

February 14, 2019

### **What Happened? aka The Rise Of The Machines**

The stock market hit its 2018 high at the end of September and then plunged for the 5<sup>th</sup> largest decline since World War II (Barrons 1/21/19 p. 5) and then turns around and is up 5.9% the first three weeks of January 2019. Why the breakneck rollercoaster of a ride with maybe more to come?

Like the Terminator film franchise, this increase in volatility is due to the rise of the machines specifically software algorithms, and the downfall of humans.

To backtrack, Judy Woodruff a reporter for PBS, interviewed Federal Reserve Chairman Jerome Powell on October 3, 2018. In the interview, Chairman Powell said, “We’re a long way from neutral on interest rates.” This was interpreted by economists as meaning uninterrupted interest rate hike every three months in perpetuity. The very next day the market reacted in a negative fashion. There was no change in the economy. There wasn’t any Congressional action. There wasn’t any Presidential action. There wasn’t any world event. There wasn’t a bad economic or company report. There wasn’t a recession on the horizon. There was a mere statement of actions yet to come, if at all.

It used to be that most individuals and institutions bought individual stocks. Then, came mutual funds and individuals switched to mutual funds and institutions started promoting mutual funds to retail investors, instead of stocks. Mutual funds are composed of individual stocks. Mutual funds can only be sold or bought at the end of the trading day; they cannot be bought and sold during the day.

Then, came a vehicle, which resembled mutual funds, in that they were composed of equities but could be bought and sold during the day; these are called ETFs or exchange-traded funds. They have become de rigeur among institutions, which included pension funds, mutual funds and hedge funds and have grown to be approximately 15X the daily trading volume of individual stocks.

Additionally, the institutions have defaulted to using software algorithms to create trend-following strategies, a computer based way of trading that has become a major force or the major force in some markets changing markets from bullish to bearish to a degree not heretofore seen according to an analysis of algorithms that buy or sell on asset price momentum. Funds that use such strategies can go from holding net long positions or betting that prices will rise in four major asset classes - stocks, bonds, currencies and commodities to being short or wagering against everything but bonds. The trades are preset and are executed by computer in fractions of seconds and are triggered by criteria pre-coded in the algorithm. Humans cannot compete with the speed of computer controlled trading. As of two years ago, the volume of computer trading exceeded trading by humans.

So, let's go back to October 3. After that comment, which was not essentially different from previous comments in fact; rather it was in its tone and the way it was interpreted because of the tone. The economists, who advise the institutions, opined that the interest rates would be raised too fast and too high and will therefore, hurt the economy and cause a recession. Compounding this was the thought that the beneficial effects of the reduction in tax rates had run their course and so earnings would slow or be stagnant or even worse, drop. So, these triggers went off in the algorithms and there was now a race to sell the holdings in the institutions before the next institutions could sell.

Compounding this was almost 400 hedge funds were facing end of year redemptions so they were forced to sell. All other hedge funds, and pension funds, and mutual funds were facing end of year reallocations due to the profits made up to September 30. Margin calls were also made because of the 400 hedge funds and pension funds rebalanced their holdings. There was a lot of forced selling. And, selling is easier by selling ETFs by sector rather than by individual stocks. So, the selling was uniform across sectors rather than by individual stocks. Also, the low interest rates for 10 years caused a high propensity of leveraged bets to be made, which had to be unwound or start to be unwound since they would not be so beneficial if interest rates were to rise.

Still, nothing happened in the economy, etc.

The bottom was reached on Xmas Eve after 7:1 selling hit its climax after retesting a low for the third time in 3 months. There was no Santa Claus rally because there weren't any institutional buyers, since many traders sold in this drop to lock in their bonuses based upon their 9 months performance. And as my father used to say, "watch out for left field because that is where things come from." In this case the selling from Chairman Powell's exuberance in wanting to make an impression to a good looking female reporter.

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After January 1, the market rebounded having been dramatically oversold since nothing had happened in the economy and companies started to report earnings higher than the imagined worst fears of the economists. Companies reported earnings as expected but the guidance for the next quarter was far slightly less growth, not negative growth.

What will happen? I do not know other than Mr. Powell will be more cautious in his remarks.

What do I think was different this time from all other times? Machines, ETFs and the lack of human brains.

What do I hope will be done? It is said that 50% of McDonalds and other large companies are owned by index funds and index funds rule the market; Apple is in almost all funds. We cannot change the composition of the funds but we can alter the way sales are made. We used to have what we called the "Uptick rule" so that selling could not continue to pound a stock. A short sale could only be entered at a higher price than the previous sale. The rule was in effect from 1938 until 2007. Then came 2008 Coincidence?

As always, if you have any questions about these or any other matters, do not hesitate to call us.

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