

Special Edition – Understanding Market Volatility

Student of the Market

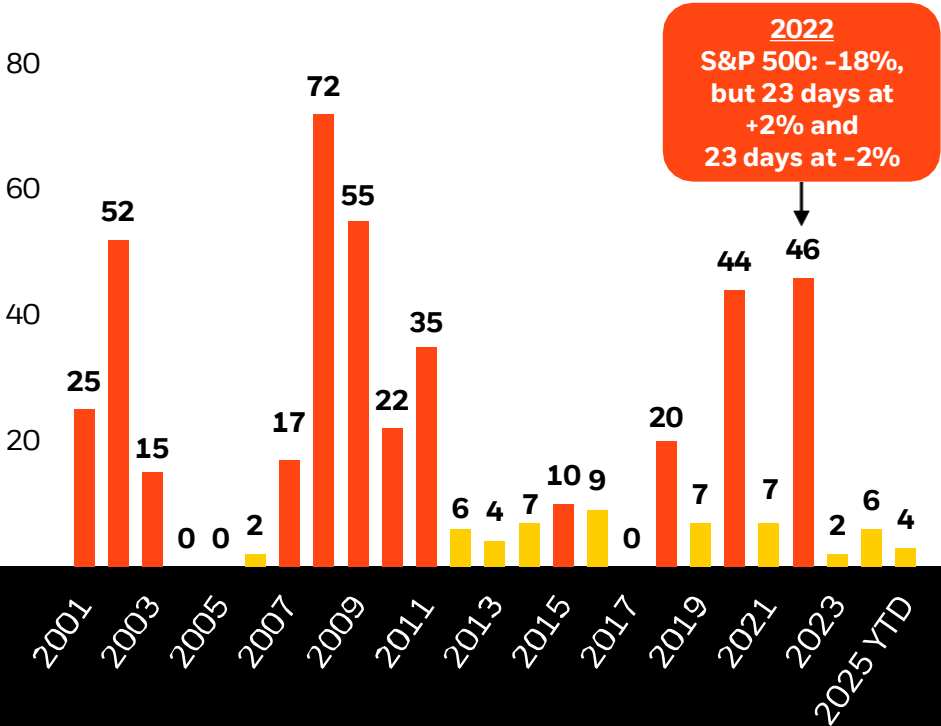


Volatility increases with economic and policy concerns

The number of big single-day swings are lower than previous years, with most coming during crisis periods

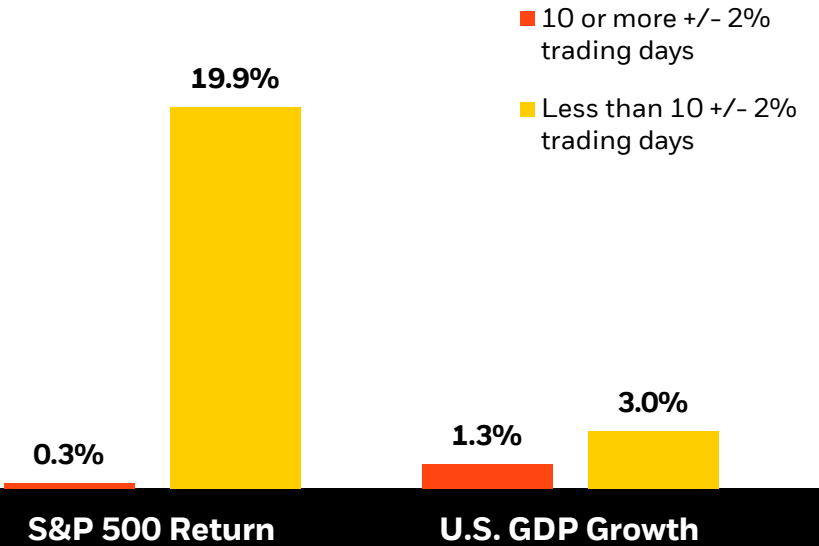
S&P 500 single-day swings of +/-2% or more

Number of single day swings, 1/1/2001 - 4/4/2025



What stock market volatility tells us about potential returns and economic growth

Average return during +/- 2% trading days in calendar years, 1/1/2001 - 3/31/2025



Source: Morningstar as of 4/4/25. Stock market represented by the S&P 500 Index. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

The best days for equities have followed the worst

March 2020 volatility showcased how quickly markets can rebound even after significant drawdowns

3 of the Worst Days Since 1950

| Worst days since 1950 | Calendar Days | S&P 500 Decline | Return 1 year later |
|-----------------------|---------------|-----------------|---------------------|
| | | | |
| #2 | 3/16/2020 | -12.0% | 69.0% |
| #3 | 3/12/2020 | -9.5% | 61.8% |
| | | | |
| #9 | 3/9/2020 | -7.6% | 43.6% |
| | | | |

5 of the Best Days Since 1950

| Best days since 1950 | Calendar Days | S&P 500 Gain | Return 1 year later |
|----------------------|---------------|--------------|---------------------|
| | | | |
| #3 | 3/24/20 | 9.4% | 61.7% |
| #4 | 3/13/20 | 9.3% | 48.0% |
| | | | |
| #7 | 4/6/20 | 7.0% | 55.6% |
| | | | |
| #12 | 3/26/20 | 6.2% | 53.7% |
| #13 | 3/17/20 | 6.0% | 59.9% |
| | | | |

Over the last 20 years, **24 of 25** of the best days in the market occurred within **1 month** of one of the 25 worst days

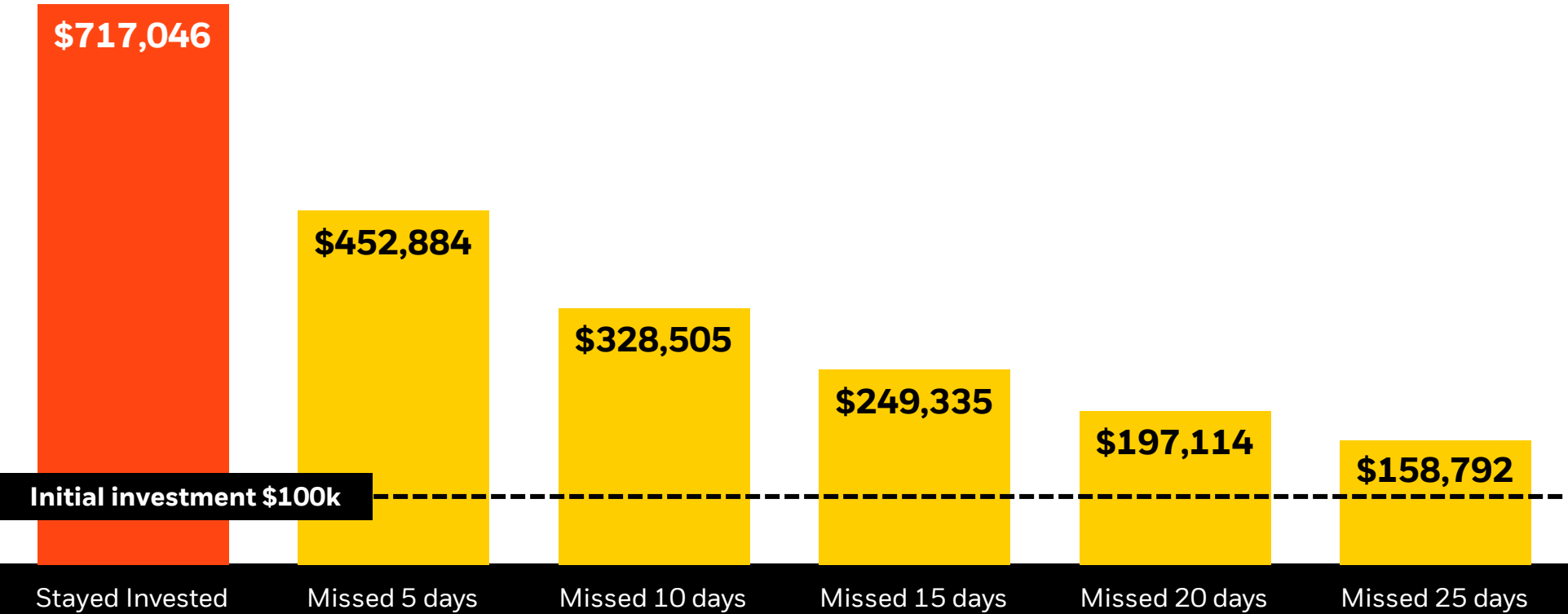
Sources: BlackRock; Morningstar as of 3/31/25. "S&P 500" is represented by the S&P 500 Index from 3/4/57 to 3/31/25 and the IASBBI U.S. Lrg Stock Tr USD Index from 1/1/26 to 3/4/57, unmanaged indexes that are generally considered representative of the U.S. stock market during each given time period. Index performance is for illustrative purposes only. It is not possible to invest directly in an index. Past performance does not guarantee or indicate future results.

Staying invested has been more important than timing

It's time in the market that matters; waiting for the "right moment" could mean missing crucial performance

Missing top-performing days can hurt your return

Hypothetical Investment of \$100,000 in the S&P 500 Index over the last 20 years (2005-2024)



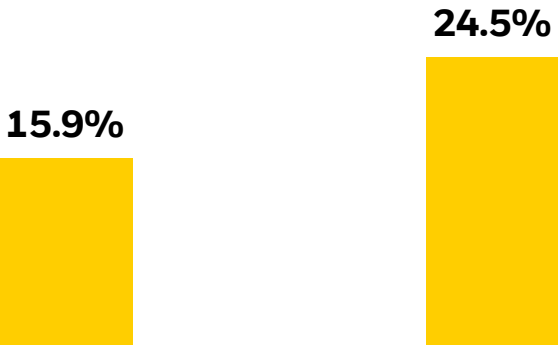
Sources: BlackRock; Bloomberg as of 12/31/24. Past performance is no guarantee of future results. It is not possible to invest directly in an index.

Buying when the stock market is down -10%

Market pullbacks offer a strong opportunity to invest and “buy the dip” while others seek to exit

Median return following a -10% decline

Last 20 years, performance next 12 months



Returns following a 10% market decline

Returns from the market bottom (-10% or worse)

Stock market corrections >10% and bear markets

Last 20 years

| Correction >10% | Peak | Through | Date crosses -10% | Forward returns after crossing -10% | Forward returns from the bottom (through) |
|-----------------|---------|----------|-------------------|-------------------------------------|---|
| | | | | next 12 months | next 12 months |
| -16.0% | 4/23/10 | 7/2/10 | 5/20/10 | 24.4% | 27.5% |
| -19.4% | 4/29/11 | 10/3/11 | 8/4/11 | 15.9% | 19.1% |
| -14.2% | 5/21/15 | 2/11/16 | 8/24/15 | 14.9% | 17.1% |
| -10.2% | 1/26/18 | 2/8/18 | 2/8/18 | 11.4% | 11.4% |
| -19.8% | 9/20/18 | 12/24/18 | 11/23/18 | 25.8% | 24.5% |
| -10.3% | 7/31/23 | 10/27/23 | 10/27/23 | 35.2% | 35.2% |
| -56.8% | 10/9/07 | 3/9/09 | 11/26/07 | -36.9% | 64.0% |
| -33.9% | 2/19/20 | 3/23/20 | 2/27/20 | 27.9% | 61.9% |
| -25.4% | 1/3/22 | 10/27/22 | 2/22/22 | -7.3% | 22.0% |
| -10.1% | 2/19/25 | 3/13/25 | 3/13/25 | ? | ? |
| Median | | | | 15.9% | 24.5% |

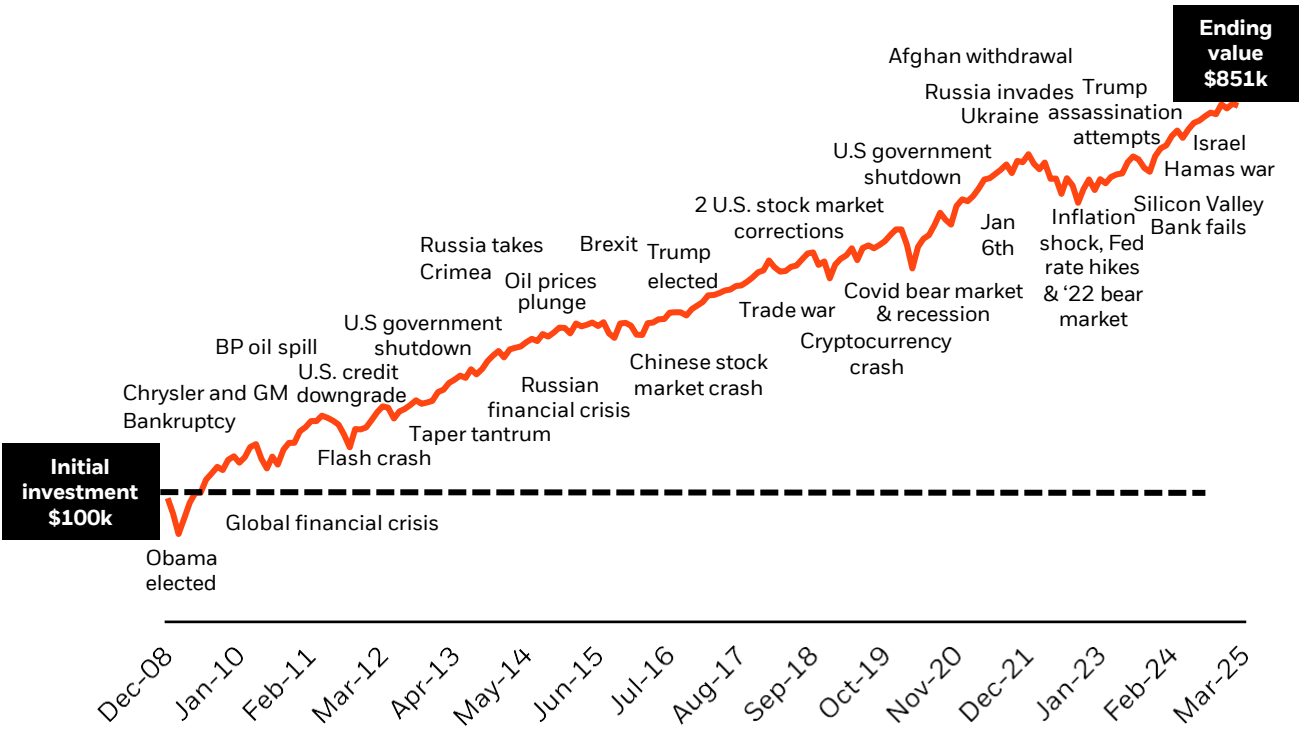
Sources: BlackRock; Bloomberg as of 3/31/25. Stocks are represented by the S&P 500 price index, an unmanaged index that is generally considered representative of the U.S. stock market. “-10% declines” and “>10% corrections” refer to declines of that magnitude or more at any point within the given time frame. Past performance is no guarantee of future results. It is not possible to invest directly in an index.

There is always a reason to sell

Market pullbacks, corrections, and bear markets happen more often than most realize

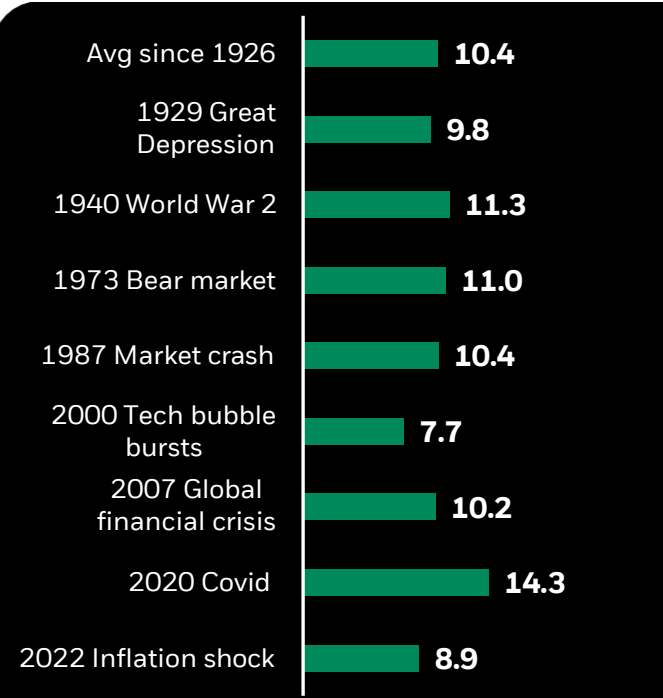
Growth of \$100k and recent market and economic headlines

12/31/08 - to 3/31/25



Investing at the worst times in history

Average annual returns if you had been invested when event occurred, %



Source: BlackRock, Bloomberg as of 3/31/25. Investment returns are represented by the S&P 500 TR Index from 3/4/57 to 3/31/25 and the IA SBBI U.S. Lrg Stock TR USD Index from 1/1/26 to 3/4/57, an unmanaged pair of indexes that are generally considered representative of the U.S. stock market. Past performance is no guarantee of future results. It is not possible to invest directly in an index.

Recent investor sentiment very bearish

Historically, periods with high bearish sentiment have led to outsized performance

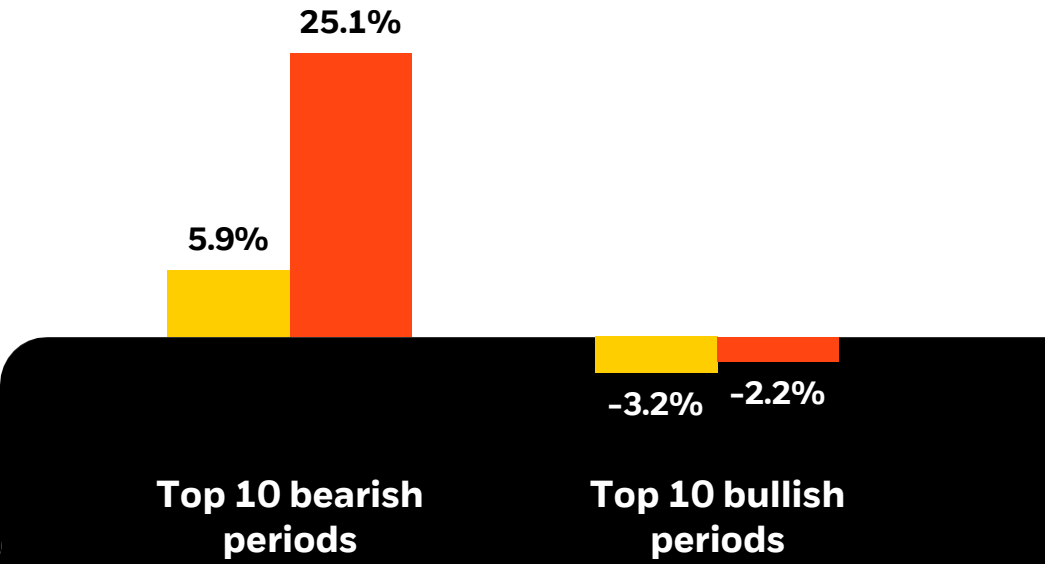
Top 10 bearish investor sentiment periods

| Date | Percent bearish sentiment | Avg annual return next 3 mo. | Avg annual return next 1 yr. |
|----------|---------------------------|------------------------------|------------------------------|
| 3-5-09 | 70.3% | 38.6% | 70.5% |
| 10-19-90 | 67.0% | 7.3% | 29.9% |
| 8-31-90 | 61.0% | 0.9% | 26.9% |
| 9-22-22 | 60.9% | 2.2% | 16.9% |
| 10-9-08 | 60.8% | -1.4% | 20.9% |
| 9-29-22 | 60.8% | 6.2% | 19.8% |
| 2-27-25 | 60.6% | ? | ? |
| 4-28-22 | 59.4% | -4.6% | -1.1% |
| 6-23-22 | 59.3% | -2.3% | 16.6% |
| 3-13-25 | 59.2% | ? | ? |
| Average | | 5.9% | 25.1% |

Performance following periods of top 10 bearish and bullish periods

Average annual returns if you had been invested when event occurred

Next 3 mo. Next 1 year



Sources: BlackRock; Morningstar, St. Louis Federal Reserve and AAIL as of 3/31/25. Returns are represented by the S&P 500 Index, an unmanaged index that is generally considered representative of the U.S. stock market. Past performance is no guarantee of future results. It is not possible to invest directly in an index.

Stay the course amid market volatility

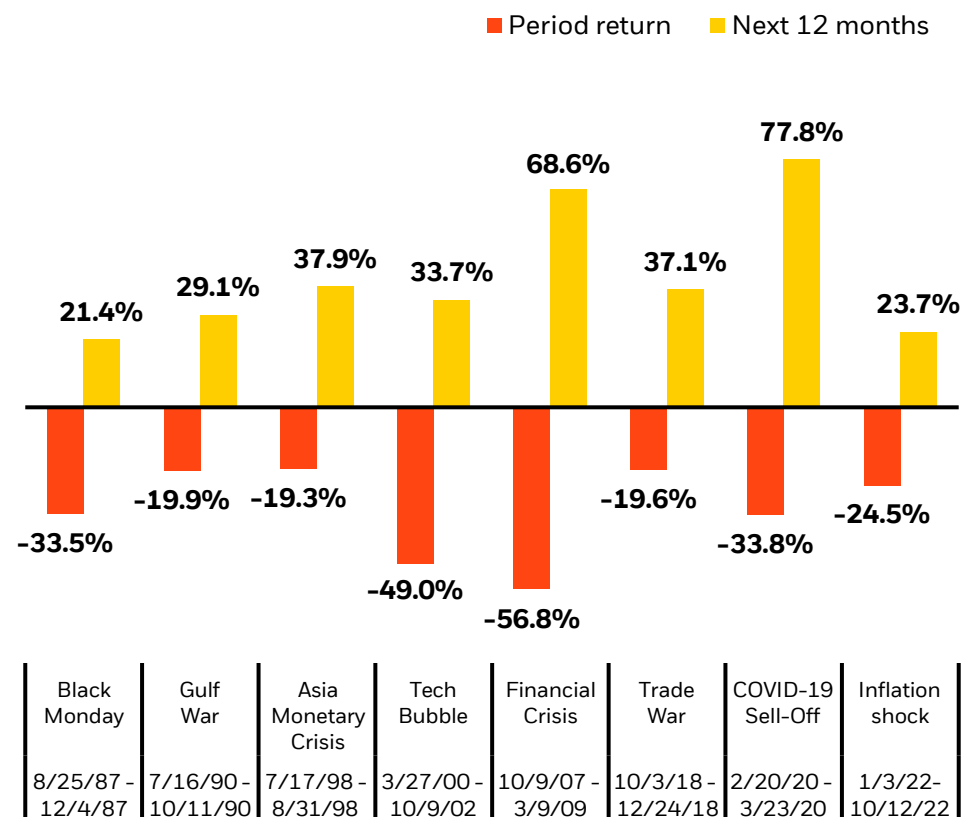
Top 15 worst market days since 1950*

Top S&P 500 single day declines and subsequent 1 year return

| Calendar Days | S&P 500 Decline* | Return 1 year later* |
|----------------|------------------|----------------------|
| 10/19/87 | -20.5% | 23.1% |
| 3/16/20 | -12.0% | 69.0% |
| 3/12/20 | -9.5% | 61.8% |
| 10/15/08 | -9.0% | 20.8% |
| 12/01/08 | -8.9% | 35.9% |
| 9/29/08 | -8.8% | -4.1% |
| 10/26/87 | -8.3% | 23.5% |
| 10/09/08 | -7.6% | 17.8% |
| 3/9/20 | -7.6% | 43.6% |
| 10/27/97 | -6.9% | 21.5% |
| 08/31/98 | -6.8% | 38.0% |
| 01/08/88 | -6.8% | 15.3% |
| 11/20/08 | -6.7% | 45.1% |
| 05/28/62 | -6.7% | 26.7% |
| 08/08/11 | -6.7% | 25.2% |
| Average | -8.9% | 30.9% |

Past growth scores and bear markets

Since 1987



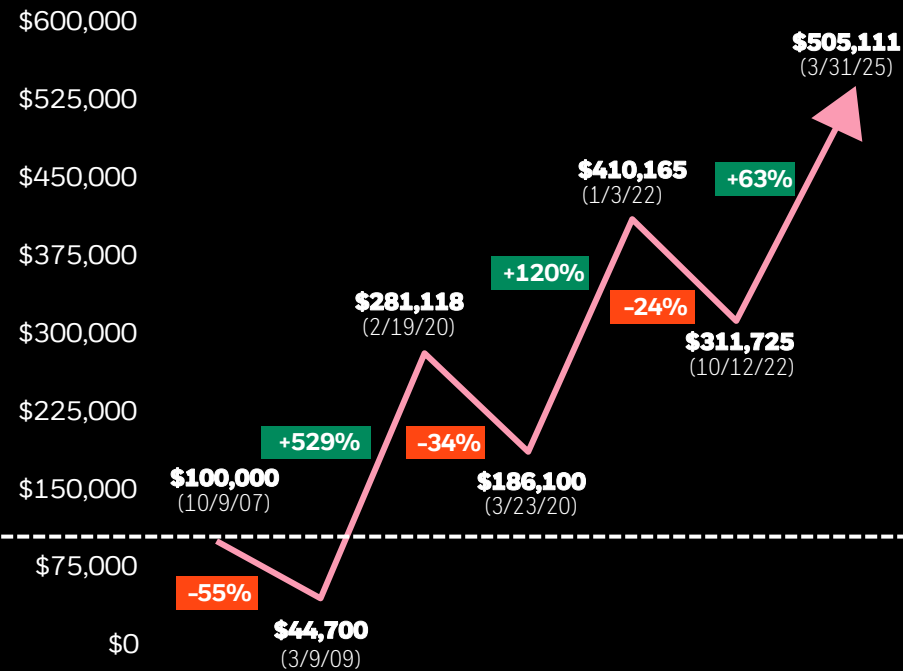
Source: BlackRock; Morningstar as of 3/31/25. S&P 500 is represented by the S&P 500 Index from 3/4/57 to 3/31/25 and the IASBBI U.S. Lrg Stock Tr USD Index from 1/1/26 to 3/4/57, unmanaged indexes that are generally considered representative of the U.S. stock market during each given time period. Index performance is for illustrative purposes only. It is not possible to invest directly in an index. Past performance does not guarantee or indicate future results. *Indicates principal return, dividends not included. Returns are principal only not including dividends.

Win more by losing less

Diversification and minimizing losses, even at the cost of upside capture, can have a larger effect on the long-term return of a portfolio than full participation in both bull and bear markets

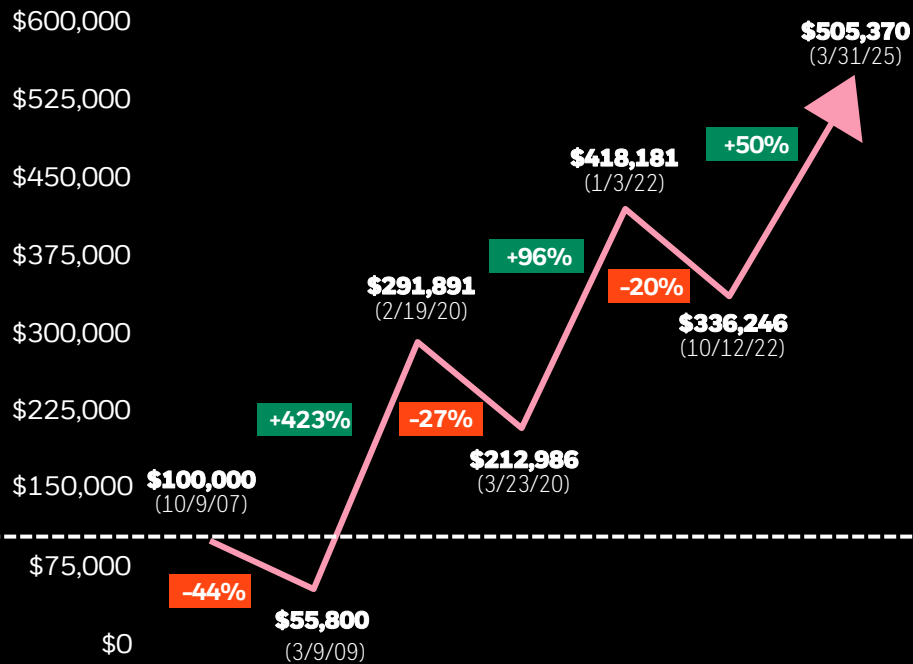
All the up and all the down

100% capture of both up and down markets of S&P 500 Index



Part of the up and down gets you all the up with less of the down

80% capture of up and down markets of S&P 500 Index



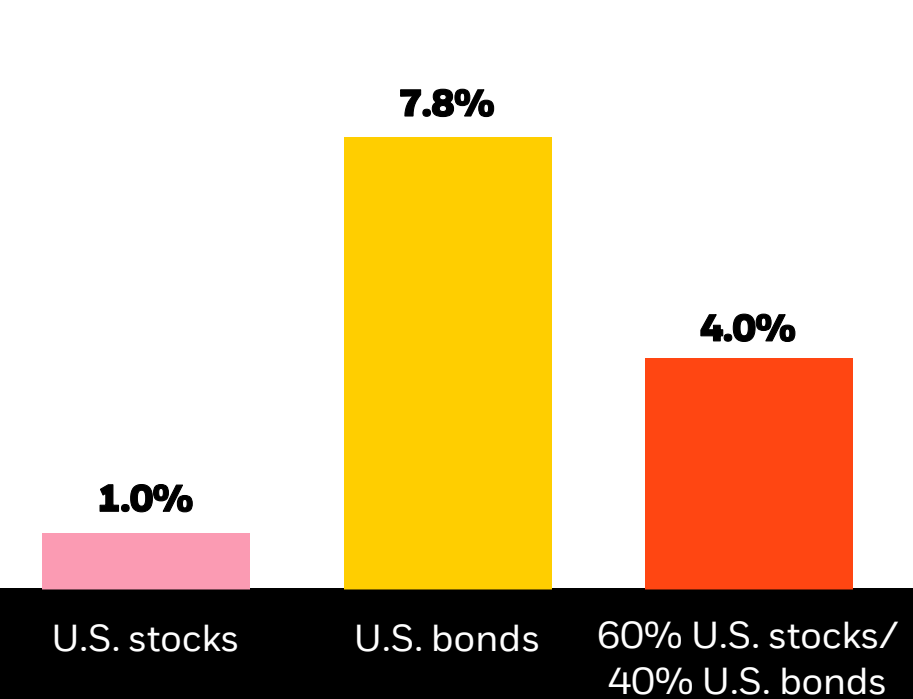
Source: Morningstar as of 3/31/25. *Hypothetical investment or portfolio that captured 80% of each bull and bear market return of the S&P 500 when benchmarked to that index. Returns shown are based on the S&P 500 index only. This showcases the benefits of diversifying and minimizing losses even at the expense of capturing some upside. Returns shown are based on the S&P 500 index only. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Recessions and asset class performance

Diversified portfolios with fixed income exposure have performed better during recessionary environments

Average performance during a recession

1/1/1929 – 3/31/2025



Recession and asset class performance

1/1/1929 – 3/31/2025

| Recessions | U.S. stocks | U.S. bonds | 60/40 portfolio |
|--------------------------|-------------|------------|-----------------|
| 1929-09-01 to 1933-03-31 | -33.6 | 4.9 | -19.1 |
| 1937-06-01 to 1938-06-30 | -22.4 | 6.4 | -9.9 |
| 1945-03-01 to 1945-10-31 | 19.5 | 1.0 | 12.4 |
| 1948-12-01 to 1949-10-31 | 15.2 | 2.5 | 10.1 |
| 1953-08-01 to 1954-05-31 | 24.2 | 5.1 | 16.6 |
| 1957-09-01 to 1958-04-30 | -1.5 | 9.7 | 3.3 |
| 1960-05-01 to 1961-02-28 | 20.3 | 7.2 | 14.9 |
| 1970-01-01 to 1970-11-30 | -2.0 | 16.2 | 5.3 |
| 1973-12-01 to 1975-03-31 | -5.9 | 5.7 | 0.0 |
| 1980-02-01 to 1980-07-31 | 9.6 | 9.5 | 9.5 |
| 1981-08-01 to 1982-11-30 | 10.5 | 29.1 | 17.9 |
| 1990-08-01 to 1991-03-31 | 8.0 | 7.5 | 8.1 |
| 2001-04-01 to 2001-11-30 | -0.9 | 5.9 | 1.9 |
| 2008-01-01 to 2009-06-30 | -25.0 | 4.8 | -11.5 |
| 2020-03-01 to 2020-04-30 | -1.1 | 1.2 | -0.1 |
| Average | 1.0 | 7.8 | 4.0 |

Source: BlackRock; Morningstar, NBER as of 3/31/25. Recessionary periods shown are defined by NBER. U.S. stocks are represented by the S&P 500 Index from 3/4/57 to 3/31/25 and the IASBBI U.S. Lrg Stock Tr USD Index from 1/1/26 to 3/4/57, unmanaged indexes that are generally considered representative of the U.S. stock market during each given time period. U.S. Bonds are represented by the Bloomberg U.S. Aggregate Bond Index. Recession dates noted by NBER business cycle dating. Index performance is for illustrative purposes only. It is not possible to invest directly in an index. Past performance does not guarantee or indicate future results.

Important information

Investing involves risk, including possible loss of principal.

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