

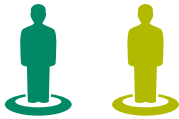
Understanding Sequence Risk

Markets in Motion Series

The Bad Luck of Bad Performance at the Worst Time

Haven't heard of sequence of returns risk (sequence risk)? You're not alone, but it's a very real risk for all investors who seek to reduce their risk as retirement gets closer in an effort to help preserve their savings.

Consider how two people with the same contributions and market return can have vastly different ending account balances. The reason lies in each of their investment portfolio's sequence of returns and the principle of compounding—when you earn money on your original investment and on any earnings from that original investment.



Two Investors

- Same contributions
- Same length of time held
- Same stock market return



Two Different Outcomes

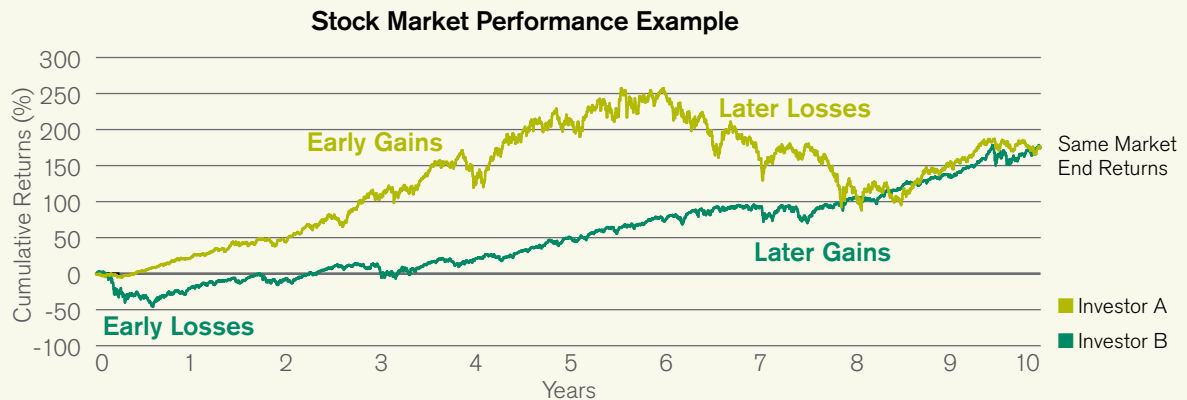
One investor ends with
\$36,376 less



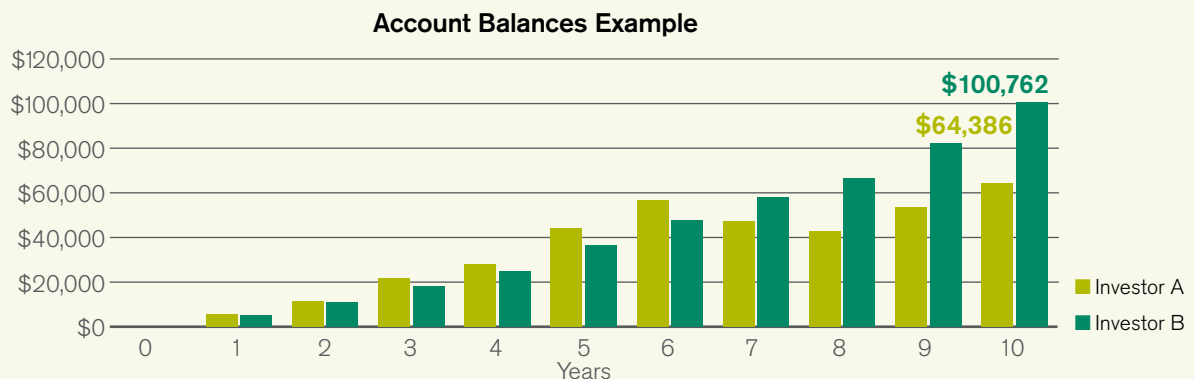
Explore Why

The path of returns matter

Two people invest \$400 per month in two different 10-year periods.



Investor A represents an example of being invested in the stock market from 9/1/1994 to 8/31/2004. Investor B represents an example of being invested in the stock market from 8/1/2008 to 7/31/2018.



Source: Morningstar Direct. Data as of March 31, 2019. The stock market is represented by the S&P 500 Index. Data assumes reinvestment of dividends and capital gains. The index does not reflect fees, brokerage commissions, taxes or other expenses of investment. Investors cannot invest directly in an index. **Past performance is no guarantee of future results.**

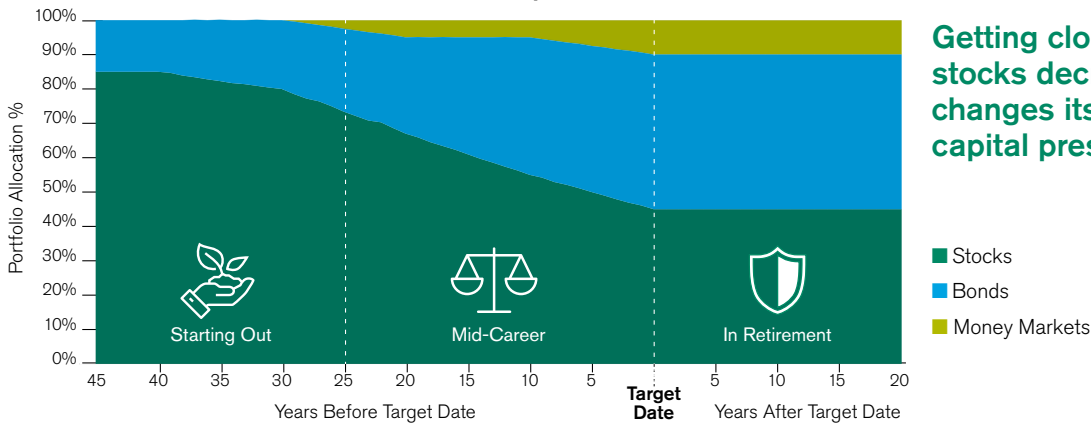
Investors who retired just before or after the 2008 stock market crash learned by experience—the bad luck of bad performance shortly before or after retirement, when account balances are likely at peak levels, can have a dramatic impact on your standard of living in retirement.

No one can control the timing of downturns. Even professionals who manage and adjust a portfolio for you, as with target-date funds (TDFs), can't ignore sequence risk. Find out how understanding its impact can help you make more informed decisions when choosing a fund.

Target-Date Funds: The Path You Choose Makes All the Difference

Every target-date fund has a glide path. A glide path's "slope" describes how quickly or slowly the change in stock allocation occurs. The quicker the decline—the steeper the slope—the more you could be affected by the sequence of investment returns.

A Glide Path Shows How Stock Exposure Decreases over Time

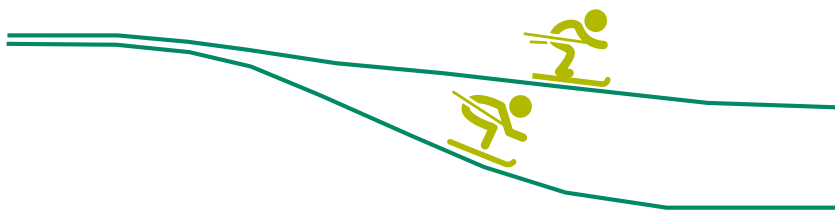


Getting closer to the target date, stocks decrease as your portfolio changes its focus from growth to capital preservation.

Caution on the Slopes

When a bad string of market returns happens as stocks in your portfolio are decreasing, you're selling at lower and lower prices. This "locks in" losses if they are worth less than when purchased. Moreover, fewer stocks in your portfolio leaves you with reduced ability to potentially recoup some losses when the market recovers. A more gradual decline means you may sell fewer stocks in a downturn.

Flatter Matters



Flatter glide paths aim to offer greater potential for smoother rides.

At the End of the Run

Our research indicates that a measured approach to reducing stocks is a better way to help manage sequence of returns risk and your portfolio's overall volatility throughout a variety of market environments. Talk with your advisor about target-date funds that can help put you on the right path to retirement.

A target date is the approximate year when investors plan to retire or start withdrawing their money. The principal value of the investment is not guaranteed at any time, including at the target date.

Each target-date portfolio seeks the highest total return consistent with its asset mix. Each year, the asset mix and weightings are adjusted to be more conservative. In general, as the target year approaches, the portfolio's allocation becomes more conservative by decreasing the allocation to stocks and increasing the allocation to bonds and money market instruments.

Diversification does not assure a profit nor does it protect against loss of principal.

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Investment return and principal value of security investments will fluctuate. The value at the time of redemption may be more or less than the original cost. Past performance is no guarantee of future results.

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