

### Economic Overview

The divergence between financial markets and the US economy continued to widen in December. Equities sold off and bonds rallied while the broad swath of data suggested a modestly slowing yet still robust US economy. Unemployment hovered near historically low levels, inflation was tame, manufacturing surveys pointed to continued expansion, housing cooled off from an aggressive pace, and importantly, the full extent of the 2017 tax reform act has yet to be realized. The real litmus test will be upcoming Q4 earnings reports which begin in earnest in a couple of weeks. Consumer confidence will be key going forward given the pullback in equities.

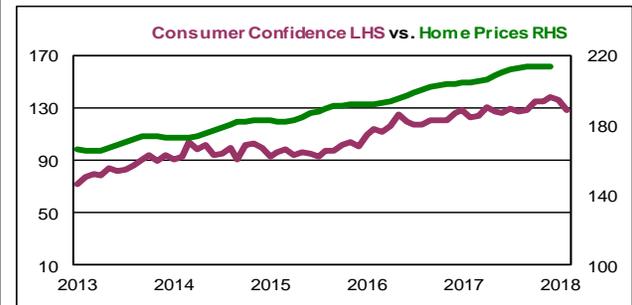
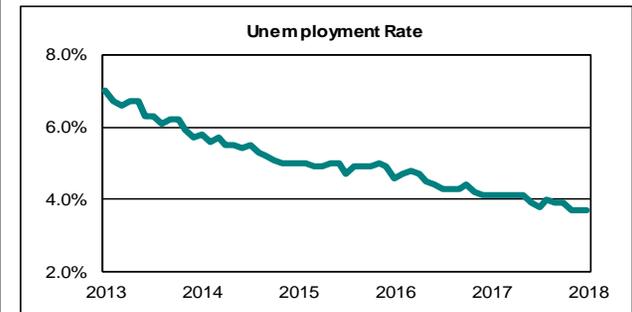
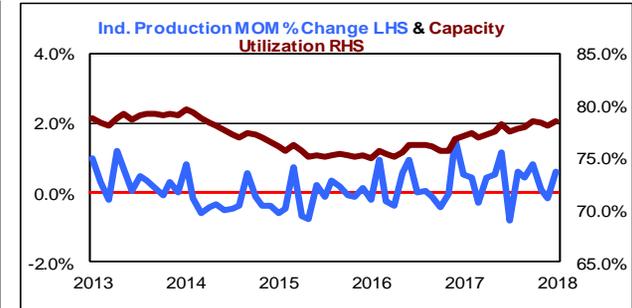
The Unemployment Rate for November held steady at 3.7% as 155k new jobs were created (slightly below estimates for +198k). Average Hourly Earnings ticked up by +0.2% and were up +3.1% YoY, matching estimates. Initial Jobless Claims ticked marginally higher, averaging 216k in December.

Consumer prices were unchanged in November while producer prices ticked up +0.1%. On an annual basis, CPI rose +2.2% while PPI edged higher by +2.5%. The PCE Deflator rose +0.1% in November and is up only +1.8% YoY.

The Markit US Manufacturing PMI for December came in at 53.9, down slightly from the prior months reading of 55.3, although still suggestive of an expanding US economy. Industrial Production for November edged up +0.6% (beating estimates for +0.3%) while Capacity Utilization came in at 78.5%.

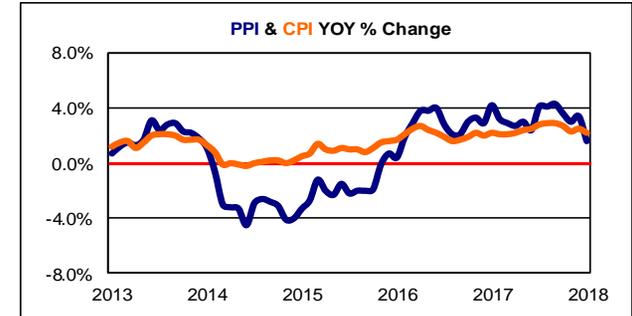
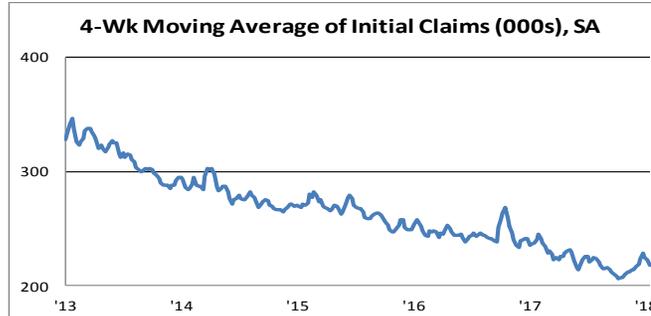
The S&P CoreLogic US Home Price Index continued to trend lower, however at +5.5% YoY suggested a still robust demand for housing. Declining interest rates throughout Q4 should help spur demand as we head into the spring selling season. Housing Starts, Building Permits and Existing Home Sales all edged up in November.

The Federal Reserve hiked short term interest rates by .25% in December, however they walked back slightly their rate forecast for 2019. It remains to be seen how changes to historically low short term rates affect the broader economy, but the future pace of tightenings will be critical to further growth in 2019.



#### Key Data Points

| Name                         | Current | For      | Previous | For       |
|------------------------------|---------|----------|----------|-----------|
| Retail Sales ex. Autos MOM % | 0.20%   | November | 1.00%    | October   |
| Housing Starts               | 1256K   | November | 1217K    | October   |
| Factory Orders MOM %         | -2.10%  | October  | 0.20%    | September |
| Leading Indicators MOM %     | 0.20%   | November | -0.30%   | October   |
| Unit Labor Costs             | 0.90%   | Q3 2018  | -2.80%   | Q2 2018   |
| GDP QOQ (Annualized)         | 3.40%   | Q3 2018  | 4.20%    | Q2 2018   |
| Wholesale Inventories        | 0.80%   | October  | 0.70%    | September |
| MBA Mortgage Applications    | -5.80%  | December | 2.00%    | November  |



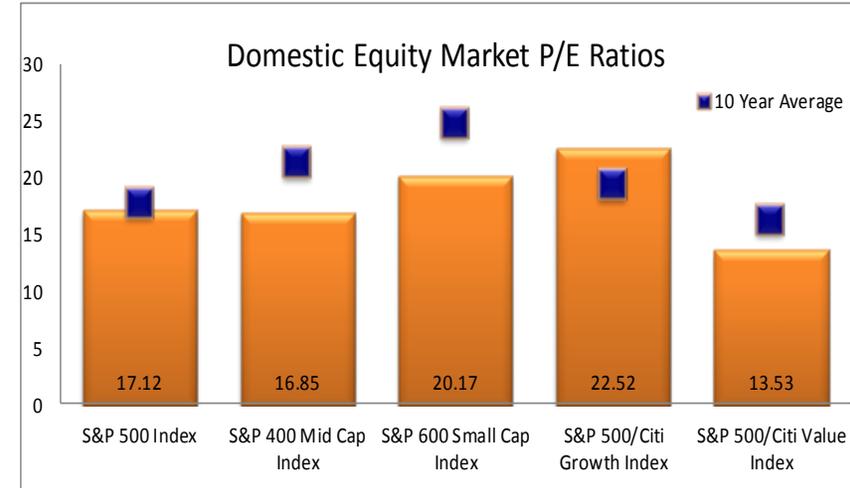
### Domestic Equity

U.S. Equities gave back their gains in the fourth quarter, reminding investors how quickly market sentiment can turn. U.S. Large-Caps, as measured by the S&P 500 index, lost -9.03% in December, as volatility surged and selling pressures intensified. Mid- and Small-Caps, as measured by the S&P 400 and 600 indices, were not far behind, losing -11.32% and -12.08%, respectively on the month. Large-Caps suffered their “worst” loss since 2008, with the benchmark S&P 500 index losing -4.39% on the year. Mid- and Small-Caps, underperformed Large-Caps for the year, returning -11.10% and -8.52%, respectively.

Growth sectors which had propelled the market higher over much of the nearly 9-year bull market stumbled the most, with the S&P 500 Citi Growth Index losing -14.71% in the fourth quarter. Their performance contrasts with Value stocks, as measured by the S&P 500 Citi Value Index, which lost -12.05% during the period. For the year, Growth and Value stocks diverged significantly in terms of performance, with Growth stocks largely flat compared to Value stocks’ -8.97% return.

From a sector standpoint, all 11 GICS sectors finished the month in negative territory. Value oriented sectors such as Energy, Financials, and Industrials were the worst performers in December, losing -12.67%, -11.28%, and -10.70%, respectively. December’s best performing sector was Utilities, down -4.02%. Utilities were also the quarter’s best performer, up +1.36% (the only positive sector performer) as defensive sector positioning took hold. For the year, defensive sectors reigned, with Healthcare the top performer up +6.47%, followed by Utilities and Consumer Discretionary, up +4.11% and +0.83%, respectively. Energy remained an underperformer as oil prices plummeted, losing -18.10% on the year. The Energy sector remains the worst performer over the past five years, returning an annualized -5.56%.

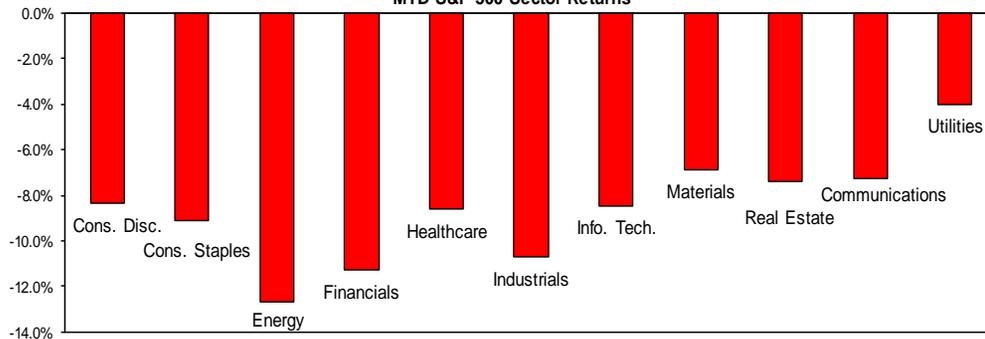
Lastly, a closer look at valuations highlights many opportunities for 2019. Bottom up consensus earnings estimates for 2019 currently stand at \$171.84, according to Bloomberg. At a recent 2,507 level on the S&P 500, that means U.S. Large-Cap stocks currently trade at a forward P/E of 14.6x, below its 15-year average of 16x. Value stocks look cheap as well, along with money center banks, some of which trade below book values. Mid- and Small-Cap multiples also look cheap, with forward P/E estimates of 14.2x and 16.5x, respectively. Current market prices likely already reflect fears of slower earnings growth, and at current prices long-term investors once again have an opportunity to invest in U.S. equities at attractive prices.



### Domestic Equity Returns

| Name                      | MTD     | QTD     | YTD     | 1 Year  | 3 Year | 5 Year |
|---------------------------|---------|---------|---------|---------|--------|--------|
| S&P 500 Index             | -9.03%  | -13.52% | -4.39%  | -4.39%  | 9.24%  | 8.48%  |
| S&P 400 Mid Cap Index     | -11.32% | -17.28% | -11.10% | -11.10% | 7.64%  | 6.01%  |
| S&P 600 Small Cap Index   | -12.08% | -20.12% | -8.52%  | -8.52%  | 9.38%  | 6.28%  |
| S&P 500/Citi Growth Index | -8.62%  | -14.71% | -0.01%  | -0.01%  | 10.83% | 10.54% |
| S&P 500/Citi Value Index  | -9.49%  | -12.05% | -8.97%  | -8.97%  | 7.22%  | 6.05%  |

### MTD S&P 500 Sector Returns



### S&P 500 Sector Returns

| Sector                  | MTD     | QTD     | YTD     | 1 Year  | 3 Year | 5 Year | % of S&P 500 |
|-------------------------|---------|---------|---------|---------|--------|--------|--------------|
| Consumer Discretionary  | -8.37%  | -16.42% | 0.82%   | 0.82%   | 9.54%  | 9.68%  | 10.35%       |
| Consumer Staples        | -9.11%  | -5.22%  | -8.39%  | -8.39%  | 3.09%  | 6.25%  | 8.21%        |
| Energy                  | -12.67% | -23.78% | -18.10% | -18.10% | 1.07%  | -5.56% | 5.17%        |
| Financials              | -11.29% | -13.12% | -13.04% | -13.04% | 9.24%  | 8.12%  | 12.84%       |
| Healthcare              | -8.62%  | -8.72%  | 6.47%   | 6.47%   | 8.14%  | 11.12% | 15.31%       |
| Industrials             | -10.73% | -17.32% | -13.32% | -13.32% | 7.62%  | 5.93%  | 9.26%        |
| Information Technology  | -8.46%  | -17.34% | -0.29%  | -0.29%  | 16.36% | 14.92% | 19.93%       |
| Materials               | -6.90%  | -12.31% | -14.70% | -14.70% | 7.21%  | 3.84%  | 2.71%        |
| Real Estate             | -7.41%  | -3.84%  | -2.23%  | -2.23%  | 3.10%  | 6.95%  | 2.89%        |
| Communication Services* | -7.29%  | -13.19% | -12.53% | -12.53% | 2.17%  | 2.58%  | 10.11%       |
| Utilities               | -4.02%  | 1.36%   | 4.11%   | 4.11%   | 10.71% | 10.74% | 3.22%        |

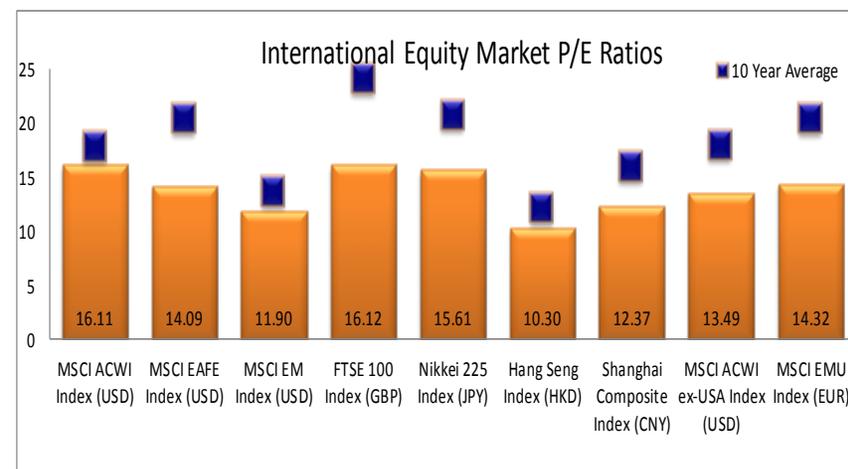
\*The S&P 500 Communication Services Sector was reclassified from the Telecommunications Sector on September 21st, 2018

### International Equity

International equities *outperformed* Domestic equities during December's market rout, despite posting small losses. Developed International equities, as measured by the MSCI EAFE Index, lost -4.83%, while the more volatile Emerging Markets equities, as measured by the MSCI EM Index, lost -2.81%. International equity returns were notably better than the S&P 500's -9.03% monthly loss. For the quarter, Developed International equities lost -12.49%, while Emerging Markets equities lost -7.60% – both *outperforming* the S&P 500's -13.52% loss. For the year, both segments of the international market underperformed domestic equities, with the MSCI EAFE and MSCI EM indices down -13.32% and -14.49%, respectively.

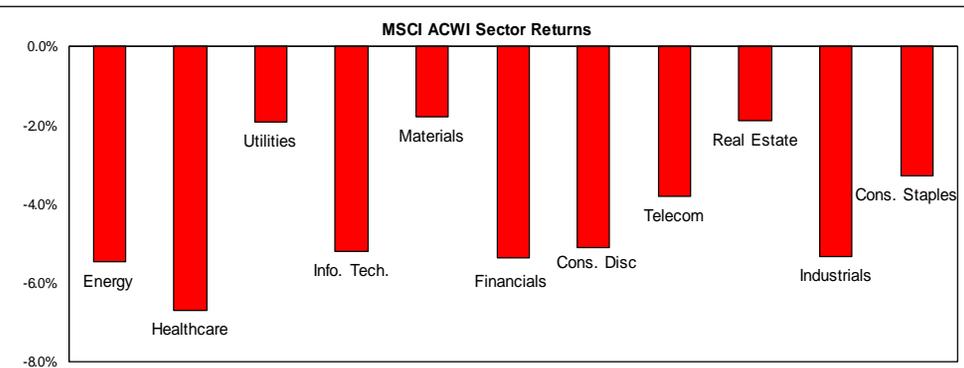
From a sector standpoint, all 11 GICS sectors finished the month of December in negative territory, with Healthcare the worst performer down -6.70%. For 2018, 10 of 11 sectors finished the year in negative territory, with Utilities the lone positive performer, up +2.43% for the year. In the Eurozone, the MSCI EMU index lost -5.86% in December, and -11.79% for the year (both in EUR terms) as political risks took center stage. Whether it was the yet unresolved Brexit saga, newly launched "yellow vest" protests in France, or the continued Italian budget drama, these political risks largely overshadowed trade issues plaguing the Eurozone with China (consumer) and the U.S (autos). Despite the known country specific risks, the real story of 2019 is the impending end to stimulus by the European Central Bank (ECB) and a potential hard Brexit. A Brexit resolution and an end to negative interest rates could once again attract capital flows to the Eurozone in 2019.

In China, the impact of trade wars was felt more directly, with the Shanghai Composite Index losing -22.74% YTD in CNY terms. Upcoming trade talks between China and the U.S. could pave the way for a reduction or removal of tariffs; however, the key for market sentiment is likely preventing an increase in current rates from 10% to 25%, which would be billed as a worst case scenario. While U.S./China tariffs have largely grabbed headlines, fears of an economic slowdown in China have taken a back seat (playing into the U.S. playbook), despite weakening manufacturing data and increasing levels of corporate debt. Chinese authorities, however, remain keen to these risks, vowing more fiscal stimulus in 2019, along with a likely reserve ratio cut to improve bank liquidity. A coming wave of passive investor cash is also coming to China in 2019, as index provider MSCI seeks to ramp China A share exposure in its benchmarks. Benchmark inclusion is yet another catalyst that could propel Emerging Markets in 2019 if trade issues are resolved, the U.S. Dollar weakens, or a rotation to international equities gathers steam. International equity valuations remain compelling in our views, with Emerging Markets potentially offering the greatest upside trading at 10.7x forward earnings.



### International Equity Returns

| Name                           | MTD     | QTD     | YTD     | 1 Year  | 3 Year | 5 Year |
|--------------------------------|---------|---------|---------|---------|--------|--------|
| MSCI ACWI Index (USD)          | -7.03%  | -12.67% | -8.95%  | -8.95%  | 7.19%  | 4.85%  |
| MSCI EAFE Index (USD)          | -4.83%  | -12.49% | -13.32% | -13.32% | 3.44%  | 1.10%  |
| MSCI EM Index (USD)            | -2.81%  | -7.60%  | -14.49% | -14.49% | 9.59%  | 1.96%  |
| FTSE 100 Index (GBP)           | -3.48%  | -9.61%  | -8.78%  | -8.78%  | 6.75%  | 3.86%  |
| Nikkei 225 Index (JPY)         | -10.33% | -16.91% | -10.39% | -10.39% | 3.64%  | 6.13%  |
| Hang Seng Index (HKD)          | -2.48%  | -6.73%  | -10.55% | -10.55% | 9.62%  | 5.92%  |
| Shanghai Composite Index (CNY) | -3.63%  | -11.57% | -22.74% | -22.74% | -9.08% | 5.72%  |
| MSCI ACWI ex-USA Index (USD)   | -4.55%  | -11.45% | -13.82% | -13.82% | 5.01%  | 1.20%  |
| MSCI EMU Index (EUR)           | -5.86%  | -12.63% | -11.98% | -11.98% | 1.71%  | 4.26%  |



### MSCI ACWI Ex U.S. Sector Returns

| Sector                  | MTD    | QTD     | YTD     | 1 Year  | 3 Year | 5 Year | % of ACWI |
|-------------------------|--------|---------|---------|---------|--------|--------|-----------|
| Energy                  | -5.48% | -16.16% | -7.40%  | -7.40%  | 12.84% | -1.64% | 7.77%     |
| Healthcare              | -6.70% | -11.15% | -5.66%  | -5.66%  | -0.67% | 2.34%  | 6.08%     |
| Utility                 | -1.92% | 0.92%   | 2.43%   | 2.43%   | 7.90%  | 6.00%  | 6.30%     |
| Information Technology  | -5.20% | -14.76% | -17.66% | -17.66% | 11.65% | 7.65%  | 6.73%     |
| Materials               | -1.78% | -13.38% | -15.62% | -15.62% | 12.78% | 0.13%  | 6.82%     |
| Financials              | -5.36% | -10.60% | -16.34% | -16.34% | 4.22%  | 0.52%  | 22.35%    |
| Consumer Discretionary  | -5.11% | -14.13% | -19.84% | -19.84% | 0.98%  | -0.10% | 10.94%    |
| Communication Services* | -3.81% | -5.47%  | -11.42% | -11.42% | -0.52% | -1.61% | 7.96%     |
| Real Estate**           | -1.88% | -3.76%  | -11.26% | -11.26% | N/A    | N/A    | 3.78%     |
| Industrials             | -5.33% | -13.67% | -14.88% | -14.88% | 5.66%  | 1.50%  | 11.31%    |
| Consumer Staples        | -3.27% | -7.42%  | -10.79% | -10.79% | 3.02%  | 2.58%  | 9.96%     |

\*The MSCI ACWI Ex U.S. Communication Services Sector was reclassified on November 30th, 2018 \*\*The MSCI ACWI Ex. USA Real Estate Sector was developed on August 31st, 2016

### Fixed Income

The past year proved quite volatile for financial markets in general. The Fixed Income markets were not immune from this volatility. Rates moved higher throughout most of 2018, putting downward pressure on bond prices. The Federal Reserve, led by Chairman Powell, raised the target rate four times, with the most recent increase on December 19th. The rate increase and following press conference were not well received by the markets. As worries of an economic slowdown have increased, the Fed came off as a bit tone-deaf. While they may have felt that it was prudent to continue on the path to higher rates, the press conference statement about the unwinding of the balance sheet could have been handled more delicately, letting the market know that the Fed remains data dependent in regards to monetary policy, instead of being on “autopilot.”

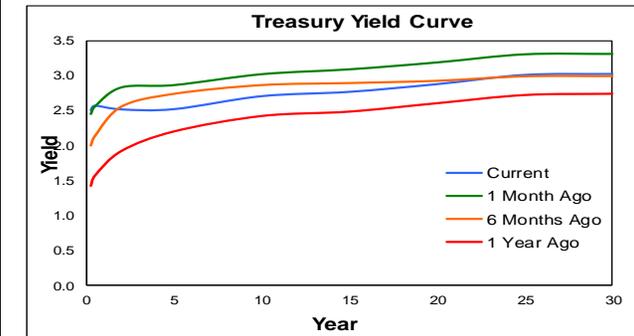
Yields declined on the month, falling roughly 30 basis points across the Treasury yield curve on maturities of two years and greater. The yield curve remains quite flat. While the 2Y10Y spread is still positive, and off its lows, we have seen a kink form in the curve. The one-year Treasury (2.60%) is yielding more than the two (2.50%), three (2.47%), five (2.50%), and seven (2.57%) year Treasury bonds. The 2Y10Y inversion has been avoided thus far, but the curve movement is a concern, and is being monitored closely.

Government bond exposure performed best in the month. As yields declined, duration (interest rate sensitivity) was a positive performance driver. Credit exposure acted to offset duration based gains, as spreads widened amongst Investment Grade bonds and Emerging Market Sovereign bonds. This trend of spread widening has seemed to gain momentum through the fourth quarter of 2018. Spread widening was particularly pronounced in High Yield bonds. As Investment Grade and EM spreads gradually widened through most of 2018, High Yield spreads displayed strength, holding fairly steady. In the final quarter of 2018, this strength dissipated, and High Yield spreads moved sharply wider, catching up to the movement in other risk assets.

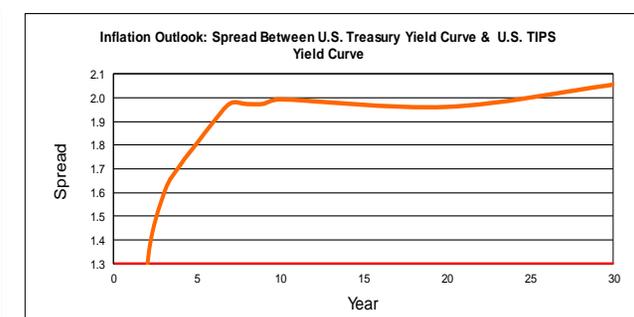
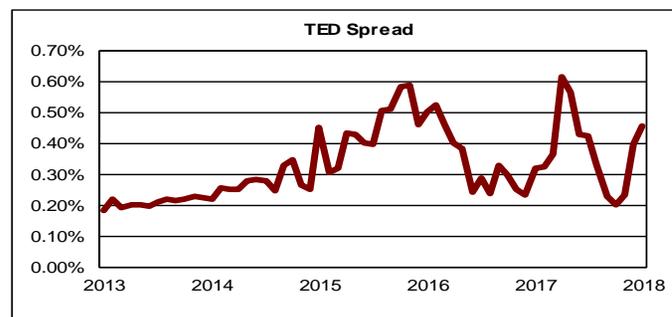
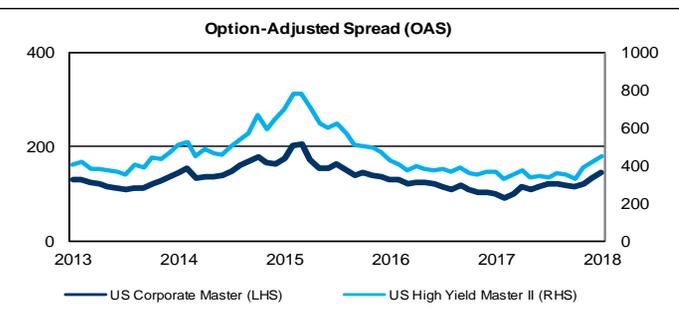
Municipal bonds performed positively in the month, although their yields did not decline as much as Treasury yields did, leading to moderate underperformance. This resulted in Muni yields relative to Treasury yields becoming slightly more attractive at year-end vs. a month earlier.

| Central Bank Activity              |         |             |              |            |
|------------------------------------|---------|-------------|--------------|------------|
| Name                               | Current | 1 Month Ago | 6 Months Ago | 1 Year Ago |
| Fed Funds Rate                     | 2.50%   | 2.25%       | 2.00%        | 1.50%      |
| Bank of Japan Target Rate          | 0.10%   | 0.10%       | 0.10%        | 0.10%      |
| European Central Bank Rate         | 0.00%   | 0.00%       | 0.00%        | 0.00%      |
| Bank of England Official Bank Rate | 0.75%   | 0.75%       | 0.50%        | 0.50%      |

| Fixed Income Returns                               |        |        |        |        |
|--|--------|--------|--------|--------|
| Name   | MTD    | QTD    | YTD    | 1 Year |
| Bloomberg Barclays US Government Index             | 2.13%  | 2.54%  | 0.88%  | 0.88%  |
| Bloomberg Barclays US Agg Index                    | 1.84%  | 1.64%  | 0.01%  | 0.01%  |
| Bloomberg Barclays US Corporate Index              | 1.47%  | -0.18% | -2.51% | -2.51% |
| Bloomberg Barclays US Corporate High Yield Index   | -2.14% | -4.53% | -2.08% | -2.08% |
| Bloomberg Barclays EM USD Agg Index                | 1.37%  | -0.18% | -2.46% | -2.46% |
| Bloomberg Barclays Global Agg Treasuries USD Index | 1.58%  | 2.36%  | 2.82%  | 2.82%  |
| Bloomberg Barclays Municipal Index                 | 1.20%  | 1.69%  | 1.28%  | 1.28%  |



| U.S. Treasury Yields |         |         |        |        |         |         |         |         |         |
|----------------------|---------|---------|--------|--------|---------|---------|---------|---------|---------|
| Period               | 3 Month | 6 Month | 2 Year | 5 Year | 10 Year | 15 Year | 20 Year | 25 Year | 30 Year |
| Current              | 2.50%   | 2.57%   | 2.51%  | 2.52%  | 2.70%   | 2.76%   | 2.87%   | 3.01%   | 3.02%   |
| 1 Month Ago          | 2.45%   | 2.56%   | 2.83%  | 2.86%  | 3.02%   | 3.09%   | 3.18%   | 3.30%   | 3.31%   |
| 6 Months Ago         | 2.00%   | 2.14%   | 2.55%  | 2.74%  | 2.86%   | 2.89%   | 2.92%   | 2.99%   | 2.99%   |
| 1 Year Ago           | 1.42%   | 1.57%   | 1.92%  | 2.20%  | 2.42%   | 2.48%   | 2.60%   | 2.72%   | 2.74%   |



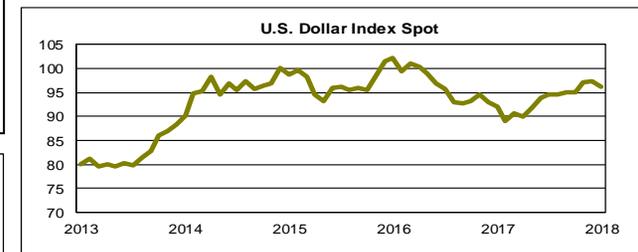
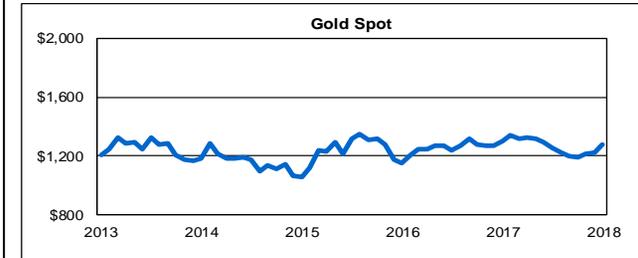
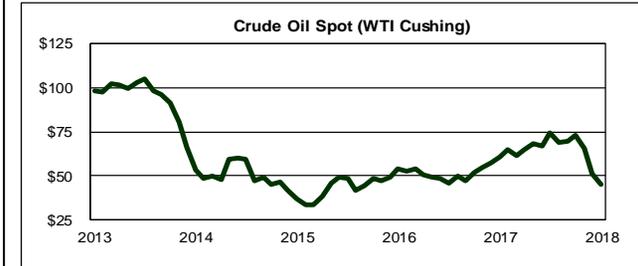
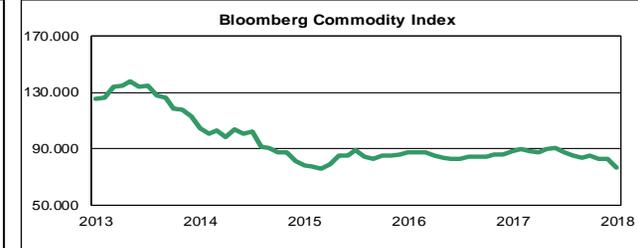
### Alternative Investments

Alternative investments largely lost value in December, save for safe haven assets such as Gold, which rose +4.9% on the month to close at \$1,282/ounce. Gold finished the year down -\$21/ounce, or -1.6%, despite a stronger U.S. Dollar (the DXY Index gained +4.4% YTD) and falling inflation expectations, proving its worth during periods of market volatility.

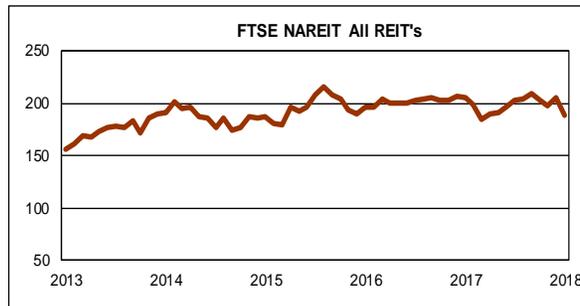
Volatility surged in the fourth quarter, with the CBOE Volatility Index, better known as the VIX, more than doubling. For the year, volatility rose more +130.25%, with the VIX *only* closing at 25.42 to end the year, not much above its 20-year average of 19.94. What's more, the VIX had spiked as high as 36.2 during the month, which would have represented nearly a doubling of volatility intra-month. For reference, the VIX index closed at 11.04 in 2017, a year which was marked by record low measures of volatility.

Real Estate Investment Trusts (REITs), as measured by the FTSE NAREIT All REIT Index, lost -8.5% in December, largely in line with the S&P 500 REIT sector's decline of -7.41%, and the broader S&P 500 index's -9.03% return. Commodities, as measured by the Bloomberg Commodities Index, lost -7.1% in December, thanks largely to a plunge in crude oil prices. West Texas Intermediate (WTI) crude oil lost -10.8% on the month to close at \$45/barrel. What's more is the -38.8% plunge in WTI prices during the fourth quarter, from \$73.25/barrel (the highest monthly close since 2014) to levels not seen since 2016. Rising U.S. production (up nearly 2 million barrels per day in 2018), slowing global growth, and more waivers on Iranian Sanctions than expected in November are likely culprits for oil's decline. The steep decline in oil prices could be a boon to the U.S. consumer, with the AAA National Average gas price coming in at \$2.25/gallon, and below \$2.00/gallon in nine states, representing a nearly -10% discount from a year ago, and a far cry from the \$4.11 average price per gallon in 2008.

On average, Hedge Funds failed to perform in 2018, with all strategies posting negative returns. Six of ten strategies outperformed the S&P 500, but with fees included investors were likely not better off. Bitcoin, last year's hot crypto craze, fell -78.1% from a high of \$16,753.23 in early January to \$3,674.18 to close out 2018, according to Bloomberg's XBTUSD Currency Cross Rate.



| Hedge Funds              |        |        |         |         |        |        |
|--------------------------|--------|--------|---------|---------|--------|--------|
| Name                     | MTD    | QTD    | YTD     | 1 Year  | 3 Year | 5 Year |
| Global Hedge             | -2.23% | -5.85% | -7.01%  | -7.01%  | 0.34%  | -0.65% |
| Convertible Arbitrage    | -1.25% | -2.45% | -1.28%  | -1.28%  | 3.83%  | 0.27%  |
| Distressed Securities    | -1.70% | -4.34% | -9.69%  | -9.69%  | 3.69%  | -0.09% |
| Equity Hedge (L/S)       | -4.56% | -8.91% | -9.73%  | -9.73%  | -0.21% | -0.31% |
| Equity Market Neutral    | -0.75% | -2.99% | -3.47%  | -3.47%  | -2.31% | 0.37%  |
| Event Driven             | -2.10% | -7.39% | -12.50% | -12.50% | 1.15%  | -1.56% |
| Macro                    | 0.78%  | -2.08% | -3.23%  | -3.23%  | -1.25% | -0.13% |
| Merger Arbitrage         | -0.53% | -0.24% | -2.05%  | -2.05%  | 1.46%  | 2.96%  |
| Relative Value Arbitrage | -1.92% | -3.58% | -1.06%  | -1.06%  | 1.23%  | -0.53% |
| Absolute Return          | -1.21% | -1.73% | -0.74%  | -0.74%  | 0.97%  | 1.31%  |



| Spot Rates  |         |             |              |              |            |
|-------------|---------|-------------|--------------|--------------|------------|
| Description | Current | 1 Month Ago | 3 Months Ago | 6 Months Ago | 1 Year Ago |
| CAD / USD   | 1.36    | 1.33        | 1.29         | 1.31         | 1.26       |
| JPY / USD   | 109.69  | 113.57      | 113.70       | 110.76       | 112.69     |
| USD / GBP   | 1.28    | 1.27        | 1.30         | 1.32         | 1.35       |
| USD / EUR   | 1.15    | 1.13        | 1.16         | 1.17         | 1.20       |



**S&P 500 Index (SPX)** – Standard and Poor’s 500 Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

**S&P 500 Sector Indices (S5COND, S5CONS, S5ENRS, S5FINL, S5HLTH, S5INDU, S5INFT, S5MATR, S5TELS, S5UTIL, S5RLST)** – The S&P 500 is broken down into ten sub-indices according to the Global Industry Classification Standard (GICS) sectors. These ten sectors include Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Communication Services, Utilities, and Real Estate.

**S&P 400 Mid Cap Index (MID)** – Standard and Poor’s Mid Cap 400 Index is a capitalization-weighted index, which measures the performance of the mid-range sector of the U.S. stock market.

**S&P 600 Small Cap Index (SML)** – Standard & Poor’s Small Cap 600 Index is a capitalization-weighted index that measures the performance of selected U.S. stocks with a small market capitalization.

**S&P 500/Citigroup Growth Index (SGX)** – The S&P 500/Citigroup Growth Index is a market capitalization-weighted index. All the stocks in the underlying parent index are allocated into value or growth. Stocks that do not have pure value or pure growth characteristics have their market caps distributed between the value & growth indices.

**S&P 500/Citigroup Value Index (SVX)** – The S&P 500/Citigroup Value Index is a market capitalization-weighted index. All the stocks in the underlying parent index are allocated into value or growth. Stocks that do not have pure value or pure growth characteristics have their market caps distributed between the value & growth indices.

**MSCI AC World Index (MXWD)** – The MSCI AC World Index is a free float-weighted equity index. The index includes both emerging and developed world markets.

**MSCI EAFE Index (MXEA)** – The MSCI EAFE Index is a capitalization-weighted index that monitors the performance of stocks from developed markets in Europe, Australia-Asia, and the Far East.

**MSCI Emerging Market Index (MXEF)** – The MSCI Emerging Market Index is a free-float weighted index that is designed to measure the equity performance of international emerging markets.

**FTSE 100 Index (UKX)** – The FTSE 100 Index is a capitalization-weighted index of the 100 most highly capitalized companies traded on the London Stock Exchange. The equities use an investability quotient weighting in the index calculation.

**Nikkei 225 Stock Average Index (NKY)** – The Nikkei-225 Stock Average is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange.

**Hang Seng Index (HSI)** – The Hang Seng is a free-float capitalization-weighted index of selected companies from the Stock Exchange of Hong Kong. The components of the index are divided into four sub-indices: Commerce and Industry, Finance, Utilities, and Properties.

**Shanghai Stock Exchange Composite Index (SHCOMP)** – The Shanghai Stock Exchange Composite Index is a capitalization-weighted index. The index tracks the daily price performance of all A-shares and B-shares listed on the Shanghai Stock Exchange.

**S&P Global 1200 Index (SPGLOB)** – The S&P Global 1200 Index is a composite index, comprised of seven regional and country indices – S&P 500, S&P Europe 350, S&P/TOPIX 150 (Japan), S&P TSX 60 (Canada), S&P/ASX 50 (Australia), S&P Asia 50, and S&P Latin America 50. The S&P Global 1200 is calculated in US dollars. The index is market-cap weighted.

**Bloomberg Barclays Global Treasuries USD Hedged Index (LGTTRUH)**– The Bloomberg Barclays Global Treasury Index tracks fixed-rate, local currency government debt of investment grade countries. The index represents the treasury sector of the Global Aggregate Index and contains issues from 37 countries denominated in 24 currencies.

**Bloomberg Barclays Municipal Bond Index (LMBITR)**– The Bloomberg Barclays Municipal Bond Index covers the USD-denominated long-term tax exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and prerefunded bonds.

**Bloomberg Barclays EM Hard Currency Aggregate Index (LG20TRUU)**- The Bloomberg Barclays Emerging Markets Hard Currency Aggregate Index is a hard currency Emerging Markets debt benchmark that includes USD-denominated debt from sovereign, quasi-sovereign, and corporate EM issuers.



**Bloomberg Barclays U.S. Government Index-** Bloomberg Barclays US Government Bond Index is comprised of the US Treasury and US Agency Indices. The index includes US dollar-denominated, fixed-rate, nominal US Treasuries and US agency debentures (securities issued by US government owned or government sponsored entities, and debt explicitly guaranteed by the US government).

**Bloomberg Barclays U.S. Aggregate Bond Index (LBSTRUU)-** The Bloomberg Barclays US Aggregate Bond Index is a broad-based benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency).

**Bloomberg Barclays U.S. Corporate Index (LUACTRUU)-** The Bloomberg Barclays US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

**Bloomberg Barclays U.S. Corp High Yield Index (LFTR ML U.S. Corporate Index (COA0) –** The Bloomberg Barclays US Corporate High Yield Bond Index measures the USD-denominated, high yield, below-investment grade fixed-rate corporate bond market.

**ML U.S. Corporate Index (COA0) –** The Merrill Lynch U.S. Corporate Index tracks the performance of U.S. dollar denominated investment grade corporate debt publicly issued in the U.S. domestic market.

**ML U.S. High Yield Index (HOA0) –** The Merrill Lynch U.S. High Yield Index tracks the performance of U.S. dollar denominated below investment grade corporate debt publicly issued in the U.S. domestic market.

**FTSE NAREIT All REITs Index (FNAR) –** The FTSE NAREIT All REITs Index is a free float adjusted market capitalization-weighted index that includes all tax qualified REITs listed in the NYSE, AMEX, and NASDAQ National Market.

**Dow Jones UBS Commodity Index (DJUBS) –** The Dow Jones UBS Commodity Index is composed of futures contracts on 19 physical commodities. It reflects the return of underlying commodity futures price movements only. Previously, the index was the Dow Jones AIG Commodity Index.

**U.S. Dollar Index (DXY) –** The U.S. Dollar Index (USDXY) indicates the general int'l value of the USD. The USDXY does this by averaging the exchange rates between the USD and 6 major world currencies. The ICE US computes this by using the rates supplied by some 500 banks.

**HFRX Global Hedge Fund Index (HFRXGL) –** The HFRX Global Hedge Fund Index is designed to be representative of the overall composition of the hedge fund universe. It is comprised of all eligible hedge fund strategies.

**HFRX Convertible Arbitrage Index (HFRXCA) –** The HFRX Convertible Arbitrage Index is designed to reflect the general performance of strategies in which the investment thesis is predicated on realization of a spread between related instruments in which one or multiple components of the spread is a convertible fixed income instrument.

**HFRX Distressed Securities Index (HFRXDS) –** The HFRX Distressed Securities Index is designed to reflect the general performance of strategies focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance of obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

**HFRX Macro Index (HFRXM) –** The HFRX Macro Index reflects the general performance of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency, and commodity markets.

**HFRX Equity Hedge Index (HFRXEH) –** The HFRX Equity Hedge Index is designed to reflect the general performance of strategies that maintain both long and short positions in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques. Strategies can be broadly diversified or narrowly focused.

**HFRX Equity Market Neutral Index (HFRXEMN) –** The HFRX Equity Market Neutral Index is designed to reflect the general performance of strategies that employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities.

**HFRX Event Driven Index (HFRXED) –** The HFRX Event Driven Index reflects the general performance of strategies that maintain positions in companies currently or prospectively involved in corporate transactions of a wide variety including, but not limited to, mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance, or other capital structure adjustments.

**HFRX Merger Arbitrage Index (HFRXMA) –** The HFRX Merger Arbitrage Index reflects the general performance of strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are current engaged in a corporate transaction.

**HFRX Relative Value Arbitrage Index (HFRXRVA)** – The HFRX Relative Value Arbitrage Index reflects the general performance of strategies that maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

**Economic Data Sources:**

**PPI & CPI** – Bureau of Labor Statistics  
**Unemployment Rate** – Bureau of Labor Statistics  
**Consumer Confidence** – Conference Board  
**S&P/Case-Shiller Composite 20** – Case-Shiller  
**Industrial Production** – Federal Reserve  
**Capacity Utilization** – Federal Reserve  
**Retail Sales** – U.S. Census Bureau  
**Housing Starts** – U.S. Department of Commerce  
**Factory Orders** – U.S. Census Bureau  
**Leading Indicators** – Conference Board  
**Unit Labor Costs** – Bureau of Labor Statistics  
**GDP** – Bureau of Economic Analysis  
**Wholesale Inventories** – U.S. Census Bureau  
**MBA Mortgage Applications** – Mortgage Bankers Association  
**4-Week Moving Average of Initial Claims, SA** – Bureau of Labor Statistics

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