Perspectives

APR 2022

Low Volatility: Factor or Fad?

The beginning of 2022 represented a change of pace for equity investors, as increased geopolitical and macroeconomic uncertainty drove the S&P 500 to its first negative quarter in two years. In light of recent performance trends and the potential for continued asset price fluctuation, market participants may be interested in assessing the viability of strategies with lower risk profiles that still offer the potential for long-term gains similar to those of the S&P 500. One such strategy is low volatility equity investing. Though it has fallen somewhat out of favor in recent years, low volatility is a generally accepted risk premia factor (akin to value, size, quality, etc.), meaning investors can theoretically expect to earn excess returns by allocating to lower volatility equities over the long run. This newsletter seeks to understand the rationale and evidence for this premium, explain recent performance of low volatility stocks, and examine the prospects of the style going forward.

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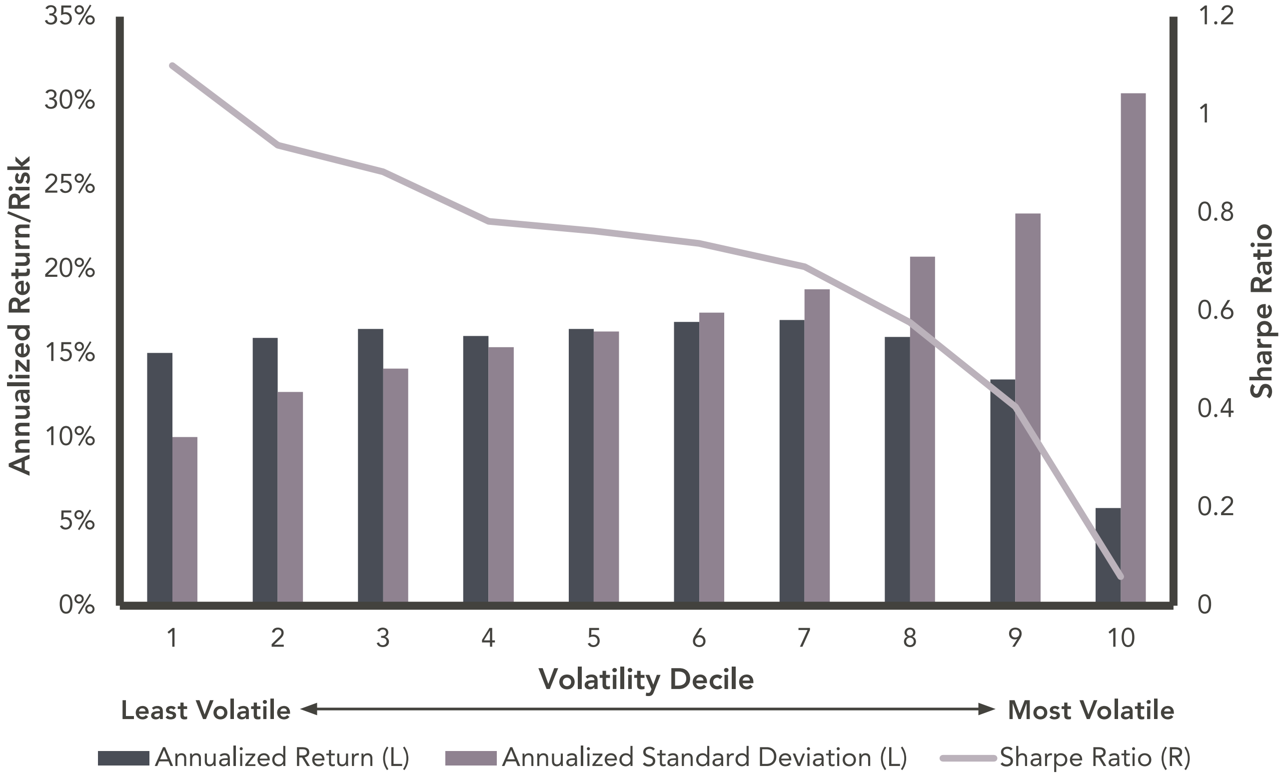
BACKGROUND

The notion that investors may earn a premium by owning low volatility equities may seem counterintuitive at first, as popular models like CAPM and the Fama French three-factor model indicate that the expected return of a security is directly related to its level of risk relative to the broad market. While these models provide a useful theoretical framework at the asset class level, the notion that market risk is the primary driver of returns for individual equities is not supported by the data.

Over the last forty years, the most volatile decile of stocks across major U.S. exchanges returned just 5.8% on an annualized basis, compared to 15.0% for the least volatile decile. While there was not significant performance dispersion among the intermediate deciles, risk-adjusted return metrics (e.g., Sharpe ratio) for lower volatility buckets of the U.S. market have been much more attractive as well. This fact is particularly relevant for institutional investors and those who place an emphasis on portfolio stability due to liability streams or other idiosyncratic factors. Exhibit 1 on the following page outlines these trends.

Exhibit 1: Risk/Return and Sharpe Ratio by Volatility Decile



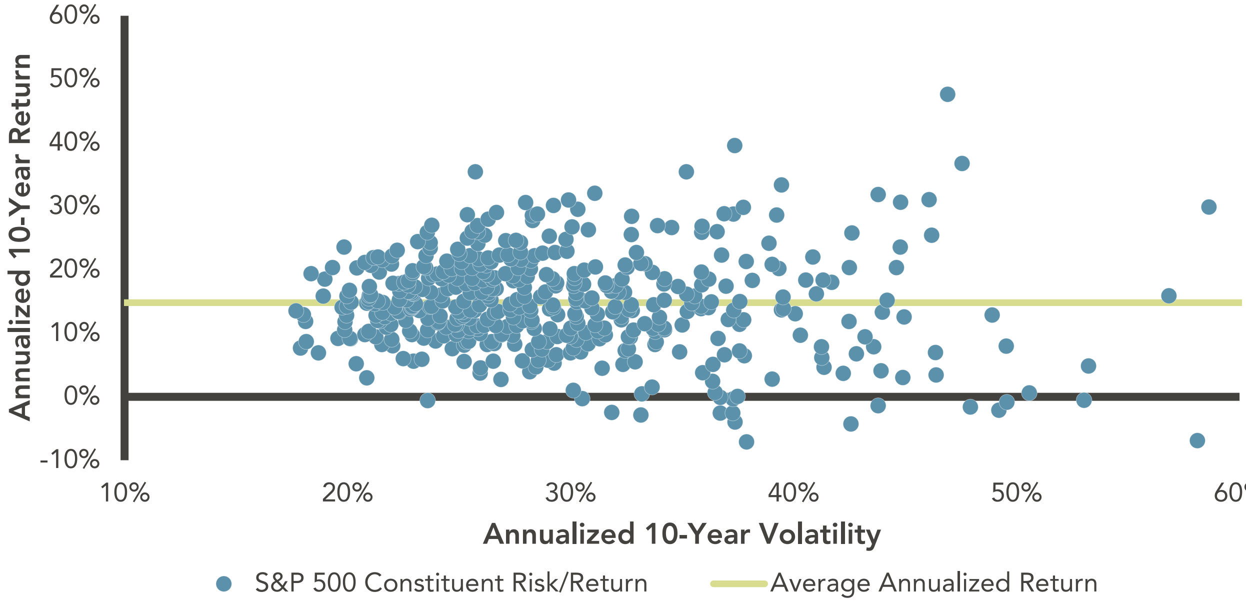
Sources: Kenneth French Data Library and Federal Reserve Bank of St. Louis; data 1980–2021. Sharpe Ratio calculated using average 3-mo. T-bill. The portfolios for month t (formed at the end of month t-1), include NYSE, AMEX, and NASDAQ stocks with ME for the end of month t-1 and non-missing variance of daily returns; the portfolios are formed monthly on the variance of daily returns (Var) using NYSE breakpoints. Var is estimated using 60 days (minimum 20) of lagged returns.

These findings provide support for low volatility as a desirable investment characteristic, but more inquiry is necessary to understand the theoretical basis for the performance trends described previously. Indeed, traditional factors like size make sense intuitively, as smaller companies carry with them a greater chance of failure, meaning investors require a higher level of return for incurring an elevated level of company-specific risk. But why should low volatility stocks command a similar premium? The answer may involve behavioral biases on the part of market participants, which are notoriously difficult to incorporate into theoretical models. Investors have been known to display overconfidence and a preference for "lottery tickets" — securities with a low probability of significant gains. Similarly, many investors are either leverage-averse or unable to use leverage to magnify returns and see higher volatility stocks as a means of amplifying performance without incurring debt. Purchases motivated by this type of thinking can drive the price of high-volatility equities beyond what is justified by underlying company fundamentals, and such speculation can subsequently result in severe performance deterioration as time progresses.

RECENT HEADWINDS

While low volatility has proved to be a viable investment strategy over time, the approach has struggled more recently. Over the past decade, annualized returns for S&P 500 constituents have shown no relationship with the volatility of each constituent, meaning, on average, there has been no low volatility premium, but also that higher risk has not been compensated with higher performance, as seen in Exhibit 2 on the next page.

Exhibit 2: 10-Year Annualized Risk and Return for S&P 500 Constituents



Source: Bloomberg; data as of March 31, 2022

The S&P 500 Low Volatility index is one of the most popular benchmarks that tracks the low volatility equity space. The index uses trailing one-year volatility to rank possible index constituents such that, at each quarterly rebalancing date, the weight for each constituent is set inversely proportional to its volatility. Despite holding up strongly during the U.S. equity market drawdown of the first quarter of 2022, the S&P 500 Low Volatility index has lagged its market capitalization-weighted counterpart on a longer-term trailing basis, as seen in Exhibit 3.

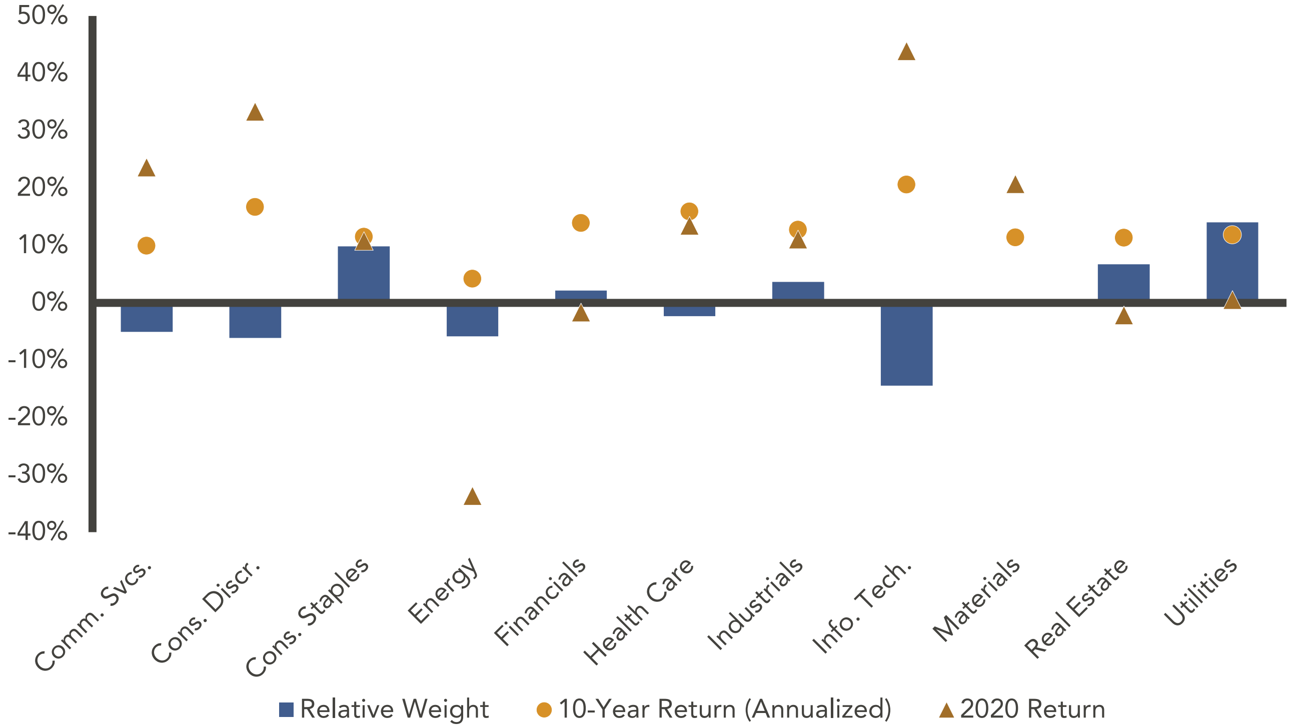
Exhibit 3: Trailing Performance Detail

	YTD (%)	1YR (%)	3YR (%)	5YR (%)	10YR (%)
S&P 500 Low Volatility Index	-1.7	17.9	10.9	11.7	12.4
S&P 500 Index	-4.6	15.6	18.9	16.0	14.6
Excess Return	2.9	2.3	-8.0	-4.3	-2.2

Source: S&P Dow Jones Indices; data as of March 31, 2022

A large part of this underperformance came in 2020, when the S&P 500 index notched a solid 18.4% return while the S&P 500 Low Volatility index returned -1.1%. After the sharp equity market drawdown at the onset of the COVID-19 pandemic in the first quarter of 2020, most sectors rebounded quickly and ended the year in positive territory. The Information Technology, Consumer Discretionary, and Communication Services spaces were the strongest performing sectors of the U.S. market during that time, while more defensive sectors like Consumer Staples, Industrials, and Utilities were up more modestly. Energy, Financials, and Real Estate, on the other hand, finished the year in negative territory. As seen in Exhibit 4 on the following page, the low volatility index was significantly underweight the growth-oriented sectors that performed strongest in 2020 and have generally outperformed over the last 10 years, while being overweight the more defensive, value-oriented sectors that have trailed.

Exhibit 4: Annualized Returns by Sector and Average Sector Deviations of the S&P 500 Low Volatility Index vs. the S&P 500 Index (2012–2022)

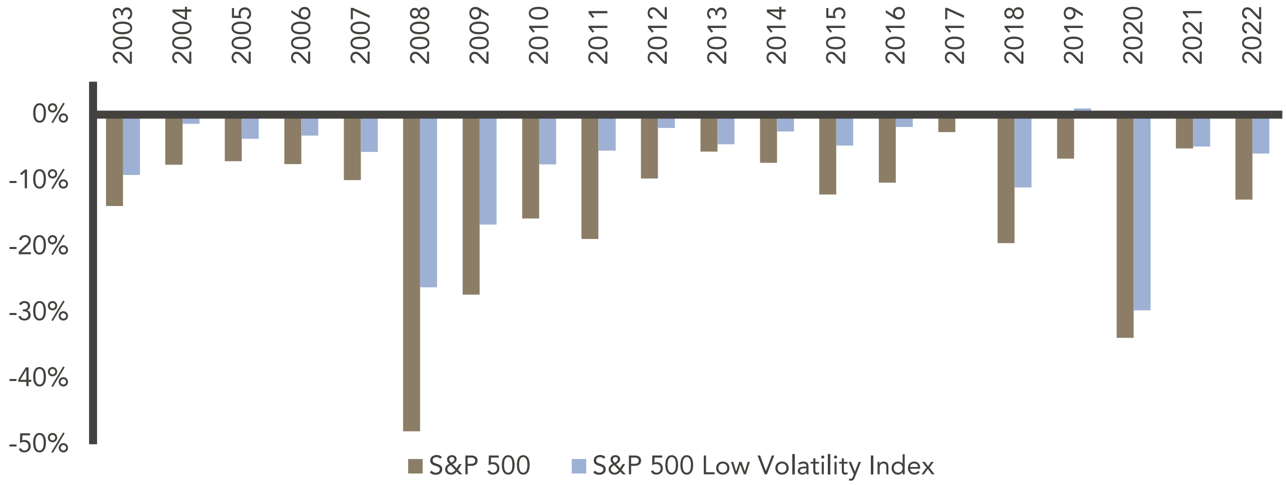


Sources: FactSet and Morningstar; data as of March 31, 2022

WEATHERING THE STORM

As Information Technology companies and other longer-duration growth stocks have corrected to start 2022 amid more hawkish signaling from the Federal Reserve, the low volatility index has held up well relative to the broad market. These trends are in line with history, as low volatility strategies have consistently helped protect capital when equity markets have experienced drawdowns. As shown in Exhibit 5 on the following page, the S&P 500 Low Volatility index has outperformed the broad market throughout the worst S&P 500 drawdown each calendar year over the last two decades. Overall, the low volatility benchmark has notched an impressive average downside capture ratio of roughly 45% relative to the S&P 500 index, meaning, on average, low volatility investors would have endured less than half the total loss experienced by traditional index investors. The value proposition of low volatility funds is essentially "the best offense is a good defense," as a portfolio down 50% requires a subsequent gain of 100% just to get back to its level prior to the loss. Low volatility strategies can help investors preserve wealth and better compound returns by avoiding these large losses in turbulent periods. In 2008, the S&P 500 index shed over 48.0% of its value amid fallout from the Global Financial Crisis, while the S&P 500 Low Volatility index dropped only 26.2% during that same time. The low volatility index even managed to notch a positive return during the most extreme S&P 500 drawdown in 2019.

Exhibit 5: Low Volatility Performance During Largest S&P 500 Drawdowns by Calendar Year

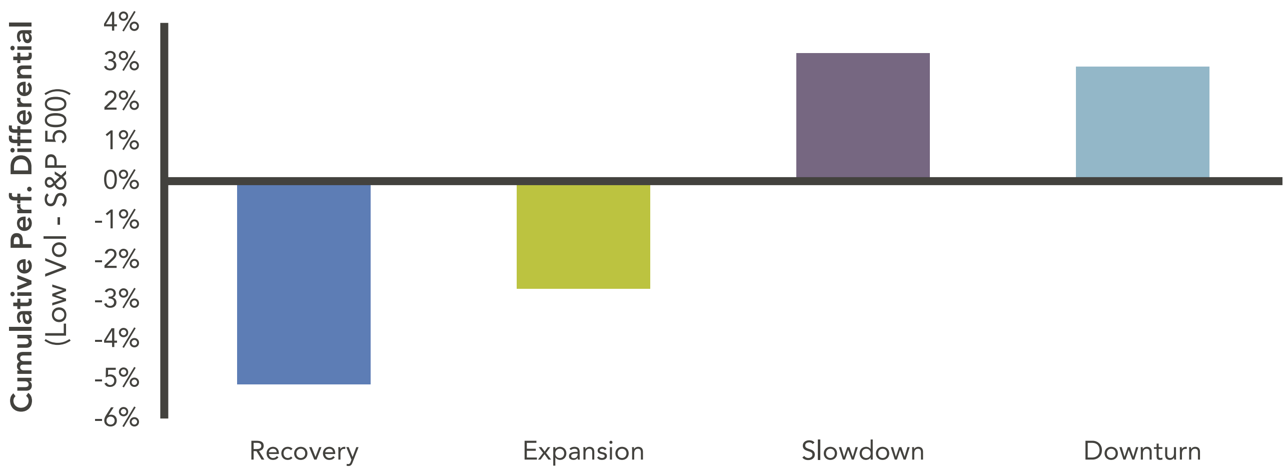


Source: Bloomberg; data as of March 31, 2022

ENVIRONMENT IS EVERYTHING

Looking forward, to the extent equity markets continue to exhibit weakness or an economic recession becomes more likely, low volatility strategies may help protect investor capital. The Organization for Economic Cooperation and Development (OECD) measures leading economic indicators to analyze the state of the global business cycle, which can be important when determining the viability of various strategies across economic regimes. When these indicators are used to partition the business cycle into four distinct phases — recovery, expansion, slowdown, and downturn — and factor performance is compared across each phase, it becomes clear that low volatility benchmarks perform relatively stronger during periods of economic slowdowns and downturns. The reason for this pattern is likely due to the extent to which these indices are exposed to more defensive areas of the market (Consumer Staples, Utilities, etc.) that tend to be more resilient in the face of economic challenges than cyclical sectors. Exhibit 6 outlines these findings by comparing the cumulative performance differential between the S&P 500 Low Volatility index and the S&P 500 index during various economic regimes over the last two decades.

Exhibit 6: Cumulative Performance Differential by Economic Regime



Sources: Bloomberg and the Organization for Economic Cooperation and Development; data from 2003–2022. The OECD composite leading indicator (CLI) is designed to provide early signals of turning points in business cycles showing fluctuation of the economic activity around its long-term potential level. CLIs show short-term economic movements in qualitative rather than quantitative terms.

DIVERSIFICATION BENEFITS

In addition to serving as diversifiers at the portfolio level, low volatility strategies can also help investors guard against stock-specific, idiosyncratic risk in a market that has become increasingly concentrated. As of the end of March, the top 10 holdings in the S&P 500 comprised roughly 30% of the index, a significant increase from around 20% a decade ago. This elevated level of concentration means that the largest components of the benchmark will have an outsized impact on the index, which could be detrimental if these companies experience setbacks.

In early February, Facebook parent Meta, which started the year as the sixth-largest stock in the S&P 500 at roughly 2.0%, lost over 26.0% in a single day after reporting higher costs and a weaker revenue forecast. Consequently, the S&P 500 index was down more than 2.4% that day on Meta and a number of other technology-related stocks trading down in sympathy. While the S&P 500 Low Volatility index is comprised of fewer companies than the traditional benchmark, none of its constituents made up more than 1.3% of the index as of the end of March, and the top ten holdings accounted for just over 12.3% at the end of the first quarter. This relative lack of concentration within the low volatility index may be beneficial to investors should the most significant components of the S&P 500 fall out of favor.

CONCLUSION

As 2022 unfolds, many expect continued market fluctuation amid monetary tightening and geopolitical uncertainty in various parts of the world. Additionally, the recent yield curve inversion, combined with the souring of various leading economic indicators, has escalated concerns of a recession in the coming years. These dynamics could serve as a relative performance tailwind for low volatility equity strategies, which have historically provided diversification and helped insulate portfolios from broad market turbulence, while still offering upside participation. That said, low volatility strategies are not without risks. They should be expected to trail in strong markets given elevated exposure to more defensive industries and may not protect as well as they have historically given beta compression. It is also worth noting that, as many low volatility indices are based on one-year trailing standard deviations, benchmarks may not be perfectly positioned to exhibit low volatility performance characteristics going forward, meaning exposure to the space may require a more actively managed approach. Still, low volatility investing could be an increasingly appealing strategy in the near term, particularly for those investors concerned with capital preservation and liability funding. Marquette will continue to monitor the relative attractiveness of various investment styles and assess the extent to which each style may warrant inclusion in client portfolios.

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