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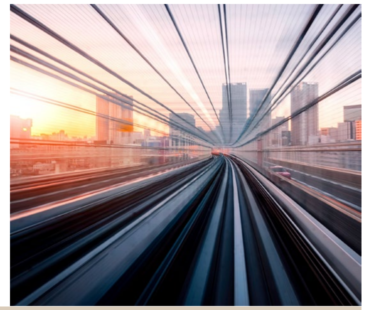
Special Report



February 29, 2024

Global Asset Allocation Strategy Team

The perils of trying to time volatile markets

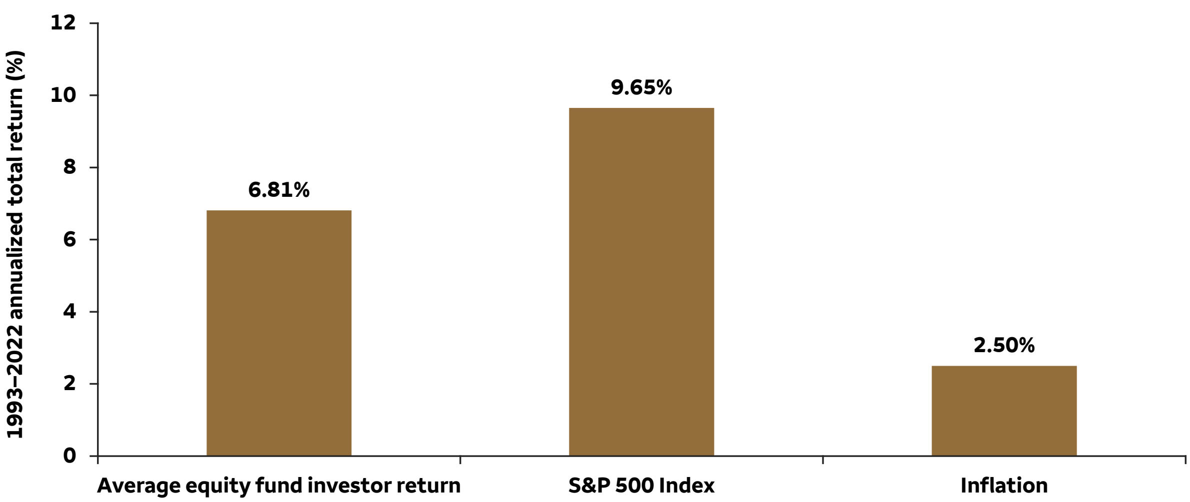
Key takeaways

- Missing a handful of the best days in the market over long time periods can drastically reduce the average annual return an investor could gain just by holding on to their equity investments during sell-offs.
- While missing the worst days can potentially offer higher returns than a “buy and hold” strategy, disentangling the best and worst days can be difficult, since historically they have often occurred in a very tight time frame — sometimes even on consecutive trading days.

What it may mean for investors

- There appears to be some benefit to missing both the best and the worst days, so an investor may wish to use tactical asset allocation adjustments in an effort to reduce equity exposure when the risk of a recession or bear market rises.

Chart 1. Market timing is difficult — Investors who allow their emotions to get the best of them may suffer lower returns

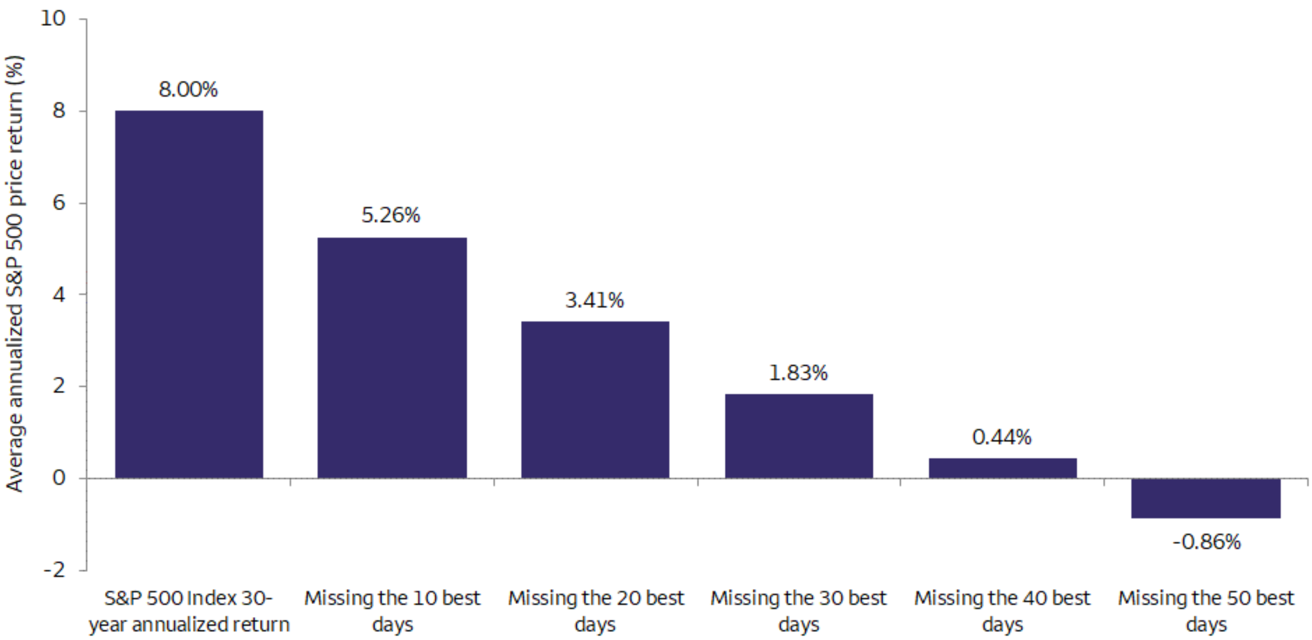


Source: DALBAR, Inc., 30 years from 1993–2022; “Quantitative Analysis of Investor Behavior,” 2023, DALBAR, Inc., www.dalbar.com. For illustrative purposes only. DALBAR computed the average equity fund investor return by using industry cash flow reports from the Investment Company Institute. The Average Equity Fund Investor is comprised of a universe of both domestic and world equity mutual funds. It includes growth, sector, alternative strategy, value, blend, emerging markets, global equity, international equity, and regional equity funds. Returns assume reinvestment of dividends and capital gain distributions. **The performance shown is for illustrative purposes only, and not indicative of any particular investment. An index is unmanaged and not available for direct investment. Past performance is not a guarantee of future results.** Inflation is represented by the Consumer Price Index.

Our findings

Our research suggests that missing a handful of the best days over longer time periods drastically reduces the average annual return an investor could gain by simply holding on to their equity investments during market sell-offs. Over the past 30 years, missing the best 30 days (based on S&P 500 Index returns from February 1, 1994, through January 31, 2024) took the annual average return from 8.0% per year down to 1.8%, which was less than the 2.5% average inflation rate over that same period. Our research also showed that over the same time period, missing the best 40 days took the average annual return nearly flat to 0.44%, and missing the best 50 days resulted in a -0.86% annual return, on average. Based on this study, equities accumulated most of their gains over just a few trading days.

Chart 2. Missing the market's best days

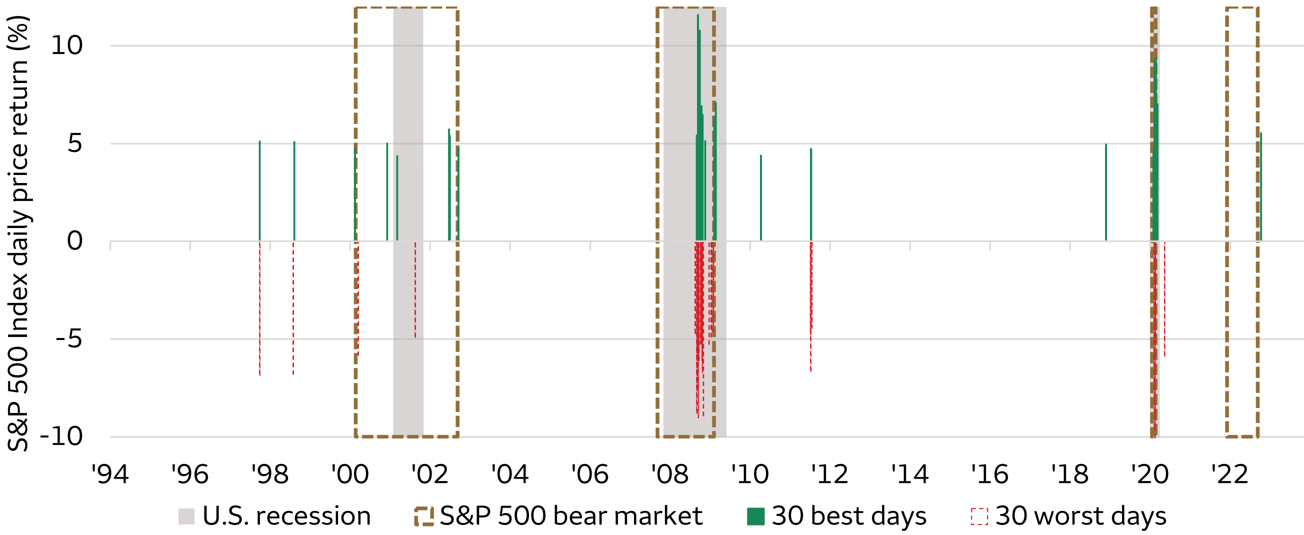


Sources: Bloomberg and Wells Fargo Investment Institute. Daily data: February 1, 1994 through January 31, 2024 for the S&P 500 Index. Best days are calculated using daily returns. For illustrative purposes only. An index is unmanaged and not available for direct investment. A price index is not a total return index and does not include the reinvestment of dividends. **Past performance is no guarantee of future results.**

What if an investor could somehow remain invested in the markets during the best days, but avoid the worst days? That would be the best of circumstances — and would result in far higher returns over the course of the holding period. But is that possible?

Our analysis shows that the best days in the S&P 500 Index tend to cluster in the midst of a bear market or recession, and some of the worst days occurred during bull markets. Of the 10 best trading days in terms of percentage gains, all 10 took place during recessions and six also coincided with a bear market, with three of those in the 2020 recession and the remaining days during the Great Recession of 2007 – 2009. Disentangling the best and worst days can be quite difficult, history suggests, since they have often occurred in a very tight time frame, sometimes even on consecutive trading days. In our view, these findings argue strongly for most investors to remain invested in the equity markets even during periods of high volatility.

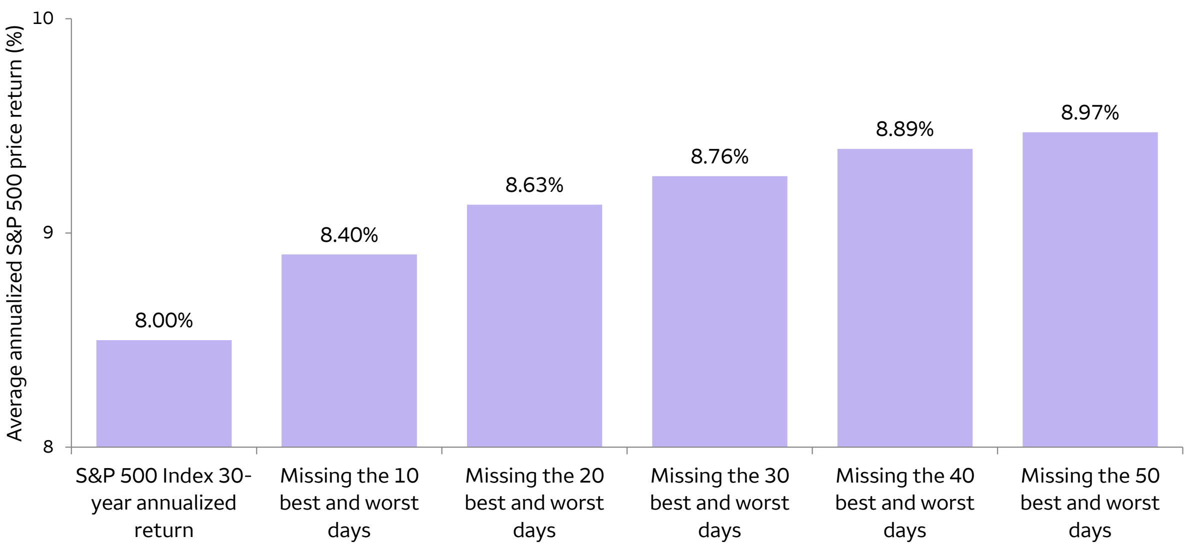
Chart 3. Market performance — The best days and worst days have often occurred close together



Sources: Bloomberg and Wells Fargo Investment Institute. Daily data: February 1, 1994 through January 31, 2024 for the S&P 500 Index. Best and worst days are calculated using daily returns. For illustrative purposes only. A price index is not a total return index and does not include the reinvestment of dividends. There are difficulties assessing index performance during certain correction periods, in part, because index results do not represent actual trading and cannot completely account for the impact financial risk has on actual trading. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

Not only have the best and worst days typically clustered together, but they also often occurred during bear markets or recessions, when markets were at their most volatile. For example, three of the 30 best days and five of the 30 worst days occurred during the eight trading days between March 9 and March 18, 2020. Another historical study we conducted shows that missing both the best and the worst trading days during various time periods can result in somewhat higher equity returns than those of a traditional buy-and-hold strategy (see Chart 4). Although the difference may not be enough to account for trading and tax costs, it is interesting to note that, based on the historical returns in Chart 4, reducing equity exposure during periods with significant market volatility improved returns (based on S&P 500 Index returns from February 1, 1994 through January 31, 2024).

Chart 4. Missing the best and worst days — Reduced exposure during market volatility



Sources: Bloomberg and Wells Fargo Investment Institute. Daily data: February 1, 1994 through January 31, 2024 for the S&P 500 Index. Best and worst days are calculated using daily returns. For illustrative purposes only. An index is unmanaged and not available for direct investment. A price index is not a total return index and does not include the reinvestment of dividends. **Past performance is no guarantee of future results.**

While market volatility has come down from elevated levels surrounding the 2022 bear market, several economic and market uncertainties remain that may contribute to an uptick in volatility. Even as the stock market reaches new highs, it continues to grapple with the potential for an economic slowdown, the timing and amount of rate cuts by the Federal Reserve in 2024, and the lingering impacts of still-elevated inflation and interest rates. As risks remain, we suggest focusing on quality at the asset class level. We currently prefer U.S. large-cap equities over mid and small caps, and Developed Market ex-U.S. over Emerging Market Equities. At this point in the market cycle, we remain favorable on large caps over mid and small caps. In fixed income, we prefer higher credit quality securities over high-yield debt and are neutral on duration (a measure of interest rate sensitivity). During times of heightened volatility, we encourage investors to review portfolio allocations and strategies. When opportunities arise, we typically use our tactical asset allocation strategy (increasing or decreasing exposure to asset classes over shorter time periods) in an effort to improve potential returns while decreasing potential volatility risk.

DALBAR study and market timing

- In 2021, the **average equity fund investor** underperformed the S&P 500 by 10.32% (28.71% for S&P 500 versus 18.39% for average equity fund investor).[1]

- However, in 2022, the average equity fund investor finished the year with a loss of -21.17% versus an S&P 500 return of -18.11%; an investor return gap of 306 basis points.[2] This gap ranked the third smallest annual gap in the past 10 years.

Since 1994, DALBAR's Quantitative Analysis of Investor Behavior (QAIB) has measured the effects of investor decisions to buy, sell, and switch into and out of mutual funds over short-term and long-term time frames. These effects are measured from the perspective of the investor and do not represent the performance of the investments themselves. The results consistently showed that the average investor earned less — in many cases, much less — than mutual fund performance reports would suggest.[3]

DALBAR has analyzed investors' market timing successes and failures through net purchases and sales of funds since 1994. This form of analysis, known as the "Guess Right Ratio," examines fund inflows and outflows as a potential means to determine how often investors correctly anticipate the direction of the market the following month. Investors tend to "guess right" when a net inflow is followed by a market gain or when a net outflow is followed by a decline.

Based on DALBAR findings, investors have guessed right at least half the time in 13 out of the past 20 years, and correctly guessed six months in 2022. Unfortunately, according to the QAIB, for the average investor, guessing right has not produced superior gains because the dollar volume of bad guesses exceeded the dollar volume of correct guesses. Even one month of wrong guesses can potentially wipe out the gains from several months of correct ones.

DALBAR also analyzes retention rates that measure cash outflows in proportion to assets to arrive at the length of time the average investor holds a fund if the current redemption rate persists. Historically, retention rates increase when the market is rising and contract during market downturns. Despite the downturn in equity markets in 2022,

1. Average equity fund investor: The average equity fund investor is comprised of a universe of both domestic and world equity mutual funds. It includes growth, sector, alternative strategy, value, blend, emerging markets, global equity, international equity, and regional equity funds.
2. One hundred basis points equal 1%.
3. 2023 DALBAR QIAB Report.

retention rates only fell 40 days to 4.25 years from the 4.36 years in 2021. This came in stark contrast to the contraction of almost a full year during the market turbulence of 2020.

Conclusion

We believe that staying fully invested in equity markets over a full market cycle is more beneficial than selling into volatile markets and attempting to avoid the worst-performing days. Historically, there appears to be some benefit to missing both the best and the worst days, so an investor may wish to use tactical asset allocation to reduce equity exposure when the risk of a recession and bear market rises and increase equity exposure as the economy and markets recover.

We also suggest rebalancing — buying asset classes that have fallen below a portfolio's long-term allocations and selling those that are higher than long-term allocations — during periods of market volatility. We believe regular rebalancing can help to ensure that a portfolio's allocation stays diversified and aligned with desired goals. Diversification has the potential to provide more consistent returns and less downside risk through lowered volatility. Attempting to smooth the ride for investors is important because it can reduce the temptation to abandon a diversified portfolio when one asset class is outperforming or underperforming during a given time period. Attempting to reduce downside volatility can be critical to long-term performance because it can allow a portfolio to recover more quickly in the event of a catastrophic loss.

Risk considerations

Asset allocation and diversification are investment methods used to help manage risk. They do not guarantee investment returns or eliminate risk of loss including in a declining market.

All investing involves risks including the possible loss of principal. Equity securities are subject to market risk which means their value may fluctuate in response to general economic and market conditions and the perception of individual issuers. Investments in equity securities are generally more volatile than other types of securities.

Different investments offer different levels of potential return and market risk. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. **Stock markets**, especially foreign markets, are volatile. Stock values may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. **Foreign investing** has additional risks including those associated with currency fluctuation, political and economic instability, and different accounting standards. These risks are heightened in emerging markets. **Small- and mid-cap stocks** are generally more volatile, subject to greater risks and are less liquid than large company stocks. **Bonds** are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates.

Definitions

S&P 500 Index is a market capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the US stock market.

The **Consumer Price Index** measures the average price of a basket of goods and services**.**

An index is unmanaged and not available for direct investment.

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