# An Alternative Asset to Buffer Sequence-of-Return Risk in Retirement

BY SHELLEY GIORDANO

SHELLEY GIORDANO
PRINCIPAL
LONGEVITY VIEW ASSOCIATES
CO-FOUNDER & CHAIR
FUNDING LONGEVITY TASK FORCE

## Introduction

Dirk Cotton, in the 2015 Spring issue of the *Retirement Management Journal*, notes that periodic spending from a retirement savings account is "path dependent."[1] Not only does the future value of the account depend on annual returns, but the order of those returns may have a significant effect on terminal portfolio value (TPV).

The purpose of this paper is not to repeat a discussion of sequence-of-return risk, but rather to introduce academic research suggesting ways to manage this risk via an "existing resource," the house.[2] This review will lead to an evolving discussion of housing wealth used as what Wade Pfau, Ph.D., CFA, Professor of Retirement at the American College, terms an "alternative buffer asset."[3] It is hoped that this introduction will spur further papers on the synergistic potential the home asset can provide in preserving TPV and net residual wealth inclusive of home equity.

To use the house as an alternative asset the researchers depend on accessing its value by establishing a Home Equity Conversion Mortgage (HECM) early in retirement. This program is more attractive for financial planning due to changes initiated by the U.S. Department of Housing and Urban Development (HUD) to improve consumer safeguards as well as to reduce set-up costs. Research demonstrates that delaying HECM use until portfolio ruin occurs may jeopardize a retiree's ability to access their home equity later in retirement. In addition, putting a HECM in place at the outset of retirement may prevent portfolio withdrawals that could subject it to dangerous sequence-of-return risk. Finally, the growing HECM Line of Credit option (RMLOC) ensures that the housing wealth will continue to grow regardless of what the real estate market returns are over the course of retirement.

## Home Equity Conversion Mortgage Basics

The HECM is an FHA-insured reverse mortgage. Established in the 1987 Housing and Community Development Act, the program has been restructured by HUD and the Federal Housing Authority (FHA) to improve consumer safeguards and to generally lower origination costs for homeowners.

Like any FHA loan, the borrower contributes mortgage insurance premiums (MIP) to the Mutual Mortgage Insurance (MMI) fund to protect the lender from loss. These premiums are added to the loan balance and paid from the homeowner's equity when the loan is due.

The HECM's most notable feature is that it is non-recourse and protects the borrower as well as the lender. The FHA insurance ensures that neither the homeowner nor his estate may be held liable for a loan balance greater than 95% of the home's value when the mortgagor leaves the house. Conversely, should there be equity in excess of the loan balance, that equity belongs to the borrower or his estate; there is no equity share due the lender.

Title remains with the borrower, just like any mortgage. Heirs inherit the house and are entitled to equity in excess of the loan balance, just like any mortgage.

The homeowner is responsible for tax, insurance, homeowner association fees and maintenance, just like a "regular" mortgage. During the housing bubble, technical foreclosures for tax and insurance defaults caused harm to borrowers for whom a reverse mortgage was unsuitable, as well as to the MMI fund. In response, HUD now requires that homeowners demonstrate both willingness and capacity to meet their homeowner obligations. Long considered a product of "last resort," the HECM is no longer available, or appropriate, for those on the low end of financial stability.

HUD also protects "non-borrowing spouses" who may be under age 62 (the beginning age at which a mortgagor is qualified). The non-borrowing spouse may not be displaced from the home when the mortgagor dies, but will not be entitled to further draws.

Loan-to-value (LTV) is based on the age of the youngest spouse. The older the age, (and, therefore possibly shorter time in the house and a shorter loan term) the more initial credit, or LTV, is available at the loan's outset. In HECM lending the initial available credit is called the "initial principal limit." HECM full draws (lump sum) may be taken under limited circumstances, such as transitioning from a traditional mortgage to a reverse mortgage. Using a full draw, or even exceeding roughly 60% of the available initial credit (initial principal limit), subjects the borrower to a high upfront MIP of 2.5% of the home value, or the FHA lending limit ($625,500), whichever is less.

If the homeowner uses his credit in a more conservative fashion, the upfront MIP is much lower (0.5% vs. 2.5%.) This difference reflects HUD's desire to incent borrowers to consume their home equity slowly.

A term option is set for a specific number of months or years. A tenure option annuitizes "the house" and establishes a life-time stream of income for as long as the mortgagor(s) live(s) in the house.

Interest rates matter. Lower interest rates result in greater credit capacity at the outset of the loan. As rates climb, initial credit capacity diminishes.

The most striking characteristic of the HECM, and least understood, is the Line of Credit option. Borrowers and advisers alike find it difficult to understand exactly how the HECM Line of Credit differs so radically from a traditional Home Equity Line of Credit (HELOC). Because the HECM Line of Credit (RMLOC) appears to yield the most "downside protection" when the LOC is established early and allowed to grow in borrowing power (Pfau, 2015), we will review in depth how the RMLOC grows. In addition, we will note how flexibility in both use and payback can contribute to TPV and overall net residual wealth inclusive of home equity.

### Negotiating Fees and Interest Rates

Advisers are cautioned to interview various lenders and forge a relationship with an ethical lender.[4] Set-up costs are negotiable. And, ironically, abuses suffered by HECM borrowers in the past could, in many cases, have been avoided if advisers had been engaged with the reverse mortgage universe in order to guide clients on how to use the product wisely.

Admittedly, negotiating terms can be frustrating to advisers and clients. Lenders approved by the Government National Mortgage Association (GNMA or "Ginnie Mae") originate eligible loans, pool them into securities and issue GNMA Mortgage Backed Securities (MBS). The GNMA guarantees payment of principal and interest payments on residential mortgage-backed securities to institutional investors. These securities, or "pools" of mortgage loans, are used as collateral for the issuance of securities. The price paid for these securities can fluctuate enough that retail pricing can vary widely. When loan execution is lucrative for the lender, the astute consumer is in a strong position to eliminate the origination fee and some or all of the closing costs.

### The HECM Line of Credit (RMLOC)

Evensky, Salter and Pfeiffer[5] were the first to publish how attractive a HECM Line of Credit is in comparison to a traditional HELOC. The authors noted that clients who were relying on their HELOCs during the credit contraction, post-housing bubble, saw their credit lines disappear just when they needed them most. Had these clients possessed RMLOCs instead, their credit would not have been frozen, reduced or cancelled. In fact, clients enrolled in a RMLOC would have seen their credit capacity grow every single month regardless of what their home value had become.

### Why the HECM Line of Credit Grows in Borrowing Power

If two clients of the same age and same home value initiated a HECM at the same interest rate with the same closing costs, but used them differently, the use pattern would have no effect on the overall credit potential either could access. It would be exactly the same. Any draws on the HECM start accumulating interest, at a variable note rate based on the Libor and MIP (ongoing Mortgage Insurance Premiums to the FHA of 1.25% per annum). Any remaining credit would be available in the RMLOC and growing in borrowing power at the same rate as the loan balance. In other words, the loan balance column is growing at the note rate + MIP. Likewise, the LOC column (assuming all credit has not been drawn) is growing at the note rate + MIP.

The growth in the RMLOC is contractually determined at the loan's outset (applicable note rate + MIP) and cannot be altered. Again, changes in the home value have no effect whatsoever on the growth in the RMLOC. Remarkably, the RMLOC can outgrow the value of the house. Numerous researchers have demonstrated that the guaranteed RMLOC growth may hedge against rising inflation, declining home values and the failure to diversify the home asset.[6]

### Strategies to Manage Sequence-of-Return Risk and Reverse Dollar-Cost Averaging

It is well documented that when clients spend from their portfolios, the order in which returns to the portfolio occur impacts TPV. Cotton prefers the term "path dependence" and defines it as "spending or saving scenarios in which portfolio value is a function of the order of returns" (Cotton, 2015). A sustainable withdrawal rate is affected by portfolio return, portfolio variance and longevity.

Furthermore, the decumulation phase subjects the portfolio to reverse dollar-cost-averaging. A positive in the accumulation phase, dollar-cost averaging contributes to wealth by allowing the investor to buy periodically at reduced rates, thus acquiring more shares. These shares compound in value over the many years of the accumulation phase. The opposite happens when clients are forced to sell assets to raise the money they need to fund spending goals. Assets temporarily undervalued cause the client to sell more units in order to maintain spending. Once sold, these units are gone forever and they cannot participate in a market rebound, nor are they available for compounding within the portfolio.

Sacks and Sacks published the first study demonstrating that coordinating draws on the

RMLOC with portfolio withdrawals reduced volatility drag. The positive portfolio effects were pronounced even at rates well in excess of the customary Bengen Rule.[7] Legacy effects were minimized as well, because the enhanced portfolio values more than compensated for the consumption of housing wealth.

Evensky, Salter and Pfeiffer studied the RMLOC as a third bucket in a strategy known as a Standby RMLOC (Evensky, et al, 2012). When the predicted portfolio glidepath fell below established parameters, the RMLOC was employed for spending needs in order to avoid reverse dollar cost averaging. Once the market restored the portfolio, the RMLOC was paid down through portfolio draws to minimal levels, thus reducing the loan balance that had accrued interest and MIP charges.

As noted earlier, when the loan balance is reduced, these "reduction dollars" move to the RMLOC column and begin compounding at the note rate + MIP. Thus, the RMLOC operated like a revolving line of credit throughout retirement and protected the client's nest egg. The RMLOC was there in the background, compounding in borrowing capacity, available as a liquid asset whenever it made sense to use the housing asset vs. an alternative asset.

In 2013, Gerald Wagner took a slightly different approach. Rather than rely on the need to make decisions in any given year to access the RMLOC vs. portfolio draws, Wagner proposed using the HECM tenure option simply as an ongoing supplement to spending.[8] Less is drawn from the portfolio every month because the house is providing a portion of the spending needs. Because the draws from the RMLOC are tax-free, a client's effective spending rate is enhanced. The HECM draws do not bear a tax penalty, so even less is needed to be drawn from the portfolio while maintaining the same effective spending.

Thomas C.B. Davison, Ph.D., CFP®, published a case study using the HECM line of credit as an income bridge to delay Social Security benefits.[9] During most of the deferral years, spending needs were met by the HECM. This allowed the portfolio to grow and compound, escaping dilution in the early years from distributions. Once Social Security began at age 70, the benefit payments were so large that pressure on the portfolio was reduced dramatically.

The results of this case study were surprisingly robust in part because the Monte Carlo simulations did not encounter sequence-of-return risk early in retirement because draws were totally avoided in the beginning years. The author notes, as did Wagner, that HECM draws are tax-free. When a client is in the 25% tax bracket, every dollar taken from the house was the equivalent of $1.33 not taken from the portfolio (Davison and Turner, 2015).

### Home Purchase Reduces Need to Bury Cash in Home to Avoid Monthly Mortgage Payments

Few advisers are aware of the change made by Congress in the Housing and Economic Recovery Act of 2009 which makes it possible for borrowers to use a reverse mortgage to actually purchase a new principal residence. With this option, the client provides a down-payment on the new home and the remaining financing comes in the form a reverse mortgage. A good rule of thumb for this scenario is that 50% of the purchase price comes from the client and a 50% leverage comes in the form of a lump-sum reverse mortgage. Going forward, the client is not obligated to make payments on the principal and interest, unless he elects to do so. An adviser can simply calculate what a portfolio would look like if 50% of the home purchase is not buried in the house, especially if this option is used in a bear market early in retirement.

### Divorce

Shepherding retirees through late-in-life divorces is an increasingly common challenge,[10] especially when dividing the marital home. There are two ways

that the HECM can aid in equitably distributing the housing wealth between spouses. The first, and obvious, method is to place a reverse mortgage on the home and "pay" the departing spouse his/her share of the home from the home equity, not from the portfolio. The remaining spouse would be able to live in the house without mortgage payments.

Now the departing spouse is armed with 50% of the marital home equity. That equity can be used as a down payment for a HECM-for-Purchase (H4P) transaction to buy a home equal in value to the marital home, and likewise, have no mortgage payments.

Another less known method is to use two H4P transactions. In this transaction the marital home is sold. The equity split provides each spouse with half the value of the marital equity, which they use to buy their two new homes. Naturally, this approach could leave each spouse in a less desirable home/neighborhood than they enjoyed as a married couple. By leveraging their remaining equity with a H4P, however, they can both buy "up" by double, or more, allowing each to live in a more attractive house. Neither would be obligated to make monthly interest and/or principal payments but could do so if they wish to reduce the interest compounding on the loan balance.

Again, this approach may be used temporarily if only to avoid sequence-of-return risk since the HECM terms are so flexible. Once the portfolio recovers, the spouses can pay off the reverse mortgages without penalty from the restored portfolio.

### Maximizing the Existing Home

Merrill Lynch and Age Wave published a paper debunking the assumption that most retirees want to downsize, or even move from, their current homes.[11] A large majority of retirees want to stay where they are and prefer modifying their homes to accommodate family gatherings and possible morbidity (bathroom and bedroom on bottom floor, for example) in later years. In fact, Americans age 55+ are spending over $90 billion dollars a year in making their homes even more comfortable, safe and spacious. Advisers who counsel their clients to "downsize" may not be facilitating the goals that clients themselves hold dear. Advisers are cautioned by Pfau to start looking at housing wealth as a way to help other assets so that clients can live out their lives as they wish. Pfau finds it odd that advisers are not embracing "reverse mortgages for clients wishing to stay in their home while also supporting a greater financial portfolio" for the adviser to manage for the client.[12]

### Why the HECM Works Synergistically with Other Assets

Davison and Turner (2015) summarize the fundamental reasons why the housing asset improves portfolio value over time:

- Draws from a reverse mortgage provide more cash for spending thus reducing portfolio draws
- The RMLOC grows over time, providing access to future cash
- Draws from the reverse mortgage applied early will reduce adverse sequence-of-return risk
- Draws from the reverse mortgage applied early will delay portfolio draws, giving the portfolio more time to appreciate
- Draws from the reverse mortgage during market downturns can significantly increase lifetime spending
- Draws from a reverse mortgage are tax-free, further reducing the draw on portfolios to meet spending needs

### What to Tell a Client Who Wants to "Wait and Pray" and Delay Setting Up a RMLOC[13]

Advisers can expect a "knee-jerk" negative reaction from clients when broaching the utility of using the house as an alternative asset or buffer. Although there are other reasons not to delay, below are five compelling reasons to provide the client (also see case study following paper):

- If you wait until portfolio ruin, your financial situation may have deteriorated to such a degree

that, under new HUD financial assessment rules, you will not be able to qualify for a HECM

- If you do not set up a HECM Line of Credit early in retirement, you lose the compounding growth of a liquid asset
- If you do not set up a HECM Line of Credit early in retirement, it cannot serve as an alternate source of income should you encounter a dangerous early sequence of bad investment returns
- Because interest rates are low today, the initial credit limit is high. If you wait until you need a reverse mortgage, rates may be significantly higher, and consequently your credit limit could be substantially lower. This could prevent you from transitioning from a traditional mortgage (with monthly payments) to HECM just when you need it most[14]
- Since your house is an undiversified asset, placing a guaranteed, growing Line of Credit on it allows you to hedge against declining housing values

## Conclusion

More than 80% of American retirees own a home.[15] A large percentage of these do not relish the idea of being forced to downsize to meet their spending goals. Avoiding sequence-of-return risk, and its cousin reverse dollar-cost averaging, contributes to a more secure retirement. A growing list of academicians including Sacks and Sacks, Evensky, Salter and Pfeiffer, Wagner, Davison, Pfau, Merton and others, are exhorting professionals giving retirement advice to open their eyes to an asset hiding in plain sight: the house. In doing so, probabilities are high that TPV will be enhanced and, in many cases, overall residual wealth will be greater despite having used a HECM to create liquidity from the housing asset. ■

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# Case Study

*by Barry Sacks, Ph.D., JD, and Mary Jo Lafaye*

## Jim & John - The Tale of Two HECM's

This case study compares the fortunes of two retirees who start retirement with identical securities portfolios, receive identical amounts of retirement income throughout a 30-year retirement and live in identical homes. The study illustrates how a securities portfolio (such as a 401(k) account or a rollover IRA) that provides retirement income can be substantially helped by a reverse mortgage credit line. More specifically, when the credit line is used in coordination with the portfolio, instead of as a last resort, it prolongs the life of the portfolio and greatly increases the net worth (and the legacy) of the retiree.

In this case study, "John" has used the "last resort" strategy; he has exhausted his portfolio in his 24th year of a 30-year retirement and has built up a debt of nearly $539,000 against his home by the end of that 30-year retirement. By contrast, "Jim" has used the coordinated strategy; he has a portfolio with more than $1 million at the end of a 30-year retirement and a debt of about $692,000 against his home. Thus at the end of the 30-year retirement, Jim has a net worth that is more than $900,000 greater than John has, even though both retirees started in identical financial situations and received identical amounts of retirement income.

The coordinated strategy is very simple: In each year directly following a year of negative investment returns in the portfolio, the portfolio is not drawn upon. Instead, the reverse mortgage credit line is drawn upon for the retiree's income. In this strategy, the reverse mortgage credit line is used to offset the "adverse sequence of returns."

The investment returns used in the study are those of a real balanced portfolio, specified in widely distributed publicity materials by a nationally known investment management and financial planning firm. The constant purchasing power draw rate is, at the outset, 5.5% of the initial portfolio value. (The assumed inflation rate is a constant 3.5%.) The 5.5% draw rate is well above the so-called "4% rule;" therefore, without the reverse mortgage credit line, there was a greater than 40% likelihood that the portfolio would be exhausted in 30 years, and approximately a 30% likelihood that the portfolio would be exhausted in 25 years.

Although this case study is only one example, we can produce (and have produced) thousands of other examples, using Monte Carlo simulation. In the overwhelming majority of the examples produced by the simulation, the results are similar to those of this case study. That is, the coordinated strategy results in a far greater probability of cash flow survival throughout a 30-year retirement, and a high probability of a far greater net worth (or legacy) at the end of that retirement, than does the "last resort" strategy. ■

*The numbers assume the following for both portfolios: $500,000 initial investment prior to withdrawals invested 50% in the S&P 500 and 50% in the Barclays U.S. Aggregate Bond Index; with income taken each year, adjusted for a fixed, hypothetical 3.5% inflation and hypothetical 2% investment fee.*

*Note: The bond portion of the portfolio from 1973 through 1975 is represented by: 25% Citigroup Long-term High Grade Corporate Bond Index and 25% U.S. Government Bond File since the Barclays Aggregate Bond Index did not start until 1976. It is not possible to invest directly in an index. Standard & Poor's 500 Index (S&P 500) is comprised of 500 stocks representing major U.S. industrial sectors. Performance figures are inclusive of dividends reinvested. S&P 500 is a registered service mark of the McGraw-Hill Companies, Inc. Barclays Aggregate Bond Index is a market value-weighted index of investment-grade fixed-rate debt issues, including government, corporate, asset-backed and mortgage securities, with maturities of one year or more.*

## Case Study - Protect Against Sequence-of-Return and Reverse Dollar-Cost Averaging

drawn from Reverse Mortgage Line of Credit (LOC)
drawn from Portfolio

* Draws beginning Year 1 @ 5.5%
** Inflation @ 3.5%
*** Principal & Interest & Mortgage Insurance Premium

**Conventional i.e. Last Resort Method "John"**
**(draw from Reverse Mortgage LOC after Portfolio is drained)**

| Year | Year | Age | Amount in portfolio at beginning of year (before draw) | Historical Investment Performance | Draws* (at beginning of year) Adjusted for Inflation** | Amount in portfolio at end of year | RM P&I&MIP*** @ Year 30 (5% APR) |
|---|---|---|---|---|---|---|---|
| 1 | 1973 | 65 | $500,000 | -9.28% | $27,500 | $428,652 | |
| 2 | 1974 | 66 | $428,652 | -15.51% | $28,463 | $338,120 | |
| 3 | 1975 | 67 | $338,120 | 22.30% | $29,459 | $377,493 | |
| 4 | 1976 | 68 | $377,493 | 17.87% | $30,490 | $409,013 | |
| 5 | 1977 | 69 | $409,013 | -4.12% | $31,557 | $361,905 | |
| 6 | 1978 | 70 | $361,905 | 2.22% | $32,661 | $336,552 | |
| 7 | 1979 | 71 | $336,552 | 8.01% | $33,805 | $326,998 | |
| 8 | 1980 | 72 | $326,998 | 15.41% | $34,988 | $337,009 | |
| 9 | 1981 | 73 | $337,009 | -1.36% | $36,212 | $296,706 | |
| 10 | 1982 | 74 | $296,706 | 25.24% | $37,480 | $324,655 | |
| 11 | 1983 | 75 | $324,655 | 13.32% | $38,791 | $323,941 | |
| 12 | 1984 | 76 | $323,941 | 8.86% | $40,149 | $308,935 | |
| 13 | 1985 | 77 | $308,935 | 25.19% | $41,554 | $334,734 | |
| 14 | 1986 | 78 | $334,734 | 15.20% | $43,009 | $336,068 | |
| 15 | 1987 | 79 | $336,068 | 3.41% | $44,514 | $301,496 | |
| 16 | 1988 | 80 | $301,496 | 10.33% | $46,072 | $281,809 | |
| 17 | 1989 | 81 | $281,809 | 20.94% | $47,685 | $283,150 | |
| 18 | 1990 | 82 | $283,150 | 0.98% | $49,354 | $236,087 | |
| 19 | 1991 | 83 | $236,087 | 21.36% | $51,081 | $224,524 | |
| 20 | 1992 | 84 | $224,524 | 5.60% | $52,869 | $181,268 | |
| 21 | 1993 | 85 | $181,268 | 7.91% | $54,719 | $136,559 | |
| 22 | 1994 | 86 | $136,559 | -2.76% | $56,634 | $77,718 | |
| 23 | 1995 | 87 | $77,718 | 25.68% | $58,617 | $24,007 | |
| 24 | 1996 | 88 | $24,007 | 11.07% | 24,007 + 36,661 = 60,668 | $0 | $51,586 |
| 25 | 1997 | 89 | $0 | 19.25% | $62,791 | $0 | $84,146 |
| 26 | 1998 | 90 | $0 | 16.99% | $64,989 | $0 | $82,944 |
| 27 | 1999 | 91 | $0 | 7.79% | $67,264 | $0 | $81,759 |
| 28 | 2000 | 92 | $0 | -0.92% | $69,618 | $0 | $80,591 |
| 29 | 2001 | 93 | $0 | -3.68% | $72,055 | $0 | $79,440 |
| 30 | 2002 | 94 | **$0** | -8.60% | $74,576 | $0 | $78,305 |
| | | | | | | **Amount Remaining in Portfolio @ Years 25-30** | **$538,773 Total RM Loan Balance @ Year 30 (P&I&MIP)*** ** |
| | | | | | **$447,954 Reverse Mortgage draws** | | |

**-$538,773 Net**

Barry Sacks, PhD  Mary Jo Lafaye

**New Wisdom Method "Jim"**
**(draw from Reverse Mortgage LOC following down market)**

| Amount in portfolio at beginning of year (before draw) | Historical Investment Performance | Draws* (at beginning of year) Adjusted for Inflation** | Amount in portfolio at end of year | RM P&I&MIP*** @ Year 30 (5% APR) |
|---|---|---|---|---|
| $500,000 | -9.28% | $27,500 | $428,652 | |
| $428,652 | -15.51% | $28,463 | $362,168 | $117,156 |
| $362,168 | 22.30% | $29,459 | $442,932 | $115,482 |
| $442,932 | 17.87% | $30,490 | $486,145 | |
| $486,145 | -4.12% | $31,557 | $435,859 | |
| $435,859 | 2.22% | $32,661 | $445,535 | $110,603 |
| $445,535 | 8.01% | $33,805 | $444,710 | |
| $444,710 | 15.41% | $34,988 | $472,861 | |
| $472,861 | -1.36% | $36,212 | $430,710 | |
| $430,710 | 25.24% | $37,480 | $539,422 | $104,417 |
| $539,422 | 13.32% | $38,791 | $567,314 | |
| $567,314 | 8.86% | $40,149 | $573,872 | |
| $573,872 | 25.19% | $41,554 | $666,408 | |
| $666,408 | 15.20% | $43,009 | $718,156 | |
| $718,156 | 3.41% | $44,514 | $696,613 | |
| $696,613 | 10.33% | $46,072 | $717,742 | |
| $717,742 | 20.94% | $47,685 | $810,367 | |
| $810,367 | 0.98% | $49,354 | $768,472 | |
| $768,472 | 21.36% | $51,081 | $870,625 | |
| $870,625 | 5.60% | $52,869 | $863,551 | |
| $863,551 | 7.91% | $54,719 | $872,810 | |
| $872,810 | -2.76% | $56,634 | $793,650 | |
| $793,650 | 25.68% | $58,617 | $997,459 | $86,603 |
| $997,459 | 11.07% | $60,668 | $1,040,493 | |
| $1,040,493 | 19.25% | $62,792 | $1,165,909 | |
| $1,165,909 | 16.99% | $64,989 | $1,287,967 | |
| $1,287,967 | 7.79% | $67,264 | $1,315,795 | |
| $1,315,795 | -0.92% | $69,618 | $1,234,712 | |
| $1,234,712 | -3.68% | $72,055 | $1,189,275 | $79,440 |
| $1,189,275 | -8.60% | $74,577 | $1,086,997 | $78,305 |
| | | | Amount Remaining in Portfolio @ Year 30 | $692,007 Total RM Loan Balance @ Year 30 (P&I&MIP)*** |
| | | $333,310 Reverse Mortgage draws | | |

$394,991
Net

$933,764
Estate is in a better position with the Reverse Mortgage

**Summary:**
John runs out of money after 24 years while Jim takes income for 30 years and still has remaining assets. You can see how negative market returns early in retirement can substantially impact your portfolio.

*Created By: Equity Access Corporation*

**Footnotes:**

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