Is It Noisy, or Is It Just Me?

Top-down global observation and commentary by Mark Taucar CFA, VP & Portfolio Manager

Been watching much news lately? What with the new Trump administration, geopolitical strife in the middle-east, relations with Russia and the Democratic Republic of North Korea's sabre rattling, it would seem that we are bound for upheaval of the likes not seen in generations. Who better to continue to cultivate this anxiety but the media? In its compelling, relentless reporting of up-to-the-minute scandal and conspiracy, in addition to its sensationalizing of current events, is it any wonder why more people just don't dig a hole in the back yard, empty out a coffee canister and make a deposit of their savings?

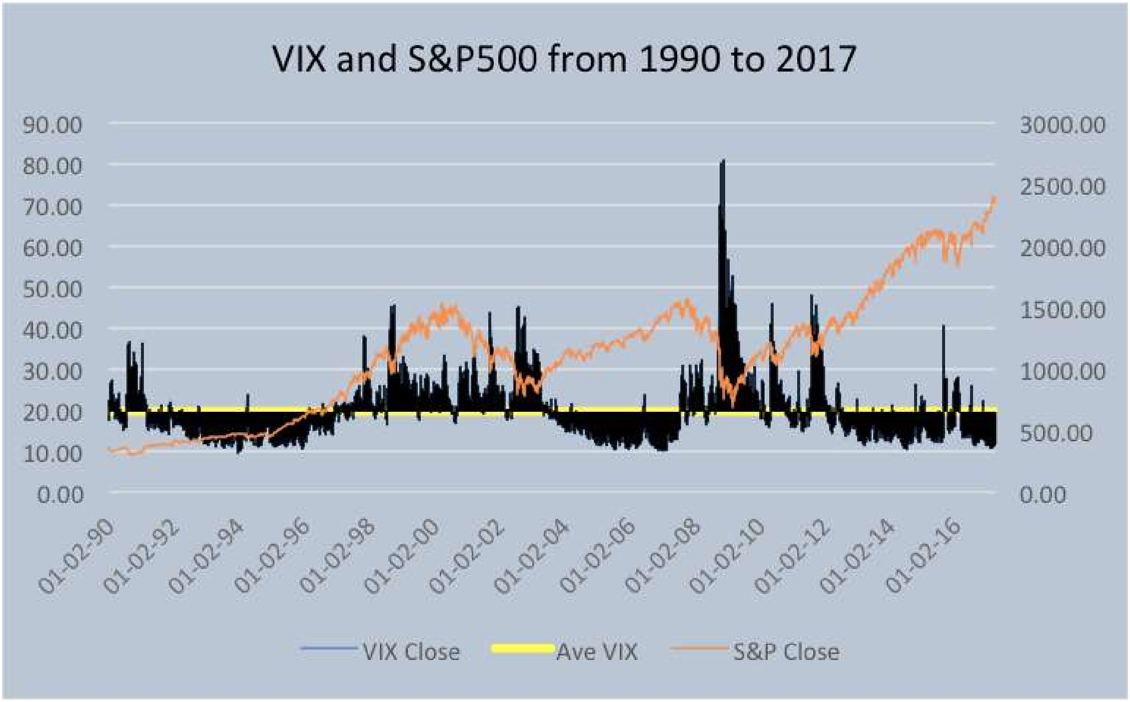
Events of the likes of the better part of this year aren't new. We've seen them over and over, yet the markets still trudge on, based on more than just the noise quotient. Oh, there's still the daily gut-check buying and selling on speculation of course, but cooler heads tend to prevail.

Pump Up The Volume

When it concerns noise, what we are referring to tend to be the daily swings in asset prices. Sometimes (most times), these swings come on the backs of short-term data or news. Whether it's geopolitical or business, the news gets digested quickly and buying and selling volume can spike. Sometimes this news carries value, other times it doesn't – it's just noise.

For my part, one of the major lessons I've learned is to be consistent in the application of your investment discipline, especially in the face of "noise". Try not to be swayed by the daily news sound bite. Part of that discipline is looking at indicators that could potentially identify that risk is building in the markets.

One of those key indicators for me is the VIX or *The Volatility Index*. VIX measures the implied volatility of the underlying index. Without getting too technical, VIX is a measure of what traders, trading the SP500 options, feel the volatility of stocks would be in one month's time.



The chart above has been created to show the S&P 500 and VIX from 1990 all the way to March 31st, 2017. VIX is measured along the left-side y-axis and the SP500 along the right-side y-axis. The dates corresponding to the data are on the bottom x-axis. All told, there is over 27 years. A good enough data-set to draw at least some loose conclusions on VIX and the direction of its linked partner, the SP500.

The orange line is the SP500, the black shaded area is the VIX (above and below its long-term average 19.60, 19.48 if you average up until Aug 31-2017). The VIX long-term average is illustrated as a yellow line. When traders feel certain that volatility will be lower in a month than today, daily VIX tends to be lower. When traders feel that risk and uncertainty is building, you will see VIX spike higher. Looking at the chart, we can see, without running any sort of statistical analysis, that when the VIX trends higher the SP500 tends to fall, when the VIX trends lower the SP500 increases.

SP500 Data from 01-02-90 to 08-30-16		
	Number	Returns
# of Negative Rolling 1 Year Returns	1398	-15.7%
# of Positive Rolling 1 Year Returns	5319	15.4%
Arithmetic Average of 1 Year Rolling Returns		8.9%
Standard Deviation (volatility) of 1 Year Rolling Returns	16.3%	
Compounded Return of the SP500 over the Period		7.0%
Total Observations	6717	

VIX TEST: CURRENT VIX >= LONG TERM VIX AVERAGE		
	Observations	
# of Positive Rolling 1 Year Returns	1952	69.1%
# of Negative Rolling 1 Year Returns	872	30.9%
Total Observations	2824	
		Returns
Arithmetic Average of All Returns		6.7%
Standard Deviation (volatility)	20.5%	
Arithmetic Average of Positive 1 year returns		18.5%
Arithmetic Average of Negative 1 year returns		-19.6%

VIX TEST: CURRENT VIX < LONG TERM VIX AVERAGE		
	Observations	
# of Positive Rolling 1 Year Returns	3367	86.5%
# of Negative Rolling 1 Year Returns	526	13.5%
Total Observations	3893	
		Returns
Arithmetic Average of All Returns		10.5%
Standard Deviation (volatility)	12.2%	
Arithmetic Average of Positive 1 year returns		13.6%
Arithmetic Average of Negative 1 year returns		-9.2%

For more of a detailed analysis of this relationship, I ran a few tests to determine what the 1-year return of investing in the SP500 index would be if we made an investment in the index when the daily VIX was above, and then below this key Long-Term average demarcation line – 19.48%. The table to the left shows the results. I caution that this isn't an extensive test of the data but it was enough to show the basic concepts. As can be seen, there was over 27 years of daily trading data.

Table: SP500 Data from 01-02-90 to 08-30-16

This table simply describes the characteristics of the data we were working with. 6717 data points in total. 1398 of those data points were negative 1-year rolling returns, 5319 were positive. The average arithmetic mean of the 6717 1-year rolling return data points was 8.9% and the standard deviation of the 6717 rolling 1-year returns was 16.3%. The average return of the negative and positive 1 year rolling returns is almost the same at roughly +15.4 and -15.7%.

THE FIRST TEST:

VIX TEST: CURRENT VIX >= LONG-TERM VIX AVERAGE: This test focuses on the resulting one-year rolling performance of the underlying SP500, where the current daily VIX was greater or equal to the long-term average of VIX (19.48). We used 1 year rolling returns.

> (*all that means is when a new day's data was recorded, a day (one year ago) was dropped and a new 1-year return was calculated using the new day – we did that for every trading day which resulted in 6717 rolling yearly returns)*

Where the daily VIX was greater than, or equal to, the long-term average 19.48 there were almost twice as many winning years (on a rolling basis) as there were losing - not bad. The simple average return was 6.7% and the standard deviation (volatility) looks to be higher than the average SP500 long-term standard deviation (volatility). Also, both the average of positive 1 year returns and the average of negative 1-year returns are large. The negative average was -19.6% and the positive was 18.5%.

THE SECOND TEST:

VIX TEST: CURRENT VIX < LONG-TERM VIX AVERAGE: This test focused on the resulting one-year rolling performance of the underlying SP500 where the current daily VIX was less than the long-term average of VIX (19.48).

Again, we used 1 year rolling returns. The numbers look a lot better. 86.5% of the time one year rolling returns were positive – almost six times as many winning 1-year rolling periods than losing 1-year rolling periods. Volatility was almost 40% less than that of the first test, as was the average of negative 1-year returns. When it concerns the upside, the average positive 1-year returns were 40% less than in TEST #1. All told, there were around 6 times more positive outcomes in a year if you invested in the market if VIX was below it's long-term average.

If forced to draw a conclusion solely on the data provided I would say that investing in the market today would, more often than not, result in a positive outcome in one year. Suffice it to say, as of the end of Quarter 3, the daily VIX was 9.51 vs the average of 19.48. ***However, a cautionary note, we should always seek supporting evidence to confirm any opinion and we must look to as many other indicators to help in shaping our prognostications because as we are all aware what goes up must come down and with VIX the opposite is just as true.***