Q4 2018 MARKET REVIEW & COMMENTARY

Ghosts of Christmas Past

To understate the obvious, it was a challenging fourth quarter for financial markets. Investor sentiment shifted daily from bullish to bearish. Equity markets sliced through most technical supports like a hot knife through butter. The S&P 500, Dow Jones Industrial Average, Nasdaq 100 and Russell 2000 fell intraday into bear market territory, loosely defined as a correction of 20% or more from the most recent highs (see figure 1), ending the year with the worst December performance since 1931.

Figure 1: 2018 Performance of Broad Indexes

And then, just as the bears were controlling the narrative, a Santa Clause rally ensued, likely the result of large pension funds re-balancing their asset mix. Typically, pension funds articulate an asset mix based on actuarial assumptions tied to their constituency. As stocks sold off in the fourth quarter the allocation between equities and fixed income deviated from mandate. In that scenario, pension fund managers re-balance back to mandate by selling bonds and buying stocks.

With frequent intraday swings of 500+ Dow points both up and down, you can be excused for thinking that investors were suffering from panic-driven excesses. There was no evidence of an impending recession, no indication of major central bank missteps, inflation remained in check and the job numbers were strong and accompanied by healthy wage gains.

In our view, the fourth quarter sell-off had more to do with technical triggers than any change in fundamentals. While the S&P 500 composite index breeched short term support, there was at least one long term support line that held: the 40-week moving average tracked against weekly closes on the S&P 500 composite index.

Figure 2 illustrates eleven years of this metric dating back to before the financial crisis. The S&P 500 index bounced off the 40-week moving average on Christmas Eve, which set in motion the post-Christmas rally. That's the positive spin. On the other hand, the last time the S&P 500 bounced off this line was in the first quarter of 2008. A short rally ensued but within six months, the index broke down and collapsed, ultimately bottoming in March 2009.

There are similarities to the price action we witnessed during the first week of 2019 which might lay the groundwork for a rally that could last until May. We would also point out that, unlike 2008, the U.S. economy remains strong and banks are well positioned to manage liquidity issues. That said, we expect volatility to continue with intraday moves in the 2% range occurring more frequently.

Figure 2: Major Support Zone

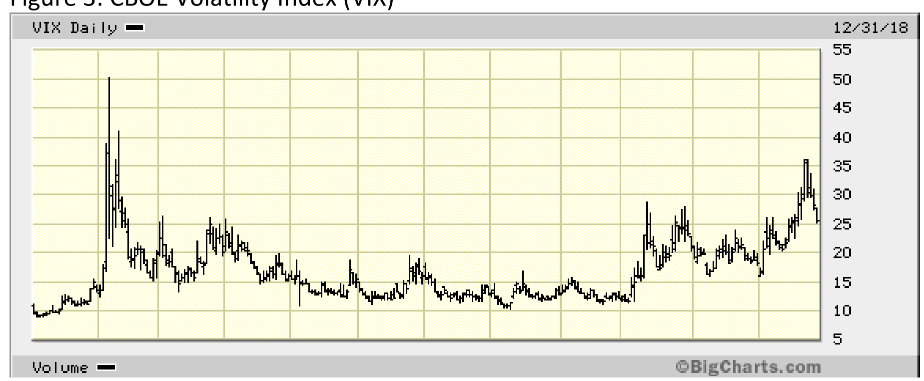
Options Understating the Risk?

The CBOE Volatility Index (symbol VIX) has risen from a 12% implied reading at the end of September 2018 to a reading of 35% by the third week of December. That move, while significant, was nowhere near levels seen in February 2018, when the VIX peaked at 50% implied. Volatility measures fear, and even the peak level in December did not seem to be enough to conclude that a recession was imminent. Shortly after, the post-Christmas Santa Clause rally caused a sharp volatility sell-off as the VIX contracted to 25.42% by year-end (see figure 3).

One can certainly make a case that the VIX is too low given the intraday gyrations the market is experiencing. At the 25% level, the VIX is suggesting that the S&P 500 composite Index could swing 40 points from top to bottom on any given day. In the 44 trading days since November 1st (at the time of writing) the S&P 500 breeched that range 26 times with a daily average of 50.04 points.

We also need to consider past metrics in which the VIX overstates intraday volatility by 12% to 20%. Based on those metrics the VIX should be trading somewhere between 35.3% and 38.1%, which would imply 56- to 60-point daily price swings in the S&P 500 composite Index. Clearly, option traders are not buying into the thesis that we are on the cusp of a major sell-off that could push the global economy into recession. Mind you, the VIX is a fickle sentiment indicator and can shift very quickly.

Figure 3: CBOE Volatility Index (VIX)



Ghosts of the Present

If we accept the technical sell-off thesis, then we should also accept that shifts in sentiment were the cause. That's an important point because it sheds light on the factors most likely to influence the market over the next quarter.

Investor sentiment typically reacts to binary events, as defined by a specific time line with one of two possible outcomes. That's much different than macro inter-connected issues, which have longer term implications for the economy but do not necessarily affect short term sentiment.

Issues such as a slowdown in global growth and central bank tightening will meaningfully impact markets longer term. If these macro concerns are well telegraphed, the markets' reaction is typically measured. Markets react to macro events when the message differs from expectations – Chairman Powell's de-leveraging comments following the rate hike in December being a classic case in point.

At this point, we need to understand what is likely to cause short-term sentiment shifts and how that will impact markets over the next quarter. With, of course, the caveat that trying to assign probabilities to a binary outcome is harder than trying to track the path of an oncoming hurricane.

Trade and Tweet Wars

Before Donald Trump was elected President, the last time U.S. investors cared about anything going on in China was 2015. It was a long weekend in August when Chinese investors faced government imposed capital controls designed to stop the plummeting equity markets. Equity markets around the world sold off from the contagion effect. However, because there was no fixed correlation between the U.S. - China equity markets, the U.S. recovery took less than two months.

In 2018 China was once again a point of focus for global equity markets when it became the unwilling party in a trade war with America. According to *china-briefing.com*, the trade war officially began on July 6th, 2018 when America first introduced tariffs on Chinese goods[1].

The nuanced outcome would result in China becoming a more open economy that competes fairly. However, that would require China to abandon an interventionist system of governance that the political elite believe is responsible for its success (see *China's 100-Year Strategy* by Andrew Miller).

China's opening volley was to offer concessions that reduce America's trade deficit. That's normal posturing because the Chinese always provide a political win during early-stage negotiations.

[1] http://www.china-briefing.com/news/the-us-china-trade-war-a-timeline/

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The larger issue that defines the chasm between these polar-opposite political agendas is intellectual property rights. China requires companies to share proprietary technology in order to gain access to the Chinese consumer. The Americans see that as theft and a gross misrepresentation of free trade. The Chinese see it as key to their 100-year strategy

What investors need to understand is that China will only go so far to satisfy America's demands. Agreeing to stop practices it has encouraged businesses to engage in would be more than just an a loss of face. It would also signal to other partners that trade wars are an effective negotiating strategy.

History supports this position. China joined the WTO in 2001 as a prerequisite to enter a bilateral trade agreement with America. Since then, its totalitarian governance model has, contrary to widely held expectations, become more deeply entrenched and its citizens less free.

Chinese citizens are prohibited from accessing certain websites (like Facebook), have restrictions on how much money they can legally withdraw from the country without special permissions, and, most recently, the ruling communist party unexpectedly conferred on President Xi Jinping an indefinite term in early 2018 at just the time he was expected to name his successor.

Without the internal pressure of unrest from its citizens, China has no shame in promoting an alternative to western capitalism and democracy that will help it to become the world's biggest economy.

Trade War Investment Strategy

We think the U.S. – China trade war is the most influential dynamic affecting investor sentiment. It is a man-made problem with global implications that does not seem to be well thought out.

Tariffs seem like an easy ploy in stick-and-carrot negotiations. Regrettably, they have a direct impact on costs at the consumer level, which dampens demand leading to a slowdown in growth. they also harm exporters as domestic allegiances become a factor. In a trade war, consumers will opt to buy domestically rather than support foreign competition. We suspect that is part of the reason iPhone sales have slowed in China.

Equally important is the friction trade wars cause in global supply chains. Tariffs cause structural dislocations as companies attempt to adjust manufacturing through regions where tariffs are less impactful. That is a costly proposition that leads to production bottlenecks and stretched delivery schedules.

Presently, we are midway through a 90-day cooling off period. The intent and the hope are that China and the U.S. will negotiate a win-win trade deal, backstopped by the threat of additional tariffs. A positive outcome would provide a jumping off point, setting in motion a solid rally for stocks. However, the possibility that negotiations break down and Trump increases tariffs from 10% to 25% on more than U.S. $200 billion on Chinese exports, would have a decidedly negative impact for global equities.

The trade impasse is a classic sentiment event defined by a time line and binary outcome. We put the odds of a trade agreement at 60-40. In our base case, in which China agrees to a deal that is implemented in stages. That would provide Trump with a political win, and China could sell it domestically as a temporary agreement that could be re-negotiated in two to six years.

Such is the advantage of a *leader-for-life* (something President Trump has mused about when speaking to his base) negotiating with a partner that is focused on four-year election cycles. And let's face it, with a trade agreement in place, how would one stop China from simply abiding by the components that are palatable while backdooring intellectual property rights?

The bigger risk is that China refuses to go along with any deal. And while this would go against China's typical negotiation stance, there is a school of thought that China is too far along on its 100-year strategy to be bullied by an imperialist superpower.

China's 100 Year Plan

China recently completed 40 years of a 100-year plan articulated by President Xi Jinping's in his manifesto: *The Governance of China*. This text is considered sacred scripture in Beijing and outlines a 100-year strategy in which, writes Andrew Miller of www.trumpet.com, "Xi outlines his utopian vision for the Chinese people. In the world he describes, the Chinese are heirs to an ancient and unique civilization entitled to a privileged position among nations. In this world, China is an economic, cultural and military superpower, while the United States is no longer a major geopolitical power."

According to Miller, "Achieving the China Dream has become a trademark slogan of Xi's administration since he first publicly uttered the phrase in a November 2012 speech. When Xi refers to the China Dream, however, he isn't making empty political promises like so many Westerners assume. He is making a subtle reference to a geopolitical strategy. Nationalist hawks in the Chinese military have been pushing this strategy since the days of Chairman Mao Zedong."

And Xi's role as "leader for life" puts him in a position of strength to plan in terms of centuries rather than four-year election cycles. "If the Chinese people dutifully follow the program their paramount leader has laid out, Xi promises they can achieve what he terms the China Dream by the year 2049 - exactly one century after the founding of the People's Republic of China during the Chinese Communist Revolution."

In another book titled The China Dream, People's Liberation Army Colonel Liu Mingfu outlines a strategy for China to surpass and replace the United States as the world's premier superpower. While only parts of the book have been translated into English, it is a bestseller in China.

Colonel Liu is now a scholar at China's National Defense University, an institution that trains future generals for the People's Liberation Army. His strategy for supplanting the United States as the global superpower calls on Chinese leaders to learn from history – particularly from the history of America's rise to superpower status in the 19th century, and from the Soviet Union's failure to replace America in the 20th century.

Liu writes that China should strive to avoid directly antagonizing the United States too soon (hence our 60% weight being apportioned to a successful short-term trade deal) as the Soviet Union attempted during the Cold War. Rather, he advises that China influence U.S. foreign policy in such a way as to ensure that Washington behaves like Great Britain in the early 20th century. What happened to Britain in the 20th century? It declined and gave way to the U.S.

"The competition between China and the United States will not take the form of a world war or a cold war," Liu writes in his book. "It will not be like a 'shooting duel' or a 'boxing match' but more like a 'track and field' competition. It will be like a protracted 'marathon." Like many other Chinese nationalists, Liu foretells that China's Hundred-Year Marathon will be a struggle for supremacy over economics, trade, currency, resources and geopolitical alignments.

Like President Xi, Colonel Liu estimates that it will take about a century for China to surpass America as the global superpower. He allots 30 years for China to match the U.S.'s gross domestic product, 30 years to match its military strength, and 30 years to equal its per capita GDP. Unlike Xi, Liu obviously considers this 100-year plan to have begun at some point after the 1949 Communist Revolution.

In fact, Colonel Liu is something of a latecomer to the idea of the Hundred-Year Marathon. Chinese author Zhao Tingyang published an essay in 2005 that is swiftly gaining mainstream acceptance in China. This essay, *The All-Under-Heaven System*, calls for the establishment of Tianxia - a Chinese-led empire that "values order over freedom, ethics over law, and elite governance over democracy and human rights."

You could argue, as some have, that the tenets of Tianxia are doomed to failure because the rule of law and not subjective ethics is ultimately the basis of a civilization. That is an axiom that rings true for democracies and over time may turn out to be correct.

However far along China is in reaching its ambitious goals, it has defied expectations of becoming America's biggest economic rival, while becoming a less free and open market economy in the process. And while America's efforts to deal with this may slow China's rise, it certainly won't thwart its ambition.

Central Bank Influence

The U.S. Federal Reserve (FED) raised interest rates in December and traders fretted that it would act like a stone thrown into the water, creating ripples that would have far-reaching effects across the economy. In a textbook explanation of monetary policy, central banks raise rates to combat inflation by tightening the availability of credit. The knock-on effect causes businesses to defer expansion plans and consumers to alter expenditures.

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Changes to interest rates singlehandedly eliminated double digit inflation from the North American economy in the 1970s and 1980s.

Although central bank normalization plays an important role for fixed income investments, we believe that rising interest rates pose less risk to equity valuations than the attention given to the FED by media outlets. For one thing, rising rates are not targeting inflation, which is already within the FED's target range. Instead, the FED is aiming to "normalize" monetary policy by pushing rates towards a neutral target that is, at best, subjective.

The media provides a soapbox for analysts to thrash out potential mis-steps in America's economic expansion. It doesn't help that President Trump, true to his predilection, weighed in with Tweets personally critical of current FED Chairman Jerome Powell. This is despite the fact that Mr. Powell seems to be on the same page, given his comments leading up to December's rate hike. Unfortunately, the message got lost in a sea of fear-based rhetoric.

With this backdrop, for a couple of reasons we simply don't believe that the economic expansion will be held back by the FED's interest rate policy. First, we think December's rate hike may be the end of the rate cycle for the foreseeable future and, second, it was not the rate hike that rattled markets in December.

Equity markets have largely disregarded rising interest rates because, even by current standards, this is the least complicated of the Federal Reserve's actions.

The larger concern among investors is the unwinding of the FED's balance sheet. During the financial crisis, the FED engaged in three rounds of quantitative easing, effectively purchasing long-term bonds financed with printed money. Those bond purchases peaked at about U.S. $4.5 trillion of assets on the FED's balance sheet.

Allowing bonds to mature and retiring the debt effectively contracts the money supply. The challenge for the FED is de-leveraging and raising rates at the same time. This approach has never been attempted before and as such, there is no way of knowing the potential pitfalls.

Unwinding those bond purchases is itself a form of tightening. Some equate the de-leveraging aspect of the FED's strategy as being equal to two quarter-point rate hikes. Thus, raising rates at a time of such de-leveraging leads to concern that the FED will overshoot its objectives and prematurely cause a recession.

When Chairman Powell unexpectedly commented that the de-leveraging strategy was on auto-pilot (i.e. reducing the balance sheet by U.S. $50 billion per month) the market reacted badly. Investors recognize that unwinding U.S. $50 billion per month is equivalent to two quarter-point rate hikes.

In early January, Chairman Powell finally acknowledged that concern in a way that markets seemed to understand. The markets reacted positively and rallied more than 750 points in one day. Clearly the markets remain focused on that issue and it will play into longer-term performance.

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Assuming the eventual outcome of this interesting cocktail of Federal Reserve activity is merely market volatility without any impact to the underlying economy, the yield curve's long-term trend should be normal and increasing. As a result, we have tilted toward shorter-term bonds that fall less as interest rates rise and, because Exchange Traded Funds (ETFs) are used, automatically roll-over into newly issued bonds at the prevailing higher coupon rates.

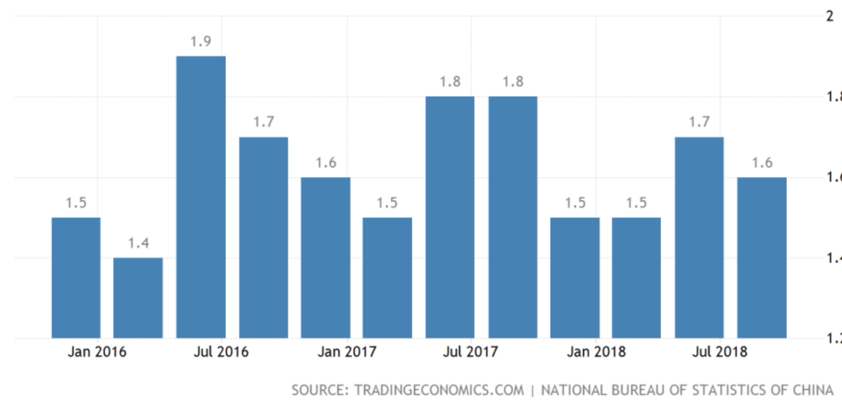
A long-term trend of rising interest rates will, at some point, cause businesses and consumers to defer their borrowing plans. This slows economic activity, but we do not believe an interest rate of 2.5% represents a cross-over point. Moreover, if there are no further rate hikes in 2019, that point is likely a few years away.

Slowing Global Growth

There is little doubt that the trade war is having an impact on global growth. At present, China is the front runner in this metric, although recent data from the U.S. Commerce Department confirms a slowdown in 2019. While the Chinese economy is slowing, it is still growing at a decent rate.

The U.S. is beginning to feel the pinch of the trade skirmish, and we suspect that Trump knows that the longer this lasts, the weaker his negotiating position becomes. We also know that, if nothing else, Trump is a master of the message. And we note that he is trying to shift attention away from trade negotiations onto his U.S. $5.7 billion border wall promise, which in the sphere of a U.S. $4 trillion annual budget is a drop in the bucket.

With the media fixated on this, trade takes a back seat allowing negotiations to take place in a vacuum.



Other issues related to global growth will occur in the first quarter when the British parliament reviews its narrowing Brexit options. We will get further clarity on these issues as the British House of Commons debates and the March deadline draws ever-nearer.

At present we see three possibilities. The first is a hard exit (we apply a 30% probability on this outcome), which will have a major impact on the British economy. The second is another referendum (we are applying a 10% probability to that possibility). The third, and most likely, is that we will see political grandstanding but, as the deadline nears, cooler heads prevail. This would allow for an exit similar to what has been negotiated (and is our base case, with a 60% probability). We will know whichever is to prevail by the deadline at the end of the third quarter.

The Impact of Exchange Traded Funds

Like ships rising and falling with the tide, when markets sell off all stocks pay a price. That's the reason so many portfolio managers utilize an asset allocation strategy recognizing that as much as 85% of the return in a portfolio can be explained by the asset mix.

Recently, we have noticed a much tighter correlation between systematic risk (i.e. defined as the up and down movement of stocks predicated on moves in the broader market) and the impact of non-systematic risk (i.e. company specific risks such as slowing iPhone sales for Apple, and asbestos in baby powder for Johnson and Johnson) has on the performance of individual stocks.

One could argue that, as systematic risk takes on an even greater role in the current market environment, asset mix now drives upwards of 95% of a portfolio's performance. How else do you explain a 40% sell-off in companies like Apple, which is a major holding in so many exchange-traded funds?

This tight correlation between market moves and the performance of individual companies may have to do with the fact that there are fewer publicly traded companies in which to invest. Based on a recent study by J.P. Morgan, that may not change. According to their work, there are fewer companies choosing to go public. J.P. Morgan articulates three reasons why this trend is likely to continue. The first, based on a study at the University of Florida, is that the cost of going public is high, with underwriting and registration costs estimated at around 14% of the funds raised."

This observation suggests investment bankers are taking a bigger chunk of the money that companies raise in an IPO, reducing the attractiveness of this option for raising money. J.P. Morgan argues that this is not simply gouging but seeking compensation for higher compliance costs associated with increased regulatory burdens.

The second reason is "market volatility." Companies don't mind seeing big spikes after going public, but many have seen their stock prices go the opposite way. Just ask GoPro (GPRO), Twitter (TWTR), Fitbit (FIT), or Box (BOX), all of which are 50%-90% down from their peaks since going public.

Lastly, it's simply cheaper and easier to raise huge amounts of money without going public nowadays. Especially at a time when borrowing costs are still reasonable. Furthermore, selling your company to a larger competitor can provide synergies, and J.P. Morgan notes that more companies are opting to sell themselves rather than having to go through the turmoil of public markets.

These trends have impacted the available list of companies that exchange traded funds can buy. At present there are 2250 ETFs listed on the NYSE, another 2201 listed on the NASDAQ and approximately 4500 NYSE publicly-traded companies, a number which is down sharply from more than 14,000 in the 1990s.

Fewer companies held across multiple Exchange Traded Funds (ETFs) means that the price of these companies move more when

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investors trade those ETFs, and managers must sell-off the ETF components to manage redemptions.

The bottom line is that active management is becoming more difficult, which you can see by recent performance numbers for long-short hedge funds. A long-short hedge fund typically buys a company that they think will do well while selling a company in the same sector that they believe will not do so well. It is the core element in trading non-systematic risk and the dismal performance of hedge funds that follow this strategy provides evidence of how difficult stock picking has become.

Market Summary

INDEX	December 2018	Q1	Q2	Q3	Q4	2018
S&P/TSX Index Composite	-5.76%	-5.19%	5.92%	-0.92%	-11.20%	-11.64%
S&P 500 Composite	-9.18%	-1.22%	2.93%	7.14%	-13.93%	-6.24%
Nasdaq Composite	-9.48%	2.32%	6.33%	6.95%	-17.39%	-3.88%
MSCI EAFE	-4.96%	-2.20%	-2.34%	0.76%	-12.86%	-16.14%
MSCI Emerging Markets	-2.92%	1.07%	-8.66%	-2.02%	-7.85%	-16.64%
MSCI World	-7.71%	-1.74%	1.09%	4.53%	-13.74%	-10.44%
CBOE Volatility Index	40.68%	-0.96%	0.52%	-0.96%	109.74%	130.25%
FTSE TMX Bond Universe	1.35%	80.89%	-19.43%	-24.67%	1.76%	1.41%
Gold	4.51%	2.38%	-5.48%	-4.65%	7.11%	-1.17%
WTI Crude Oil Spot Price	-10.84%	7.41%	14.18%	-1.21%	-38.01%	-24.89%
CAD:USD FX	-1.73%	-1.24%	-1.50%	0.71%	-2.94%	-4.92%
RWI Income	-0.49%	-0.97%	2.03%	-0.99%	-1.14%	-1.11%
RWI Balanced	-1.52%	-0.48%	2.23%	-0.39%	-3.53%	-2.24%
RWI Growth	-3.06%	-0.90%	3.04%	0.31%	-5.94%	-3.66%

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