

---

## 2015 Review:

### Economy & Markets

---

THE US ECONOMY AND BROAD MARKET SHOWED MODEST GAINS DURING THE YEAR, ALTHOUGH INVESTOR DISCIPLINE WAS TESTED BY NEWS OF A GLOBAL ECONOMIC SLOWDOWN, RISING MARKET VOLATILITY IN CHINA AND EMERGING MARKETS, FALLING OIL AND COMMODITIES PRICES, AND HIGHER US INTEREST RATES.

The S&P 500 Index logged a 1.38% total return. The returns across US indices were mixed, but overall the broad US market, as measured by the Russell 3000, gained 0.48%—its lowest return since the 2008 market downturn. The Nasdaq Composite Index returned 6.96%. Performance among non-US markets was mostly negative: The MSCI World ex USA Index logged a –3.04% total return and the MSCI Emerging Markets Index a –14.92% return (net dividends, in USD). The US dollar's strong performance against major currencies resulted in lower returns for US investors in various markets. For example, the MSCI All Country World Index returned 1.27% in local currency but –2.36% in USD (net dividends).

For most of the year, investors considered the potential impact of higher US interest rates triggered by a US Federal Reserve Bank (Fed) rate increase. The Fed's announcement finally came in December and by year-end, the yield on the benchmark 10-year Treasury note stood at 2.27%, up from 2.17% in 2014. The Barclays US Government Bond Index returned 0.86% and Barclays US Intermediate Corporate Index returned 1.08%. Global government bonds had slightly positive returns with the Citigroup World Government Bond 1–5 Year Index (USD hedged) returning 1.00%. Global corporate bonds also had positive returns, with the Barclays Global Aggregate Corporate Bond Index 1–5 Years (hedged to USD) returning 1.21%.

## US Stock Market Performance

### Russell 3000 Index with selected headlines from 2015



Source: Russell Investment Group.

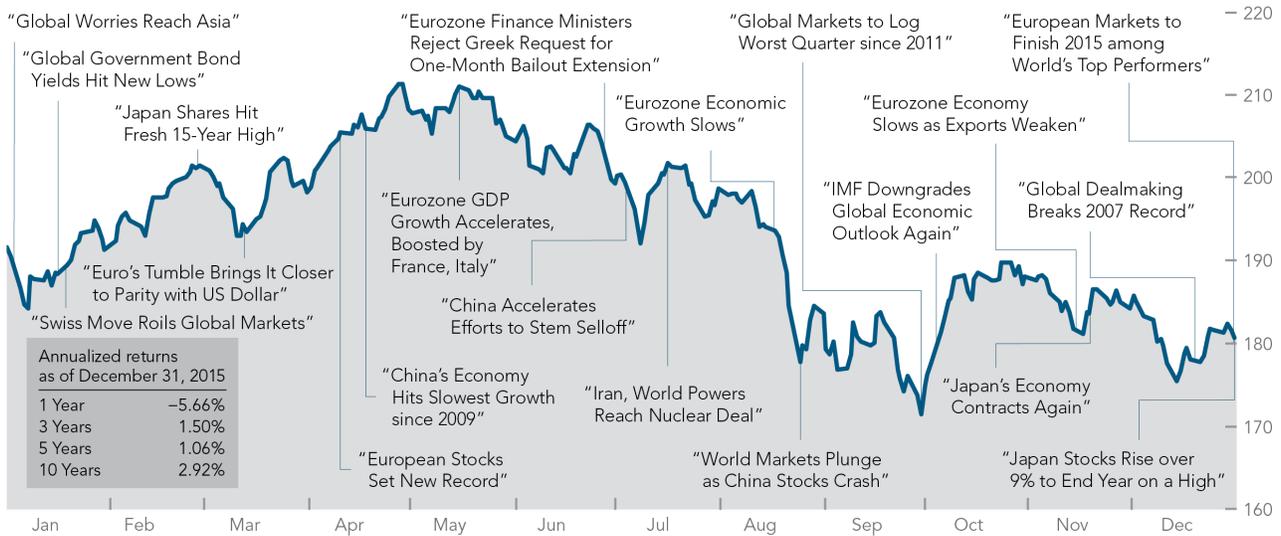
Past performance is not a guarantee of future results. In US dollars. Index is not available for direct investment. Performance does not reflect the expenses associated with management of an actual portfolio.

The chart above highlights some of the year's prominent headlines in context of broad US market performance, measured by the Russell 3000 Index. These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.

The chart below offers a snapshot of non-US stock market performance (developed and emerging markets), measured by the MSCI All Country World ex USA Index. The headlines should not be viewed as determinants of the market's direction but as examples of events that may have tested investor discipline during the year.

### Non-US Stock Market Performance

#### MSCI All Country World Index ex USA with selected headlines from 2015



Source: MSCI.

Past performance is not a guarantee of future results. In US dollars. Index is not available for direct investment. Performance does not reflect the expenses associated with management of an actual portfolio.

## Global Backdrop

### US Economy

The US economy grew modestly during 2015. Gross domestic product (GDP) increased only 0.6% in Q1 before improving to 3.9% in Q2 (year over year). Growth slowed to 2.0% in Q3, matching the average annualized growth for the past six years. Q4 GDP growth was forecasted to decline to 1.0% and GDP growth for all of 2015 to average 2.5%.

Positive economic signs in 2015 included lower unemployment, which fell from 5.7% in January to 5.0% in the last three months of the year—the lowest rate since 2008. Overall, the economy added 2.7 million jobs, capping the second-best annual gain since 1999. December wages were up 2.5% (year over year), which marked one of the best gains of the current expansion, although still below the 6.33% annual average. Inflation (personal consumption expenditures index) remained low. November's 0.5% rate (year over year) marked the 43rd straight month of annualized inflation below the Fed's 2% target rate. US housing activity remained solid with price growth, as measured by the S&P/Case-Shiller Home Price Index, rising 5.2% (year over year) through October. New home sales increased 14.5% through November. Consumer confidence also improved, with the University of Michigan's Index of Consumer Sentiment averaging 92.9 in 2015—the highest since 2004. Consumer spending, which accounts for more than two-thirds of US economic activity, grew 3.0% in Q3.

Negative economic indicators included declining US factory activity. In December, the Institute for Supply Management's (ISM) index fell to 48.2 from 48.6 in November, which was the weakest reading since the final month of the recession in June 2009. (Readings below 50 indicate contraction.) Corporate profits declined in Q1 and Q3 by 5.8% and 1.6%, respectively, and profits at S&P 500 companies were projected to fall by 3.6% in Q4.

## Global Economy

In 2015, economic growth was the weakest since the financial crisis. In December, the Organization for Economic Cooperation and Development (OECD) revised its 2015 world growth estimate downward to 2.9%—well below the historical average of 3.6% per year.

Eurozone GDP growth increased 0.5% in Q1, which was the strongest quarterly rate since its regional recovery began in early 2013. But the pace slowed to 0.4% in Q2 and to 0.3% in Q3. The slowdown came in spite of improved consumer spending sparked by lower energy prices and the European Central Bank's (ECB) quantitative easing efforts. A decline in the euro's value boosted exports and contributed to an improved current account surplus (3.7% of GDP) in 2015. Japan's economy showed signs of improvement early in 2015 by posting a 3.9% GDP growth rate in Q1. Growth in Q2 reversed with a -0.7% rate before rebounding to 1% in Q3.

China, the world's second largest economy, showed signs of a slowdown during 2015, with Q1 and Q2 growth reported at 7% and Q3 growth falling to 6.9%, which was less than half the growth rate in 2010. The Chinese government later revised its growth target to 6.5%, reflecting the weakest growth in 25 years.

After several years of robust growth, emerging market nations began to feel the effects of China's slowdown, persistently weak global commodity prices, and the prospect of higher US interest rates. In Q4, the International Monetary Fund (IMF) cut its 2015 growth estimate for emerging markets to 4%, which marked the fifth consecutive year of declining growth.

## Oil Market Decline

The world oil market continued its dramatic slide. After falling more than 50% in 2014, oil declined another 30% to end 2015 at \$37.04 a barrel for West Texas intermediate crude, marking the largest two-year price drop on record. Factors affecting the price decline include: (1) excess supply spurred in part by higher production in North America, Middle East, and Russia, (2) slack demand due to slowing global growth, especially in the emerging markets, and (3) OPEC's waning ability to influence market prices by adjusting its production. While cheap oil was a boon to consumers in developed economies, the steep price decline brought uncertainty to financial markets and industry sectors as firms curtailed spending and canceled projects, and oil-exporting countries collected lower tax revenues and struggled with the effects of a weaker currency.

## Diverging Paths for Central Banks

The divergence in actions by the major central banks in 2015 marked the first time since the euro's launch that the Fed, ECB, and Bank of England have been compelled to strike different monetary paths as a result of diverging economies. In the late 1990s, the booming global economy led the central banks to apply rate hikes, while the 2001–2003 market decline brought similarly timed rate cuts.

In September, the Fed postponed raising interest rates, citing concerns with the economy, inflation, and worldwide market volatility. The central bank raised its benchmark rate by a quarter point in December—its first rate hike since 2006—and stated that it would continue on a gradual course of monetary tightening as long as inflation and economic growth allowed. The impact on the US financial markets was negligible, as rates had already begun to increase in anticipation of the move. Even as the US central bank began

monetary tightening, most banking authorities across the globe were taking measures to ease their country's monetary policy in response to signs of an economic slowdown. The ECB implemented a major stimulus program throughout the year, and in December announced new quantitative easing measures along with Japan. More than 40 central banks across the globe eased monetary policy in 2015.

## China's Rising Influence

Markets closely followed the news about China's declining economic growth and the severe downturn over the summer, when the Chinese equity market declined more than 40% from its peak. Attempts by the Chinese authorities to support stock prices and the Bank of China's surprise devaluation of the yuan raised

questions about China's impact on the economies of trading partners. The events also pointed to the stresses the government faces in implementing additional free-market reforms and transitioning its economic model from heavy industry and exports to one based more on consumer spending.

## 2015 Investment Overview

### Market Summary

In the US equity markets, most major indices logged negative performance, despite a strong rebound during Q4. For the year, the S&P 500 Index returned 1.38%; the Russell 3000 Index 0.48%; and the Russell 2000 Index -4.41%.

US market volatility, measured by the Chicago Board Options Exchange Market Volatility Index (VIX), declined steadily for the first half of 2015, but jumped to its highest level in six years in late August, following the US market decline. During Q4, the index dropped then rose again to close slightly higher for the year.

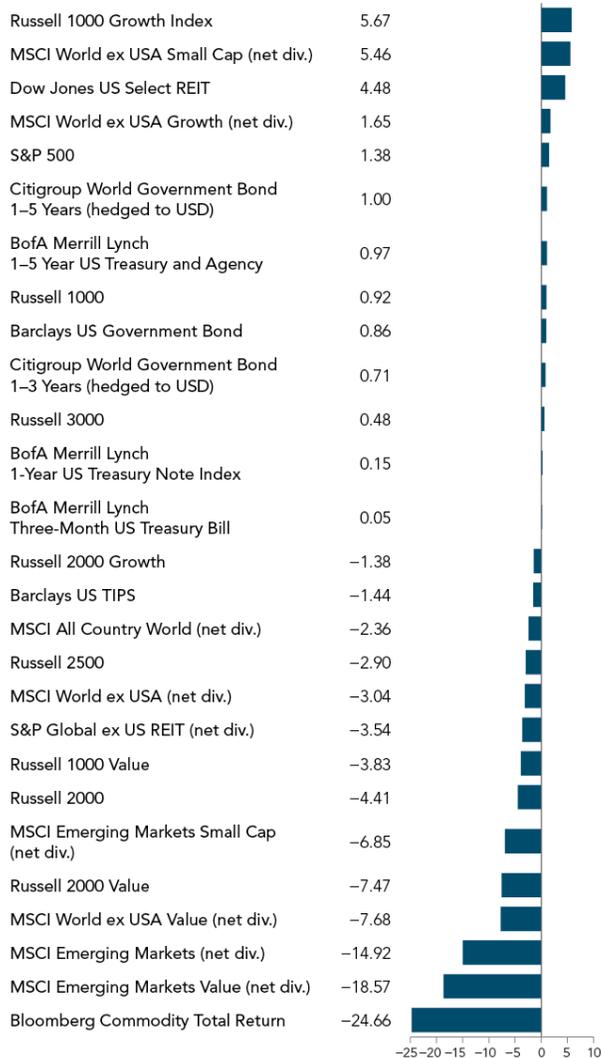
Non-US developed stock markets experienced mixed performance across almost all major indices (returns in USD, net dividends). The MSCI World ex USA Index, a benchmark for large cap stocks in developed markets outside the US, returned -3.04%. Small cap and value stock returns were mixed: The MSCI World ex USA Small Cap Index returned 5.46% and MSCI World ex USA Value Index returned -7.68%. The MSCI World ex USA Growth Index was positive at 1.65%. Emerging markets were among the worst global performers: The MSCI Emerging Markets Index returned -14.92%; the small cap subindex returned -6.85%; the value subindex returned -18.57%.

Among the equity markets tracked by MSCI, nearly half of the countries in the non-US developed markets index had negative total returns (in USD) and the range of returns was broad. The top three return countries were Denmark (23.43%), Ireland (16.49%), and Belgium (12.10%). Countries with the lowest returns were Canada (-24.16%), Singapore (-17.71%), and Spain (-15.64%).

In emerging markets, 21 of 23 countries tracked by MSCI logged negative total returns (in USD) and the dispersion of returns was broader than in the developed countries. Hungary (36.31%), Russia (4.21%), and India (-6.12%) were the top-performing countries in the index. The lowest returns in the index came from Greece (-61.33%), Colombia (-41.80%), and Brazil (-41.37%).

Returns of major fixed income indices were slightly positive. One-year US Treasury notes returned 0.15%, Barclays US Government US Bond Index 0.86%, Citigroup

### Major World Indices Ranked by One-Year Performance (%) As of December 31, 2015



Past performance is not a guarantee of future results. In US dollars. Indices are not available for direct investment. Performance does not reflect the expenses associated with management of an actual portfolio.

|  |       |       |       |
|--|-------|-------|-------|
| Citigroup World Government Bond Index 1-5 Years (hedged) | -0.08 | 1.00  | 1.17  |
| Barclays US TIPS   | -0.64 | -1.44 | -2.27 |

| Other Returns (%)                |        |        |        |
|----------------------------------|--------|--------|--------|
| Dow Jones US Select REIT         | 7.54   | 4.48   | 11.76  |
| S&P Global ex US REIT (net div.) | 1.86   | -3.54  | 3.08   |
| Bloomberg Commodity Total Return | -10.52 | -24.66 | -17.29 |

\*Annualized

Past performance is not a guarantee of future results. In US dollars. Indices are not available for direct investment. Performance does not reflect the expenses associated with management of an actual portfolio.

World Government Bond Index (1–5 years, USD hedged) 1.00%, and Barclays US TIPS index returned –1.44%. The Barclays Global Aggregate Corporate Bond Index 1–5 Years (hedged to USD) returned 1.21%.

US and global real estate securities had mixed performance: The Dow Jones US Select REIT Index returned 4.48%, and the S&P Global ex US REIT Index returned –3.54%. Commodities were negative for the fifth year in a row, with the Bloomberg Commodity Total Return Index returning –24.66%. Among the composite indices, petroleum returned –39.42% and industrial metals –26.88%. Among the single commodity indices, Brent crude (–45.57%) and West Texas intermediate crude (–44.35%) were the worst performers. Natural gas returned –39.95%. Gold was down for the third year in a row at –10.88%; silver prices returned –12.72%. Cotton was the only commodity in the index to post a positive return (2.97%).

### Currency Impact

The US dollar rose against most major currencies, including the euro, pound, and yen. The dollar's strength had a negative impact on returns for US investors with holdings in unhedged non-US assets. For example, in 2015, the dollar's rise relative to the euro hurt the returns of US investors in European markets. The MSCI Europe Index (net dividends) returned 8.22% in euro but –2.84% in US dollars. This was the case in other regions where the dollar outperformed local currencies. Examples: The MSCI United Kingdom Index (net dividends) returned –2.21% in pounds and –7.56% in USD. The MSCI Australia Index returned 1.29% in Australian dollars but –9.95% in USD.

### Performance of Size and Value Premiums

Based on the respective total returns of the Russell indices<sup>1</sup> within the size dimension, US small cap stocks underperformed US large cap stocks by –5.33% (–4.41% vs. 0.92%). Within the relative price dimension, US value underperformed US growth by –9.22% (–4.13% vs. 5.09%). Among US small cap stocks, small value underperformed small growth by –6.09% (–7.47% vs. –1.38%); among US large cap stocks, large value underperformed large growth by –9.49% (–3.83% vs. 5.67%).

As in most years, diverging performance of various subindices in 2015 underscores the fact that the premium within a particular dimension (e.g., size or value) does not always move in the same direction across the global markets. For example, although the size premium was negative in the US, it was positive in both the developed non-US and emerging markets for the year. The MSCI World ex USA Small Cap Index outperformed the MSCI World ex USA Index by 8.50% (all returns in USD, net dividends). The MSCI Emerging Markets Small Cap Index outperformed the MSCI Emerging Markets Index by 8.07%. Value premiums outside the US were generally negative. The MSCI World ex USA Value Index underperformed its growth counterpart by –9.33%; the MSCI Emerging Markets Value Index underperformed the MSCI Emerging Markets Growth Index by –7.24%.

Annual underperformance of the size and value premiums is not unusual from a historical standpoint. Although small cap and value stocks have offered higher expected long-term returns relative to their large cap and growth counterparts, these return premiums do not appear each year.<sup>1</sup> For example, since 1979, US small caps have outperformed large caps in 19 of the 37 calendar years—or 51% of the time. Results are similar for the relative price dimension. Since 1979, US value has outperformed growth in 20 of 37 calendar years—or 54% of the time. Small cap value has outperformed small cap growth in 57% of the calendar years.

History also has produced multiyear periods in which US small cap and value stocks did not outperform large caps and growth. The most recent example is three-year underperformance of small cap value vs. small cap growth (2013–2015). Small value has also underperformed in three straight years (2009–2011 and 1989–1991). Other multiyear examples include small caps underperforming large caps (1984–1987 and 1994–1998) and value underperforming growth (1989–1991 and 2009–2011). Yet, despite even extended negative-premium periods, small cap and value stocks have outperformed their counterparts over time, and when the premiums reversed, they often did so strongly and for multiple years.

<sup>1</sup> US small cap is represented by the Russell 2000 Index; US large cap is the Russell 1000 Index; US value (marketwide) is the Russell 3000 Value Index; and US growth (marketwide) is the Russell 3000 Growth Index. US large value is the Russell 1000 Value Index; US large growth is the Russell 1000 Growth Index. Russell data © Russell Investment Group 1995–2016, all rights reserved.

Russell data © Russell Investment Group 1995–2016, all rights reserved. Dow Jones data provided by Dow Jones Indexes. MSCI data © MSCI 2016, all rights reserved. S&P data provided by Standard & Poor's Index Services Group. The BofA Merrill Lynch Indices are used with permission; © 2016 Merrill Lynch, Pierce, Fenner & Smith Inc.; all rights reserved. Citigroup bond indices © 2016 by Citigroup. Barclays data provided by Barclays Bank PLC. Indices are not available for direct investment; their performance does not reflect the expenses associated with the management of an actual portfolio.

Past performance is no guarantee of future results. This information is provided for educational purposes only and should not be considered investment advice or a solicitation to buy or sell securities.

Investing risks include loss of principal and fluctuating value. Small cap securities are subject to greater volatility than those in other asset categories. International investing involves special risks such as currency fluctuation and political instability. Investing in emerging markets may accentuate these risks. Sector-specific investments can also increase these risks.

Fixed income securities are subject to increased loss of principal during periods of rising interest rates. Fixed income investments are subject to various other risks, including changes in credit quality, liquidity, prepayments, and other factors. REIT risks include changes in real estate values and property taxes, interest rates, cash flow of underlying real estate assets, supply and demand, and the management skill and creditworthiness of the issuer.

Adapted from “2015 Review: Economy & Markets by Bryan Harris, Senior Editor” from Dimensional Fund Advisors. Dimensional Fund Advisors LP is an investment advisor registered with the Securities and Exchange Commission. Talis Advisory Services, LLC is an investment advisor registered with the Securities and Exchange Commission. Consider the investment objectives, risks, charges and expenses of any investment carefully before investing. All materials presented are compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. For this and other information, contact us at [talismadvisors.com](http://talismadvisors.com).