



## That retirement calculator is lying to you and your clients

Forecast returns built into most retirement tools no longer valid, experts say; 8% is history

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Anyone who puts even minimal elbow grease into retirement planning is well aware of "the number," the anxiety-producing seven-figure sum online calculators and financial advisers say you'll need to enjoy a comfortable lifestyle after your career ends. There's a far smaller number that deserves more attention now -- the rate of return at the heart of that calculation.

According to Ibbotson data, the long-term annualized gain for the Standard & Poor's 500-stock index dating back to 1926 is 9.9 percent. For bonds, it's 5.4 percent. (From 1970 to 2010, the Barclays Capital Aggregate Bond index average was 8.3 percent) Plug those numbers into a portfolio of 60 percent stocks and 40 percent bonds and the return is about 8 percent, which is precisely the number most financial planners -- and retirement calculators -- were using up until recently.

With bond yields at record lows and stock dividend yields less than half their long-term norm, however, expecting portfolios to deliver returns in line with those historical averages may be a dangerous assumption. Using lower return numbers and seeing a higher savings target emerge may be a harsh reality check, but better to grapple with it now than be shocked when there's less time to ramp up savings or cut spending to remedy a shortfall.

Today many advisers are looking out a decade or so and lowering the rate of return they expect from stocks and bonds. Jon West, a director at Research Affiliates, which manages \$50 billion, says the firm's number crunching leads it to estimate that stocks could deliver 5 percent to 6 percent, and

bonds 2 percent or so. That's based on getting "at least 2 percent less from dividends," anemic earnings growth, and no growth in the stock market's price-earnings ratio, he says. It produces a return below 5 percent for a 60/40 portfolio. That's a far cry from 8 percent.

Vanguard founder Jack Bogle has a slightly more upbeat assessment. He expects stock returns of 7 percent to 7.5 percent over the next decade. He assumes no expansion in the market's price-earnings ratio, dividend yields of 2.2 percent, and earnings growth of at least 5 percent. Bogle expects bond returns to be about 3 percent. For a balanced portfolio, that produces a net nominal return of slightly more than 6 percent. A higher forecast is T. Rowe Price's estimate of 7 percent; until this year it had used 8 percent.

## Not-So-Happy Returns

Lower return expectations are a function of pretty straightforward math. Dividend income has historically played a large role in stocks' total return. Dating back nearly 100 years, dividends have contributed slightly less than half (4.5 percentage points, to be exact) of the S&P 500's 9.9 percent annualized total return. And since 1995 dividends have practically gone into witness protection, averaging about 2 percent.

The challenge for bond investors is today's low yields. A bond's total return comprises yield plus any changes in the underlying price of the bond. Bond prices rise when yields fall, and with the 10-year Treasury at a record low and the Barclays Capital Aggregate Bond index below 3 percent, there's little room for prices to rise. So figure an annualized return below 3 percent for bonds over the next decade, says West.

More sober return realities aren't reflected in all of the online retirement calculators. Some, such as ones offered by Principal Group and Yahoo! Finance, use 8 percent as the default rate. Others, including the AARP and Bloomberg calculators, default to 6 percent. The Labor Dept.'s calculator plugs in 5 percent. Vanguard's gives savers a slider to play with that's initially set at 5 percent. It labels 5 percent "conservative" and describes a return anywhere from 6 percent to 9 percent as "moderate." That's a mighty wide range.

Vanguard senior investment analyst Maria Bruno says the range gives users "flexibility" and is based on the different outcomes investors have experienced historically depending on whether they held only stocks, only bonds or combinations of the two. Because these are based on long-term data, "we don't modify ranges like this in different types of market conditions," she says.

Principal says in an e-mail that its 8 percent figure is based on a 10 to 30 year view of the market "which we believe is appropriate for long-term retirement savings." When contacted, Yahoo Finance said it is reviewing the rates used on the site's personal finance calculators.

## Going to Monte Carlo

Online retirement calculators may also rely on what's known as Monte Carlo simulations. Rather than choose one rate of return to base calculations on, Monte Carlo incorporates thousands of return scenarios that deviate from assumed benchmark rates of return based on different volatility scenarios, as well as assumed withdrawal scenarios for retirees. After the program runs the numbers, it gives a "success rate" showing the percentage of market scenarios where a saver arrived at the end of his life span and still had money. There are free calculators using Monte Carlo simulations at T. Rowe Price, Fidelity, and Schwab.

Monte Carlo simulations are useful but can have shortcomings. William Bernstein, a principal at Efficient Frontier Advisors and author of "The Investor's Manifesto," worries they can give a false

sense of security since, for the most part, they assume normally distributed returns -- not the dramatic market meltdowns of recent years. Fidelity's calculator shows savers two probabilities: one that assumes the historical rates of return are borne out, and another shows how savers would fare if they had below-average outcomes.

If using any of the calculations shows that a savings goal needs to be hiked, one way to eke more return out of a portfolio is to focus on fees. Forging over 1 percent to 1.5 percent of your money each year to cover a mutual fund's expense ratio may have been easy to overlook in the 1990s when the S&P 500's annualized return was 18.2 percent. If returns are 6 percent or 7 percent over the next decade, a 1.5 percent expense ratio cuts a net return by about 25 percent.

"In this day and age, there's simply no excuse for paying [an expense ratio of] more than 0.25 percent for a portfolio of U.S. stocks and bonds, and maybe 0.5 percent for a portfolio of foreign stocks," says Bernstein.

--*Bloomberg News*--