Delay Social Security: Funding the Income Gap with a Reverse Mortgage

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Update: June 22, 2014 slightly revised version. A few scenario input numbers were modified. The pattern of results had no significant changes.

Using a Reverse Mortgage Line of Credit to fund the income gap created by delaying Social Security can dramatically improve a retirement income plan. In a case study a retirement plan's success rate jumped from 5% to 90%. The case study was designed to show the improvement a reverse mortgage could make, and succeeded! One key factor was the reverse mortgage draws are tax-free and the client is in a high tax bracket. This and other factors are discussed to develop an appreciation of scenarios where it is particularly advantageous to include the reverse mortgage. An associated set of PowerPoint slides are available separately and included below.

Contents

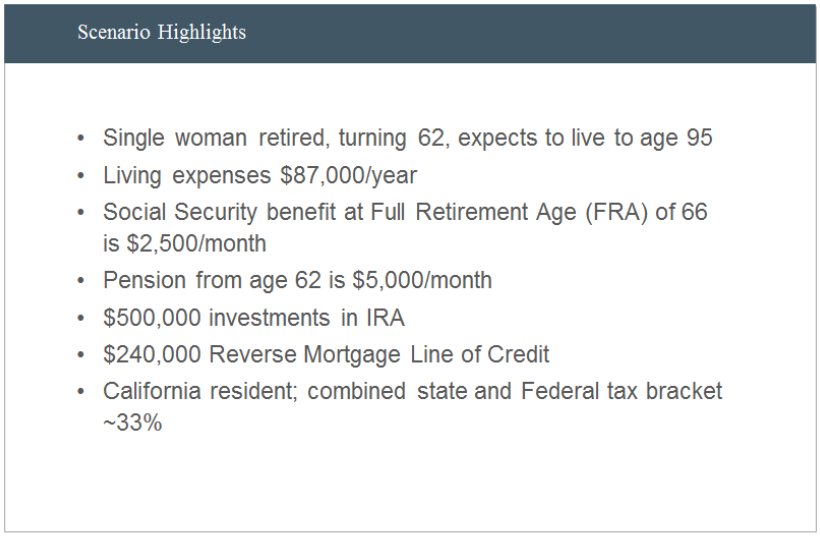
Reverse Mortgage Case Study

As baby boomers are hitting their 60's the press is flooded with articles about delaying Social Security. But many people claim as soon as they can, and less than 10% wait past age 66[i]. One reason may be that articles describe the long-term advantage gained by delaying Social Security but often don't help people find money to live on during the income gap that's created from age 62 to 70.

This case study was designed to show that a HECM[ii] reverse mortgage can successfully fund the income gap. Adding the cash from the reverse mortgage creates a dramatic improvement to the client's plan. While cases could be engineered to show an even larger improvement, many client situations will show a smaller advantage from using the HECM to fund the income gap. A later section describes the factors that drive the HECM's impact to help planners identify situations where reverse mortgages may work well or not so well.

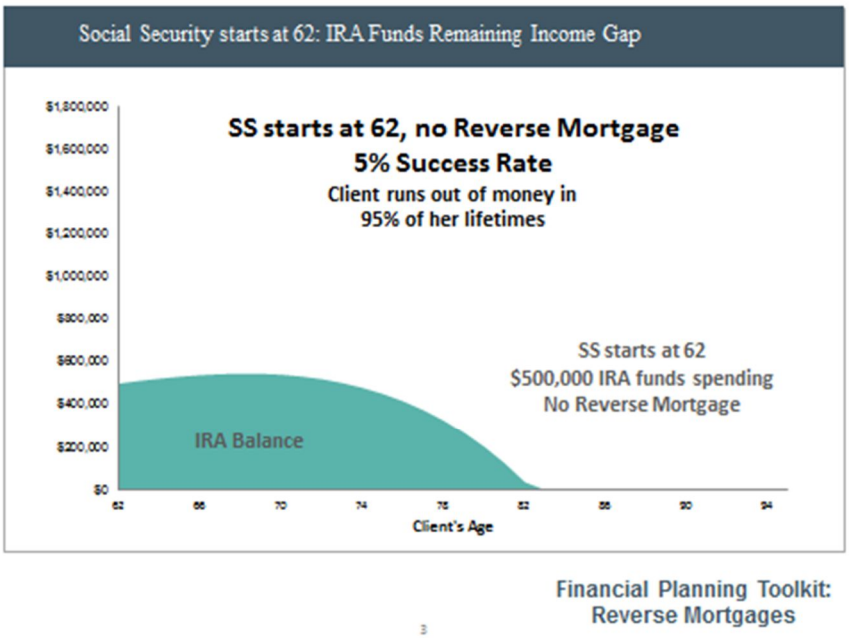
Scenario: A client is nearly 62 and wants to know if she should delay her Social Security or start now. She will start will start her pension at age 62, and her investment portfolio is in an IRA. She as full equity in her home, and is eligible for a $240,000 HECM Line of Credit to tap her housing wealth. The next slide summarizes her situation, with a full description in a later section.

Delay Social Security: Funding the Income Gap with a Reverse Mortgage



If she starts Social Security at 62 her benefit is $1,875/month. With her pension her monthly income would be $6,825, just short of her $7,250 spending goal. And that's before tax income: she needs to pay state and Federal income taxes on her pension, Social Security and IRA withdrawals.

This plan does not work! The picture shows the linear projection of her plan with fixed investment results. Her long-term Monte Carlo simulation predicts she will run out of money in 95% of her projected lifetimes – in 5% of the times her investment portfolio had enough stellar returns to carry her through. At best her IRA grows slightly for several years but then rapidly depletes.



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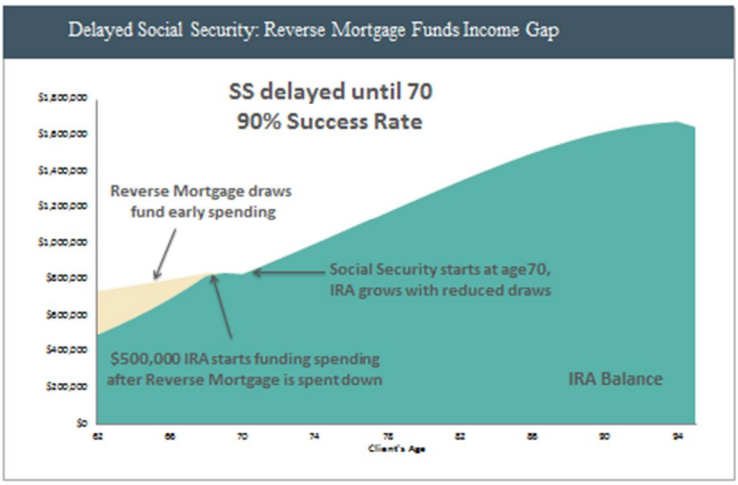
Delaying her Social Security produces a solid plan. In this scenario she delays Social Security to age 70 and uses the reverse mortgage line of credit starting at age 62 to close her funding gap. That lasts until she is 68. Then her IRA is tapped for two years until she is 70 when both her Required Minimum Distributions and Social Security start. If more money is needed for spending and taxes it comes from the IRA. If she has extra funds after the RMDs they are added to a taxable investment account.



This plan works very well! The IRA starts to grow again, and the graph's linear projection with fixed investment returns shows her dying with well over a million dollars. The Monte Carlo results, the more useful predictor of lifetime outcomes, show a 90% success rate. She died with at least a dollar in 90% of the cases, considered a successful result. She's projected to need to adjust spending down in only 10% of the projected lifetimes. To further demonstrate the strength of this scenario, her median wealth at age 95 was $1.7 million. She could have increased her spending in many lifetimes.

Synergy among Reverse Mortgages, IRAs and Social Security Delays

In addition to the two scenarios on the graph, two other scenarios were analyzed.

- Perhaps not using the reverse mortgage and only delaying Social Security to age 70 is enough for this client, as she expects to live a long time.
    - Result: 3% Success Rate. The IRA is depleted so much in the first 8 years it is completely exhausted 92% of the simulated lifetimes.
- Perhaps starting Social Security at 62, but including the HECM LOC to supplement income would work better? The success rate was 79%. That is high enough for some clients, but certainly is not as robust an approach. And it gives up the longevity protection delaying SS provides. By delaying Social Security she receives the maximum amount of guaranteed inflation adjusted income into her oldest years, income she can't outlive.

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Synergy from Reverse Mortgage and Social Security Delay

Social Security	Reverse Mortgage Line of Credit	Success Rate	On Graph?
62	$0	5%	On graph
70	$0	3%	
62	$240,000	79%	
70	$240,000	90%	On graph

Financial Planning Toolkit:
Reverse Mortgages

How and why did the Reverse Mortgage Strategy Work So Well?

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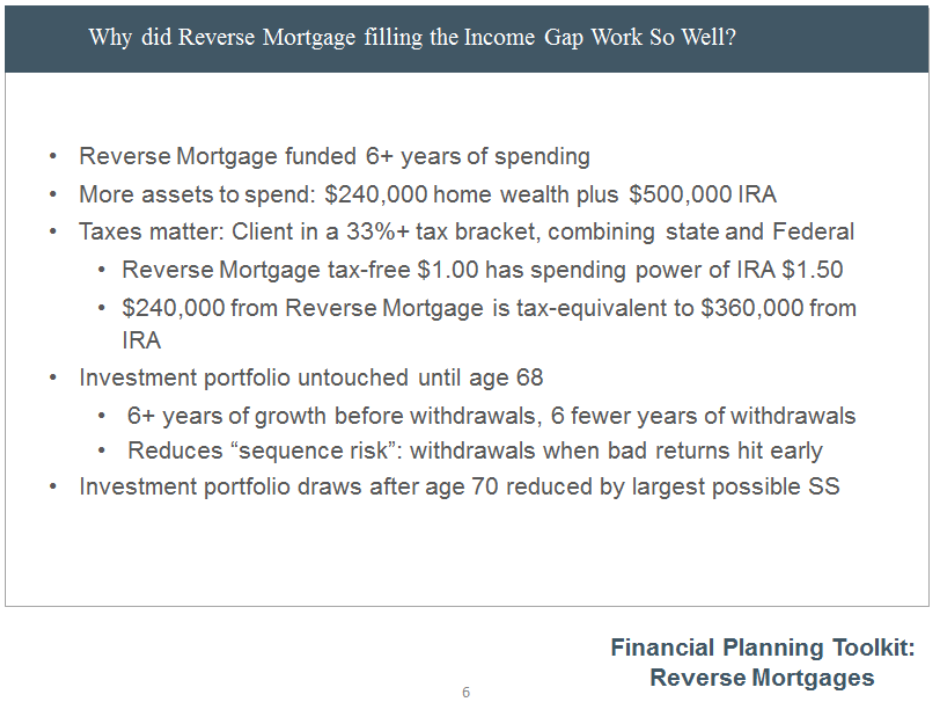

The scenario was designed to show an advantage of the Reverse Mortgage (RM) and certainly succeeded!

Factors that made using the RM LOC <u>more</u> to this client's advantage than in many client situations: Her RM LOC and SS benefit are both larger than many people's. Her tax rate is high, producing a large tax bite on IRA withdrawals and a large difference compared to tax-free RM draws. The IRA is her only investment vehicle – she does not have a Roth or ordinary taxable investments. She has a fairly large pension that makes up a good part of her spending level but leaves a significant gap to her desired spending level.

Factors that made the RM LOC <u>less</u> to this client's advantage than in many client situations: the LOC compounding rate in the study is 4%; while it could be a bit lower, it could be considerably higher if short-term interest rates were higher. And if it were not fully tapped early on, it would have continued to grow.

Summary:

- RM draws are tax-free loan proceeds. The client's high income tax rate magnifies the impact of tax-free RM draws.
    - IRA withdrawals are fully taxable. At a 33% marginal rate, to spend $1.00 it takes $1.50 from an IRA. To spend $1.00 it takes $1.00 from a RM.
    - The client has about a 33% combined State & Federal tax rate.
        - The client's pension alone puts her in a Federal 25% tax bracket before any Social Security or IRA withdrawals are added on top, and her California tax rate is 9%+.
- Large RM size:

  - RM is $240,000 or nearly half (48%) of the $500,000 IRA – a noticeable addition to the total spendable assets.
  - A more intuitive size comparison is on a tax-equivalent basis. The IRA is one part tax and two parts spending in this client's 33% marginal tax bracket. On a tax-equivalent basis the RM is $360,000 compared to the $500,000 IRA, or 72% of the IRA.
  - The RM was large enough to meet 6+ years of her spending needs. Had her spending consumed the RM more quickly, in turn it would have drained her IRA earlier, resulting in a lower lifetime success rate.
  - The $240,000 RM initial balance was larger than many homeowners would have, but could have been larger – especially as this client lives in California where houses are expensive! The RM could be near or even a bit over $300,000 if her home were valued at least at $625,500 (the largest value that the RM could be based on).
- The RM line of credit (LOC) growth rate in the study was small - which reduced the RM advantage might have over time in real life.
  - The RM LOC unspent balance grows every month. The case study used near-zero short-term interest rate giving a 4% compounding rate. LOCs grow faster when short-term interest rates are higher.
    - The 1-Month LIBOR is the most commonly used short-term interest rate used in the RM LOC. The lowest commonly available rate from the majority of lenders would be 3.5% plus the current 1-month LIBOR. LIBOR stands near 0.15% in June 2014, for a compounding rate of 3.65%. The lowest daily value for 1-month LIBOR on record is 0.14775, with more than 80% of the values since the 1986 inception of 1-month LIBOR over 1.0%.
    - When short-term rates are around 3.75 to 4.5% the compounding rate would be around 8%.
- The study only had an IRA for initial investments. A taxable account was used if there were extra dollars left after RMDs in any years and was available for spending later. The taxable account and the IRA held identical investment portfolios.
  - The tax-free RM proceeds would not have been as big an advantage if the client's initial investments included taxable accounts with their relatively smaller tax burden.
- Her Social Security amount is near the maximum possible, so it is all that much more valuable to delay. The SS benefit started at age 70 is 76% larger than if started at age 62.
  - The greater the SS benefit, the greater the longevity protection from delaying: more money at the oldest ages that she can't outlive.
    - Social Security breakeven time for delaying is usually around age 81. This plan is to age 95. More affluent clients typically live longer than the US population, and women live longer than men. This is a healthy 62-year old woman – her chances of living past 95 are fairly high.
  - More tax-free SS benefits: As her SS benefits are as large as possible her lifetime benefits in the delay scenario are much larger due to her long lifetime. Therefore the 15% of SS benefits that are not taxable are also as large as possible over her lifetime.
  - Of course a client who died at young would not benefit from the SS delay, but would have met her planned style of living.
- This client was single and could not use a SS "claim some early, claim more later" strategy as a couple can, producing an interim social security benefit between age 66 and 70. As this single

woman has zero SS benefit before age 70 she has a proportionally larger gap to fill. This helped show a big impact of using RM LOC to fund early years.

- Delaying start of the IRA withdrawals reduces the "sequence of returns risk" resulting from withdrawing funds from the IRA early.
    - A six year delay in starting withdrawals reduces the impact of bad investment returns early on, and shortens the span of time the volatile investments need to cover from 33 years to 27 years.

Note that there are other ways to combine SS and HECMs. Here are two examples:

- It is important to note there was no attempt to optimize the scenario for this client. For example, withdrawing a small amount from the IRA in the years between 62 and 70 might have worked better. In a real client situation this would have been pursued – an enticing hint of the value of further optimization is she is not spending her IRA's required minimum distributions in many future years.
- A common strategy for clients who have low tax bracket before RMDs start is to fill those brackets up to the level they expect after age 70.5. That way the lower brackets are fully used.

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Case Study Details

- Single woman, age 62. She is In good health and fully expects to live to age 95
- California resident with high state tax rates
- Social Security at 66, her Full Retirement Age, is $2,500/month.
- Pension $60,000 a year, starting at age 62. No annual adjustments.
- $500,000 Traditional IRA. No basis; withdrawals are 100% taxable
- Expenses $87,000/year. No deductions other than state income tax.
- Inflation 3% annually, driving growth of her expenses, SS benefits, and tax brackets.
- $240,000 RM line of credit balance available for spending
    - LOC compounds at 4% a year – near the lowest possible rate for a LOC.
- Required minimum distributions allocated to spending; any extra is invested in a taxable account with same rate of return and standard deviation as the IRA.
- Investment portfolio: Diversified Conservative asset allocation: Arithmetic return 8.64%, standard deviation 7.10%.
    - Note: compounded returns are always smaller than arithmetic returns. Most multi-year investment returns are shown as are compounded returns, which describe how much an investment balance actually grows. Monte Carlo simulations do the compounding for you by varying the returns each year, so the proper simulation input is the arithmetic or simple average annual return.
- Success rates come from a Monte Carlo simulation using Naviplan financial planning software running 1,000 lifetimes. The simulation varies investment returns randomly according to the mean and standard deviation of the portfolio.
- The client has a 34.7% combined state and Federal marginal tax rate for early years when spending IRA. Naviplan computes actual tax bills each plan, so marginal tax rates can change year by year.

Other Candidates to Fund the Income Gap

This document examines funding the income gap with a RM Line of Credit. It is important to recognize there may be better candidates, depending on the client's overall situation. A few examples might be:

- Working longer, perhaps part-time.
- Early withdrawals from retirement accounts. This is particularly useful when the client's income tax rate is lower in years before starting Required Minimum Distributions at age 70.5.
- For clients who have other financial resources: purchase a source of predictable income: e.g., a ladder of CDs or bonds, or fixed annuity. If purchased when they retire at age 62 that's a fairly short investment timeframe, so they should expect low returns on these predictable income sources.
- Start SS benefits for one spouse, likely the one with lower benefits or already near age 70.
- Cash out of a whole life insurance policy that's no longer needed.
- Certain company pensions can be started before age 65 without reducing benefits.
- And approaches can be combined, such as part-time work and a RM.

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Note on Graphs and Success Rates

The graphs are for "linear" projections where the rates of return do not vary from year to year. Linear projections look better than reality once investment returns are allowed to vary, as they do in Monte Carlo projections. That's why for example the graph with delayed Social Security shows sizable value at age 95, but less than 100% success rate. The median wealth in the Monte Carlo results will be much lower than the wealth shown by the graph from fixed annual returns.

An example of variation in return:

- Average return is 0%. Return can be -50% one year, up 50% another year. Average is 0%
- $1000 down 50% is 500 after year 1. After going up 50% in year 2 your balance is $750.
- If the return is just the average each year, that's 0%. $1,000 after a year is $1000, and after year 2 is $1,000. No volatility gives better results than the same average but with volatility.

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[i] Haaga, Owen ad Richard W. Johnson, March 2012. Social Security Claiming: Trends and Business Cycle Effects. The Urban Institute, The Program on Retirement Policy, Discussion Paper 12-01.

[ii] HECM is a Home Equity Conversion Mortgage. These mortgages follow the regulations and procedures laid out by the U.S. Department of Housing and Urban Development (HUD), and are insured by the Federal Housing Administration (FHA).