APR 10, 2018

Evaluating Retirement Strategies: A Utility-Based Approach

A question-and-answer session with the authors of a paper that indicates those planning on a long retirement should consider aggressive asset allocation strategies.

ROBERT POWELL, CFP

Retirees need to make two critical financial decisions: the withdrawal rate and the asset allocation of their portfolios.

In a just-published paper titled "Evaluating Retirement Strategies: A Utility-Based Approach, Javier Estrada, a professor at the IESE Business School and Mark Kritzman, the CEO of Windham Capital Management, propose a methodology that retirees, and particularly advisers, could use to make these decisions in an optimal way.

The authors introduce a new variable, the coverage ratio, and a theoretical approach, based on utility. Their approach, they wrote, can be used to make optimal decisions during both the accumulation and the retirement period, but they illustrate it by focusing on the latter, and particularly on the choice of an optimal asset allocation.

Estrada and Kritzman find that the strategies selected by their utility-based approach are in general somewhat more aggressive than those selected by the failure rate and other existing approaches.

Question: What's a plain-English way to describe the coverage ratio and how a retiree might determine the fraction of a retirement period a strategy was able to sustain a withdrawal plan?

Answer: The coverage ratio is simply the proportion of a retirement period that a given strategy sustained withdrawals. A coverage ratio of 1 indicates that the strategy sustained withdrawals through the whole retirement period; when it's lower than 1, the strategy fell short (depleted the portfolio before the end of the retirement period); and when it's higher than 1, it sustained withdrawals through the whole retirement period and left a bequest behind.

The two ways to determine how successful a given strategy or asset allocation was is to evaluate its actual performance over many historical periods; or alternatively to do it by way of simulations (what could have happened instead of what did happen).

Question: How might a retiree determine utility?

Answer: Utility is simply a device which economists use to represent preferences. We all know our preferences, but we cannot really write down our utility function. All we try to do with utility is to find a functional form that plausibly represents a set of preferences, and parameters that plausibly summarize an individual's attitude toward risk.

Question: How might a retiree determine where they are on the kinked utility function, which you portrayed in Exhibit 2?

Answer: Where you are on the function depicted in Exhibit 2 simply depends on whether a given strategy was successful (coverage ratio higher than 1) or not (coverage ratio lower than 1). But the important idea we try to convey with our utility function is that the higher the coverage ratio, as long as it's higher than 1, the better off a retiree is going to be; and the lower the coverage ratio, particularly when it's below 1, the worse off he or she will be.

Question: For U.S. investors, it appears the best coverage ratio would be 80%/20% stocks/bonds, or 70/30 (Exhibit 3), or 100/0 or 90/10 (Exhibit 4). Is that correct and, if so, how do you think you would go about helping a retiree get comfortable with such an unconventional asset allocation?

Answer: What is the best strategy depends on many factors, and critically on the tool you use to make the evaluation. For U.S. retirees, what is really relevant is that if they're contemplating a long (say, 30-year) retirement period, then they would have to be aggressive, given that over long periods stocks beat bonds by a large margin.

That said, it often happens that when you determine an optimal strategy, it may not sound too plausible for a given investor; some may think it's too risky, others may think it's too complicated to implement, etc. Perhaps the best way to think about aggressive strategies is to know that large portfolio declines are typically more than offset by earlier larger gains. In other words, an aggressive strategy may knock you down more than a conservative strategy, but the fall is from a much higher place and you still end up higher.

Question: Anything else worth noting about the research?

Answer: We think that our methodology is plausible and our results very comprehensive, across many countries and over a very long period of time. And those results indicate that if you expect to be retired for many years, relatively aggressive strategies should be seriously considered by most retirees. That said, our results are based on a long retirement period; we are currently working on how a retiree should adjust his asset allocation as time goes by and the retirement period shrinks.

Got questions about the new tax law, Social Security, retirement, investments, or money in general? Want to be considered for a Money Makeover? Email Robert.Powell@TheStreet.com.