Market Update

Summary

Economic Overview

- **The Global economy** continued to decline in the fourth quarter, with China leading the slowdown in other major economies.
- **The US economy** began to show signs of weakness in the fourth quarter, after diverging from the rest of the world and delivering robust growth in the third quarter.
- **The Developed Market economies** saw deteriorating growth in the fourth quarter, due to softer global demand and global trade conflict concerns.
- **The Emerging Market economies** continue to face headwinds due to a strengthening US Dollar, trade tensions, and geopolitical concerns.
- **The Gross Domestic Product** forecast is 2.8% for the fourth quarter, down from 3.4% in the third quarter, according to the *GDPNow* model.
- **Inflation** was mixed, with headline CPI inflation falling to 1.9% and core CPI firming at 2.2% in December, but overall inflationary pressures still support the Federal Reserve's hawkish stance to continue raising interest rates.
- **The Federal Reserve** raised the target range for the fed funds rate by 0.25% in December to 2.25% - 2.50%, which was expected by market participants.

Capital Markets

- **Global equity markets** suffered significant losses during the fourth quarter, as a confluence of risk factors rattled global financial markets.

Market Snapshot	Quarter	YTD	1 year	3 years	5 years
S&P 500	-13.52%	-4.38%	-4.38%	9.26%	8.49%
Dow Jones Industrial Average	-11.31%	-3.48%	-3.48%	12.94%	9.70%
NASDAQ Composite	-17.29%	-2.84%	-2.84%	11.10%	10.97%
Russell 2000	-20.20%	-11.01%	-11.01%	7.36%	4.41%
MSCI EAFE	-12.54%	-13.79%	-13.79%	2.87%	0.53%
Bloomberg Barclays Capital U.S. Aggregate	1.64%	0.01%	0.01%	2.06%	2.52%
FTSE 3 Month US T Bill	0.57%	1.86%	1.86%	0.99%	0.60%

*Source: Zephyr Associates Inc. Past performance is not indicative of future results.

- **The US equity market** saw all major indices decline in the fourth quarter due to a lower earnings outlook, signs of slower US economic growth, trade disputes with China, and concerns about the Fed's tightening.
- **International equity markets** declined along with the US as all global major indices suffered negative returns this quarter, but in contrast to recent periods, emerging markets outperformed relative to developed markets.
- **The US Treasury yield curve** partially inverted during the quarter due to tightening monetary policy and lower economic growth prospects.
- **The US bond market** was mixed this quarter, with government bonds rising and investment grade/high yield declining during a risk-off environment.

Outlook

- The US economy showed signs of weakness in the fourth quarter, and its capital markets underperformed the rest of the world.
- It remains to be seen whether the US will enter a recession, and the current government shutdown clouds the economic outlook, but sustained growth in wage inflation could constrain the Fed's flexibility to manage a recession.

Economic Overview

Global economic growth continued to decline in the fourth quarter. China's economy, which roughly makes up one-third of global economic growth, continued to decelerate despite recent stimulus efforts, and led the slowdown in other major economies. The US economy, which diverged from the rest of the world and delivered robust growth in the third quarter, began to show signs of weakness. Despite the softer US economic growth outlook, the Federal Reserve continued to tighten. The confluence of these factors has caused steep sell-offs in global risky assets and a downgrade in global economic growth prospects. According to the World Economic Outlook report published in January 2019, the International Monetary Fund (IMF) expects that the global economy will grow at 3.5% this year, 0.2% lower than what was forecasted in October. The negative revisions reflect slower growth in major economies and ongoing global trade disputes.

US Economy

US economic activity slowed down in the fourth quarter, in sync with the slowing of other developed economies. While full economic data were not released due to the government shutdown, available indicators such as manufacturing activity and business sentiments showed slower growth during the quarter.

Specifically, underlying economic activity started to decelerate, as reflected in both manufacturing and service numbers from the Institute for Supply Management (ISM) (see the *US Business Outlook* chart). US manufacturing activity fell to 54.1 in December, down further from 59.3 in November, reaching a two-year low. While 11 out of 18 sectors continued to expand in December, growth came at much lower levels. Key areas such as new orders and production all dropped during the quarter due to concerns related to a trade war and gloomier global economic prospects. New orders declined sharply by 11 points and came close to the 50-point threshold. The ISM surveys poll supply managers on their business prospects and are closely watched because they have been one of the most reliable leading indicators. Despite the recent declines, the index remains well above the 50-point threshold that separates expansion from contraction in the US manufacturing economy.

The service sector, which makes up about 80% of US Gross Domestic Product (GDP), experienced a slowdown in December as well. The non-manufacturing ISM survey, the measure of economic movement in the service sector, dropped to 57.6 in December from 60.7 in November, missing the consensus estimate of 59.0. While the overall survey continues to show a positive outlook, concerns over global trade conflicts and higher interest rates weighed on sentiments, in line with the manufacturing ISM survey.

US Business Outlook

Represented by the Institute for Supply Management (ISM)'s Purchasing Managers Index (PMI)

Source: Institute For Supply Management

The labor market, however, has continued to show resilience. US non-farm payroll employment rose by 312,000 in December, well above market expectations of a 176,000 increase after the weak result of 155,000 in November. Strong job gains in the service sector such as health care and food services helped to boost the number. Previous two-month results were revised up by 58,000 as well. For the quarter, the report continues to depict strong labor market conditions. Job gains have averaged 254,000 during the quarter, with 98 consecutive months of positive month-over-month growth, adding to evidence that the economy is near full employment. The jobless rate, however, increased by 0.2% to 3.9% in December from 3.7% in November. The unexpected increase appears to be due to a rise in the labor force participation rate to 63.1% in December from 62.9% in November. The strong growth in the labor market came amid concerns over a slowdown in US economic growth. Average hourly earnings, a measure of labor costs, increased 3.2% year-over-year in December, exceeding the market expectation of a 3.0% rise. The increase was broad-based. The robust labor market and continued strength in wage growth help reinforce the Federal Reserve's hawkish stance toward inflation. Overall, as labor market indicators tend to lag business sentiment data, these combined results show that the US economy may be entering a late market cycle where growth slows down but inflation remains firm.

Developed Market Economies

Eurozone economic growth deteriorated further in the fourth quarter, as manufacturing activity slowed down due to softer global demand and concerns over global trade conflicts. Eurozone industrial production fell to -3.3% on an annualized basis in November, far below market expectations of -2.1%. Germany's GDP, which accounts for one-third of Eurozone economic output, contracted in the third quarter and narrowly avoided a recession by growing weakly in the fourth quarter. Economic sentiment, represented by the Eurozone Composite Purchasing Managers Index (PMI), declined to 51.1 in December from 52.7 in November, continuing its downward trend this year since its peak of 58.8 in January 2018. On a positive note, the unemployment rate continued to drop to 7.9% in November, the lowest level since 2008, representing tight labor market conditions. The Eurozone headline Consumer Price Index (CPI) fell to 1.6% year-over-year in December, down from 1.9% reported in November, below the European Central Bank (ECB)'s medium-term target level of near-but-below 2%. The decline was mainly due to a sharp fall in energy prices. Core inflation, which excludes volatile food and energy prices and which the ECB monitors closely as it reflects domestic fundamentals, was unchanged at 1.0% from the previous month. This disappointed ECB policymakers, who expected strength in the core rate on the back of an upward trend in wage growth. The ECB ended its quantitative easing program in 2018, partly in anticipation of a stronger economy.

Japan's economy also slowed down during the quarter. The latest manufacturing data suggest a negative impact from softer global demand, especially from China. CPI fell to 0.3% year-over-year in December, a decrease from 0.8% in November. Core CPI declined to 0.7% in December from 0.9% in November, slightly below the consensus estimate of 1.0%. While labor market conditions remained tight, slowing economic growth and a low inflation trend, far below the Bank of Japan (BOJ)'s 2% target level, caused the BOJ to continue to hold its ultra-loose monetary policy steady.

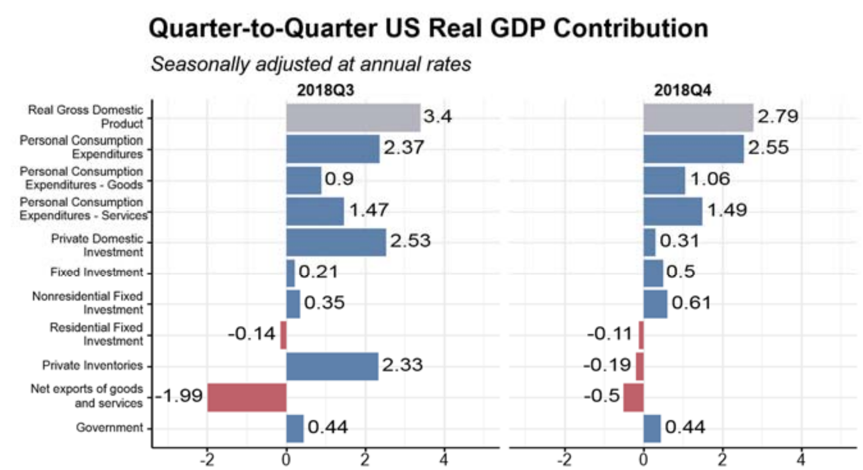
Emerging Market Economies

China's economy, the world's second largest, is believed to have grown at 6.4% in the fourth quarter, the lowest reading since 1991. Despite the government's various stimulus efforts, China's domestic economic activity declined during the quarter. By the end of the quarter, both exports and imports dropped to the worst levels since 2016 in US Dollar terms, reflecting potential impacts from trade conflicts with the US, and more importantly, slower growth in domestic demand. Other key emerging economies such as Brazil and India also continued to experience slowdowns as well. Emerging economies have faced headwinds in recent periods due to a strengthening US Dollar, trade tensions, and geopolitical concerns.

Gross Domestic Product (GDP)

The annualized growth rate is estimated to be 2.8% for October through December, down from 3.4% in the third quarter, according to the Federal Reserve Bank of Atlanta's *GDPNow* forecast model announced on January 10, 2019. The *GDPNow* model mimics the data construction methodology used by the Bureau of Economic Analysis (BEA), and provides a "nowcast" of GDP growth that aims to address the lagged nature of the BEA's estimates of GDP, which are released in stages over the course of several months.

Consumer spending, which accounts for more than two-thirds of US GDP, contributed 2.6% to the GDP growth rate. Strong wage growth and high consumer confidence appeared to help private consumption. After strong growth in the third quarter, capital spending, represented by private domestic investment, contributed only 0.3% to the GDP growth rate. Private Inventories subtracted -0.2% this quarter after strong performance in the previous quarter. The negative contribution from net exports was only -0.5% this quarter versus -2.0% in the third quarter, offsetting the negative effect from Private Inventories data. The front-loading effect of avoiding anticipated US tariffs seemed to have affected both items previously, but has now faded. While US economic strength remains resilient relative to the rest of the world, with the fiscal stimulus effect fading and a trade war with China, US economic growth decelerated during the quarter (see the *Quarter-to-Quarter US Real GDP Contribution* chart).



Source: U.S. Bureau of Economic Analysis and Federal Reserve Bank of Atlanta
Note: Graph shows contributions to Percent Change in Real Gross Domestic Product and the current quarter contributions are estimates from GDPNow model.

Inflation

The headline CPI inflation rate fell to 1.9% in December from 2.2% in November, mainly due to a decline in gasoline costs. Core CPI inflation remained firm and climbed 2.2% in December, the same pace as in November and in line with expectations. The increase was mainly attributable to a steady increase in shelter costs, which make up one-third of the CPI, as well as recreation and medical care. The Fed's preferred gauge of inflation, the core PCE Index, which excludes volatile food and energy components, came in at 1.9% year-over-year in November from 1.8% in October. Despite slow global growth and a strong US Dollar, core inflation has remained firm. With tight labor market conditions boosting wage growth, core inflation could continue to accelerate, which may leave the Fed little room to maneuver, despite its cautiousness about further monetary tightening. Economists expect that if wage growth, represented by average hourly earnings growth, reaches 3.0% on a sustained basis, labor cost pressures will push core PCE inflation above 2.0% (see the *US Inflation Outlook* chart), possibly justifying additional rate hikes.

US Inflation Outlook

Inflation measures declined but wage growth remained firm.

Source: U.S. Bureau of Economic Analysis

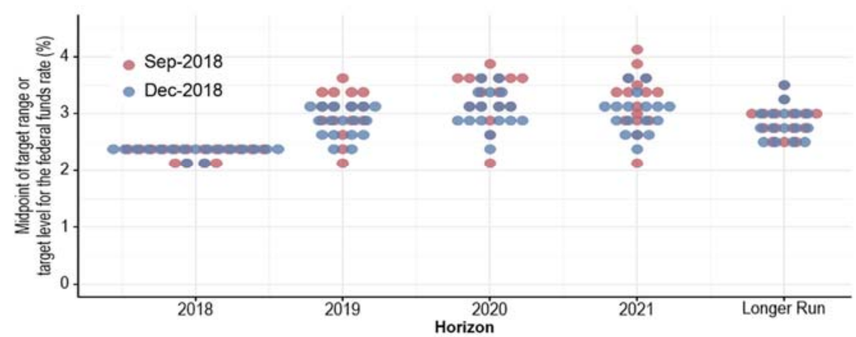
Federal Reserve Policy

The Federal Open Market Committee (FOMC) raised the target range for the fed funds rate for the fourth time this year by 0.25% on December 19th, to 2.25% - 2.50%. Since the rate hike was already expected, market participants focused more on the Fed's communication on its future hiking cycle and the "dot plot," which it uses to signal its outlook for future target interest rates.

According to the FOMC "dot plot" (see the *FOMC participants' assessments* chart), the distribution of participants' assessments in the December meeting (blue dots) skewed lower relative to the September meeting (pink dots) for the years 2019 and 2020, due to elevated volatility in financial markets and the slowdown in global economic growth. The median projection signaled a slower approach to tightening going forward. The committee members projected just two rate hikes in 2019, down from three forecasted in the September meeting, bringing the median fed funds rate to 2.9% by the end of 2019. It also projected one more hike in 2020, bringing the median fed funds rate to 3.1% by the end of 2020, from 3.4% previously. The median long run rate, the so-called "neutral rate," stood at 2.8%, down from 3.0%. The committee members' softer stance on future rate hike plans, however, was not dovish enough to calm the financial markets, and risky assets suffered an accelerated sell-off. To appease the markets, several FOMC members expressed by early January that they may pause further rate hikes and balance sheet unwinding.

FOMC participants' assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate

December 2018



Source: Federal Reserve Board Note: Each shaded circle indicates the value (rounded to the nearest 1/8 percentage point) of an individual participant's judgment of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run.

Capital Markets

Equities

Global equity markets, represented by the MSCI World Equity Index, suffered a loss of -13.42% during the fourth quarter, and finished the year at -8.71% return. A confluence of risk factors rattled global financial markets: a disappointing earnings growth outlook, signs of a synchronized global economic slowdown, Europe's political turmoil, and the ongoing liquidity withdrawal by the Federal Reserve.

In the US, all major indices dropped due to a lower earnings outlook, signs of slower US economic growth, trade disputes with China, and concerns about the Fed's tightening. The Dow Jones Industrial Average finished the quarter with a loss of -11.31%, and finished the year at -3.48%; the S&P 500 lost -13.52%, and ended the year with a total return of -4.38%; the NASDAQ Composite dropped by -17.29% in the fourth quarter, and finished the year at -2.84% return; and the Russell 2000 lost -20.20% for the quarter and -11.01% for the year (see the *Index Returns* table on p. 8).

Within US equity markets, large cap stocks outperformed small cap stocks in relative terms in a risk-off environment, both during the quarter and the year. Value outpaced growth across all market capitalizations during the quarter due to concerns over slowing economic growth, but the opposite prevailed for the year. The Russell 1000 Value Index of large cap value stocks outperformed the Russell 1000 Growth Index by +4.17%, but it underperformed by -6.76% for the year. The Russell Midcap Value Index exceeded the Russell Midcap Growth Index by +1.04%, but the difference was -7.54% for the year. Small value stocks in the Russell 2000 Value Index lost -18.67% relative to -21.65% by the Russell 2000 Value Index, but the return difference was -3.55% year-to-date. Across market capitalizations, large cap stocks showed the strongest performance, with a loss of -13.82% versus the -20.20% return of small cap stocks for the quarter, and -4.78% versus -11.01% for the year, represented by the Russell 1000 Index and the Russell 2000 Index, respectively (see the *Equity Style Returns* table on p. 9).

Within the ten S&P Global BMI US economic sectors, growth and commodity-related sectors, most sensitive to the economic cycle, performed the worst in the fourth quarter. Defensive sectors such as Utilities and Consumer Staples outperformed the rest amid concerns over the rising probability of a US recession. Utilities was the best performing sector during the quarter with a return of +0.81%, green amid a sea of red, thanks to declining interest rates. It was followed by Consumer Staples (-5.63%) and Health Care (-10.82%). The Energy sector was the worst performing, with a loss of -26.14% due to its negative sensitivity to the rising US Dollar and confusion over oil supply control by OPEC members, as well as lower demand from the global economic slowdown. It was followed by Information Technology (-17.28%) as a lower earnings growth outlook weighed on the sector. There was wide overall performance dispersion among sectors during the quarter, with Utilities outperforming the Energy sector by +26.95% (see the *Equity Sector Returns* table on p. 9).

International equity performance also followed that of US equity markets. While all global major indices suffered negative returns, emerging markets outperformed relative to developed markets, in contrast to recent quarters. Developed market equities, represented by the MSCI EAFE Index, finished the quarter with a loss of -12.54%. The MSCI Emerging Markets Index of emerging markets stocks lost -7.47% for the quarter, outperforming the developed markets by +5.07% (see the *Index Returns* table on p. 8).

Within international equity markets, emerging markets, represented by the MSCI EM Index, was the best performing sector with a loss of -7.47% in the fourth quarter, as governments' efforts to boost their economies and stabilize domestic financial markets helped to buoy market sentiments relative to the rest of the world. However, for the year, emerging markets finished near the bottom with -14.58% return. Next for the quarter was the developed Asia-Pacific region, represented by the MSCI Pacific ex Japan Index (-7.94%), which also finished at the top for the year with -10.30% return. European and Japanese equity markets underperformed the rest of the international markets for the quarter, as signs of an economic slowdown and political turmoil seemed to be repriced the most within those markets (see the *Foreign Market Returns* table on p. 10).

Fixed Income

US interest rates declined during the quarter except at the very short-end of the yield curve where the Federal Reserve controls the rates. A rising probability of US economic recession and the Fed's firm stance on its hawkish policy path caused large drops in risky asset prices and drove investors to safe-haven assets. Inflation expectations have fallen dramatically. In fact, market pricing of the Fed's projected rate path against the Fed's actual action created a distortion in the US Treasury yield curve and the curve shape is no longer upward sloping.

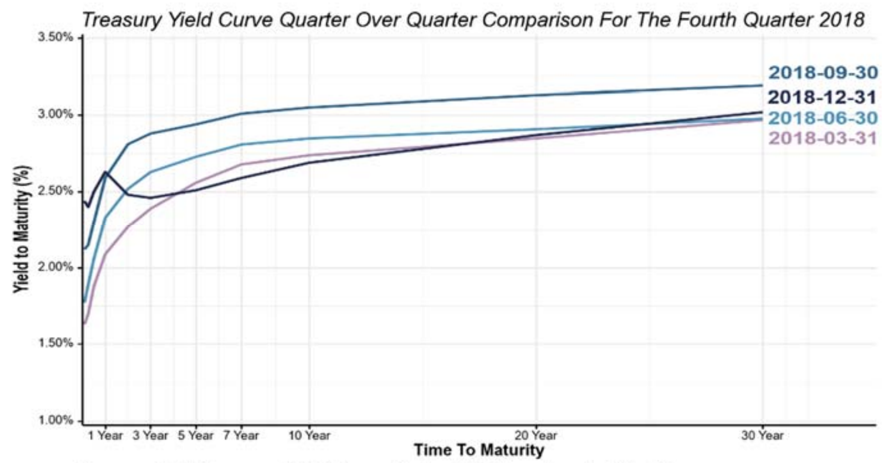
While the yield on the 3-month US Treasury bill rose to 2.45% from 2.19% the previous quarter, the 10-year US Treasury note fell from 3.05% at the end of September to 2.69% by the end of December; the 30-year Treasury bond also declined from 3.19% in September to 3.02% in December (see the *US Treasury Yield Curve* chart on the following page).

As shown in the *Historical Movement of US Treasury Yield Curve* graph, the Federal Reserve's tightening monetary policy and lower economic growth prospects caused parts of the US Treasury yield curve finally to invert during the quarter for the first time in this market cycle. While the difference between the 10-year and 2-year yields declined to 0.21% by December, from 0.27% reached at the beginning of October, the difference between the 5-year and 1-year yields finally dropped to -0.12% by the end of December, from 0.36% reached at the beginning of October. Balance sheet unwinding and the US government's increasing bonds issuance have probably prevented longer-dated parts of the curve from inversion.

Regarding fixed income sector performance, while interest rates declined, credit spreads widened in a risk-off environment during the quarter. Low risk fixed income sectors, especially government securities, generated the best returns as a result. Sectors more sensitive to credit risk underperformed the rest of the market sectors. The broad US bond market, represented by the Bloomberg Barclays Capital U.S. Aggregate Index, finished the quarter with a gain of +1.64%, but only managed +0.01% for the year. High yield bonds, represented by the Bloomberg Barclays Capital High Yield Index of non-investment grade bonds, finished with a loss of -4.53% for the quarter and -2.08% for the year (see the *Index Returns* table on p. 8).

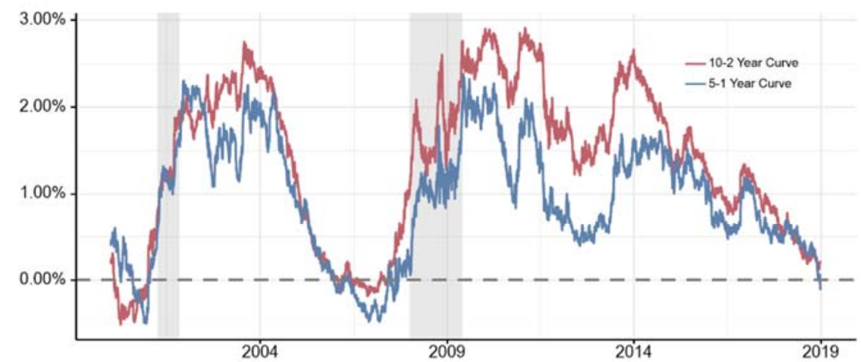
US government bonds, represented by the Bloomberg Barclays Capital Government Bond Index, generated +2.54% as the top performing sector for the quarter, while asset-backed securities (ABS) was the top sector for the year at +1.77%, represented by the Bloomberg Barclays Capital ABS Index. The strong consumer economy and its short duration nature helped to buoy the sector. Demand for mortgage-backed securities (MBS) and commercial mortgage-backed securities (CMBS) markets were also strong during the quarter due to their high credit quality, producing positive returns of +2.08% and +1.72% for the quarter, as represented by the Bloomberg Barclays Capital MBS Index and Bloomberg Barclays Capital CMBS Index, respectively. MBS was the second-best performing sector for both the quarter and the year, returning +0.99% year-to-date. High yield bonds underperformed the rest of the markets due to widening credit spreads. The Bloomberg Barclays Capital High Yield Index loss of -4.53% was the worst for the quarter, but it finished slightly ahead of the worst performing sector for the year as investment grade bonds, represented by the Bloomberg Barclays US Credit Index, lost -2.11% (see the *Fixed Income Sector Returns* table on p. 10).

US Treasury Yield Curve



Source: Daily Treasury Yield Curve Rates, US Department of the Treasury

Historical Movement of US Treasury Yield Curve



Source : Federal Reserve

Note: The red line show the difference between benchmark 10- and two-year government bond yields in percentage points. The blue line show the difference between benchmark 5- and one-year government bond yields in percentage points. Gray bars indicate recessions as determined by the National Bureau of Economic Research.

Outlook

In contrast to the diverging economic growth and capital market performance between the US and the rest of the world last quarter, the US economy finally converged this quarter with the global economic trend. It showed signs of economic weakness, and its capital markets underperformed the rest of the world in the fourth quarter, especially relative to emerging markets. Without any imminent signs of a US recession on the horizon, violent de-risking in the US financial markets during the quarter surprised many market participants. When equity and credit markets began to decline in October, the consensus view was that the decline was a blip, not the beginning of a severe bear market, since incoming data showed a slowdown but were by no means recessionary.

By early December, however, the sell-off in risky assets deepened and even accelerated after the Fed's rate decision, and financial conditions markedly tightened. Market participants questioned the wisdom of the Fed as it appeared to tighten into a slowdown, potentially causing a recession. Global markets went to flight-to-quality mode. By late December, in a classic tail-wagging-the-dog situation, Fed committee members coordinated the dovish message that it may pause its hiking cycle and balance sheet unwinding to prop up the financial markets. The so-called "Powell Put'" was triggered.

From an economic cycle perspective, given increasing economic interconnections and the closely linked nature of global supply chains, it is not surprising that a global slowdown would spread from China to other major economies, including the US. China has contributed one-third of global GDP growth in recent periods according to the World Bank, and the global economy enjoyed rare synchronized growth during 2017, on the back of China's biggest stimulus package ever and global central banks' support during early 2016.

The flip side of interconnectedness is a synchronized slowdown, where one economy's slowdown can lead to reduced exports for other economies. By early 2018, China's efforts to deleverage its financial system and reform its economy markedly slowed down domestic economic activity, and its slowing demand dragged down global demand. By the end of 2018, Chinese GDP growth had come down to 6.4%; Germany barely avoided a recession; and US GDP growth decelerated to 2.8%. Without the fiscal stimulus effects of tax reform, US economic activity would have slowed down even faster. Global central banks, particularly the Fed, began to tighten their monetary policies during the same period. In brief, the two major drivers that supported global economic growth and risky assets – loose global monetary policy and Chinese stimulus – have reversed course. The political and social unrest in Europe and concerns over global trade wars also exacerbated the situation.

After the sell-off during the quarter, risky assets enjoyed a sharp reversal on the back of the dovish Fed comments and China's large credit stimulus injection, as well as the prospect of a trade settlement between the US and China. Current market dynamics resemble early 2016, when the Fed adjusted its policy due to financial market turbulence and falling economic activity. China also implemented the biggest stimulus package in its history, and two more years of the great bull-run in global risky assets followed. Given these similarities, optimistic market participants believe that the US will slow down but still generate positive economic growth in 2019, and that the Chinese economy will recover under recent stimulus efforts. Their reasoning is that these combined tailwinds will help risky assets to rebound in the coming quarters.

On the other hand, those who believe capital markets provide leading signals over economic data interpret the current situation as a precursor to a recession. After all, the US economy enjoyed its second longest expansion ever by 2018, and an economic slowdown should not be surprising from here. They question if the Fed's current change of stance is enough to stop the downward market cycles, since it still plans to raise rates and continue balance sheet reduction. As discussed in recent Market Updates, the capital markets do not expect the degree of tightening that the Fed has telegraphed it will deliver. In fact, the spread between December 2019 and December 2020 Eurodollar futures contracts imply a quarter-point rate cut for the year 2020, compared with a quarter-point rate hike expected by the Fed.

In past Fed rate hiking cycles, the US yield curve first inverted, but then steepened as the Fed tightened into economic slowdowns. The steepening yield curves indicated that the Fed's ongoing rate hikes would soon be followed by rate cuts, in anticipation of recessions. The market sell-off in the fourth quarter caused the yield curve to partially invert, and the Fed's stance has now changed to consider pausing its hikes. Given how the bond markets currently price rate cuts in 2020, it appears likely that the yield curve may steepen if the Fed does raise rates, following this historical pattern.

It remains to be seen if the US will indeed enter a recession in the coming quarters, and the current government shutdown further clouds the economic outlook. Another potential source of risk is sustained growth in wage inflation, which would push up the core PCE Index and could constrain the Fed's flexibility in managing a recession. This presents an additional path to convergence between the markets' view and the Fed's policy expectations, but not a welcome one.

Mesirow Financial Investment Strategies Research Team

Hyungjin Lim, Ph.D., CFA, Vice President, Research

Christopher O'Neill, Ph.D., CFA, CFP®, FRM®, ChFC®
Chief Investment Officer, Director of Research

Index Returns

Domestic Equity	Q4	YTD	1 year	3 years	5 years	10 years
S&P 500	-13.52%	-4.38%	-4.38%	9.26%	8.49%	13.12%
Russell 1000	-13.82%	-4.78%	-4.78%	9.09%	8.21%	13.28%
Russell 1000 Growth	-15.89%	-1.51%	-1.51%	11.15%	10.40%	15.29%
Russell 1000 Value	-11.72%	-8.27%	-8.27%	6.95%	5.95%	11.18%
Russell Midcap	-15.37%	-9.06%	-9.06%	7.04%	6.26%	14.03%
Russell Midcap Growth	-15.99%	-4.75%	-4.75%	8.59%	7.42%	15.12%
Russell Midcap Value	-14.95%	-12.29%	-12.29%	6.06%	5.44%	13.03%
Russell 2000	-20.20%	-11.01%	-11.01%	7.36%	4.41%	11.97%
Russell 2000 Growth	-21.65%	-9.31%	-9.31%	7.24%	5.13%	13.52%
Russell 2000 Value	-18.67%	-12.86%	-12.86%	7.37%	3.61%	10.40%
Dow Jones Industrial Average	-11.31%	-3.48%	-3.48%	12.94%	9.70%	13.16%
NASDAQ Composite	-17.29%	-2.84%	-2.84%	11.10%	10.97%	16.76%
Foreign Equity						
MSCI EAFE	-12.54%	-13.79%	-13.79%	2.87%	0.53%	6.32%
MSCI Emerging Markets	-7.47%	-14.58%	-14.58%	9.25%	1.65%	8.02%
MSCI World	-13.42%	-8.71%	-8.71%	6.30%	4.56%	9.67%
Real Estate						
FTSE Nareit Equity-Reits	-6.73%	-4.62%	-4.62%	2.89%	7.90%	12.12%
Natural Resources						
S&P North American Natural Resources	-23.47%	-21.07%	-21.07%	1.50%	-6.50%	2.99%
Fixed Income						
Bloomberg Barclays Capital U.S. Aggregate	1.64%	0.01%	0.01%	2.06%	2.52%	3.48%
Bloomberg Barclays Capital High Yield	-4.53%	-2.08%	-2.08%	7.23%	3.83%	11.12%
Cash						
FTSE 3 Month US T Bill	0.57%	1.86%	1.86%	0.99%	0.60%	0.35%

* Source: Zephyr Associates Inc. This report has been prepared for informational purposes only. It is based on information generally available to the public from sources believed to be reliable. No representation is made that information is accurate or complete. Past performance is not indicative of future results. Additional information is available upon request. It is not possible to invest directly in an index. The indices are unmanaged and do not incur management fees, transaction costs or other expenses associated with investable products. All returns reflect the reinvestment of dividends and other income.

Equity Style Returns

Fourth Quarter

	Value	Blend	Growth
Large	-11.72%	-13.82%	-15.89%
Mid	-14.95%	-15.37%	-15.99%
Small	-18.67%	-20.20%	-21.65%

Year-to-Date

	Value	Blend	Growth
Large	-8.27%	-4.78%	-1.51%
Mid	-12.29%	-9.06%	-4.75%
Small	-12.86%	-11.01%	-9.31%

Trailing One Year

	Value	Blend	Growth
Large	-8.27%	-4.78%	-1.51%
Mid	-12.29%	-9.06%	-4.75%
Small	-12.86%	-11.01%	-9.31%

Trailing Three Years

	Value	Blend	Growth
Large	6.95%	9.09%	11.15%
Mid	6.06%	7.04%	8.59%
Small	7.37%	7.36%	7.24%

Trailing Five Years

	Value	Blend	Growth
Large	5.95%	8.21%	10.40%
Mid	5.44%	6.26%	7.42%
Small	3.61%	4.41%	5.13%

Trailing Ten Years

	Value	Blend	Growth
Large	11.18%	13.28%	15.29%
Mid	13.03%	14.03%	15.12%
Small	10.40%	11.97%	13.52%

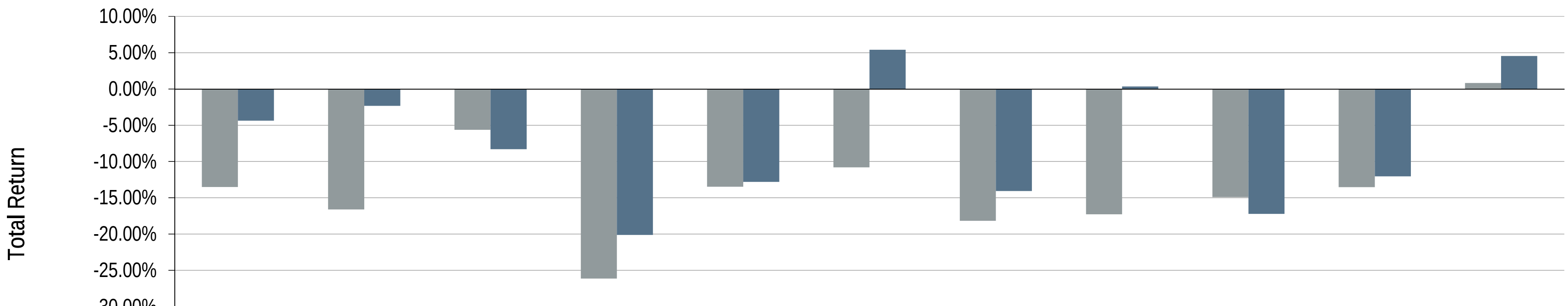
Large Cap
Russell 1000 Value Index; Russell 1000 Index; Russell 1000 Growth Index.

Mid Cap
Russell Mid Cap Value Index; Russell Mid Cap Index; Russell Mid Cap Growth Index.

Small Cap
Russell 2000 Value Index; Russell 2000 Index; Russell 2000 Growth Index.

Source: Index Returns Taken from Zephyr StyleAdvisor.

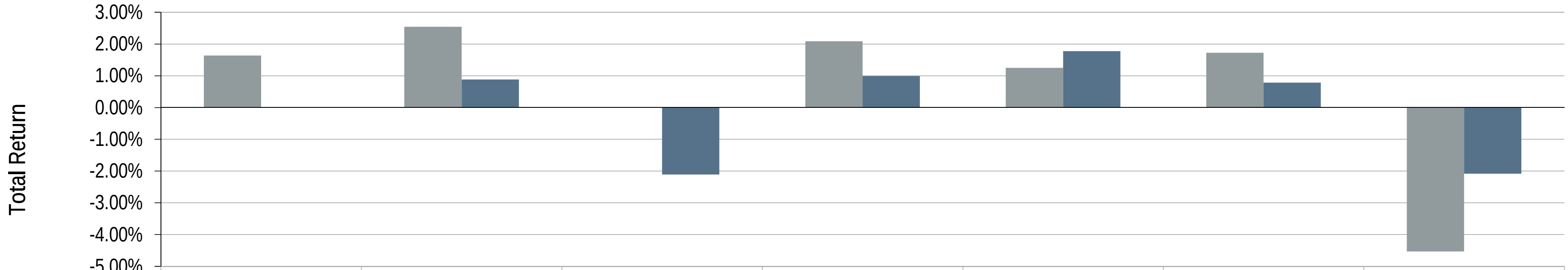
Equity Sector Returns (as of Dec 31, 2018)



	S&P 500	Cons. Discr.	Cons. Staples	Energy	Financials	Health Care	Industrials	Info Tech	Materials	Telecom Services	Utilities
1 quarter	-13.52%	-16.61%	-5.63%	-26.14%	-13.48%	-10.82%	-18.17%	-17.28%	-14.92%	-13.54%	0.81%
1 year	-4.38%	-2.33%	-8.31%	-20.13%	-12.82%	5.40%	-14.08%	0.34%	-17.22%	-12.05%	4.53%

* Source: Zephyr Associates Inc. Sectors represent the S&P Global BMI US GICS sector returns. This report has been prepared for informational purposes only. It is based on information generally available to the public from sources believed to be reliable. No representation is made that information is accurate or complete. Past performance is not indicative of future results. Additional information is available upon request. It is not possible to invest directly in an index. The indices are unmanaged and do not incur management fees, transaction costs or other expenses associated with investable products. All returns reflect the reinvestment of dividends and other income.

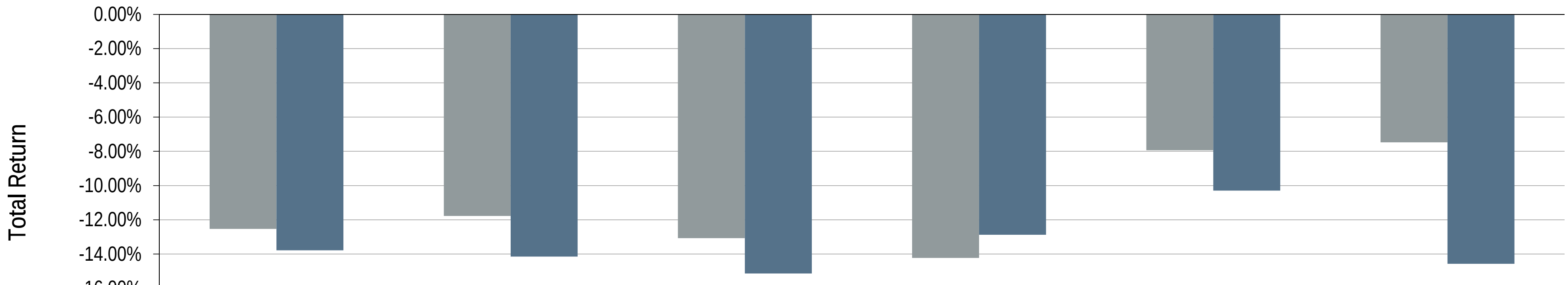
Fixed Income Sector Returns (as of Dec 31, 2018)



	BBgBarc US Agg Bond TR USD	BBgBarc US Government TR USD	BBgBarc US Credit TR USD	BBgBarc US MBS TR USD	BBgBarc ABS TR USD	BBgBarc CMBS IG Elig for US Agg TR USD	IA Barclays US HY Corporate Bonds
1 quarter	1.64%	2.54%	0.01%	2.08%	1.25%	1.72%	-4.53%
1 year	0.01%	0.88%	-2.11%	0.99%	1.77%	0.78%	-2.08%

* Source: Zephyr Associates Inc. and Morningstar. This report has been prepared for informational purposes only. It is based on information generally available to the public from sources believed to be reliable. No representation is made that information is accurate or complete. Past performance is not indicative of future results. Additional information is available upon request. It is not possible to invest directly in an index. The indices are unmanaged and do not incur management fees, transaction costs or other expenses associated with investable products. All returns reflect the reinvestment of dividends and other income.

Foreign Market Returns (as of Dec 31, 2018)



	MSCI EAFE (Net)	MSCI UNITED KINGDOM (Net)	MSCI EUROPE ex UK (Net)	MSCI JAPAN (Net)	MSCI PACIFIC ex JAPAN (Net)	MSCI EM (EMERGING MARKETS) (Net)
1 quarter	-12.54%	-11.78%	-13.08%	-14.23%	-7.94%	-7.47%
1 year	-13.79%	-14.15%	-15.14%	-12.88%	-10.30%	-14.58%

* Source: Zephyr Associates Inc. and Morningstar. This report has been prepared for informational purposes only. It is based on information generally available to the public from sources believed to be reliable. No representation is made that information is accurate or complete. Past performance is not indicative of future results. Additional information is available upon request. It is not possible to invest directly in an index. The indices are unmanaged and do not incur management fees, transaction costs or other expenses associated with investable products. All returns reflect the reinvestment of dividends and other income.

Asset Class Returns (as of Dec 31, 2018)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	10 Years (01/2009-12/2018)
Inv. Gr. Bond 5.24%	Emerging Markets 78.51%	Small Growth 29.09%	REITs 8.29%	Emerging Markets 18.22%	Small Growth 43.30%	REITs 30.14%	Large Growth 5.67%	Small Value 31.74%	Emerging Markets 37.28%	Inv. Gr. Bond +0.01%	Large Growth 15.29%
High Yield -26.16%	High Yield 58.21%	REITs 27.96%	Inv. Gr. Bond 7.84%	REITs 18.06%	Small Value 34.52%	Large Value 13.45%	REITs 3.20%	Nat. Resour. 30.87%	Large Growth 30.21%	Large Growth -1.51%	Small Growth 13.52%
Small Value -28.92%	Nat. Resour. 37.54%	Small Value 24.50%	High Yield 4.98%	Small Value 18.05%	Large Growth 33.48%	Large Growth 13.05%	Inv. Gr. Bond 0.55%	Large Value 17.34%	Developed Mkts 25.03%	High Yield -2.08%	REITs 12.07%
Large Value -36.85%	Large Growth 37.21%	Nat. Resour. 23.88%	Large Growth 2.64%	Large Value 17.51%	Large Value 32.53%	Inv. Gr. Bond 5.97%	Developed Mkts -0.81%	High Yield 17.13%	Small Growth 22.17%	REITs -5.04%	Large Value 11.18%
REITs -37.73%	Small Growth 34.47%	Emerging Markets 18.88%	Large Value 0.39%	Developed Mkts 17.32%	Developed Mkts 22.78%	Small Growth 5.60%	Small Growth -1.38%	Small Growth 11.32%	Large Value 13.66%	Large Value -8.27%	High Yield 11.12%
Large Growth -38.44%	Developed Mkts 31.78%	Large Growth 16.71%	Small Growth -2.91%	High Yield 15.81%	Nat. Resour. 16.49%	Small Value 4.22%	Large Value -3.83%	Emerging Markets 11.19%	Small Value 7.84%	Small Growth -9.31%	Small Value 10.4%
Small Growth -38.54%	REITs 27.99%	Large Value 15.51%	Small Value -5.50%	Large Growth 15.26%	High Yield 7.44%	High Yield 2.45%	High Yield -4.47%	REITs 8.52%	High Yield 7.5%	Small Value -12.86%	Emerging Markets 8.02%
Nat. Resour. -42.55%	Small Value 20.58%	High Yield 15.12%	Nat. Resour. -7.35%	Small Growth 14.59%	REITs 2.47%	Emerging Markets -2.19%	Small Value -7.47%	Large Growth 7.08%	REITs 5.23%	Developed Mkts -13.79%	Developed Mkts 6.32%
Developed Mkts -43.38%	Large Value 19.69%	Developed Mkts 7.75%	Developed Mkts -12.14%	Inv. Gr. Bond 4.21%	Inv. Gr. Bond -2.02%	Developed Mkts -4.90%	Emerging Markets -14.92%	Inv. Gr. Bond 2.65%	Inv. Gr. Bond 3.54%	Emerging Markets -14.58%	Inv. Gr. Bond 3.48%
Emerging Markets -53.33%	Inv. Gr. Bond 5.93%	Inv. Gr. Bond 6.54%	Emerging Markets -18.42%	Nat. Resour. 2.20%	Emerging Markets -2.60%	Nat. Resour. -9.77%	Nat. Resour. -24.28%	Developed Mkts 1.00%	Nat. Resour. 1.23%	Nat. Resour. -21.07%	Nat. Resour. 2.99%

* Source: Zephyr Associates Inc. This report has been prepared for informational purposes only. It is based on information generally available to the public from sources believed to be reliable. No representation is made that information is accurate or complete. Past performance is not indicative of future results. Additional information is available upon request. It is not possible to invest directly in an index. The indices are unmanaged and do not incur management fees, transaction costs or other expenses associated with investable products. All returns reflect the reinvestment of dividends and other income.

Bloomberg Barclays Capital Asset-Backed Securities Index: Represents the ABS sleeve of the Bloomberg Barclays Capital U.S. Aggregate Index. This index is comprised of securitized debt within the credit cards, autos, and utilities subsectors.

Bloomberg Barclays Capital Commercial Mortgage-Backed Securities (CMBS) Investment Grade Index: Part of the Bloomberg Barclays CMBS Index family. This index consists of investment grade CMBS that are eligible for inclusion in the Bloomberg Barclays Capital U.S. Aggregate Bond Index.

Bloomberg Barclays Capital Credit Index: Includes all publicly issued, fixed rate, nonconvertible investment grade dollar-denominated, SEC-registered corporate debt. Included among Yankees is debt issued or guaranteed by foreign sovereign governments, municipalities, governmental agencies, or international agencies.

Bloomberg Barclays Capital Government Bond Index: Composed of the Bloomberg Barclays Capital Treasury Bond Index (all public obligations of the U.S. Treasury, excluding flower bonds and foreign-targeted issues), and the Bloomberg Barclays Capital Agency Index (all publicly issued debt of U.S. Government agencies and quasi-federal corporations, and corporate debt guaranteed by the U.S. Government, excluding mortgage debt).

Bloomberg Barclays Capital High Yield: Covers the universe of fixed rate, non-investment grade debt. In general, all securities must be rated Ba1or lower by Moody's Investors Service, including defaulted issues. If no Moody's rating is available, bonds must be rated BB+ or lower by S&P; and if no S&P rating is available, bonds must be rated below investment grade by Fitch Investor's Service. A small number of unrated bonds are included in the index.

Bloomberg Barclays Capital Mortgage-Backed Securities (MBS) Index: Represents the MBS sleeve of the Bloomberg Barclays Capital U.S. Aggregate Bond Index. This index is comprised of fixed-rate and hybrid ARM pass throughs.

Bloomberg Barclays Capital U.S. Aggregate Bond Index: The index is a composite of four major sub-indexes: U.S. Government Index; U.S. Credit Index; U.S. Mortgage Back Securities Index and U.S. Asset Backed Securities Index. The index holds investment grade bonds. The ratings are based on S&P, Moody and Fitch bond ratings. The index does not include High Yield Bonds, Municipal Bonds, Inflation Indexed Treasury Bonds or Foreign Currency Bonds.

FTSE 3 Month US T Bill Index: This index measures monthly return equivalents of yield averages that are not marked to market. The Three-Month Treasury Bill Indexes consist of the last three 3-month Treasury bill issues.

Dow Jones Industrial Average (DJIA): Computed by summing the prices of the stocks of 30 companies and then dividing that total by an adjusted value — one which has been adjusted over the years to account for the effects of stock splits on the prices of the 30 companies. Dividends are reinvested to reflect the actual performance of the underlying securities.

FTSE NAREIT Equity REITs Index: A free-float adjusted, capitalization-weighted index that is comprised of all Equity REITs not designated as Timber REITs or Infrastructure REITs. Equity REITs are defined as REITs with 75% or greater of their gross invested book assets invested directly or indirectly in the equity ownership of real estate.

MSCI EAFE Index: The MSCI EAFE Index (Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. & Canada. The MSCI EAFE Index consists of the following 22 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom.

MSCI Emerging Markets Index: The MSCI Emerging Markets (EM) Index℠ is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. The MSCI Emerging Markets Index consists of the following 21 emerging market country indices: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

MSCI Europe ex UK Index: Captures large and mid cap representation across 15 Developed Markets (DM) countries in Europe. With 340 constituents, the index covers approximately 85% of the free float-adjusted market capitalization across European Developed Markets excluding the UK.

MSCI Japan Index: Designed to measure the performance of the large and mid cap segments of the Japan market. With 316 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

MSCI Pacific ex Japan Index: Captures large and mid cap representation across 4 of 5 Developed Markets (DM) countries in the Pacific region (excluding Japan). With 148 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI United Kingdom: Designed to measure the performance of the large and mid cap segments of the UK market. With 107 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the UK.

MSCI World Index: The MSCI World Index is a free float-adjusted market capitalization index that is designed to measure global developed market equity performance. As of May 2005, the MSCI World Index consisted of the following 23 developed market country indices: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States.

Nasdaq Composite Index: Measures the performance of all issues listed in the Nasdaq Stock Market, except for rights, warrants, units, and convertible debentures.

Russell 1000® Index: Measures the performance of the large-cap segment of the U.S. equity universe. It is a subset of the Russell 3000 Index and includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership. The Russell 1000 represents approximately 92% of the Russell 3000 Index.

Russell 1000® Growth Index: Measures the performance of the large-cap growth segment of the U.S. equity universe. It includes those Russell 1000 companies with higher price-to book ratios and higher forecasted growth values.

Russell 1000® Value Index: Measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower expected growth values.

Russell 2000® Index: Measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000 Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.

Russell 2000® Growth Index: Measures the performance of the small-cap growth segment of the U.S. equity universe. It includes those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 2000® Value Index: Measures the performance of the small-cap value segment of the U.S. equity universe. It includes those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell Mid Cap® Index: Measures the performance of the mid-cap segment of the U.S. equity universe and is a subset of the Russell 1000 Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership. The Russell Midcap Index represents approximately 31% of the total market capitalization of the Russell 1000 companies.

Russell Mid Cap® Growth Index: Measures the performance of the mid-cap growth segment of the U.S. equity universe. It includes those Russell Midcap Index companies with higher price-to-book ratios and higher forecasted growth values.

Russell Mid Cap® Value Index: Measures the performance of the mid-cap value segment of the U.S. equity universe. It includes those Russell Midcap Index companies with lower price-to-book ratios and lower forecasted growth values.

S&P 500 Index: Measures the performance of the 500 leading companies in in the large cap segment of the market. Companies are chosen based upon their market size, liquidity and sector. Together these companies represent approximately 80% of the available market capitalization.

S&P Global BMI United States Sector Indices: A part of the S&P Global BMI benchmark series. All listed stocks must have at least $ 100 million in float adjusted market capitalization, and a value traded of at least $ 50 million for the last 12-months at the time of the annual reconstitution. Stocks are excluded if their market capitalization falls below $ 75 million, or if the value traded is less than US$ 35 million at the time of reconstitution. The S&P Global BMI adopted the Global Industry Classification Standard (GICS®) for its sector indices, which include Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Telecom Services, and Utilities.

S&P North American Natural Resources: The S&P North American Natural Resources Index provides investors with a benchmark that represents U.S. traded securities that are classified under the GICS® energy and materials sector excluding the chemicals industry; and steel sub-industry.