirement. The nest egg was split into a 60 percent stock and 40 percent bond investment portfolio alongside a six-month cash reserve.
- Results are shown for scenarios where the HECM line of credit is established during: (1) low interest rates at age 62, (2) low interest rates when the investment portfolio is exhausted, (3) moderate interest rates when the investment portfolio is exhausted, and (4) high interest rates when the investment portfolio is exhausted.
- Early establishment of an HECM line of credit in the current low interest rate environment is shown to consistently provide higher 30-year survival rates than those shown for the last resort strategies. The early establishment survival advantage for real withdrawal rates at or above 5 percent is estimated to begin between 15 and 20 years after loan origination and is shown to be as high as 31 percentage points, or 85 percent, greater than the last resort survival rates.

Make Life

Many retirees and advisers resisted reverse mortgages in the past because of high costs (Chiuri and Jappelli 2010). However, research such as Boston College's National Retirement Risk Index 2010, has noted that many future retirees will not be in a position to avoid using home equity in retirement. Other research has shown that seniors will increasingly turn to reverse mortgages, because more affordable reverse mortgage options are now available than in the past (Timmons and Naujokaite 2011). If more seniors consider reverse mortgages, a number of these retirees are likely to seek advice on whether to establish the reverse mortgage now, or later as a last resort.

This study outlines recent changes in the reverse mortgage market and attempts to shed light on two simple questions: (1) which client-specific and capital market factors should a practitioner emphasize; and (2) based on these critical factors, how does early or delayed establishment influence whether a reverse mortgage can improve the probability of clients' maintaining their retirement spending goals?

The intent of this study is not to determine if someone should establish a reverse mortgage. Rather, if maintaining a client's real income needs is to require the use of home equity, then what factors should be considered, and how do these factors impact whether a reverse mortgage should be established now or as a last resort?

The motivation for this investigation stems from concerns associated with delayed establishment of reverse mortgages noted by Kitces (2011). The present work is closely related to Sacks and Sacks (2012), which explored the use of the Home Equity Conversion Mortgage (HECM) Standard (which is no longer available) and found that earlier establishment of the reverse mortgage consistently led to a higher likelihood of goal attainment than seen under last resort establishment scenarios.

This study expands on the existing literature by comparing the efficacy of early versus last resort establishment of the new HECM line of credit. The early establishment strategy in this study is based on a passive approach where the HECM line of credit is only used if and when the investment portfolio is exhausted, whereas the Sacks and Sacks study examined two active approaches where the line of credit was used from the onset of retirement. In addition, this study sheds light on the importance of expected home ownership duration, interest rates, and home appreciation when a reverse mortgage is being considered.

The empirical results from this analysis suggest early establishment of an HECM line of credit in the current interest rate and lending environment consistently provides greater survival rates than those strategies where the line of credit is established after the investment portfolio is exhausted. We estimate that the realization of the early establishment survival advantage over last resort establishment begins to appear between 15 and 20 years after the loan origination date for real annual withdrawal rates at or above 5 percent.



Further, early establishment survival rates are estimated to be as high as 85 percent, or 31 percentage points, greater than the last resort survival rates at the 30th year in retirement. In other words, expected home ownership duration is an important element in determining whether early establishment of a reverse mortgage is an appropriate strategy.

In addition, the early establishment survival advantage in the current interest rate and lending environment is estimated to be greatest for those who expect (1) long duration of home occupancy, (2) higher real withdrawal needs relative to home value, (3) higher future interest rates, and (4) lower future home appreciation.

HECM Background and Review

A new HECM product replaced the HECM Standard and Saver on September 30, 2013 (U.S. Department of Housing and Urban Development 2013). The HECM program was introduced in the Housing and Community Development Act of 1987 (Consumer Financial Protection Bureau 2012, p. 153) and is estimated to account for more than 90 percent of the reverse mortgage market. The new legislation gave authority to the Department of Housing and Urban Development (HUD) to administer the program and for the Federal Housing Administration (FHA) to insure HECM reverse mortgages.

The new HECM reverse mortgage represents a blend of the HECM Saver and Standard products; however, the upfront mortgage insurance premium (MIP) has been changed, and the amount of home equity that can be used within the first year after loan origination has been capped at 60 percent. A comparison of the new HECM and discontinued HECM Saver and Standard programs is presented in Table 1.

| Table 1: Fee and Line of Credit Comparison for Old and New HECM Options | Old HECMs | | New HECM |
|---|-----------|----------|-----------|
| | Standard | Saver | <60% |
| Mortgage insurance | \$5,000 | \$25 | \$1,250 |
| Closing costs | \$3,000 | \$3,000 | \$3,000 |
| Origination fee | \$4,500 | \$4,500 | \$4,500 |
| Total upfront fees | \$12,500 | \$7,525 | \$8,750 |
| Upfront fees (% of home value) | 5.00% | 3.01% | 3.50% |
| Line available at age 62 | \$123,500 | \$99,750 | \$105,000 |

Table 1 illustrates the difference in total upfront fees and the maximum line of credit available to a 62-year-old borrower with a \$250,000 home value and no mortgage debt at loan origination (with upfront fees paid from the portfolio). This example also assumes a 3 percent lender's margin¹ and a 3 percent 10-year Libor swap rate.² Total upfront fees consist of a MIP, closing costs, and origination fees. Servicing fees may be assessed by the lender if not already accounted for in the upfront and ongoing interest rates charged to the borrower. Escrow reserves may be required and are contingent upon lender requirements based on financial information of the borrower (Munnell and Sass 2014).

MetLife

For this example, the only difference in upfront fees is the MIP, which is set by the FHA and was 2.0 and 0.01 percent of the home value for the HECM Standard and Saver, respectively. The new HECM has a 0.5 percent MIP, so long as less than 60 percent of available proceeds are used within the first year. The total upfront fees for a new HECM (see Table 1) are roughly 16 percent, or 0.49 percentage points higher than the discontinued Saver, and roughly 30 percent, or 1.5 percentage points lower than the discontinued Standard.

The bottom row of Table 1 shows the available line of credit for the new HECM. This is roughly 5 percent higher than the line of credit for the Saver, and 15 percent lower than the line of credit for the Standard. In short, the new HECM is not meaningfully different from the HECM Saver product if the borrower does not use 60 percent or more of the line of credit in the first year after loan origination. If the borrower uses more than 60 percent of the line of credit in the first year, the upfront MIP cost is 2.5 percent, rather than 0.5 percent.

It is important to note that the figures provided in Table 1 are based on the maximum allowable origination fee set by HUD. Further, closing costs are set at the top of the expected range provided in a report by AARP (2011). In addition to upfront fees, ongoing interest consists of a variable interest rate that changes monthly, the lender's margin set at date of origination, and an annual 1.25 percent MIP charged by FHA.

The variable interest rate is indexed to the one-month Libor rate,³ and, as of December 2013, is 0.2 percent. This variable rate is adjusted monthly.

In today's environment, a borrower would initially face a total annual effective interest rate of 4.45 percent, if the lender's margin is 3 percent. Roughly one-twelfth of this rate accrues to any outstanding loan balance and unused portion of the line of credit on a monthly basis. The available line of credit, holding age of the borrower constant, increases as interest rates decrease.

A commonly overlooked advantage of establishing a line of credit early is the growth of the unused line of credit. The annual growth rate that applies to the unused line of credit is a constant 4.25 percent plus the variable one-month Libor rate, which has ranged from 0.2 percent to 7.0 percent since 2000. Upfront and ongoing interest is incurred by the borrower in exchange for access to home equity.

The principal limit factor (PLF) represents the percent of home equity that is available in the form of a line of credit and is published by HUD. The age of the youngest borrower, and the expected interest rate at loan origination, determine the PLF. The expected interest rate is the summation of the 10-year Libor swap rate and the lender's margin. The PLF increases with age and decreases when expected interest rates rise. As of December 2013, the 10-year Libor swap rate was 3 percent.

Therefore, a 62-year-old borrower who is assessed a 3 percent lender's margin would receive a line of credit equal to 42 percent (\$105,000) for a mortgage-free \$250,000

Ms. L. King

home under the new HECM. These figures also assume that all upfront fees are paid out of pocket.

Considerations for the HECM Today

As more seniors are forced to consider reverse mortgages, some are likely to seek advice on whether they should establish one now, or later as a last resort. Historically, the conventional wisdom in financial planning circles viewed the use of reverse mortgages as a last resort (Sacks and Sacks 2012). The evolution of the reverse mortgage market led some notable financial planners and researchers to question the validity of the conventional wisdom.

For example, Kitces (2011) noted that the appeal of using a reverse mortgage from the onset of retirement had increased due to the introduction of a more affordable reverse mortgage option known as the HECM Saver. A similar perspective on the HECM Saver was offered by Harold Evensky (Schulaka 2013). However, discussion and existing research on the new HECM is limited. Two recent studies outlined the potential benefits of the new HECM (Pfeiffer, Salter, and Evensky 2013; Wagner 2013), but left the comparison of early versus last resort establishment for future study.

A number of factors should be evaluated prior to determining whether a reverse mortgage is appropriate and, if at all, when it should be established.

The youngest borrower must be at least 62 in order for the household to qualify for a reverse mortgage. The amount of home equity that can be accessed increases with the age of the youngest borrower. Even with the increase, research has indicated that establishing a reverse mortgage at younger ages is generally preferable to waiting (Sacks and Sacks 2012).

Sun, Treist, and Webb (2007) noted increasing interest rates, the potential for a decrease in home value, and uncertainty associated with the lending environment and product design as significant risks associated with delayed establishment of a reverse mortgage. In addition, the ability to amortize costs over a longer period, and mitigate the potential detrimental impact of sequence of return risk, also support early establishment of a reverse mortgage (Kitces 2011; Salter, Pfeiffer, and Evensky 2012).

The expected duration of home occupancy after loan origination is another factor that should be considered when determining the timing and appropriateness of establishing a reverse mortgage. Borrowers who expect to stay in their home for an extended period of time are likely to benefit more from earlier establishment of a reverse mortgage, so long as the interest rate and lending environment are reasonable. It has been noted that HECMs have "historically offered borrowers favorable pricing" (Davidoff 2013, p. 1), and that the current low interest rate environment allows reverse mortgage borrowers to access higher levels of home equity when compared to high interest rate environments (Kitces 2011).

Existing studies have accounted for various interest rates, home appreciation, and other relevant factors, and have collectively reported significant survival advantages associated with the use of reverse mortgages. For example, studies centered on the HECM Standard and Saver products found that early establishment and sound use of reverse mortgages can reduce shortfall risk at the 30-year mark in retirement by as much as 50 percent when compared to distribution strategies that fail to use a reverse mortgage (Sacks and Sacks 2012; Salter et al. 2012).

More recent studies focused on the new HECM have shown that the sustainable withdrawal rate could be increased to approximately 6 percent for a 30-year retirement (Pfeiffer et al. 2013; Wagner 2013). However, the existing literature fails to provide an extensive analysis on early establishment of the new HECM compared to establishing an HECM as last resort. In addition, the existing literature has failed to examine the impact of expected home ownership duration, and various interest rate and home appreciation scenarios, despite the noted importance of these factors (Kitces 2011; Sun et al. 2007).

Methodology

This study compares the efficacy of two simple strategies: (1) establish an HECM line of credit at age 62, under the current lending and interest rate environment, and do not use the HECM line of credit until the investment portfolio is exhausted; or (2) wait until the investment portfolio is exhausted, if ever, and establish an HECM line of credit on that date and subsequently begin to use the proceeds to support income needs until the line of credit is exhausted.

The first strategy (now–low) is viewed from the current low interest rate environment.⁴ However, the second strategy is viewed from three different possible future interest rate environments. Monte Carlo analysis using 10,000 simulations was used to estimate plan survival rates and median wealth for each of four unique distribution scenarios, in which the HECM line of credit is established during:

- Low interest rates at age 62 (now–low)
- Low interest rates when the investment portfolio is exhausted (late–low)
- Moderate interest rates when the investment portfolio is exhausted (late–mid)
- High interest rates when the investment portfolio is exhausted (late–high)

The now-low scenario is based on a client who establishes an HECM line of credit at age 62, when the 10-year Libor swap rate and lender's margin are 3 percent, and the initial line of credit is \$105,000 or 42 percent of a home's \$250,000 value.

Each of the last resort scenarios, prefixed by the term "late," establishes the line of credit later in retirement after the investment portfolio has been exhausted. The lender's margin is set at 3 percent, whereas the 10-year Libor rate at loan origination date is 3 percent, 5 percent, or 7 percent for the late–low, late–mid, and late–high scenarios, respectively.