"The more we learn about how people really think, the more we must rethink economic theory."

Robert J. Shiller
Sterling Professor of Economics, Yale University
Nobel Prize Winner, Economics

Causes of a Market Correction

By James K. Tonrey, Jr., Chief Executive Officer

The recent stock market whiplash reminds us that risk can and will raise its ugly head when least expected. Over the summer months and into the fall, CEO's across the country could not have been more positive on the economy and their company's future. Unemployment is at historic lows, inflation controlled, asset prices at or near all time highs, global growth, while a bit lower, is still favorable, and, importantly, the consumer is spending and banks are lending. Lest we forget, interest rates, although a tad higher, are still advantageous. What happened so abruptly in October to change this positive narrative?

Let's look at the following six events that met in an almost perfect storm last fall.

US Federal Reserve Bank (Fed)

The Fed has a dual mandate from Congress; to focus on asset price stability as well as maximum unemployment. Ten years ago, as a result of the Great Recession, they began an easy money policy to increase market liquidity to stabilize an economy that was shaken to its core. The Fed accomplished this by lowering interest rates to zero and increasing its balance sheet through the purchase of government bonds. Fast forward to today and the inevitable undoing of these policies. The Fed is now embarked on unwinding $50B of these securities every month into the open market in addition to raising the Fed funds rate to a "market neutral" level. Even though widely telegraphed, these decisions take liquidity out of the system, slow economic growth, and always have unintended consequences.

Algorithmic Trading

It is estimated that somewhere between 70-80% of all trading on the exchanges today is the result of algorithmic trading. Simply stated, this type of trading is math dominated by programming computers to follow a pattern or defined set of instructions to capture a profit. There is a debate underway in the financial community as to whether these trading platforms *cause* a correction or simply *exacerbate* one already in progress. Regardless, there is no denying that computers programmed to sell on certain variables, *irrespective of anything else*, cause market volatility. It should also be noted the speed at which these machines execute their orders. We have seen this time and again over the past quarter just by experiencing the daily whipsaw action in the markets.

Geo-Political Events

There are always geo-political risks built into financial markets. There are three presently that significantly affect headlines and, therefore, influence investor sentiment. The first is the on-going trade dispute with our largest trading partner, China. Put aside where one stands on the issue and look at it simply as an economic disruption. More importantly, investors are focused on the unknowns that lurk ahead from a possible prolonged dispute.

The second risk is uncertainty associated with the Democrats taking the House in 2019. How will this new balance of power play out in the new year? Market participants in the final quarter of last year started to discount the potential friction of the two political parties in the year ahead.

The third risk is the issue of our southern border with Mexico and now the resultant government shutdown. Perception is everything and the optics of border security, as well as the financial hardship to those that are affected in the government, creates just another level of uncertainty.

Tax Loss Selling/Window Dressing

At the end of each year, institutional portfolio managers and individual investors focus on capital gains and/or losses for tax purposes. If there is a significant gain in their portfolio then they offset them with any losses that can be harvested. Likewise, any realized losses can be offset by gains. The markets become more volatile due to this elevated level of trading simply related to tax decisions and not the financial valuations of the underlying positions traded. Also, portfolio managers of mutual funds and hedge funds window dress by selling their losers and buying the winners so portfolios are constructed to look better to their investors on year-end statements.

End-of-Year Rebalancing

All institutional and most retail investors look to rebalance their portfolios at least once a year. Most wait until the final month of December to execute. A typical rebalance would be an investor with a mandate to keep 60% in stocks and 40% in bonds. They look at their account in early December to see the allocation is 65%/35% so they sell down 5% of their stock portfolio indiscriminately and buy 5% more bonds. Imagine the impact on financial markets volatility when trillions of dollars are rebalanced within the same few weeks.

Self-Fulfilling Prophecy

Robert K. Merton, a well-known social scientist in 1948, is credited with the term "*self-fulfilling prophecy*." He defined it as "*a false definition of the situation evoking a new behavior which makes the original false conception come true.*" In other words, if we believe something to be true, even though it isn't, just the powerful expectation that we *think* it will come true has such a considerable impact on our behavior that it does, in fact, come true. An example is the 200 day and 50 day stock price moving averages. These levels are updated and calculated daily. Market observers use them as benchmarks for deciding when to buy or sell into the market. In math it is called mean reversion, which shows when prices get too far ahead or too far below average prices. These moving averages tend to act like a magnet over time pulling prices back to a mid-point. But doesn't the random use of 200 day and 50 day make it a self-fulling event? Why not use 283 day and 38 day moving averages? No surprise that these averages self-fulfill during corrections since portfolio managers and computerized traders set their trading formulas to these numbers. All of which leads to increased volatility.

In 2017, the S&P 500 index posted eight days of moves of one percent or greater. In contrast, this past December the index had six, and three of them were better than two percent. The Dow Jones Industrial Average also posted its first ever thousand-point gain. A thirty-year trader on the floor of the exchange described it as nothing he's ever experienced. With this increase in volatility comes an increase in investor fear and anxiety. Last year, Julian Kozlowski of the Fed, Laura Veldkamp of Columbia University and Venky Venkateswaran of New York University, published a paper related to this fear. They explained that, even ten years later, the upheaval of the 2008 crisis continues to play a part in our emotional thinking. Psychologically, investors prepare for another inevitable meltdown. Consequently, these fears thwart economic activity and the negativity becomes self-fulfilling. No one knows where markets will go this year. But what we do know, and history has shown, is that basing any financial decision on an emotional impulse does not work.