Insights
Smart Beta

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How Investors Use Low Vol Strategies Today

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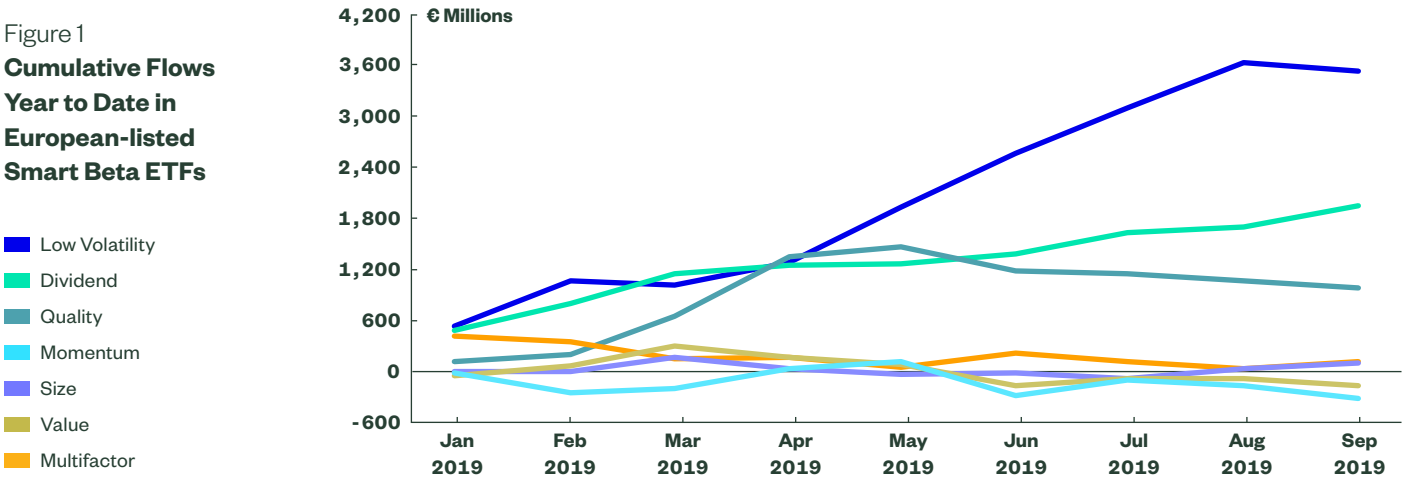
- Despite the challenging trade environment, equity prices remain near their highest levels in a decade in both the United States and Europe.
- Volatility has remained relatively low, despite intermittent spikes, leading to investor concerns around equity price sensitivity to geopolitical events.
- Heightened uncertainty and equity price sensitivity could justify a low volatility approach for investors seeking protection from drawdowns.

At State Street Global Advisors, our baseline call in 2019 was for investors to remain invested in equities, based on expectations of continued (albeit slowing) growth late in an economic cycle. We expected supportive monetary policy, contained inflation expectations and a constructive consumer environment in the US. Across Europe we observed a troubled geopolitical situation. Globally, we cautioned investors to beware of volatility driven by the global trade outlook.

Ultimately, we anticipated opportunities for investors to remain long equities and protect against these concerns by using Smart Beta strategies for a more selective portfolio construction.

Figure 1
Cumulative Flows Year to Date in European-listed Smart Beta ETFs



Source: State Street Global Advisors, Bloomberg Finance L.P., as of 30 September 2019. Flows are as of date indicated and shouldn't be relied thereafter.

Investor expectations seem increasingly negative, as both bond yields and earnings expectations have trended lower. Meanwhile, US and European equity markets are trading at levels slightly above where they were one year ago, and comfortably above where they began 2019. Amidst an orderly decline in investor and business confidence, equity prices remain sensitive to headline risks, which continue to introduce short-term volatility shocks. As a result, investors across Europe have increasingly looked to Smart Beta ETFs to introduce defensive characteristics into their portfolios.

European-listed Smart Beta ETFs have seen €6.2 billion in net inflows this year, through September (Figure 1). This accounts for greater than 40% of the €14.4 billion of inflows across all European-listed equity ETFs this year.

As Figure 1 also demonstrates, the concentration of investor flows to Smart Beta strategies has been heavily focused on the more defensive investment strategies: Quality, Dividends and Volatility. The most popular allocation has been to the Volatility strategies, which with €3.5 billion of inflows account for more than half of the total flow across all smart beta exposures. These strategies allow investors to introduce a defensive posture into portfolios, while maintaining a degree of upside potential.

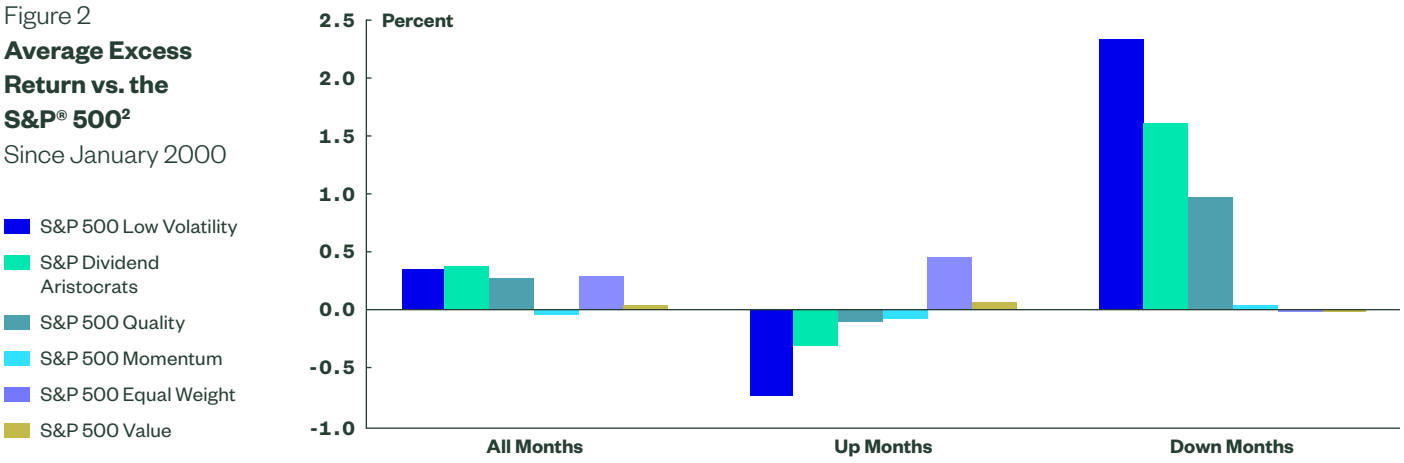
The array of Smart Beta investment strategies available to investors, seeking a more selective exposure, extends beyond just the desired factor targeting. Investors seeking to minimise portfolio volatility must also answer the question of which strategy (e.g. Low Volatility versus optimised Minimum Variance/Volatility) meets their desired portfolio construction goals.

Targeting Less Volatile Stocks Effectively

Research offered by Michael Jensen (1972), posed a considerable challenge to the capital asset pricing model (CAPM), which originally suggested a positive relationship between risk and return. Jensen's work, and subsequent empirical studies, demonstrated how lower volatility stocks have historically generated higher risk-adjusted returns.[1] This well-documented phenomenon, dating back to the 1970s, is referred to as the 'low volatility anomaly.'

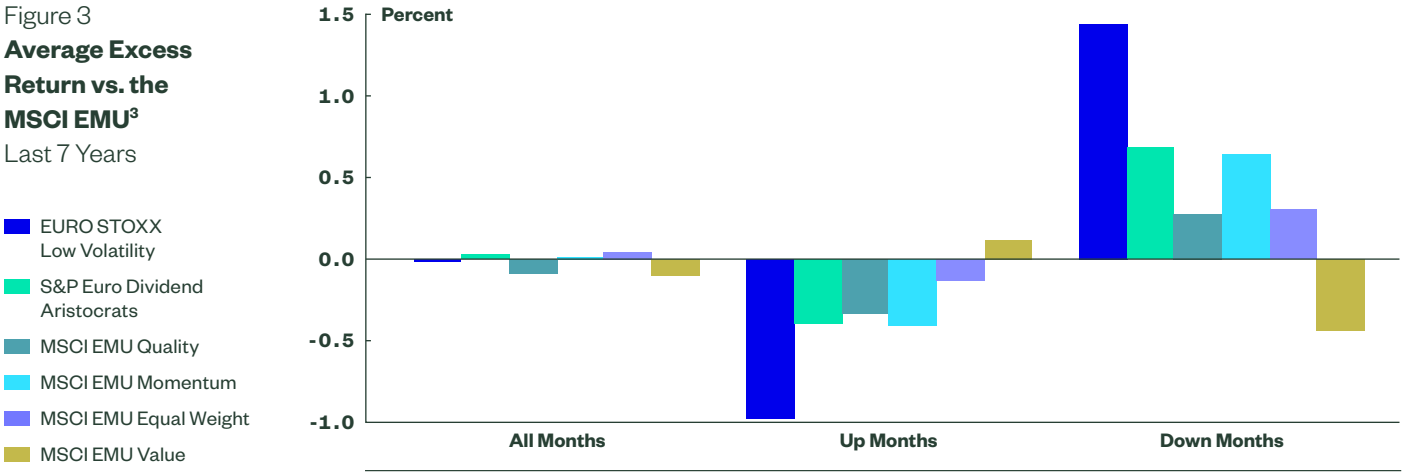
As a result, many investment strategies have been constructed to capture this observable market behaviour, through investable indices. These strategies have historically offered superior risk-adjusted performance, especially in down markets (see Figures 2 and 3), as compared to other widely tracked factor indices.

Figure 2
Average Excess Return vs. the S&P® 500[2]
Since January 2000



Source: State Street Global Advisors, Bloomberg Finance L.P., as of 30 September 2019. Index performance is based on total return (gross) in USD using monthly data from January 2000 to September 2019. Past performance is no guarantee of future results. It is not possible to invest directly into an index. Results prior to index inception dates were calculated by using available data at the time in accordance with the Index's current methodology. Index returns are unmanaged and do not reflect the deduction of any fees or expenses.

Figure 3
Average Excess Return vs. the MSCI EMU[3]
Last 7 Years



Source: State Street Global Advisors, Bloomberg Finance L.P., as of 30 September 2019. Index performance is based on total return (gross) in EUR using monthly data from January 2002 to September 2019. Past performance is no guarantee of future results. It is not possible to invest directly into an index. Results prior to index inception dates were calculated by using available data at the time in accordance with the Index's current methodology. Index returns are unmanaged and do not reflect the deduction of any fees or expenses.

As the flow data presented earlier demonstrates, this downside protection opportunity of volatility strategies has drawn attention from investors in today's market environment. But investors still face the challenge of understanding which strategy is most appropriate for their asset allocation, to move towards the goal of portfolio protection.

When constructing factor-based strategies, it is important that investors understand the index methodology. Construction variation can often produce a wide array of outcomes. The most common strategies, used by ETFs, for harvesting the return opportunity presented by the low volatility anomaly are Low Volatility and optimised Minimum Volatility/Variance.

Low Volatility follows a process of selecting a portfolio of the least volatile stocks.[4] The S&P 500 Low Volatility Index and EURO STOXX Low Risk Weighted 100 Index accomplish this by selecting the 100 least volatile stocks in the S&P 500 and EURO STOXX Indices, respectively, with minimal constraints. The portfolio is then rebalanced quarterly so that it can react quickly to prevailing market conditions, thus helping investors to continuously target the lowest volatility stocks.

Optimised Minimum Volatility (Variance) strategies are more complex than Low Volatility. Minimum Volatility strategies often use constraints to limit allocation (e.g. sector and country exposure) and portfolio turnover, while also considering the variation correlation of constituent securities. However, the unconstrained nature of the Low Volatility strategy allows it to more freely target defensive stocks, in order to prepare investors for market downturns.

Using Low Volatility to Protect Against Drawdowns

Investors can look no further than the recent market moves to see the value defensive position can offer in their portfolios. In the past 12 months, the US and European equity markets have experienced three significant market pullbacks: December 2018, May 2019 and August 2019. During each of these pullbacks, US (Figure 5) and European (Figure 6) Low Volatility strategies displayed lower drawdowns, which ultimately translated to outperformance for each strategy over the entire 12 months (Figure 4), despite both benchmarks trading positively.

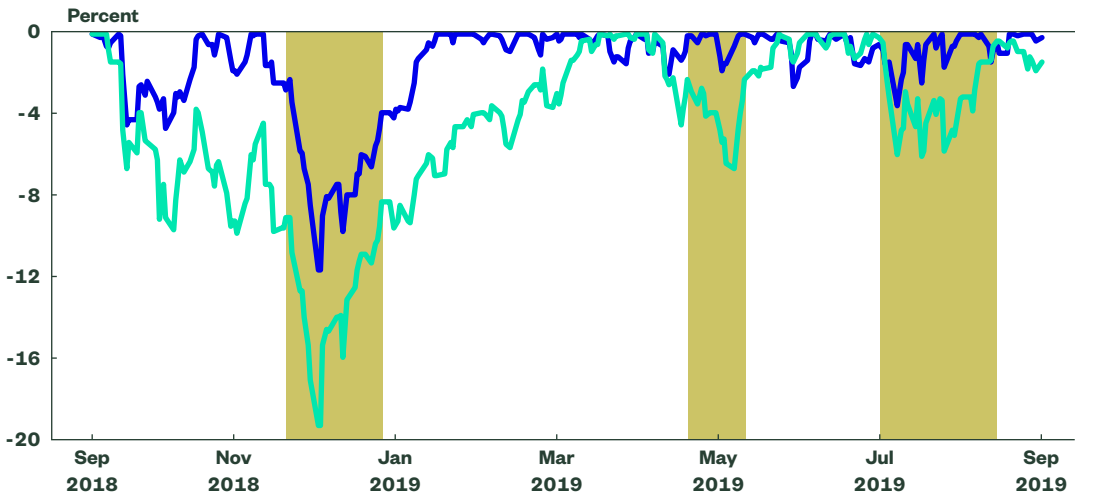
Figure 4
Return and Risk Performance Statistics
Last 1 Year

	S&P® 500 Low Volatility Index	S&P® 500 Index	EURO STOXX Low Volatility Index	EURO STOXX Index
Return (%)	18.93	3.62	5.23	4.20
Volatility (%)	12.73	18.76	11.05	15.96
Maximum Drawdown (%)	-7.01	-13.66	-10.12	-12.96
Sharpe Ratio	1.60	0.19	0.54	0.35
Information Ratio	1.68	–	0.15	–
Beta	0.61	1	0.68	1

Source: Morningstar, as of 30 September 2019. Index performance is based on net total return in base currency. **Performance quoted represents past performance, which is no guarantee of future results. Investment return and principal value will fluctuate, so you may have a gain or loss when shares are sold. Current performance may be higher or lower than that quoted. All results are historical and assume the reinvestment of dividends and capital gains.** Index returns are unmanaged and do not reflect the deduction of any fees or expenses.

The performance of Low Volatility strategies in the past 12 months is a clear demonstration of the principles outlined by the low anomaly thesis. Since the magnitude of excess performance in down months is greater than the performance drag in up months historically (again, see Figures 2 and 3). The strategies can potentially outperform their market cap benchmark, from which they select stocks, even over a period of net positive performance.

Figure 5
Drawdown of US Low Volatility vs. the S&P 500
Last 1 Year



Source: State Street Global Advisors, Bloomberg Finance L.P., as of 30 September 2019. Index performance is based on net total return in USD using daily closing price.

Figure 6
Drawdown of Euro Low Volatility vs. the EURO STOXX
Last 1 Year

Source: State Street Global Advisors, Bloomberg Finance L.P., as of 30 September 2019. Index performance is based on net total return in EUR using daily closing price.

Historically, low volatility stocks have tended to provide better risk-adjusted returns than high volatility stocks. Investors concerned that headwinds may soon impact equity prices could consider reducing the risk in their portfolios by allocating to lower volatility equities, such as that offered by the S&P 500 Low Volatility and EURO STOXX Low Risk exposures.

Conclusion

Despite equity prices trading near decade highs in Q4 2019, across the US and Europe, the outlook for a sustained rally remains challenged by increasing global trade concerns. We remain constructive on equities on the basis of accommodative global monetary policy and steady inflation.

Furthermore, the US market remains supported by a relatively strong consumer and, globally, unemployment remains constructive. Investors seeking to remain long US and European equities, but fearful of increasing asset price fragility, can consider an allocation to low volatility strategies.

The S&P Low Volatility Index and EURO STOXX Low Risk Weighted 100 Index allocates to stocks with track records of lower volatility. This approach can help investors to navigate uncertainty by taking providing more defensive portfolio posture. By targeting price stability and persistent lower volatility, these strategies seek to offer investors downside protection.

SPDR ETFs

The investment objective of the SPDR Low Volatility ETF offering is to track the performance of US large cap (S&P 500) and eurozone (EURO STOXX) equity securities, which historically have exhibited low volatility characteristics. Historically, both the S&P 500 Low Volatility Index and EURO STOXX Low Risk Weighted 100 Index have demonstrated better absolute and risk-adjusted returns versus the benchmark universes from which they select their constituent stocks, in part by offering lower historical drawdowns.

SPDR S&P 500 Low Volatility UCITS ETF

The S&P 500 Low Volatility Index is designed to measure the performance of the 100 least volatile stocks within the S&P 500 Index. The index employs a volatility-driven selection and weighting scheme. Volatility is measured by the standard deviation of a security's daily price returns over the prior 252 trading days.

SPDR EURO STOXX Low Volatility UCITS ETF

The EURO STOXX Low Risk Weighted 100 Index represents the lowest volatility companies from the parent index, the EURO STOXX Index. The EURO STOXX Index is a broad benchmark index representing large, mid and small capitalisation companies of 12 eurozone countries: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain.

Figure 7
Standard Performance

Fund / Index Name	1 Month	3 Months	6 Months	Year to Date	1 Year	3 Years	5 Years	Since Inception	Inception Date
SPDR S&P 500 Low Volatility UCITS ETF	2.12	5.57	10.83	25.65	18.82	13.62	12.48	12.76	10/03/2012
S&P 500 Low Volatility Index	2.12	5.60	10.88	25.73	18.93	13.66	12.54	12.78	
Difference	0.00	-0.03	-0.05	-0.08	-0.11	-0.04	-0.06	-0.02	
SPDR EURO STOXX Low Volatility UCITS ETF	3.14	4.31	6.72	17.60	5.70	7.90	9.30	9.57	03/24/2014
EURO STOXX Low Risk Weighted 100 Index	3.16	4.33	6.34	17.08	5.23	7.61	9.06	9.32	
Difference	-0.02	-0.02	0.38	0.52	0.47	0.29	0.24	0.25	

Source: State Street Global Advisors, as of 30 September 2019.
Performance is net of fees. **Performance quoted represents past performance, which is no guarantee of future results. Investment return and principal value will fluctuate, so you may have a gain or loss when shares are sold. Current performance may be higher or lower than that quoted. All results are historical and assume the reinvestment of dividends and capital gains. The performance data do not take account of the commissions and costs incurred on the issue and redemption, or purchases and sale, of units. Visit spdrs.com for most recent month-end performance.** Performance returns for periods of less than one year are not annualised. Index returns are unmanaged and do not reflect the deduction of any fees or expenses.

Endnotes

1 Michael C. Jensen, ed., *Studies in the Theory of Capital Markets*. Praeger Publishers Inc, 1972.

2 The S&P indices referenced are as follows: S&P 500 Low Volatility Index, S&P High Yield Dividend Aristocrats Index, S&P 500 Quality Index, S&P 500 Momentum Index, S&P 500 Equal Weighted Index, S&P 500 Value Index, S&P 500 Index.

3 The indices referenced are as follows: EURO STOXX Low Risk Weighted 100 Index, S&P Euro High Yield Dividend Aristocrats Index, MSCI EMU Quality Index, MSCI EMU Momentum Index, MSCI EMU Equal Weighted Index, MSCI EMU Value Index, MSCI EMU Index.

4 In the methodology, *volatility* of the constituents, within each eligible universe, is calculated using available price return data for the trailing one year of trading days leading up to each index rebalancing reference date.

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