Managed-Payout Funds vs. Annuities: Who Wins?

By Joseph A. Tomlinson, CFP *Thu, Sep 10, 2015*

Managed payout funds may fail if the client lives too long. Life annuities overcome that problem, but lack sufficient flexibility. 'The best results can be obtained by combining SPIAs and flexible withdrawals,' writes the author, an actuary and financial planner.

Joseph Tomlinson

Managed-payout funds promise to meet retirees' need for sustainable lifetime income without relying on annuities. To see whether this promise can be fulfilled, I'll answer three questions: What's the best design for such funds? How do they compare to annuities? Can retirees do even better by combining managed-payout funds and annuities?

A managed-payout fund aims to provide sustainable retirement income, either over a fixed time horizon or over the lifetime of the investor. A handful of companies offer managed-payout funds and more are on the way. The funds have not gained much popularity because most were launched just before the financial crisis and immediately produced poor results.

PIMCO offers real-income funds based on TIPS ladders but with end dates, so the funds don't offer longevity protection. Fidelity's Retirement Income Series also uses target-liquidation dates. Vanguard's Managed Payout Fund is more lifetime-focused with payouts targeted at 4% of fund balance. Schwab offers Monthly Income Funds that, like Vanguard, pay out a percentage of the fund balance.

However, Schwab varies the percentage payout to avoid dipping into principal, whereas Vanguard smoothes results over multiple years and aims to maintain the 4%. The latest entry in this category is the retirement spending account from Natixis. It is the most ambitious approach with a goal of providing inflation-adjusted retirement income for life but without an annuity.

Finding the best strategy

There is a natural question that arises from examining these different offerings: "Which strategy will work best?" By "working best," we need to consider both the level of income produced and the risk that the strategy will fail. I'll answer those questions by evaluating a few generic options and relate my results to specific fund offerings.

There are a variety of strategic choices for those designing managed payout funds:

- Income generated – fixed at inception or varying with investment performance
- Stock/bond allocation
- Use of additional asset classes
- Investment glide path – level or with increasing or decreasing stock allocation
- Annual withdrawal percentages – level or varying with age

I'll use an example to compare the impacts of various choices with the objective of identifying the best ways to produce as much income as possible without taking undue risk.

The example

This example is based on a 65-year-old female with a remaining life expectancy of 25 years. She has $1 million in savings and will be receiving $20,000 per year in Social Security. Her essential expenses are $50,000 per year increasing with inflation, so she needs to generate at least $30,000 per year in real terms to pay for essentials. I assume that she has sufficient insurance for contingencies such as long-term care and a separate emergency fund, so she can devote the full $1 million to generating retirement income.

In designing generic options for this example, I assume that stocks will earn a real return averaging 5.15% with a standard deviation of 20.5% and bond real returns will average 0.5% with a 7% standard deviation. These assumed returns are significantly below historical averages, reflecting current interest rates and a lower-than-historical equity risk premium. I deduct 0.15% as a base level for investment expenses and discuss the implications of higher expenses for actual product offerings. Monte Carlo simulations are used to generate yearly returns, and the year of death is also modeled stochastically. The analysis is pre-tax and future dollar figures are stated in real terms without inflation.

A Natixis strategy based on the 4% rule

I'll start with a strategy based on the classic 4% rule, where the first year's withdrawal equals 4% of savings and withdrawals increase each year for inflation. Withdrawals do not adjust for good or bad investment performance. This is a generalization of the strategy that Natixis uses for its retirement spending accounts, which are set up as separate accounts and include Natixis's affiliate mutual funds and ETFs. They offer distinct strategies for investors starting retirement around years 2000, 2005, 2010 or 2015 and also offer a 5% rule option. The separate accounts are offered through advisors.

The chart below shows projected outcomes, first based on a simple 50/50 stock/bond allocation and then adjusted to incorporate strategic options aimed at improving the outcomes.

Strategy	Average Consumption	Cert Equiv Consumption	Failure Percent	Average Shortfall	Median Bequest
4% Rule w/ 50-50 Stock-Bond	*$57,673*	*$52,142*	*26.9%*	*-$57,858*	*$392,888*
More complex asset allocation	$57,754	$52,215	26.0%	-$55,998	$401,257
Rising and falling glidepath	$57,823	$52,348	25.9%	-$54,438	$395,336

Source: Author's calculations

First, some definitions. The average consumption combines the $20,000 in Social Security income and withdrawals from savings. The certainty equivalent consumption uses utility analysis and the assumption of diminishing marginal utility to recognize that the gain in psychological wellbeing from an additional dollar of consumption is less than the psychological diminishment from a dollar decrease. So for non-level consumption, the certainty equivalent will be less than the average consumption. For this particular analysis, I assume a risk-averse individual to recognize the potentially disruptive impact of depleting savings and not being able to pay for essential expenses.

Failure percent is the percentage of Monte Carlo simulations where consumption drops to a level that fails to meet essential expenses, and average shortfall is a measure that combines the probability, magnitude, and duration of failure. I also show median bequests.

The first line of the chart shows results with a 50/50 stock/bond allocation under a straightforward application of the 4% rule, and I will use this as a base case in comparing strategies. This withdrawal approach is likely to result in significant disruption to retirement plans. So we need to look for ways to improve things.

I'll test an approach that mimics parts of the Natixis strategy. They indicate in their press release and marketing materials that they utilize a wide variety of asset classes, so I'll first analyze how much outcomes can be improved by bringing in additional asset classes and fine-tuning the allocations. Natixis doesn't provide asset class details, so I'll use a generic approach based on return, risk and correlation assumptions from Sungard's AllocationMaster software.

Sungard's optimal portfolios include a significant weighting for international stocks and small-cap value. With a 50/50 stock/bond mix, gross average real portfolio returns increase from 2.83% for the base case to 3.75% with the fine-tuned asset allocation, and the standard deviation decreases from 10.83% to 10.66%. These changes are a result of optimizing the mix of asset classes; I have not added anything for investment selection skill.

I've also made an adjustment to reflect the Natixis annual expense charge of 1% versus 0.15% for the base case. The results are shown in the second line of the chart, and they are essentially the same as the base case. The improvements from the asset allocation are offset by the increased expenses.

The Natixis product features a trademarked Adaptive Retirement Income Glidepath, starting with a low stock allocation at retirement, rising until mid-retirement and then declining. To model the glide path, I start with the same expense and asset class return assumptions as in line 2 and replace the level 50/50 allocation with one that starts at 35% stocks rising to 65% at age 80 and falling back to 35% for age 95 and thereafter.

The primary purpose of such a glide path is to avoid sequence of return risk early in retirement. This is a similar approach to the rising equity glide path proposed a few years ago by Wade Pfau and Michael Kitces and described in this paper. The outcome of applying this glide path is shown in the third line of the chart, and the perhaps surprising result is that there is little effect on results.

This becomes less of a surprise if one goes back and examines the actual charts in the Kitces and Pfau paper. They show improvement using the rising glide path strategy, but the improvement is marginal. My view of what's happening is that one can avoid volatility and bad return scenarios with a low stock allocation early in retirement, but a heavy investment in bonds with low returns locks in mediocre portfolio returns.

So what does all of this tell us about the Natixis product and other similar approaches to retirement withdrawals? Attempting to generate a withdrawal pattern that is set at inception and doesn't adjust for investment performance is a big challenge. The Natixis patented glide path may have marketing appeal, but it does little to help performance. Asset allocation fine-tuning shows potential to help but is offset by expense charges. So success for this product will require significant additional returns generated though investment selection.

My rough calculation indicates that bringing the failure percentage down from over 25% to

10% would require an additional 1.70% of average portfolio return. Generating higher returns will be the big challenge for Natixis. They are offering a new product with an ambitious objective for meeting retirement needs, and their efforts will bear watching. I'll now turn to other approaches.

Changing the withdrawal method

The Vanguard Managed Payout Fund (VPGDX) described here uses an approach where withdrawals are targeted at 4% of the ongoing fund balance rather than being set at inception. To reduce the volatility of withdrawals, Vanguard uses a three-year-average fund balance. In the chart below the top line is again the base case using the 4% rule and a 50/50 stock/bond portfolio, and the second line is my simulation of the Vanguard strategy.

Strategy	Average Consumption	Cert Equiv Consumption	Failure Percent	Average Shortfall	Median Bequest
4% Rule w/ 50-50 Stock-Bond	*$57,673*	*$52,142*	*26.9%*	*-$57,858*	*$392,888*
Endowment method 4%	$61,727	$57,147	9.7%	-$19,840	$751,463
RMD	$68,782	$56,024	12.5%	-$18,562	$482,519

Source: Author's calculations

Vanguard runs its Managed Payout Fund with a heavy concentration in stocks, so I have raised the assumed stock allocation to 75% in the second line above. I've also reflected Vanguard's expense charges of 0.42% compared to 0.15% for the base case. Similar to Natixis, Vanguard fine-tunes its asset allocation, so I have used the same gross return assumptions I used for the Natixis analysis.

The Vanguard approach shows significant improvement over the base case in terms of income produced, risk measures and bequests. The main driver of these improved results is a withdrawal strategy that responds to investment results.

The Vanguard strategy beats the Natixis approach unless Natixis can produce dramatically superior investment performance. Unlike many Vanguard products, the Vanguard Managed Payout Fund relies heavily on active managers and a few uncommon asset classes (e.g., market neutral), so they are also betting on investment selection to a certain degree. I have not included any extra assumed return from investment selection.

For the final line of the chart I switched the Vanguard 4% approach to required minimum distributions (RMDs) that increase the withdrawal percentage as a function of age, but I kept all the other parameters the same. RMDs can be thought of as an economist's life-cycle approach in that withdrawals are recalculated each year to smooth consumption over the remainder of one's life.

With RMDs we are able to generate more average consumption but with more variability, so the certainty equivalent declines more. Whether this approach is superior to Vanguard's or not depends on the individual tolerance for volatility of consumption and emphasis on consumption versus bequests. Either the Vanguard approach or RMDs can work well because withdrawals respond to investment performance. I'm not aware of any managed payout products built on this RMD approach, but it is worth considering.

Annuity strategies

Strategy	Average Consumption	Cert Equiv Consumption	Failure Percent	Average Shortfall	Median Bequest
4% Rule w/ 50-50 Stock-Bond	*$57,673*	*$52,142*	*26.9%*	*-$57,858*	*$392,888*
Full annuitization	$67,600	$67,600	0.0%	$0	$0
Partial annuitization	$68,032	$65,809	0.0%	$0	$182,719

Source: Author's calculations

For the full annuitization strategy, I assume the entire $1 million of savings is invested in an inflation- adjusted single-premium immediate annuity (SPIA) that pays $47,600 annually based on current market rates. Because the income doesn't vary, the average consumption and certainty equivalent are the same. Also, because this strategy produces $67,600 of consumption per year for life, there are no shortfalls in relation to the $50,000 of essential expenses. However, there is also no bequest, regardless of length of life and no liquidity.

The third line of the chart above shows partial annuitization with $630,252 of savings used to purchase an inflation-adjusted SPIA, producing $30,000 of annual income to fill in the essential expense gap and the remaining $369,748 invested in an RMD strategy. This approach, which combines a SPIA and managed payouts, is attractive on all measures.

Conclusion

We can expect continued efforts from investment companies to develop managed-payout

products. Those that vary withdrawals as a function of investment performance show the most promise. However, unless withdrawals are set at extremely conservative levels, such an approach will fail if investment performance is subpar or if the client lives a long time. SPIAs overcome these problems, but they are inflexible. The best results can be obtained by combining SPIAs and flexible withdrawals.

Joe Tomlinson, an actuary, financial planner, researcher and writer, is managing director of Tomlinson Financial Planning, LLC in Greenville, Maine. This article first appeared at AdvisorPerspectives.com.