

Still a Better Deal

Private Investment vs. Social Security

By Michael D. Tanner

Although Social Security reform has largely been off the political radar since President George W. Bush's failed attempt to reform the system in 2004–2005, the problems facing our national retirement system have not gone away.

In fact, in 2012 Social Security spent \$158 billion more on benefits than it took in through taxes. In part, this was the result of the temporary reduction in payroll taxes passed in 2011, and extended for an additional year in 2012, before being allowed to expire on January 1, 2013, as part of the deal to avert the fiscal cliff. However, even though the payroll tax has returned to its full 12.4-percent rate, Social Security is projected to run a shortfall of \$68 billion in 2013.

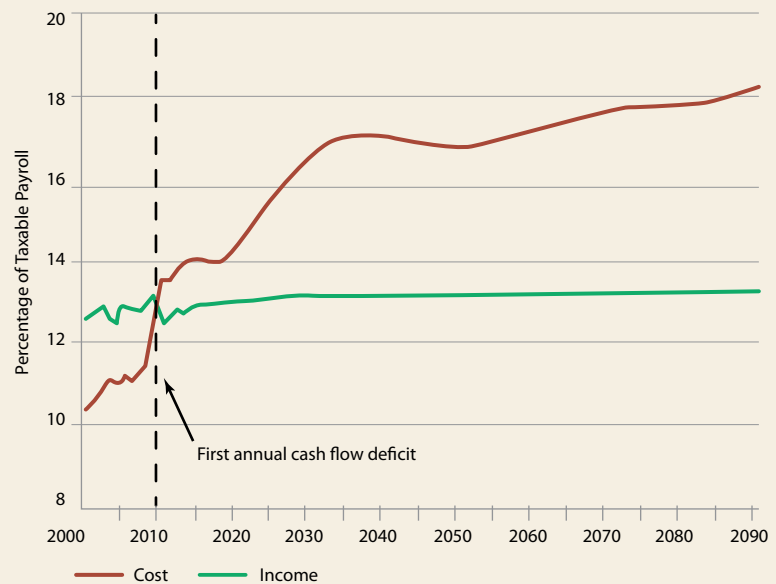
Overall, since the demise of the Bush proposal, Social Security's long-term unfunded liabilities have increased by almost \$13 trillion, to roughly \$25.7 trillion (see figure 1).

In theory, Social Security is supposed to continue paying benefits by drawing on the Social Security Trust Fund until 2033, after which the fund will be exhausted. At that point, by law, Social Security benefits will have to be cut by approximately 23 percent.

In reality, the Social Security Trust Fund is not an asset that can be used to pay benefits. Any Social Security surpluses accumulated to date have been spent, leaving a trust fund that consists only of government bonds that eventually will have to be repaid by taxpayers. As the Clinton administration's Fiscal Year 2000 Budget explained it:

These [Trust Fund] balances are available to finance future benefit payments and other Trust

FIGURE 1: SOCIAL SECURITY'S GROWING CASH-FLOW DEFICIT



Source: "2013 Trustee's Report, Supplementary Tables," Table IV.B1. Annual Income Rates, Cost Rates, and Balances, Calendar Years 1970–2090.

Fund expenditures—but only in a bookkeeping sense. ... They do not consist of real economic assets that can be drawn down in the future to fund benefits. Instead, they are claims on the Treasury that, when redeemed, will have to be financed by raising taxes, borrowing from the public, or reducing benefits or other expenditures. The existence of large Trust Fund balances, therefore, does not, by itself, have any impact on the Government's ability to pay benefits.

Whatever one thinks of the viability of the trust fund, it will be exhausted by 2033. At that point, Social Security will have to rely solely on revenue from the payroll tax—but that revenue will not be sufficient to pay all promised

benefits. Overall, Social Security faces unfunded liabilities of \$25.7 trillion. Social Security is not sustainable in its current form. That means that Congress again will be forced to resort to raising taxes and/or cutting benefits in order to enable the program to continue.

The tax increases or benefit reductions would need to be significant. For example, to restore Social Security to solvency would require immediately raising the current 12.4-percent Social Security payroll tax to at least 15.06 percent, or raising the equivalent amount of revenue from other taxes. (Eliminating the cap on taxable income for payroll taxes, one frequent suggestion, actually would do little for the program's long-term solvency.)

On the other side of the ledger, restoring the program to solvency would require an immediate 16.5-percent



reduction in benefits. Suggested changes include further raising the retirement age, trimming cost-of-living adjustments (COLAs), means-testing, or changing the wage-price indexing formula. If Congress delays these needed changes, and waits until the exhaustion date in 2033, these measures become even more drastic: benefits immediately would be cut by 23 percent and the cuts would increase to 28 percent by 2087, and the tax rate would have to be raised by 4.1 percent immediately, with the total rate eventually being increased by an additional percentage point to reach 17.5 percent by 2087. Obviously, there are better and worse ways to make these changes. But any of those changes would mean ultimately that today's young workers would end up paying more, getting less, or both. Because Social Security's rate-of-return (just 2.2 percent for a middle-income earner retiring last year) is already far below the historic average for private capital markets (since 1928, a period including the Great Depression, World War II, the stagflation of the 1970s, the bursting of the dot-com bubble, and the recent recession, the average annual real return on stocks in the United States has been 6.09 percent), these changes would make Social Security an even worse deal for young workers.

It would make sense, therefore, to offset these changes by allowing younger workers the option of saving and privately investing at least a portion of their Social Security taxes. That would allow those workers to take advantage of the potentially higher returns available from capital investment. In a dynamically efficient economy, the return to capital will exceed the rate of return to labor, and therefore will be higher than the benefits that Social Security can afford to pay. In the United States the return on capital generally has run about 2.5 percentage points higher than the return on labor.

On the other hand, capital markets are both risky and volatile, with the market making large swings down as well as up over the past 40 years. However, despite those downturns, the S&P averaged an annual real return of 6.85 percent over the period.

At the same time, bonds were far less volatile, though there were still periods of negative returns. Over the past 40 years, government bonds averaged an average real annual return of 2.44 percent, while corporate bonds averaged 3.46 percent. An individual who combined the two would have seen an average annual real return of 2.93 percent.

Allowing younger workers to privately invest a portion of their Social Security taxes would expose them to a degree of risk. They would, in effect, be trading the political risk of an underfunded Social Security system for the market risk of private investment.

An Experiment

Opponents of personal accounts suggest that this market risk would inherently leave those workers worse off. But would it?

Consider this experiment:

In 2005, scholars at the Cato Institute proposed a Social Security reform plan that would have phased out government-provided retirement benefits while allowing younger workers the option to privately invest half of their payroll taxes (6.2 percent of covered wages) through personal accounts. The proposal would not have affected benefits for individuals 55 or older; it would have been phased in gradually on a voluntary basis for younger workers, and eventually workers would have relied on the funds in their personal accounts for their entire retirement income.

In 2012, scholars at the institute revisited this proposal to see how workers would have fared under the conditions of this plan.

The study considered three hypothetical individuals each of whom retired on November 7, 2011. One was a high-wage earner whose final salary was equivalent to the 2011 Social Security salary cap, \$106,800. The second was a middle-income worker whose final salary was equal to the median U.S. household income, \$49,445. And, the third was a low-wage worker earning half the median income, \$24,723.

Each of these workers was assumed to have begun working in 1968. To keep their wages consistent over time, their wages were backed down from current levels each year by the rate of average U.S. wage growth. Thus, when the high-income worker began work, he earned \$11,662; the middle income worker earned \$6,300; and the low-wage worker earned \$3,100.

Each worker was assumed to have taken advantage of the personal account option under the Cato proposal and to have contributed half of the Social Security payroll tax each year to a private account, with the remainder of the payroll tax continuing into Social Security to help finance the transition as well as to pay for survivor and disability benefits.

Investments were assumed to have been made on December 31 of each year, except for the final payment, which was made on November 7, 2011. This lump-sum investment does somewhat oversimplify the model, because in reality the worker would be investing on each pay period, or roughly every two weeks. However, the tiny changes in returns over two-week periods would not significantly change the outcome.

Within the personal account, we assumed three possible investment portfolios: a high-risk/high-return portfolio consisting of 100 percent stocks, a medium-risk/medium-return portfolio of 50 percent stocks and 50 percent bonds, and a low-risk/low-return portfolio consisting entirely of bonds. Stock investments were assumed to be in an index reflecting returns to the S&P 500.

For the bond fund, the investment package comprised 50-percent U.S. Treasury bonds and 50-percent Moody's AAA corporate bonds. For the government bond component, the person would invest in 10-year bonds annually, so different cohorts of 10-year Treasury bonds would mature in successive

TABLE 1: MONTHLY RETIREMENT BENEFITS BY INVESTMENT PACKAGE FOR HIGH-INCOME, MEDIUM-INCOME, AND LOW-INCOME INDIVIDUALS

Investment Package	Monthly Benefit		
	High-Income	Medium-Income	Low-Income
Stocks	\$ 4,586.00	\$ 2,621.00	\$ 1,287.00
50/50	\$ 3,562.00	\$ 2,067.00	\$ 1,096.00
Bonds	\$ 2,539.00	\$ 1,565.00	\$ 896.00
Current Social Security	\$ 2,033.00	\$ 1,358.00	\$ 891.00

Source: Author's calculations using "Selected Interest Rates Daily-H.15: Moody's Seasoned AAA Bonds and Treasury 10-Year Bonds" <http://www.federalreserve.gov/releases/h15/data.htm>; "Compound Annual Growth Rate (annualized return), Moneychimp, http://www.moneychimp.com/features/market_cagr.htm; "Annuity Calculator Single Life Income (SL)," Immediate Annuities, <http://www.immediateannuities.com>; and "Social Security Quick Calculator," Social Security Administration, <http://www.ssa.gov/oact/quickcalc/>

years. This system of rolling annual contributions and returns of maturing bonds into new 10-year bonds would continue until the final decade before retirement. For the potential retirees to have all of their savings available upon retirement, they cannot invest in bonds that will mature after they retire, so it was assumed that they invested in bonds with steadily decreasing years to maturity, telescoping from 10-year bonds down to seven-year bonds, then five, then three.

From 2009 onward, it was assumed that new contributions to personal accounts simply remained in cash, because the yields on a one-year government bond are less than 1 percent, and the volatility of the stock market would argue against investing in stocks so close to retirement.

Administrative costs were assumed to equal 25 basis points, which were assessed each year on December 31. This is consistent with estimates made by the Social Security Administration's actuaries in scoring private account proposals.

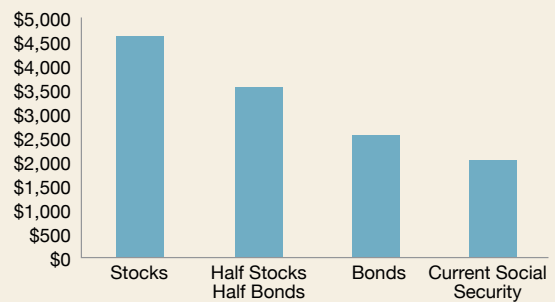
Upon retirement, the accumulation in the individual's account was used to purchase a lifetime annuity. With a life annuity, like Social Security, the retiree can never outlive the monthly income. A 6-percent charge was assessed as the cost of annuitization.

Table 1 and figures 2, 3, and 4 show the outcomes for each hypothetical individual under each of the three possible investment scenarios, compared with the benefits that the individual could expect to receive from Social Security. Social Security benefits are calculated using the Social Security Administration's benefits calculator, with the ultimate wage in each scenario used as the last earned wage in the preceding year, and assume that full Social Security benefits are paid in the future, without change.

In every case, a worker would have received higher monthly benefits from private investment than from Social Security. In fact, even in the worst-case scenario, a low-wage worker who invests entirely in bonds, the worker does no worse than Social Security.

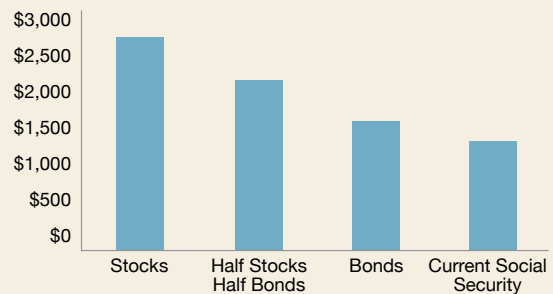
Other studies have reached similar conclusions. For example, according to Andrew Biggs, former associate Social Security commissioner for policy now with the American Enterprise Institute, if an individual who retired in 2008 had been allowed to invest 4 percentage points of the payroll tax in a personal account using a life-cycle portfolio, which would

FIGURE 2: MONTHLY RETIREMENT BENEFITS BY INVESTMENT PACKAGE FOR HIGH-INCOME INDIVIDUAL



Source: Author's calculations using "Selected Interest Rates Daily-H.15: Moody's Seasoned AAA Bonds and Treasury 10-Year Bonds" <http://www.federalreserve.gov/releases/h15/data.htm>; "Compound Annual Growth Rate (annualized return), Moneychimp, http://www.moneychimp.com/features/market_cagr.htm; "Annuity Calculator Single Life Income (SL)," Immediate Annuities, <http://www.immediateannuities.com>; and "Social Security Quick Calculator," Social Security Administration, <http://www.ssa.gov/oact/quickcalc/>

FIGURE 3: MONTHLY RETIREMENT BENEFITS BY INVESTMENT PACKAGE FOR MEDIUM-INCOME INDIVIDUAL

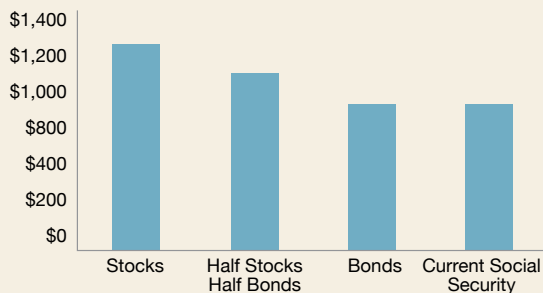


Source: Author's calculations using "Selected Interest Rates Daily-H.15: Moody's Seasoned AAA Bonds and Treasury 10-Year Bonds" <http://www.federalreserve.gov/releases/h15/data.htm>; "Compound Annual Growth Rate (annualized return), Moneychimp, http://www.moneychimp.com/features/market_cagr.htm; "Annuity Calculator Single Life Income (SL)," Immediate Annuities, [FCO]Hyperlink<http://www.immediateannuities.com>; [FCC] and "Social Security Quick Calculator," Social Security Administration, <http://www.ssa.gov/oact/quickcalc/>

shift from holding 85 percent stocks through age 29 to only 15 percent stocks by age 55, and having traditional benefits reduced proportionately, the individual still would have ended up with total retirement benefits approximately 15 percent higher than they would have received from Social Security alone (Biggs 2008).



FIGURE 4: MONTHLY RETIREMENT BENEFITS BY INVESTMENT PACKAGE FOR LOW-INCOME INDIVIDUAL



Source: Author's calculations using "Selected Interest Rates Daily-H.15: Moody's Seasoned AAA Bonds and Treasury 10-Year Bonds" <http://www.federalreserve.gov/releases/h15/data.htm>; "Compound Annual Growth Rate (annualized return), Moneychimp, http://www.moneychimp.com/features/market_cagr.htm; "Annuity Calculator Single Life Income (SL)," Immediate Annuities, [FCO]Hyperlink[http://www.immediateannuities.com](http://www.immediateannuities.com;); [FCC] and "Social Security Quick Calculator," Social Security Administration, [FCO]Hyperlink<http://www.ssa.gov/oact/quickcalc/>

A Viable Alternative


By its nature, private capital investment contains a degree of risk. The returns on stocks and bonds obviously can go down as well as up. Opponents of personal accounts have suggested that this means, *ipso facto*, that seniors would be left in poverty.

Of course, traditional Social Security is not without its own risks. Already, the Social Security system provides a rate of return well below historic rates of return from private market investment. Moreover, the system cannot pay the promised level of benefits given current levels of revenue. Because Social Security benefits are neither guaranteed nor contractual, those benefits are almost certain to be reduced in the future. Workers who chose to invest privately, rather than rely on traditional Social Security, therefore would be exchanging the political risks of an underfunded Social Security system for the market risks of private investment.

A fair comparison of actual investment returns over the past 40 years to the benefits provided under Social Security shows that a system of private investment will in fact provide significantly higher rates of return than the current Social Security system, meaning that the vast majority of younger workers would be better off switching to such a system.

While there are limits to this type of analysis, it clearly shows that the argument that private investment is too risky compared to Social Security does not hold up. With Social Security running a cash-flow deficit today and facing a \$25.7-trillion shortfall in the future that will make it impossible to pay promised benefits, private investment and personal accounts should be part of any discussion about reforming the troubled system.

The failure of President George W. Bush's disastrous campaign for personal accounts is widely believed to have taken the idea off the table for the foreseeable future. None of the recent deficit commissions included personal accounts in their recommendations.

However, given Social Security's ongoing travails and the evidence that private investment provides a viable alternative, perhaps it is time to revisit such proposals. 

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Reference

Biggs, Andrew. 2008. Still a Good Idea: What does the turbulent stock market tell us about Social Security personal accounts? *National Review* (October 17). <http://nationalreview.com/articles/225909/still-good-idea/andrew-g-biggs#!>.