



MONTHLY Market Review

November 1, 2017

A “Vixing” Puzzle

Market’s unusual lack of volatility;
Be fearful when others are greedy

October has historically been a spooky month in which some of the biggest market declines took place – the crash of 1929, 1987’s Black Monday, the financial crisis of 2008, etc. This October, however, there were only treats and no tricks – the biggest one-day movement for the S&P 500 Index during the month was a 0.81% gain, and the biggest down day had a mere 0.47% drop. That said, there was quite a bit of turbulence among individual stocks. The Information Technology sector had a huge month, with the so-called FANG stocks (Facebook, Amazon, Netflix, Google) leading the way up, while some old economy bellwethers and the much beleaguered brick and mortar retailers took a beating. The rising hope of U.S. tax reform and the continued strength of the global economic expansion lifted U.S. Treasury yields as well as commodity prices from oil to copper. The U.S. reflation expectation also boosted the greenback. European sovereign bond yields and the euro declined after ECB President Draghi announced a reduction in monthly asset purchases starting in 2018, but promised a longer duration of QE. China completed its quinquennial leadership transition at the conclusion of the 19th Party Congress, which should usher in a new era with more focus on the quality of growth over the quantity. President Xi now awaits President Trump’s State visit to Beijing on November 8th. Investors will likely be focused on issues ranging from trade to North Korea, though major breakthroughs appear unlikely. Lastly, there is still one unresolved sleeper issue that may come back to roil the market – will a new bipartisan deal be reached in time to fund the U.S. government beyond December 8th, when the current continuing resolution expires?

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Equity Markets Indices ¹	9/30/2017 Price	10/31/2017 Price	MTD Change	YTD Change
MSCI All Country World	487	497	2.0%	17.7%
S&P 500	2519	2575	2.2%	15.0%
MSCI EAFE	1974	2003	1.5%	18.9%
Russell 2000 ^{®2}	1491	1503	0.8%	10.7%
NASDAQ	6496	6728	3.6%	25.0%
TOPIX	1675	1766	5.4%	16.3%
KOSPI	2394	2523	5.4%	24.5%
Emerging Markets	1082	1119	3.5%	29.8%

Fixed Income				
2-Year US Treasury Note	1.49%	1.60%	12	41
10-Year US Treasury Note	2.33%	2.38%	5	-7
BarCap US Agg Corp Sprd	1.01%	0.95%	-6	-28
BarCap US Corp HY Sprd	3.47%	3.38%	-9	-71

Currencies				
Australian (AUD/\$)	1.28	1.31	-2.3%	6.3%
Brazil Real (Real/\$)	3.16	3.27	-3.3%	-0.5%
British Pound (\$/GBP)	1.34	1.33	-0.9%	7.6%
Euro (\$/Euro)	1.18	1.16	-1.4%	10.7%
Japanese Yen (Yen/\$)	113	114	-1.0%	2.9%
Korean Won (KRW/\$)	1145	1120	2.2%	7.6%
US Dollar Index (DXY)	93.08	94.55	-1.6%	8.1%

Commodities				
Gold	1280	1271	-0.7%	10.3%
Oil	51.7	54.4	5.2%	1.2%
Natural Gas, Henry Hub	2.89	2.80	-3.0%	-24.0%
Copper (cents/lb)	296	310	4.9%	23.8%
CRB Index	183	188	2.4%	-2.6%
Baltic Dry Index	1356	1534	13.1%	59.6%

SOURCE: BLOOMBERG

The Original Big Short

The Amsterdam Stock Exchange, founded by the Dutch East India Company in 1602, is recognized as the world's oldest stock exchange. It facilitated a secondary market to trade stocks and gave rise to trading clubs during the mid-17th century where speculators would congregate. Messengers would rush to and from the exchange to update pricing to customers.

In 1867, the invention of the stock-ticker machine, also known as the ticker tape, obviated the need for messengers. Stock transaction data was transmitted by telegraph to a ticker tape that would continuously print out abbreviated company names (ticker symbols) followed by the price and volume data. Thomas Edison later upgraded the system to reach a printing speed of one character per second. Ticker tape eliminated the need for messengers and allowed people to trade in “real time” from long distance.

In 1900, 14 year-old Jesse Lauriston Livermore started working as a quotation board boy in the Boston office of Paine Webber. His job was to update the board with information coming off the ticker tape. He became interested in the behavior of stock prices and began recording price movements that enabled him to spot patterns prior to sizeable advances and declines. A fellow office boy later talked him into speculating on a stock on margin at a bucket shop. Two days later, Jesse sold the position with a \$3.12 profit. He soon quit his job and started trading for a living.

Jesse made his first \$1,000 (around \$27,600 in today's dollars) at the age of 15. He was later banned by most bucket shops in Boston as he had outfoxed many of the shady operators. By the age of 20, he had accumulated \$10,000. Then came the big payday – the Panic of 1907 – during which Jesse shorted the market and made \$1 million (\$25 million in today's dollars). He would top this feat and live up to the reputation as “The Great Bear of Wall Street” by shorting the market in 1929 for an astounding \$100 million profit (\$1.43 billion in 2017!), making him one of the richest men in the world.

The combination of elevated investor complacency and a tightening Fed makes the market vulnerable to a pullback.

Unfortunately, the concept of diversification probably never crossed Jesse's mind. He somehow managed to lose all his money and was bankrupt by 1934. The bankruptcy resulted in an automatic suspension of his membership on the Chicago Board of Trade. In 1940, the legendary trader, suffering from depression, shot himself in the cloak room of Manhattan's Sherry-Netherland Hotel.

Rise of the Machines

How things have changed from those simpler days when humans were doing the trading. Today, with the advent of technology, market activity is dominated by passive and various quantitative strategies. It is estimated that

fundamental discretionary investors now account for only 10% of the trading volume. Big inflow into major ETFs prompted buying across the board regardless of company specific issues and valuations. Big data and machine learning are the new buzz words. *Forbes* recently featured a quant fund run by three twenty-somethings. Their assets under management was in the low tens of millions of dollars, yet they averaged \$1 billion in transactions, or 10,000 to 40,000 trades each day. Since there are only 86,400 seconds in a day, this fund would generate a trade every 2.16 to 8.64 seconds if it worked around the clock. Much of the decision making and trade execution, of course, has been taken over by software algorithms. These whiz kids employed statistical arbitrage trading strategies in stocks and currencies, and closed out all trading positions at the end of each day.

The allure of sophisticated computer models trouncing their human competitors has continued to attract inflow to quant funds. It is estimated that quantitative hedge funds now manage more than \$1 trillion, about one-third of the \$3 trillion hedge fund industry. While there are indeed brilliant quant managers who have delivered strong returns over a long period of time, the sheer size of the industry means there are likely more pretenders than contenders. Given that many funds employ similar strategies (e.g., trend following), a reversal in trend could create disruptive market movements, not to mention the threat of rogue algorithms wreaking havoc on the market.

A “Vixing” Puzzle

Equity volatility has been unusually low for much of 2017. The Volatility Index (VIX), which measures the implied volatility of S&P 500 Index options and has been viewed as a barometer of equity market volatility, has drifted to all-time lows. Over a span of more than 7,000 sessions going back to the start of 1990, the VIX Index’s average and median closing values have come out to 19.4 and 17.6, respectively. It was a rare occurrence for the VIX to collapse below 10 – there were only 9 such occasions out of 6,802 trading sessions prior to 2017, or 0.13% of the times. Year-to-date in 2017, however, there were already 35 sessions with the VIX closing below 10.

Another way to look at the lack of volatility is to tally the number of trading sessions when the S&P 500 Index had a daily change of more than 1% in either direction. There were only 8 such sessions so far in 2017, compared to 48 and 72 such occasions in 2016 and 2015, respectively.

It seems ironic that the market should be this steady with arguably the most mercurial and unconventional president in modern history at the helm atop the free world. Perhaps investors have grown numb to all the chaos and controversies. It is as if Washington’s dysfunction and a divided America were just fodder for the hyperventilating media, and markets were behaving as if all will be fine when the Republicans pass the tax reform to prime the pump for the 2018 mid-term elections. Time will tell if this period of eerie calm is prescient or misguided.

Unintended Consequences

The decline in market volatility has made shorting against the VIX futures and various VIX ETPs (exchange-traded products) quite popular and profitable in recent years. The net short position on VIX futures has progressively climbed to new highs over the last couple of years. Another phenomenon was the rise of “volatility control” investment strategies, supposedly favored by many hedge funds and insurance companies. These strategies in essence adjust a portfolio’s allocation between equity and cash to maintain a targeted level of volatility at the portfolio level. In an environment of declining volatility, more assets would be allocated to equities – the equity

allocation would even exceed 100% when the market’s realized volatility is below the targeted volatility. On the other hand, as volatility ticks up, the equity allocation would be scaled back.

While these strategies have enjoyed strong returns during this stretch of progressively lower equity volatility, they may be planting the seeds of a market correction. Market makers and dealers on the other side of the growing short VIX trades would need to employ various S&P 500 option strategies to hedge their long VIX positions. There is the concern that a decline in the S&P 500 Index could trigger adjustments to these hedging positions that would exacerbate the market decline. Similarly, should volatility suddenly spike up, the aforementioned volatility control strategies would be cutting equity exposures concurrently, which could amplify the market decline similar to the downward selling pressure that the so-called portfolio insurance products generated during the crash of 1987. We wonder if any investors and regulators truly appreciate how these strategies, in concert with various rapid fire trades generated by machine-learning based algorithms, could impact market movement and liquidity should there be an exogenous shock. Only time will tell.

Fear vs. Greed

There is an adage that one should be fearful when others are greedy and greedy when others are fearful. Judging by the depressed levels of the VIX Index, the enthusiastic speculation over bitcoin as well as other variants of cryptocurrencies, and surveys that indicated strong investment sentiment, it is clear that greed has been on the rise. Can this euphoria continue for a while longer? Of course. However, in our opinion, the combination of elevated investor complacency and a tightening Fed makes the market vulnerable to a pullback, though the timing of it is hard to predict. The aforementioned issues with various trading strategies could further add fuel to fire in the event of a market decline. That said, with the macro and earnings backdrop remaining positive, we would view potential selloffs as a buying opportunity rather than the start of a protracted market downturn. ●



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