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SHOULD YOU BUY AN ANNUITY FROM SOCIAL SECURITY?

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Introduction

A key challenge many households entering retirement face is how to use their savings as a source of income. As 401(k)s replace traditional defined benefit pensions and as Social Security replaces a smaller share of household pre-retirement earnings, drawing an income from savings becomes increasingly important.

Households have three traditional options. First, they could put their savings in safe assets, preserving the value of their principal, and live on the interest. Second, they could invest their savings in a portfolio of stocks and bonds and draw out an income. Third, they could buy an annuity from an insurance company, giving up their savings in exchange for a lifetime income. In addition to these three traditional options, households could use their savings to "buy" an annuity from Social Security: they could delay claiming their Social Security benefits to get a higher monthly benefit at an older age, using their savings in the interim to pay current expenses. The savings used is the "price" and the increase in monthly benefits is the annuity it "buys."

This *brief* proceeds as follows. The first section reviews a household's three traditional options for drawing an income out of retirement savings. The second section describes how households can use their savings to "buy" an annuity from Social Security, with the prices and incomes available at different ages. The third section discusses why buying an annuity from Social Security is generally attractive and is especially attractive today. The final section concludes that the Social Security option presents an effective, and often overlooked, drawdown strategy that households should seriously consider.

Savings as a Source of Retirement Income

Drawing an income from retirement savings is becoming increasingly important due to the shift from traditional employer pensions to 401(k)s and the declining share of household earnings replaced by Social Security.[1] To use savings to provide an income in retirement, households have three traditional options.

Option 1: Preserve Principal and Live on the Interest

Retirees could put their savings in safe assets, such as bank deposits or U.S. Treasury bills, to preserve their savings and live on the interest. This option has clear attractions as it maintains the household's ability to pay uncertain future expenses, which is important to retirees who tend to be quite risk averse.[2]

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The approach of living on the nominal interest such assets provide, however, would not preserve the purchasing power of household savings. Inflation would erode the retirees' ability to pay future expenses or leave bequests. Living on the nominal interest would also produce an income likely to fluctuate dramatically, as nominal interest rates rise and fall.

To preserve the purchasing power of household savings and have a reasonably reliable income, the household could only use the interest above inflation as income. Safe assets, however, provide very little income above inflation. Over the period since 1926, U.S. Treasury bills returned just 0.75 percent above inflation. At 0.75 percent, $100,000 in savings would provide an income of $750 a year. The household would preserve the ability of its savings to pay unexpected expenses but would not have much income for everyday expenses.

Option 2: Invest in Stocks and Bonds and Draw Out a Portion as Income

Investing in stocks and bonds and drawing an income also has attractions. Stocks and bonds have historically produced much higher returns than safe assets. Since 1946, large company stocks returned 6.6 percent above inflation and intermediate-term government bonds 2.5 percent above inflation. Assuming a 0.2 percent mutual fund fee, a portfolio invested half in stock and half in bond mutual funds would thus have an expected return of 4.3 percent. Retirees also retain the option to use their savings for unexpected expenses, although they can't have their cake and eat it: savings used to pay medical costs would no longer be available to provide income.

Drawing an income out of savings in stocks and bonds also has drawbacks. The household runs the risk that a spike in inflation or interest rates will reduce the value of its bonds, and the greater risk that a market downturn will sharply reduce the value of its stocks. Developing "safe" strategies for drawing a retirement income out of stock-and-bond portfolios has thus attracted a great deal of attention. The standard objective is a withdrawal rule with "little" risk that the household will outlive its savings. While research is ongoing, reasonable estimates suggest that a couple – in which the husband is age 65 and the wife is 63 – could draw out about 3 percent of their initial savings, invested one-third in stock and two-thirds in bond mutual funds, with little chance of outliving their savings.[3] Using this option, $100,000 would provide an income of about $3,000 a year, with the amount rising as prices rise.

Option 3: Buy an Annuity

Households entering retirement could also buy income annuities, a financial product specifically designed to provide an income households cannot outlive.[4] Like Social Security and employer defined benefit pensions, commercial annuities provide a specified monthly income for life. Sales of annuities, however, have been extremely low: retirees who buy an annuity sacrifice the option to use those savings for anything else.

There are many types of annuities. By far the most common are nominal annuities that provide a set dollar amount per month. The value of the income such annuities provide, however, will fall as prices rise and fall sharply should inflation spike. So to reliably provide for a household's consumption needs in retirement, we focus on inflation-protected annuities. The income such annuities provide for a given amount of savings, like the income nominal annuities provide, depends on current interest rates. Interest rates on bonds used to fund such annuities are currently extremely low.[5] So annuity rates – the annuity income as a percent of the purchase price – are currently quite low (see Table 1). Annuity rates are lower for women than men, as women live longer, and lower still for couples, as the income in the annuity selected continues as long as either spouse is alive. For a couple with the husband age 65 and the wife age 63, the annuity rate is just 3.7 percent. For such a couple, $100,000 would provide $3,700 a year, with the amount rising as prices rise.

Table 1. Inflation-Protected Annuity Rates, January 2012

Age	Men	Women	Couples
62	4.5%	4.1%	3.4%
63	4.7	4.2	3.5
64	4.9	4.4	3.6
65	5.1	4.6	3.7
66	5.3	4.7	3.9
67	5.5	4.9	4.0
68	5.7	5.1	4.2
69	5.9	5.3	4.3

Notes: Annuity rates are inflation-protected income as a percent of the purchase price. For couples, the husband is the age indicated and the wife is 2 years younger, with the full annuity income continuing as long as either spouse is alive.
Source: Vanguard Annuity Calculator, January 2012.

Table 2. Increase in Inflation-Adjusted Monthly Social Security Benefits If a Retiree Delayed Claiming

Delay from age	To age 63	64	65	66	67	68	69	70
62	6.7 %	15.6 %	24.4 %	33.3 %	44.0 %	54.7 %	65.3 %	76.0 %
63		8.3	16.7	25.0	35.0	45.0	55.0	65.0
64			7.7	15.4	24.6	33.8	43.1	52.3
65				**7.1**	15.7	24.3	32.9	**41.4**
66					8.0	16.0	24.0	32.0
67						7.4	14.8	22.2
68							6.9	13.8
69								6.5

Source: Author's calculations.

The 4th Option: Buy an Annuity from Social Security

Social Security benefits are inflation-protected annuities: they rise in line with prices and continue as long as the retiree – or the retiree's spouse, if the spouse's benefit is lower – is alive. Benefits can be claimed at any age between 62 and 70, with monthly benefits higher the later benefits are claimed. Table 2 gives the increase in monthly benefits should a participant who is contemplating retirement delay claiming to a later age. (As benefits are indexed to inflation, all figures refer to inflation-adjusted benefits). As seen in Table 2, monthly benefits would be 7.1 percent higher if claimed at age 66, not age 65, and 41.4 percent higher if claimed at 70. If monthly benefits would be $1,000 a month if claimed at 65, they would be $1,071 if claimed at 66 and $1,410 if claimed at 70.[6]

Because benefits are higher when claimed later, retirees can delay claiming to get a higher monthly income. To accomplish this goal, they can use their retirement savings to pay the bills while they delay, giving up the option to use these savings for anything else. The savings used is the "price" and the increase in benefits is the annuity they "buy" from Social Security. For example, consider a retiree who could claim $12,000 a year at age 65 and $12,860 at age 66 – $860 more. If he delays claiming for a year and uses $12,860 from savings to pay the bills that year, $12,860 is the price of the extra $860 annuity income.[7] The annuity rate – the additional annuity income as a percent of the purchase price – would be 6.7 percent ($860/$12,860).

Table 3 on the next page gives the annuity rates for using savings to delay claiming.[8] These annuity rates are much higher than "safe" drawdown rates from stock and bond portfolios. They are also uniformly higher than current rates on commercial inflation-protected annuities reported in Table 1, especially for couples.[9]

Why Is the Social Security Annuity so Attractive?

"Buying" an annuity from Social Security is generally more attractive than buying a commercial annuity for several reasons. The annuity a retiree "buys" from Social Security is the increase in benefits for claiming at an older age. These increases are designed to be actuarially fair – so "no additional cost to the system arises" due to participants claiming at different ages.[10] Commercial annuities, by contrast, cannot be "actuarially fair." Insurance companies have marketing, management, and risk-bearing costs that must be added to the "actuarial" price – the expected present value of the income the annuity provides. More importantly, Social Security benefit adjustments

Table 3. Annuity Rates Using Savings to Delay Claiming Social Security Benefits

Delay from age	To age 63	64	65	66	67	68	69	70
62	6.2 %	6.7 %	6.5 %	6.3 %	6.1 %	5.9 %	5.6 %	5.4 %
63		7.7	7.1	6.7	6.5	6.2	5.9	5.6
64			7.1	6.7	6.6	6.3	6.0	5.7
65				**6.7**	6.8	6.5	6.2	**5.9**
66					7.4	6.9	6.5	6.1
67						6.9	6.5	6.1
68							6.5	6.1
69								6.1

Notes: Additional inflation-protected annuity income as a percent of savings used to delay claiming. The annuity rate calculation assumes a 0 percent real interest rate on savings used to delay claiming, an important reason why these annuity rates decline the longer a retiree delays.
Source: Author's calculations based on the *Social Security Act* of 1935.

are based on the life expectancy of the "average" individual. As individuals who purchase commercial annuities tend to have above-average life expectancy, the cost of the yearly income these annuities provide is higher.[11]

While buying an annuity from Social Security is a generally attractive option, it is *especially* attractive when interest rates are low, as they are today. Living on the interest today is essentially impossible, as interest rates on safe assets are currently less than the rate of inflation. Drawing an income from a portfolio invested in stocks and bonds is also less attractive, as bond interest rates are low and any increase would reduce the value of the bonds retirees hold. As noted above, commercial annuities funded by bonds also provide much less income than they would in "normal" times.

By contrast, the additional income available by claiming Social Security later is not affected by current interest rates. The increases in benefits, presented in Table 2, are basic features of the system. The increases over the three years prior to the program's Full Retirement Age have actually remained unchanged since they were introduced over 50 years ago.[12] As households become increasingly dependent on 401(k)/IRA savings as a source of retirement income, the ability to buy an annuity from Social Security at these rates provides a critical safety net against the risk of retiring when interest rates are low.

Conclusion

With the shift from employer defined benefit pensions to 401(k)s, retiring households have the option of tapping these savings to delay claiming Social Security. As Social Security and traditional employer pensions now replace a much smaller share of pre-retirement earnings, buying an annuity also becomes much more attractive. And buying an annuity from Social Security, especially in today's low interest rate environment, is the best deal in town.

Endnotes

1 See Munnell (2003); and Munnell, Sanzenbacher, and Soto (2007). Complicating matters, retirees also need savings as reserves, primarily to pay uncertain future medical and long-term care expenses or leave as bequests.

2 Johnson (2010).

3 Drawing out 4 percent, the conventional “4-percent rule,” results in a risk of outliving one’s savings much higher than originally thought. Webb (2009).

4 Income annuities are different than annuities designed as tax-advantaged investment vehicles, which are far more common.

5 Interest rates on government inflation-protected bonds, which are not necessarily used to fund inflation-protected annuities, are less than 1 percent for long maturities and negative for maturities of less than 10 years (U.S. Department of the Treasury, 2012).

6 The increase would be even higher if the participant also continued to work and increase the earnings record that forms the base of the Social Security benefit calculation. See Center for Retirement Research (2009).

7 To be comparable to the other options discussed above, the additional $860 must start immediately, not when the participant claims. The additional $860 in income would come from Social Security from age 66 on, when he claims a $12,860 annual benefit, and from savings before he claims, drawing $12,860 as income to pay the bills before he claims at 66.

8 Social Security benefits also receive favorable income tax treatment, and the income tax treatment of Social Security benefits can also become more favorable if the participant delays claiming. These considerations, which depend on the household’s other income, are not included in these calculations. For a discussion, see Mahaney and Carlson (2007).

9 A key limitation on the use of Social Security as a source of retirement income is the inability to delay claiming past age 70. Retirees age 65 can only increase their inflation-protected annuity income by a bit more than 40 percent. In our example, the participant age 65 who could claim a $20,000 annual benefit could only use $140,000 to delay claiming to age 70, to increase his yearly benefit by $8,280 a year.

10 Myers (1993).

11 As a matter of public policy, Social Security also provides survivor benefits based on a participant’s actual benefit at no extra cost. This is why using savings to claim a higher Social Security benefit is so attractive for couples. For all these reasons, as a recent study (Shoven and Slavov 2012) found, buying an annuity from Social Security is “actuarially advantageous for a large subset of people, particularly for real interest rates of 3.5 percent or below.”

12 Munnell and Sass (2012).

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