High Withdrawal Rates Will Quickly Deplete Your Assets
Simulated portfolio values (90% confidence level)

$1 mil

500k

100

50

10
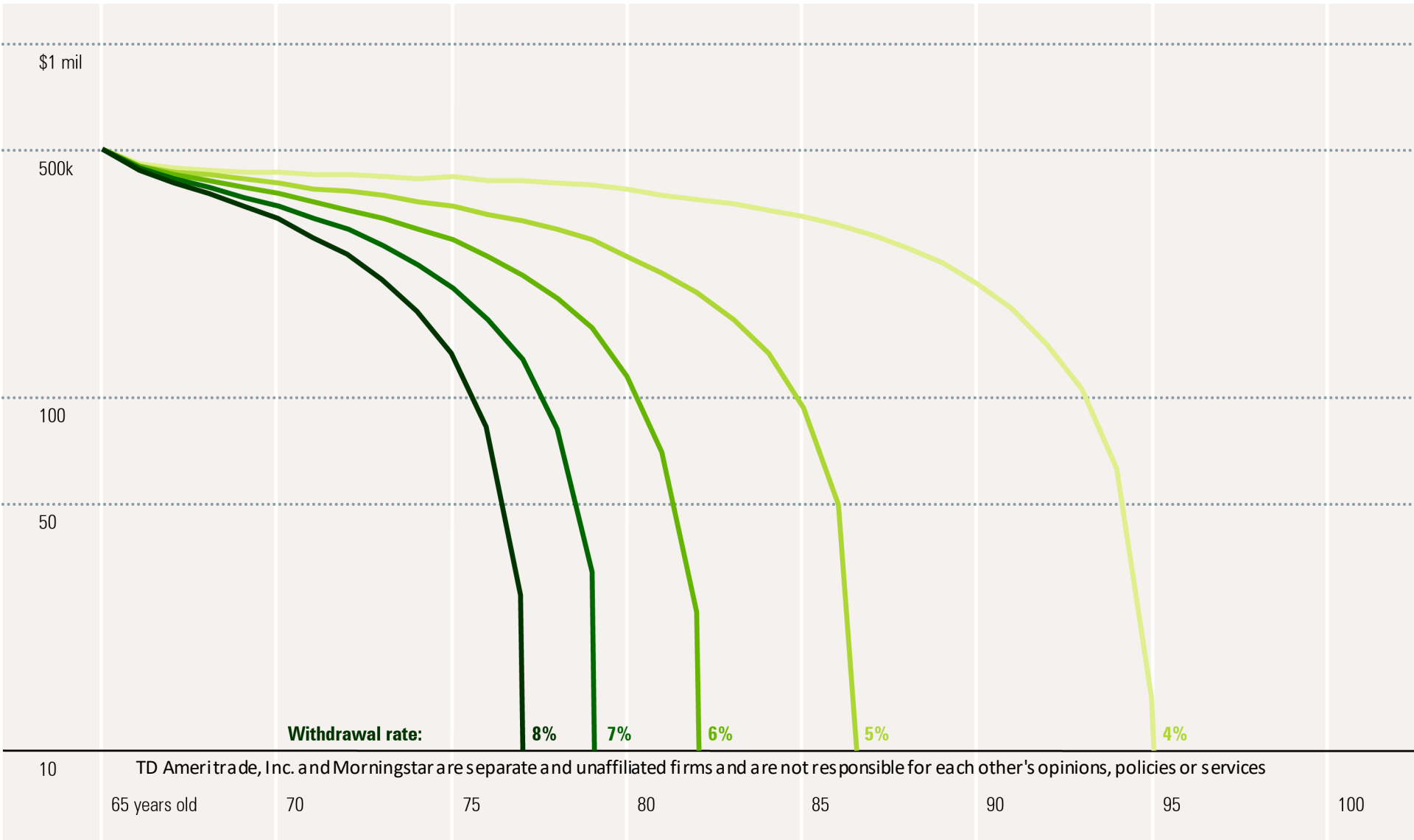
Withdrawal rate: **8%** **7%** **6%** **5%** **4%**

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65 years old   70   75   80   85   90   95   100

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Several issues should be examined when determining an investor's withdrawal rate. Asset allocation, time horizon, and consumption patterns are all important factors in shaping how long portfolio wealth will last.

This image looks at a hypothetical 50% stock/50% bond portfolio and the effect various inflation-adjusted withdrawal rates have on the end value of the portfolio over a long payout period. Each hypothetical portfolio has an initial starting value of $500,000. It is assumed that a person retires at age 65 and withdraws an inflation-adjusted percentage of the initial portfolio wealth ($500,000) each year beginning at age 66. Annual investment expenses were assumed to be 0.73% for stock mutual funds and 0.60% for bond mutual funds.

As illustrated, the higher the withdrawal rate, the greater the chance of potential shortfall. The lower the rate, the less likely an investor is to outlive their portfolio. Therefore, retirees who anticipate long payout periods may want to consider assuming lower withdrawal rates.

The image was created using Monte Carlo parametric simulation that estimates the range of possible outcomes based on a set of assumptions including arithmetic mean (return), standard deviation (risk), and correlation for a set of asset classes. The inputs used herein are hypothetical, based on historical long-term figures. The hypothetical risk and return of each asset class, cross-correlation, and annual average inflation follow. Stocks: risk 20.2%, return 12.1%; Bonds: risk 5.7%, return 5.4%; Correlation 0.00; Inflation: return 3.0%. Other investments not considered may have characteristics similar or superior to those being analyzed. The simulation is run 5,000 times, to give 5,000 possible 35-year scenarios.

A 90% confidence level indicates that there is a 90% chance of the outcome being as shown or better. Higher confidence levels are chosen in order to view tougher market conditions. A limitation of the simulation model is that it assumes a constant inflation-adjusted rate of withdrawal, which may not be representative of actual retirement income needs. This type of simulation also assumes that the distribution of returns is normal. Should actual returns not follow this pattern, results may vary.

Government bonds are guaranteed by the full faith and credit of the United States government as to the timely payment of principal and interest, while returns and principal invested in stocks are not guaranteed. Diversification does not eliminate the risk of experiencing investment losses. Holding a portfolio of securities for the long term does not ensure a profitable outcome and investing in securities always involves risk of loss, including the risk of losing the entire principal.

About the data

Stocks are represented by the Ibbotson® Large Company Stock Index. Bonds are represented by the five-year U.S. government bond, inflation by the Consumer Price Index, and mutual fund expenses from Morningstar. An investment cannot be made directly in an index. The data assumes reinvestment of income and does not account for taxes or transaction costs.

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