Low Volatility Is Not a Buy and Hold Strategy

– Danke Wang, Portfolio Manager

Don't get us wrong, there are long-term benefits to holding stocks that have low levels of price fluctuations. But over the past decade, the drawbacks of just holding these stocks have come to light.

Low volatility investing has become one of the most popular forms of factor investing, evidenced by the ETFs USMV and SPLV managing over $40 billion combined. The popularity of these funds primarily comes from low volatility's long-term track record against the S&P 500. The factor has shown an uncanny nature to participate in broad-market upside while falling significantly less during market downturns.

Why do low volatility stocks perform so well?

The Low Volatility Performance Anomaly

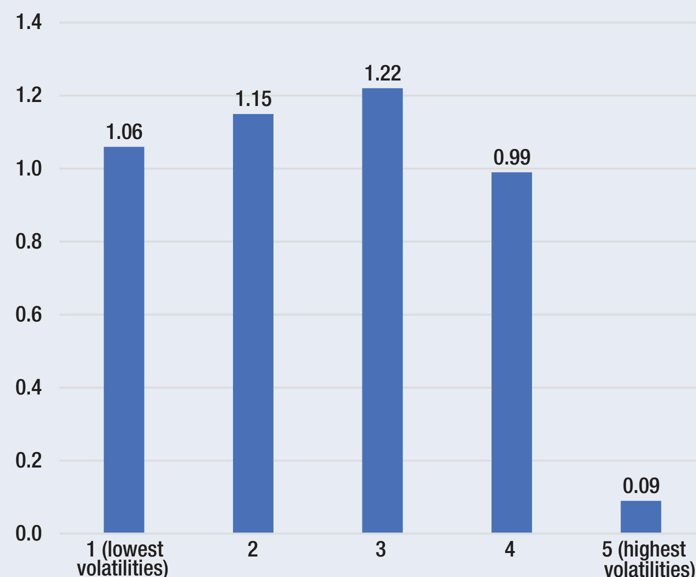
In the 2006 paper "The Cross-Section of Volatility and Expected Returns," researchers investigated the relationship between individual stock volatility and expected returns and found that stocks with high individual volatility have meager average returns.

Traditional financial theory suggests that investment return should be positively related to the risk taken. Meaning excess returns are a function of taking on additional risk.

However, lower volatility stocks' tendency to outperform higher volatility stocks over time contradicts this sentiment.

A commonly cited cause of this anomaly is behavioral biases. For example, with leverage limitations, investors tend to focus on high volatility or high beta stocks seeking higher returns. As a result, higher demand for higher volatility stocks increases their prices (lowering their average return), leaving lower volatility stocks overlooked.

Source: The Cross-Section of Volatility and Expected Returns
ANDREW ANG, ROBERT J. HODRICK, YUHANG XING, XIAOYAN ZHANG
First published: 20 January 2006



PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS. YOU CANNOT INVEST IN AN INDEX.

Another bias is the lottery effect – investors chase riskier stocks for a small probability of earning significant gains. Such behavior can bid up high volatility stocks, causing them to be overpriced, while less volatile stocks remain underpriced.[1]

The theory is straightforward: Being overlooked, underpriced, and less crowded fuels low volatility stocks' tendency to outperform the market over the long run.

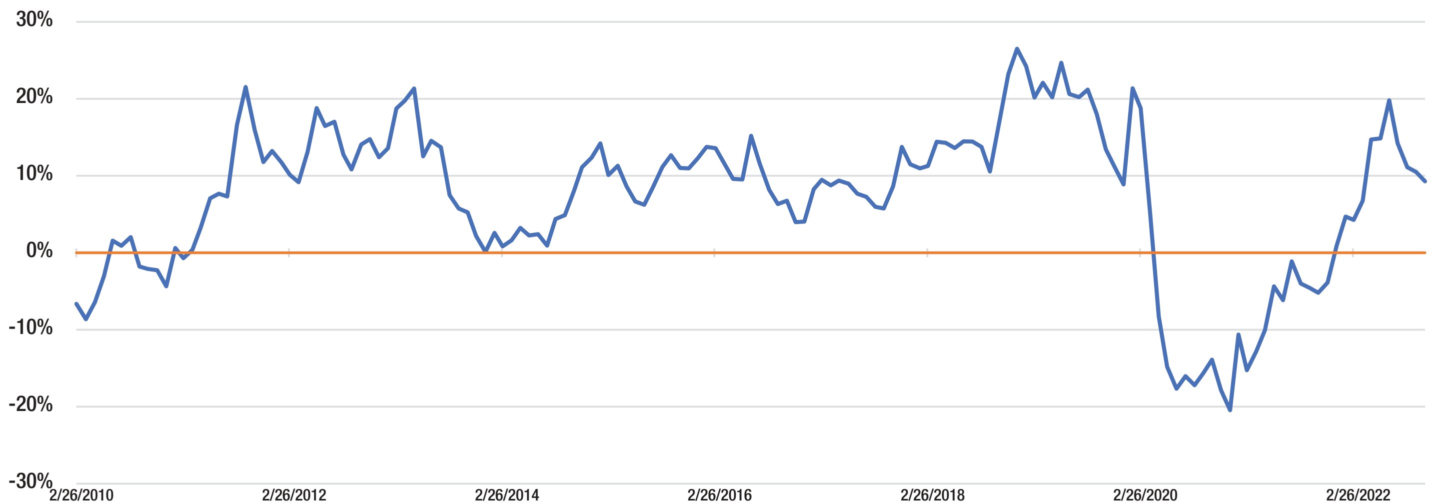
Low Volatility: Historic Outperformance ≠ Buy and Hold

Valuations make the case for the low volatility outperformance theory, but they also create concerns – low volatility stocks do get more expensive.

Since 2010, the S&P 500 Low Volatility Index has traded at a premium over the S&P 500 most of the time.

[(1)]https://www.blackrock.com/us/individual/investment-ideas/what-is-factor-investing/factor-commentary/andrews-angle/the-lowdown-on-low-vol

S&P 500 Low Volatility Index Fwd P/E Relative to S&P 500
February 2010 to October 2022

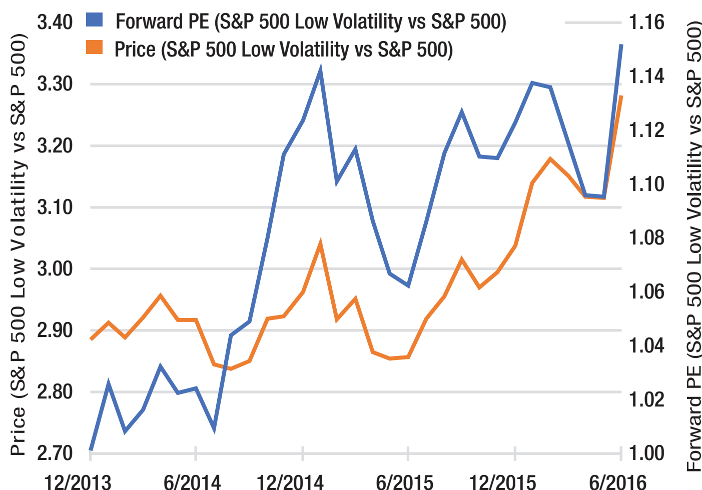


Source: Bloomberg

From 2014 to 2016, multiple expansion of the S&P 500 Low Volatility Index relative to the S&P 500 was the driver of low volatility's outperformance to the market.

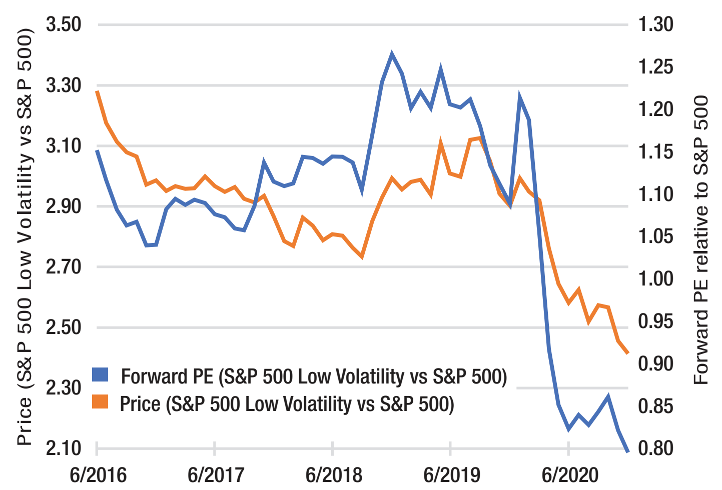
During that period, low volatility stocks were chased after by investors, and their forward PE (ratio of price-to-earnings (P/E) that uses forecasted earnings for the P/E calculation) increased by 23.46% vs. only 7.3% PE expansion from the broad market. As a result, low volatility more than doubled the S&P 500's price return.

Valuation and Price Change Relative to S&P 500
2014 - 2016



Source: Bloomberg

Valuation and Price Change Relative to S&P 500
2016 - 2020



Source: Bloomberg

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But in the period after that, particularly from 2019 to 2020, we saw the opposite: the S&P 500 Low Volatility Index underperformed the market by more than 30% cumulatively.

Low volatility names fell out of favor relative to the rest of the market, as their forward PE only increased 10% while the broad market's valuation expanded 74%. Low volatility names went from trading at a premium to being priced at a discount.

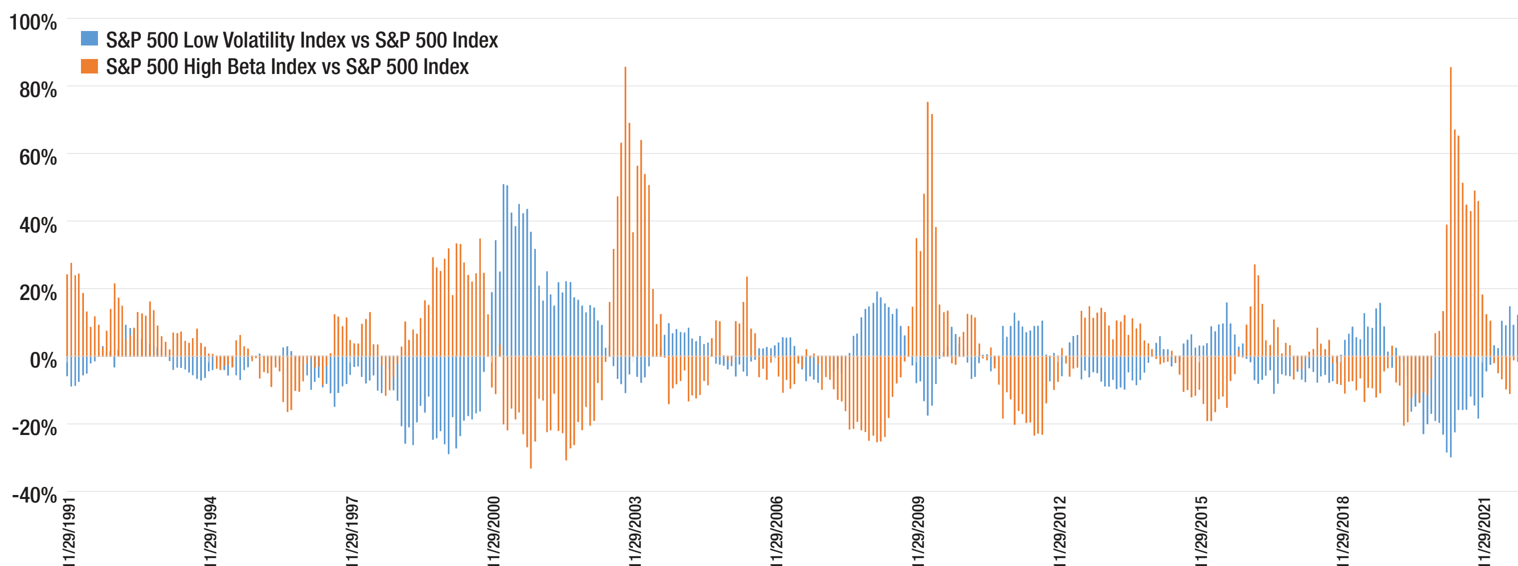
What happened in the past decade demonstrates that although low volatility outperforms the market in the long run, low volatility trades can become crowded, and investors should be prepared for periods of underperformance. Therefore, it's reasonable to conclude that low volatility is not a buy-and-hold strategy.

The chart below shows that on a monthly 1 year rolling basis, low volatility had periods of underperformance and outperformance relative to the benchmark (Blue). At the same time, when low volatility underperformed the market, we almost always see high beta outperform the S&P 500.

Though the high beta factor has not outperformed the S&P 500 on a "buy and hold" basis post-2008, it outperforms the market from time to time (Orange) and has performed very well in the past 3 years.

1 Year Rolling Relative to S&P 500

November 1991 to October 2022



Source: Bloomberg

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
High Beta 27.40%	Low Volatility 14.78%	High Beta 18.20%	High Beta 41.24%	Low Volatility 17.49%	Low Volatility 4.34%	High Beta 26.49%		Low Volatility 0.27%	High Beta 34.44%	High Beta 25.72%	High Beta 40.95%
S&P 500 15.06%	S&P 500 2.11%	S&P 500 16.00%	S&P 500 32.39%	S&P 500 13.69%	S&P 500 1.38%	S&P 500 11.96%	S&P 500 21.83%	S&P 500 -4.38%	S&P 500 31.49%	S&P 500 18.40%	S&P 500 28.71%
Low Volatility 13.36%	High Beta -18.00%	Low Volatility 10.30%	Low Volatility 23.59%	High Beta 13.05%	High Beta -12.56%	Low Volatility 10.37%	High Beta 18.12%	High Beta -15.26%	Low Volatility 28.26%	Low Volatility -1.11%	Low Volatility 24.42%
							Low Volatility 17.41%				

Source: Pacer Advisors, Bloomberg and S&P

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Rotating Factors

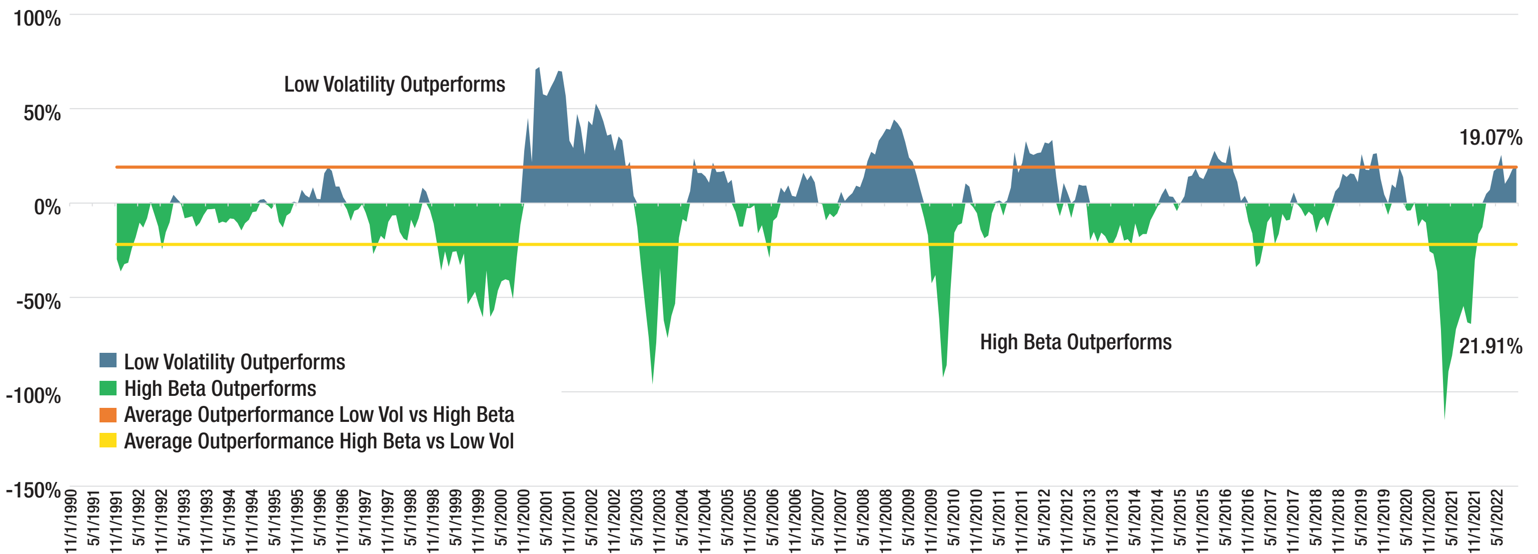
High beta and low volatility factors each had seasons of underperformance and outperformance relative to each other.

Historically, high beta is more desirable when market sentiment is positive, and the macroeconomy cooperates, as we observed post-COVID. On the other hand, low volatility is in favor when the market faces headwind concerns, such as the trade war from 2018 to 2019 or inflation and rising rates in 2022.

On top of seasonality, the performance dispersion between these two factors is wide. On a monthly 1 year rolling basis, high beta outperformed low volatility by 21.91%, however when low volatility beats high beta it outperformed by 19.07%, on average.

1 Year Rolling Low Volatility vs High Beta

November 1991 to October 2022



Source: Bloomberg

Such significant dispersion across the two factors highlights the opportunity that exists for factor rotation between different volatility regimes. Wider dispersion waters down the timing precision necessary to potentially add value. Said another way, wide dispersion across factors allows a manager to profit from being “generally right” rather than precisely right.

The relative performance measurement between high beta and low volatility based on different rolling time periods can be used in implementing a tactical rotation strategy to capture the factor seasonality in different market environments.

Pacer Lunt Large Cap Alternator ETF

Rotates between low volatility and high beta stocks within the S&P 500 Index. It utilizes a proprietary methodology to assess the risk-adjusted relative strength between the S&P 500 Low Volatility Index and the S&P 500 High Beta Index. Since inception, the fund doubled the performance of the S&P 500, successfully capturing 114% of the market upside and only 75% of the downside as of 9/30/2022.

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Pacer Lunt Large Cap Alternator ETF (ALTL) (%)

As of 9/30/22	Fund Inception		Since Inception	YTD	1 Month	3 Month	1 Year	3 Year	5 Year
ALTL	6/24/20	NAV	21.75	-21.26	-10.98	-12.24	-12.04	N/A	N/A
		Market Price	21.73	-21.26	-11.03	-12.29	-12.15	N/A	N/A
Lunt Capital US Large Cap Equity Rotation Index			22.82	-20.97	-10.96	-12.12	-11.47	9.84	10.43
S&P 500 Index			9.04	-23.87	-9.21	-4.88	-15.47	8.16	9.24
Annual total expenses: 0.60%									

Source: US Bank
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S&P 500® Index is a popular gauge of large-cap U.S. equities and includes 500 leading companies, capturing approximately 80% coverage of available market capitalization.
The S&P 500® High Beta Index includes 100 companies in the S&P 500 that are most sensitive to changes in market returns. They are ranked in order according to their beta coefficients against the S&P 500 index calculated using daily data for the past year.
The S&P 500® Low Volatility Index includes 100 of the least volatile stocks in the S&P 500. They are ranked in descending order based on the inverse of the realized volatility or the standard deviation of the security's daily price returns over the prior calendar year.

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