The Four Horsemen of the Retirement Apocalypse

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Those who fail to plan, plan to fail. And while most people would never start a business without a business plan, many investors manage their money without an investment plan that identifies their ability, willingness and need to take risk, sets goals (such as the rate of return they require their portfolio to generate) and that includes an asset allocation and rebalancing table to provide discipline.

Compounding the problem of a failure to plan is that even a well-thought-out investment plan is only a necessary condition for success, not a sufficient one. Even the "perfect" investment plan can fail for reasons that have nothing to do with its investment results.

Examples of how plans can fail for noninvestment reasons include the premature death of a family's main income earner combined with insufficient life insurance, forced early retirement, the lack of sufficient personal liability insurance (such as an umbrella policy), poor estate planning (such as neglecting to keep beneficiary designations updated), the lack of appropriate medical insurance (such as long-term care coverage) and even living longer than expected.

This is why the right approach is to create a fully integrated estate, tax and risk-management plan.

These issues have always existed. However, today's investors, whether they're planning for retirement or already in the withdrawal phase, face four hurdles that their predecessors didn't. If these hurdles aren't planned for, the odds of ending up without sufficient assets to maintain a desired – let alone a minimally acceptable – standard of living can greatly increase.

In biblical tradition, the four horsemen of the apocalypse are a quartet of immensely powerful entities personifying the four prime concepts – war, famine, pestilence and death – that drive the apocalypse.

For today's investors, the equivalent of those four horsemen are historically high equity valuations, historically low bond yields, increasing longevity and, as a result, the increasing need for what can be very expensive long-term care.

1. **Historically high equity valuations**

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From 1926 through 2017, the S&P 500 returned about 10.2%. Unfortunately, many investors naively extrapolate historical returns when estimating future returns. In this case, that's a bad mistake, because some of the return to stocks was a result of a declining equity risk premium, resulting in higher valuations. Those higher valuations now forecast lower future returns.

The best metric we have for estimating future returns is the Shiller cyclically adjusted price-to-earnings (CAPE) 10 ratio. The inverse of that metric is an earnings yield (E/P). It is used to forecast real returns. As I write this, the Shiller CAPE 10 is at 34.3, producing a forecasted real return of just 2.9%. To get an estimate of nominal returns, we add the difference between the yield on the 10-year nominal Treasury bond (2.63%) and 10-year TIPS (0.57%), which is about 2%. That gives us an expected, forward-looking nominal return to stocks of roughly just 5%, or about half the historical level.

Before moving on to look at bonds, I will note that forward-looking return expectations for international stocks are better, though, again, well below historical returns. The Shiller CAPE 10 earnings yield for non-U.S. developed markets and emerging markets at year-end 2017 were 5.1% and 6.3%, respectively.

Again, if forecasting nominal returns, you should add about 2% for expected inflation. Thus, if you have an allocation to international markets, your forecast for returns should be somewhat higher than for a U.S.-only portfolio.

Unfortunately, the story on the bond side is not any better.

2. **Historically low bond yields**

From 1926 through 2017, the five-year Treasury bond returned 5.1%, and the long-term (20-year) Treasury bond returned about 5.5%. The current yields on those two Treasury securities are just 2.5% and 2.8%, respectively. Clearly, those investors relying on historical returns are likely to be disappointed, as the best estimate we have of future returns comes from the current yield curve.

Now, let's combine stocks and bonds in a traditional 60/40 portfolio.

Traditional 60/40 portfolio

Over the last 36 years, from 1982 through 2017, a 60% S&P 500 Index/40% five-year Treasury portfolio returned 10.4% with volatility of 10.2%. Note that the 10.4% return was almost 2 percentage points a year higher than the portfolio's return over the full 90-year period from 1928 through 2017, which was 8.5%, with a volatility of 12%.

Investors building plans based on that 10.2% return over the last 36 years, or even the lower 8.5% return figure covering the last 90 years, are running a great risk, as forward-looking return expectations are right now much lower. Even if we were to use a more aggressive 6% expected return to stocks, given the low yield on safe bonds, a 60/40 allocation would only provide an expected return of 4.6%.

The lesson here is that, when designing a financial plan, investors should be sure to use current estimates of returns.

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3. **Increasing longevity**

When I was growing up (I'm 66), there were very few people who lived to collect Social Security for more than a few years. Today it's a very different story. Consider the following: The average remaining life expectancy for those surviving to age 65 is now about 13/15 years for the male/female 1940 cohort, and about 15/20 years for the male/female 1990 cohort. However, these are just averages.

When thinking about longevity risk, you should also consider that, today, a healthy male/female at age 65 has a 50% change of living beyond 85/88, and a 25% chance of living beyond 92/94. For a healthy couple, both 65, there is a 50% chance one spouse will live beyond 92 and a 25% chance one spouse will live beyond 97.

This means that an investment portfolio should have a planning horizon greater than 30 years, assuming an investor in his or her mid-60s. And that is what we know today. Medical science will continue to advance and extend life expectancy even further. Does your plan account for this type of longevity risk?

The good news in this arena is that we have a good solution for addressing longevity risk – deferred-income annuities (DIAs). Also known as longevity annuities, they are like traditional forms of insurance in which individuals purchase the contracts for protection and may never need them. Unfortunately, because longevity annuities can greatly reduce the remaining pool of assets that must be spent to generate a specified amount of cash flow, they are an underutilized product – individuals are reluctant to lose a large part of their estate.

Another problem is that the payout from annuities is not only based on longevity, but also on interest rates. Buying an annuity today effectively locks in today's historically low interest rates. That, too, contributes to the lack of use of this valuable tool.

We now turn to the fourth "horseman" facing retirees: The longer we live, the greater the risk that we will need expensive medical care.

4. **Risks of long-term care**

By 2020, nearly one of six Americans will be 65 or older. And the scary truth is that the likelihood of developing Alzheimer's doubles about every five years after 65. After 85, it increases even faster, with one in three people that age and older being diagnosed with the disease – with some estimates as high as 50%.

Unfortunately, the all-too-common unwillingness of the elderly to even discuss the possibility of losing their independence, and the awkwardness of the subject for other family members, leads to a lack of planning for the financial burdens that long-term care can impose.

That, again, brings to mind the adage that the failure to plan is to plan to fail. This failure ignores the hard reality that, according to the National Family Caregiver Alliance, the probability of an individual over 65 (there are 35 million Americans in this category, and the figure will double over the next 25

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years) becoming cognitively impaired or unable to complete at least two “activities of daily living” (such as dressing, bathing and eating) is almost 70%.

Raising the importance of the issue is that, today, one in nine people 65 or older has Alzheimer’s. And as previously mentioned, nearly one in three of those 85 or older (the fastest-growing part of the U.S. population, with 4 million currently in that group; almost 20 million are expected to be there by 2050) will develop the disease (women have twice the risk).

Alzheimer’s is a progressive, deteriorating disease for which there is no known cure. What we do know with certainty is that anyone with dementia will require some form of long-term care unless they succumb to something else before dementia reaches an advanced state.

Failure to address issues such as the cost to take care of aging loved ones, the possibility elder care is needed and not covered by insurance, and whether there are sufficient assets to pay for the care required can result in a shock when long-term care becomes a reality, and it may lead to a diminished quality of life.

The burden can then fall to other family members, often with dramatic financial consequences because the cost of long-term care is frightening. The average out-of-pocket medical expenses a 65-year-old couple can expect to incur during retirement is estimated to be in the mid-$200,000 range to somewhere in the mid-$400,000 range. And that’s the average. Obviously, some will incur far greater expenses.

Elder care attorney Carolyn Rosenblatt, R.N., and her co-author, geriatric psychologist Dr. Mikol Davis, are thought leaders on how aging affects all areas of personal finance. In their book “Hidden Truths About Retirement & Long Term Care,” which I highly recommend, they provide the following estimates of the costs of care today:

The monthly median cost of a homemaker (someone who helps with shopping, cooking, cleaning and other household chores) is about $3,200. A worker with some training would be a personal care attendant or home health aide – costing roughly $20 an hour. The cost of assisted living, while varying widely across the country, is now close to $4,000 a month. Even adult day health care costs about $1,500 a month.

For some residents in California, assisted living facilities with daily help cost up to $12,000 a month, and that is without any skilled nursing whatsoever. It’s just for maintaining someone who needs help with most daily living activities. If nursing home care is needed, the cost rises to about $7,000 a month for a semi-private room and about $8,000 a month for a private one.

Does your retirement plan contemplate such costs?

A fifth horseman?

There’s another threat lurking in the failure of government to fully fund the Social Security and Medicare programs. Because of declining birth rates (from three to two children per woman), the

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Social Security Board of Trustees projects the cost of providing Social Security benefits will rise by 2035 so that taxes will be enough to pay for only 75% of scheduled benefits. Thus, there is at least the risk that benefits will be cut. And for those remaining in the workforce, this deficit could lead to greater taxes on earned income.

The situation is similar regarding Medicare. According to the nonpartisan Center on Budget and Policy Priorities, "the 2017 report of Medicare's trustees finds that Medicare's Hospital Insurance (HI) trust fund will remain solvent – that is, able to pay 100% of the costs of the hospital insurance coverage that Medicare provides – through 2029." When the trust fund reaches its projected depletion in 2029, it's estimated that incoming payroll taxes and other revenue will be sufficient to cover only 88% of Medicare's hospital insurance costs.

The organization continues: "The share of costs covered by dedicated revenues will decline slowly to 81% in 2041 and then rise gradually to 88% in 2091. This shortfall will need to be closed through raising revenues, slowing the growth in costs, or most likely both."

Implications

The combined challenges I've presented have important implications for investors. First, forward-looking return expectations from stocks and bonds are now lower than historical levels. Make sure your plan is based on current valuations, not historical returns. To address the issue of lower forward-looking return expectations, it's likely many will have to increase savings, plan on working longer and perhaps adjust their goals as well.

It's equally important to understand what you should *not* do. Do not use lower expected returns to stocks as a reason to take on more equity risk than you have the ability, willingness or need to assume.

Similarly, lower bond yields should not serve as a reason to take on more credit risk (which historically has been poorly rewarded, and also does not mix well with equity risks, as the correlations tend to rise at the wrong time, when stocks are suffering) or term (inflation) risk than appropriate.

Instead, to improve outcomes, investors, especially those exhibiting a home-country bias (if you have less than 40% of your stock allocation in international equities, you are in that category), can consider increasing their exposure to international stocks, as they now have higher expected returns. The global market cap is a good starting point for thinking about allocations, and today U.S. equities make up about 50% of total world capitalization.

Second, make sure your plan incorporates the proper life expectancy, and considers that half the population lives longer than expected. Consider annuitizing some portion of your assets with a DIA (you should only buy insurance for the period you need it, and you should not need it unless you live longer than expected). Buying an appropriate DIA greatly reduces the amount of premium you would pay relative to purchasing a single-premium immediate annuity (SPIA).

Third, ensure your plan takes into account the likelihood of the need for long-term care, and build contingency plans for addressing that need should it arise. Consider the purchase of a long-term care

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policy.

Finally, integrate tax management strategies into your overall plan. For example, during your retirement years, your plan should include a goal to lose as little wealth as possible to income taxes over your remaining lifetime. One tactic is to take full advantage of the current income tax laws, which permit long-term care expenses to qualify as deductible medical expenses.

Assuming a cost of $8,000 per month, the medical deduction could be approximately $100,000 per year. This compares to the new standard deduction of $24,000 per year under the recent Tax Cuts and Jobs Act.

The tactic is to offset these deductions against ordinary income produced from the realization of taxable income from tax-deferred assets, such as withdrawals from tax-deferred traditional IRAs, annuities and U.S. savings bonds. Planning would consist of calculating the dollar amount required for long-term care and trying to avoid paying income taxes on these tax-deferred assets until the medical expenses are incurred.

Postscript

For investors who need more return than safe bonds can provide, there are safer alternatives than either high-yield (junk) bonds or additional equity investment. I recommend allocations to four alternatives, each of which we believe has equity-like returns with much lower volatility.

The four alternatives we use are the AQR Style Premia Alternative Fund (QSPRX) and three funds from Stone Ridge: LENDX, an alternative lending (small business, consumer and student loans) fund; SRRIX, a reinsurance fund; and AVRPX, a fund that sells volatility insurance across stocks, bonds, currencies and commodities.

An equal-weighted portfolio of these four funds has forward-looking return expectations similar to those of a global equity portfolio, but with only about one-quarter of the volatility of equities (5% versus 20%). (In the interest of full disclosure, my firm, Buckingham Strategic Wealth, recommends AQR and Stone Ridge funds in constructing client portfolios.)

One reason the volatility of this four-alternative portfolio is low is because of the low correlation of the funds' returns to stocks and bonds. A second benefit of such a portfolio is that it virtually eliminates term and inflation risk.

The trade-off is in two forms: The Stone Ridge funds are interval funds (thus, you don't have daily liquidity), and you give up the flight-to-safety benefits that a portfolio of safe bonds can provide in severe equity bear markets. On the other hand, you do have higher forward-looking return expectations and you minimize term and inflation risk. For many, that's a good trade-off.

The alternative portfolio can also be used as a substitute for stocks. In that case, forward-looking return expectations should be similar but with much lower volatility, again only about one-quarter of that of a global equity portfolio.

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None of these four strategies is new. They have been available to institutional investors for, in some cases, decades. It's just that they have only recently become available to retail investors (and without the typical 2/20 hedge fund fees), thanks to the SEC's approval of the interval-fund structure.

Finally, investors can also increase the expected return of equities by having more than the market's exposure to small and value stocks (market portfolios have no net exposure to these factors). Investors can further increase the expected return of equities by adding exposure to the momentum and quality/profitability factors. Because of their diversification benefits (each of these factors has low to negative correlation to market-beta risk), expected returns increase by more than risk. The result is a more efficient portfolio.

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For additional reading on retirement planning and related topics, we recommend the following articles:

Wade Pfau's Important Book on Retirement Planning By Adam Apt

Wade Pfau has written an important book: *How Much Can I Spend in Retirement?: A Guide to Investment-Based Retirement Income Strategies*. It should be read by not just financial planners, but also all investment advisors who work with individual accounts.

Retirement Planning and the Impact of Investment Market Performance By Joe Tomlinson

The major challenge in building a sustainable retirement plan is the combination of low interest rates and stock market risk. Amplifying this challenge is the prospect of lower future equity returns and uncertainty about equity risk premium (ERP). Researchers have developed a number of different retirement withdrawal strategies to help manage investment risks; however, such strategies have not been adequately stress tested. I'll compare strategies under stress to determine which strategies will be the most resilient.

Eight Core Ideas to Guide Retirement Income Planning By Wade Pfau

Eight key messages and themes have underscored my writing and research. Those guidelines serve as a manifesto for my approach to retirement income planning.

How to Rescue an Underfunded Retirement By Joe Tomlinson

Americans have under-saved and will need more than withdrawals from savings to survive retirement. An optimal withdrawal strategy and asset allocation, delaying Social Security, annuitizing, tapping home equity and possibly working longer need to be evaluated. Let's take a typical American couple and evaluate which options improve retirement consumption.

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