

Low Volatility – One Factor or Several?



Once a month in our [Equity Observer](#) publication we share our analysis of what stock selection factors are working. **This year the best performing factor in our global sample is “low volatility”.**

The issue of what constitutes a factor will be endlessly debated, but while “low vol” does not quite rank up there among academics with the original Fama-French-Carhart variables (market, size, value, momentum) there is nevertheless a growing investor demand for lower

volatility strategies.

In the last few years lower volatility strategy demand has migrated from a purely institutional clientele to small individual investors flocking to some of the most successful smart beta ETF’s such as the MSCI US Minimum Volatility (\$11.5B in assets) and the PowerShares S&P 500 Low Volatility (\$6.6B AUM) strategies.

Back in 2012 while at the Leuthold Group I wrote a review of low volatility strategies with a particular focus on analyzing the composition of the PowerShares S&P 500 Low Volatility ETF (SPLV). My conclusion was that these strategies would help investors primarily in a down equity market.

Why? The main reasons were the defensive nature of the sector allocation (overweight in Utilities and Staples for example) and the defensive stock characteristics of the securities themselves (higher dividend yield and lower valuations for starters).

In an upward trending market my conclusion was that these strategies would under-perform the core index. Investors expecting a pop from “smart” beta would be disappointed. Over the ensuing four years these general conclusions have proven directionally accurate.

The growing demand for “low vol” strategies, however, does not seem entirely driven by the performance of these strategies relative to core benchmarks. For example over the 2015-2013 period the S&P Low Volatility Index under-performed the S&P 500 core index by 3.4% annualized. Yet demand for these strategies appears to have grown as manifested by the large number of new ETF’s launches in this niche of the “smart” beta space.

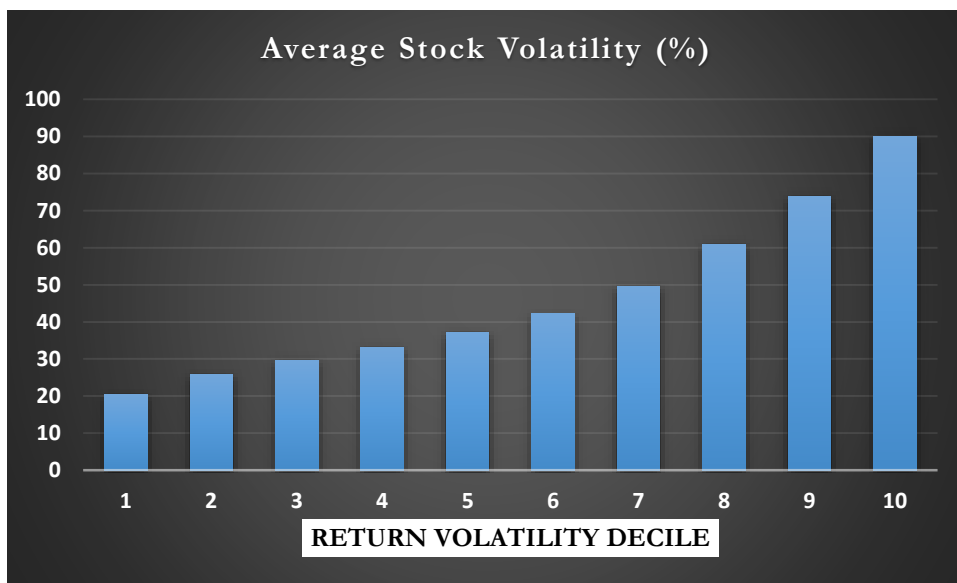
Investors seem particularly interested in the capital preservation characteristics of “low vol” strategies and appear willing to sacrifice returns during the good times in return for less pronounced equity market downdrafts.

Low volatility strategies seem here to stay. Given their market beating returns thus far in 2016 it is reasonable to expect growing interest. We thus analyze our global sample of 13,000 stocks to ascertain the basic characteristics of low volatility stocks.

We measure the volatility of each stock in our sample by looking at the trailing one-year of daily returns measured in US dollars. We then classify each stock into one of ten deciles – Decile 1 contains the lowest volatility and Decile 10 contains the most volatile stocks. Roughly speaking we have about 1,300 stocks per decile.

For each volatility decile we then calculate average (adjusted for outliers) stock characteristics for a variety of valuation, profitability, growth, and performance metrics. We again refer readers to our monthly [Equity Observer](#) publication for further details.

What do the deciles look like in terms of stock level volatility and market exposure?



Stocks in the lowest volatility decile have an average return volatility of 20% per annum.

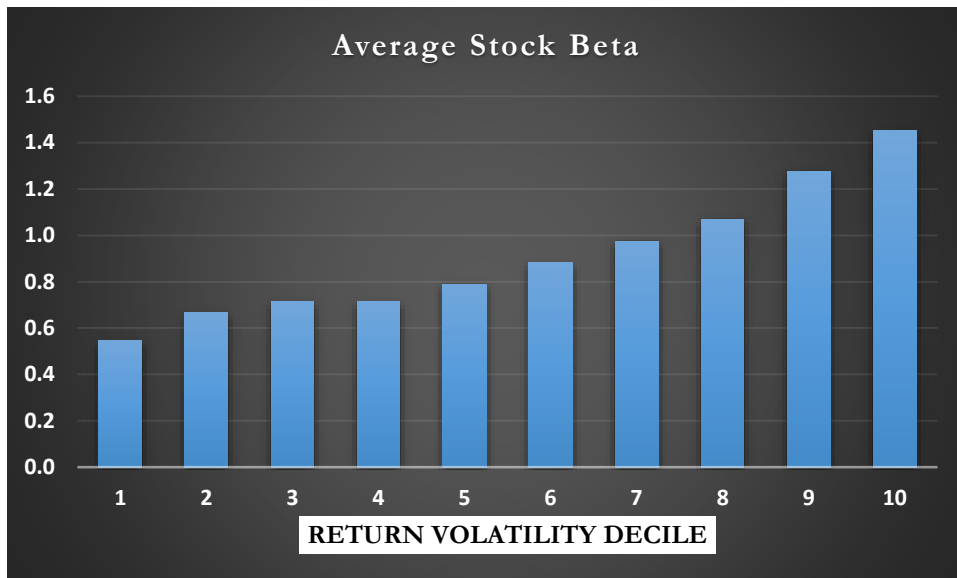
The average volatility per decile increases monotonically reaching 90% for Decile 10 stocks.

The volatility factor exhibits wide dispersion which is a desirable trait for

picking stocks based on this characteristic.

One of the issues bothering me when I first studied the low volatility effect back in 2012 was deciding if the factor was simply a proxy for sector effects or did it measure something independent. At the time my conclusion was that the volatility factor was more of a proxy for investing in lower beta sectors.

An approach that I did not employ back then in my analysis but which is now part of our factor monitoring work involves stripping out the sector and country/region influences from security level returns. We employ the [Heston and Rouwenhorst](#) constrained regression approach to create sector and region/country adjusted measures of return.

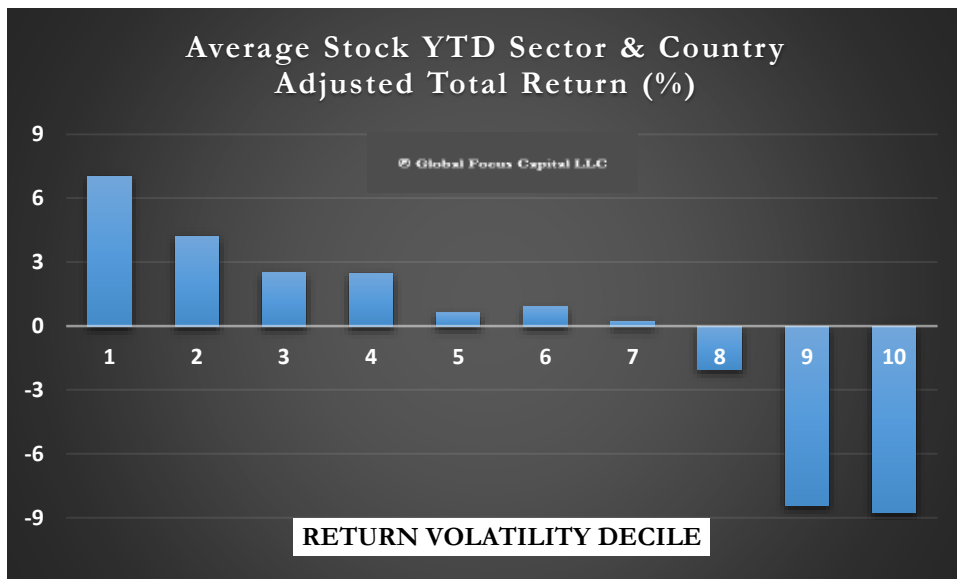


There is a strong relationship as expected between stock return volatility and market exposure.

Higher volatility stocks exhibit low levels of market sensitivity.

During periods of equity market stress ‘low vol’ strategies should out-perform broad market indices.

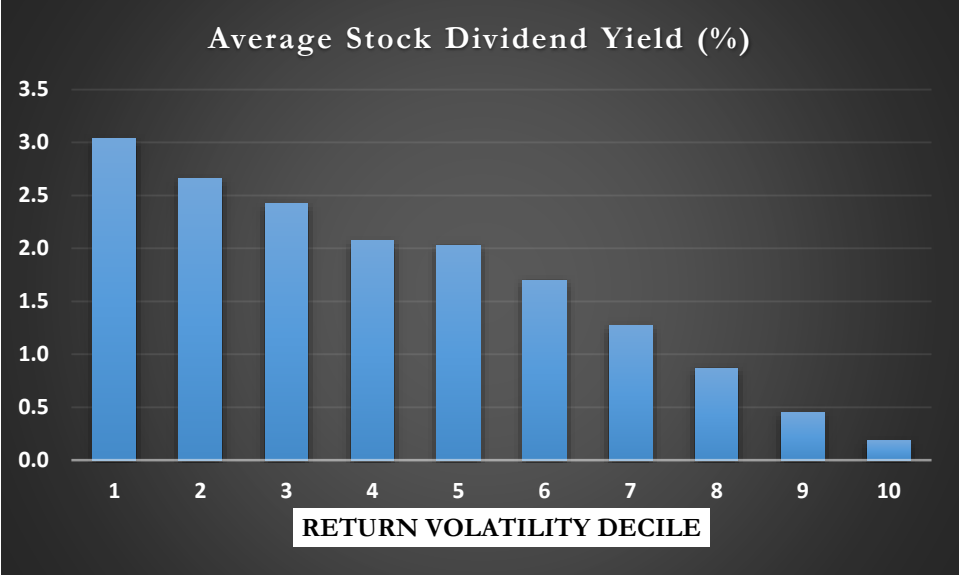
Once we adjust for sector and region/country influences do we still see such a strong “low volatility” effect? The short answer is yes. While sector and region/country play a role in explaining the effect this year the “low volatility” anomaly stands on its own.



Even after adjusting for sector and region/country effects we observe a strong monotonic relationship in YTD returns across volatility deciles.

The lowest volatility stocks (Decile 1) have had the highest 2016 returns while the highest volatility stocks have shown the greatest losses.

How does “low volatility” look compare to dividend yield the other high performing factor this year? Our factor research investigates about 20 different types of stock characteristics frequently employed by portfolio managers. As mentioned before “low volatility” has performed the best in 2016. Dividend yield (the level) is second best after adjusting for sector and region/country influences. Yield and low volatility seem highly correlated as shown in the chart.



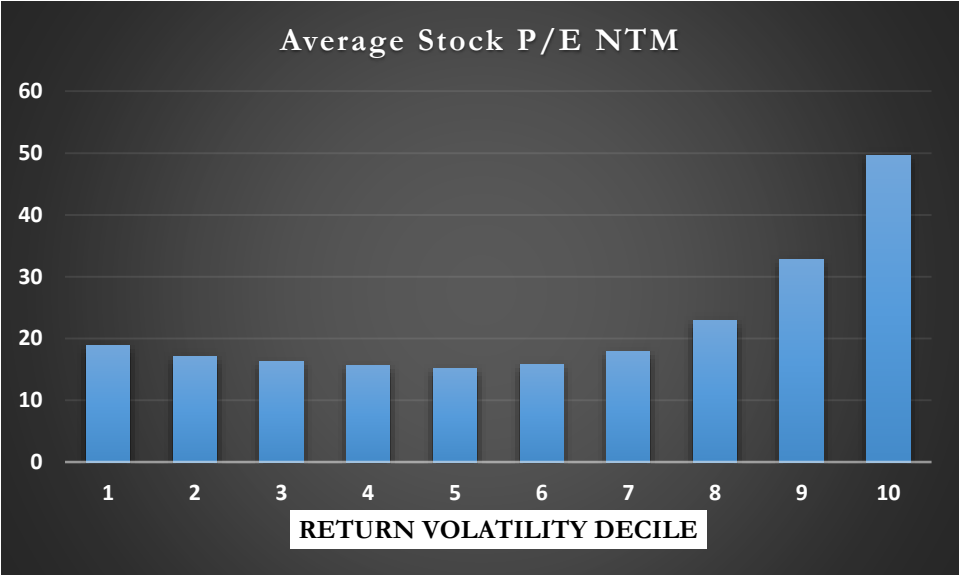
The lowest volatility decile enjoys the highest current yields while the “high vol” names in Decile 10 barely register for income.

Clearly, high volatility stocks tend to be more growth oriented.

There might not be much meaningful difference between

the concept of low volatility and income generation as stock selection factors.

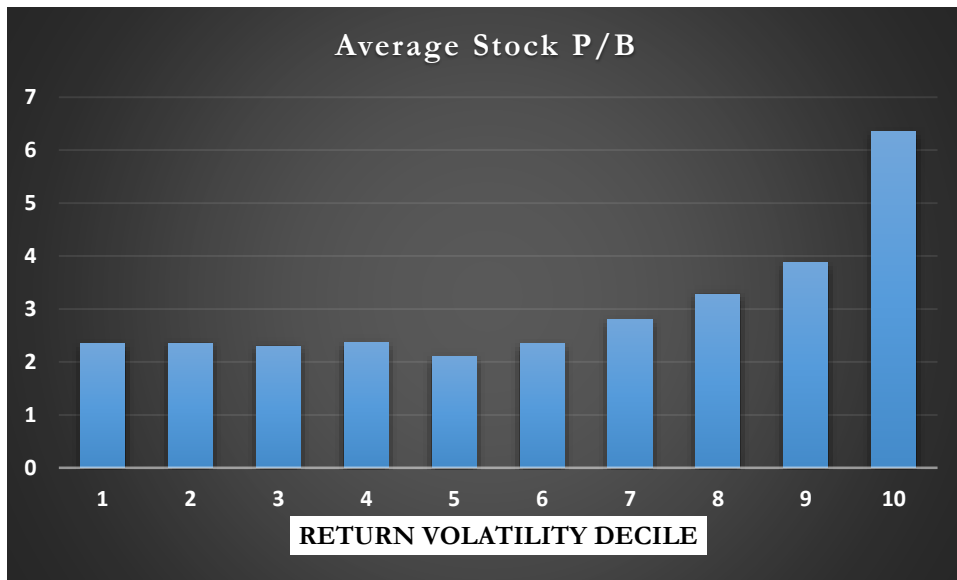
What price are investors paying for low volatility? Strategists have been worried for a while now about certain equity themes being over-bought and thus expensive relative to economic value. The “low volatility” anomaly and its close cousin high dividend yield appear to, on the surface, fit the bill.



A breakdown of P/E ratios by volatility deciles raises some red flags.

Average P/E’s for the six lowest volatility buckets all seem fairly uniform and high by historical standards.

In fact, the average P/E for Decile 1 is 19 which does seem high for low beta stocks.



Looking at P/B one of the original Fama/French factors provides a similar conclusion. The most expensive stocks in our global sample are concentrated among higher volatility, growth stocks.

Low volatility stocks do not appear expensive in that context, but there is very little difference

in valuation levels among the top six return volatility deciles. Sorting by volatility does not reveal any major valuation differences among the top six volatility clusters.

Our general conclusion is that “low volatility” strategies play a useful role for investors looking to provide short-term downward protection in their equity portfolios. However, we think of “low vol” as part of a package of stock attributes designed to lessen market exposure during periods of equity market stress. These strategies along with lower betas, higher yields and exposure to more stable sectors should exhibit lower levels of downside capture. What a “low vol” strategy won’t do is totally eliminate downdrafts. After all the equity market effect is still the primary source of risk in these strategies.

Lower volatility stocks have lost their historical valuation advantages. The growing demand for ‘low vol’ and its close cousin dividend income have eroded the typically lower valuations seen in lower volatility sectors and stocks. From a long-term perspective, valuation levels of lower volatility stocks appear stretched especially in relation to their growth potential. Given the starting point valuations we do not see “lower volatility” strategies delivering above-market returns.

Investors worried about equity market downturns should not view these strategies as a substitute for properly assessing and managing the risk of their overall portfolios.

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