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FINANCIAL ADVISORS

Artemis Brief

What is the right retirement portfolio?

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Investors often think they need a different portfolio when they start to rely on that portfolio for retirement income—one that is heavy on bonds, U.S. dividend-paying stocks and cash, and light on just about everything else. For those investors who currently have a global and well-diversified portfolio, the good news is that the optimal portfolio after they retire may not be that different than the one they currently have.

There are several things to consider when constructing a retirement income portfolio. The first is *durability*, which means maximizing the probability that the retiree will not outlive his or her assets. Second is *inflation protection*. Third is *volatility risk*, which is the risk that the retiree pulls out of the market at the worst possible time, severely compromising long-term portfolio returns. Fourth is *flexibility*, which is the ability to adapt to the occasional need to make additional, unplanned withdrawals from the portfolio. Finally, *legacy preferences* also have to be considered for retirees who want to leave money for their loved ones.

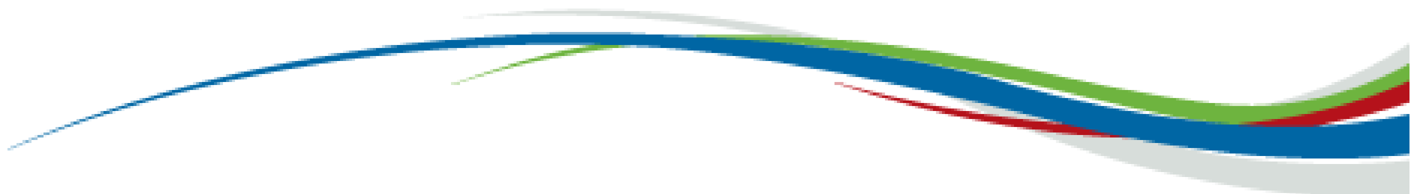
The advisor's job is to balance all of these considerations. The classic, conservative retirement income portfolio may have a low investment risk – that is, a small risk that the investments will lose money over a defined period of time. This security increases the probability that the retiree won't abandon the strategy at just the wrong time. However, that portfolio won't grow very much in good times, either. As a result, it simply may not yield sufficient income to cover expenses, and it may not last long enough.

The classic portfolio is also highly subject to both interest rate and inflation risks. The other main problem is that the asset allocation ends up being based on current interest rates and may therefore have nothing to do with the allocation that's truly appropriate for a retirement of 20 years or more. Despite all these weaknesses, few retirees feel truly comfortable relying on a fully diversified portfolio, especially in light of the perceived failure of diversification during the 2008 - 2009 financial crisis.

Diversification Works

Research by Craig L. Israelson, an associate professor at Brigham Young University, sheds light on how asset allocation affects portfolio durability during retirement. The study analyzed the performance of progressively more diversified retirement portfolios based on the average of the 17 rolling 25-year periods between 1970 and 2010. The study is notable for including the early 1970s market downturn, when both bonds and stocks were devastated and inflation was rampant, the bear market of 2001-2002, and the more recent financial crisis of 2008. The study identified three key metrics: the average internal rate of return, average three-year drawdown, and median ending account value. These statistics are captured in the chart on the following page.

The most notable finding is that the seven asset-class portfolio, which included allocations to large and small U.S. equities, non-U.S. equities, U.S. bonds, cash (T-bills), real estate and commodities, had the highest average internal rate of return of 12% over the 17 rolling 25-year periods. Moreover, it was the only portfolio to have an average worst-case drawdown



Risk and Return of Retirement Portfolios in Distributions Mode: 1970-2010

Portfolio Asset Allocation	17 Rolling 25-Year Periods Between 1970-2010		
$500,000 starting balance, 5% withdraw rate, 3% inflation of annual withdrawal	Average 25-Year Return (IRR%)	Median Ending Account Balance after 25 Years ($million)	Average Worst Case 3-Year Drawdown (%)
Equal-weighted **Three** Asset Portfolio: Cash, Bonds, Large U.S. Stock	9.89%	$2.49	-4.77%
Equal-weighted **Five** Asset Portfolio: Cash, Bonds, Large U.S. Stock, Small U.S. Stock, Non-U.S. Stock	11.46%	$3.86	-9.44%
Equal-weighted **Seven** Asset Portfolio: Cash, Bonds, Large U.S. Stock, Small U.S. Stock, Non-U.S. Stock, Commodities, U.S. REITs	**11.96%**	**$4.67**	**0.73%**
60/40 Allocation: 60% U.S. Stock, 40% U.S. Bonds	11.58%	$4.22	-12.73%

Source: Craig l. Israelsen, "Still Seeking Stability", *Financial Planning*, April 2011

that was positive (+0.7%) over the same periods. The study also looked at the performance of the classic balanced model consisting of 60% large U.S. equity and 40% bonds, and the seven asset-class portfolio outperformed the 60/40 model on every metric.

The bottom line: blending a wider variety of assets enhances performance and reduces volatility risk over time, <u>even when taking annual withdrawals</u>. Achieving low correlation among the assets in a portfolio – a key to avoiding large losses – requires the use of a variety of assets with low correlation. Some of the needed assets may not fit the standard paradigm of a traditional retirement portfolio, including commodities, REITS, emerging-market stocks and bonds, among others. Several of these asset classes also offer the added benefit of increased inflation protection.

But Maintain a Cash Management Portfolio

At Artemis, we are increasingly using a "two-bucket approach" to help our retired clients feel confident about maintaining a fully diversified portfolio in retirement. The first bucket is a substantial cash portfolio, which contains one-to-three years' worth of our client's living expenses invested in low-volatility bond and money market funds. The rest of the client's assets are invested in a globally diversified portfolio that is likely to deliver better returns over the long term. Some of that portfolio will be invested in low-volatility assets in any case, and so can provide a second tier of protection should there be an extended market turndown. By segmenting the assets in this way, clients clearly see that they won't have to rely on selling stocks at just the wrong time, and the asset weights in the growth portfolio can be customized to the retiree's overall risk preferences.

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