

The Financial Status of Social Security, Part 4

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We have seen that the total tax rate for OASD (12.4%, divided equally between employer and worker) approximates the savings rate for retirement as recommended by most financial planners (15%). It is important to evaluate which method of retirement financing offers the greatest benefit to the worker. To do so, it is necessary to evaluate the return on investment for Social Security vs. other retirement methods, such as 401(k) and Individual Retirement Accounts (IRA). Is the average worker better off paying into and collecting from Social Security, or would he be better off to invest and save on his own?

Fortunately, the Social Security Administration has conducted a study [1] that answers the question for the Social Security system. In its analysis, the SSA calculated the real rates of return for Social Security benefits as a function of income level and year of birth, assuming a worker retired at the nominal retirement age. It included a range of income levels from very low income to very high income, which is important because the benefits paid out are higher relative to income for low-income workers. The real rate of return is the interest rate necessary upon the taxes paid in order to finance the Social Security benefits received; i.e., it is the average annual rate of return necessary to finance the typical benefit received. The main assumptions underlying the calculations, all reasonable, are:

- a. Includes the amount of payroll taxes paid from start of work to retirement
- b. Workers enter the workforce at age 21 and retire at 65, and receive benefits according to their life expectancy
- c. Workers are assumed to earn at some fixed percentage of the average wage index for their entire careers (Median = 100%, Low = 25%; Very Low = 25%)
- d. For married couples, assumes there is neither death nor divorce prior to receiving benefits
- e. Families are assumed to include two children
- f. Takes into account the longer life spans (and hence increased time of benefit payment) of women

Figure 1 shows the results of the SSA study for median income earners. On the left side is the rate of return under the present benefit schedule. However, that is somewhat misleading, since the SSA program will begin to pay out more in benefits than it collects in revenue beginning in 2021. The right side shows the rate of return if current tax rates remain unaltered, and the SSA system is forced to cut benefits in order to remain solvent. But, it also assumes that the fictional "Trust Fund" is repaid such that the real reduction in benefits does not begin until 2033. Therefore, the right side values are somewhat optimistic, since there is no evidence that the \$2.76 trillion in "Trust Fund" "assets" that were "borrowed" ("stolen and spent") by Congress will actually be repaid out of general revenues, given the budget pressures that future Congresses will face.

There are several important features of the curves on Figure 1. First, the people who contributed the earliest, and began collecting benefits the earliest, have the highest rate of return. Although not shown here, workers with low and very low income levels have higher rates of return (Very Low is about 50% higher; Low is about 20% higher). The optimistic chart on the left shows the rates of return leveling out beginning with those born around 1960; the right charts shows the rates of return steadily decreasing. This behavior is due to two factors. First, is that the early participants paid a much lower tax rate and received relatively higher benefits, affordable at that time because the ratio of workers paying taxes to those collecting benefits was large. The second reason is that those born later spend most of their working lives paying high Social Security tax rates; the rate of return would be even lower if not for the fact that life spans have increased in the past several decades, and consequently benefits are paid over a longer period.

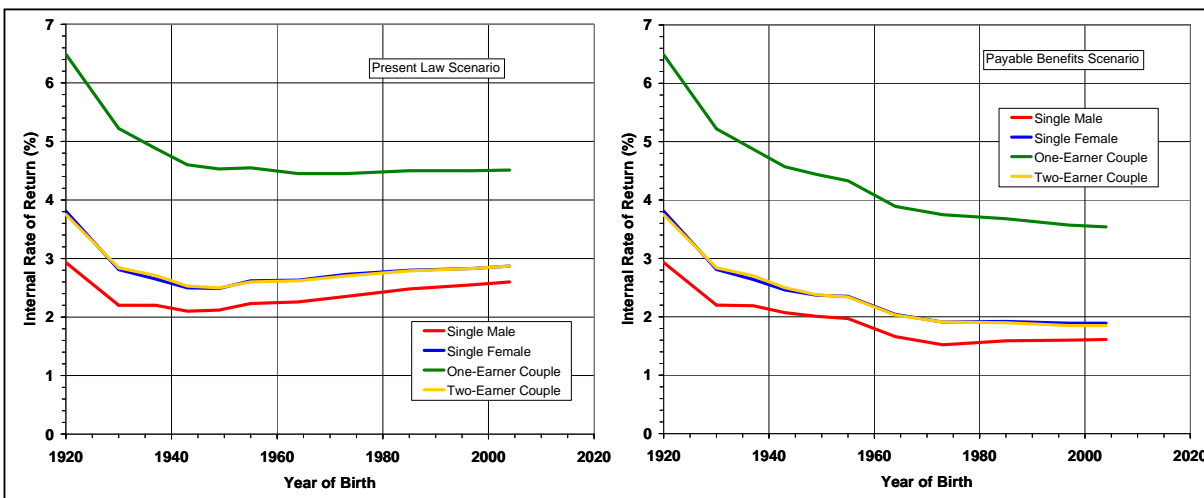


Figure 1: Social Security OASDI Rate of Return, Median Income Workers

Secondly, not every type of worker receives the same general rate of return. Figure 1 shows that single males fare the worst in rate of return, and single-earner couples fare the best. Single females and two-earner families are about the same. The females obtain a better rate of return than their male counterparts mostly owing to longer life spans. The two-earner families fare worse than single-earner because benefits are not paid as individuals (as would be the case with an individual retirement account); the benefits are paid jointly to husband and wife, not commensurate with their actual tax contributions.

The rates of return shown on Figure 1 are much worse than what is typically achieved by investing in stocks and bonds over the long run. Gay [2] has calculated that annualized total return above inflation from the stock market at about 6.6%, going back to 1926. Lind [3] has used historical data to project annualized rates of return of 2.3% for Treasury notes, 4.8% for U. S. aggregate bonds; 7.2% for international stocks; 8.2% for small-cap stocks, and 7.4% for S&P 500 investments. Brightman [4] has used historical data to show that the annualized returns on a 60/40 mix of stocks and bonds averaged 7.6% for the period between 1871 and 2010. Certainly all of these calculations involve simplifying assumptions, and there of course no guarantees that the next century will function the same as the past. But considering that there have been some bad economic times in the past century, it is reasonable to conclude that in the long run (which is the only one that matters for retirement planning), private investment offers a much better rate of return than a pay-as-you-go government system like Social Security.

[1] M. Clingman, K. Burkhalter, C. Chaplain, "Internal Real rates of Return Under the OASDI Program for Hypothetical Workers", Social Security Administration, Office of Chief Actuary, Baltimore MD, March 2013

[2] C. Gay, "Is the 7% Return for Stocks Extinct?", US News and World Report, 8 Aug 2012; <http://money.usnews.com/money/personal-finance/mutual-funds/articles/2012/08/08/is-the-7-percent-return-for-stocks-extinct>

[3] M. E. Lind, "Q and A" Estimating Long Term Market Returns", Charles Schwab, 22 May 2014; <http://www.schwab.com/public/schwab/nn/articles/Q-and-A-Estimating-Long-Term-Market-Returns>

[4] C. J. Brightman, "Expected Return", 2012; https://www.researchaffiliates.com/Production%20content%20library/IWM_Jan_Feb_2012_Expected_Return.pdf