INTERPLAY OF CORRELATIONS, VOLATILITY & POSITIONING IN CURRENT MARKETS

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Most experienced investors understand that lack of variability doesn't necessarily equate to stability. In 2017 the Cboe Volatility Index (VIX) averaged around 10, which is almost half its long-term average. So far this year, VIX has averaged close to 17.5, including a massive 100% spike on February 5—a once-in-almost-200-years event on a statistical basis![1] Call it a reversal to normal standards or something else, but my analysis below shows that a higher VIX is likely here to stay for some time.

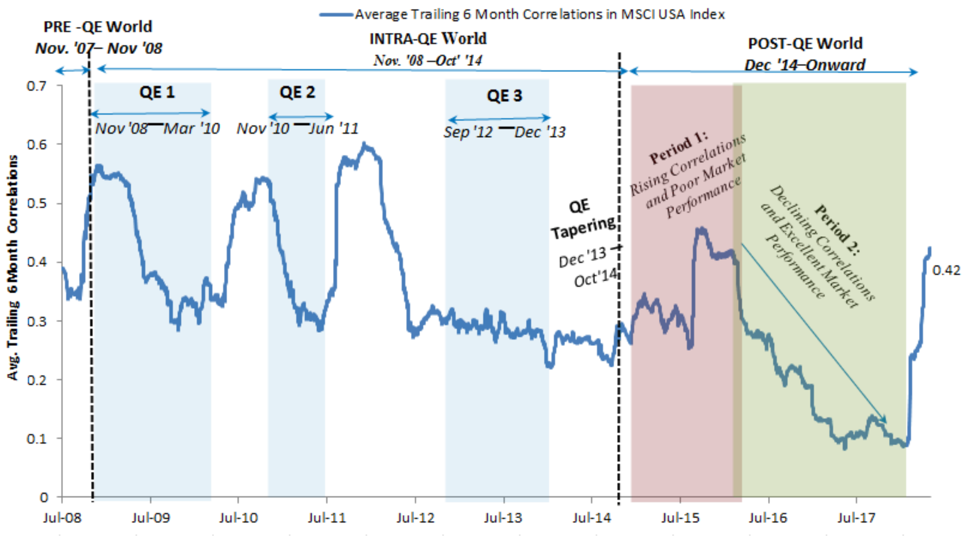
I recently covered how increasing stock correlations were a leading indicator of this spike in VIX and how our proprietary model suggested risk off in February. However, even more interesting questions remain: ***Is there a leading relationship between stock correlations and VIX? And if so, what does it tell me for my asset allocation?***

Unusual Acceleration in Stock Correlations

Most asset allocation exercises aim for diversification, seeking a lower systematic or market risk. Typically, such diversification in normal markets can be achieved to an extent by a broad stock-selecting strategy. For instance, investing in a broad, diversified index strategy is typically better than taking a concentrated position in fewer names. Of course, diversification does not eliminate the risk of experiencing investment losses.

Now, let's see how easy it is to achieve diversification in the current regime by analyzing stock correlations in the U.S. The exhibit below plots the average of all possible pairwise trailing six-month correlations of equities in the MSCI USA Index. As I covered in my aforementioned blog post, in a post-quantitative easing (QE) world, correlations have generally been declining. However starting in mid-January of this year, there has been a very sharp acceleration in stock correlations. **Arguably, therefore, merely allocating to stocks in the current regime is posing a challenge in de-risking systematic risk.**

Significant Pickup in Average Stock Correlations

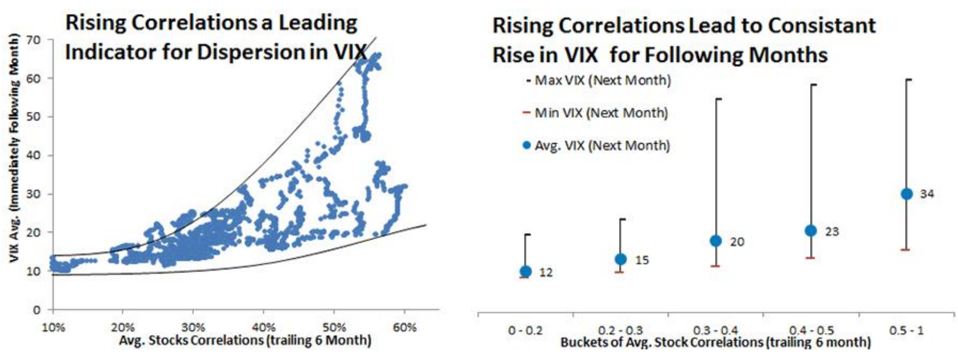


Sources: WisdomTree, Bloomberg, MSCI, as of 4/30/18. Past performance is not indicative of future results. You cannot invest directly in an index.

Next, let us see how this has played out this year and how it has been spooking VIX as well as equity markets.

Accelerating Correlations: A Canary in a Coal Mine?

When I analyze further, it seems average correlations have a predictive power to VIX. In the left exhibit below, we again have our average pairwise stock correlations (trailing six months) across all equities in the MSCI USA Index on the x-axis and average VIX levels in the month that followed on the y-axis.



Source: WisdomTree, CBOE, Bloomberg. As of 04/30/2018. Past performance is not indicative of future results. You cannot invest directly in an index.

Two patterns are immediately obvious

1. Higher correlations across equities led to higher VIX levels the following month. Thus, rising correlations act as a signal of higher VIX in the future.

2. Higher correlations in equities also led to a big dispersion in VIX ranges (again in the following month).

To summarize, accelerating correlations not only act as a forerunner for spikes in VIX but also indicate potential wild swings in VIX.

Conclusion

This all leads to few conclusions:

- After years of low correlations in a post-QE world, we are now entering a regime where higher correlations are feeding higher volatility. In my view, higher volatility (compared to 2017) is here to stay.
- Increasing stock correlations within equities are additionally making it harder for investors to look for diversification by simply investing in equities. Thus, beating markets through simple stock selection is getting harder.

Therefore, strategies that seek to generate income by selling volatility (i.e., writing options), such as WisdomTree's CBOE S&P 500 PutWrite Strategy Fund (PUTW), deserve attention. Not only can the strategy generate higher potential income if VIX were to stay elevated, but this income can offset some losses if equities were to go through a downturn, especially in a highly correlated and volatile market. Additionally, our long/short strategies, the WisdomTree Dynamic Long/Short U.S. Equity Fund (DYLS) and the WisdomTree Dynamic Bearish U.S. Equity Fund (DYB), which opportunistically hedge and seek to provide market-neutral DYLS to bearish DYB experience in markets where fundamentals are deteriorating, can help investors by providing diversifying exposure in declining markets.

Finally, irrationality of markets is hard to predict, and the above indicators should not be taken as a complete equity sell-off signal. The indicators suggest it is worth blending equities with lower-equity beta risk and market-neutral strategies. Such asset allocations may provide investors with better diversification and could defensively posture their portfolios in current volatile markets.

[1]Sources: CBOE, Bloomberg, as of 4/30/18.

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DEFINITIONS

Correlation : Statistical measure of how two sets of returns move in relation to each other. Correlation coefficients range from -1 to 1. A correlation of 1 means the two subjects of analysis move in lockstep with each other. A correlation of -1 means the two subjects of analysis have moved in exactly the opposite direction.

MSCI USA Index : is designed to measure the performance of large and mid cap segments of the US market.

Quantitative Easing (QE) : A government monetary policy occasionally used to increase the money supply by buying government securities or other securities from the market. Quantitative easing increases the money supply by flooding financial institutions with capital, in an effort to promote increased lending and liquidity.

Volatility : A measure of the dispersion of actual returns around a particular average level. .

Put options : an option to sell assets at an agreed price on or before a particular date.