

PORTFOLIO



Nest Egg Survival

When it's time to start regular withdrawals in retirement, how durable will your clients' portfolios be? **By Craig L. Israelsen**

It happens to everybody. After spending your working years accumulating money, you face a rude awakening in retirement when that growth is replaced by withdrawal. This drawdown phase might be described as the relentless cracking of the retirement nest egg.

Analyzing how asset allocation affects portfolio durability during retirement is a big issue, particularly considering the vast numbers of retirees who will hit the shores of retirement over the next 18 years. Here's the math: The leading edge of the baby boom was born in 1946. People born that year are 65 years old in 2011.

Thus, the leading-edge baby boomers are starting to retire now. The last group of baby boomers won't retire until the year 2029 (65 years after 1964, the last year of the baby boom).

The staggering detail here is this: Between now and 2029, about 76 million baby boomers will retire. That group of people is equivalent

to one quarter of the current U.S. population. Suffice it to say, the financial planning community is facing a daunting task as it prepares to advise seemingly countless numbers of retirees who will be seeking guidance as they transition their investment accounts into retirement income accounts.

THE BASICS

This article examines retirement portfolio survival during the distribution phase—the period of time when clients are systematically withdrawing money in their retirement. This study covers the 41-year period from 1970-2010.

We examined three retirement portfolios in this analysis: an all-bond portfolio, a 60/40 portfolio consisting of 60% large U.S. stock and 40% U.S. bonds, and a multi-asset portfolio consisting of large-cap U.S. stocks, small-cap U.S. stocks, non-U.S. stocks, U.S. bonds, cash, real estate and commodities.

The multi-asset portfolio was

equally weighted across all seven assets, meaning that each asset had a 14.3% allocation maintained by annual rebalancing. The performance of each of the assets in the multi-asset portfolio was measured by an appropriate index.

This analysis of retirement portfolio survival used a hypothetical starting balance of \$500,000 (at the start of retirement). The initial withdrawal rate was 5%, producing a first-year withdrawal sum of \$25,000. The annual cost of living adjustment was assumed to be 3%. Thus, in the second year the annual withdrawal was \$25,750, in the third year it was \$26,523 and so forth. Annual withdrawals took place at the end of each year.

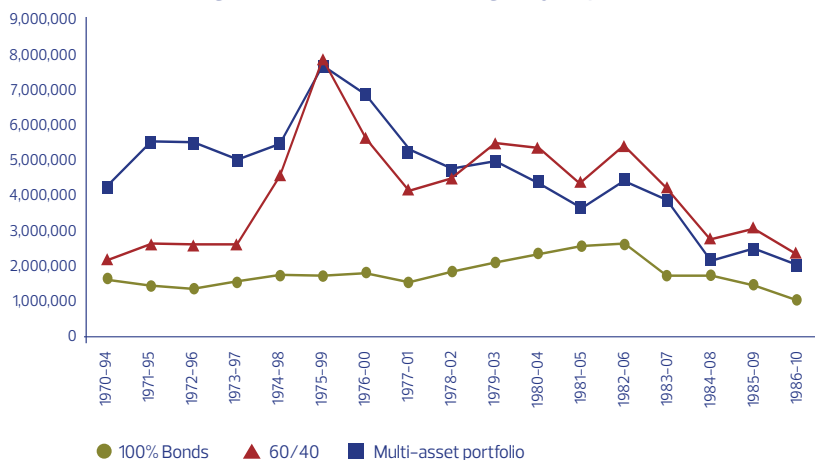
It's important to remember that the size of the starting balance—in this case \$500,000—is irrelevant to the analysis. It's just a starting value. The important variables that determine portfolio survival are the initial withdrawal rate and the cost of living adjustment.

PORTFOLIO

SURVIVAL TRAINING

The two mixed portfolios had higher ending balances than the all-bond portfolio in every 25-year time frame.

Ending account balances over rolling 25-year periods



Source: Author, using Morningstar raw data

The survival of each retirement portfolio was tested over 17 rolling 25-year periods. The first 25-year period was from Jan. 1, 1970, to Dec. 31, 1994. The second 25-year period was from Jan. 1, 1971 to Dec. 31, 1995. The last 25-year period was from Jan. 1, 1986 to Dec. 31, 2010.

ACCUMULATION MODE

First we analyzed the three retirement portfolios in accumulation mode. To do this, we measured the growth of \$10,000 over a 41-year investment period.

During these 41 years, the average annualized return for U.S. aggregate bonds was 8.3% with a standard deviation of 6.7%. The 41-year annualized return for large-cap U.S. stock (S&P 500) was 10%, with a standard deviation of 17.9%. As these numbers show, the equity premium (the return of stock minus the return of bonds) has been relatively small during the past four decades.

The standard—and outdated—

approach to building a blended asset portfolio often consists of combining 60% stocks and 40% bonds. The 41-year average annualized return for a 60/40 portfolio was 9.7%, with a standard deviation of 11.7%.

The 41-year average annualized return for the multi-asset portfolio in this study was 10.5%, with a standard deviation of 10.5%. Blending a wider variety of assets, enhanced performance and reduced volatility compared to an all-stock portfolio or a 60/40 portfolio.

DISTRIBUTION MODE

Then we analyzed the same portfolios in distribution mode—a much harsher environment than accumulation mode. As shown in “Survival Training,” (above), each managed to survive intact for all seventeen 25-year periods.

Interestingly, the 60/40 portfolio and the multi-asset portfolio dominated the all-bond portfolio in every rolling 25-year time frame. More-

over, this was during a time from (1970-2010) when bond returns were at all-time highs.

The all-bond retirement portfolio had an average ending balance of \$1.77 million over the distribution periods. The range of outcomes for the all-bond portfolio was quite small (see “The Numbers Game,” on page 113). The largest ending balance for the all-bond retirement portfolio was \$2.6 million and the smallest ending balance was just over \$1 million.

Clearly, with a higher initial withdrawal rate and/or a higher cost of living adjustment, the ending balances would be much lower. For example, with a 7% initial withdrawal rate and a 4% cost of living adjustment, the average ending balance for the all-bond portfolio was about \$322,000 over the 17 rolling 25-year periods.

The 60/40 portfolio had an average ending balance of about \$4.1 million, but unlike with the all-bond portfolio, the range of outcomes was huge. The largest ending balance was \$7.8 million and the smallest was under \$2.2 million.

TIMING IS EVERYTHING

This large range of outcomes indicates that the 60/40 retirement portfolio was more sensitive to the specific 25-year time frame during which withdrawals were taking place. For example, the 25-year period from 1972 to 1996 was a challenging period for the 60/40 portfolio because the S&P 500 had large losses during the bear markets of 1973 and 1974—which unfortunately occurred at the start of the distribution period.

Market losses near the beginning of a retirement distribution period have a dramatic effect on the ending outcome because they are exac-

THE NUMBERS GAME

The 60/40 portfolio had a bigger range of outcomes than the other portfolios, meaning it was more sensitive to the specific 25-year time period during which withdrawals were taking place.

Ending account balances after 25 years for a distribution portfolio starting with \$500,000 (assuming an initial withdrawal rate of 5% and a COLA of 3%)

Starting year	Ending year	100% Bond portfolio	60% U.S. stock/40% bond portfolio	Multi-asset portfolio
1970	1994	1,644,381	2,180,214	4,225,290
1971	1995	1,441,596	2,622,020	5,493,760
1972	1996	1,368,680	2,586,275	5,455,242
1973	1997	1,533,516	2,625,361	4,964,441
1974	1998	1,725,115	4,566,848	5,430,182
1975	1999	1,711,157	7,823,038	7,621,516
1976	2000	1,811,391	5,632,533	6,805,530
1977	2001	1,534,048	4,147,242	5,177,266
1978	2002	1,816,364	4,484,845	4,665,936
1979	2003	2,092,815	5,439,928	4,951,038
1980	2004	2,358,628	5,323,898	4,341,325
1981	2005	2,546,285	4,375,322	3,632,267
1982	2006	2,610,050	5,382,274	4,411,511
1983	2007	1,732,671	4,222,247	3,853,291
1984	2008	1,706,366	2,795,440	2,158,064
1985	2009	1,463,517	3,063,701	2,452,168
1986	2010	1,049,045	2,367,658	1,999,785
Average ending balance		1,773,272	4,096,403	4,566,977

Source: Author, using Morningstar raw data

erated by the withdrawals from the portfolio. Notice how different the ending balance was over the 25-year period that started in 1975 and ended in 1999.

Starting the distribution period in 1975 allows the client to avoid the two bad stock years (1973 and 1974),

and ending in 1999 lets the client take part in the huge equity returns in the latter half of the 1990s. As a result, the ending balance of the distribution portfolio in 1999 was over \$7.8 million—lucky for the retiree during that particular 25-year period, but unlucky for the retiree

who started withdrawing from his or her retirement portfolio in 1972. A retirement portfolio should not be that sensitive to which 25-year period is involved.

The multi-asset retirement distribution portfolio had an average ending balance of \$4.6 million, \$470,000 more than the 60/40 portfolio. More important, however, the variation in the ending outcome was more consistent than in the 60/40 portfolio.

In other words, the multi-asset retirement portfolio was less sensitive to timing. The ending balance differed across the 17 rolling 25-year periods, but the variation in outcomes for the multi-asset portfolio was not as great as in the 60/40 portfolio.

The actual ending dollar balances of the three different retirement portfolios are not the issue to focus on here. Rather, the important information is the difference between the three accounts. As the percentage withdrawal rate or the cost of living adjustment changes, the ending account balances will differ, but the differences between the three portfolios will persist.

The key insight from this study is the importance of maintaining a diversified portfolio in both life cycle phases—the preretirement accumulation phase and the retirement distribution phase. Diversification is a lifelong investing imperative. **FP**

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