JAN
05
2016

Featured G

What Are Markets Saying?

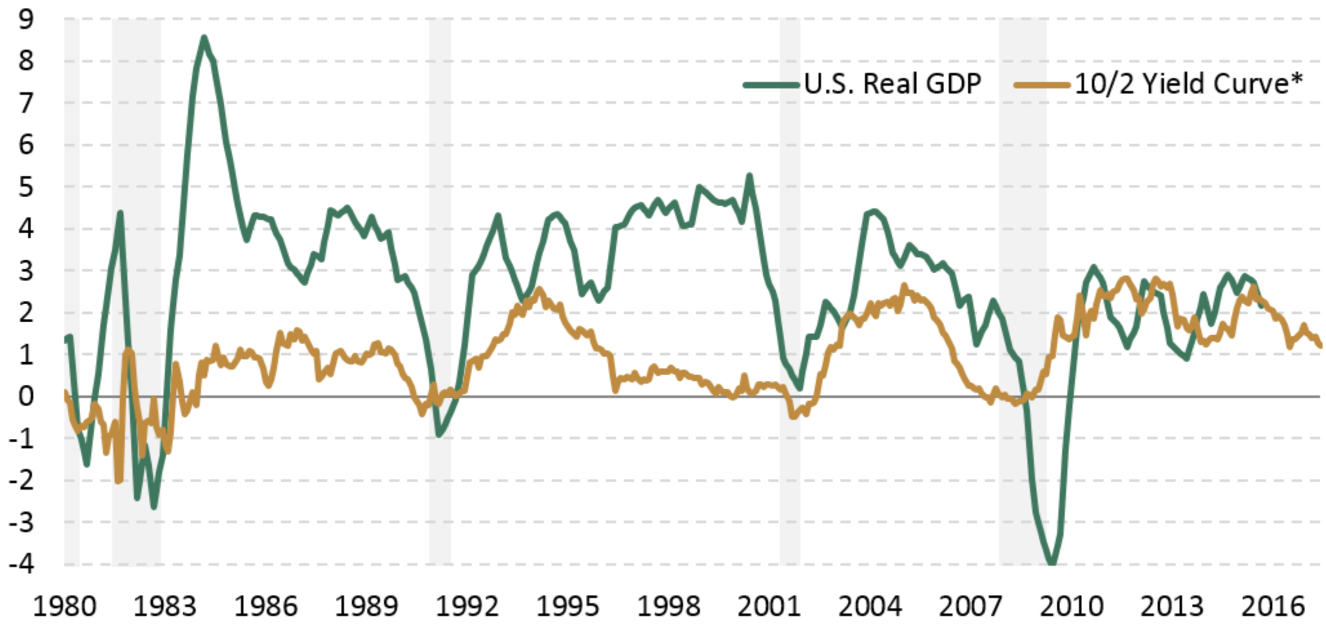
Everyone agrees that global growth is weak, but there is no agreement on whether the world economy will strengthen or weaken in 2016. Optimists predict that by mid-2016, a sudden growth spurt will push the world out of its present unpleasantness. According to Goldman Sachs, the equilibrium interest rate is already 100 basis points (bps) higher. Maybe Goldman Sachs is right, but a wide range of market-based indicators are telling a story of slowing growth and possibly lower inflation. If these indicators are as accurate as they have been in the past, the Federal Reserve (Fed) may have to find a way to resume easing.

Yield Curve

The yield curve (10-year Treasury bond yields over 2-year Treasury yields) has been the most reliable growth indicator, in my opinion:

- A steepening yield curve indicates easy money and rising growth expectations.
- Conversely, a flattening curve suggests that the current monetary stance is getting restrictive and future growth is deteriorating.
- An inverted curve predicts an impending recession. Historically, output contraction occurs 18 months after a curve inversion (see Chart 1).

Chart 1: U.S. Real GDP and 10/2 Yield Curve *%, As of 12/31/2015*



**Advanced by 18 months*
Shading denotes U.S. recession periods
Source: Thomson Datastream

The yield curve has flattened by 138 bps since the end of 2013—which is a dramatic move—given that the U.S. operates in a very low interest-rate environment. The current shape of the yield curve projects softening growth next year for the U.S. economy, probably to a rate of about 1.0-1.5%. If so, the Fed may be forced to find way to stimulate the economy again, which would be ironic given that investors were just recently fixated upon Fed liftoff in December 2015.

Corporate High Yield Spreads

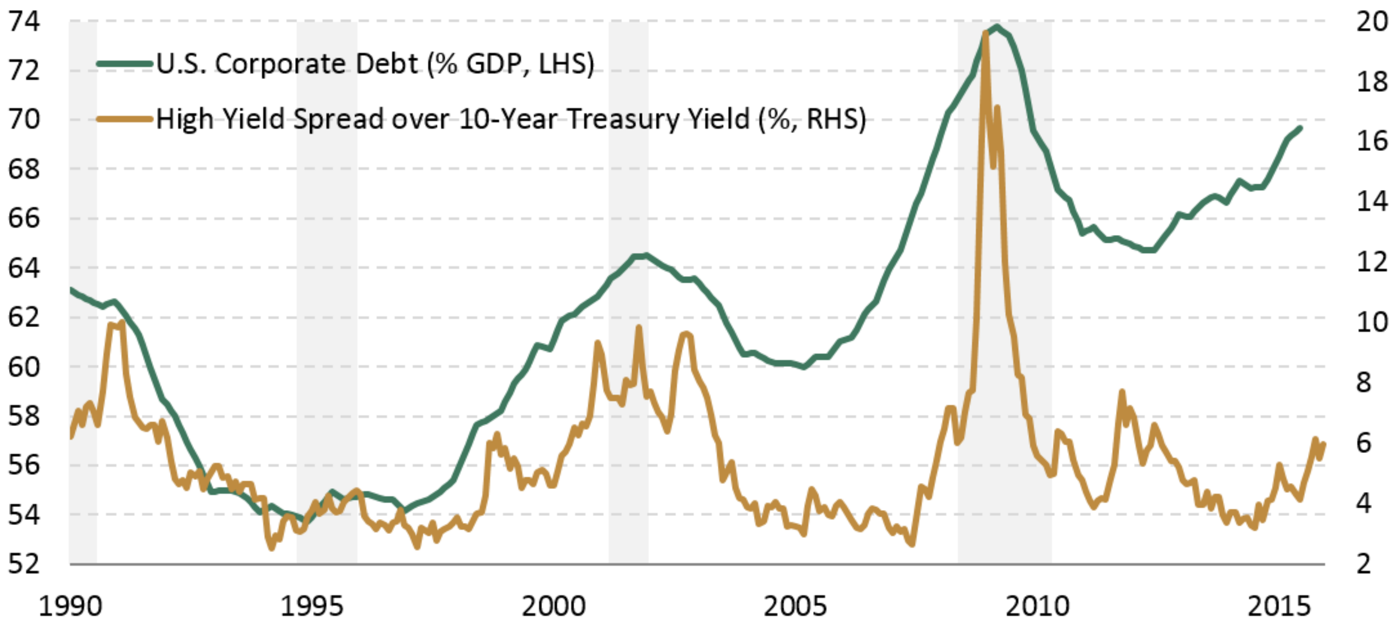
In the U.S., the corporate high yield market often leads the stock market—and the economy—by anywhere between 4-5 months and one year:

- The high yield market—as defined by the Bank of America Merrill Lynch High Yield Index and its predecessor—peaked in April 1989, while the S&P 500 topped out in the early 1990. The U.S. economy fell into recession by October 1990
- Similarly, the high yield market started to weaken in April 1999, which preceded the meltdown in stock prices which began in April 2000.
- Total returns for the Bank of America Merrill Lynch High Yield Index peaked on May 18, 2007, while the stock market did not reach its final highs until October 12, 2007. The S&P 500 subsequently fell precipitously.
- The high yield market bottomed out in December 2008, which was four months before the stock market reached its final lows on March 6, 2009.
- High yield spreads—as measured by the Bank of America Merrill Lynch High Yield Index versus the 10-Year U.S. Treasury yield—have begun to widen again since July 2014, which I believe has led stock market weakness by about 8-10 months.

The high yield market has experienced some corrective actions since 2009, but the recent price weakness in this market looks more ominous because:

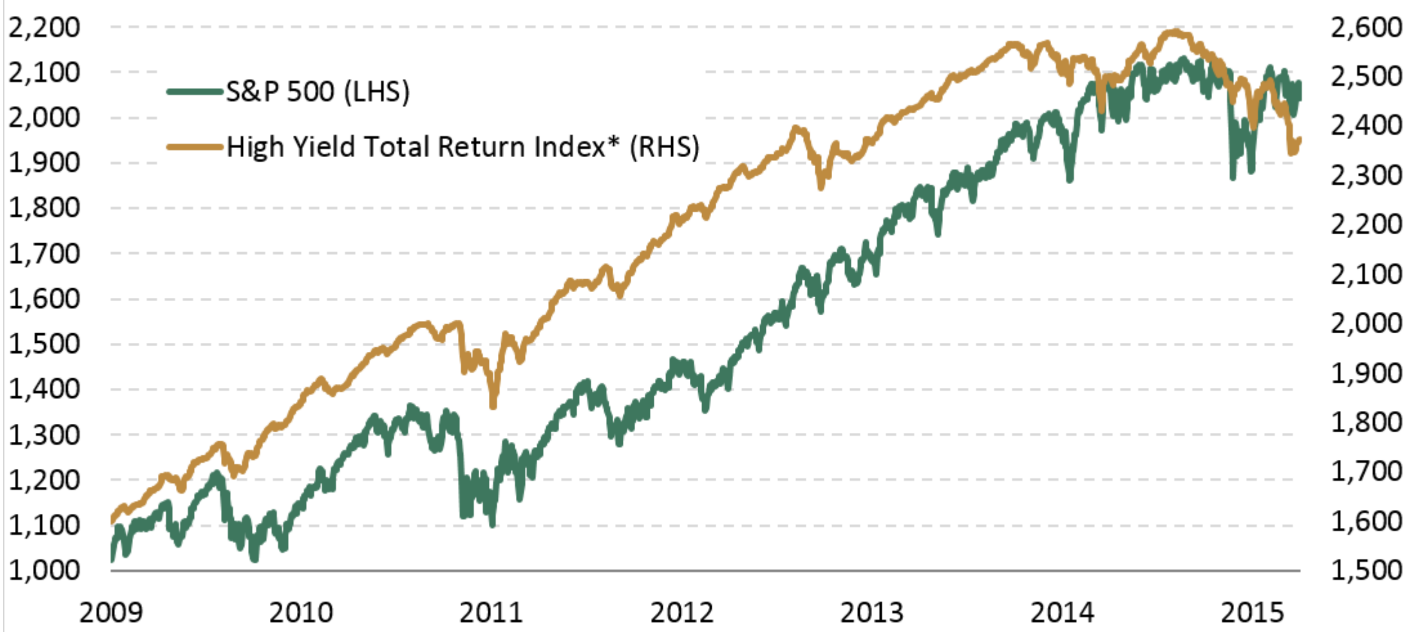
1. **The downtrend in the high yield market has been sustained for more than one year**
2. **The widening of high yield spreads has occurred at the time when the corporate gearing ratio—which measures corporate sector leverage using metrics like a debt-to-corporate DDP ratio—has skyrocketed, as shown in Chart 2 and Chart 3 below.**

Chart 2: U.S. Corporate Debt and High Yield Spreads *As of 12/31/2015*



Shading denotes U.S. recession periods
Source: Thomson Datastream

Chart 3: S&P 500 and High Yield Total Return Index *As of 12/31/2015*



**BOFA Merrill Lynch U.S. High Yield 100*
Source: Thomson Datastream

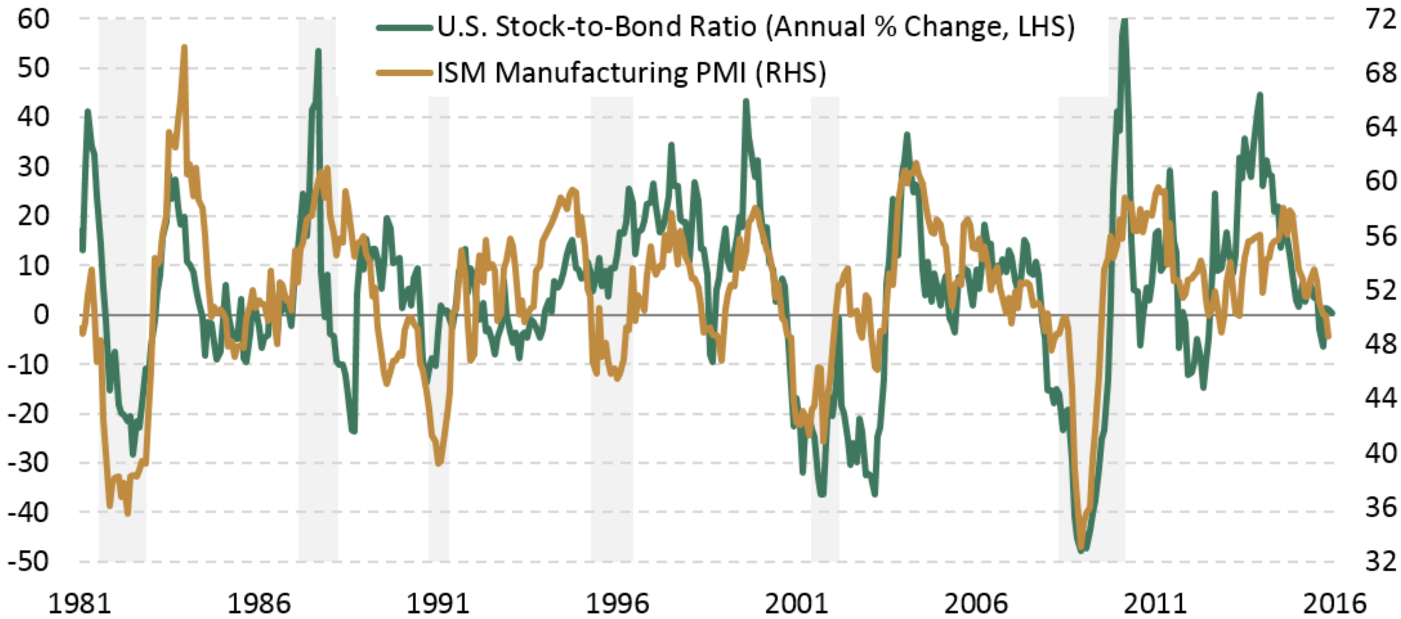
Perhaps, the combination of the sharp increase in corporate borrowing, the lack of pricing power, and poor profit growth suggests that the stock market may have bigger trouble down the road and the risk of recession is increasing.

Equity-to-Bond Ratio

The fluctuations in the equity-to-bond ratio also indicate the ebbs and flows of business cycle conditions. Usually, a rising ratio suggests improving growth expectations, while a falling one indicates an economic slowdown—a 30% decline in the equity-to-bond ratio usually signals a recession.

The recent sharp slump in the equity-to-bond ratio suggests that the U.S. economy is more likely to weaken than strengthen in 2016, although the market has not yet signaled an impending recession (see Chart 4). The message here is similar to the one from the yield curve.

Chart 4: U.S. Stock-to-Bond Ratio and ISM Manufacturing PMI *As of 12/31/2015*



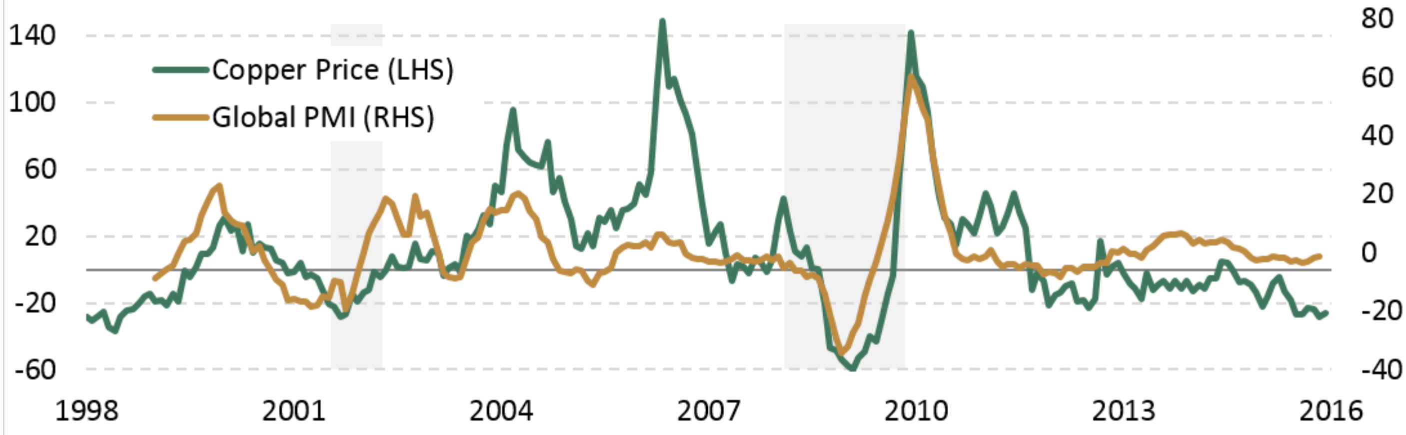
Shading denotes U.S. recession periods
Source: Thomson Datastream

Dr. Copper

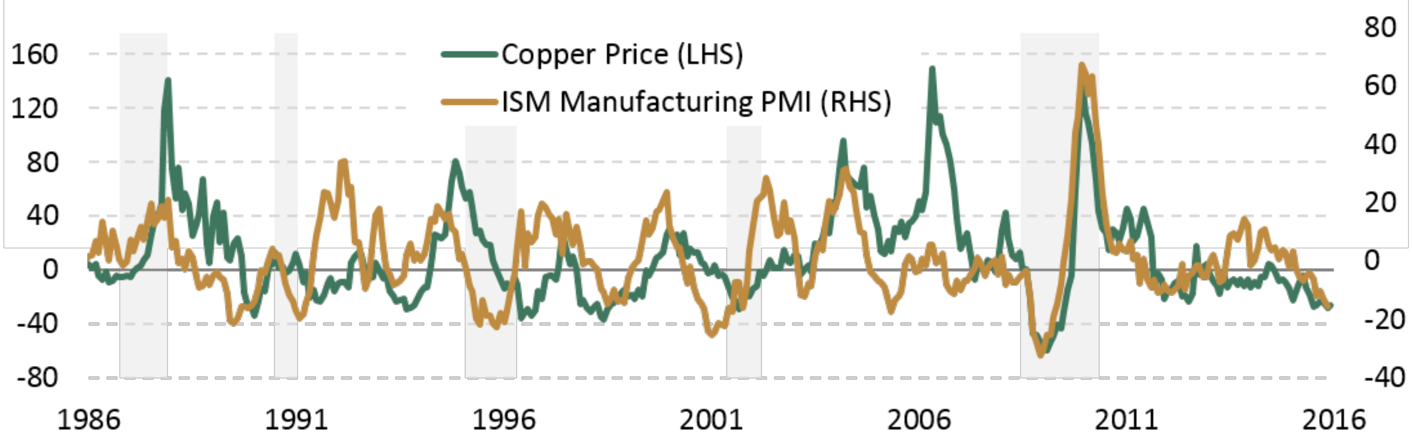
Copper is traditionally sensitive to the global business cycle—and manufacturing cycle in particular. As such, the copper market is nicknamed "Dr. Copper." Since 2011, the global Purchasing Managers Index (PMI) has been hovering around the boom/bust line of 50, highlighting the subdued nature of the world's economic recovery. Mirroring this growth backdrop, copper prices have been sliding since 2011.

Currently, Dr. Copper is predicting more weakness in global PMI, as seen in Chart 5 below. On the second order condition (12-month rate of change in copper prices), the copper market does not indicate a quick end to the manufacturing recession, shown in the bottom panel of Chart 5.

Chart 5: Copper Price and Global PMI *Annual % Change; As of 12/31/2015*



Copper Price and ISM Manufacturing PMI *Annual % Change; As of 12/31/2015*

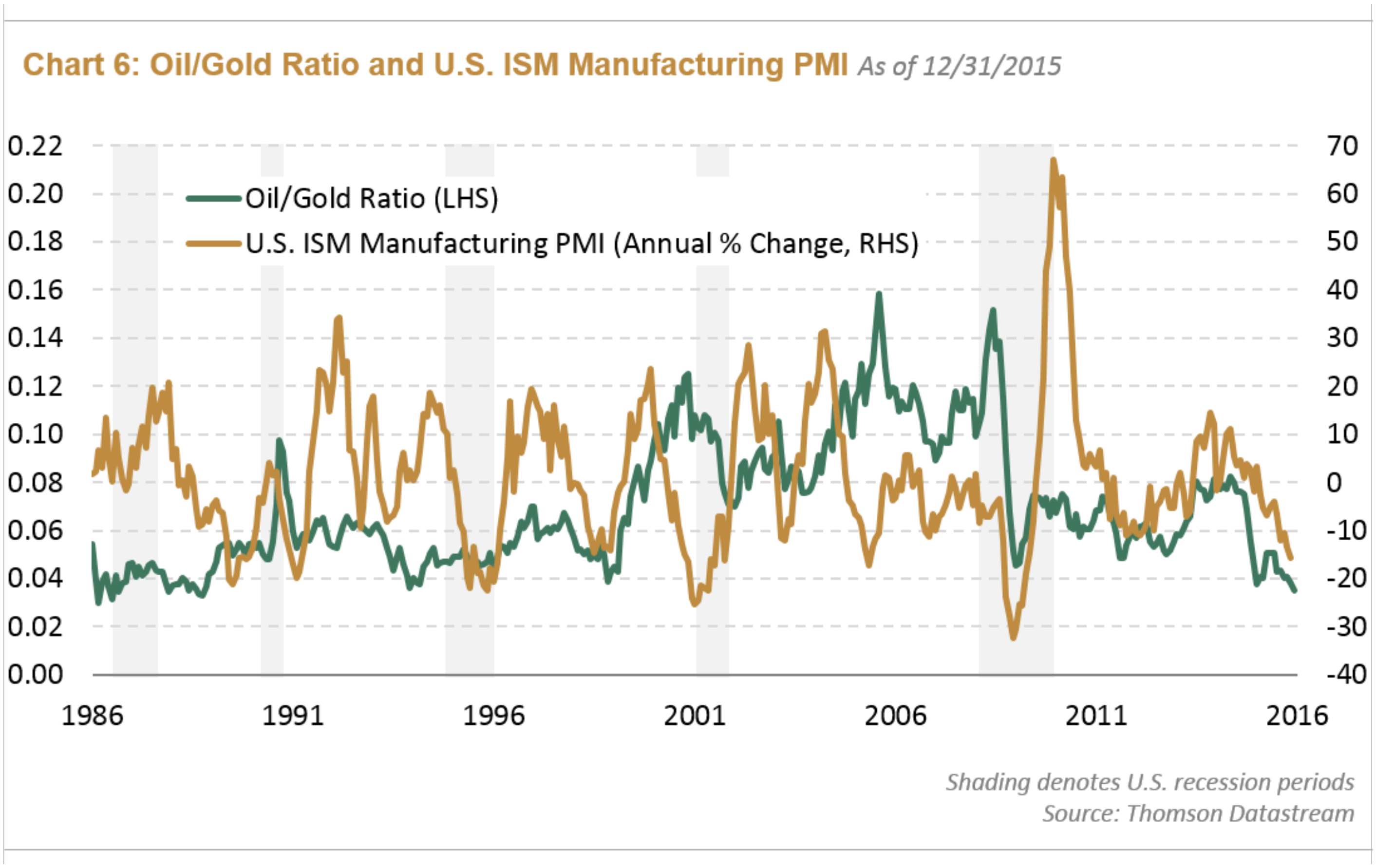


Shading denotes U.S. recession periods
Source: Thomson Datastream

Oil-to-Gold Ratio

This ratio can be used to approximate economic growth versus risk aversion/monetary reflation: a rising oil-to-gold ratio suggests strengthening growth and falling risk aversion as well as a declining need for monetary reflation. By the same token, a falling ratio suggests weakening growth expectations and/or increasing risk aversion and therefore, the increasing need for monetary reflation.

Chart 6 below plots the oil-to-gold ratio with the Institute of Supply Management (ISM) index for the U.S. economy. The correlation is not as strong as the other indicators, especially from 2000-2006, when the oil-to-gold ratio did not reflect actual economic performance. Perhaps, the boom in commodities distorted the market information. Regardless, the predicting power of the oil-to-gold ratio seems to have been restored since 2006-2007 and if so, the recent sharp fall in the ratio seems to confirm very subdued growth expectations.



Conclusion

By my estimate, none of the market-based indicators are predicting a meaningful improvement in global growth. If anything, all indicators seem to suggest that global growth could stay subdued or even weaken more. If so, global stocks may continue to underperform global bonds and commodity prices may not rally very much. As a result, the Fed may have to resume easing in 2016 to revive growth and fend off recessionary pressures.

Groupthink is bad, especially at investment management firms. Brandywine Global therefore takes special care to ensure our corporate culture and investment processes support the articulation of diverse viewpoints. This blog is no different. The opinions expressed by our bloggers may sometimes challenge active positioning within one or more of our strategies. Each blogger represents one market view amongst many expressed at Brandywine Global. Although individual opinions will differ, our investment process and macro outlook will remain driven by a team approach.

Social Media Guidelines

Brandywine Global Investment Management, LLC ("Brandywine Global") is an investment adviser registered with the U.S. Securities and Exchange Commission ("SEC"). Brandywine Global may use Social Media sites to convey relevant information regarding portfolio manager insights, corporate information and other content.

Any content published or views expressed by Brandywine Global on any Social Media platform are for informational purposes only and subject to change based on market and economic conditions as well as other factors. They are not intended as a complete analysis of every material fact regarding any country, region, market, industry, investment or strategy. This information should not be considered a solicitation or an offer to provide any Brandywine Global service in any jurisdiction where it would be unlawful to do so under the laws of that jurisdiction. Additionally, any views expressed by Brandywine Global or its employees should not be construed as investment advice or a recommendation for any specific security or sector.

Brandywine Global will monitor its Social Media pages and any third-party content or comments posted on its Social Media pages. Brandywine Global reserves the right to delete any comment or post that it, in its sole discretion, deems inappropriate or prevent from posting any person who posts inappropriate or offensive content. Any opinions expressed by persons submitting comments don't necessarily represent the views of Brandywine Global. Brandywine Global is not affiliated with any of the Social Media sites it uses and is, therefore, not responsible for the content, terms of use or privacy or security policies of such sites. You are advised to review such terms and policies.