



## Review of Market Performance Calendar Year 2016

CAMBRIDGE

C | A

ASSOCIATES

- ◆ The S&P 500 (12.0%) outperformed other major developed equity markets in USD terms in 2016, as investors hoped US president-elect Donald Trump's pledge to slash taxes and boost infrastructure spending would translate into stronger economic growth. Positive returns for UK equities for pound-based investors were wiped out in USD terms (-0.1%),\* falling victim to the post-“Brexit” plunge in the pound. The rest of Europe (-0.6%) also delivered lackluster results, as investors grew increasingly wary of political and trade risks. Japanese equities (2.4%) eked out a positive return due to the rise in the yen, as in yen terms the market was slightly negative. Across developed markets, energy and materials led other sectors, with investors rotating into more cyclical assets late in 2016.
- ◆ Emerging markets equities (11.6%) delivered their best result since 2012, even as investors grew increasingly cautious about the asset class in the last months of the year. The late change in sentiment was linked to concerns about a stronger US dollar and anti-globalization rhetoric, concerns that hit Mexico (-9.0%) hard, particularly following the US election. However, through much of the year, the asset class enjoyed a strong tailwind from healing commodity markets, which sent commodity exporters Brazil (66.7%) and Russia (55.9%) higher, in combination with strong currency moves.
- ◆ Bond markets witnessed sovereign yields across various jurisdictions plunge to historic lows mid-year, as central bankers pushed the limits of monetary policy. Yields in most markets eventually moved back up, limiting returns of ten-year Treasuries (0.9%) and the Citigroup World Government Bond Index (1.6%). As the year closed, stark interest rate differentials between the United States and the rest of the world were apparent. Across fixed income markets, lower-rated credits outperformed, with the Bloomberg Barclays US High-Yield Composite Bond Index (17.1%) leading.

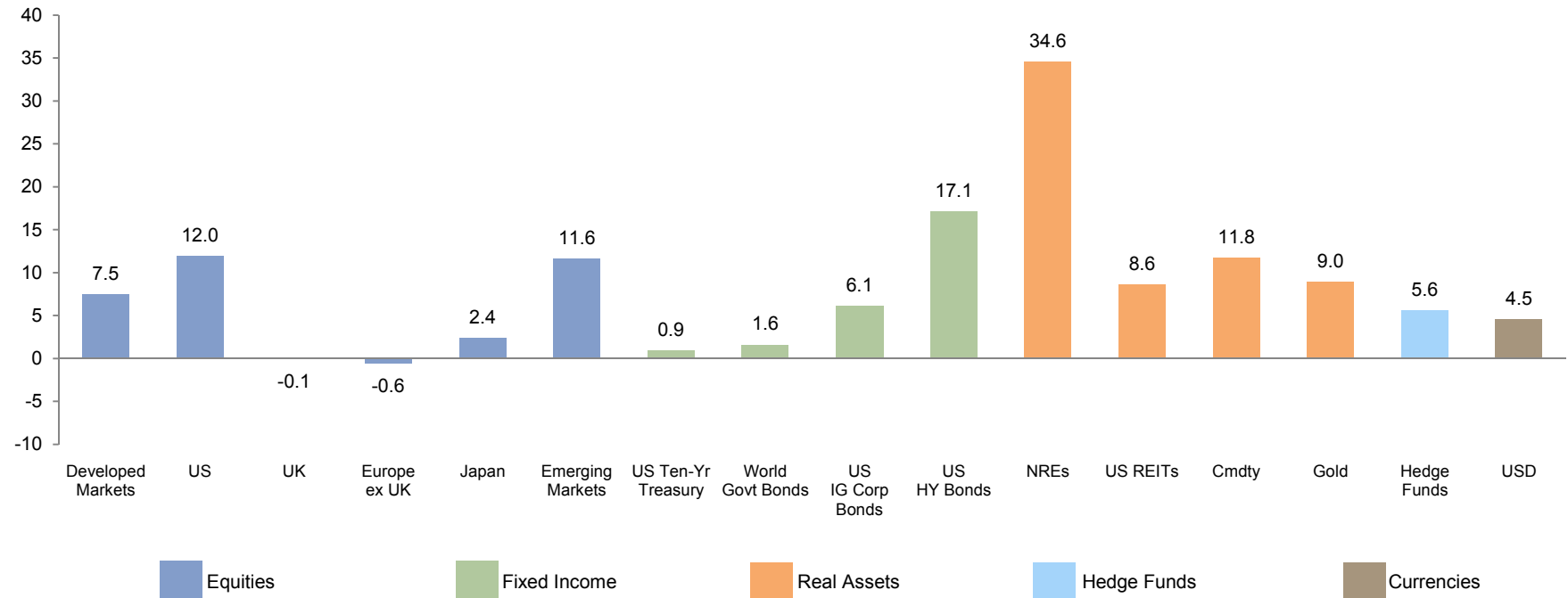
- ◆ Natural resources equities (34.6%) led broad real assets categories, due in part to a substantial rebound in mining equities (56.7%) and crude oil prices (45.0%). The jump in crude oil prices to near \$55 after hitting mid-\$20 lows in early 2016 calmed fears of bankruptcy for US energy companies, sending energy MLPs (18.3%) higher. In addition to oil's rebound, significant moves in industrial metals, precious metals, and softs sent broad commodity futures (11.8%) into positive territory for the first time in five years. After solid returns through much of the year, gains in US REITs (8.6%) and developed property securities (5.0%) slowed late in the year as interest rate expectations changed.
- ◆ Preliminary data through December 31 from Hedge Fund Research, Inc., suggest event-driven hedge funds (10.2%) outperformed other main strategies, benefiting from strong returns in the distressed/restructuring sub-strategy (13.4%). More broadly, the HFRI Fund Weighted Composite Index (5.6%) and the HFRI Equity Hedge (Total) Index (5.5%) delivered positive returns, on a preliminary basis.
- ◆ For the one-year period ending June 30, 2016, the Cambridge Associates LLC US Private Equity Index® and the Cambridge Associates LLC US Venture Capital Index® delivered horizon internal rates of return (IRRs) of 3.0% and -1.4%, respectively. For the five-year period ending June 30, 2016, the same indexes posted horizon IRRs of 11.7% and 13.2%, respectively.
- ◆ The multi-year strengthening in the US dollar (4.5%) continued in late 2016 after moving sideways for much of the last two years. Among major currencies, the most pronounced move versus the US dollar involved the British pound (-16.2%), which hit multi-decade lows post-Brexit, and the Canadian dollar (3.6%). Among emerging markets, the average currency (0.2%) finished firm against the US dollar.

## US equities and commodity-linked investments were top performers in 2016

Commodity-linked investments benefited from favorable supply/demand changes

### Global Asset Class Performance: Calendar Year 2016

Total Return (%) • USD Terms



Sources: 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.

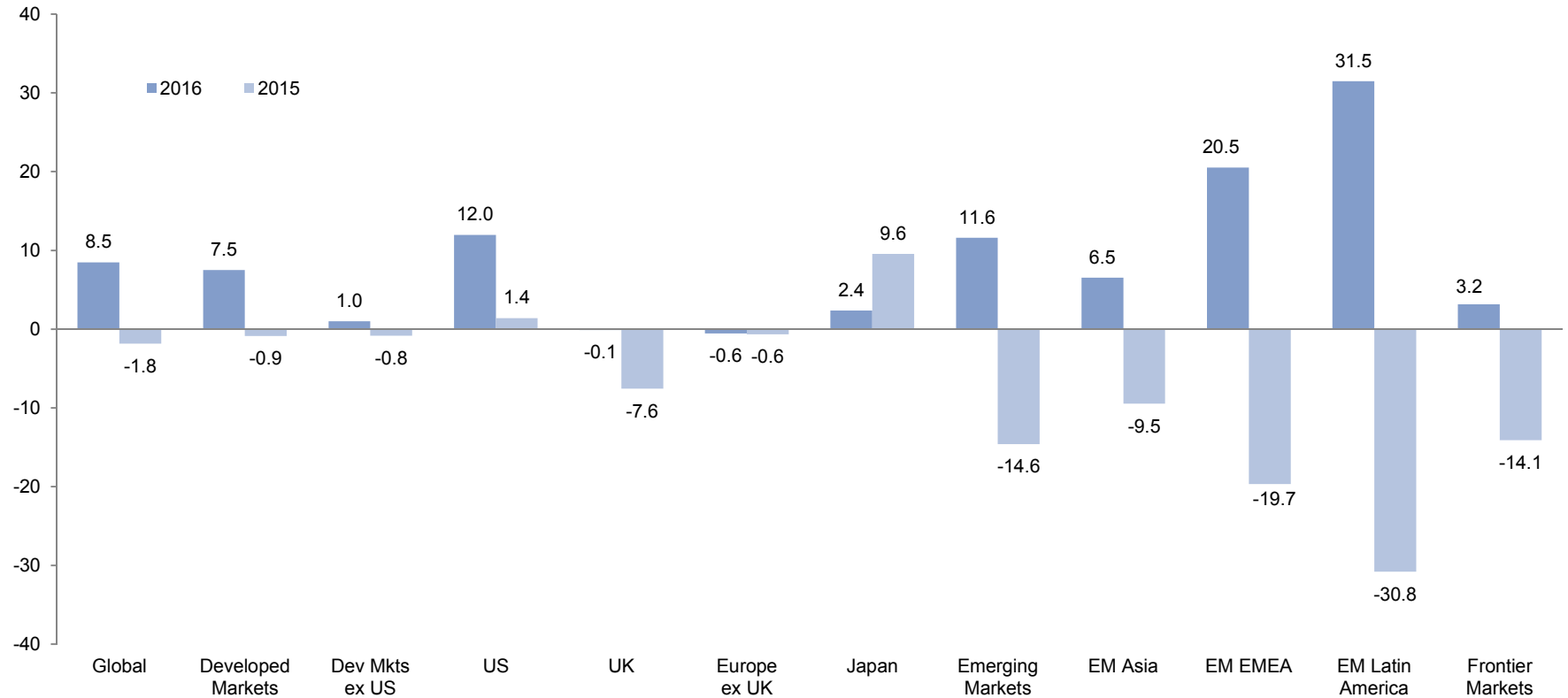
Notes: All returns are total returns in USD terms, except gold, for which returns are based on changes in the spot price. Asset classes represented by: MSCI World ("Developed Markets"), S&P 500 ("US"), MSCI UK ("UK"), MSCI Europe ex UK ("Europe ex UK"), MSCI Japan ("Japan"), MSCI Emerging Markets ("Emerging Markets"), Datastream US Ten-Year Treasury Bond ("US Ten-Yr Treasury"), Citigroup World Government Bond ("World Govt Bonds"), Bloomberg Barclays US Corporate Investment Grade Bond Index ("US IG Corp Bonds"), Bloomberg Barclays US High-Yield Composite Bond ("US HY Bonds"), 80% Datastream World Oil & Gas and 20% Datastream World Mining ("NREs"), FTSE@ NAREIT All Equity REITs ("US REITs"), Bloomberg Commodity TR ("Cmnty"), Gold Bullion Prices ("Gold"), HFRI Fund Weighted Composite ("Hedge Funds"), and the Datastream US Dollar Index ("USD"). 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.

## Relative to 2015, performance improved across most major equity benchmarks

Brexit and US dollar gains challenged Europe's equity performance

### Global Equity Performance: CY 2016 vs CY 2015

Total Return (%) • USD Terms



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

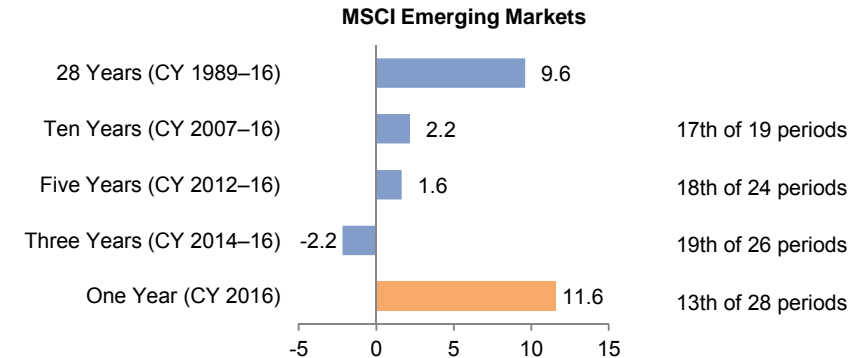
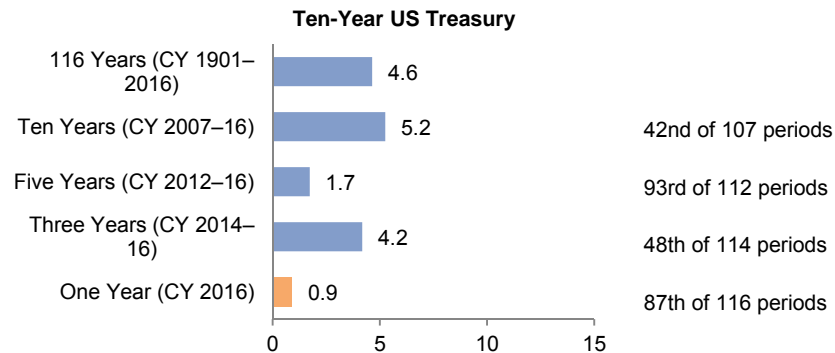
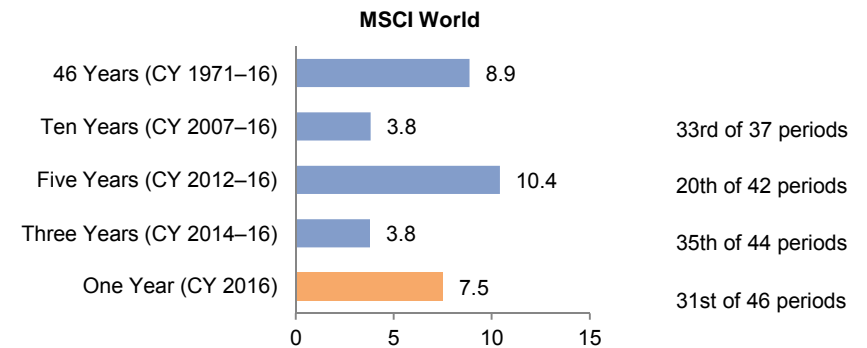
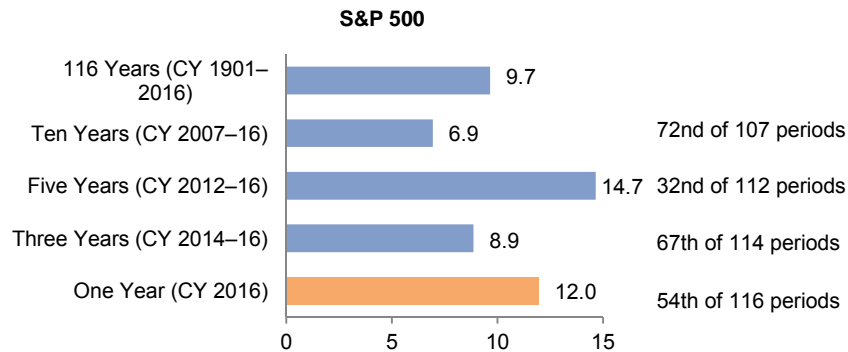
Notes: Asset classes represented by the following: MSCI All Country World ("Global"), MSCI World ("Developed Markets"), MSCI EAFE ("Dev Mkts ex US"), S&P 500 ("US"), MSCI UK ("UK"), MSCI Europe ex UK ("Europe ex UK"), MSCI Japan ("Japan"), MSCI Emerging Markets ("Emerging Markets"), MSCI Emerging Markets Asia ("EM Asia"), MSCI Emerging Markets Europe, the Middle East and Africa ("EM EMEA"), MSCI Emerging Markets Latin America ("EM Latin America"), and MSCI Frontier Markets ("Frontier Markets"). Total returns for MSCI developed markets indexes are net of dividend taxes. Total returns for MSCI emerging markets indexes are gross of dividend taxes.

## Developed markets, particularly US equities, have had a strong five years

US Treasuries and emerging markets, in contrast, have posted some of their worst five-year returns

### Average Annual Compound Returns for Various Time Periods

Periods Ended December 31, 2016 • 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.

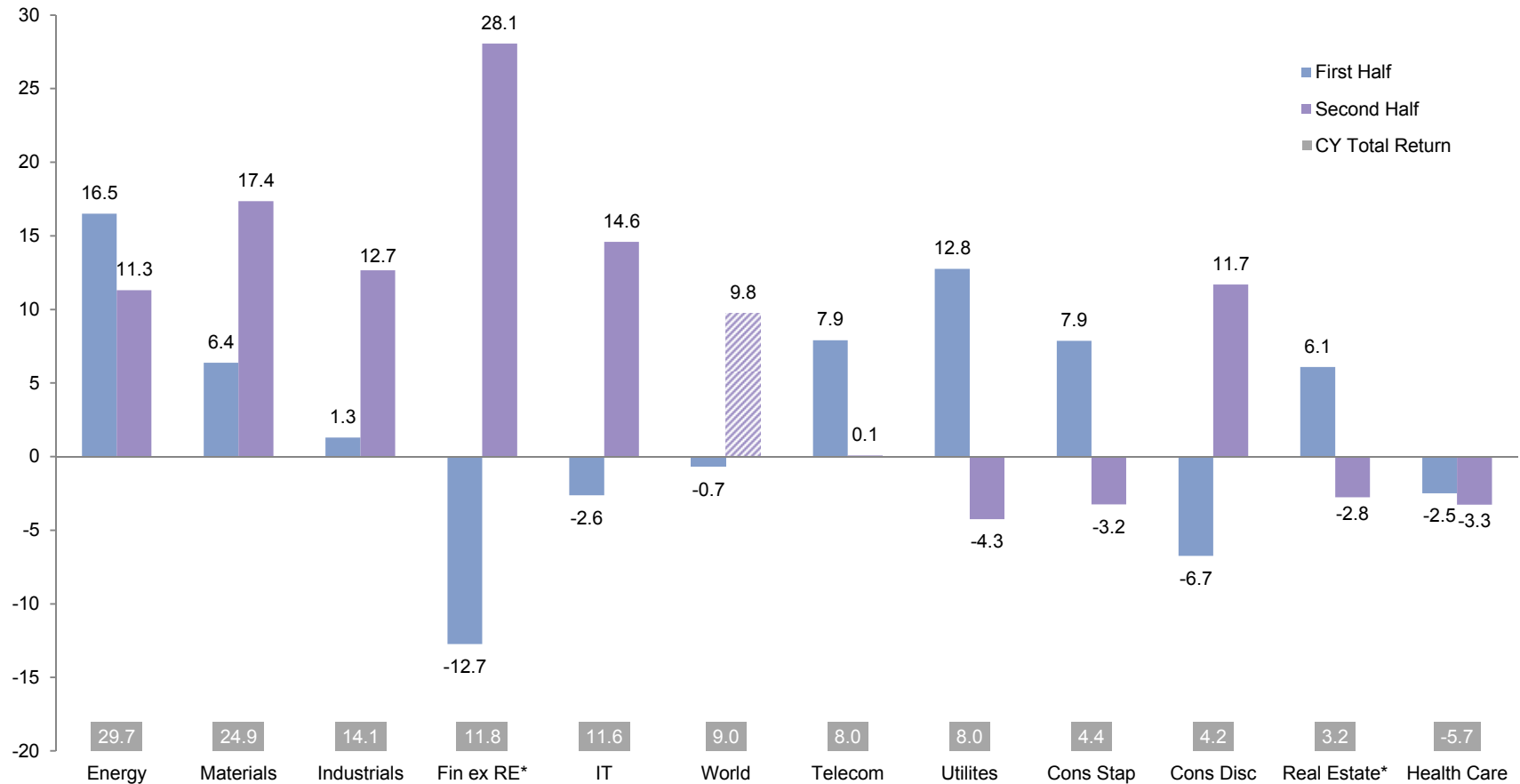
Notes: A ranking of first indicates the best performance among all periods. Total returns for MSCI World Index are net of dividend taxes. Total returns for MSCI Emerging Markets Index are gross of dividend taxes.

## A sector rotation into cyclicals occurred in the second half of 2016

The energy sector performed well in both periods thanks to the strong rebound in oil & gas prices

### MSCI World Index Returns by Sector

As of December 31, 2016 • Percent (%) • Local Currency



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

Note: Data represent total returns net of dividend taxes.

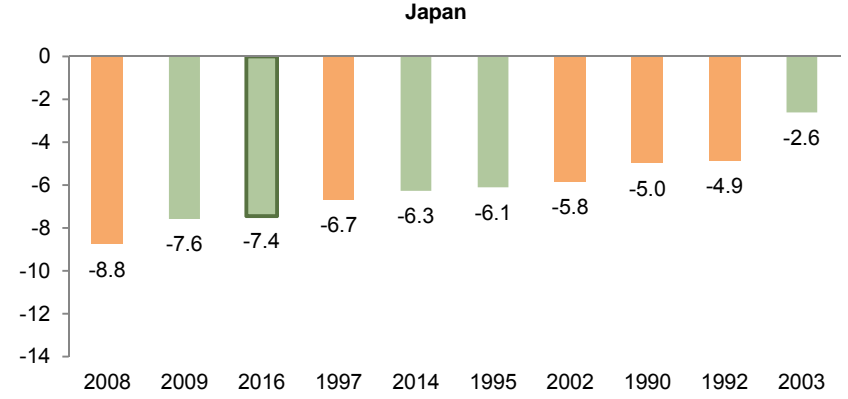
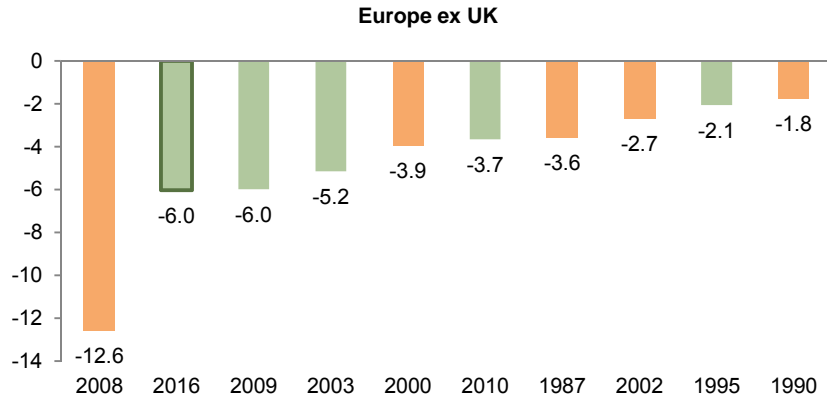
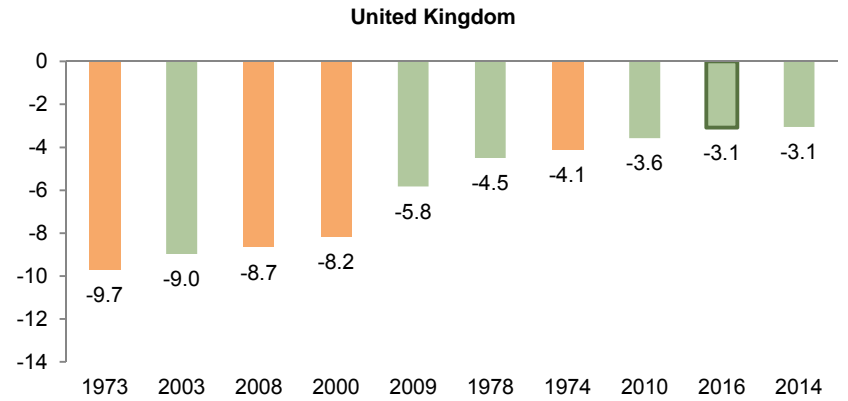
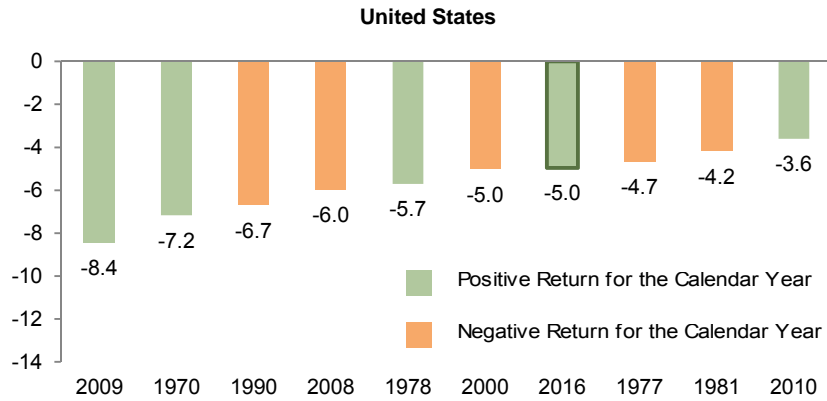
\*Real Estate became its own sector as of September 1, 2016, and we have separated the real estate sector from financials for calendar year 2016 to estimate first half, second half, and calendar year total returns for the "Fin ex RE" and "Real Estate" sectors.

## Developed markets equity prices plunged in January

The drops were among the worst on record and followed the Fed's initial interest rate hike this cycle

### Top Ten Worst Januarys for Developed Markets Equities

As of December 31, 2016 • Total Return (%) • Local Currency



Sources: FTSE International Limited, MSCI Inc., Standard & Poor's, Thomson Reuters Datastream, and Tokyo Stock Exchange Group, Inc. MSCI data provided "as is" without any express or implied warranties.

Note: Analysis of monthly data for the S&P 500, FTSE® All-Share, and MSCI Europe ex UK begins January 1970; for the Topix, January 1974.

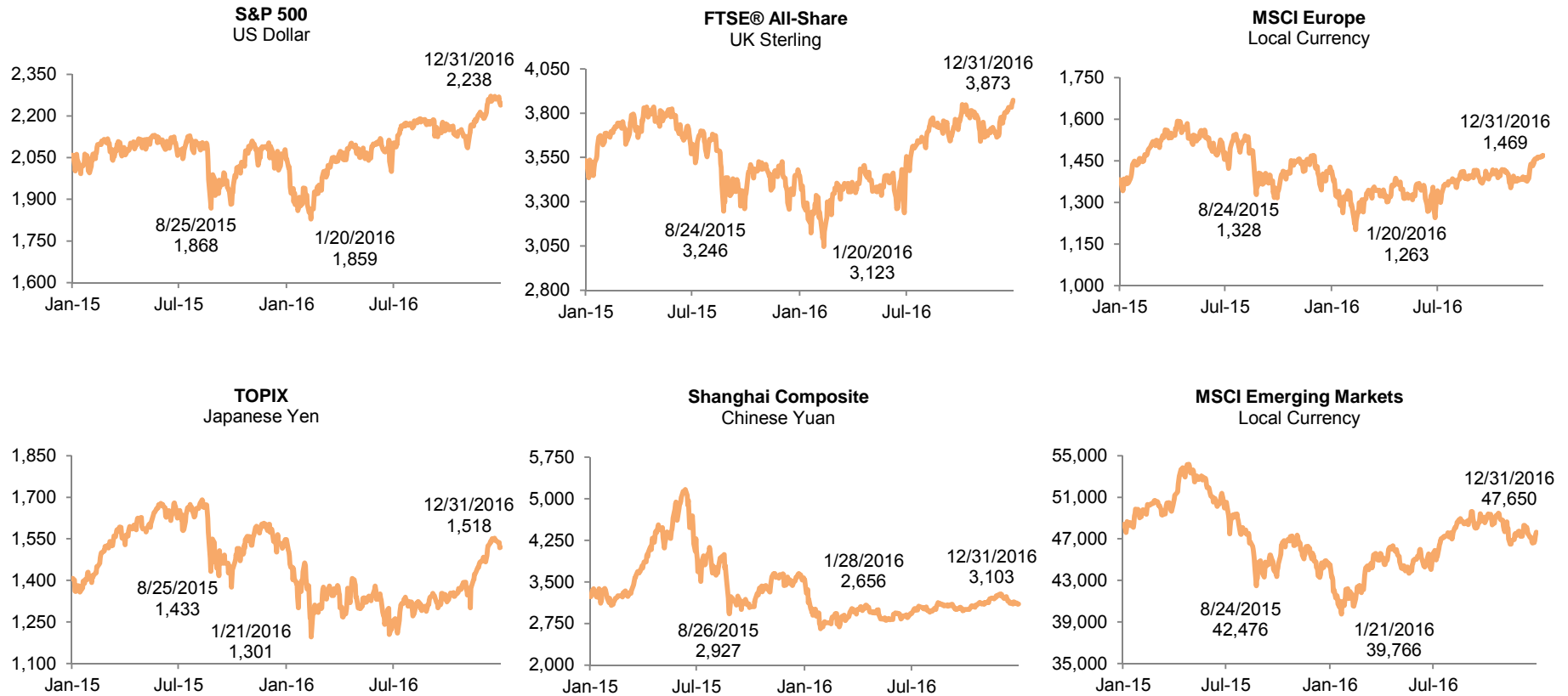


## Many indexes rebounded following the difficult January

Both the S&P 500 and FTSE® All-Share hit new all-time highs in December

### Major Index Price Levels

January 1, 2015 – December 31, 2016



Sources: FTSE International Limited, MSCI Inc., Shanghai Stock Exchange, Standard & Poor's, Thomson Reuters Datastream, and Tokyo Stock Exchange Group, Inc.

MSCI data provided "as is" without any express or implied warranties.

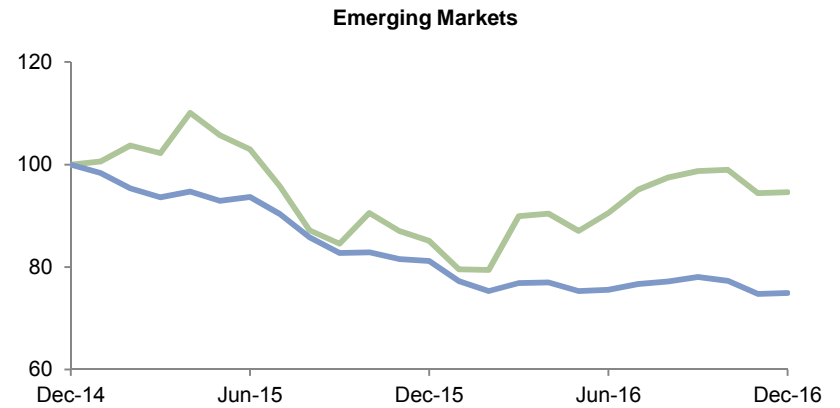
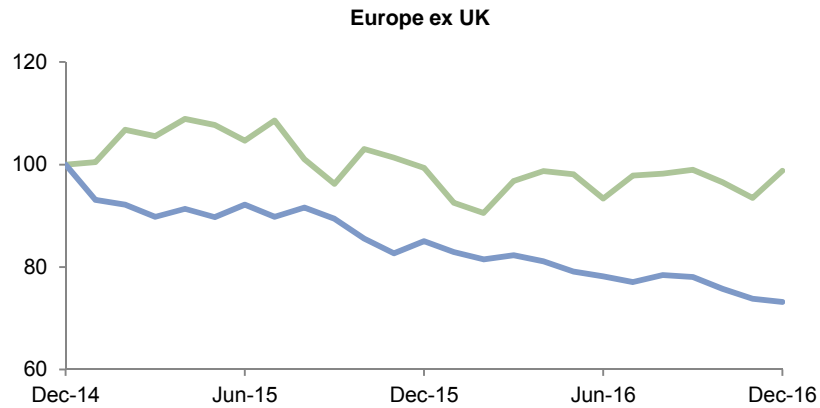
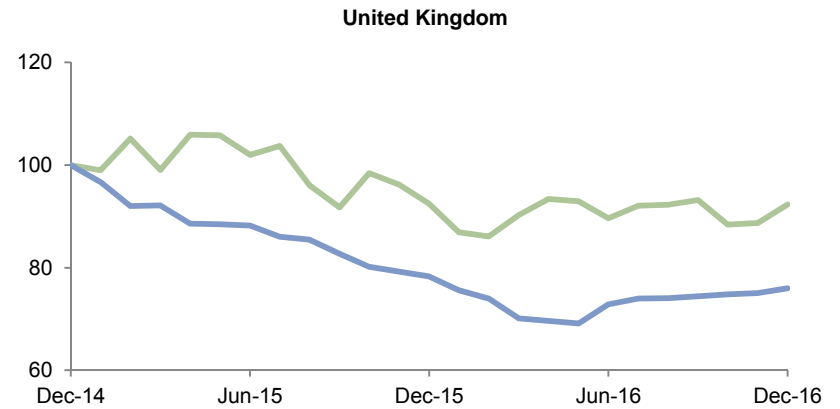
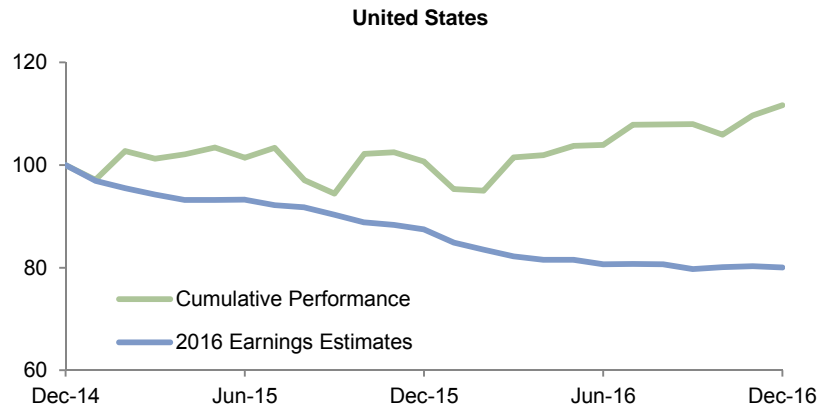
Note: Data are daily.

## Equities remained resilient despite lackluster earnings

Expectations for a 2017 rebound in earnings are high

### Equity Performance vs 2016 Year-End Earnings Estimates

December 31, 2014 – December 31, 2016 • Rebased to 100 on December 31, 2014 • USD Terms



Sources: I/B/E/S, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: All data are in USD terms. Index data reflect net total returns and all earnings estimates are I/B/E/S estimates for the year ended December 31, 2016.

## Value equities outpaced other factors last year

Small-cap equity performance led over the last decade

### Factor Performance for Developed Markets Equities

2007–16 • Local Currency

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Strategy	Through 12/31/2016	
											5 Year AACR	10 Year AACR
14.1%	-27.4%	40.2%	24.0%	6.9%	17.8%	35.3%	15.9%	7.4%	14.2%	Small Cap	14.6%	5.9%
13.4%	-28.8%	28.8%	16.1%	4.5%	16.0%	31.7%	11.1%	6.1%	14.0%	Growth	12.9%	5.3%
10.2%	-36.4%	27.5%	12.3%	3.9%	15.7%	29.0%	11.0%	5.3%	12.0%	World	12.7%	4.3%
4.7%	-38.2%	25.7%	10.2%	3.7%	15.3%	28.9%	9.8%	5.2%	9.0%	Value	12.5%	3.3%
1.7%	-38.7%	24.6%	10.0%	-5.5%	13.7%	28.7%	9.3%	2.4%	7.7%	Momentum	12.4%	5.2%
1.0%	-39.3%	22.6%	9.2%	-5.5%	12.4%	27.6%	8.9%	2.1%	6.3%	Minimum Volatility	12.3%	5.7%
-0.7%	-39.7%	13.7%	7.7%	-5.5%	10.9%	22.7%	8.5%	1.0%	4.4%	Quality	12.2%	7.7%
-4.1%	-40.7%	11.4%	6.2%	-9.0%	9.1%	22.1%	6.3%	-1.9%	4.0%	High Dividend Yield	10.9%	4.1%

### Spread of Returns Between Highest and Lowest Performing Strategies Within a Given Period

Percentage Points

18.2	13.3	28.7	17.7	16.0	8.7	13.1	9.6	9.3	10.2	3.8	4.4
------	------	------	------	------	-----	------	-----	-----	------	-----	-----

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

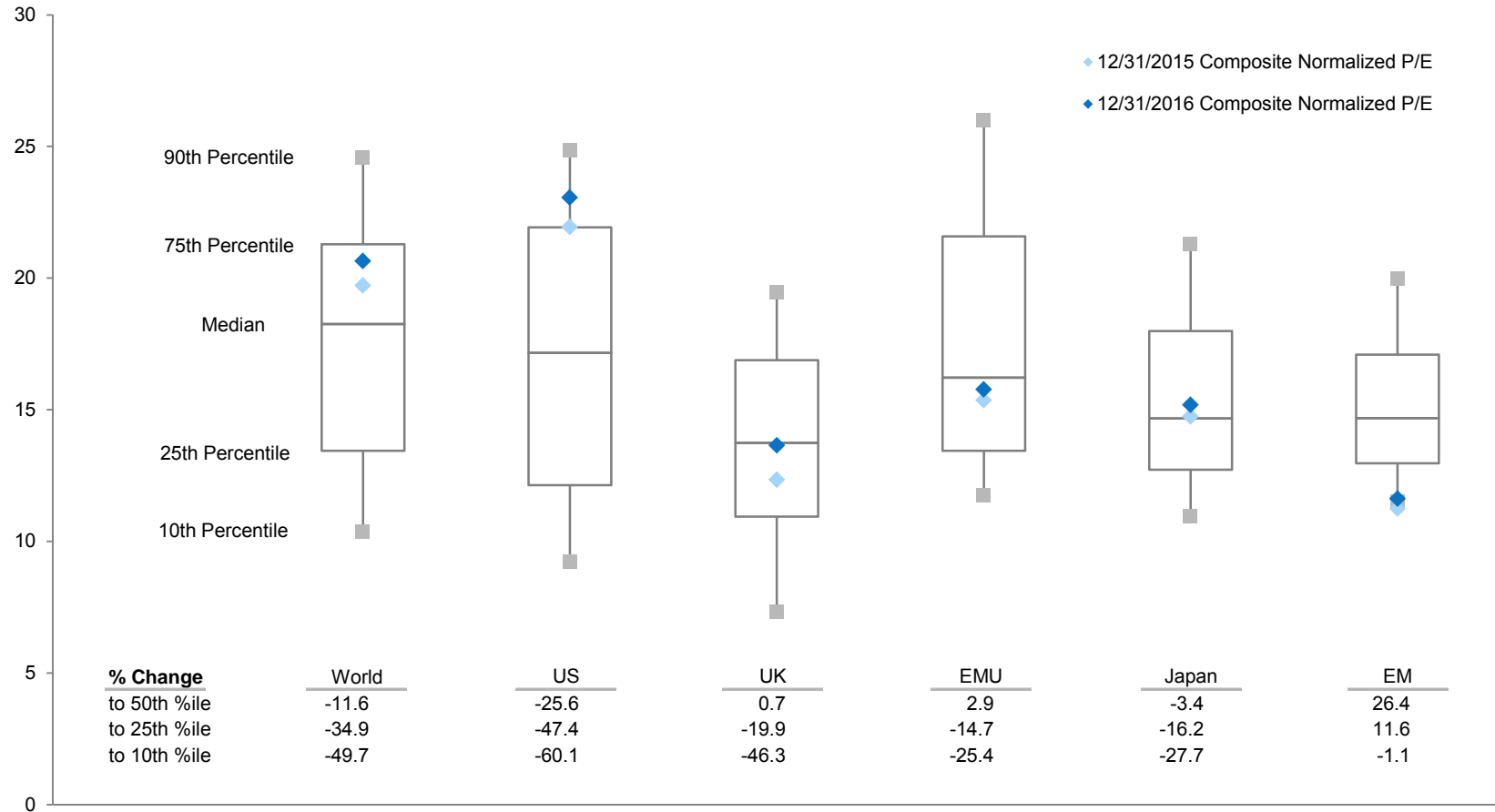
Notes: Factors are based on the MSCI World Index. Total returns are net of dividend taxes.

## Equity valuation multiples expanded in 2016

Outside the United States, valuations are reasonable, with emerging markets equities undervalued

### Composite Normalized Price-Earnings Ratios by Region

As of December 31, 2016



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

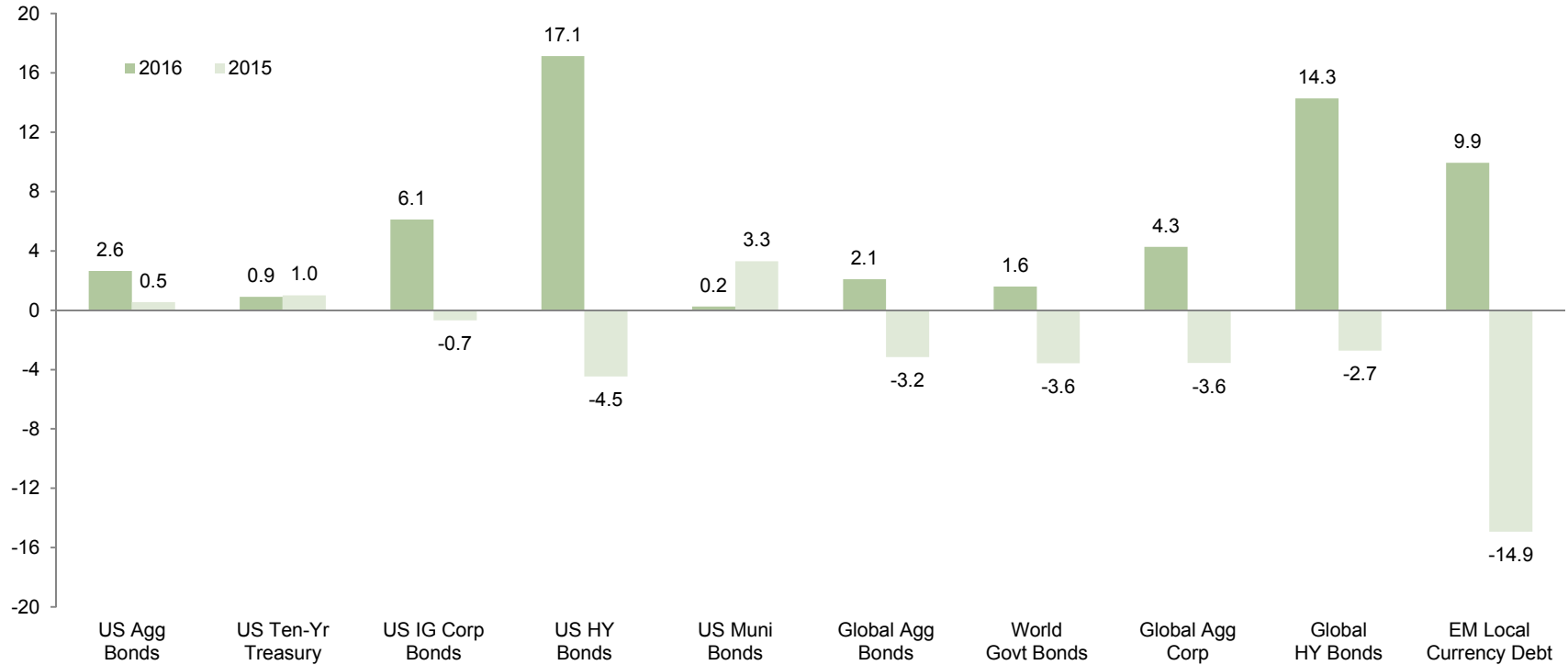
Notes: The composite normalized price-earnings (P/E) ratio is calculated by dividing the inflation-adjusted index price by the simple average of three normalized earnings metrics: ten-year average real earnings (i.e., Shiller earnings), trend-line earnings, and return on equity (ROE)-adjusted earnings.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

## Most bond categories also had a better 2016 than 2015

But bonds came under pressure in late 2016, as expectations for tighter US monetary policy increased

### Global Bond Performance: CY 2016 vs CY 2015

Total Return (%) • USD Terms



Sources: Barclays, Bloomberg L.P., Citigroup Global Markets, J.P. Morgan Securities, Inc., and Thomson Reuters Datastream.

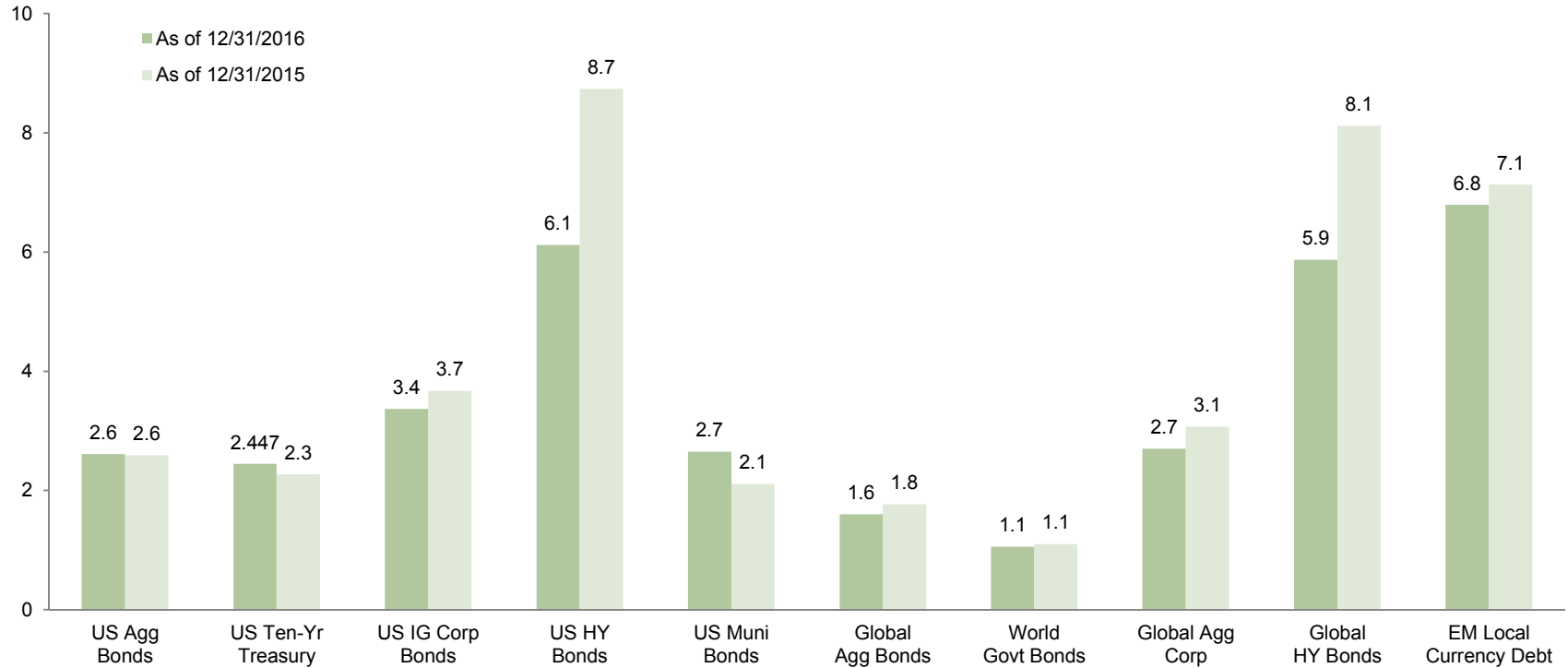
Notes: Asset classes represented by Bloomberg Barclays US Aggregate Bond Index ("US Agg Bonds"), Datastream US Ten-Year Treasury Index ("US Ten-Yr Treasury"), Bloomberg Barclays US Corporate Investment Grade Bond Index ("US IG Corp Bonds"), Bloomberg Barclays High Yield Composite Bond Index ("US HY Bonds"), Bloomberg Barclays US Municipal Bond Index ("US Muni Bonds"), Bloomberg Barclays Global Aggregate Bond Index ("Global Agg"), Citigroup World Government Bond Index ("World Govt Bonds"), Bloomberg Barclays Global Aggregate Corporate Bond Index ("Global Agg Corp"), Bloomberg Barclays Global High Yield Bond Index ("Global HY Bonds"), and J.P. Morgan GBI-EM Global Diversified Index ("EM Local Currency Debt").

## Most bond yields ended the year lower than the start

US Treasuries saw the curve shift upward dramatically in fourth quarter

### Global Bond Yields: CY 2016 vs CY 2015

Percent (%)



Sources: Barclays, Bloomberg L.P., Citigroup Global Markets, J.P. Morgan Securities, Inc., and Thomson Reuters Datastream.

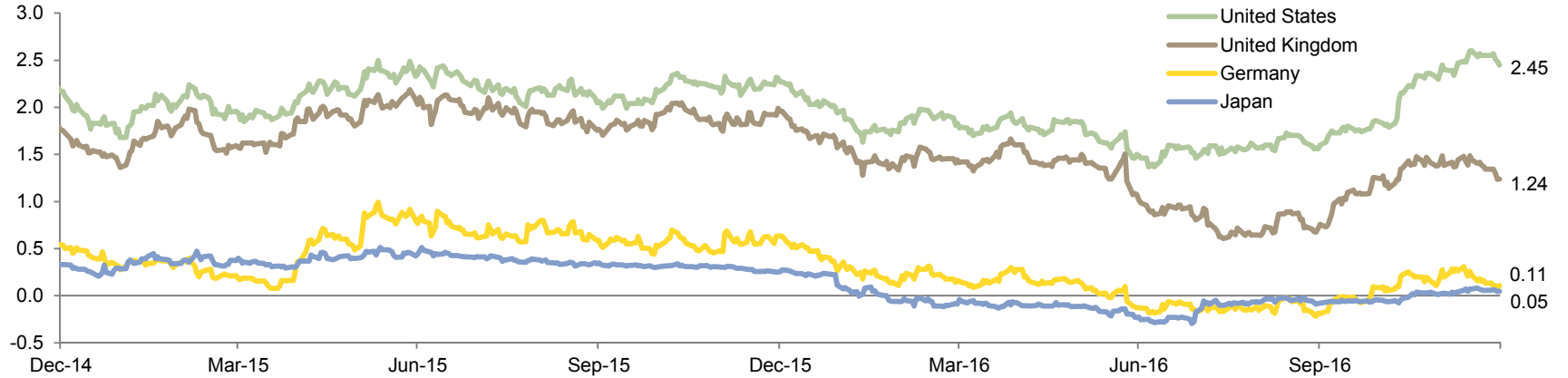
Notes: Asset classes represented by Bloomberg Barclays US Aggregate Bond Index ("US Agg Bonds"), Datastream US Ten-Year Treasury Index ("US Ten-Yr Treasury"), Bloomberg Barclays US Corporate Investment Grade Bond Index ("US IG Corp Bonds"), Bloomberg Barclays High Yield Composite Bond Index ("US HY Bonds"), Bloomberg Barclays US Municipal Bond Index ("US Muni Bonds"), Bloomberg Barclays Global Aggregate Bond Index ("Global Agg"), Citigroup World Government Bond Index ("World Govt Bonds"), Bloomberg Barclays Global Aggregate Corporate Bond Index ("Global Agg Corp"), Bloomberg Barclays Global High Yield Bond Index ("Global HY Bonds"), and J.P. Morgan GBI-EM Global Diversified Index ("EM Local Currency Debt").

## Government bond yields recovered after several hit all-time lows

The recovery led the US Treasury curve to steepen, resulting in a higher ten-year, two-year spread

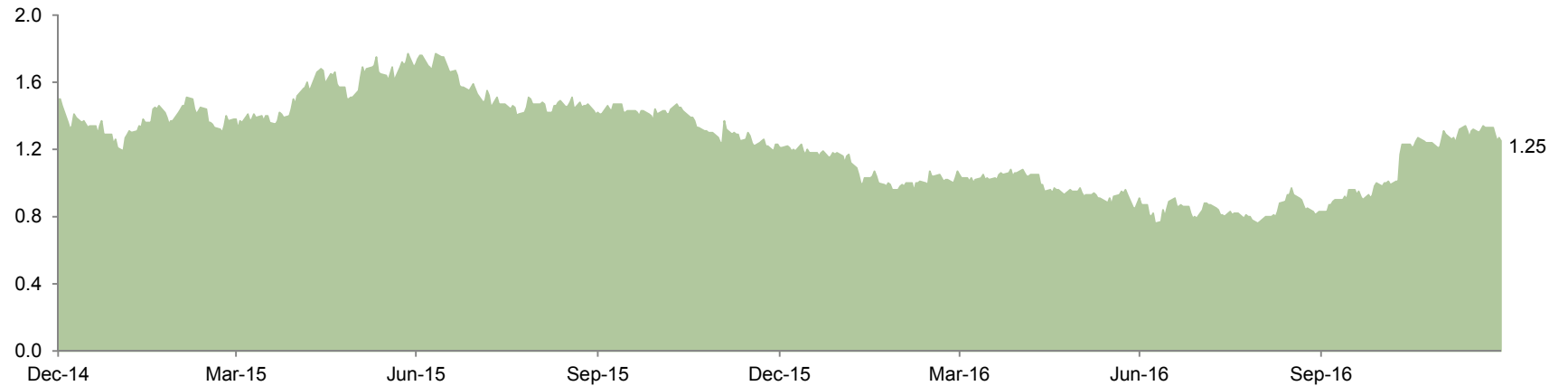
### Ten-Year Government Bond Yields

December 31, 2014 – December 31, 2016 • Percent (%)



### Ten-Year, Two-Year US Treasury Yield Spread

December 31, 2014 – December 31, 2016 • Percent (%)



Sources: Federal Reserve and Thomson Reuters Datastream.

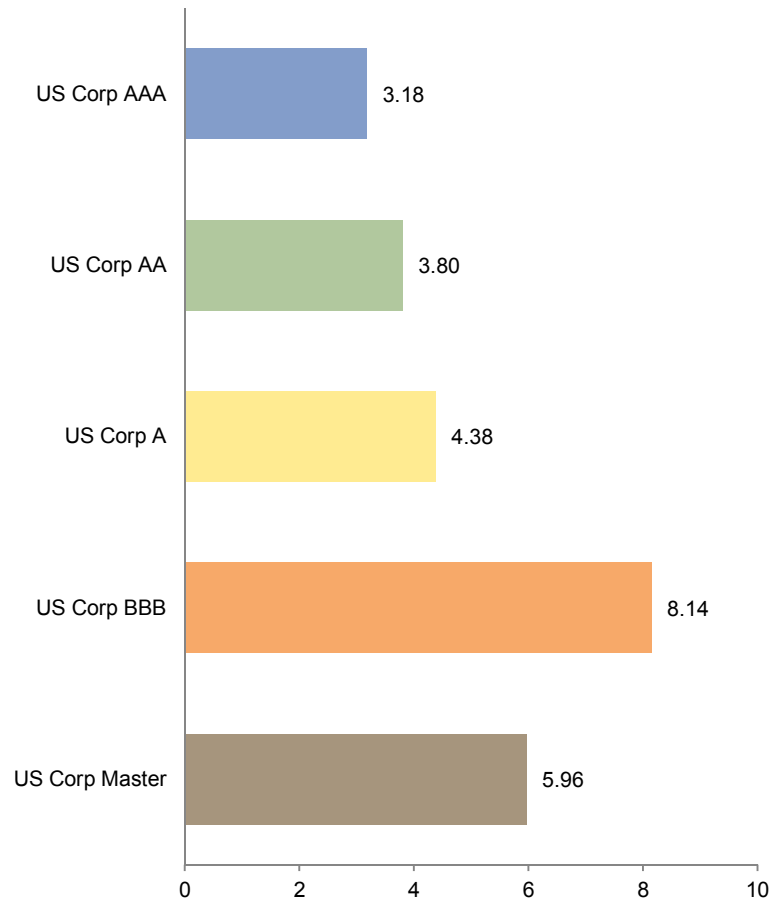
Note: Data are daily.

## Lower-rated credits outperformed

They benefited from reduced concerns about energy sector risks

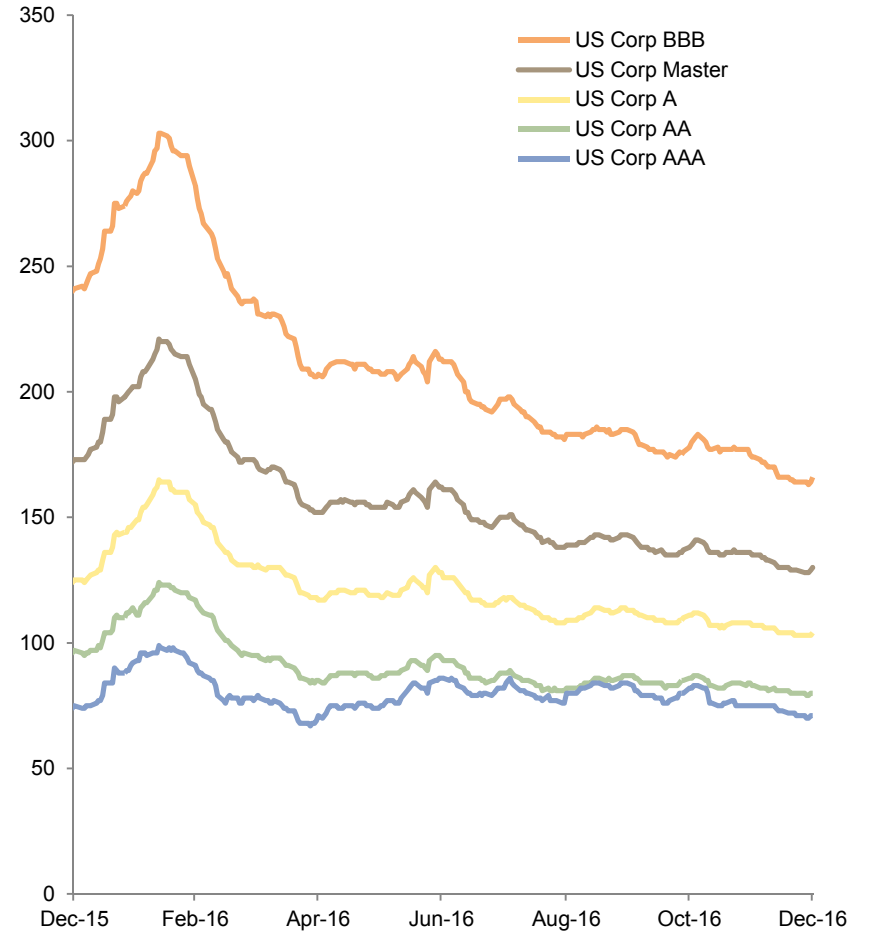
### CY 2016 Returns for US Corporate Bonds

As of December 31, 2016 • Total Return (%)



### Option-Adjusted Spreads for US Corporate Bonds

December 31, 2015 – December 31, 2016 • Basis Points



Source: BofA Merrill Lynch.

Note: Option-adjusted spreads (OAS) graph uses daily data.

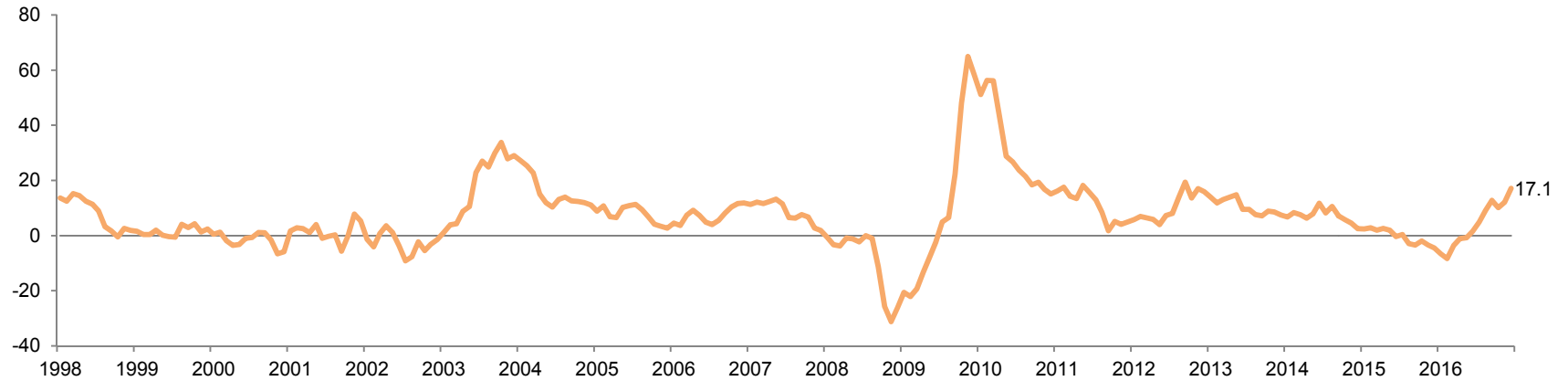


## High-yield bonds led major fixed income asset classes

Fears of a significant spike in defaults did not materialize

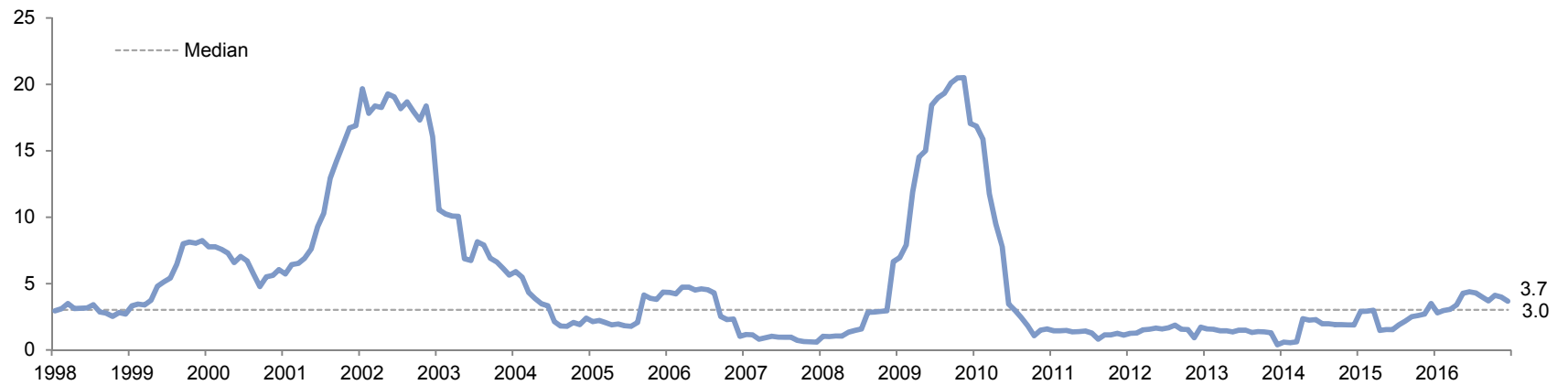
### US High-Yield Rolling 12-Month Total Return

January 31, 1998 – December 31, 2016 • Percent (%)



### US High-Yield Par Default Rates

January 31, 1998 – December 31, 2016 • Percent (%)



Sources: Barclays, Bloomberg L.P., Moody's Investors Service, and Thomson Reuters Datastream.

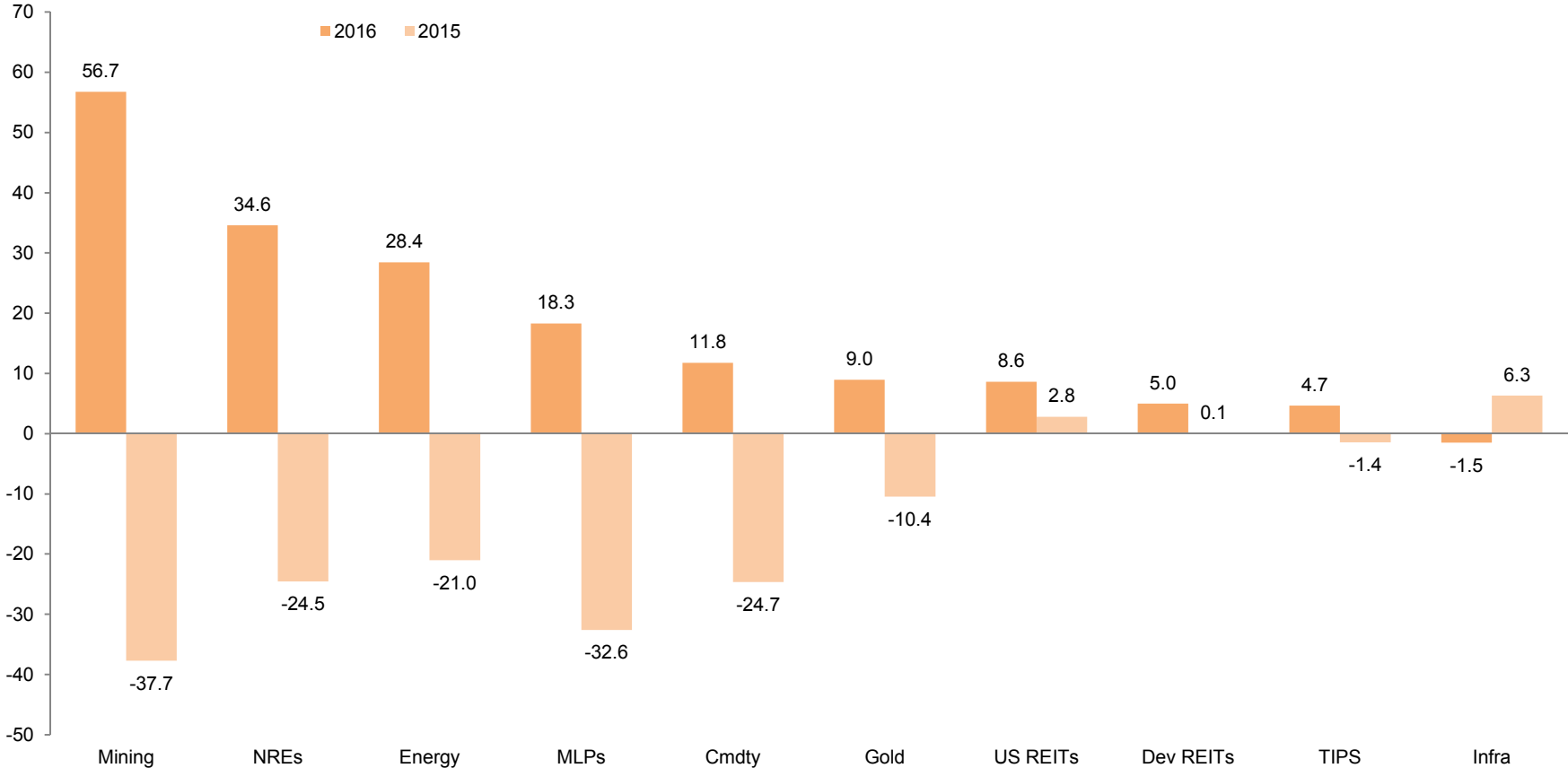
Note: US high-yield default rates are dollar-weighted.

## Real assets rebounded strongly

The jump in oil and industrial metal prices helped energy and mining equities outperform

### Real Asset Performance: CY 2016 vs CY 2015

Total Return (%) • USD Terms



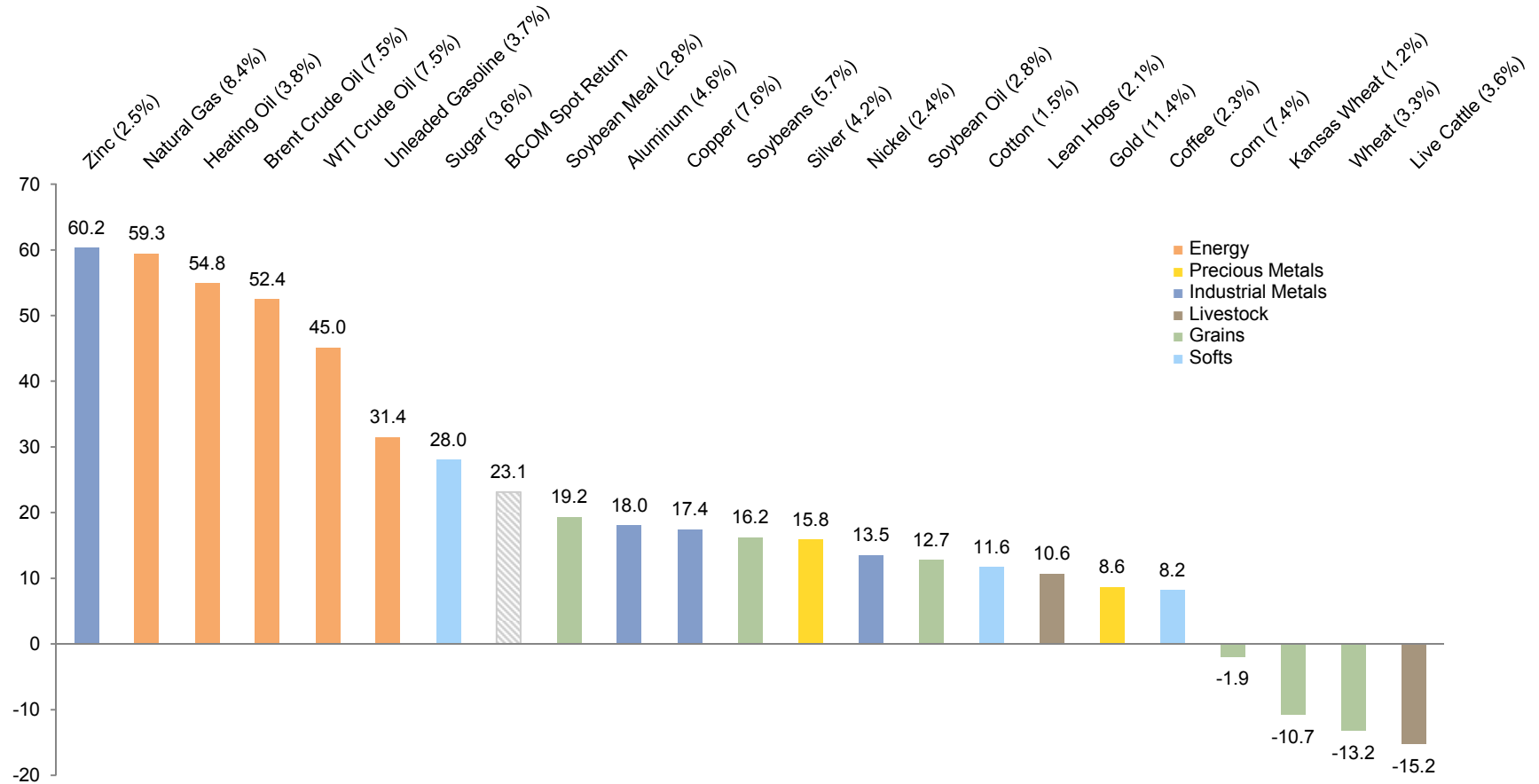
Sources: Alerian, Barclays, Bloomberg L.P., EPRA, FTSE International Limited, National Association of Real Estate Investment Trusts, and Thomson Reuters Datastream.  
 Notes: All returns are total returns in USD terms, except gold, for which returns are based on changes in the spot price. Asset classes represented by the following: Datastream Mining Index ("Mining"), 80% Datastream World Oil & Gas and 20% Datastream World Mining ("NREs"), Datastream Oil & Gas Index ("Energy"), Alerian MLP Index ("MLPs"), Bloomberg Commodity TR Index ("Cmtdy"), Gold Bullion Prices ("Gold"), FTSE® NAREIT All Equity REITs ("US REITs"), FTSE® EPRA/NAREIT Developed REITs ("Dev REITs"), Bloomberg Barclays TIPS Index ("TIPS"), and MSCI World Infrastructure Index ("Infra").

## Commodity prices increased following several years of decline

Reduced capital investment has helped several commodity markets lower excess supplies

### Commodity Spot Performance: CY 2016

As of December 31, 2016 • Percent (%)



Source: Bloomberg L.P.

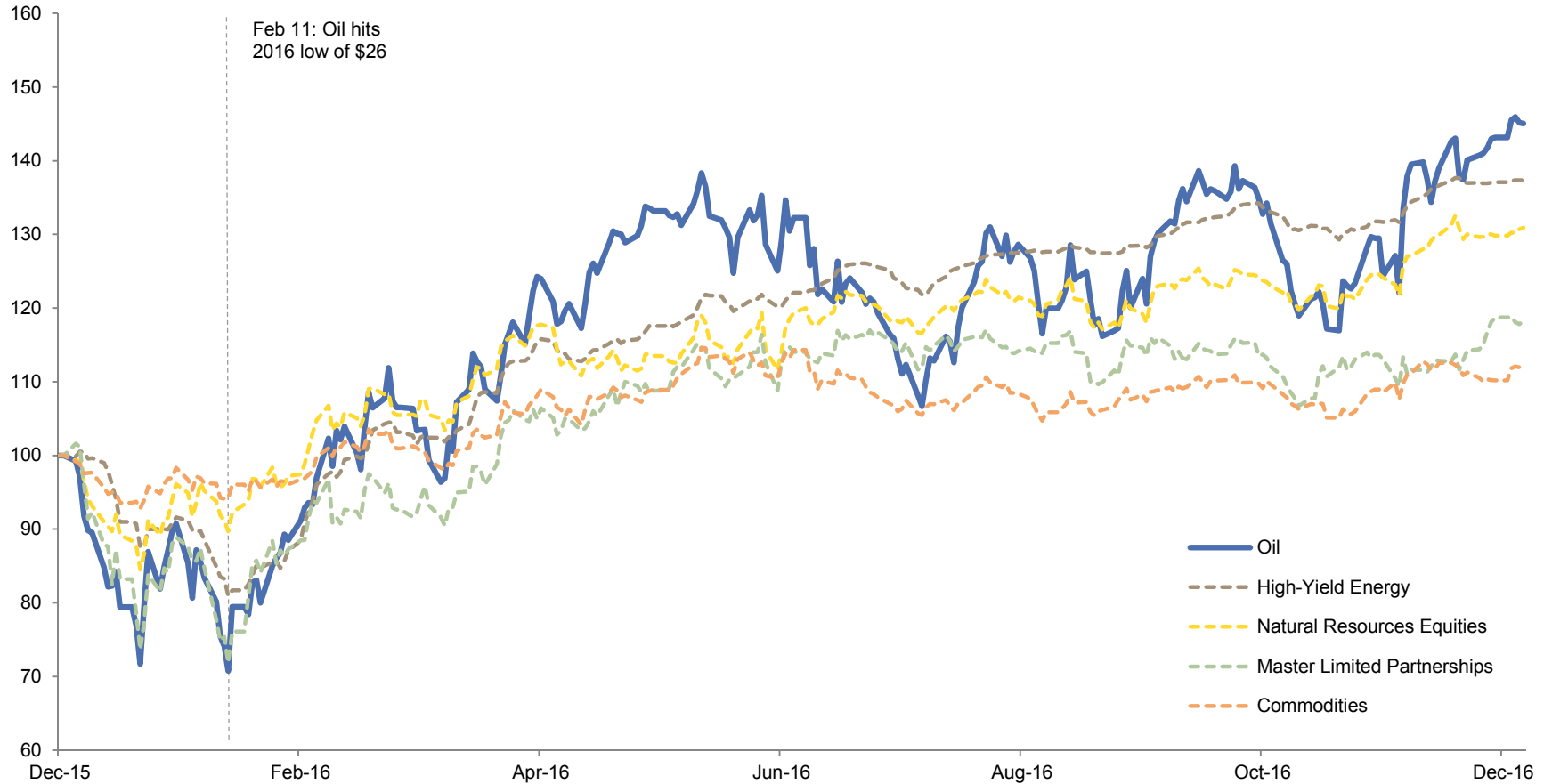
Notes: Spot returns reflect changes in near-month contracts and rely on Bloomberg Indexes. The percentages in parentheses represent the Bloomberg Commodity Index 2016 target weights.

## Energy-linked investments rebounded along with oil prices

Oil markets benefited from reductions in non-OPEC supply, primarily from US shale producers

### Cumulative Wealth of Energy Indexes vs Crude Oil

December 31, 2015 – December 31, 2016 • Rebased to 100 on December 31, 2015



Sources: Alerian, Barclays, Bloomberg L.P., and Thomson Reuters Datastream.

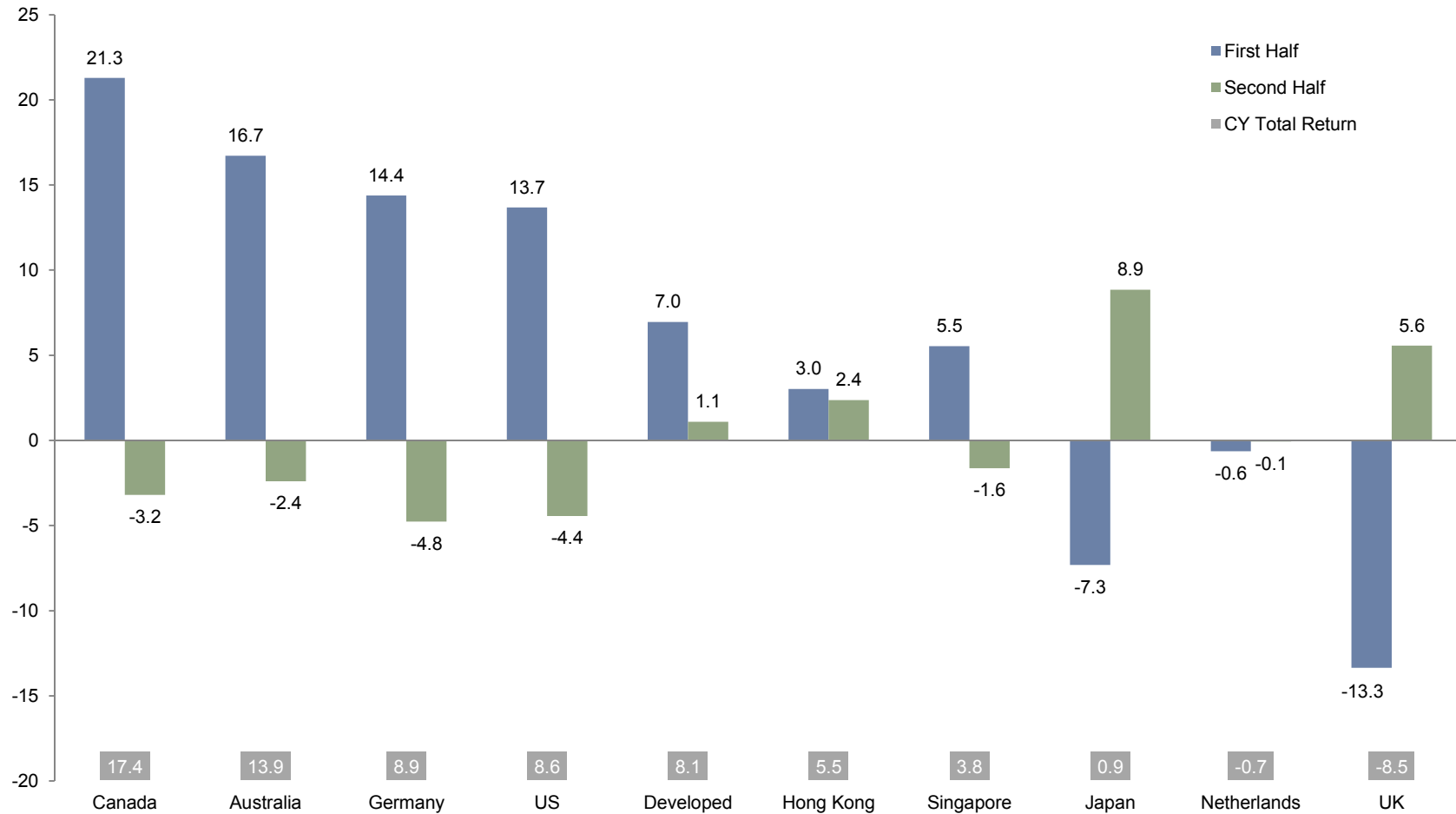
Notes: All returns are total returns in USD terms, except oil, for which returns are based on changes in the spot price. Data are daily. Asset classes represented by the following: NYMEX crude oil near-month ("Oil"), Bloomberg Barclays HY Energy Index ("High-Yield Energy"), 80% Datastream World Oil & Gas and 20% Datastream World Mining ("Natural Resources Equities"), Alerian MLP Index ("Master Limited Partnerships"), and Bloomberg Commodity TR Index ("Commodities").

## Property securities generally lost ground in late 2016

Changing growth and interest rate expectations prompted the sell-off

### Performance of Property Securities by Country

As of December 31, 2016 • Percent (%) • Local Currency



Sources: EPRA, FTSE International Limited, National Association of Real Estate Investment Trusts, and Thomson Reuters Datastream.

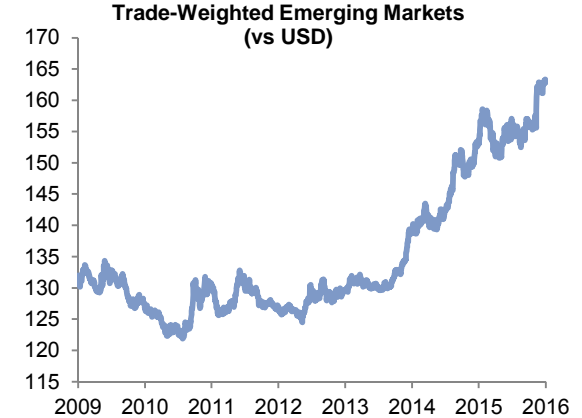
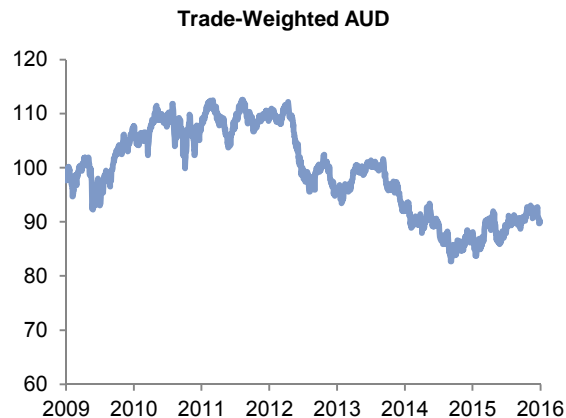
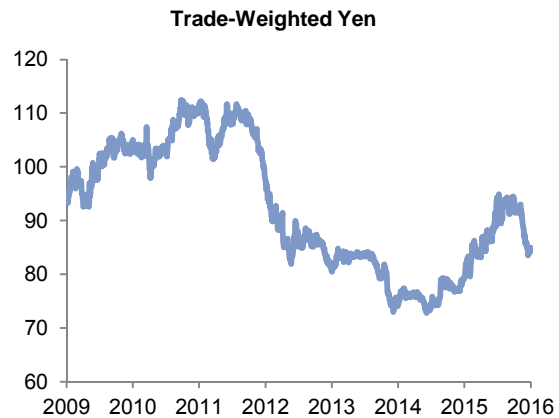
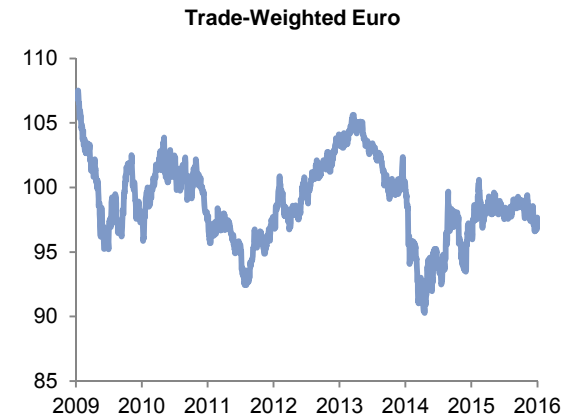
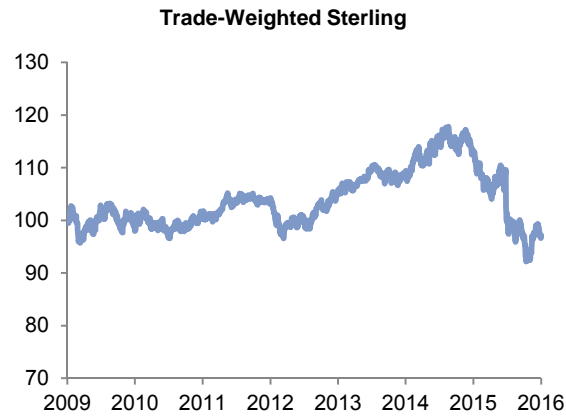
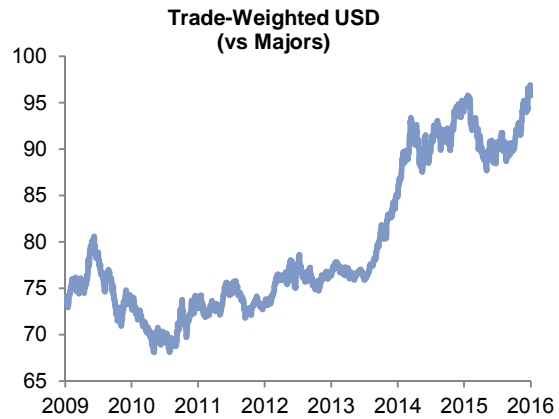
Notes: Indexes selected consist of the FTSE® EPRA/NAREIT Developed REIT Index and the top nine countries by average weight through 2016. The United States is represented by the FTSE® NAREIT All Equity REITs Index, all others represented by country subindexes.

## The US dollar regained momentum in late 2016

The Fed's interest rate hike and hawkish outlook in December contributed to the strengthening

### Exchange Rate Movements

December 31, 2009 - December 31, 2016



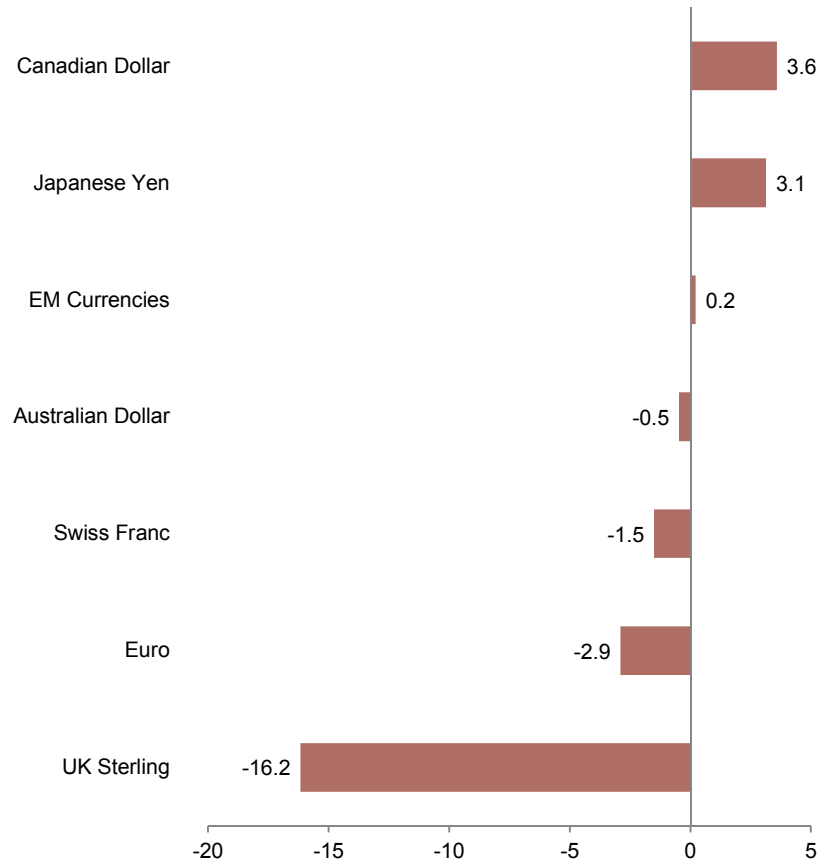
Sources: Federal Reserve and Thomson Reuters Datastream.

## UK sterling weakened against the US dollar in the wake of Brexit

The US dollar has strengthened against DM and EM currency baskets over the last several years

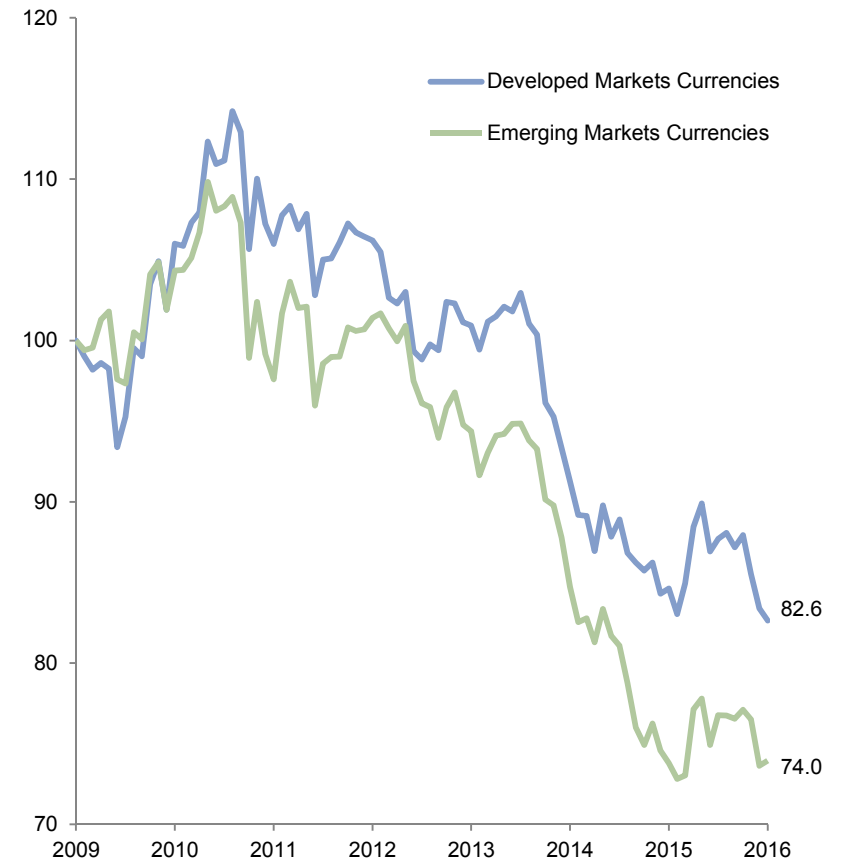
### Currency Performance vs the US Dollar: CY 2016

Percent Change (%)



### Cumulative Wealth for Various Currencies in USD Terms

December 31, 2009 – December 31, 2016 • Rebased to 100 on December 31, 2009



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

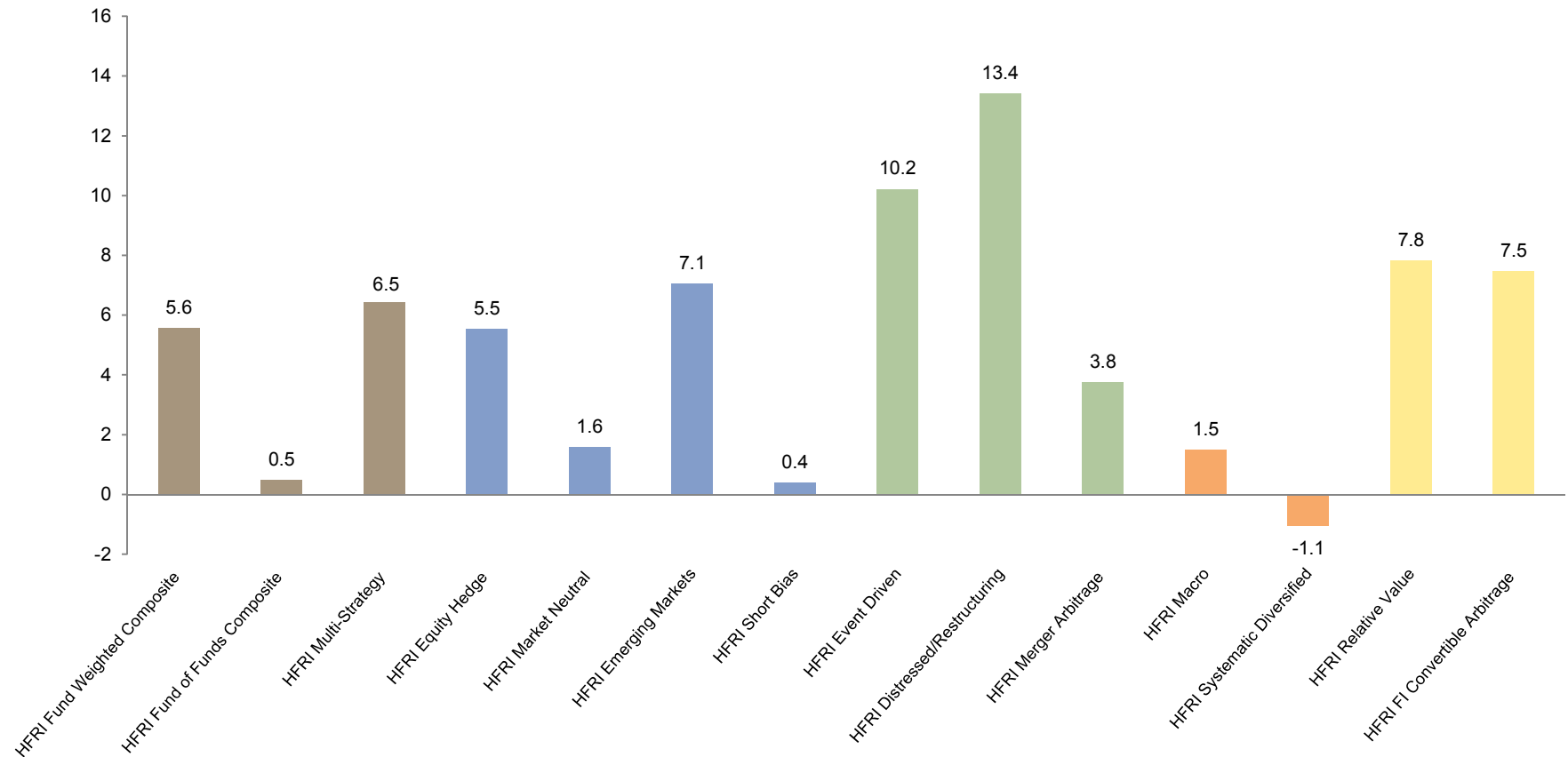
Notes: DM currencies is an equal-weighted basket of six currencies. EM currencies is an equal-weighted basket of 20 currencies.

## Event-driven hedge funds outperformed other main strategies

The gains were linked to strong performances in the distressed/restructuring sub-strategy

### Year-to-Date Hedge Fund Performance: HFRI Indexes

January 1, 2016 – December 31, 2016 • Total Return (%)



Source: Hedge Fund Research, Inc.

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

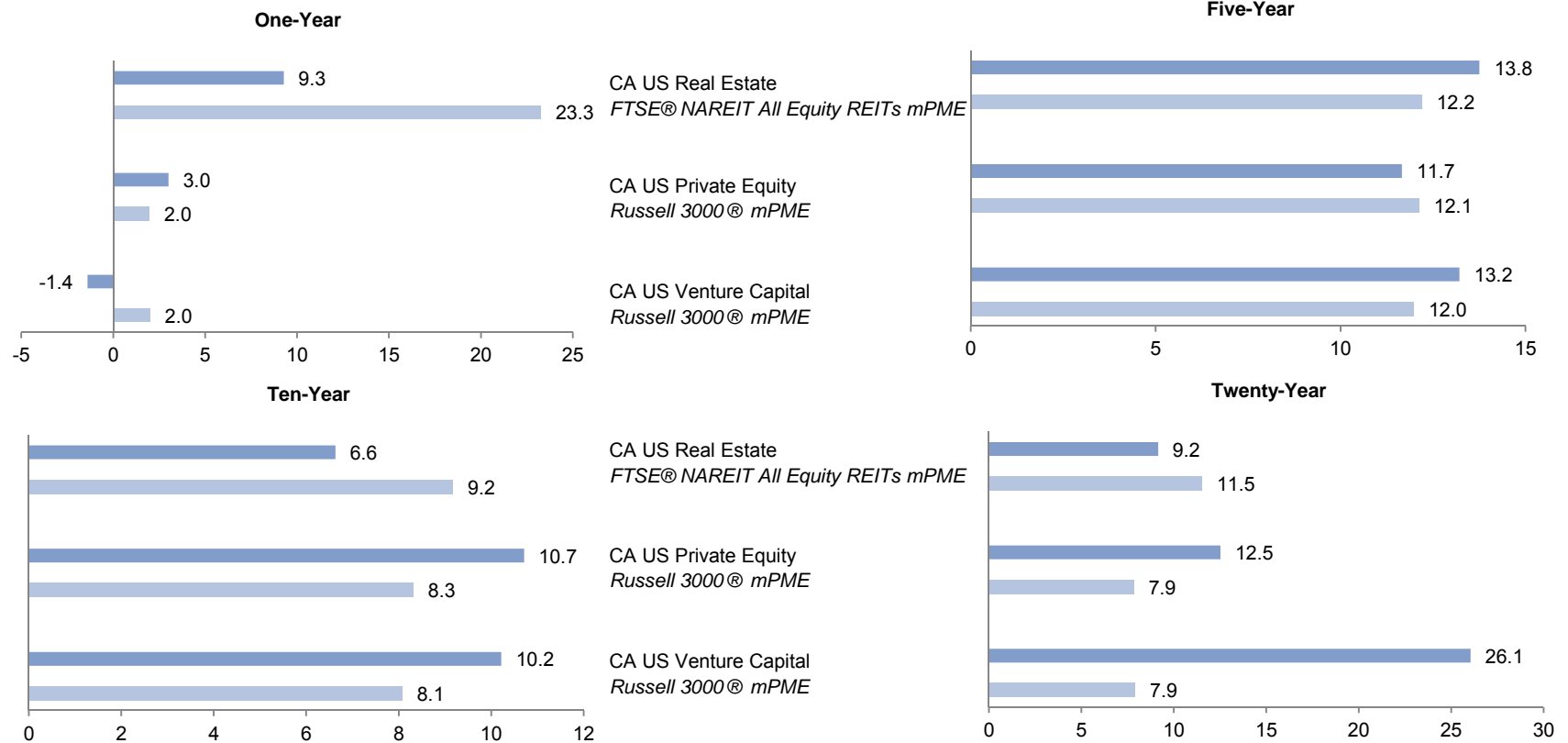


## Private investments have performed well over long time horizons

Last fiscal year, private real estate lagged its public equivalent but outperformed other private strategies

### Performance of Select Cambridge Associates Private Investment Indexes vs Public Equivalents

As of June 30, 2016 • Percent (%)



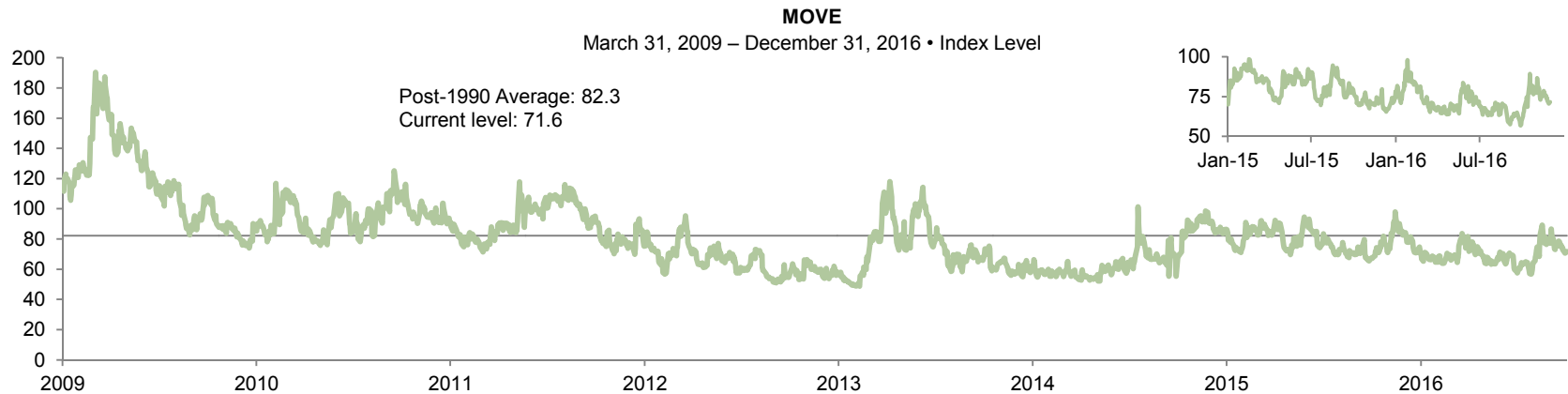
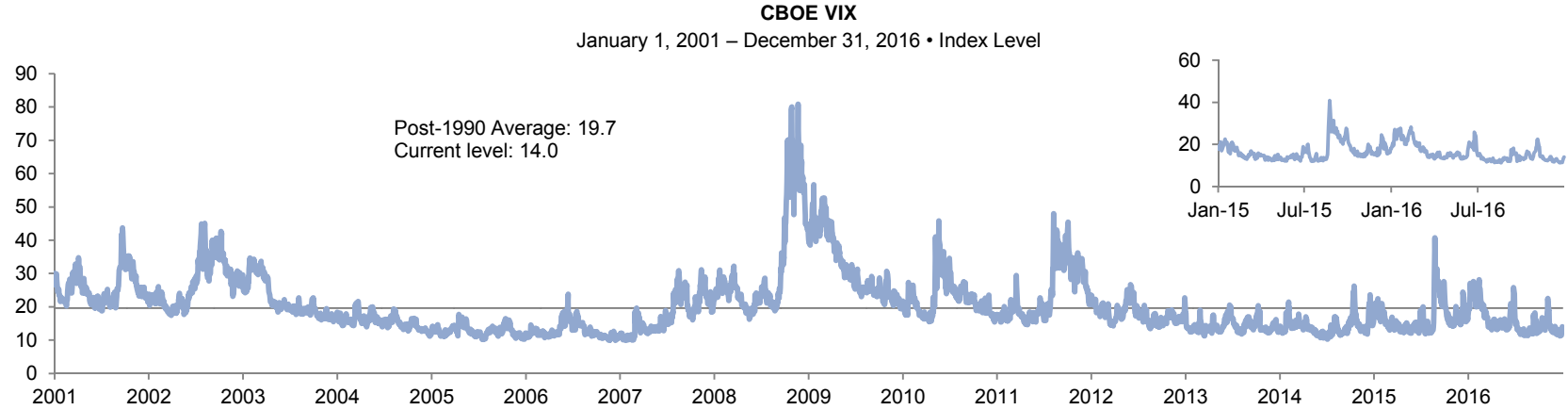
Sources: Cambridge Associates LLC, Frank Russell Company, FTSE International Limited, National Association of Real Estate Investment Trusts, and Thomson Reuters Datastream.

Notes: Private indexes are pooled horizon IRRs, net of fees, expenses, and carried interest. The CA Modified Public Market Equivalent (mPME) replicates private investment performance under public market conditions. The public index's shares are purchased and sold according to the private fund cash flow schedule, with distributions calculated in the same proportion as the private fund, and mPME net asset value is a function of mPME cash flows and public index returns.

## US equity and Treasury volatility remained low in 2016

The subdued volatility level followed years of highly accommodative monetary policies

### Implied Volatility of US Equity and Bond Markets



Sources: Bloomberg L.P., BofA Merrill Lynch, Chicago Board Options Exchange, and Thomson Reuters Datastream.

Notes: The Chicago Board Options Exchange Volatility Index (VIX) measures the implied volatility of near-term S&P 500 Index options. The Merrill Lynch Option Volatility Estimates (MOVE) Index is a yield curve-weighted index of the normalized implied volatility on one-month Treasury options. It is the weighted average of volatilities on the two-, five-, ten-, and 30-year Treasury contracts. Data are daily.

Copyright © 2017 by Cambridge Associates LLC. All rights reserved.

This report may not be displayed, reproduced, distributed, transmitted, or used to create derivative works in any form, in whole or in portion, by any means, without written permission from Cambridge Associates LLC (“CA”). Copying of this publication is a violation of US and global copyright laws (e.g., 17 U.S.C. 101 et seq.). Violators of this copyright may be subject to liability for substantial monetary damages. The information and material published in this report is nontransferable. Therefore, recipients may not disclose any information or material derived from this report to third parties, or use information or material from this report, without prior written authorization. This report is provided for informational purposes only. The information presented is not intended to be investment advice. Any references to specific investments are for illustrative purposes only. The information herein does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction. Some of the data contained herein or on which the research is based is current public information that CA considers reliable, but CA does not represent it as accurate or complete, and it should not be relied on as such. Nothing contained in this report should be construed as the provision of tax or legal advice. Past performance is not indicative of future performance. Broad-based securities indexes are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index. Any information or opinions provided in this report are as of the date of the report, and CA is under no obligation to update the information or communicate that any updates have been made. Information contained herein may have been provided by third parties, including investment firms providing information on returns and assets under management, and may not have been independently verified.

Cambridge Associates, LLC is a Massachusetts limited liability company with offices in Arlington, VA; Boston, MA; Dallas, TX; and Menlo Park, CA; and San Francisco, CA. Cambridge Associates Fiduciary Trust, LLC is a New Hampshire limited liability company chartered to serve as a non-depository trust company, and is a wholly-owned subsidiary of Cambridge Associates, LLC. Cambridge Associates Limited is registered as a limited company in England and Wales No. 06135829 and is authorised and regulated by the Financial Conduct Authority in the conduct of Investment Business. Cambridge Associates Limited, LLC is a Massachusetts limited liability company with a branch office in Sydney, Australia (ARBN 109 366 654). Cambridge Associates Asia Pte Ltd is a Singapore corporation (Registration No. 200101063G). Cambridge Associates Investment Consultancy (Beijing) Ltd is a wholly owned subsidiary of Cambridge Associates, LLC and is registered with the Beijing Administration for Industry and Commerce (Registration No. 110000450174972).

