



# Review of Market Performance Calendar Year 2015

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ASSOCIATES

- ◆ Developed equities muddled through 2015 (-0.9% in US\$ terms and 2.1% in local currency), as investors navigating the marketplace were challenged by US\$ strength, commodity market stresses, and global growth concerns. Japanese equities fared the best among major developed markets benchmarks (9.6%)\*, as the yen held mostly steady against the US dollar. Falling short of Japan, the S&P 500 returned a paltry 1.4% this year. On a sector basis, energy, materials, and utilities weighed down performance in developed markets, leading to losses in the United Kingdom (-7.6%), Australia (-10.0%), and Canada (-24.2%), three countries with high exposures to those sectors.
- ◆ Emerging markets equities lost more ground this year (-14.6% in US\$ terms and -5.4% in local currency), with net commodity exporters such as Brazil (-41.2%) and Colombia (-41.8%) down substantially. The large adjustments in commodity-linked countries came as growth expectations for China—which in recent years consumed nearly half of the world’s production of several commodities—were ratcheted down. While China’s return (-7.6%) looks benign compared to some markets, it masks a high degree of stress. Greece (-61.3%) suffered the largest decline of any emerging (or developed) markets constituent and briefly held markets hostage this summer, as it worked to secure a new bailout from its creditors.
- ◆ Global bond market returns in 2015 were unremarkable, with the Citigroup World Government Bond Index losing 3.6% and the Barclays US Aggregate Bond Index gaining 0.5%. Government yields backed up sharply in the second quarter, after German bunds touched an unprecedented low level in April. The back up impacted the broader market, prompting corporate bond yields to widen across all credit ratings. In the US high-yield market (-4.5%), yields soared in the last two months of the year, as concerns over credit quality mounted, ending the year at 8.74%.

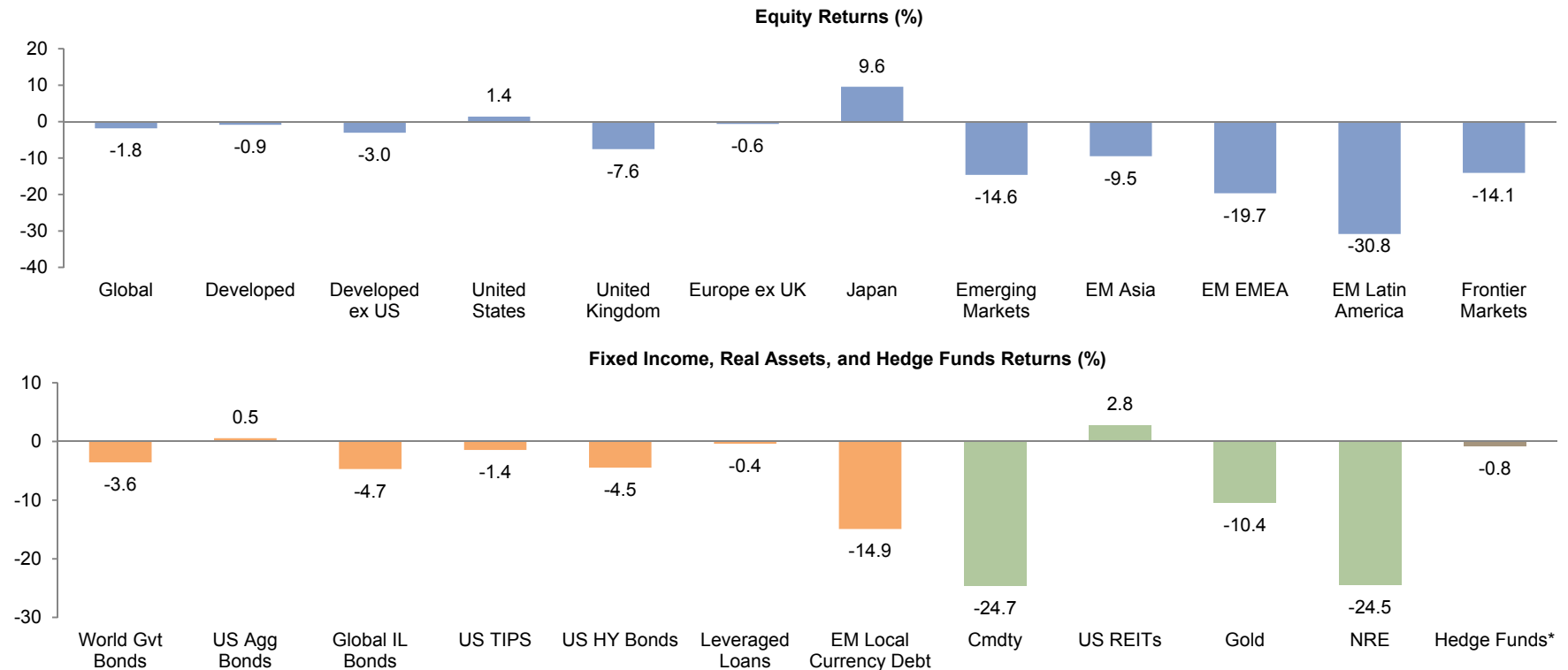
- ◆ Commodity markets suffered this year, with multiple commodities including copper, oil, and natural gas hitting multi-year lows and the broad-based Bloomberg Commodity TR Index sinking 24.7%, its worst calendar year return since the global financial crisis. Commodity-linked investments were similarly wounded, as investors recalibrated expectations for natural resources equities (-24.5%), master limited partnerships (-32.6%), and gold (-10.4%). US REITs were unable to continue the double-digit returns of recent years, returning just 2.8%.
- ◆ Preliminary data as of December 31 from Hedge Fund Research, Inc. suggest market neutral funds (5.0%) took advantage of flat markets to fare better than other strategies. The widely followed HFRI Fund Weighted Composite Index returned -0.8% on a preliminary basis and the HFRI Equity Hedge Index, -0.4%. Through third quarter 2015 estimated hedge fund assets were \$2.9 trillion, a new record.
- ◆ For the one-year period ended September 30, 2015, the Cambridge Associates LLC US Private Equity Index® delivered a preliminary return of 5.3% while the Cambridge Associates LLC US Venture Capital Index® shows a preliminary return of 21.6%. The same indexes' five-year returns were 14.1% and 17.7%, respectively. In 2015, the exit environment was more subdued, with both the aggregate amount raised in initial public offerings and the aggregate transaction value of mergers & acquisitions down from the prior year.
- ◆ The US dollar appreciated against all other major currencies in 2015, particularly commodity-sensitive currencies such as the Australian dollar (-11.1%), our emerging markets currency basket (-12.9%), and the Canadian dollar (-16.6%), and moved closer to parity with the euro (USD/EUR: 1.09).

## 2015: unexceptional developed equity market performance

Commodities, emerging markets equities, and natural resources equities experienced worst sell-off in years

### Global Asset Class Performance: Calendar Year 2015

USD Terms



Sources: Barclays, Bloomberg L.P., Citigroup Global Markets, Credit Suisse, FTSE International Limited, Hedge Fund Research, Inc., J.P. Morgan Securities, Inc., MSCI Inc., National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: All returns are total returns in US\$ terms, except gold, for which returns are based on changes in the spot price. Asset classes represented by the following: MSCI All Country World ("Global"), MSCI World ("Developed"), MSCI World ex US ("Developed ex US"), S&P 500 ("United States"), MSCI UK ("United Kingdom"), MSCI Europe ex UK ("Europe ex UK"), MSCI Japan ("Japan"), MSCI Emerging Markets ("Emerging Markets"), MSCI Emerging Markets Asia ("EM Asia"), MSCI Emerging Markets Europe, Middle East, Africa ("EM EMEA"), MSCI Emerging Markets Latin America ("EM Latin America"), MSCI Frontier Markets ("Frontier Markets"), Citigroup World Government Bond ("World Gvt Bonds"), Barclays Aggregate Bond ("US Agg Bonds"), Barclays World Government Inflation-Linked ("Global IL Bonds"), Barclays US TIPS ("US TIPS"), Barclays US High-Yield Composite Bond ("US HY Bonds"), Credit Suisse Leveraged Loan ("Leveraged Loans"), J.P. Morgan GBI-EM Global Diversified ("EM Local Currency Debt"), Bloomberg Commodity TR ("Cmdty"), FTSE® NAREIT All Equity REITs ("US REITs"), Gold Bullion Prices ("Gold"), 80% Datastream World Oil & Gas and 20% Datastream World Mining ("NRE"), and HFRI Fund Weighted Composite ("Hedge Funds"). Total returns for MSCI developed markets indexes are net of dividend taxes. Total returns for MSCI emerging markets indexes are gross of dividend taxes. Hedge Fund Research data preliminary for the preceding five months.

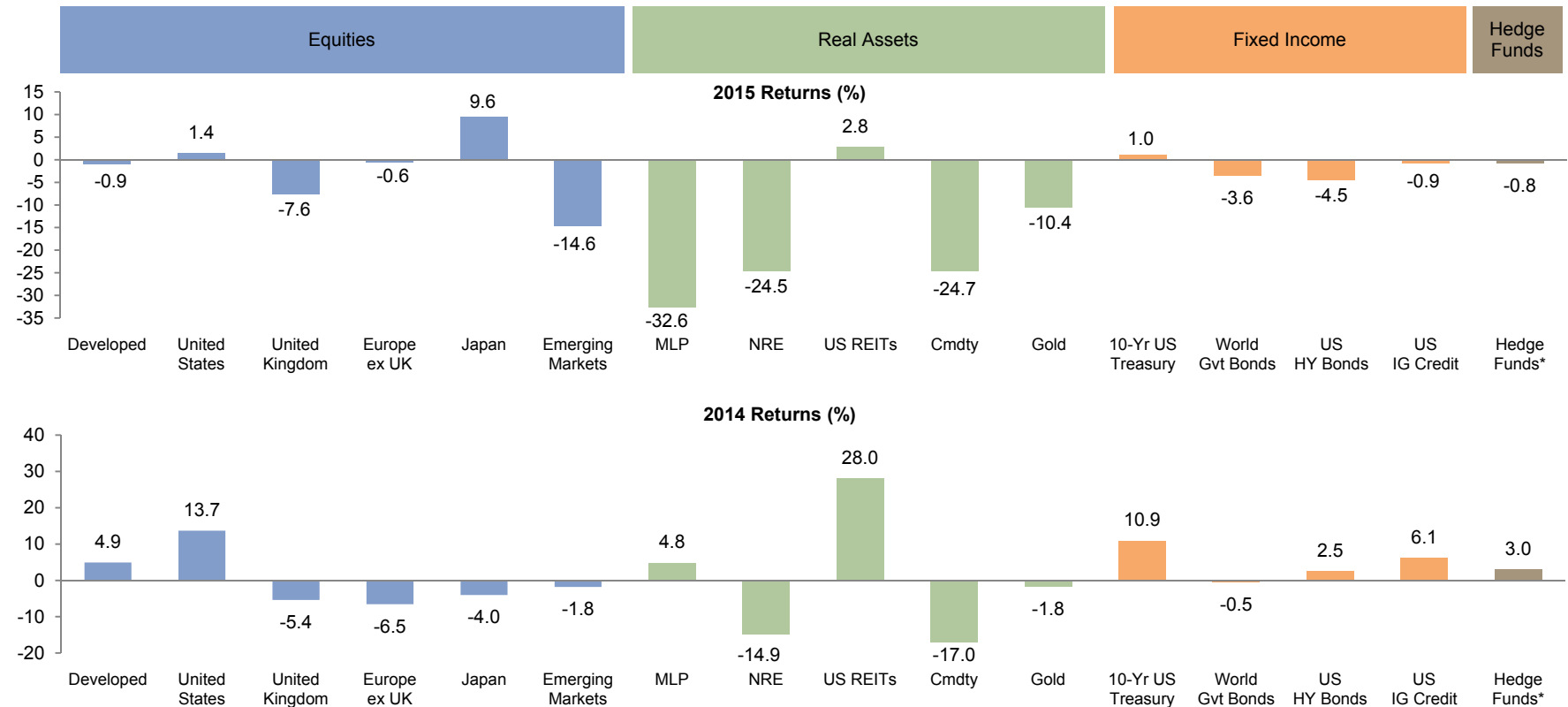
\* Based on preliminary data.

## US equity performance fell sharply from prior year pace

Japan's equity market returns were strong, as US\$ strength challenged performances globally

### Global Asset Class Performance: Calendar Year 2015 versus Calendar Year 2014

USD Terms



Sources: Alerian, Barclays, Bloomberg L.P., Citigroup Global Markets, FTSE International Limited, Hedge Fund Research, Inc., MSCI Inc., National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

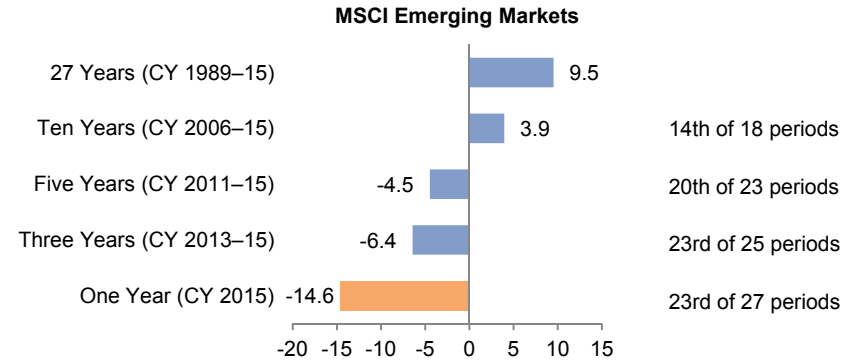
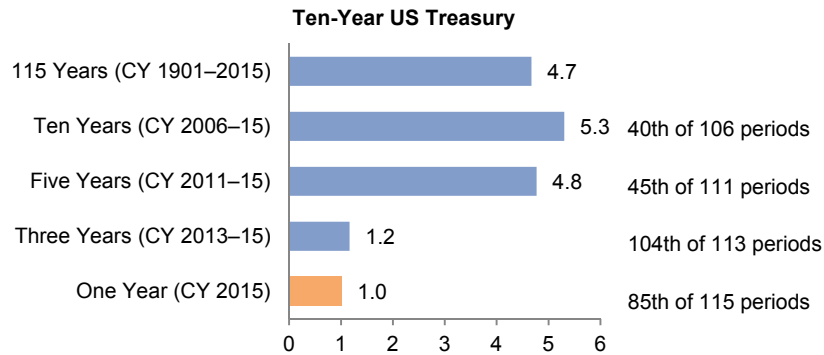
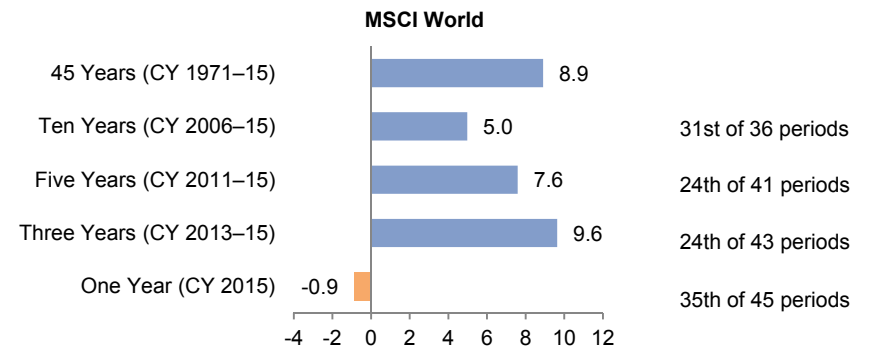
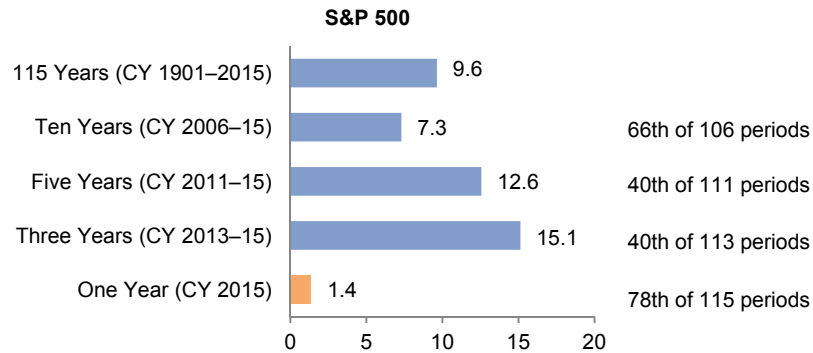
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\* Based on preliminary data.

## Major asset class returns low relative to history

### Average Annual Compound Returns for Various Time Periods

Periods Ended December 31, 2015 • Total Return (%) • USD Terms



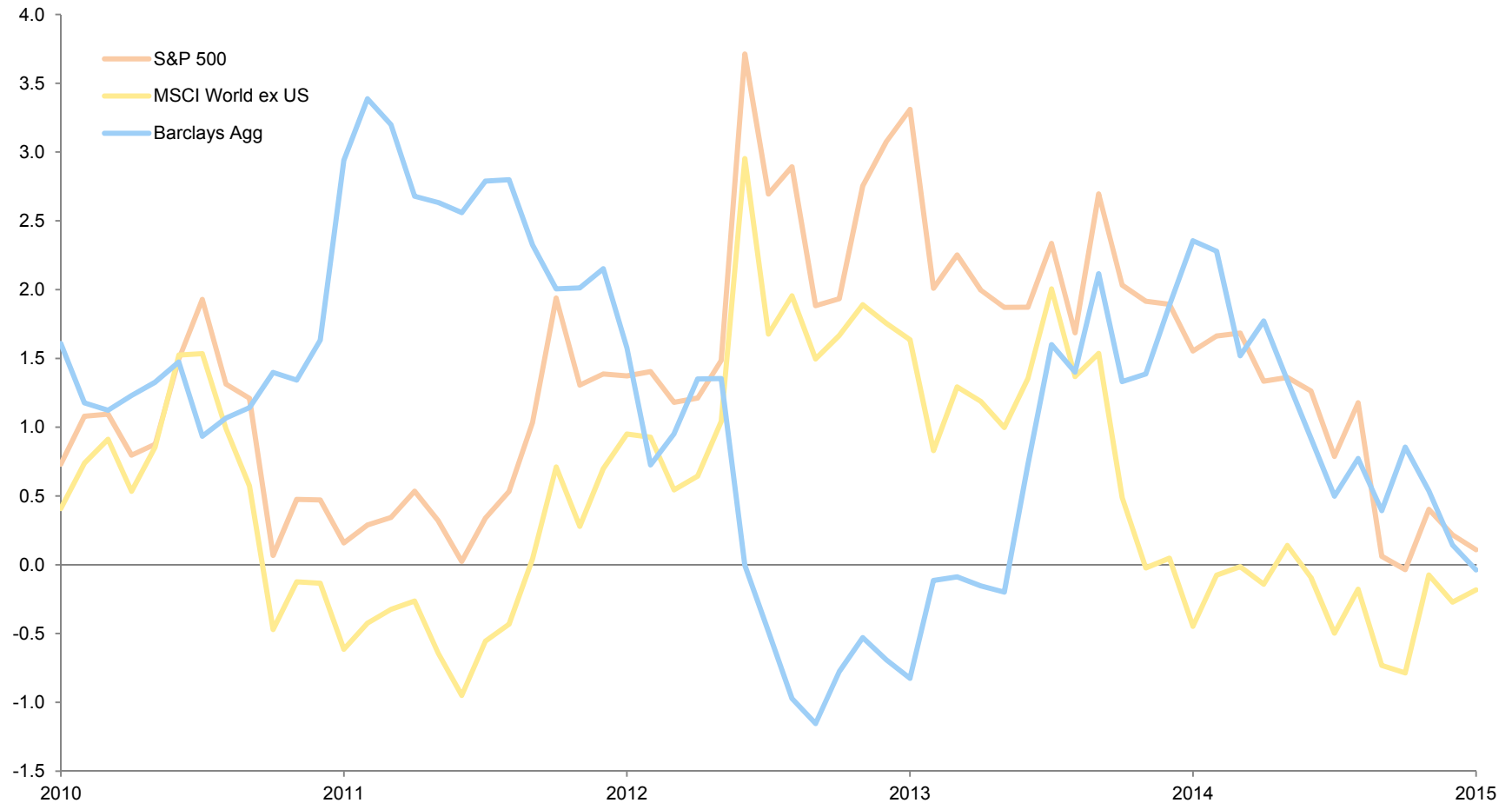
Sources: Global Financial Data, Inc., MSCI Inc., Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties. Notes: A ranking of first indicates the best performance among all periods. Total returns for MSCI developed markets indexes are net of dividend taxes. Total returns for MSCI emerging markets indexes are gross of dividend taxes.

## Risk-adjusted performance trended lower for major indexes

Low level suggests investors have not been well compensated for the level of volatility

### Rolling 12-Month Risk-Adjusted Performance

December 31, 2010 – December 31, 2015 • Sharpe Ratio • USD Terms



Sources: Barclays, MSCI Inc., Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

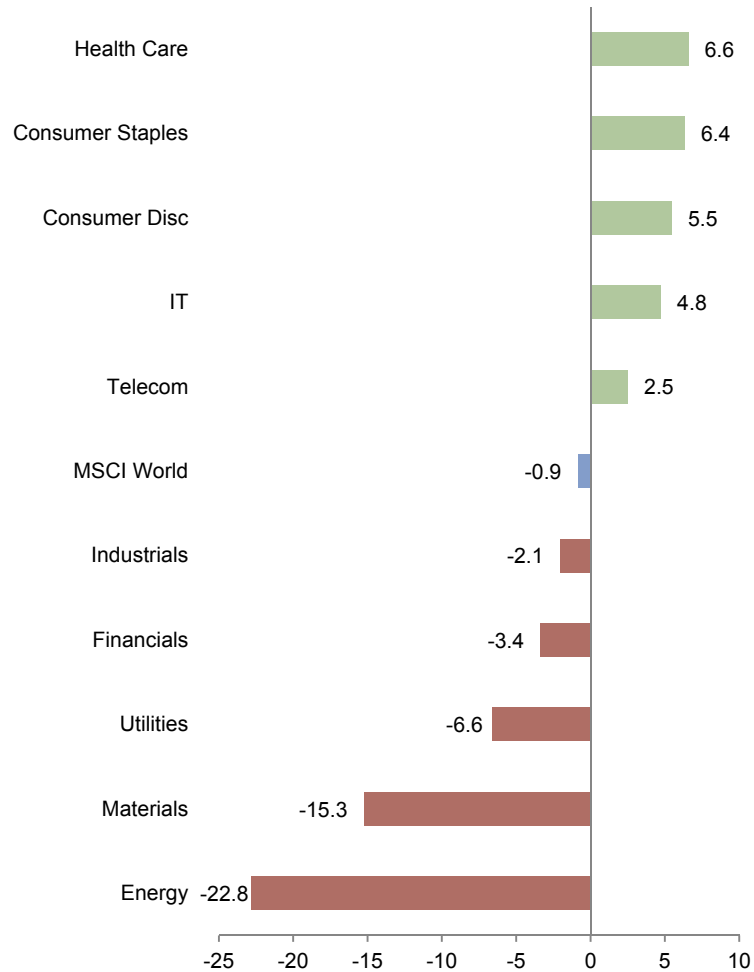
Notes: The rolling 12-month Sharpe ratio is calculated by taking the rolling 12-month average index return minus the rolling 12-month average cash return, and dividing that figure by the annualized rolling 12-month index standard deviation. MSCI World ex US Index total returns are net of dividend taxes.

## Commodity-linked sectors struggled globally

And particularly in emerging markets, where weak earnings also undermined sector returns

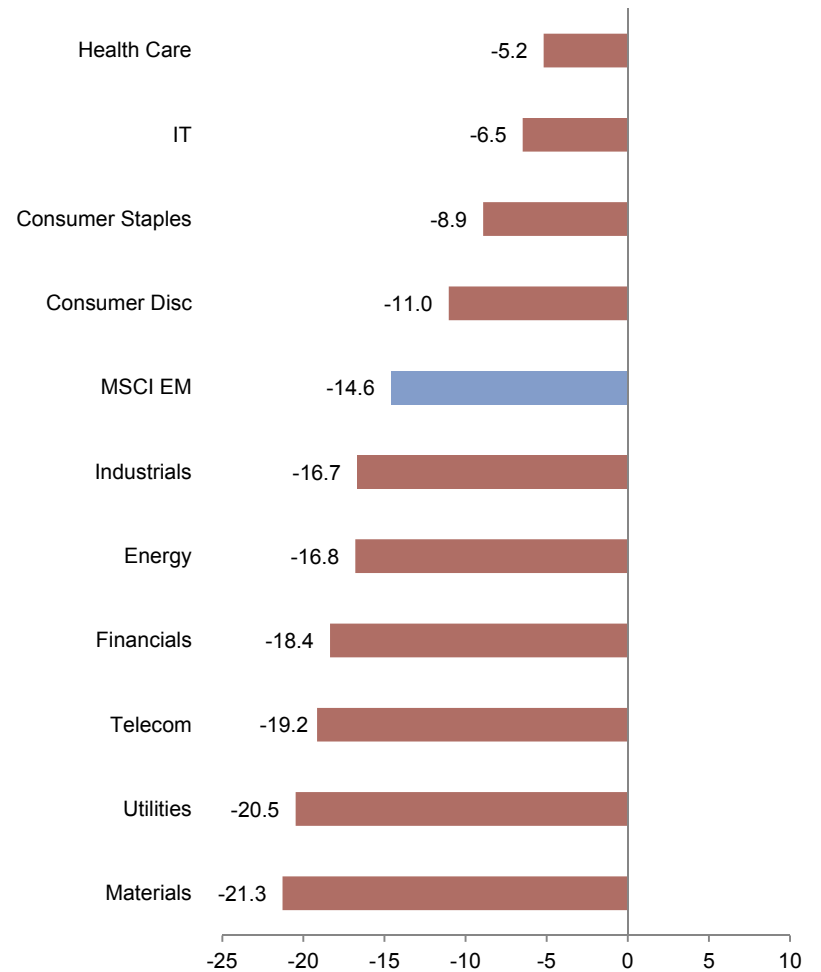
### MSCI World Calendar Year 2015 Sector Returns

Percent (%) • USD Terms



### MSCI Emerging Markets Calendar Year 2015 Sector Returns

Percent (%) • USD Terms



Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Total return data are gross of dividend taxes.

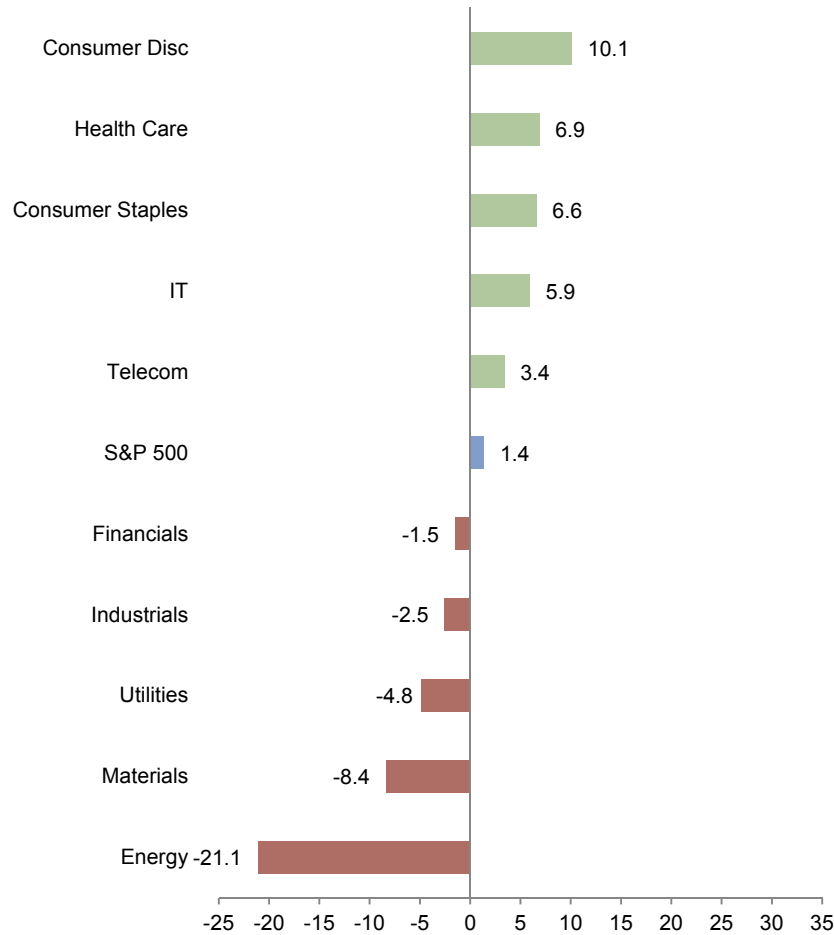


## Energy sector weighed heavily on the US market

Energy sector losses worst since the global financial crisis

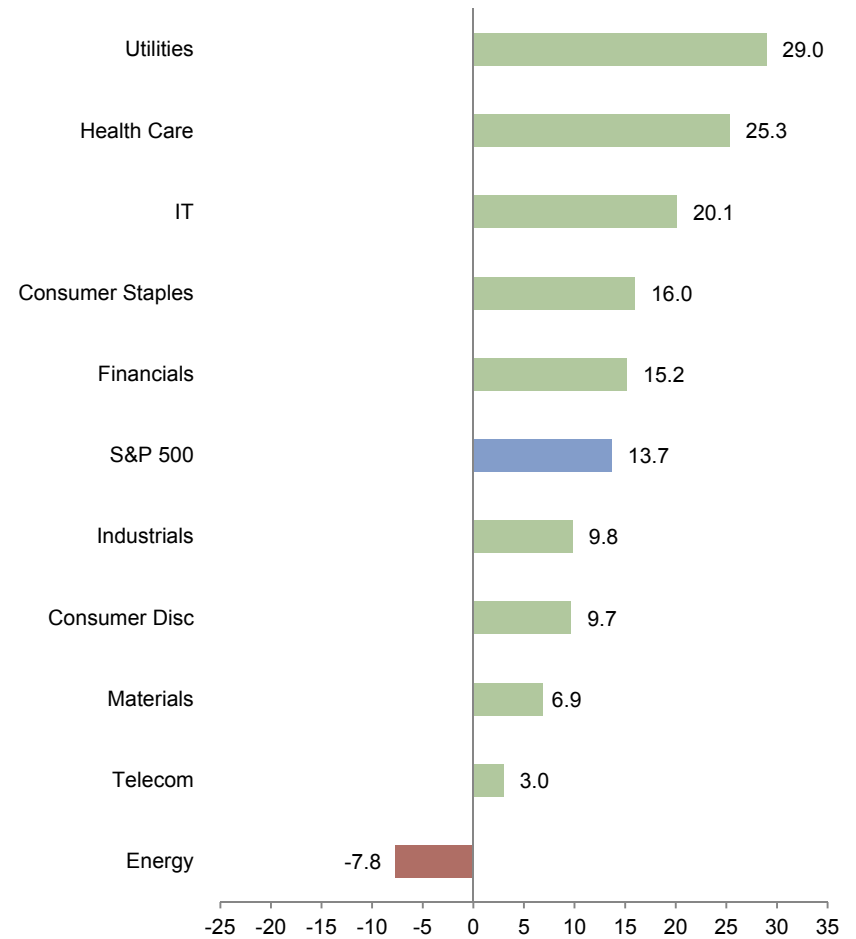
**S&P 500 Calendar Year 2015 Sector Returns**

Percent (%) • USD Terms



**S&P 500 Calendar Year 2014 Sector Returns**

Percent (%) • USD Terms



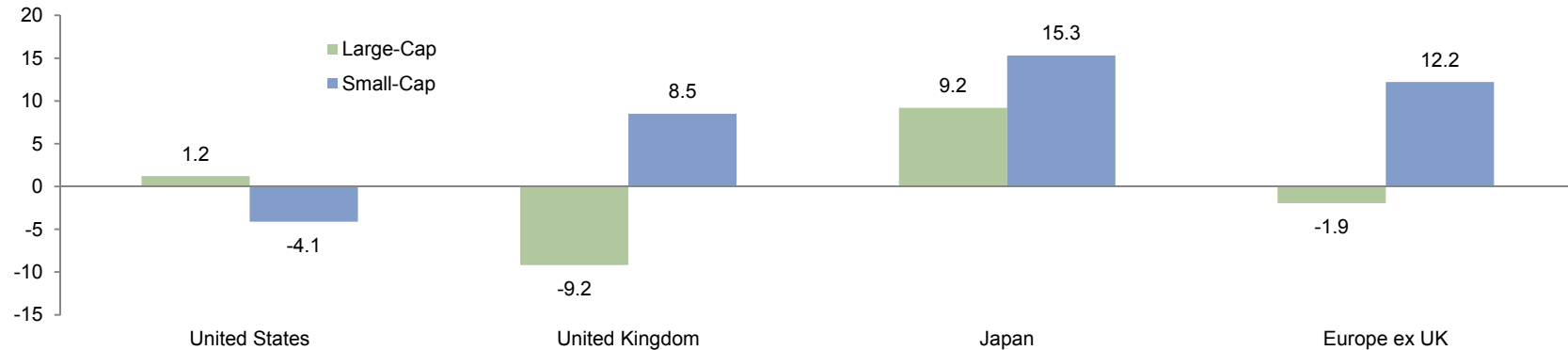
Sources: Standard & Poor's and Thomson Reuters Datastream.

## Style performance diverged across markets

In major markets ex Japan, the outperformance of growth indexes versus value has been sizable

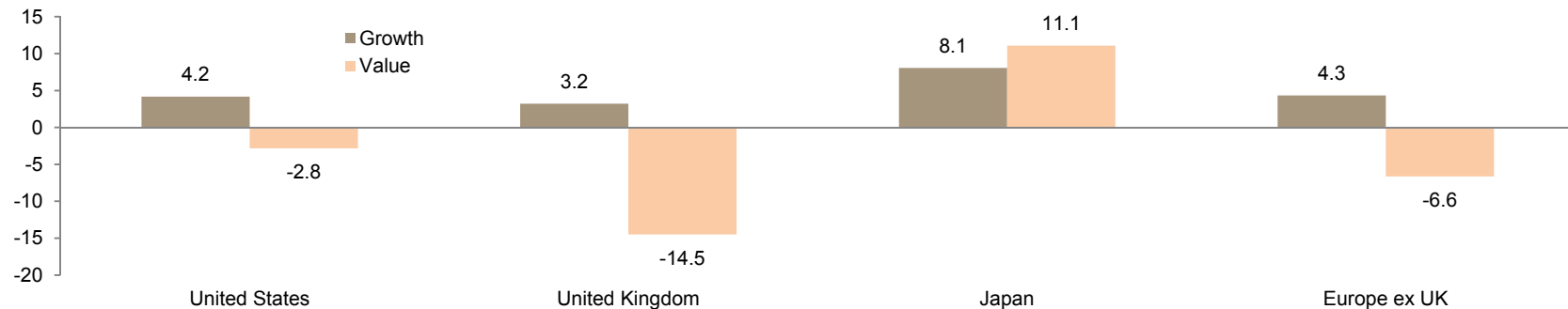
### Large-Cap versus Small-Cap Equity Performance

Calendar Year 2015 • Total Return (%) • USD Terms



### Growth versus Value Equity Performance

Calendar Year 2015 • Total Return (%) • USD Terms



Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

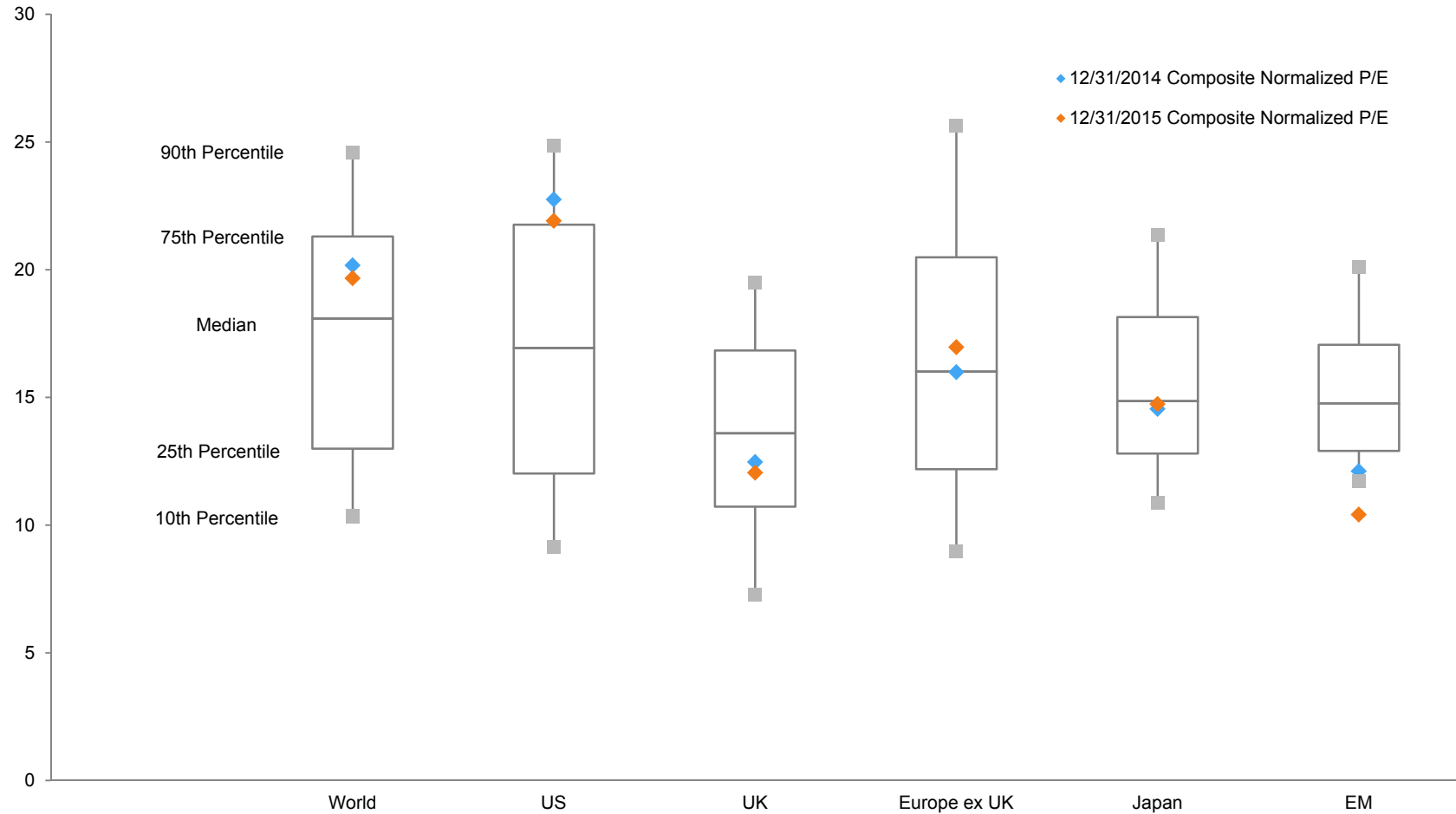
Notes: Total returns are net of dividend taxes. In the top graph, "United States" is represented by the MSCI US Large Cap Index and MSCI US Small Cap Index, "United Kingdom" by the MSCI UK Large Cap Index and MSCI UK Small Cap Index, "Japan" by the MSCI Japan Large Cap Index and MSCI Japan Small Cap Index, and "Europe ex UK" by the MSCI Europe ex UK Large Cap Index and MSCI Europe ex UK Small Cap Index. In the bottom graph, "United States" is represented by the MSCI US Growth Index and MSCI US Value Index, "United Kingdom" by the MSCI UK Growth Index and MSCI UK Value Index, "Japan" by the MSCI Japan Growth Index and MSCI Japan Value Index, and "Europe ex UK" by the MSCI Europe ex UK Growth Index and MSCI Europe ex UK Value Index.

## Valuations remain broadly unchanged from the end of 2014

Of the major markets, US valuations appear to be the most stretched

### Composite Normalized P/E Ratios by Region

As of December 31, 2015



Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

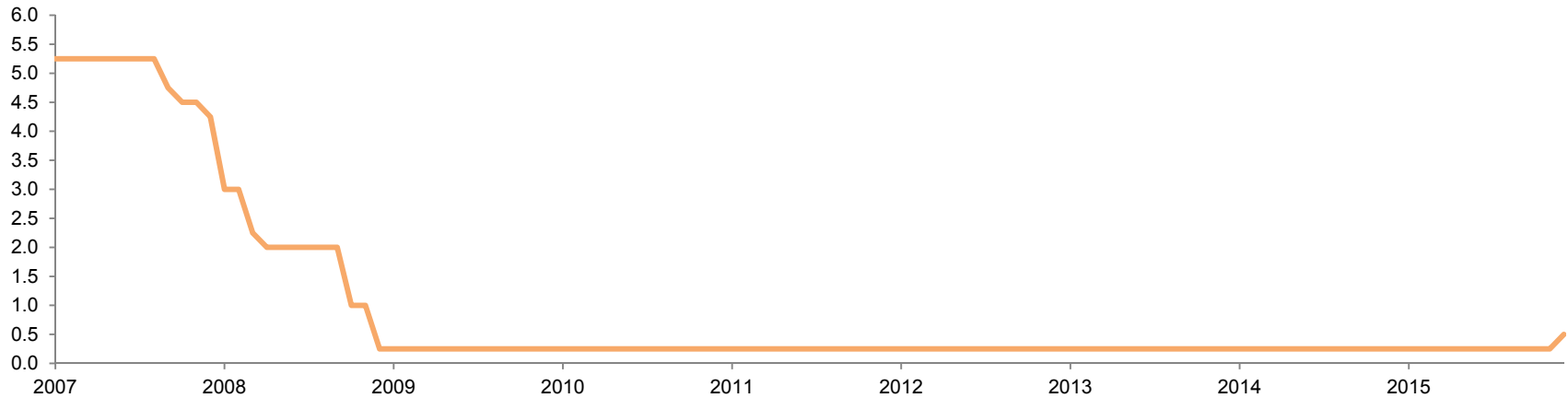
Notes: The composite normalized price-earnings (P/E) ratio is calculated by dividing the inflation-adjusted index price by the simple average of three normalized earnings metrics: ten-year average real earnings (i.e., Shiller earnings), trend-line earnings, and return on equity (ROE)-adjusted earnings. We used the post-2001 ROE-adjusted P/E for Japan.

## Federal Reserve finally decides to tighten monetary policy

Despite tightening, central bank policies globally remain highly accommodative

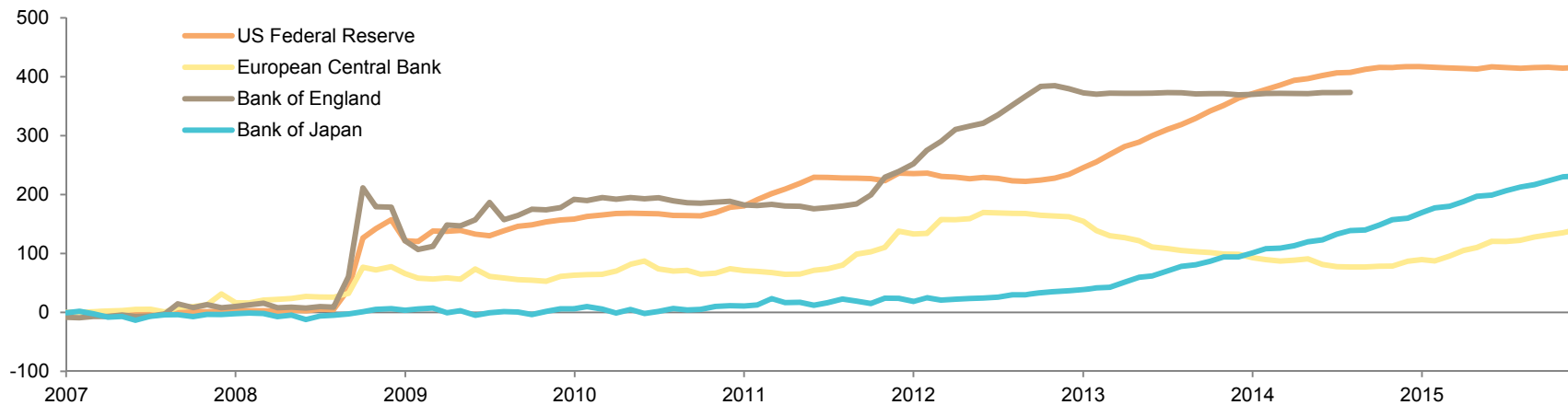
### Federal Funds Target Rate

January 31, 2007 – December 31, 2015 • Percent (%)



### Central Bank Balance Sheet Expansion

January 1, 2007 – December 31, 2015 • Local Currency • December 31, 2006 = 100



Source: Thomson Reuters Datastream.

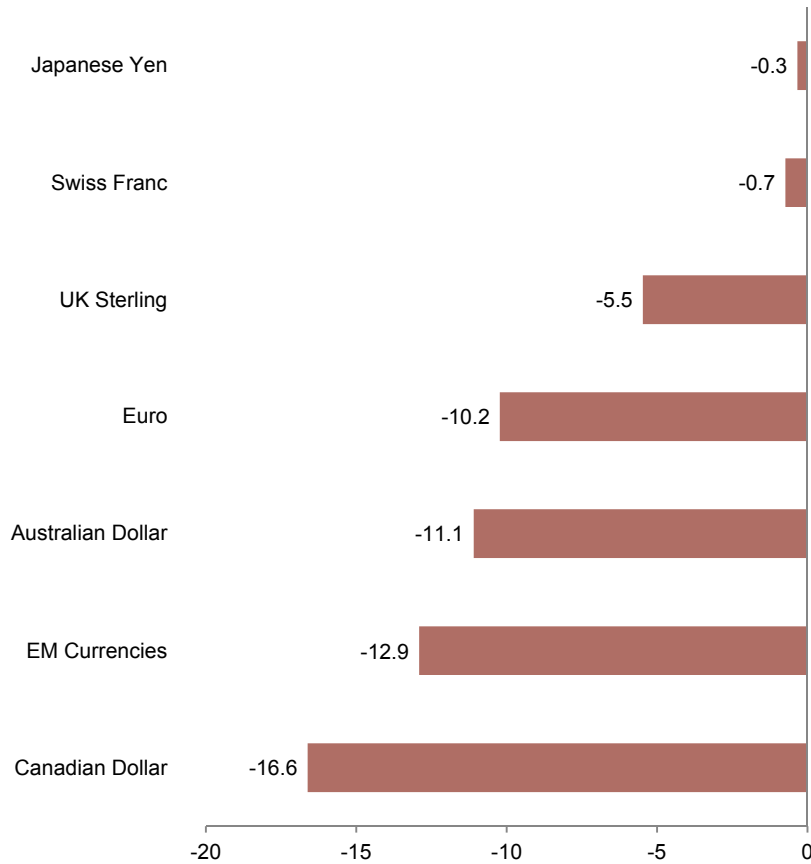
Notes: Bank of England discontinued reporting total balance sheet assets; data are as of August 31, 2014. US Federal Reserve balance sheet data are as of December 30.

## Commodity-linked currencies performed poorly against the US dollar

US\$ strength supported by the Federal Reserve's decision to tighten

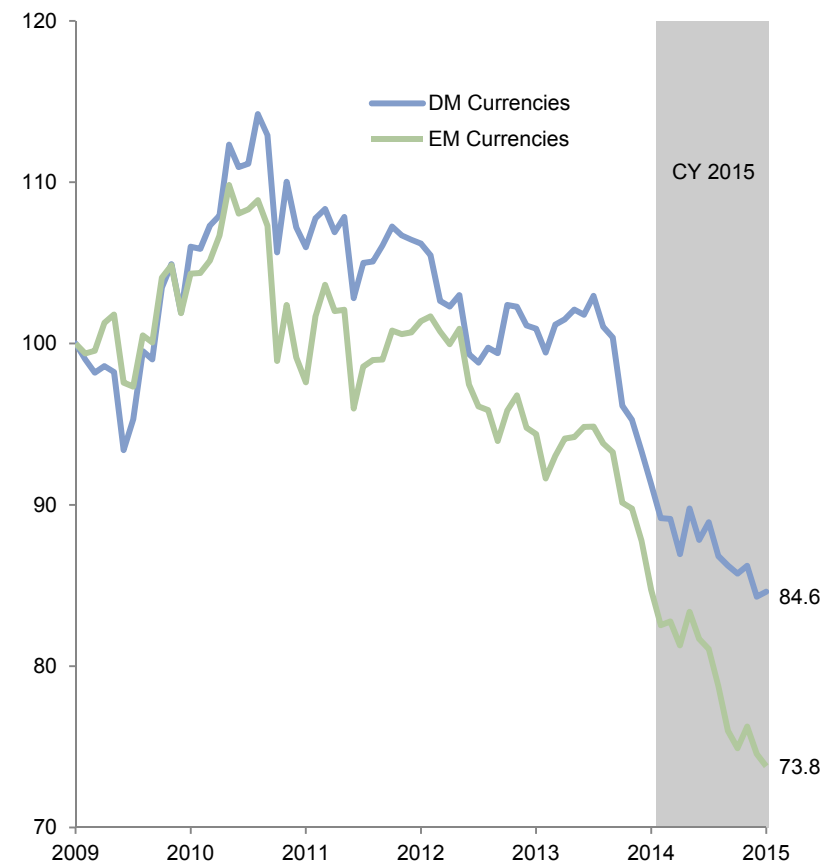
### Currency Performance vs the US Dollar: Calendar Year 2015

Percent Change (%)



### Cumulative Wealth for Various Currencies in US\$ Terms

December 31, 2009 – December 31, 2015 • December 31, 2009 = \$100



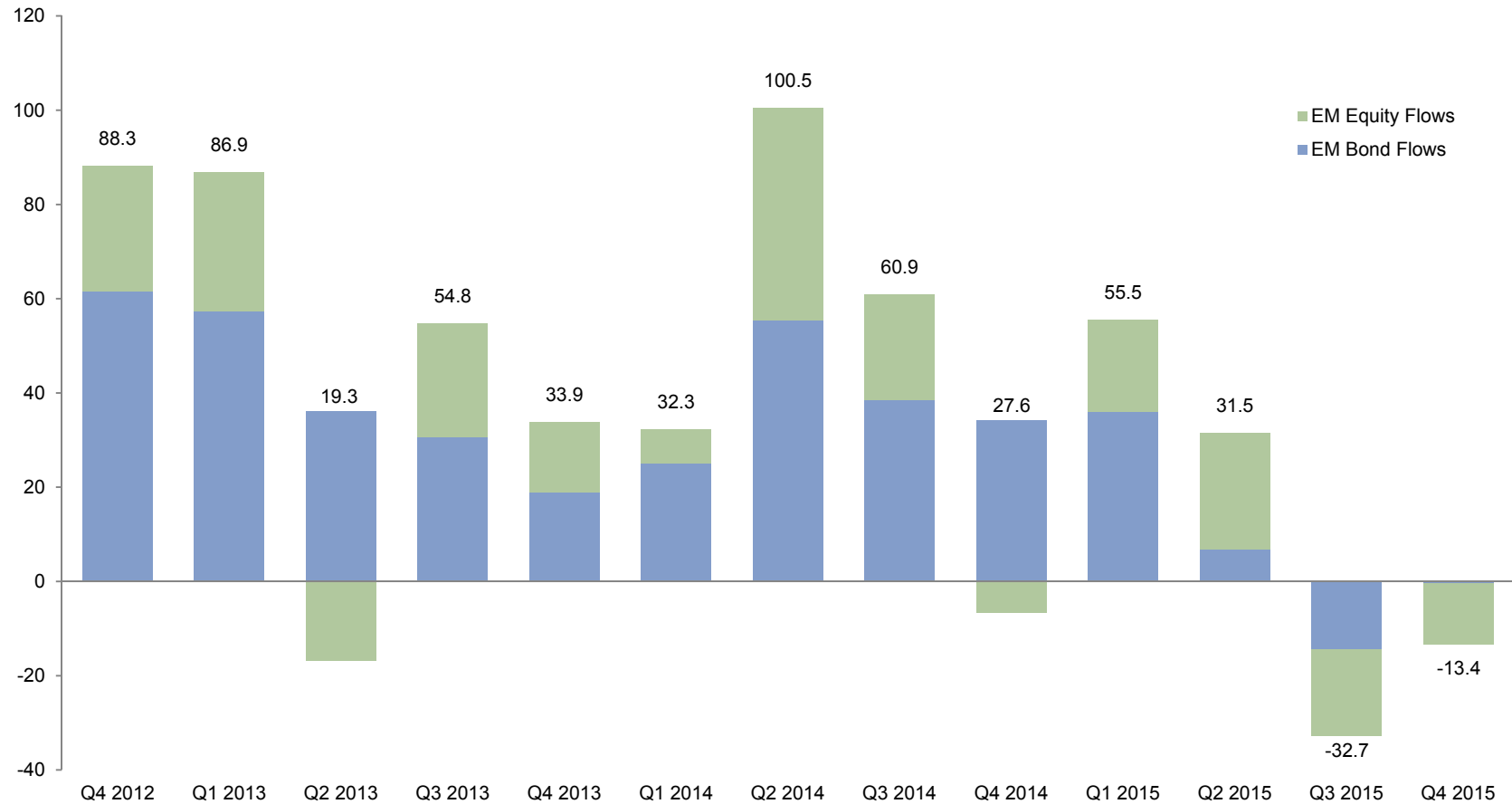
Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.  
 Notes: DM currencies is an equal-weighted basket of six currencies. EM currencies is an equal-weighted basket of 20 currencies.

## US rate hike expectations challenged EM flows in late 2015

Emerging markets net outflows reached multi-year high in third quarter

### Net Flows Into Emerging Markets

Fourth Quarter 2012 – Fourth Quarter 2015 • US\$ billions



Source: Institute of International Finance.

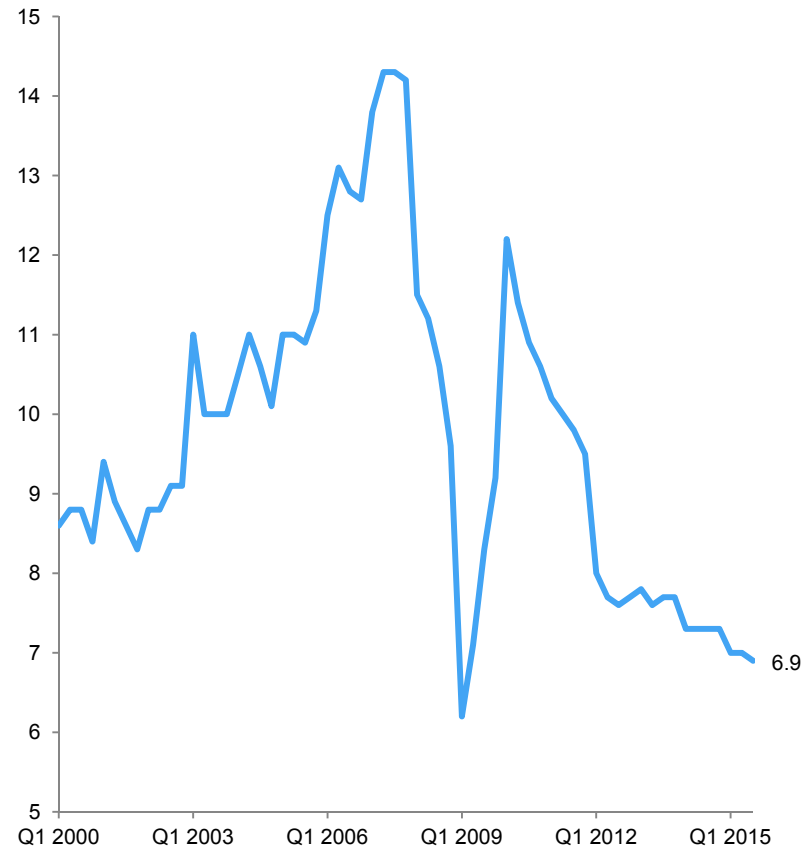
Notes: Data are quarterly. IIF emerging markets consist of 30 economies.

## China's slowing growth undercuts commodity markets

Lower commodity consumption levels contributed to a significant supply/demand mismatch

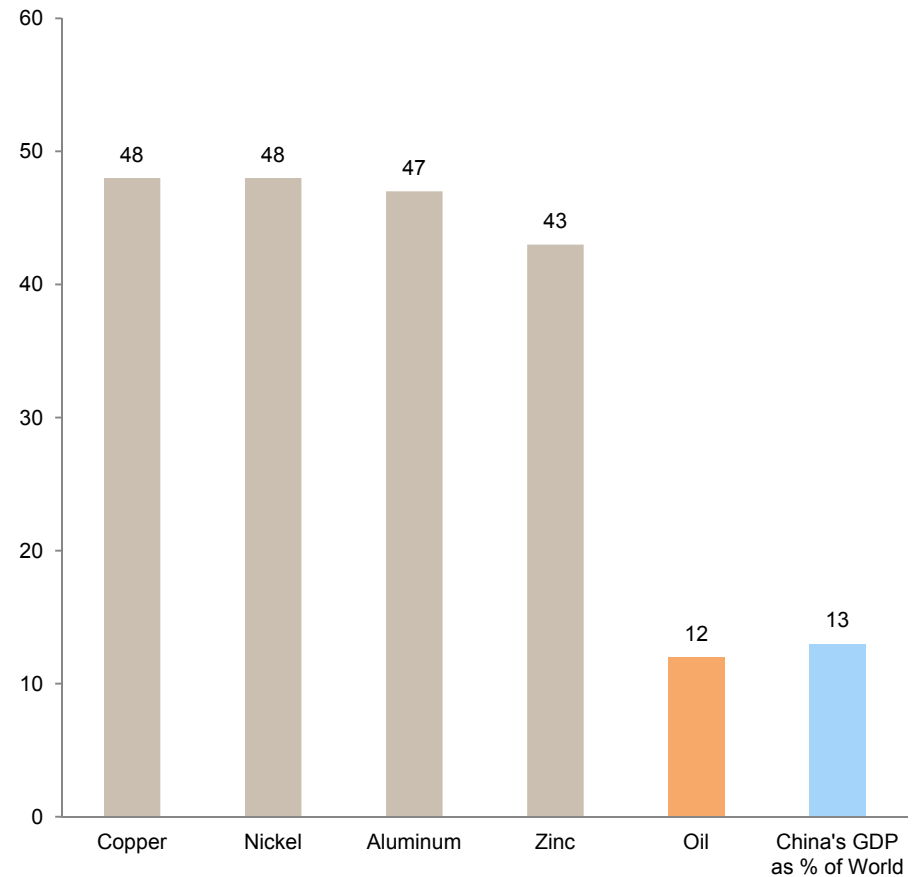
### China Real Year-Over-Year GDP Growth

First Quarter 2000 – Third Quarter 2015 • Percent (%)



### China's Consumption of Metals as a % of Global Consumption

2013



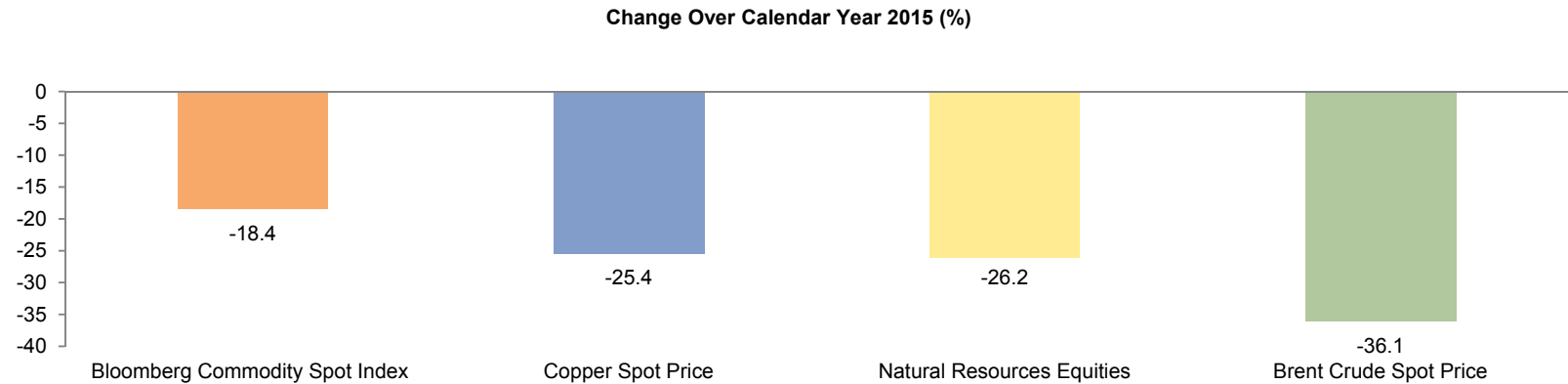
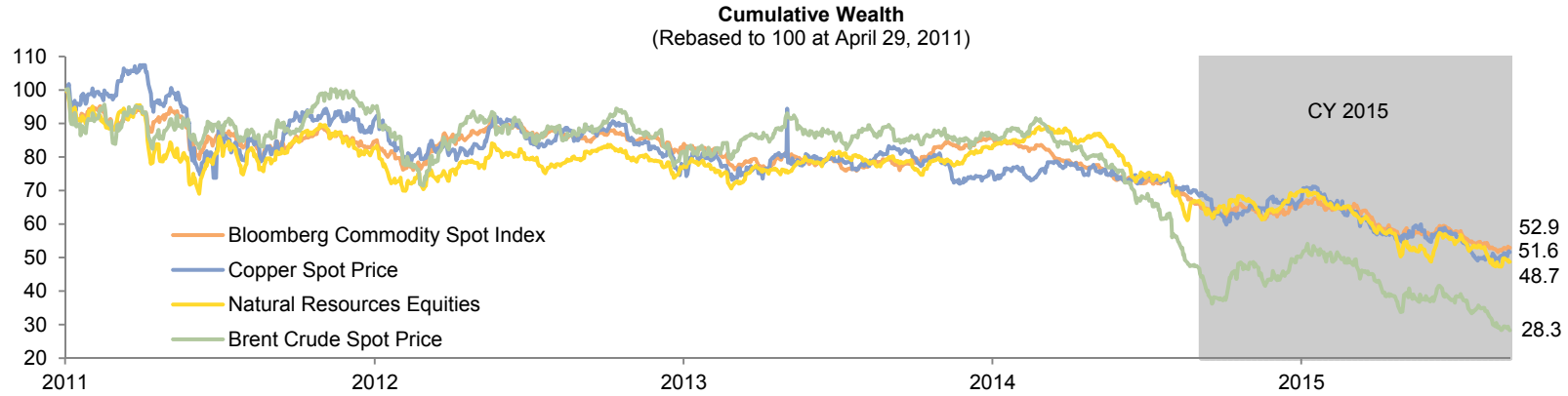
Sources: Goldman, Sachs & Co. and Thomson Reuters Datastream.

## Multiple commodities hit multi-year lows

The Bloomberg Commodity Spot Index sank to its lowest level since 2009 in December

### Commodities and Natural Resources Equities Performance

As of December 31, 2015 • USD Terms



Sources: Bloomberg L.P. and Thomson Reuters Datastream.

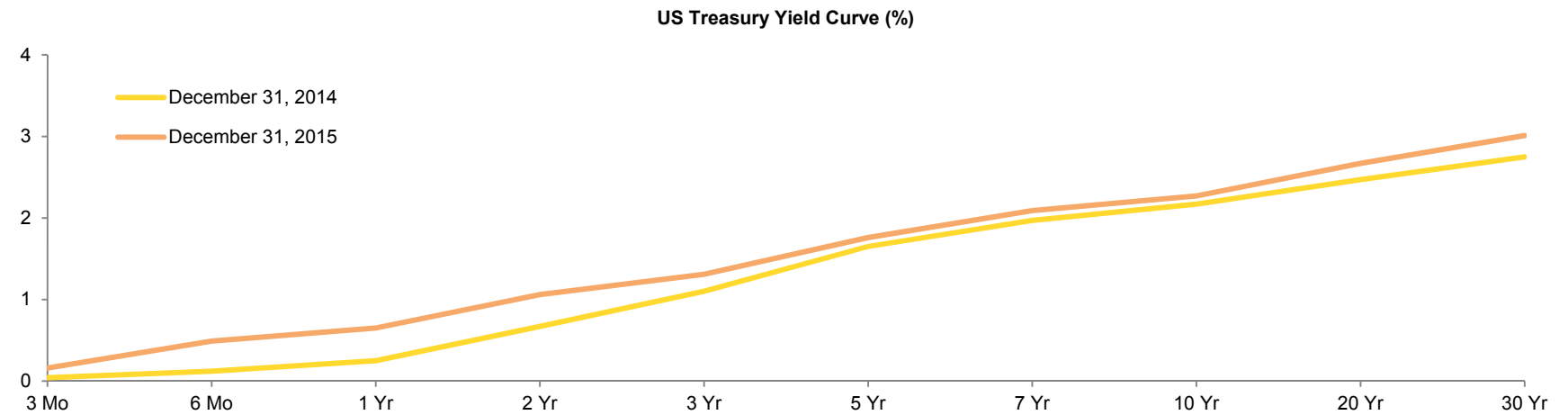
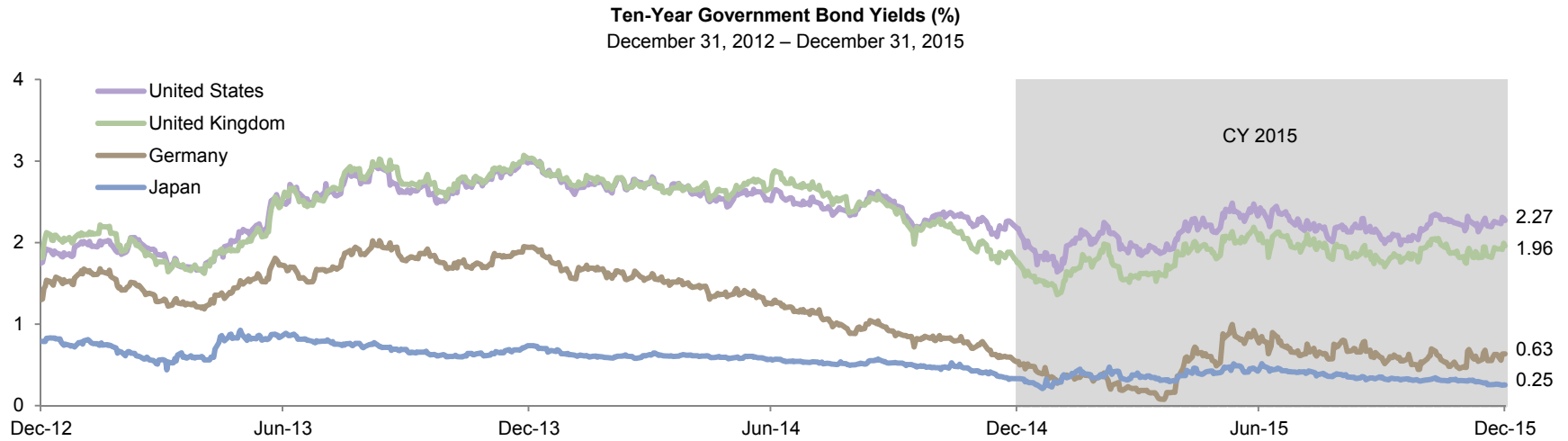
Notes: Graphs represent daily data. April 29, 2011 represents peak of Bloomberg Commodity Spot Price Index. Natural resources equities are composed of 80% Datastream World Oil & Gas Index and 20% Datastream World Mining Index.



# German bund yields reached unprecedented low in April

US and European sovereign yields backed up sharply as summer approached

## Ten-Year Government Bond Yields and US Treasury Yield Curve



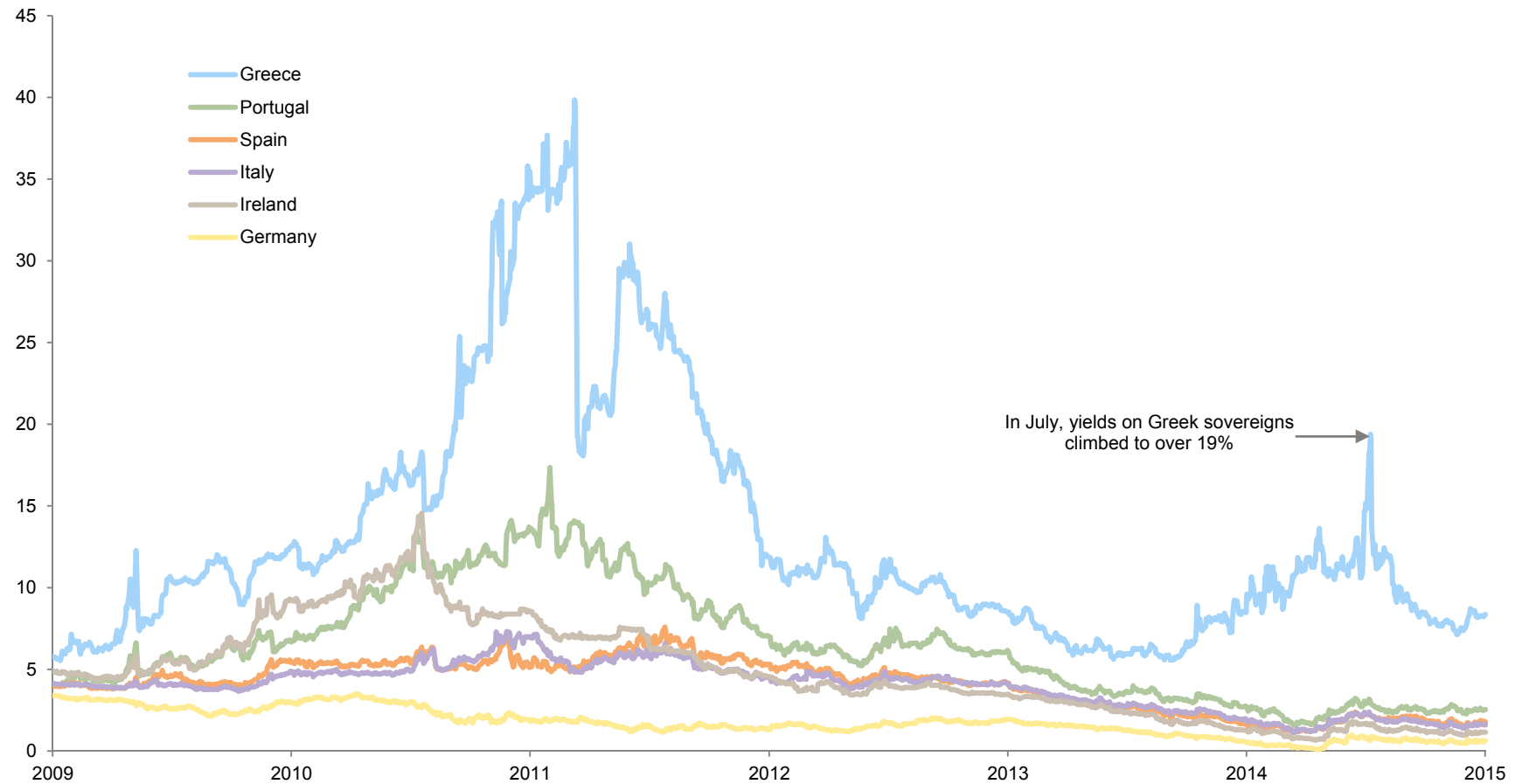
Source: Thomson Reuters Datastream.  
Note: Ten-year government bond yields data are daily.

## Solvency concerns pushed Greek yields to distressed levels

Greek prices rebounded as Eurozone leaders agreed to extend a third bailout to Athens

### European Sovereign Funding Costs

December 31, 2009 – December 31, 2015 • Percent (%)



Source: Thomson Reuters Datastream.

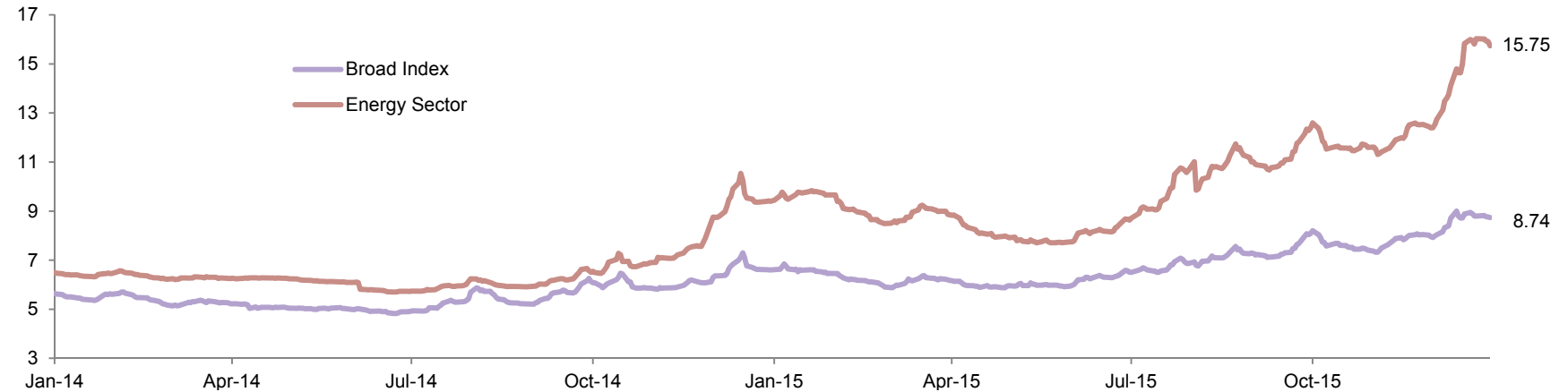
Note: Data are daily.

# High yield lost ground as fundamentals questioned

High levels of leverage and poor earnings plague energy sector

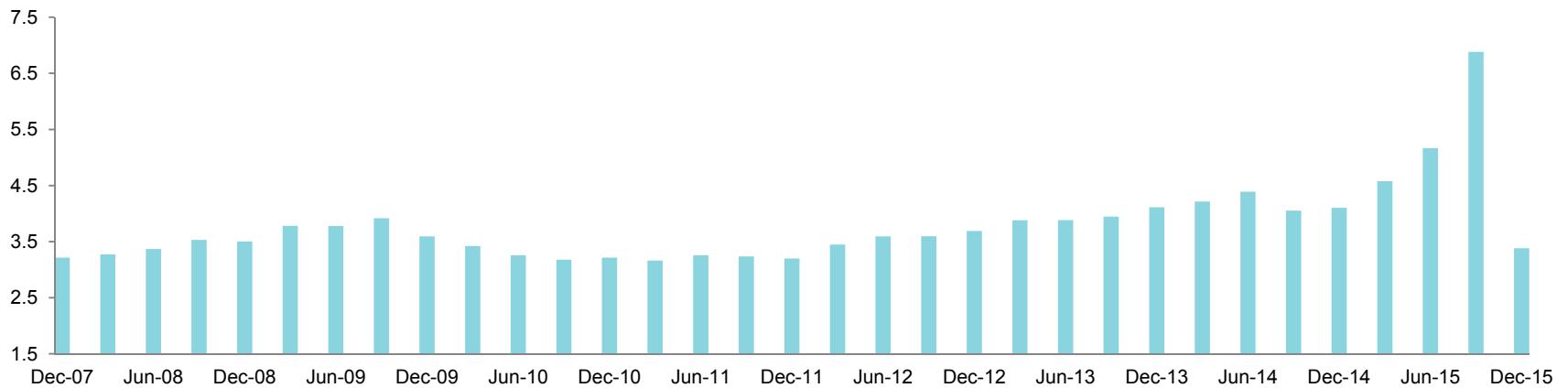
## Barclays High-Yield YTW: Energy Sector and Broad Index

January 1, 2014 – December 31, 2015 • Percent (%)



## US High-Yield Net Leverage

Fourth Quarter 2007 – Fourth Quarter 2015 • Percent (%)



Sources: Barclays and BofA Merrill Lynch.

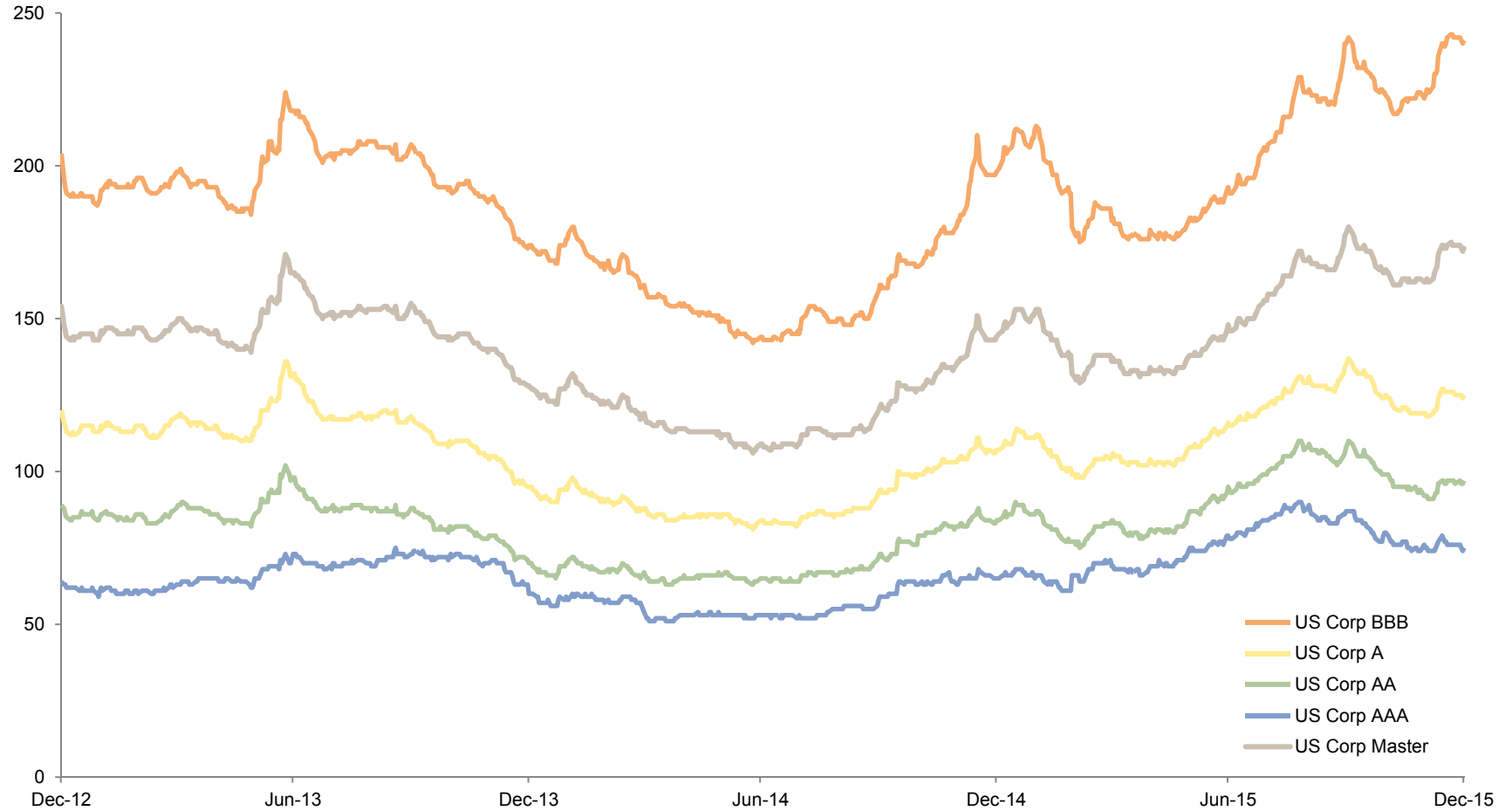
Note: Yield-to-worst data are daily.

## Corporate bond yield spreads moved higher

Spreads widened as Treasury yields backed up

### Option-Adjusted Spreads for US Corporate Bonds

December 31, 2012 – December 31, 2015 • Basis Points (bps)

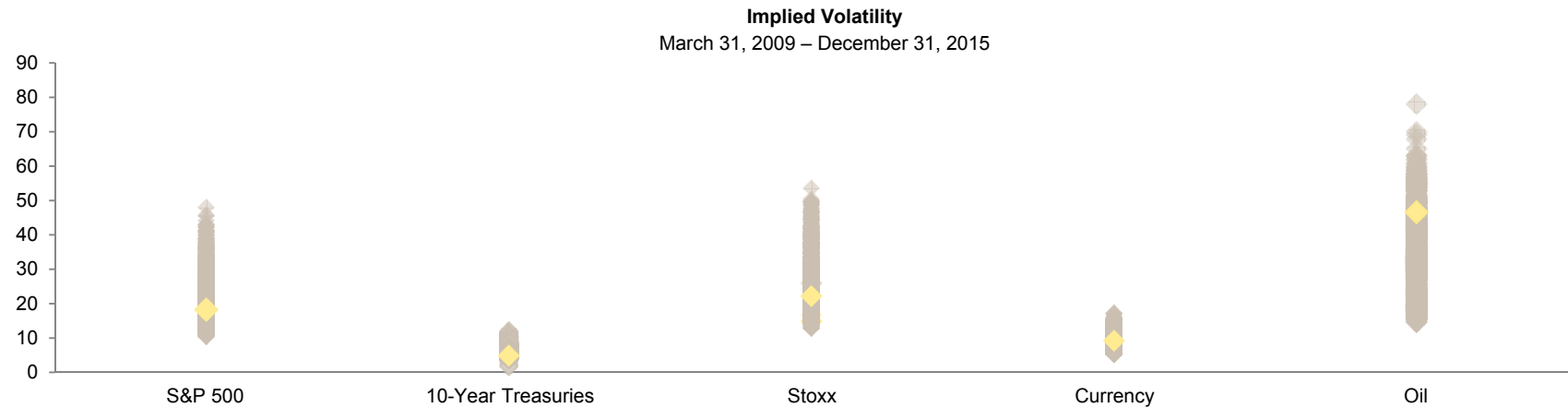
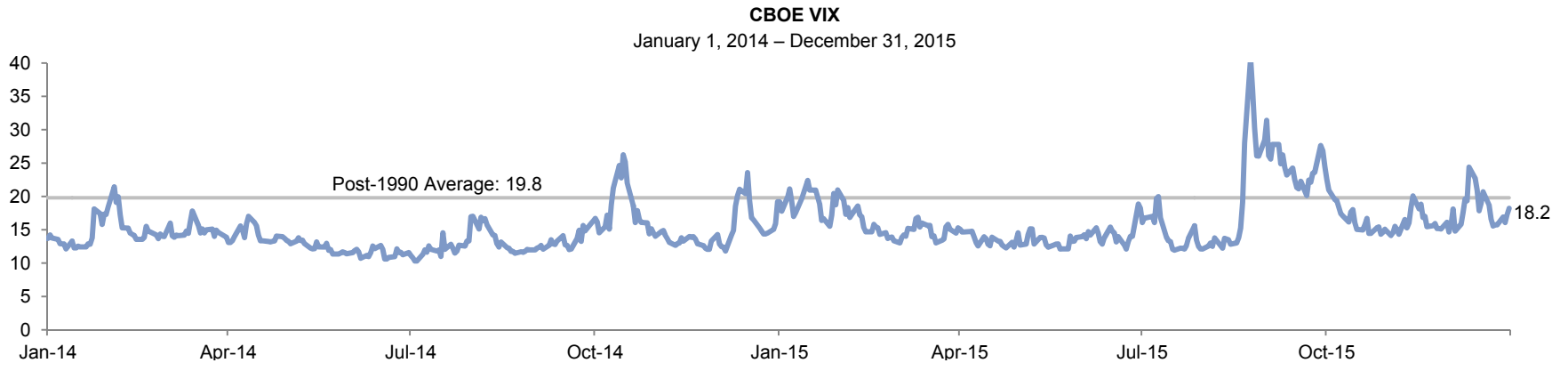


Source: BofA Merrill Lynch.  
 Note: Graph uses daily data.

# Volatility spiked in August as markets sold off sharply

China's yuan devaluation heightened growth concerns among investors

## Volatility of Various Markets



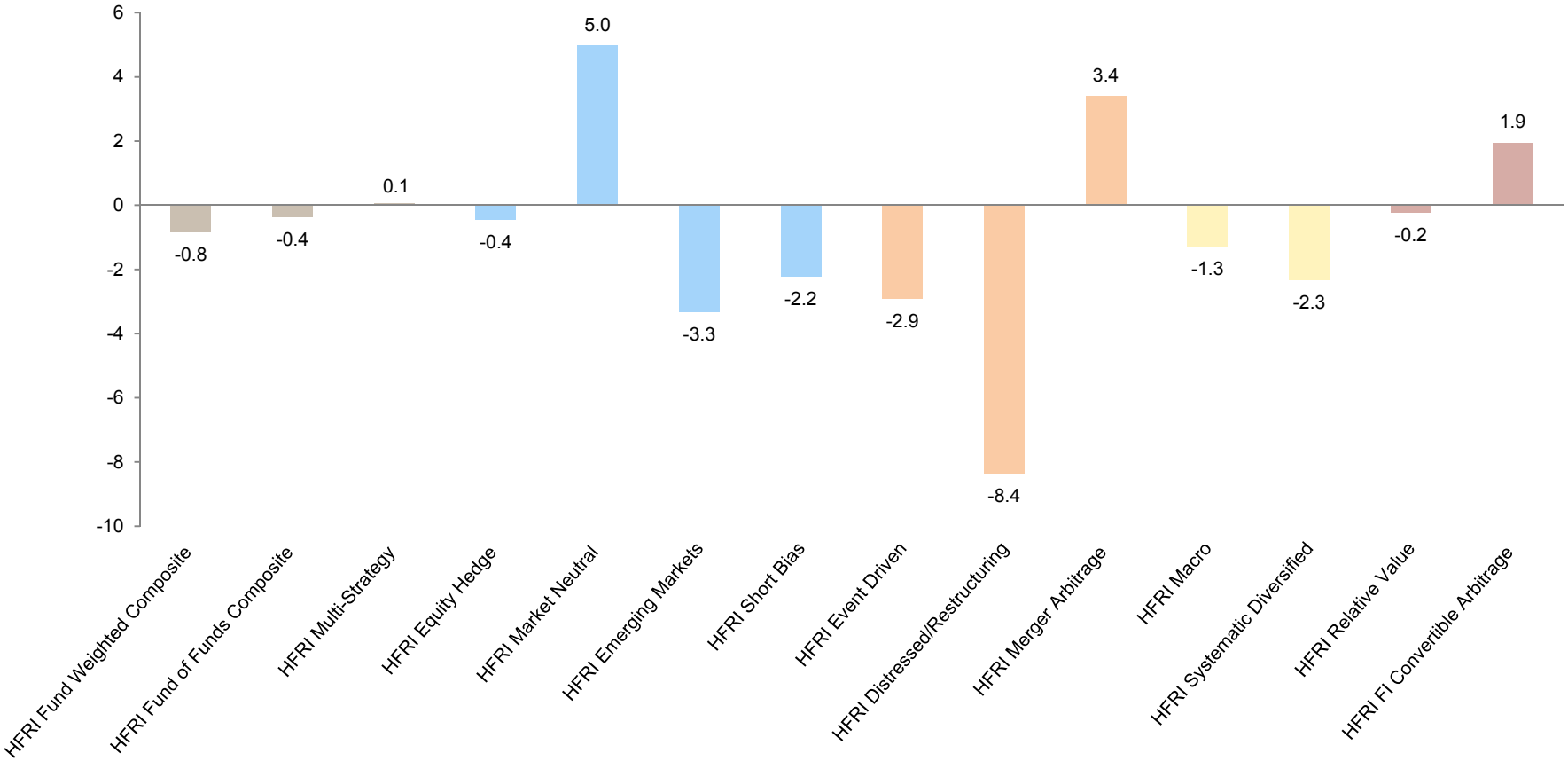
Sources: Bloomberg L.P., Chicago Board of Exchange, Chicago Board of Trade, J.P. Morgan Securities, Inc., Standard & Poor's, STOXX, and Thomson Reuters Datastream.  
Notes: Data are daily. Asset classes represented by the following: CBOE SPX Volatility (VIX) Index ("S&P 500"), CBOE/CBOT 10-Year US Treasury Note Volatility Index ("10-Year Treasuries"), VSTOXX Volatility Index ("Stoxx"), J.P. Morgan G7 Volatility Index ("Currency"), and CBOE Crude Oil Volatility Index ("Oil"). Yellow marker represents most recent value.

## Market neutral strategies outperformed US equities

Returns for other strategies were in line with or slightly below equity returns

### Preliminary Calendar Year 2015 Hedge Fund Performance: HFRI Indexes

Total Return (%)

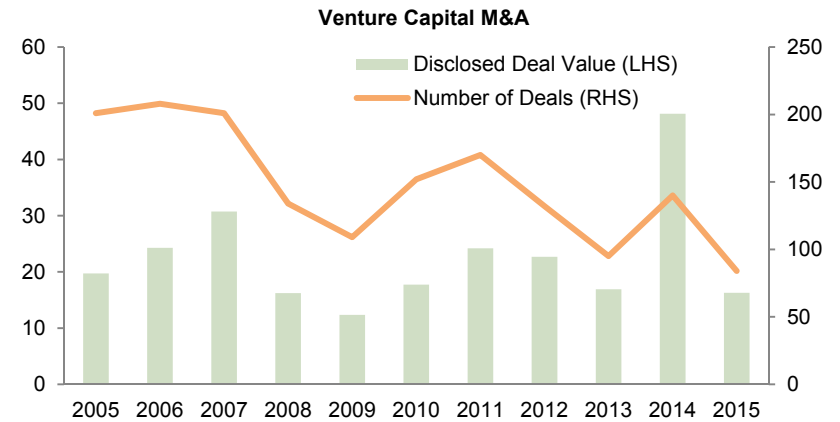
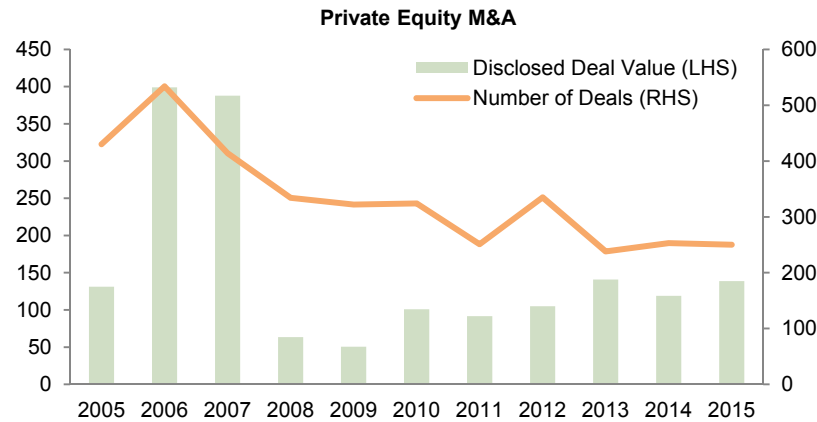
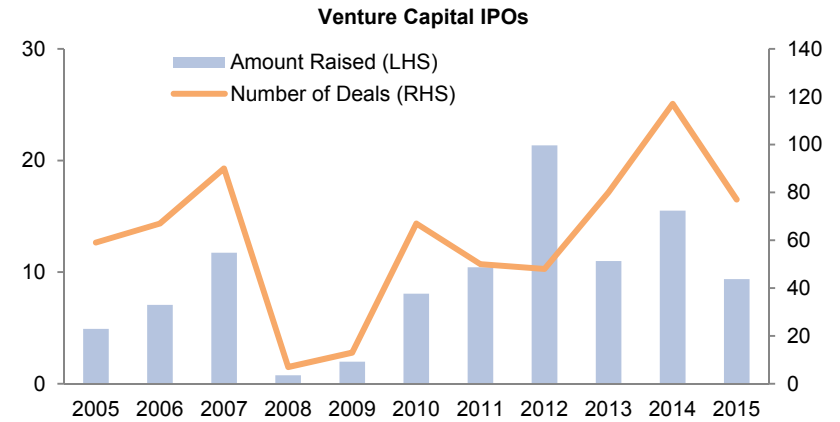
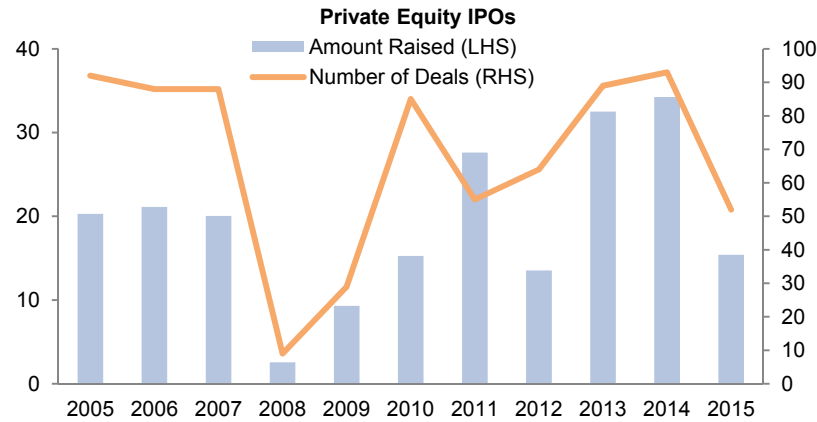


Source: Hedge Fund Research, Inc.  
 Note: Hedge Fund Research data are preliminary for the preceding five months.

## IPO volume fell off after a strong 2014

PE- and VC-backed M&A deal value unexceptional, despite high corporate transaction levels

### US Private Equity–Backed and Venture Capital–Backed Activity 2005–15



Sources: Dealogic, National Venture Capital Association, and Thomson Reuters Datastream.

Notes: Data are quarterly. Dealogic updates its database on a regular basis, therefore, historical data may change. Amount raised and disclosed deal values are in US\$ billions.

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