How much do you need to retire?

The National Retirement Risk Index maintained by the Center for Retirement Research at Boston College shows that 53% of Americans may not be able to maintain their standard of living in retirement. So, just how much does someone need in order to be able to retire without a reduction to their standard of living? There are two general methods of retirement income planning and the amount that you need depends on which approach you choose.

Probability Based Approach

The first approach is "probability based" and relies on the expected future return of a portfolio of stocks and bonds. Using this approach, the retirement plan is constructed to ensure a high probability of plan success but it is not 100% guaranteed. The roots of this approach can be traced to a 1994 Journal of Financial Planning paper. The paper sought to answer the question of how much could be withdrawn annually from savings over the course of a thirty year retirement without running out of money. This is difficult to know since it's impossible to know what the market will return over the next thirty years. So, the author (William Bengen) decided to look at how a retiree would have fared over historical, rolling thirty year retirement periods; 1926 through 1955, 1927 through 1956, etc. He found that under the worst period that began in 1966, a retiree could have withdrawn 4% from savings during the first year of retirement. He could then increase each subsequent annual withdrawal by the increase in inflation. Thus, his standard of living was always maintained for the entire thirty year period, at which point the portfolio was depleted. This became known as the "4% rule" and it was considered a useful rule of thumb for people who didn't have access to financial planning software which uses market simulations to test the validity of retirement plans. (It's important to note that during other thirty year periods greater amounts could have been withdrawn without depleting the portfolio. In fact, had the 4% rule been used in all of the thirty year periods, the original retirement savings principal was still intact in 96% of the thirty year periods.)

This rule of thumb was challenged in 2013 when three well respected retirement income researchers published a paper appropriately titled "The Four Percent Rule Is Not Safe In a Low Yield World". They argued that the 4% rule worked during a period of time when bonds were yielding much more than they were in 2013 (and now). Under our current low interest rate environment they determined that a 3% withdrawal rate would be prudent. So, using that figure, we can determine that if someone needed $30,000 annually to supplement Social Security they would need to have $1,000,000= $30,000/.03 before they retired.

One problem with this linear approach is that it does not account for the timing of Social Security.   I often compare a softwar- derived probability of plan success to the 3% rule and find that most retirees will need to have a withdrawal rate greater than 3% until Social Security is claimed. At that point their withdrawal rate drops below 3%.

Safety First Approach

The "safety first" approach relies on a guaranteed income source. There's generally two ways to do this and both have their pros and cons. First, someone can buy a lifetime income stream from an insurer in the form of an annuity that they can't outlive. This is expensive! An inflation adjusted $30,000 annuity with a 100% survivor benefit for a 65 year old couple would cost $785,000. The advantage is that you can't outlive this income, but you have to write a whopping check to get it.

The second "safety first" approach is to buy a bond ladder consisting of a number of US Treasury Inflation Protected Securities (TIPS). The number of bonds equals remaining life expectancy; one bond for each year. The value of these bonds goes up with inflation. For the first year, the retiree would buy a bond that will mature at $30,000 in inflation adjusted dollars in one year. She would buy another that would mature in two years, three years, etc. A thirty-year bond ladder would cost her $813,000. Unlike the annuity purchase, she maintains liquidity in that she could always sell bonds before they mature, but, unlike the annuity, she can outlive this bond ladder.

Conclusion

The approach that's best for you mainly comes down to your desire for certainty and/or upside potential. For many, the CPI- indexed annuity from an insurer is a non-starter due mainly to the immediate loss of liquidity. Both the annuity and bond ladder lock in returns but eliminate the possibility for upside potential. There is risk with the probability based approach but it can be mitigated if withdrawals are kept to a safe level.

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