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Retirement Institute℠

Capital Markets

## The Nationwide Retirement Institute

# Nationwide Market Insights℠

Our perspective on the market and economic forces influencing investment planning and retirement.

**4th Quarter 2015**

*Data as of September 30, 2015*

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The Nationwide Retirement Institute provides practical thought leadership and comprehensive solutions to financial advisors and their clients. Through education and insights, client-ready tools and strategies and consultative support, we break down and simplify complex retirement challenges to help advisors and clients plan for a more secure financial future.

## Introducing *Nationwide Market Insights*℠

One of those challenges comes in understanding the market forces that affect investment performance and influence investment decisions. With *Nationwide Market Insights*, we present insights and informative commentary about the economy and the financial markets from Nationwide's staff of economists and analysts. You can share *Nationwide Market Insights* with clients to help answer questions about investment performance and inspire greater confidence in the guidance you provide.

When you work with Nationwide, you not only get tools and resources from The Retirement Institute, but also the strength and stability of a Fortune 100 company standing behind the wide range of financial products we offer — from mutual funds and annuities to life insurance and retirement plans.

Plus, you can count on consultative support from the Nationwide Team of Specialists for assistance with the retirement planning challenges you and your clients face. Contact your wholesaler to learn more about *Nationwide Market Insights* and other resources available from The Nationwide Retirement Institute or the many solutions Nationwide offers.

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## Executive Summary


Volatility picked up in the third quarter, as Chinese equities continued to retrench and commodity prices remained under pressure. At the same time, the underlying economic fundamentals were improved on balance. The U.S. and European economies, in particular, both found firmer footing even as markets on both sides of the Atlantic tracked lower.

In broad terms, this cycle is playing out in a text-book-like manner. Aggressive monetary easing by the Federal Reserve helped to lift the economy into an expansion that has since been amplified by feedback loops working through the labor market. Job growth has boosted incomes and spending, which have in turn fed back into employment gains, creating a virtuous cycle that remains very much in place today. The quarters ahead should bring continued growth, further declines in unemployment, and healthy performance in financial markets even after interest rates slowly begin to lift.

# Financial markets

## Highlights

9 U.S. equities tend to bounce back strongly coming out of corrections, posting double-digit increases in the year after every such pullback in the history of the S&P 500

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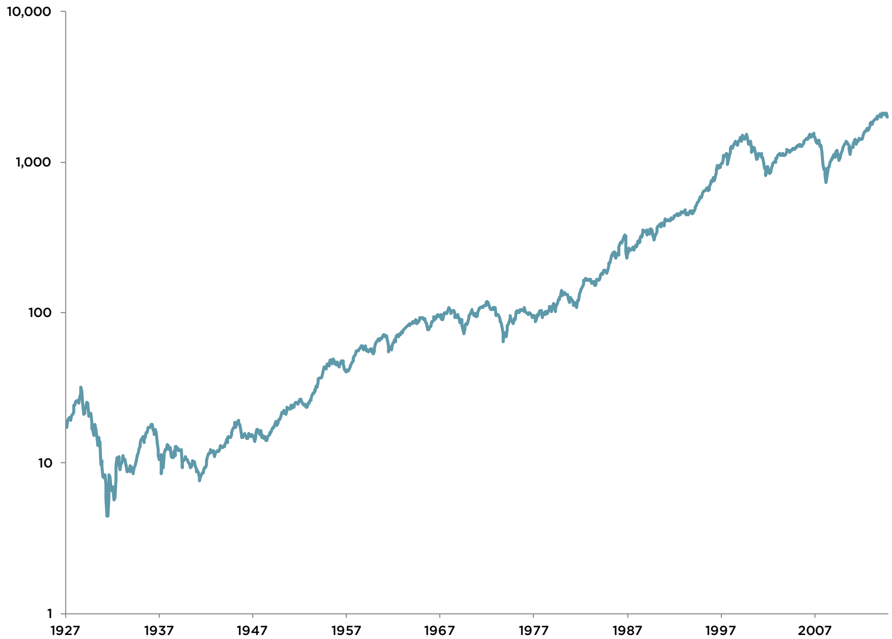
# Stocks fall into correction territory

**S&P 500**

Index (log scale)



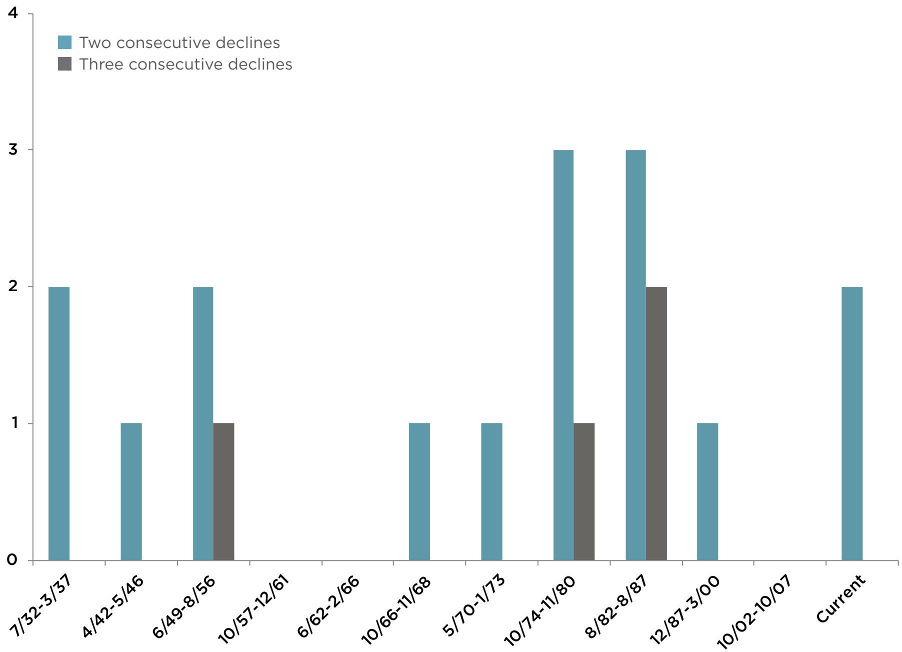

The S&P 500 fell for a second straight quarter, sealing the first 10% correction in the index in four years. Stocks were pressured over the last three months by further weakness in China and a renewed slide in commodity prices.

Source: Standard & Poor's

# Losing streaks in this part of the cycle are rare

## Occurrences of consecutive quarterly declines in the S&P 500 by bull market

Number



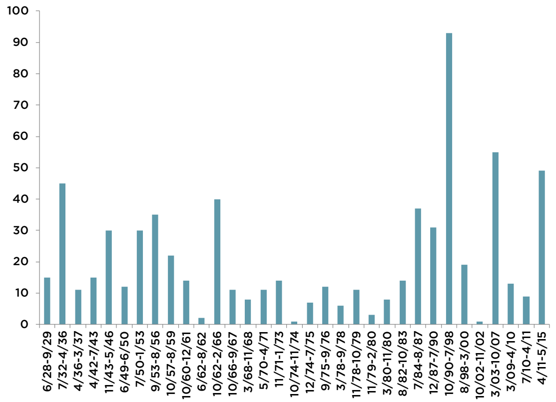

While it is not unusual for equities to fall in consecutive quarters as they did in Q2 and Q3, back-to-back-to-back drops are exceedingly rare. The S&P has fallen three times in a row in bull markets on only four occasions in its history.

Source: Bloomberg

# Corrections occur regularly, but are usually short-lived

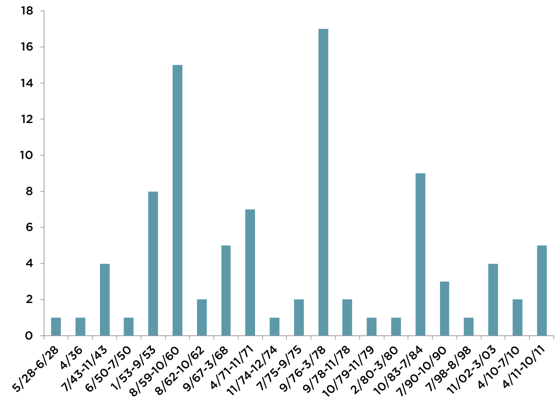
## Time between corrections/bear markets

Months




## Length of corrections in the S&P 500

Months




The S&P's fall into correction territory ended a relatively long stretch between declines of at least 10%. Across its history, the index has had a drop of this magnitude every 20 months on average and had on only two previous occasions gone as long as this most recent period without such a pullback.

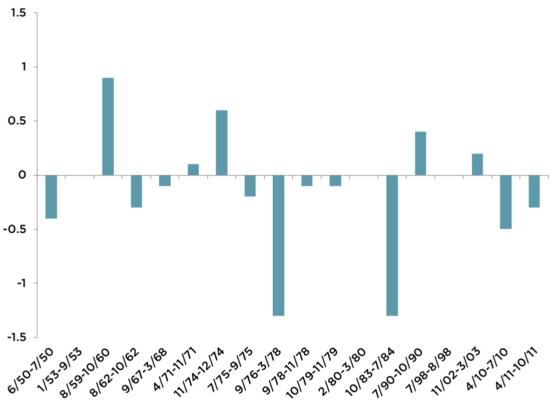
Almost all corrections have ended quickly, with an average length of just over four months and only two instances exceeding one year.

Source: Bloomberg

# Corrections don't usually become bear markets when the economy is growing

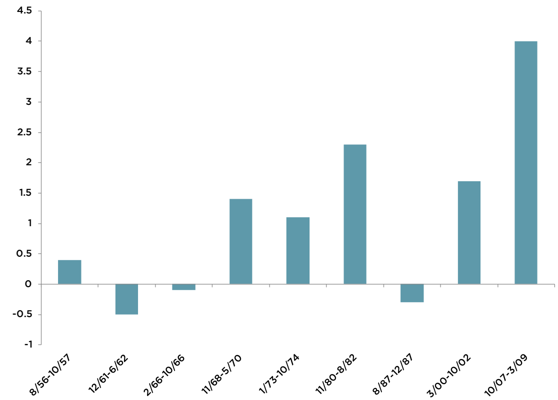
**Changes in the unemployment rate during corrections**

Percent




**Changes in the unemployment rate during bear markets**

Percent



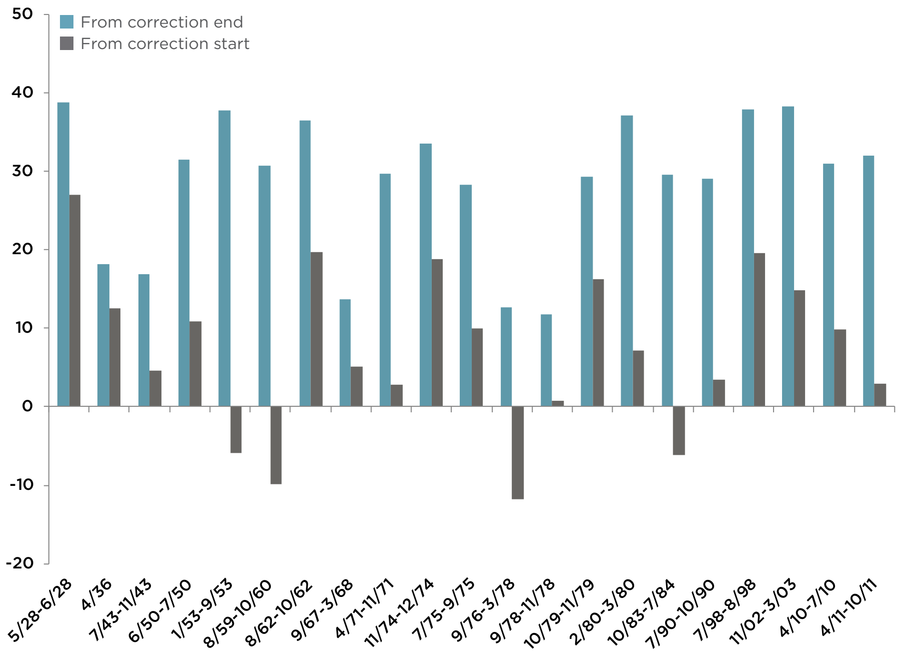

Corrections are normal features of economic expansions, but full blown bear markets — losses of 20% or more — typically only occur when the economy is contracting. While the unemployment rate has declined by an average of 0.1 percentage points during corrections, it has jumped by 1.1 percentage points on average during bear markets. With the economy growing and the jobless rate continuing to fall in recent months, the likelihood of a much bigger drop in equity prices is small.

Source: Bureau of Labor Statistics

# Corrections are followed by strong gains

### Changes in the S&P 500 in the year after corrections

Percent




The bounce back from corrections in U.S. stocks has been reliably robust, with the S&P 500 averaging an increase of 28.8% and never failing to grow at a double-digit pace over the following year.

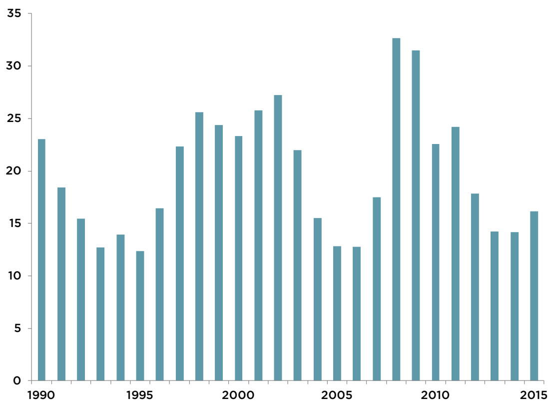
In fact, the S&P has also averaged a healthy gain in the year after the *beginning* of corrections, falling in only four out of 21 cases and averaging a rise of 7.3% even after incorporating the 10%+ decline.

Source: Bloomberg

# Volatility has still been relatively muted for the year

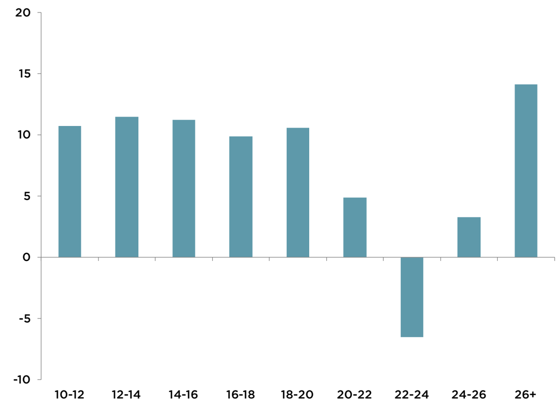
**Average daily volatility index**

Index




**Annual changes in the S&P 500 by prior year level of the volatility index**

Percent



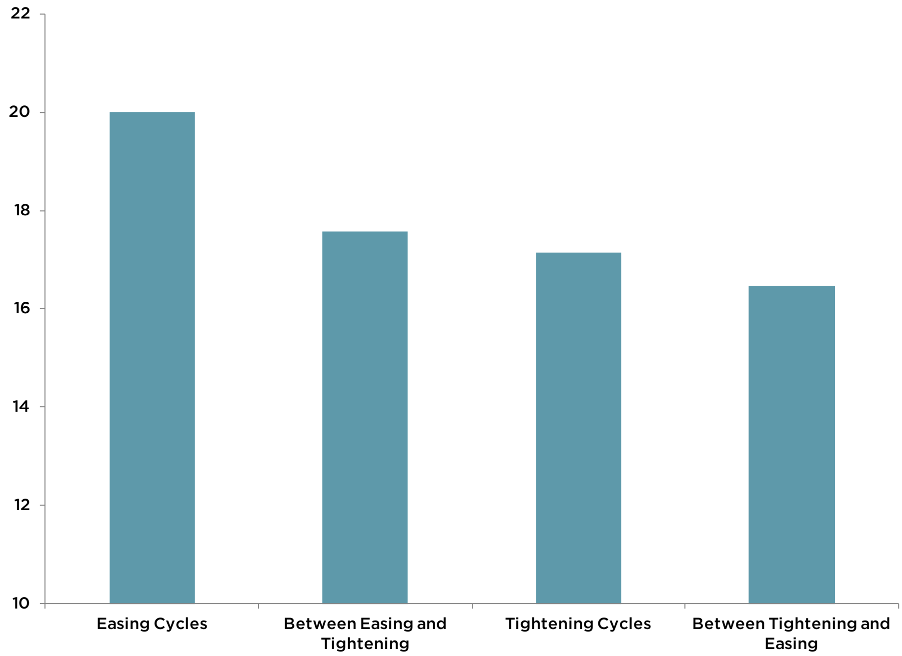

Volatility picked up in the third quarter, but has still been relatively subdued on average for the year. And while volatility has generally been a good reflection of the prevailing market environment, it has been a very poor leading indicator. There has been almost no correlation historically between volatility levels and returns over the subsequent year.

Source: Chicago Board Options Exchange

# Fed tightening often means lower volatility

**Average volatility index across the monetary policy cycle**

Index



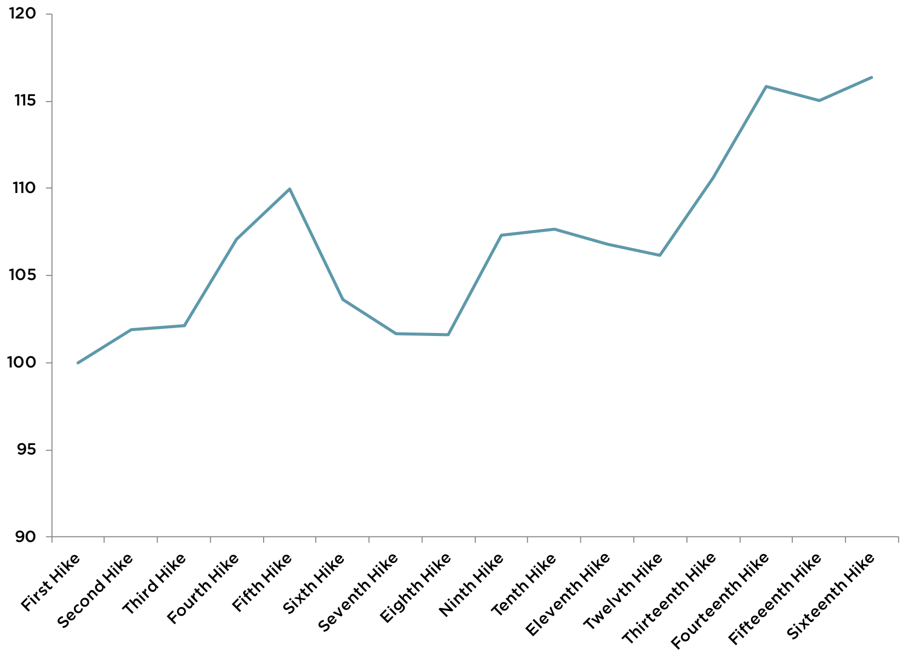

While there is some understandable concern among investors over the onset of Fed rate hikes, these periods have historically coincided with lower equity market volatility. This is largely due to the Fed's reluctance to raise rates during periods of high volatility as well as to the typically healthy economic backdrop that prevails when the Fed is tightening.

Source: Chicago Board Options Exchange

# Stocks tend to rise with rates

**Average trend in the S&P 500 during Federal Reserve tightening cycles**

Index; First rate hike = 100



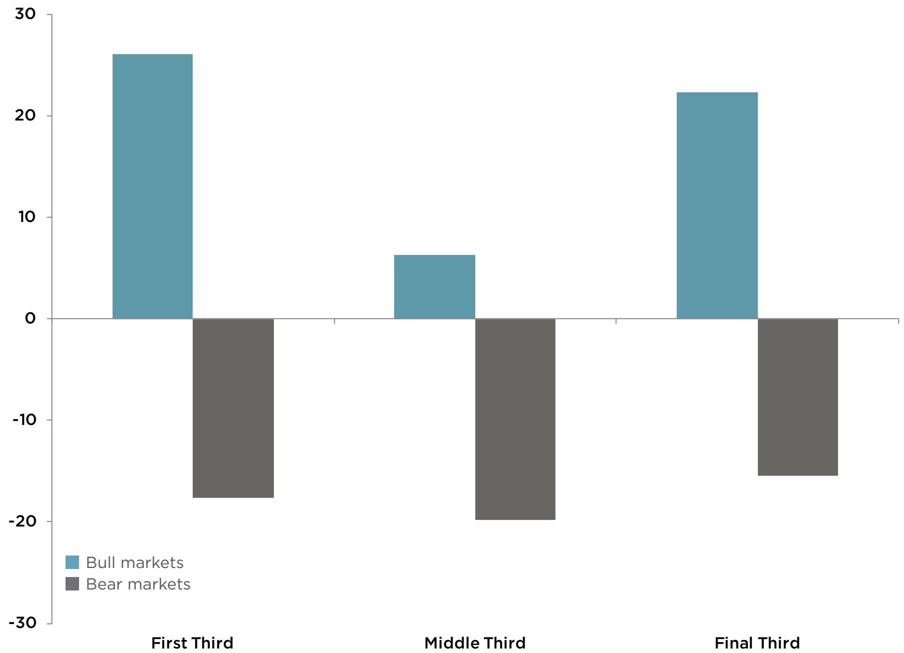

Federal Reserve rate hikes have almost always come against a backdrop of economic strength. Not surprisingly, stocks have tended to rise during these periods, reversing course only after monetary tightening has been well advanced and the economy itself has retrenched.

Source: Bloomberg

# Bull markets are strongest in their early and latter stages

**Average annualized changes in the S&P 500 by stage of market cycle**

Percent




Across its history, the S&P 500 has tended to rally strongly in the latter stages of bull markets after hitting a lull in the middle of these cycles. The index has advanced at a double-digit annualized pace in the final third stage in nine out of the last 11 bull markets. In ten of these cycles, the middle third was the weakest period.

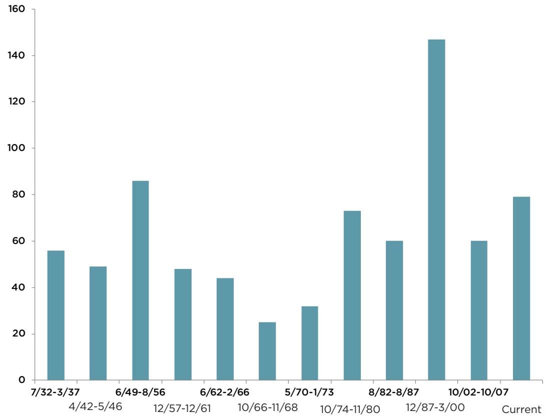
This is driven by the fact that stocks tend to spring back in the initial periods coming out of bear markets and then move up robustly again as the economic cycle matures, earnings growth jumps, and sentiment moves to lofty levels.

Source: Standard & Poor's

# The bull market still has plenty of room left to run

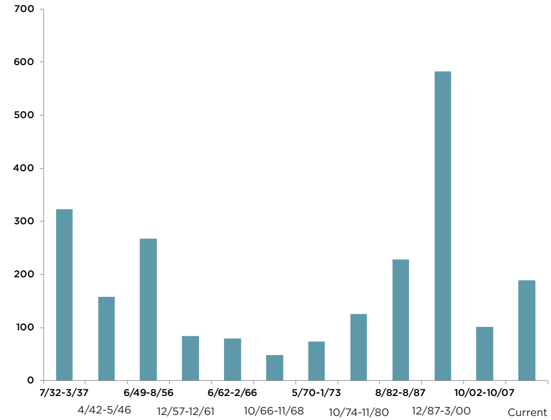
### Length of bull markets

Months




### Changes in the S&P 500 by bull market

Percent




The bull market is now more than six years old and has already seen a gain exceeding 200% in the S&P 500. While these numbers place the current cycle right in line with the historical averages for both longevity and magnitude, history shows that these periods are far from uniform. The mid-60s cycle ran for just two years and saw an increase in the S&P of less than 50%, while the cycle that ended in early 2000 was more than a dozen years in the making and saw a near-septupling in the index.

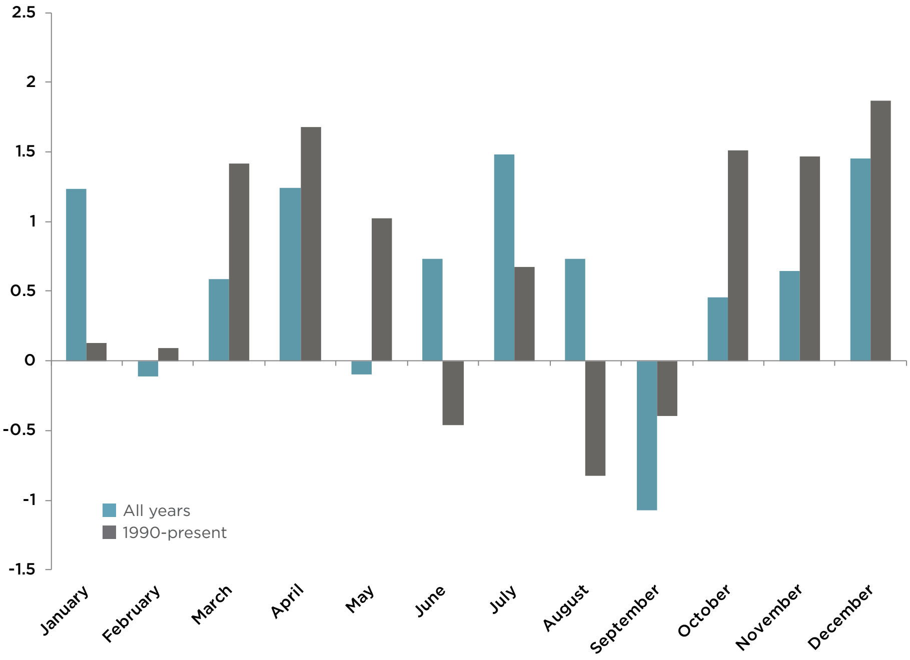
This is simply a reflection of the fact that bull markets die not of old age, but disease. This one will end as they all do, not after a certain amount of time is reached or a certain return is achieved, but rather only after the Fed tightens policy to the point of being restrictive and the economic outlook dims.

Source: Standard & Poor's

# The market is moving into a seasonally strong period

**Average monthly changes in the S&P 500**

Percent



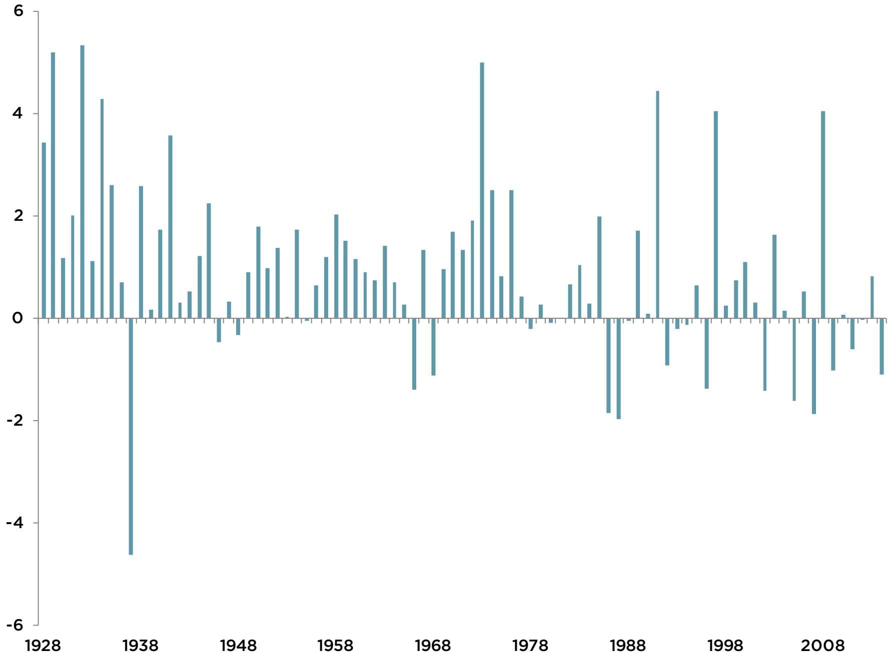

Stocks have tended to strengthen into the end of the year, especially over the last quarter-century. October, November, and December have been three of the four strongest months for the S&P since 1990.

Source: Standard & Poor's

# More years without a Santa Claus rally

**Changes in the S&P 500 between Christmas and the end of the year**

Percent




The "Santa Claus rally," the tendency for stock prices to rise in the last week of the year due to portfolio window dressing, was one of the most reliable equity market indicators for decades. From 1928 to 1977, the S&P 500 rose 44 out of 50 times between Christmas and New Year's Day and averaged an increase of 1.3% — nearly ten times the gain in a typical week.

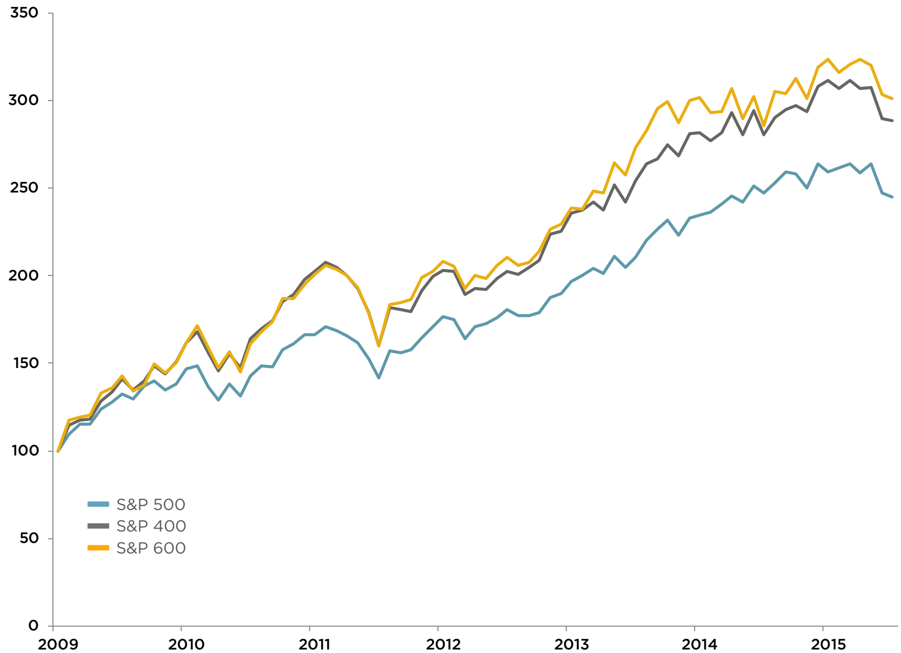
Since then, the win percentage in the last week of the year has slipped to 60% with an average gain of 0.3%. These are still relatively solid numbers, but they are not nearly as bankable as in decades past.

Source: Bloomberg

# Small- and mid-cap stocks continue to lead the rally

### The S&P 500, 400 and 600

Index (March 2009 = 100)




The small-cap S&P 600 and mid-cap S&P 400 both underperformed the large-cap S&P 500 in the third quarter, but both have still outperformed for the year.

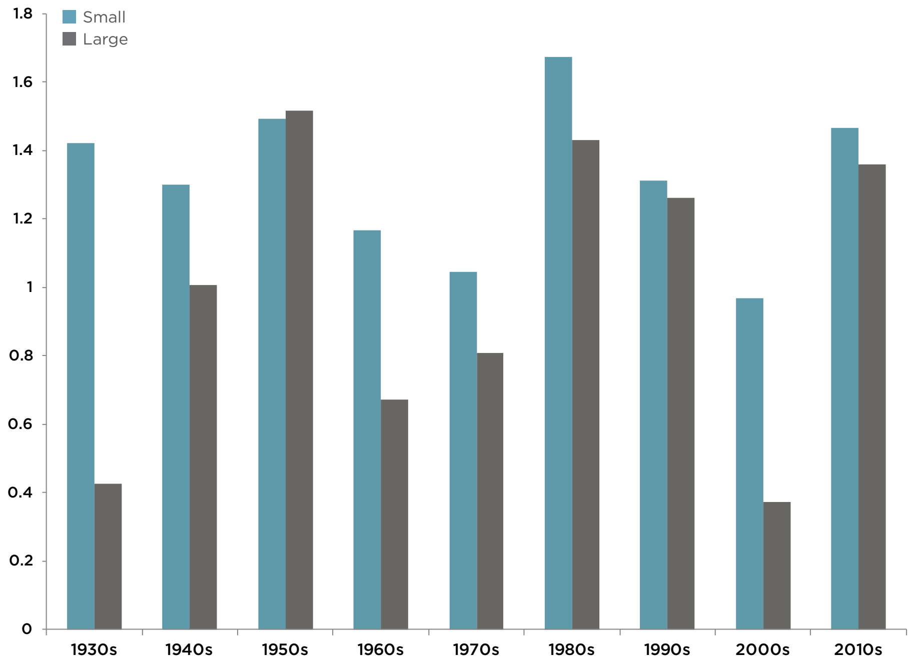
Last year marked only the second time since the turn of the century that the 500 outpaced both mid-caps and small-caps.

Source: Standard & Poor's

# Smaller stocks have been stronger over the long run

**Average monthly changes in small and large company stocks**

Percent




Over long periods of time, small company stocks have consistently outpaced large-caps. The average monthly change in small stocks has exceeded that in large stocks in each of the last eight decades save the 1950s.

Small-caps are also more volatile — the standard deviation of monthly changes in smaller stocks has been higher than that of large-caps in every decade since the 1930s — but have over time compensated investors for the added risk.

Source: Kenneth French, Data as of September 2015

# Most sectors now down for the year

## Yearly changes in S&P sectors

Percent

| 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 YTD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Energy 29% | Energy 29% | Telecoms 32% | Energy 32% | Staples -18% | Technology 60% | Discretionary 26% | Utilities 15% | Financials 26% | Discretionary 41% | Utilities 24% | Discretionary 3% |
| Utilities 20% | Utilities 13% | Energy 22% | Materials 20% | Health Care -24% | Materials 45% | Industrials 24% | Staples 11% | Discretionary 22% | Health Care 39% | Health Care 23% | Staples -3% |
| Telecoms 16% | Health Care 5% | Discretionary 17% | Utilities 16% | Utilities -32% | Discretionary 39% | Materials 20% | Health Care 10% | Health Care 15% | Industrials 38% | Technology 18% | Health Care -3% |
| Industrials 16% | Financials 4% | Utilities 17% | Technology 16% | Telecoms -34% | S&P 500 23% | Energy 18% | Discretionary 4% | S&P 500 13% | Financials 33% | Financials 13% | Technology -4% |
| Discretionary 12% | S&P 500 3% | Financials 16% | Staples 12% | Discretionary -35% | Industrials 17% | S&P 500 13% | Energy 3% | Technology 13% | S&P 500 30% | Staples 13% | S&P 500 -7% |
| Materials 11% | Materials 2% | Materials 16% | Industrials 10% | Energy -36% | Health Care 17% | Telecoms 12% | Technology 1% | Telecoms 12% | Technology 26% | S&P 500 11% | Telecoms -7% |
| S&P 500 9% | Staples 1% | S&P 500 14% | Telecoms 8% | S&P 500 -38% | Financials 15% | Financials 11% | Telecoms 1% | Industrials 12% | Materials 23% | Discretionary 8% | Financials -8% |
| Financials 8% | Technology 0% | Staples 12% | Health Care 5% | Industrials -42% | Energy 11% | Staples 11% | S&P 500 0% | Materials 12% | Staples 23% | Industrials 8% | Utilities -8% |
| Staples 6% | Industrials 0% | Industrials 11% | S&P 500 4% | Technology -44% | Staples 11% | Technology 9% | Industrials -3% | Staples 8% | Energy 22% | Materials 5% | Industrials -11% |
| Technology 2% | Discretionary -7% | Technology 8% | Discretionary -14% | Materials -47% | Utilities 7% | Utilities 1% | Materials -12% | Energy 2% | Utilities 9% | Telecoms -2% | Materials -18% |
| Health Care 0% | Telecoms -9% | Health Care 6% | Financials -21% | Financials -57% | Telecoms 3% | Health Care 1% | Financials -18% | Utilities -3% | Telecoms 6% | Energy -10% | Energy -23% |

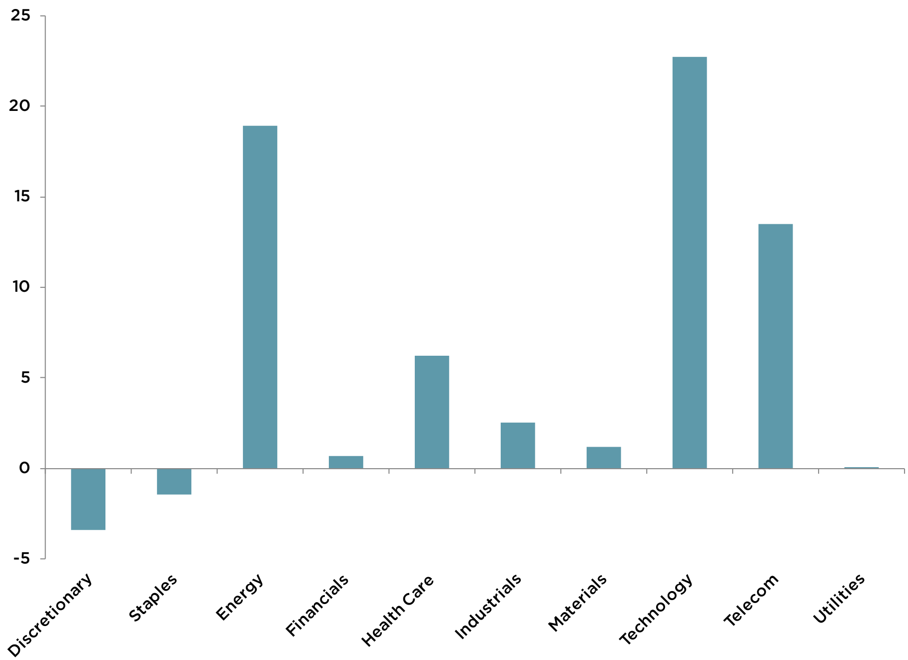
Energy stocks continue to lag as energy prices remain under pressure. Health care, in contrast, continues to outperform, although it is now on track to fall for only the second time in the last 13 years.

Source: Bloomberg

# Technology and energy have performed best during rate hike cycles

**Average annualized changes in the S&P 500 sectors during Federal Reserve tightening cycles**

Percent




The market has been in an uptrend more often than not during Fed rate hike cycles and the biggest gains have historically come in technology, energy, and telecoms. Not coincidentally, these are three of the sectors that benefit most as economic expansions mature and broaden.

Source: Standard & Poor's

# Global stocks retreat

## MSCI EAFE Index

Index


The ongoing slump in China helped to pull global stocks to their worst quarter in three years.

Source: Bloomberg

# Emerging markets have led the global benchmark lower

## Yearly changes in benchmark equity indices

Percent

| 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 YTD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Brazil 18% | Russia 83% | China 130% | China 97% | UK -31% | Russia 121% | Russia 23% | US 0% | Germany 29% | Japan 57% | China 53% | Russia 18% |
| Italy 15% | India 42% | Russia 68% | India 47% | Canada -35% | Brazil 83% | India 17% | UK -6% | India 26% | US 30% | India 30% | Italy 12% |
| India 13% | Japan 40% | India 47% | Brazil 44% | US -38% | India 81% | Germany 16% | Canada -11% | Japan 23% | Germany 25% | US 11% | France 4% |
| Canada 12% | Brazil 28% | Brazil 33% | Germany 22% | Germany -40% | China 80% | Canada 14% | Germany -15% | France 15% | France 18% | Canada 7% | Japan 0% |
| US 9% | Germany 27% | Germany 22% | Russia 12% | Brazil -41% | Canada 31% | US 13% | Russia -17% | US 13% | Italy 17% | Japan 7% | Germany -1% |
| Japan 8% | France 23% | France 18% | Canada 7% | Japan -42% | Germany 24% | UK 9% | France -17% | Italy 8% | UK 14% | Germany 3% | India -5% |
| UK 8% | Canada 22% | Italy 16% | UK 4% | France -43% | US 23% | Brazil 1% | Japan -17% | Brazil 7% | Canada 10% | Italy 0% | China -6% |
| France 7% | UK 17% | Canada 15% | US 4% | Italy -50% | France 22% | Japan -3% | Brazil -18% | UK 6% | India 9% | France -1% | US -7% |
| Germany 7% | Italy 16% | US 14% | France 1% | India -52% | UK 22% | France -3% | China -22% | Russia 5% | Russia 2% | UK -3% | UK -8% |
| Russia 7% | US 3% | UK 11% | Italy -7% | China -65% | Italy 19% | Italy -13% | India -25% | Canada 4% | China -7% | Brazil -3% | Canada -9% |
| China -15% | China -8% | Japan 7% | Japan -11% | Russia -67% | Japan 19% | China -14% | Italy -25% | China 3% | Brazil -15% | Russia -7% | Brazil -10% |

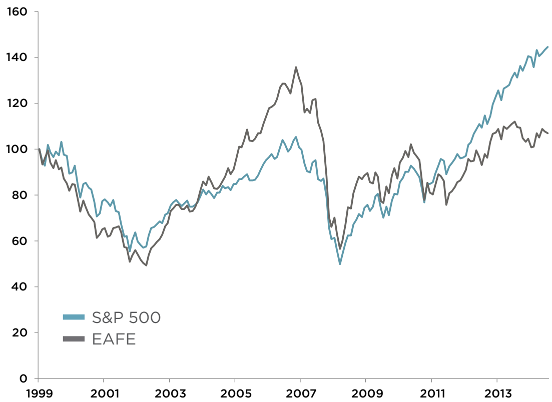
Chinese stocks continued to slide in the third quarter and are now lower for the year. In Europe, Italy is on pace to outperform Germany for the first time in more than a decade.

Source: Bloomberg

# Global markets have room to catch up

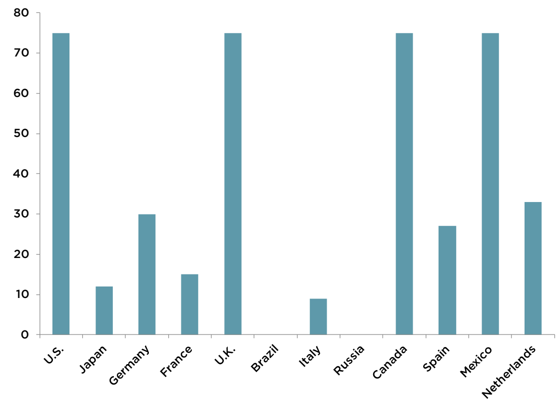
### The S&P 500 and MSCI EAFE Index

Index (12/99 = 100)




### Time since last recession

Months



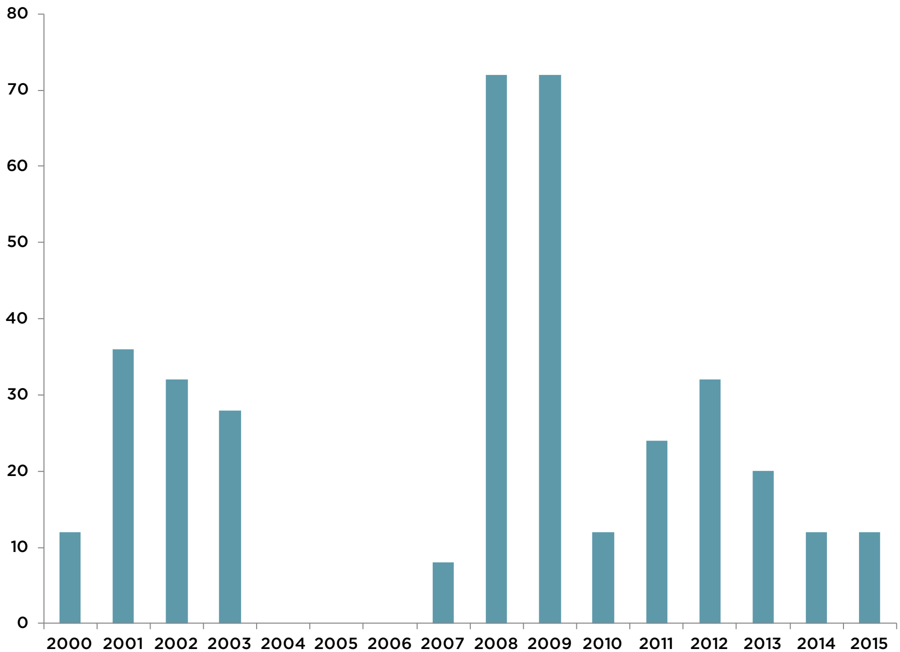

Global developed markets have lagged the U.S. badly in recent years, returning an annualized 4.0% over the last four years vs. a 14.1% pace for the S&P 500. This owes in large part to the fact that many economies fell into double-dip recessions in the first part of this decade and are now just in the early stages of renewed recoveries. As the nascent expansions in these countries gather steam, market performance should follow in kind.

Source: Bloomberg

# Most of the world is growing

**Percentage of the world's largest 25 economies in recession**

Percent



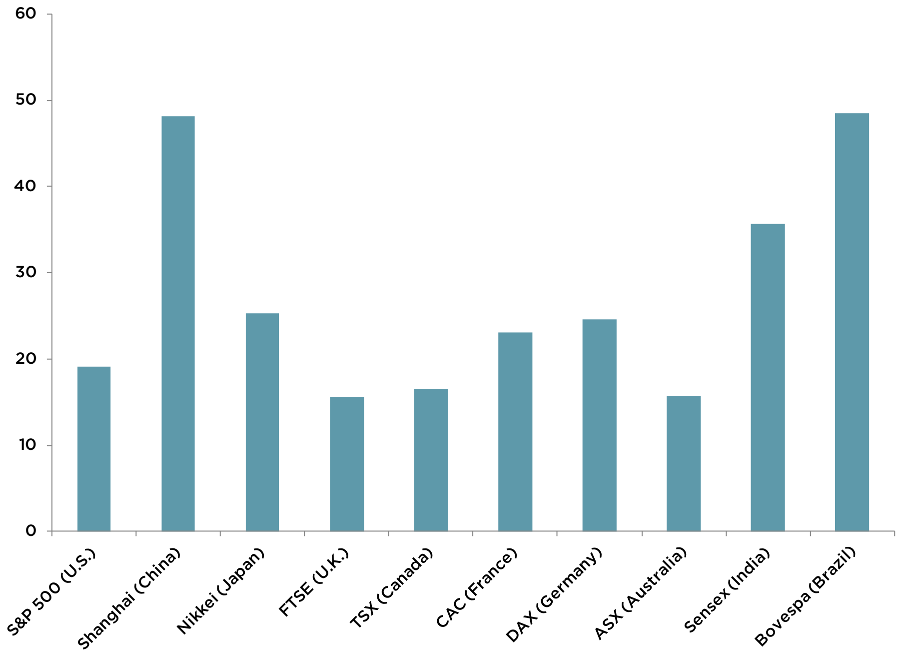

The global recovery continues to broaden. Among the world's largest economies, only Brazil, Russia, and Canada have been in recession this year and the latter is already beginning to show signs of recovery. Widespread monetary accommodation and a maturing U.S. expansion are slowly but surely lifting much of the rest of the world.

Source: Bloomberg

# The Chinese market has long been volatile

**Standard deviation of yearly changes in benchmark equity indices**

Percent




It has been a topsy-turvy year in China's stock market, but this is nothing unusual. Over the past two decades, the Shanghai Composite has sported a yearly standard deviation approaching 50%. The index has turned in an absolute change of at least 50% in five out of the last nine years and has only once in the last quarter-century recorded back-to-back annual changes in the single digits.

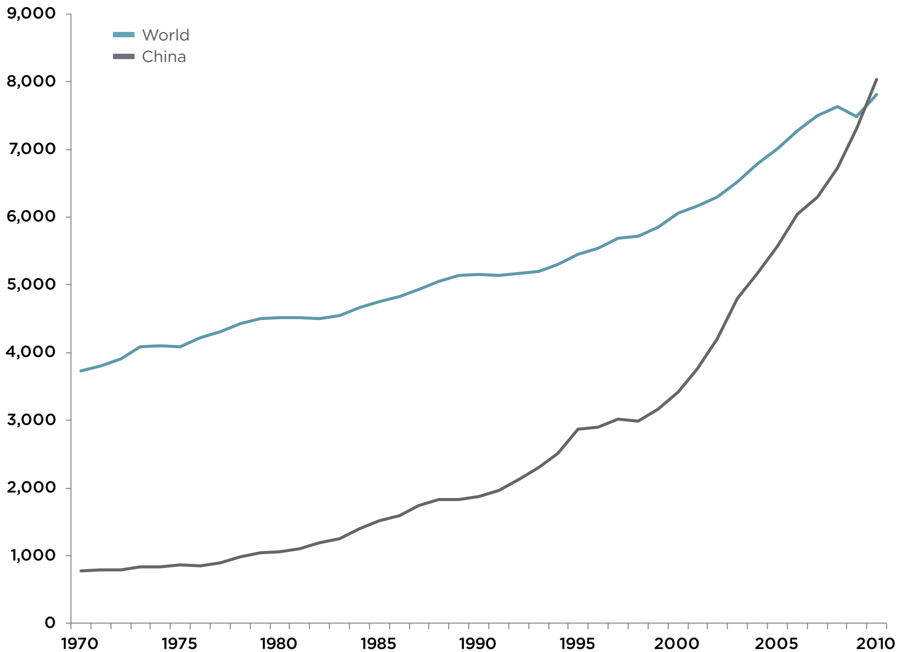
China is a rapidly emerging, rapidly transforming economy and this has long been reflected in its equity market.

Source: Bloomberg

# China is still rapidly developing

## Real per capita gross domestic product

International $




China's rate of economic growth is slowing, but its economic development should continue apace. Recent decades have seen the emergence of a middle class that should help to foster the transition to a services and consumption led economy.

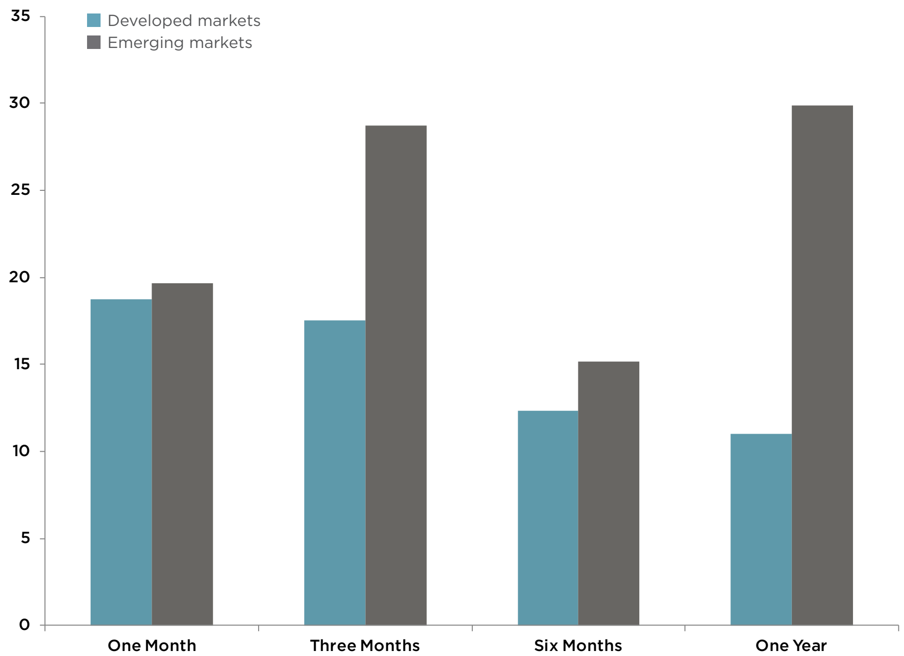
Twenty years ago, China's per capita income was roughly equal to that of Yemen and El Salvador. Today, it is above the weighted global average.

Source: Angus Maddison

# Credit rating downgrades are lagging indicators

**Median changes in benchmark equity market indices after S&P sovereign rating downgrades**

Percent




Brazil's sovereign credit rating was cut to junk status by S&P in September due to political instability and a lack of progress on budget targets. Brazil has indeed been mismanaged and finds itself in the midst of a recession that appears unlikely to end anytime soon. However, ratings downgrades have historically been lagging indicators, especially in relation to the stock market.

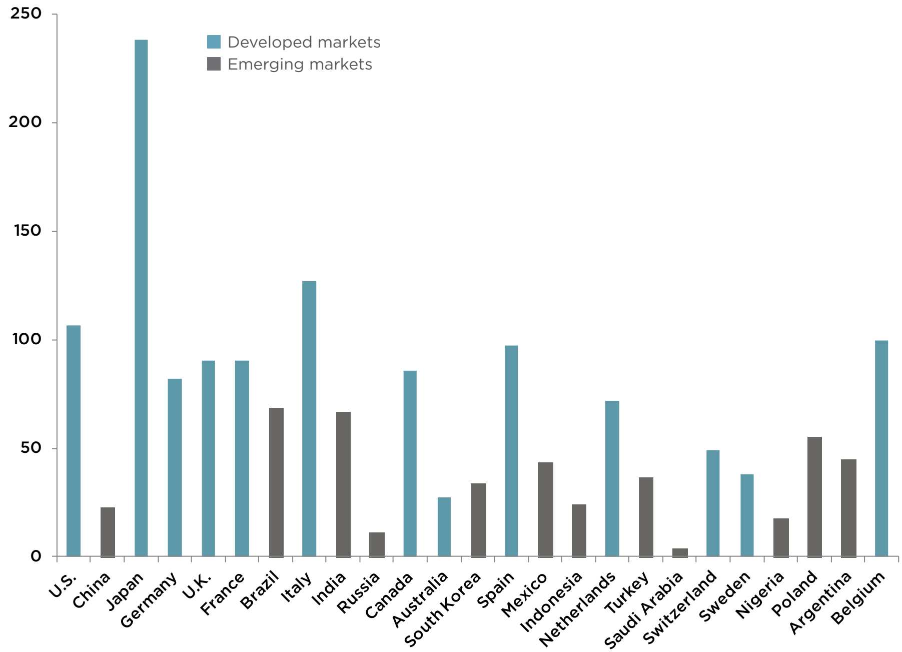
For emerging markets, benchmark equity indices have recorded median gains of nearly 30% in the year after these events. Brazilian stocks in particular have already been under pressure for some time, having fallen by more than a third since peaking in 2010.

Source: Standard & Poor's

# Emerging markets still well positioned for long-term growth

**Gross government debt as a percentage of gross domestic product**

Percent




While emerging market stocks have fared poorly in recent quarters, the solid structural fundamentals in the underlying economies remain very much in place. Among the world's 25 largest economies, for example, the lowest debt burdens are concentrated almost entirely among the emerging markets. EM countries also have generally higher savings rates, lower old age dependency ratios, and faster projected labor force growth.

These factors have little influence over the quarter-to-quarter swings in the markets, but they suggest healthy long-term economic growth along with strong long-term equity relative performance.

Source: International Monetary Fund

# The yield curve is flattening as Fed tightening is drawing closer

**Ten and two-year U.S. Treasury yields**

Percent

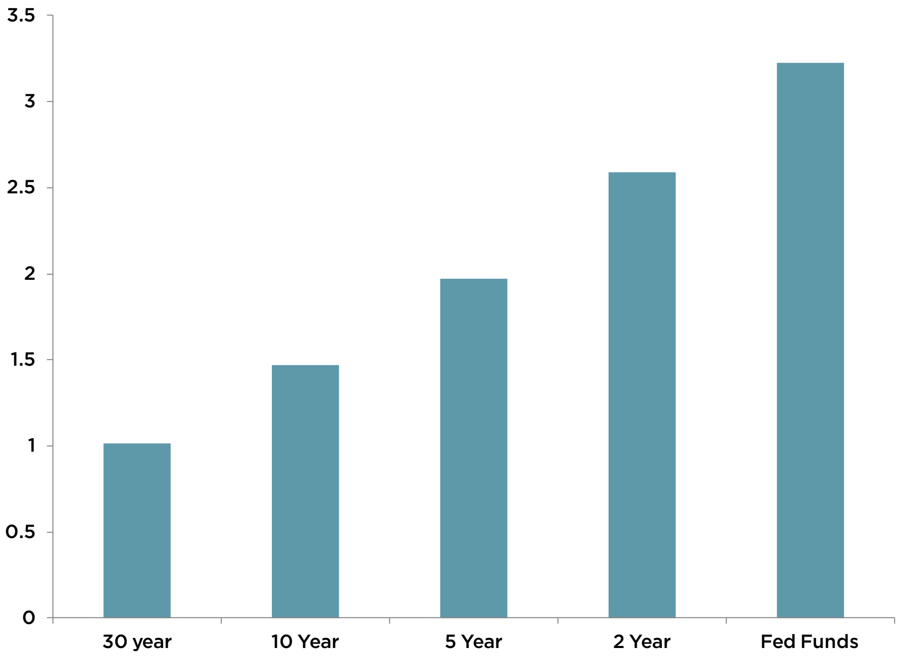

Two-year yields hit a four-year high in September even as market forecasts for Fed rate hikes were pushed back. The curve does tend to begin flattening well in advance of monetary tightening, however, and this cycle looks to be no exception.

Source: Bloomberg

# Rates should rise with the Fed in play

**Changes in yield during Federal Reserve tightening cycles**

Percent




Rates across the yield curve are largely a function of monetary policy. Yields generally begin rising after the Fed ends an easing cycle and typically continue to move higher as benchmark rates begin climbing. The curve flattens during these periods as well, with Fed policy exerting a bigger pull on short-term rates than on long-term rates.

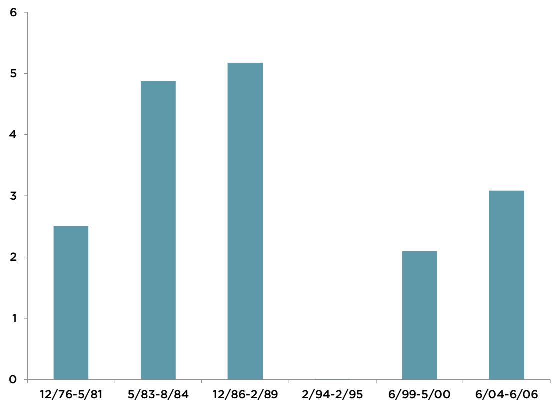
On average, ten-year yields rise at half the pace of the federal funds target during monetary tightening cycles.

Source: Bloomberg

# Fixed income returns have remained positive during rate hike cycles

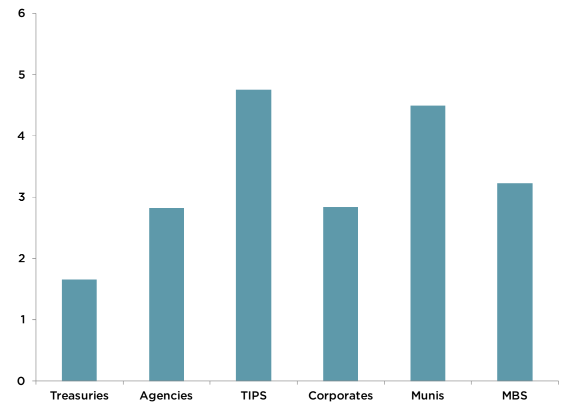
**Annualized returns in the Barclays Aggregate Fixed Income Index during Federal Reserve tightening cycles**

Percent




**Annualized fixed income returns during the 2004–06 tightening cycle**

Percent




While fixed income investments tend to underperform when the Fed is raising rates, the coupon payments they earn — the income portion of fixed income — have meant that they generally haven't lost money during these periods. Low yields will pressure returns in the forthcoming Fed cycle, but even modest reinvestment of income should help a diversified basket of fixed income investments avoid substantial losses.

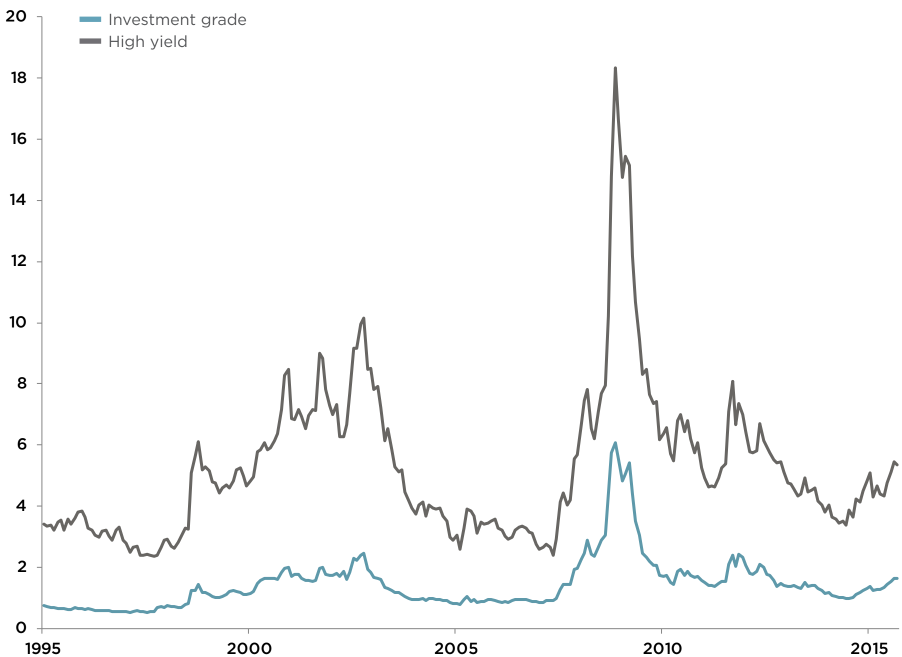
Yields were also relatively low at the outset of the 2004–06 tightening cycle — the fed funds target started that period at 1.0% — and all major fixed income asset classes still gained marginal ground across the cycle.

Source: Barclays

# Spreads still have room to tighten

### Investment grade and high yield option adjusted spreads

Percent




Credit spreads hit three-year highs in the third quarter and remain somewhat wide for this stage of the business cycle. Investment grade corporate spreads, which ended Q3 at 1.7%, were below 1% for the better part of four years in the last cycle and for nearly seven years in the 1990s cycle.

High-yield spreads have followed a similar pattern. Most importantly, spreads do not begin rising in earnest until the economic cycle turns.

Source: Barclays

# Most fixed income asset classes little changed in 2015

## Yearly changes by asset class

Percent

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 YTD |
|---|---|---|---|---|---|---|---|---|---|---|
| Municipals 3.5% | High Yield 11.8% | Barclays TIPS 11.8% | Treasuries 20.1% | High Yield 58.2% | High Yield 15.1% | Treasuries 17.2% | High Yield 15.8% | High Yield 7.4% | Treasuries 10.7% | Treasuries 2.4% |
| High Yield 2.7% | MBS 5.2% | Treasuries 9.7% | Agencies 9.3% | Corporates 18.7% | Corporates 9.0% | Barclays TIPS 14.0% | Corporates 9.8% | Agencies -1.4% | Municipals 9.1% | Municipals 1.8% |
| Barclays TIPS 2.7% | Municipals 4.8% | Agencies 7.9% | MBS 8.3% | Municipals 12.9% | Treasuries 8.0% | Municipals 10.7% | Barclays TIPS 7.3% | MBS -1.4% | Corporates 7.5% | Agencies 1.7% |
| MBS 2.6% | Agencies 4.4% | Barclays Agg 7.0% | Barclays Agg 5.2% | Barclays TIPS 10.5% | Barclays Agg 6.5% | Corporates 8.1% | Municipals 6.8% | Corporates -1.5% | MBS 6.1% | MBS 1.6% |
| Barclays Agg 2.4% | Barclays Agg 4.3% | MBS 6.9% | Barclays TIPS -1.7% | Barclays Agg 5.9% | Barclays TIPS 6.3% | Barclays Agg 7.8% | Barclays Agg 4.2% | Barclays Agg -2.0% | Barclays Agg 6.0% | Barclays Agg 1.1% |
| Agencies 2.3% | Corporates 4.3% | Corporates 4.6% | Municipals -2.5% | MBS 5.9% | MBS 5.4% | MBS 6.2% | Treasuries 4.1% | Municipals -2.6% | Barclays TIPS 4.4% | Corporates 0.0% |
| Treasuries 2.1% | Treasuries 1.3% | Municipals 3.4% | Corporates -4.9% | Agencies 1.5% | Agencies 4.4% | High Yield 5.0% | MBS 2.6% | Treasuries -7.8% | Agencies 3.6% | Barclays TIPS -1.1% |
| Corporates 1.7% | Barclays TIPS 0.5% | High Yield 1.9% | High Yield -26.2% | Treasuries -9.8% | Municipals 2.4% | Agencies 4.8% | Agencies 2.2% | Barclays TIPS -9.3% | High Yield 2.5% | High Yield -2.6% |

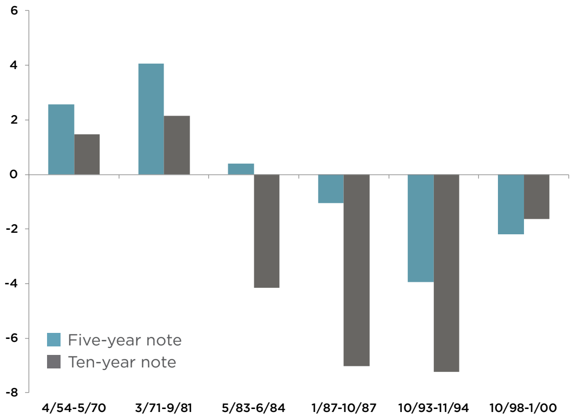
Returns for spread products mostly languished in the first nine months of the year, with all major asset classes either slightly positive or slightly negative since the end of 2014.

Source: Barclays

# Treasury losses tend to be limited in rising rate environments

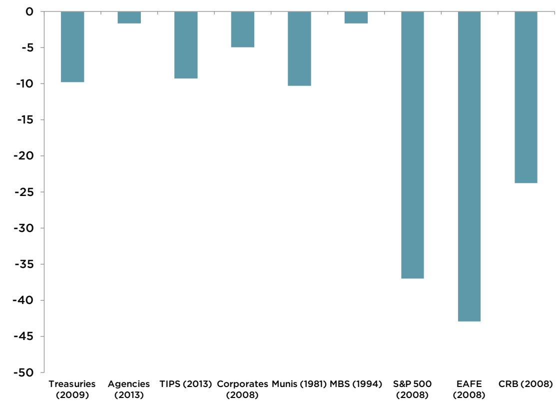
### Treasury market returns during fixed income bear markets

Percent




### Worst annual return performance, 1980-present

Percent




While Treasuries have often sold off in recent decades when long-term rates have been rising, these losses have generally been limited, even when the rate increases have been substantial. From 1971 to 1981, for example, the 10-year yield jumped from less than 6% to more than 15% and yet intermediate and long Treasuries still delivered modest but positive returns, thanks to their income components.

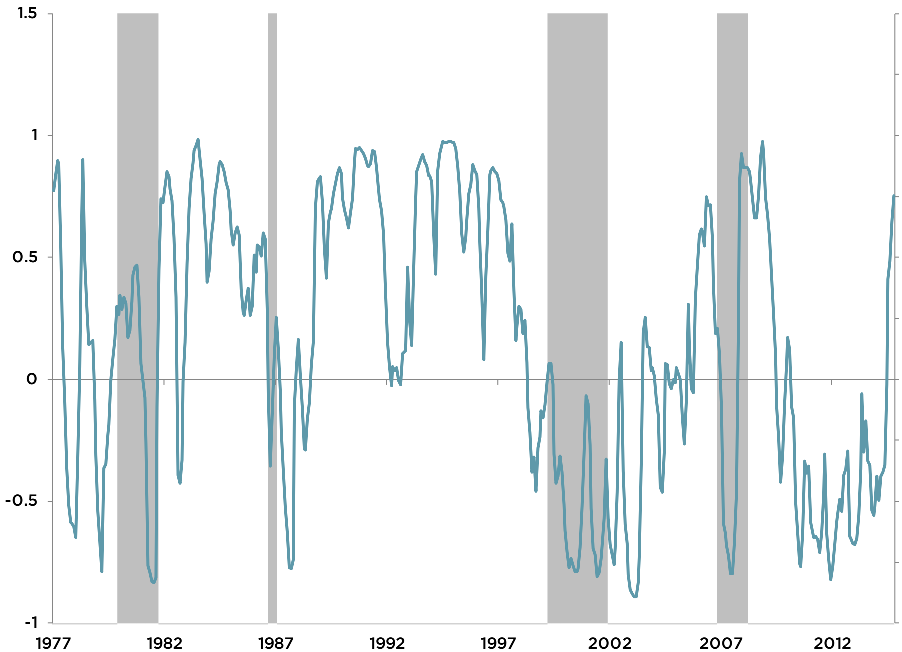
Shorter rising rate periods with fewer coupons to clip saw losses, but these were far from catastrophic. Again, it is the income component of fixed income that constrains the potential losses relative to other asset classes. Over the last three and a half decades, the declines in even the worst years for most fixed income asset classes have been limited to the single-digits.

Source: Bloomberg

# Stocks and bonds are increasingly moving together

**Rolling 12-month correlation between the Barclays Aggregate Index and the S&P 500**

Correlation




The correlation between stocks and bonds is on the rise, as is often the case during periods of healthy economic growth and a general uptrend in equity market performance. The diversification benefit of fixed income securities is evident in and around bear markets, however, when the correlation coefficient between the two asset classes tends to turn sharply negative.

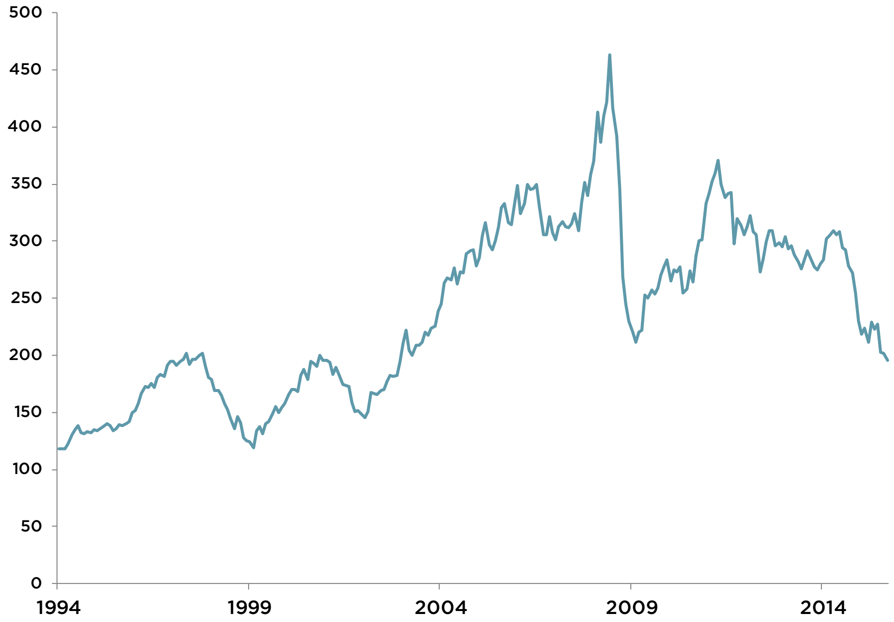
Barclay's aggregate fixed income index has returned an average of more than 10% annualized across the last four equity bear markets.

Source: Bloomberg; Shaded areas represent bear markets

# Commodity price decline resumes

### The CRB Commodity Index

Index




Commodities fell for the fourth time in five quarters, as a brief rally in crude oil prices stalled.

Source: Commodity Research Bureau

# Commodity prices remain broadly on the decline for the year

## Yearly changes in commodity index prices

Percent

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 YTD |
|---|---|---|---|---|---|---|---|---|---|---|
| Industrials 36% | Industrials 61% | Energy 42% | Precious Metals 0% | Industrials 82% | Precious Metals 34% | Precious Metals 7% | Agriculture 6% | Energy 5% | Livestock 14% | Precious Metals -5% |
| Energy 31% | Precious Metals 24% | Agriculture 28% | Livestock -27% | Precious Metals 25% | Agriculture 34% | Energy 5% | Precious Metals 6% | Livestock -4% | Precious Metals -4% | Agriculture -14% |
| Precious Metals 19% | Agriculture 13% | Precious Metals 28% | Agriculture -29% | Energy 11% | Industrials 17% | Livestock -1% | Industrials 1% | Industrials -13% | Industrials -7% | Livestock -15% |
| Livestock 3% | Livestock -7% | Industrials -6% | Industrials -49% | Agriculture 4% | Livestock 10% | Agriculture -16% | Energy -1% | Agriculture -18% | Agriculture -11% | Industrials -21% |
| Agriculture 2% | Energy -27% | Livestock -9% | Energy -52% | Livestock -14% | Energy 2% | Industrials -22% | Livestock -4% | Precious Metals -30% | Energy -44% | Energy -22% |

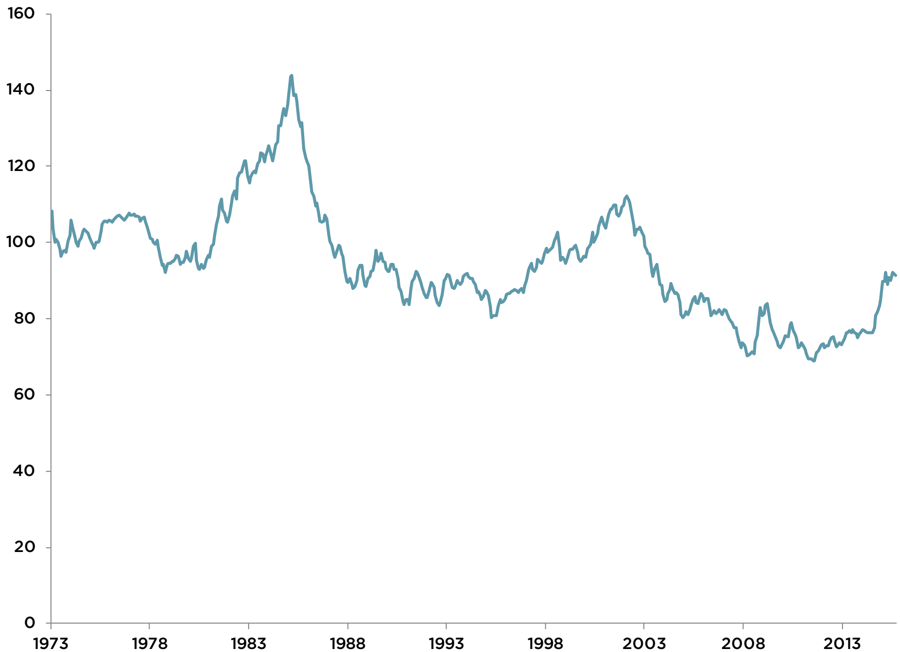
Commodities have been under pressure across the board. Precious metals showed some signs of life as the Fed held rates unchanged, but remained down for the year.

Source: Goldman Sachs

# The dollar is back on the climb

## The trade-weighted major currencies U.S. dollar index

Index




Signs that a number of central banks may soon ease policy further sent the dollar higher again in the third quarter.

Source: Federal Reserve Board of Governors

# The dollar is rising against all major currencies

## Annual currency changes

Percent

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 YTD |
|---|---|---|---|---|---|---|---|---|---|---|
| Dollar Index 12.8% | British Pound 12.0% | Canadian Dollar 14.4% | Japanese Yen 18.9% | Canadian Dollar 13.6% | Japanese Yen 12.8% | Japanese Yen 5.2% | British Pound 4.4% | Euro 4.0% | Dollar Index 12.8% | Dollar Index 6.6% |
| Canadian Dollar 3.3% | Euro 10.2% | Euro 9.5% | Dollar Index 6.0% | British Pound 9.7% | Canadian Dollar 5.2% | Dollar Index 1.5% | Canadian Dollar 2.9% | British Pound 1.9% | British Pound -6.3% | Japanese Yen -0.1% |
| British Pound -11.3% | Canadian Dollar -0.3% | Japanese Yen 6.1% | Euro -4.4% | Euro 2.5% | Dollar Index 1.5% | British Pound -0.5% | Euro 1.7% | Dollar Index 0.3% | Canadian Dollar -9.4% | British Pound -3.0% |
| Euro -14.4% | Japanese Yen -1.1% | British Pound 1.3% | Canadian Dollar -22.1% | Japanese Yen -2.6% | British Pound -3.6% | Canadian Dollar -2.3% | Dollar Index -0.5% | Canadian Dollar -7.1% | Euro -13.6% | Euro -8.3% |
| Japanese Yen -14.7% | Dollar Index -8.2% | Dollar Index -8.3% | British Pound -35.9% | Dollar Index -4.2% | Euro -7.1% | Euro -3.3% | Japanese Yen -12.8% | Japanese Yen -21.4% | Japanese Yen -13.7% | Canadian Dollar -14.7% |

The Canadian dollar has been especially soft this year, as the economy fell into its first recession in six years.

Source: Bloomberg

# U.S. economy

## Highlights

44 In most cases, the lag between the start of a monetary tightening cycle and the end of an expansion has been extensive

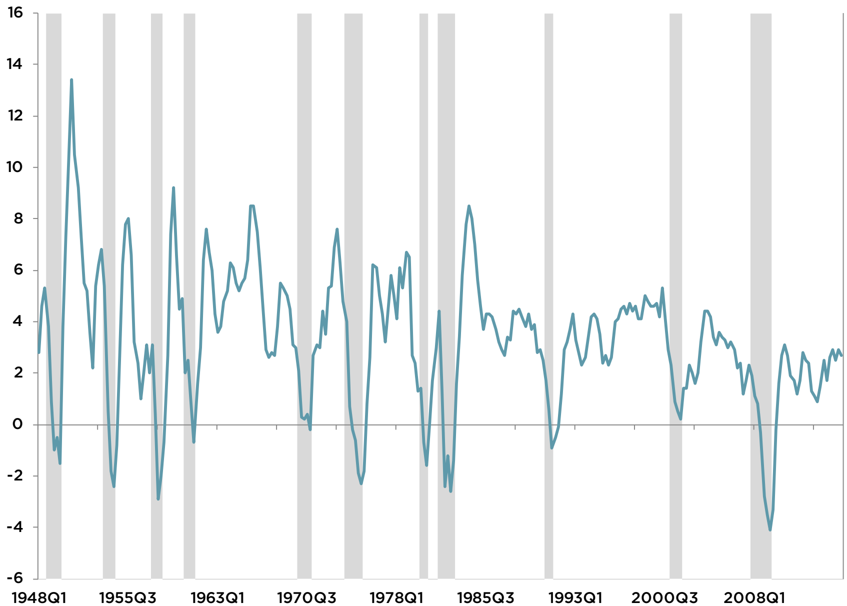
47 The labor market is tightening by any measure, even when the definition of the unemployed is broadened to include discouraged workers and those working part-time for economic reasons

51 Inflation has been subdued, but it is a lagging indicator. The biggest jumps in the Consumer Price Index have come on average only after the economy has turned again to the downside

# The expansion is slowly gaining traction

**Yearly changes in real gross domestic product (GDP)**

Percent




Real GDP jumped by 3.9% in the second quarter and has now risen by a solid 2.7% pace over the last two years.

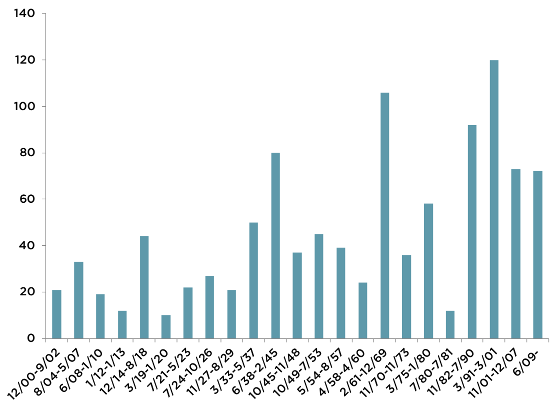
The pickup in growth is being led by consumer spending, which is accelerating as the labor market continues to tighten.

Source: Bureau of Economic Analysis; Note: Shaded areas depict recessionary periods.

# Recovery has a long way to run

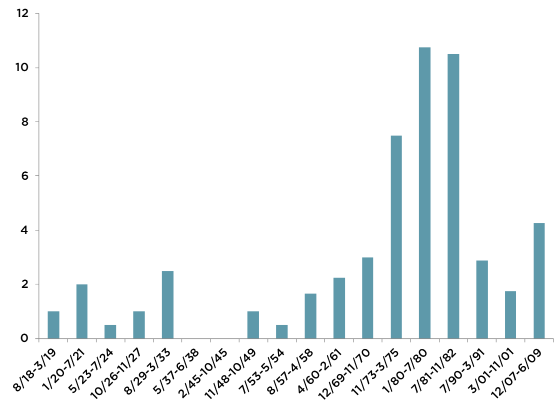
### Length of economic expansions

Months




### Changes in benchmark Fed interest rates ahead of recessions

Percent




The expansion has reached its sixth anniversary, but remains relatively young by recent standards. Each of the last three expansions lasted longer than six years and together averaged almost eight years in length. More to the point, these cycles ended as all modern cycles did — via tighter monetary policy from the Federal Reserve. With Fed officials hinting strongly that policy tightening will proceed slowly in the years ahead, the next recession continues to appear distant.

Source: National Bureau of Economic Research, Bloomberg

# Consumer spending is starting to gather steam

## Yearly changes in the real GDP components

Percent

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 YTD |
|---|---|---|---|---|---|---|---|---|---|---|
| Exports 6.5% | Exports 10.2% | Exports 9.9% | Government 3.3% | Government 2.3% | Imports 12.0% | Investment 9.6% | Investment 3.7% | Investment 7.5% | Imports 5.4% | Investment 6.8% |
| Imports 5.7% | Imports 4.5% | Government 1.8% | Consumption -2.0% | Exports 0.8% | Investment 11.1% | Exports 4.2% | Exports 2.2% | Exports 5.2% | Investment 4.7% | Imports 5.1% |
| Investment 5.7% | Consumption 3.3% | Consumption 1.4% | Exports -2.8% | Consumption -0.2% | Exports 10.1% | Imports 3.5% | Consumption 1.3% | Imports 2.4% | Consumption 3.2% | Consumption 2.7% |
| Consumption 3.0% | Government 2.1% | Imports 0.8% | Imports -6.0% | Imports -6.2% | Consumption 3.1% | Consumption 1.5% | Imports 0.3% | Consumption 2.3% | Exports 2.4% | Government 1.3% |
| Government 0.8% | Investment -2.7% | Investment -2.2% | Investment -15.9% | Investment -11.0% | Government -1.1% | Government -3.0% | Government -2.2% | Government -2.9% | Government 0.4% | Exports -0.6% |

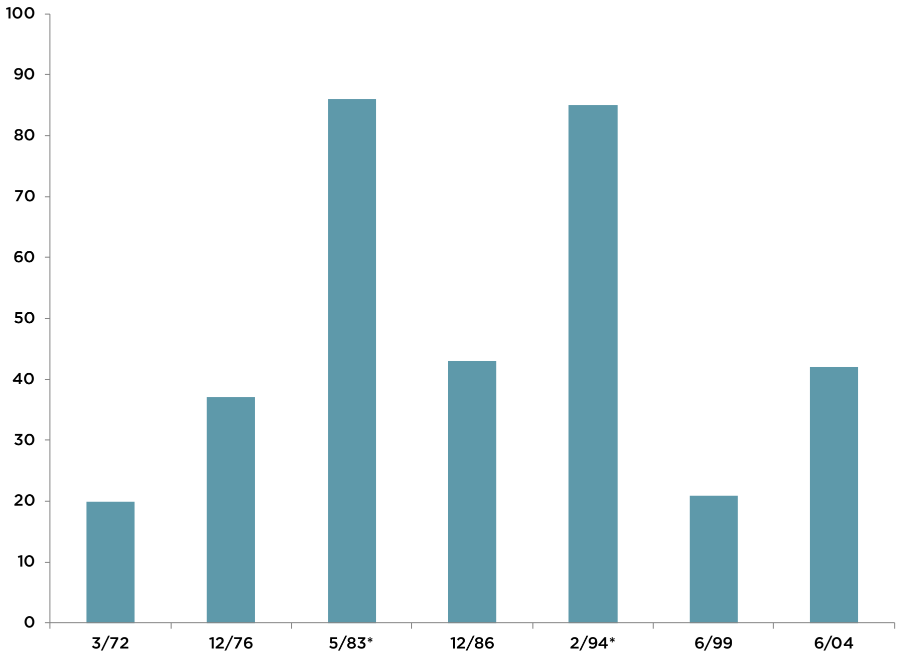
Both investment and exports were battered in the first quarter of this year, but both have otherwise been quite healthy throughout the recovery. Consumer spending is beginning to hit its stride, with gains exceeding 3.5% in four out of the last five quarters.

Source: Bureau of Economic Analysis

# Rate hikes only start the process by which the cycle will end

**Time between the start of Federal Reserve tightening cycles and the beginning of recessions**

Months




It takes years on average between the start of a Fed rate hike cycle and the onset of recession. After the beginning of the last seven monetary tightening cycles, it took an average of nearly four years before the economy stopped growing. Even excluding the two episodes in which the Fed was able to raise rates without igniting a recession, the average was still nearly three years.

It takes time for rate hikes to work their way through the economy and become truly restrictive. That point in this cycle is still well into the future even if the Fed begins the process before the end of 2015.

Source: Federal Reserve Board of Governors; Note: Asterisks represent soft landings.

# Feedback loops are strengthening

**Average monthly changes in nonfarm payroll employment**
Thousands


The labor market continues to heal. Last year was the fifth in a row of accelerating job growth and marked the biggest increase in payrolls since 1999. Employment has continued to expand at a solid clip in 2015.

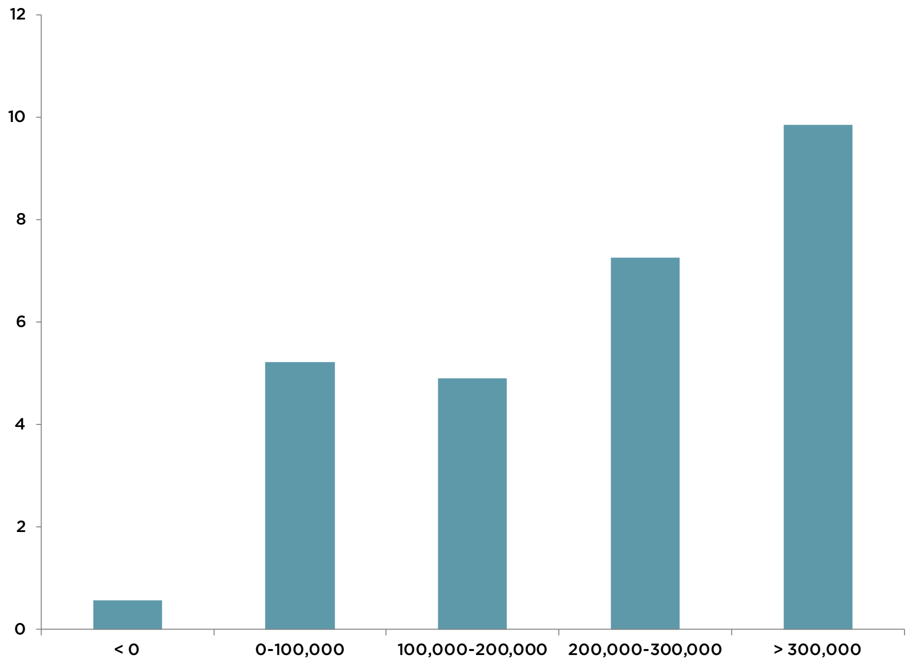
The pickup is further evidence of a strengthening feedback loop whereby employment gains lead to income, spending, and corporate profits, which in turn drive further job growth. This virtuous cycle bodes well for both the sustainability and strengthening of the recovery.

Source: Bureau of Labor Statistics

# Labor market strength bodes well for holiday shopping

**Average changes in holiday sales by average monthly change in nonfarm payroll employment**

Percent



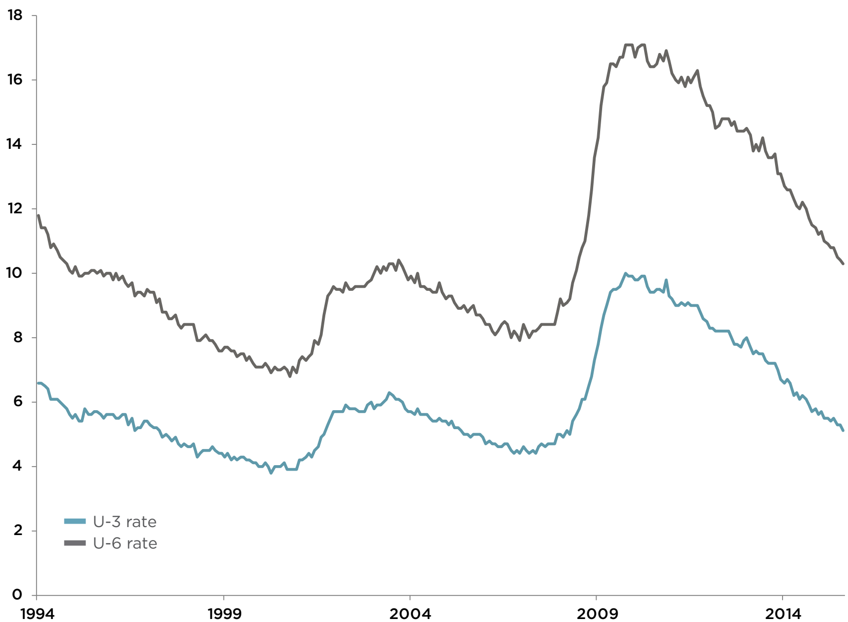

Another year of solid job growth points to another healthy gain in holiday sales. Holiday retail sales have averaged an increase of roughly 7% during years in which employment has averaged monthly gains of at least 200,000 vs. just 3.6% when average job growth has fallen short of 200,000.

Source: Census Bureau

# The labor market is tightening by any measure

**The unemployment rate**

Percent




Source: Bureau of Labor Statistics

While the Labor Department's official unemployment rate, also known as the U-3 rate, has fallen to close to 5%, other measures of joblessness remain elevated relative to the long-term trend. The broadest measure that the government produces, the U-6 rate, which includes discouraged workers and those working part-time for economic reasons, still sits in the double-digits, for example.

This figure, though, has also come down substantially in recent years as the economic and labor market recoveries have continued apace. In fact, while full-time employment has soared by 10 million in the last five years, the number working part-time for economic reasons has retreated by more than two million. The rising tide of growth is lifting most boats.

# Nearly all major industries are adding workers

## Yearly changes in employment growth by major groups

Percent

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 YTD |
|---|---|---|---|---|---|---|---|---|---|---|
| Construction 5.8% | Hospitality 3.0% | Education 2.9% | Education 2.7% | Education 1.8% | Transportation 3.5% | Services 3.4% | Services 3.3% | Construction 3.7% | Construction 5.7% | Education 2.0% |
| Services 4.0% | Services 3.0% | Hospitality 1.9% | Government 0.8% | Government -0.3% | Services 3.3% | Hospitality 2.9% | Hospitality 3.2% | Hospitality 3.5% | Services 3.8% | Services 2.0% |
| Education 2.6% | Transportation 2.8% | Services 1.6% | Hospitality -2.2% | Hospitality -2.4% | Education 1.7% | Construction 2.7% | Transportation 3.0% | Services 3.1% | Transportation 3.6% | Construction 1.8% |
| Transportation 2.4% | Education 2.7% | Government 1.3% | Financial -2.6% | Retail -3.7% | Hospitality 1.6% | Transportation 2.2% | Education 2.4% | Retail 2.5% | Hospitality 3.3% | Hospitality 1.6% |
| Hospitality 2.2% | Construction 2.0% | Retail 1.1% | Transportation -3.4% | Financial -4.1% | Manufacturing 1.0% | Retail 1.9% | Construction 2.0% | Information 1.9% | Education 2.3% | Financial 1.5% |
| Financial 1.9% | Financial 1.3% | Transportation 0.4% | Information -3.8% | Services -4.3% | Retail 1.0% | Education 1.8% | Manufacturing 1.4% | Transportation 1.9% | Manufacturing 1.8% | Retail 1.4% |
| Retail 1.5% | Government 1.0% | Information -0.3% | Retail -4.5% | Information -5.7% | Financial -0.8% | Manufacturing 1.8% | Financial 1.2% | Education 1.5% | Financial 1.7% | Transportation 1.2% |
| Government 0.9% | Retail 0.3% | Financial -1.3% | Services -4.6% | Transportation -6.3% | Government -1.0% | Financial 0.6% | Retail 1.1% | Financial 1.1% | Information 1.6% | Information 0.7% |
| Manufacturing -0.7% | Information -0.7% | Manufacturing -1.9% | Manufacturing -6.5% | Manufacturing -10.7% | Information -2.3% | Information 0.0% | Government -0.3% | Manufacturing 1.0% | Retail 1.5% | Government 0.4% |
| Information -0.8% | Manufacturing -1.3% | Construction -2.5% | Construction -10.5% | Construction -15.6% | Construction -3.3% | Government -1.4% | Information -0.3% | Government -0.3% | Government 0.3% | Manufacturing 0.2% |

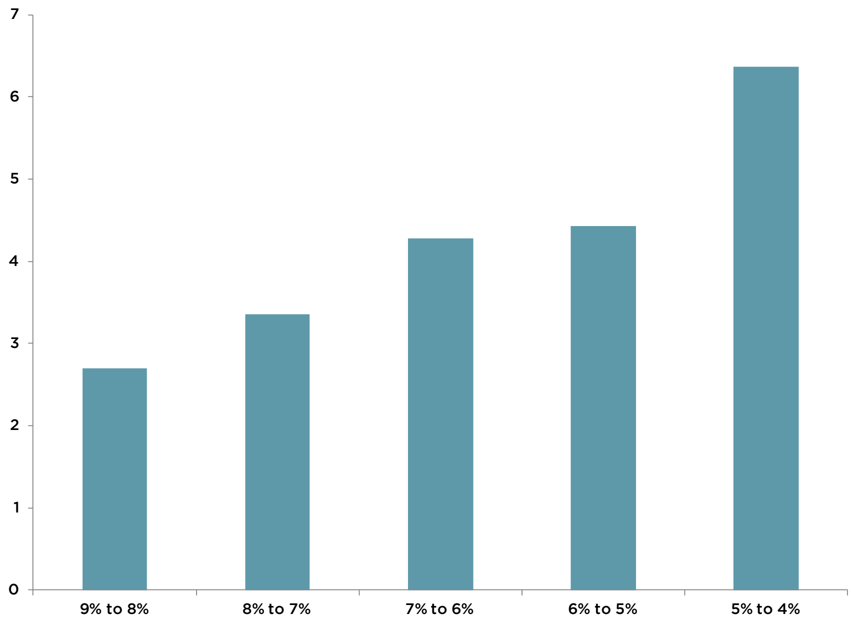
Jobs continue to be added across every major sector of the economy. The widespread nature of payroll gains is another reason to expect that the healing process in the labor market will continue.

Source: Bureau of Labor Statistics

# Income growth is poised to accelerate

**Average annualized changes in real disposable income by change in the unemployment rate**

Percent




Income growth has been fairly stagnant throughout this cycle, even as the recovery has matured and the unemployment rate has declined. The jobless rate is, however, approaching the level at which income gains have accelerated significantly.

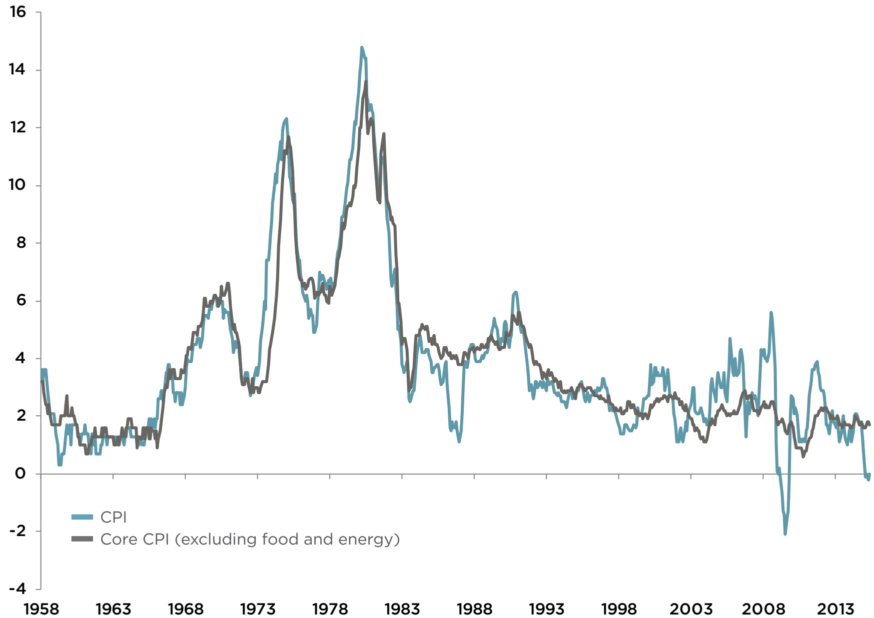
As the labor market continues to tighten, it is to be expected that faster wage growth will lead real income levels higher.

Source: Bureau of Economic Analysis

# Inflation remains subdued

**Yearly changes in the consumer price index (CPI)**

Percent




The Consumer Price Index (CPI) inflation rate has spent the bulk of 2015 near zero thanks to falling energy prices while core inflation pressures have continued to build only slowly.

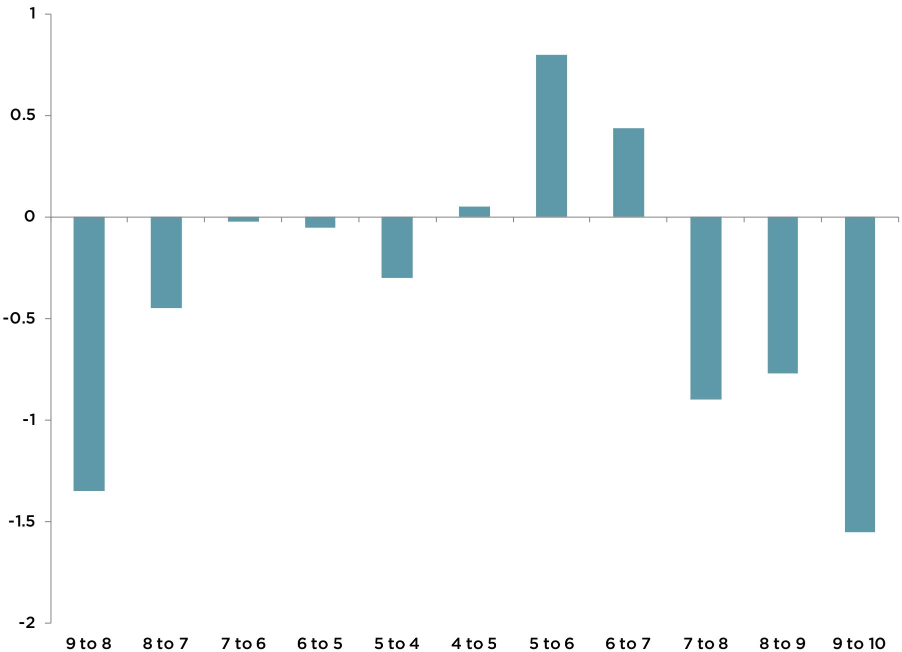
The core inflation rate has held in a narrow range between 1.5% and 2.0% for more than three years now.

Source: Bureau of Labor Statistics

# Inflation is a lagging indicator

**Change in the core Consumer Price Index inflation rate by change in the unemployment rate**

Percent




Inflation is a function of economic growth, but it is also a lagging indicator. In fact, it has historically only started to pick up on average after the cycle has turned and the unemployment rate has started to climb.

There have been cycles in which inflation started to rise while the economy has still been growing, but they have been the exception rather than the norm. The current expansion, still marked by subdued price pressures six years after the recessionary trough, is thus far falling in line with the long-term trend.

Source: Bureau of Labor Statistics

# Western states continue to top the job growth table

## Changes in nonfarm payrolls

Percent

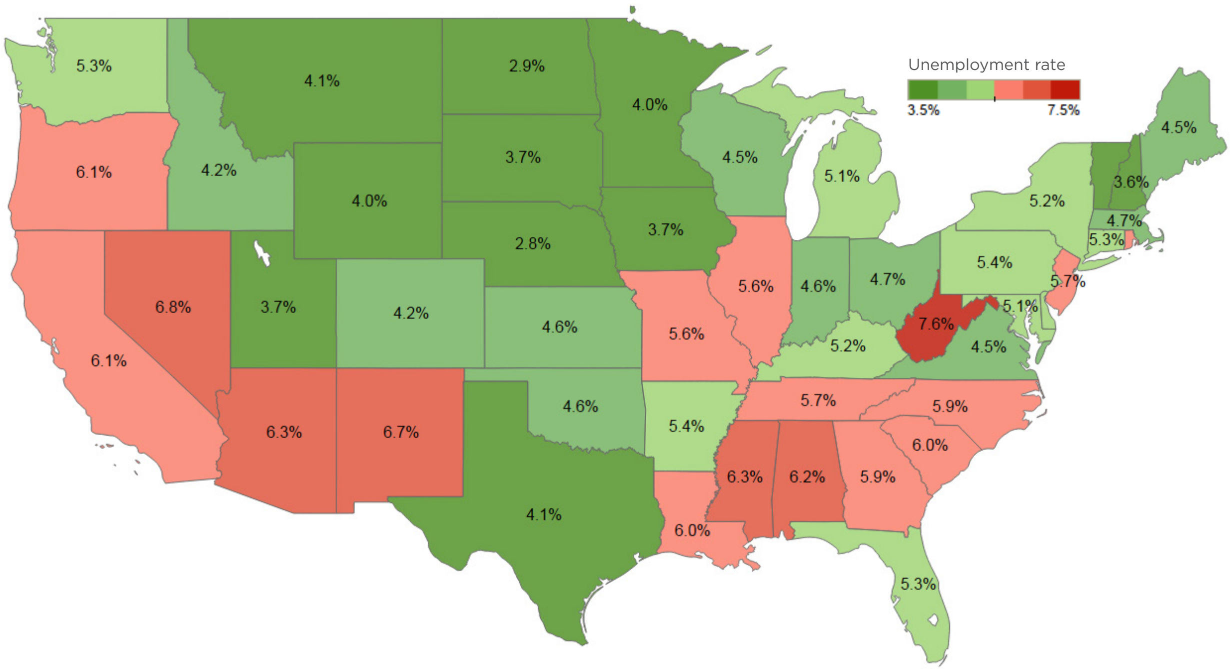
| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 YTD |
|---|---|---|---|---|---|---|---|---|---|---|
| Nevada 5.7% | Wyoming 5.3% | Wyoming 3.7% | North Dakota 1.7% | North Dakota 0.1% | North Dakota 4.4% | North Dakota 7.3% | North Dakota 5.8% | North Dakota 3.2% | North Dakota 4.3% | Nevada 2.7% |
| Arizona 5.3% | Utah 4.8% | Texas 3.1% | Alaska 1.5% | Alaska -1.1% | Alaska 2.8% | Utah 2.7% | Utah 3.6% | Utah 3.1% | Florida 3.6% | Hawaii 2.4% |
| Idaho 4.4% | Louisiana 4.8% | Utah 3.0% | Wyoming 1.0% | West Virginia -2.2% | Texas 2.3% | Michigan 2.5% | Texas 3.4% | California 3.1% | Texas 3.6% | Idaho 2.4% |
| Utah 4.4% | North Carolina 3.9% | Louisiana 2.5% | Oklahoma 0.6% | South Dakota -2.4% | South Carolina 1.9% | Wyoming 2.4% | California 3.2% | Colorado 3.0% | Georgia 3.6% | Utah 2.3% |
| Wyoming 4.3% | Arizona 3.6% | Washington 2.5% | South Dakota 0.6% | New York -2.5% | Delaware 1.5% | Texas 2.3% | Colorado 2.7% | Nevada 3.0% | Utah 3.5% | Washington 2.1% |
| Florida 3.6% | Idaho 3.5% | Colorado 2.0% | Texas 0.5% | Massachusetts -2.5% | Michigan 1.5% | Tennessee 2.2% | Oklahoma 2.4% | Florida 2.9% | Nevada 3.5% | California 2.0% |
| Texas 3.2% | Texas 3.3% | Montana 1.9% | Louisiana 0.3% | Maryland -2.5% | Utah 1.5% | Indiana 2.2% | Hawaii 2.4% | Texas 2.7% | Oregon 3.3% | Florida 1.9% |
| Oklahoma 3.1% | South Carolina 3.2% | Nebraska 1.7% | West Virginia -0.1% | Vermont -2.6% | Pennsylvania 1.5% | West Virginia 2.2% | Florida 2.3% | Oregon 2.7% | Colorado 3.3% | Oregon 1.9% |
| Washington 3.0% | Montana 2.9% | North Dakota 1.7% | Nebraska -0.2% | Maine -2.6% | Kentucky 1.5% | Idaho 2.1% | Washington 2.3% | Washington 2.5% | Washington 3.1% | South Carolina 1.7% |
| Oregon 3.0% | Nevada 2.7% | Oklahoma 1.7% | Kansas -0.2% | N Hampshire -2.6% | Tennessee 1.4% | Colorado 2.1% | Arizona 2.2% | South Carolina 2.4% | California 3.1% | Massachusetts 1.6% |

Source: Bureau of Labor Statistics

# Plains states still have the tightest labor markets

**Unemployment rate by state**

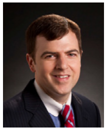
Percent




Source: Bureau of Labor Statistics

# Contributors

The experience, intelligence and perspective of Nationwide's staff economists and market analysts assures advisors and clients of a relevant viewpoint that's easy to understand and apply to specific financial planning situations.



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Bryan is a frequent author and knowledgeable source on economic topics, and has been featured in The Wall Street Journal and New York Times. Bryan holds degrees in Economics and Political Science from Miami University and has earned the Chartered Financial Analyst designation. He currently serves as Chairman of the Ohio Council on Economic Education and is a member of the Ohio Governor's Council of Economic Advisors, the National Association for Business Economics, and the Bloomberg monthly economic forecasting panel.

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# Nationwide Economic and financial market thought leadership

## David Berson, PhD

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David holds a doctorate in Economics and a master's degree in Public Policy from the University of Michigan. Prior to Nationwide, David served as Chief Economist & Strategist and Head of Risk Analytics for The PMI Group, Inc., and Vice President and Chief Economist for Fannie Mae. David has also served as Chief Financial Economist at Wharton Econometrics and visiting scholar at the Federal Reserve Bank of Kansas City. His government experience has included roles with the President's Council of Economic Advisors, U.S. Treasury Department and the Office of Special Trade Representative. He is a past President of the National Association for Business Economics.

## Timothy M. Rooney

Vice President, Head of Product Management and Research
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Timothy leads the team that oversees over 100 Nationwide investment products, including retail mutual funds and investment options that support Nationwide's mutual retirement, annuity and life insurance businesses. Timothy brings over 25 years of investment experience in the insurance and asset management industries, including management roles at AIG SunAmerica, Pacific Life and AXA, as well as starting his own independent financial services consulting firm. Timothy holds a Masters in Business Administration from New York University, where he studied finance and international business, and a bachelor's degree in business administration from Baruch College.

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