On Dangerous Ground: The Perils of Reinvesting Social Security Benefits

A look at the math behind internal rates of return that accompanies delaying Social Security benefits immediately points to the folly of claiming early in the hopes of a better investment result

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There's a reason they call it "the third rail of American politics" – try to change it and get zapped.

Social Security is an effective, emotional, at times confusing, and often overwhelming government program. The demagoguery from pundits and politicians about its finances and solvency certainly don't help.

Detractors of the program often argue for privatization. They believe that a provision that allows for workers to invest Social Security taxes in certain "safe" asset classes during the accumulation stage will provide low-risk, low-return options that nonetheless will be higher than what is currently generated by the government program. Similarly, some investment managers and financial advisors recommend that clients begin taking Social Security as early as possible and reinvest the assets in the stock market or an annuity in the attempt to earn a higher return.

We believe this to be a major mistake. The following whitepaper specifically explains how, rather than claiming early, delaying the beginning of Social Security benefits in fact acts in a manner similar to a real (i.e., inflation adjusted) lifetime payout annuity.

Moreover, it explains why the available returns from delaying Social Security benefits are much better than annuities available from the private sector today. Thus, unless a single individual has a below-average life expectancy, he or she should consider delaying the start of Social Security benefits. We then extend the analysis to consider married couples.

BACKGROUND

Social Security is often referred to as a "second-term issue," meaning attempts to address potential insolvency through means testing, reduced benefit amounts, higher retirement ages, or similar measures must be done when a politician has nothing to lose politically due to term limits.

It is therefore surprising that in 1983, during President Ronald Reagan's first term, Social Security actuaries took bold steps in a number of areas. More specifically, they set reductions in benefits for claiming before Full Retirement Age (FRA) and credits for delaying benefits beyond FRA. The reasoning was to make it fair for someone with an average life expectancy *assuming investors could attain a real return on Treasury securities of 3%.* **That is, a real return on Treasury securities of 3% and an average life expectancy in 1983 would (and still does) approximate the return on Social Security.**

BEHIND THE NUMBERS

The changes made in 1983 by Social Security actuaries include the following:

- *A reduction* in benefits of 5/9% of a recipient's Primary Insurance Amount (PIA) per month for each of the first 36 months that benefits begin before Full Retirement Age. (For clarity, the PIA acts as a benchmark the Social Security Administration uses to estimate an individual or couple's monthly benefit).

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- For each additional month that benefits begin before FRA (after the initial 36 months), they set the reduction at 5/12% of the PIA.

- Conversely, the credits for *delaying* the start of Social Security benefits until after FRA is 2/3% of the PIA (again, PIA is the estimated monthly benefit).

Rather than per-month, it's sometimes easier to view the amounts on an annual basis. Thus, taking into account both beginning early as well as delaying benefits for someone with a FRA of 66, monthly benefits as a percent of PIA would be:

- 75% of the full FRA benefit at 62

- 80% of the full FRA benefit at 63

- 86.67% of the full FRA benefit at 64

- 93.33% of the full FRA benefit at 65

- 100% of the full FRA benefits at 66

(Reductions now switch to delayed credits)

- 108% of the full FRA benefits at 67

- 116% of the full FRA benefits at 68

- 124% of the full FRA benefits at 69

- 132% of the full FRA benefits at 70[1]

SINGLE INDIVIDUALS

To understand why delaying Social Security benefits is like buying an inflation-linked lifetime annuity, consider a single individual with a FRA of 66 who is considering delaying the start of benefits from age 62 to 63.

Let's assume her Primary Insurance Amount is $1,000. Her benefit levels, if started at ages 62 and 63 would be $750 and $800 per month due to the early withdrawal reductions. When viewed as an annuity, she could forego (and thus "pay") $750 per month for 12 months beginning at age 62 for an additional $50 of benefits for the rest of her life.

Similarly, she might consider delaying benefits from age 66 to 67. When viewed as an annuity, this delay would be the equivalent of paying $1,000 per month (her PIA) for 12 months beginning at age 66, in return for an additional $80 per month in lifetime benefits beginning at age 67.

Conversely, the decision to delay benefits for multiple years can also be viewed as an annuity. For example, her benefits—if begun at ages 62 or 66—would be $750 or $1,000 respectively, and the decision to delay her benefits from 62 to 66 would be the equivalent of paying $750 per month for 48 months beginning at age 62 in return for an additional $250 per month in lifetime benefits beginning at age 66 (the 75% of full benefits beginning at age 62 versus age 66).

For someone with a FRA of 66, monthly benefits as a percent of PIA would be:
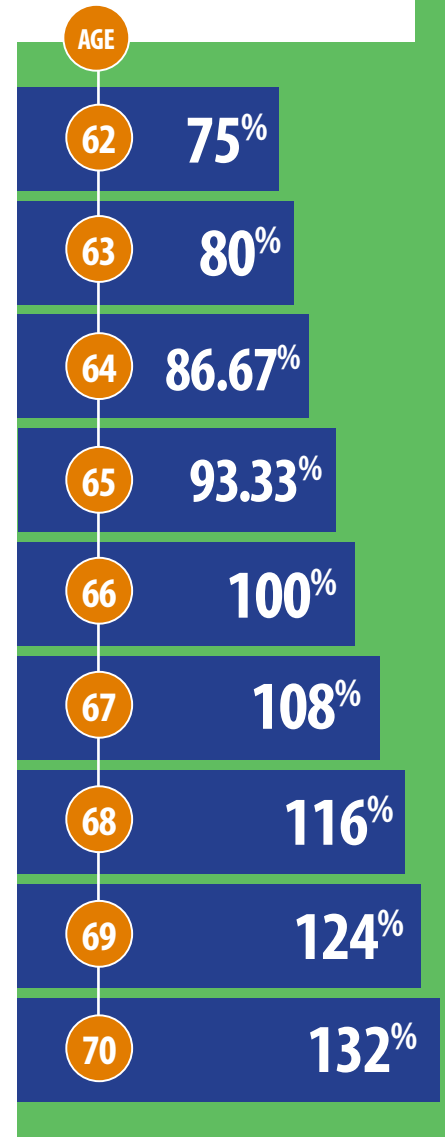
AGE	
62	75%
63	80%
64	86.67%
65	93.33%
66	100%
67	108%
68	116%
69	124%
70	132%

Let's delve deeper (math geeks rejoice, everyone else hang in there).

Table 1 shows the minimum life expectancy that would produce real returns of 0% through 4% on "SSA-provided annuities" (i.e., the guaranteed amount provided by the Social Security Administration from delaying the start of benefits).

Let's consider the annuity amount for delaying benefits from ages 62 to 63. From the "62 vs. 63" row in the table, the real return on this annuity amount is 0% if she lives to age 78 and 0 months.[1] This row also shows the minimum life expectancy for this "annuity" in order to provide real returns of 1% to 4%. If she lives to 83 years and 3 months then the real return from delaying the start of Social Security benefits would be 3%. The other rows in this table should be interpreted similarly.

Table 1: Minimum Lifetimes to Earn Real Returns of 0% to 4% from Delaying Social Security Benefits

Ages	0% real return	1% real return	2% real return	3% real return	4% real return
62 vs. 63	78 yrs and 0 mos	79 and 4	80 and 0	83 and 3	86 and 5
63 vs. 64	76 and 0	76 and 10	77 and 10	79 and 1	80 and 8
64 vs. 65	78 and 0	79 and 0	80 and 2	81 and 9	83 and 9
65 vs. 66	80 and 0	81 and 2	82 and 7	84 and 5	86 and 11
66 vs. 67	79 and 6	80 and 5	81 and 6	82 and 11	84 and 8
67 vs. 68	81 and 6	82 and 7	83 and 11	85 and 7	87 and 10
68 vs. 69	83 and 6	84 and 9	86 and 4	88 and 4	91 and 2
69 vs. 70	85 and 6	86 and 11	88 and 9	91 and 2	94 and 8
62 vs. 66	78 and 0	79 and 1	80 and 4	82 and 0	84 and 2
66 vs. 70	82 and 6	83 and 8	85 and 1	86 and 10	89 and 4
62 vs. 70	80 and 6	81 and 7	82 and 11	84 and 8	86 and 11

The "62 v. 63" row shows the minimum life expectancy to earn a 0% through 4% real returns from delaying Social Security benefits from age 62 to 63. It assumes Full Retirement Age of 66. Other rows should be interpreted similarly. Ages for each real return are to the nearest month. For example, for the "66 vs. 67" row the real returns are 0.997% if the retiree lives to 80 years and 5 months and 1.079% if the retiree lives to 80 years and 6 months. So, we used 80 years and 5 months as the minimum lifetime to earn a 1% real return.

WHAT IT MEANS

The annuity amount available from delaying the start of Social Security benefits can be a good or a bad investment depending upon the single individual's life expectancy. Consider the annuity amount provided by delaying benefits from ages 62 to 66. If she dies before age 66, then her return on the foregone monthly benefits from age 62 until her death would be negative 100%. That is, those benefits would be lost.

However, increasing longevity finds most retirees are not concerned about dying too soon but living too long, and thus outliving their financial resources. As the "62 vs.

[2] *Technically, the 0% real return for age 78 and 0 months implies she will die in the month she turns 78.*

66" row shows, if a single individual lives to age 78, this annuity would provide a 0% real return. That is, in terms of lost purchasing power, the foregone benefits from age 62 to 66 are just about offset by the additional purchasing power of benefits from age 66 to 78. If she lives longer than 78, the cumulative purchasing power of her lifetime benefits (before adjustments for taxes) would be higher if she delays benefits until 66, or her FRA. From this row, if she lives to at least 82 then this annuity would provide at least a 3% real return.

HOW SOCIAL SECURITY BENEFITS BEAT PRIVATE-SECTOR ANNUITIES

Thus, in a private-sector annuity, the investor may hand an insurance carrier a certain amount of money today in exchange for a guaranteed inflation-adjusted monthly amount for the rest of the annuitant's life. Most annuity contracts promise a nominal (i.e., not-in-flation-adjusted) amount per month for the rest of the annuitant's life, but the SSA-pro-vided annuities provide real (inflation adjusted) annuities.

Consider what the Social Security actuaries calculated in 1983 when they set the benefit structure. Doing so makes it clear that there are three reasons why the terms of an SSA-provid-ed "annuity" are better than the terms available on private-sector annuities (at least currently).

As mentioned, they based the benefit structure on the life expectancy of the average American at that time and assumed that the real returns available on Treasury securi-ties would be 3%. That is, these actuaries assumed, first, that if a person lived to at least age 62, they would therefore most likely also live to about his or her mid-80s. Second, all Americans, whether in good health or bad, would be equally likely to "buy" the SSA annuity by delaying the start of benefits. And, third, the retiree could invest the funds in Treasury bonds and earn 3% more than inflation (which is why they based Social Security return as they did).

Now, let's consider the annuity contracts that life insurance carriers offer today. These contract terms must be based on 1) life expectancies for new retirees 2) adverse selection, which we'll explain soon, and 3) today's low interest rates.

First, life expectancies are longer today than in 1983 and life insurance firms must promise lower payments per month because these payments are, on average, going to last longer.

Second, by using the average American's lifetime as instructed by Congress, Social Security actuaries implicitly assumed that all Americans were equally likely to "buy" the SSA annuity by delaying benefits. In contrast, life insurance firms recognize, and thus build into their contracts, the reality that the average life expectancy of retirees that buy annuities exceeds the average life expectancy of the average American.

Consider two groups of retirees. The first has relatively short life expectancies based on lifestyle (e.g., an overweight smoker who does not exercise) or simply due to heredity, while the second group has longer-than-average life expectancies. Most retirees that buy an annuity will be from the latter group. Thus the offered annuities must include lower monthly benefits to reflect this "adverse selection," that is, the fact that most annuitants come from the longer-than-average life expectancy group.

Third, insurance contracts today reflect today's interest-rate environment. In the "62 vs. 63" example discussed earlier, SSA actuaries assumed the $750 payments for 12 months

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could be invested in Treasuries earning 3% more than inflation. That assumption may have been reasonable in 1983, but no longer. Today, insurance firms must offer less per month because of today's much lower interest rates. For example, on October 8, 2014, 10-year Treasury Inflation Protection Security bonds offered investors a 0.41% real return, plus inflation. **This 0.41% real return is *well* below the approximately 3% real return built into the benefit structure for claiming Social Security benefits.**

MARRIED COUPLES

The prior analysis considered the investment implications of the current Social Security benefit structure for single individuals. Let's now extend the analysis to married couples.

After the death of the first spouse, the surviving spouse generally continues benefits based on the spouse with the higher-PIA's earnings record, while benefits based on the lower-PIA spouse's record will cease. Thus, earnings based on the higher-PIA spouse's earnings record generally will continue until the second spouse dies. That is, the SSA-provided annuities are actually real (i.e., inflation adjusted) joint-lifetime annuities that will last until the second spouse dies.

Consider a common situation. The husband is three years older than the wife and has the higher PIA. Upon the death of the first spouse, the surviving spouse continues his benefits. Thus benefits based on the higher-PIA spouse's earnings record will continue until the second spouse dies. Suppose the husband has a short life expectancy, but his wife lives to 84. Then benefits based on his earnings record will continue until the time that he would have been 87 (since he was three years older). From the "62 vs. 70" row in Table 1 and recognizing that real returns available on Treasury securities are between 0% and 1% today, this couple would maximize their expected joint lifetime benefits by having this higher-PIA spouse delay his benefits until age 70. It's therefore critical to note, *the higher-PIA spouse should base his or her claiming decision on the age he or she would be when the second spouse is expected to die.*[2] For many couples, this means that the higher-PIA spouse should delay his or her benefits until age 70.

CONCLUSION

Put simply, guarantees inherent within the Social Security system—combined with increasing longevity, a low interest rate environment and adverse selection—make these so-called "government annuities" preferable to those offered in the private sector. It is therefore not recommended that Social Security recipients with longer life expectancies claim early in an attempt to earn higher returns. END

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[3] See William Reichenstein and William Meyer, Social Security Strategies, 2011.