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## The Liability-Driven Retirement Portfolio

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By Kerry Pechter    *Mon, Sep 23, 2013*

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*Advisors should manage retiree portfolios the way pension funds are managed—with an eye toward funding a specific liability, write three analysts from Russell Investments in the premiere issue of The Journal of Retirement. For retirees, the liability equals the cost of an immediate life annuity at age 85.*

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The premiere issue of *The Journal of Retirement*, the scholarly quarterly that's published by Institutional Investor Journals and edited by Sandy Mackenzie, arrived in my mailbox a week or two ago.

The first article that caught my attention was the last one in the issue. Written by two analysts and an asset allocation expert at Russell Investments, it was titled, "Optimizing Retirement Income: An Adaptive Approach Based on Assets and Liabilities."

The method described here, one that Richard Fullmer (then at Russell, now at T. Rowe Price) wrote about in 2009 and which was one of the topics of the 2012 book, "Someday Rich," takes the principle of liability-driven investing from pension funds and applies it to retirement portfolios. An annuity drives the action without being part of it... not unlike the role of the ghost in *Hamlet*.

An advisor using this method would monitor his or her client's portfolio balance during retirement to see whether it was growing larger or smaller in relation to the portfolio's liability. The liability in this case is defined as the cost a life annuity, purchased at age 85, that could generate an adequate income for the rest of the retiree's life.

If the markets cooperated and the portfolio experienced a big surplus, the advisor could adapt by raising the portfolio's equity component exposure (according to a formula charted by the authors). If the portfolio experienced only a small surplus, the advisor could protect it by shifting the asset allocation toward fixed income. If the value of the portfolio fell below the value of the liability, the advisor and retiree would have a difficult choice. They could either raise the equity allocation—a risky approach—or spend less until the liability became fully funded again.

This method can get quite complicated—with frequent course corrections—but for the purposes of the article the authors reduced it to a simplified example using only one asset allocation change, at age 75. In that example, a 65-year-old couple with \$1 million sets aside \$460,000 in cash to cover living expenses (\$46,000 per year) until age 75. They invest the remaining \$540,000 in a conservative 30% equity/70% bond portfolio. Their advisor simultaneously calculates that the couple would need about \$380,000 at age 85 (assuming they live that long) to buy a joint annuity that would pay \$46,000 per year for life.

At the end of 10 years, the now 75-year-old couple reviews their portfolio. If the markets were favorable from 65 to 75 and produced a surplus (relative to the cost of the annuity), they can switch to a 70% stock portfolio for the next 10 years. If the markets had been generally unfavorable, however, they'd stay with the conservative 30% stock portfolio until age 85.

The method doesn't call for the couple to actually buy an annuity at age 85. Rather, it uses the cost of the annuity as a yardstick to gauge the "funded status" of the couple's portfolio at any point from age 65 to age 85 and to guide adjustments in equity allocations.

This "adaptive approach" is more likely to produce safe outcomes for retirees, the authors contend, than drawing down income from a fixed equity/bond allocation (with rebalancing) or from a buy-and-hold portfolio. One strength of this approach is that it defines a "successful" portfolio as one that provides an adequate income for life—not one that merely maintains a positive account balance for life.

Also to be found in the first issue of *The Journal of Retirement*:

- **"Analyzing an Income Guarantee Rider in a Retirement Portfolio."** In this article, Wade Pfau of The American College shows that VAs with GLWBs can help risk-averse people resist the urge to invest too conservatively in retirement. At the end of a 30-year retirement, he calculates, a person would (on average) end up with a higher account balance if he held a VA/GLWB with a 70% stock allocation than if he held an unguaranteed portfolio with a stock allocation of 40% or less, all else being equal. Pfau points out shortcomings of the VA/GLWB—the fee drag and the product's low likelihood of yielding an inflation-adjusted income in retirement—but he suggests that the value of a lifetime income guarantee is rising, given current market valuations. Pfau expects significantly lower average rates of investment return in the future than in the past.
- **"The Economic Implications of the Department of Labor's 2010 Proposals for Broker-Dealers."** The authors of this article, all from the Center for Retirement Research at Boston College, claim that the DoL's fiduciary proposal (currently being revised after strong industry opposition) wouldn't have much impact, even if it went through in its original form. Because the proposal bans only 12b-1 fees (not sales commissions or the sale of actively managed funds), it would reduce broker-dealer revenues by only a small fraction of the total, the CRR report said. Of the \$247.8 billion that broker-dealers reported as revenue in 2010, the authors said, only about \$9.5 billion came from 12b-1 fees (25 basis points or less) and only about \$2 billion came from 12b-1 fees assessed on IRAs (because only about 20% of all mutual fund assets are held in IRAs). As a bolder alternative to the 2010 DoL proposal, the authors recommend applying the ERISA regulations that govern 401(k) plans to rollover IRAs.
- **"Be Kind to Your Retirement Plan—Give It a Benchmark."** "A well-engineered DC [defined contribution] plan should be experienced by the participant much like a DB [defined benefit] plan, providing predictable in-retirement income and having very little risk," write the authors of this paper. They have created a benchmark for decumulation portfolios against which retirement plan sponsors can measure the risks and rewards of all other proposals for retirement income generation. For a 65-year-old retiree, their benchmark portfolio would consist of a 20-year ladder of annually maturing Treasury Inflation-Protected Securities coupled with a life-contingent income annuity providing income from age 85. They suggest that plan sponsors who enable retiring employees to invest in such a portfolio would be fulfilling their fiduciary duty.