A 'Turbit' Drawdown Strategy

By Kerry Pechter *Tue, Dec 28, 2010*

In a recent paper, two Vanguard CFPs detail the merits of a hybrid between the 'turtle' and the 'rabbit' approaches to decumulation.

Zeno's dichotomy paradox, an age-old principle that most of us learn through Aesop's fable of the tortoise and the hare, says that a series of partial efforts will never quite finish the job at hand.

This paradox applies nicely to the retirement drawdown problem—except that, in retirement, the *hare* wins. By consuming only a fixed percentage of his savings each year, a retired rabbit is much less likely to consume all of it than a retired turtle, who spends a fixed dollar amount every year.

That's precisely what two CFPs at Vanguard demonstrate in their recent study, "A more dynamic approach to spending for investors in retirement." They then go a step farther and demonstrate that a hybrid strategy—a "turbit," if you will—works better than drawing down either a fixed amount or a fixed percentage.

The two CFPs, Colleen M. Jaconetti and Francis M. Kinniry, Jr., don't actually refer to Aesop's fable in their paper. They simply compare three methods of drawing down a hypothetical $1 million portfolio (50% bonds, 35% domestic equities and 15% international equities) over a retirement of 35 years.

The first method involves spending $47,500 a year, adjusted annually for inflation, regardless of market conditions. The second method involves spending exactly 4.75% of the portfolio each year, regardless of the size of the portfolio. The third method, in their example, limits each year's spending to a ceiling of 5% more or a floor of 2.5% less than the amount spent in the previous year.

"As in the *percentage of portfolio* strategy, the investor calculates each year's spending by taking a stated percentage of the prior year-end portfolio balance. The investor also calculates a 'ceiling' and 'floor' by applying chosen percentages [5% and 2.5%] to the prior year's spending amount," the study says. "The investor then compares the three results. If the newly calculated spending amount exceeds the ceiling, the investor limits spending to the ceiling amount; if the calculated spending is below the floor, the investor increases spending to the floor amount.

Based on 10,000 simulations using historical returns for their hypothetical balanced portfolio, the Vanguard analysts determined that their hybrid or compromise strategy would result in a portfolio ruin rate (risk of exhausting savings within 35 years) that was lower than the fixed spending strategy (11% versus 29%) but with spending shortfalls (annual income less than the initial amount) occurring less often than with the fixed percentage strategy (48% of the time versus 53% of the time).

There are no hard-and-fast rules with this approach, Kinniry and Jaconetti point out. They chose 5% and 2.5% to calculate the floor and ceiling, but those numbers (as well as the spread between them) can vary, depending on the advisor's and the investor's preferences.

“The narrower the spread… the more similar this strategy is to the dollar amount grown by inflation strategy,” they write, and “the wider the difference between the ceiling and floor percentages, the more similar this strategy is to the percentage of portfolio strategy.”

Most significantly perhaps, the paper suggests that the hybrid strategy allows investors to spend more of their savings each year in retirement, depending on their age and their asset allocation. For instance, retirees with a 20-year horizon and a moderate portfolio could spend 6.75% in the first year of drawdown by obeying a 5% ceiling and 2.5% floor but only 5.75% if they decided to follow a fixed-amount drawdown method.

The Vanguard paper adds nuance to the conventional 4% retirement drawdown rule. Most retirees—that is, those who don’t use insured retirement solutions—will naturally settle on a hybrid withdrawal method, since neither the fixed-amount and fixed-percentage drawdown methods are likely to be flexible enough for life’s vicissitudes.

This paper’s value isn’t so much its recommendation of a hybrid strategy as its careful elucidation of the details of one. In a sense, their hybrid suggests a home-made structured product—one that offers a guaranteed income range to the investor but where excess returns or losses are absorbed by the investor’s own portfolio instead of by the issuer of the product.