# When's the best time to dial down risk?

Let's say an investor has done everything right in the 20 to 30 years leading up to her retirement; she's worked hard and saved enough to retire in the next few years. What could possibly go wrong?

Simply stated: bad luck — in the form of a major market drop just as she's about to retire.

Suffering an extreme market event when on the verge of retirement can derail peoples' ability to retire, or dramatically alter what their life will be like once in retirement. Just a few years of negative returns right before or after a person starts taking distributions can quickly erode decades of retirement savings, often to the point of being unable to generate enough income to last a lifetime.

## THE RETIREMENT RED ZONE

A study conducted by the PEW Research Center shortly after the 2008 financial crisis found over one-third of adults 62 and older delayed retirement because of the recession[1]. Poor investment performance during the 10 years before and after retirement can have a lasting effect on a portfolio, often leaving little time to recover. The result can be a retirement that runs out of money.

## HOW A SIGNIFICANT MARKET DECLINE CAN UNDO YEARS OF PLANNING

For young people just beginning to save for retirement, the biggest risk is underinvesting in more aggressive assets such as equities. But the greatest risk for those nearing retirement is an overly aggressive allocation with an abundance of equity in their portfolio. Doing so exposes them to what is known as sequence of returns risk. A few years of below-average returns right before or after investors begin to take distributions in retirement can quickly erode their retirement savings to the point that they'll be unable to generate enough income to last a lifetime.

[1]Source: "How the Great Recession Has Changed Life in America," PEW Research Center, June 2010.

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The example below shows how losses early in retirement can undermine a person's retirement strategy.

Each investor starts with $1,000,000 in savings and withdraws $50,000 a year adjusted for 3% inflation. Both portfolios result in a 6.3% average return and assume the same return series with the order of returns reversed in Investor B's portfolio.

**SEQUENCE OF RETURNS MATTERS**
Recovering from early losses can be challenging.

| WITHDRAWALS BEGIN AT END OF YEAR 1 | HYPOTHETICAL ANNUAL NET RETURN | HYPOTHETICAL $1,000,000 PORTFOLIO VALUE (NEGATIVE RETURNS EARLY) | HYPOTHETICAL ANNUAL NET RETURN | HYPOTHETICAL $1,000,000 PORTFOLIO VALUE (POSITIVE RETURNS EARLY) |
|---|---|---|---|---|
| Beginning Value | Investor A | $1,000,000 | Investor B | $1,000,000 |
| 1 | –17.5% | $ 775,000 | 9.9% | $1,049,000 |
| 2 | –11.3% | $635,925 | 25.9% | $1,269,191 |
| 3 | –4.6% | $553,627 | 17.6% | $1,439,524 |
| 4 | 9.6% | $551,973 | 6.6% | $1,479,896 |
| 5 | –9.8% | $441,604 | 14.1% | $1,632,286 |
| 6 | 12.1% | $437,075 | –19.7% | $1,252,752 |
| 7 | 13.1% | $434,629 | –1.8% | $1,170,509 |
| 8 | 18.4% | $453,107 | 16.2% | $1,298,638 |
| 9 | 6.0% | $416,955 | 8.6% | $1,346,983 |
| 10 | –8.3% | $317,109 | 9.9% | $1,415,095 |
| 11 | 18.4% | $308,261 | –0.3% | $1,343,654 |
| 12 | 7.2% | $261,244 | 25.6% | $1,618,418 |
| 13 | –3.7% | $180,290 | 15.9% | $1,804,458 |
| 14 | –1.0% | $105,061 | 23.6% | $2,156,884 |
| 15 | 13.0% | $43,089 | 16.9% | $2,445,768 |
| 16 | 16.9% | $0 | 13.0% | $2,685,819 |
| 17 | 23.6% | $0 | –1.0% | $2,578,725 |
| 18 | 15.9% | $0 | –3.7% | $2,400,670 |
| 19 | 25.6% | $0 | 7.2% | $2,488,397 |
| 20 | –0.3% | $0 | 18.4% | $2,858,587 |
| 21 | 9.9% | $0 | –8.3% | $2,531,018 |
| 22 | 8.6% | $0 | 6.0% | $2,589,865 |
| 23 | 16.2% | $0 | 18.4% | $2,970,595 |
| 24 | –1.8% | $0 | 13.1% | $3,261,063 |
| 25 | –19.7% | $0 | 12.1% | $3,554,012 |
| 26 | 14.1% | $0 | –9.8% | $3,101,030 |
| 27 | 6.6% | $0 | 9.6% | $3,289,969 |
| 28 | 17.6% | $0 | –4.6% | $3,027,566 |
| 29 | 25.9% | $0 | –11.3% | $2,571,055 |
| 30 | 9.9% | $0 | –17.5% | $2,003,292 |
| Average Annual Net Return for 30-Year Period | 6.3% Negative Returns early deplete savings | | 6.3% Positive Returns early can extend savings more than 30 years despite the same average annual net return | |

Even though our two investors experience the same average returns over a 30-year retirement period, the outcomes couldn't be more different due to the sequence of those returns. Investor A's negative returns early on deplete her savings after 15 years. Investor B's positive returns have extended his savings beyond 30 years despite the same average annual net return. While a sufficient average annual return is important, the order of those returns may significantly impact results and ultimately an investor's ability to achieve his or her retirement goals.

Source: PGIM Investments. Chart is for illustrative purposes only and does not represent any particular security.

## AVOIDING SEQUENCE OF RETURNS RISK

One of the best ways to protect wealth as retirement draws closer is to begin to reduce risk in the portfolio. “We believe that drastically reducing equity exposure and allocating more to fixed income during the 10 years before and after retirement, which we call the ‘Retirement Red Zone,’ can result in better outcomes,” says Jeremy Stempien, principal, portfolio manager and strategist for QMA. “Bonds are much less volatile than stocks, and in fact, they have not had a decline of 10% or more in a calendar year since 1926. Stocks have experienced declines of that magnitude about once every eight years.”

Using bonds to help reduce portfolio risk during the 2008–2009 stock market correction would have preserved a significant percentage of wealth for those in or approaching retirement. Mr. Stempien stresses that de-risking does not mean removing all risk from the portfolio, because equity still plays an important role during retirement.

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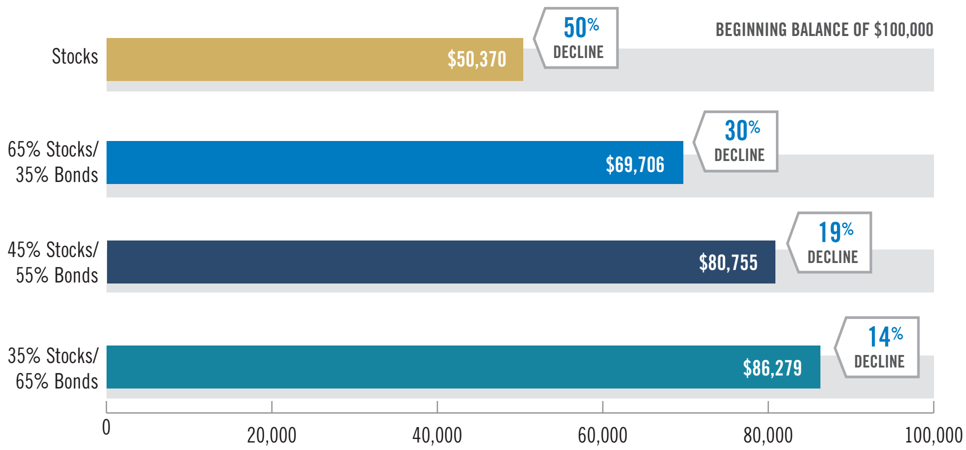
**– Jeremy Stempien**
**QMA**




## IMPACT OF MARKET CORRECTION* ON ACCOUNT VALUES

“We suggest that retirees gradually reduce equity holdings down to around 45% at retirement and then to about 35% 10 years into retirement,” he says. “You still need the growth potential of stocks and other types of inflation-fighting investments to help fund a retirement that could last 30 years or more.”

*November 2007 through February 2009.

Source: Morningstar. Stocks are represented by the S&P 500 Index. Bonds are represented by the Bloomberg Barclays U.S. Aggregate Bond Index. Calculated by PGIM Investments LLC using data from Morningstar. All rights reserved. Used with permission. Indexes and category averages are unmanaged and do not take into account fees and expenses. You cannot invest directly in an index or category average.

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