

# A Market Perspective: 2016 Recap and a 2017 Outlook

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# The Perils of Forecasting

“We have two classes of forecasters: Those who don’t know – and those who don’t know they don’t know.”

- Economist John Kenneth Galbraith

“We really can’t forecast all that well, and yet we pretend that we can, but we really can’t.”

- Alan Greenspan

“After Brexit, it took three days for markets to shake it off, with Trump it took three hours, with Italy it took three minutes.”

- German Trader Guillermo Hernandez Sampere

# Webinar Outline

- 2016 Review
  - Performance Summary Across Asset Classes
- 2017 Outlook
  - Key Factors to Watch in 2017
- Q&A



# 2016 Review

# Market Index Performance in 2016

## Market Indices - Sorted by YTD Returns

As of Date: 12/31/2016

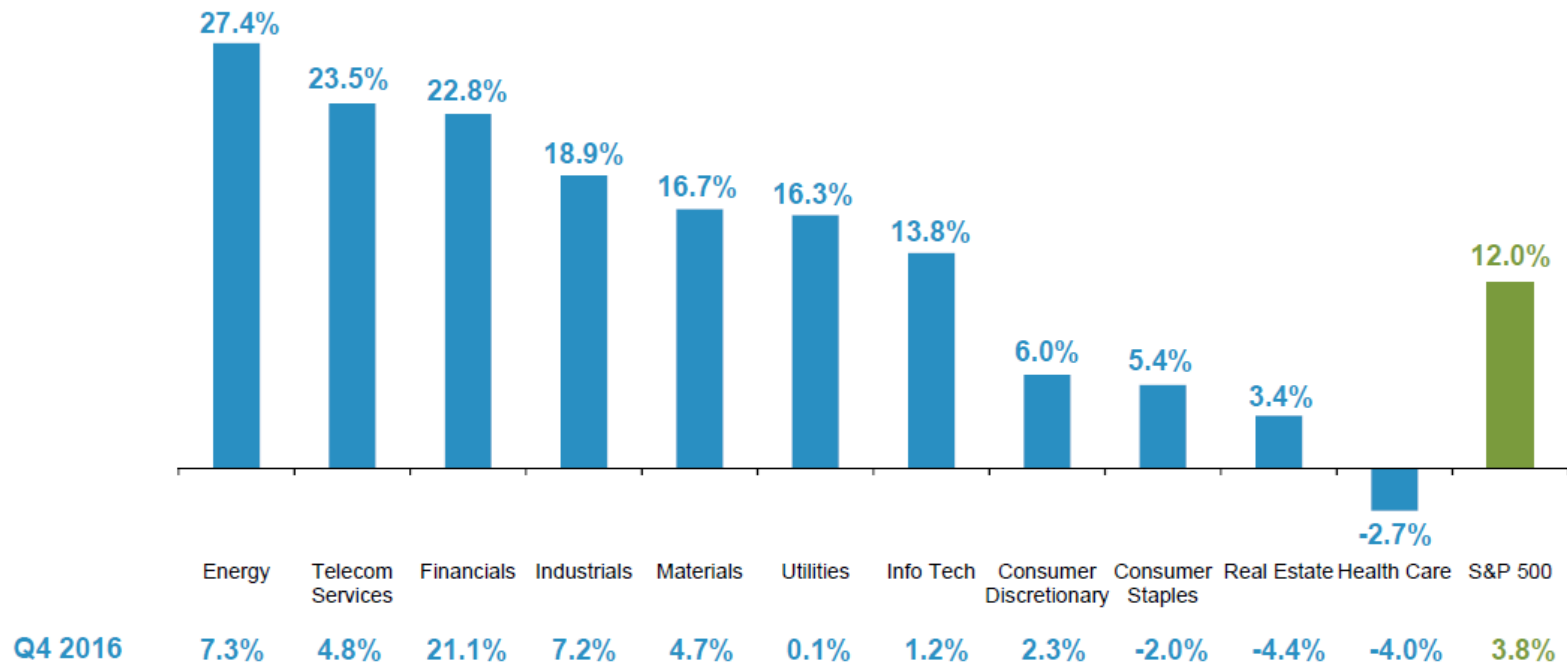
	YTD	Trailing One Month	Trailing Three Months	1 year	3 years	5 years	10 years
Russell 2000 TR USD	21.31	2.80	8.83	21.31	6.74	14.45	7.07
DJ Industrial Average TR USD	16.50	3.44	8.66	16.50	8.71	12.92	7.51
S&P 500 TR USD	11.96	1.98	3.82	11.96	8.87	14.65	6.94
Bloomberg Commodity TR USD	11.77	1.80	2.66	11.77	-11.26	-8.95	-5.57
NASDAQ Composite PR USD	7.50	1.12	1.34	7.50	8.83	15.62	8.34
MSCI ACWI Ex USA NR USD	4.50	2.56	-1.25	4.50	-1.78	5.00	0.96
BBgBarc US Agg Bond TR USD	2.65	0.14	-2.98	2.65	3.03	2.23	4.34

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate and an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. Performance data current to the most recent month end is available by calling 1-888-880-1330 or by visiting [www.sentinelgroup.com](http://www.sentinelgroup.com) and logging into your account.

Source: Morningstar Direct

# S&P 500 Sectors

## 2016 Total Return



Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indices are unmanaged. Please see appendix for important index information. Sector investing involves risk. Because of its narrow focus, sector investing may be more volatile than investing in more diversified baskets of securities. Sector returns represented by S&P 500 sectors. Sources: FactSet, Fidelity Investments (AART), as of 12/31/16.



# U.S. Equity Style Performance in 2016

## Returns and valuations by style

GTM - U.S. | 8

4Q 2016

	Value	Blend	Growth
Large	6.7%	3.8%	1.0%
Mid	5.5%	3.2%	0.5%
Small	14.1%	8.8%	3.6%

2016

	Value	Blend	Growth
Large	17.3%	12.0%	7.1%
Mid	20.0%	13.8%	7.3%
Small	31.7%	21.3%	11.3%

Since market peak (October 2007)

	Value	Blend	Growth
Large	60.4%	74.8%	92.4%
Mid	92.5%	88.8%	81.6%
Small	80.5%	82.7%	83.0%

Since market low (March 2009)

	Value	Blend	Growth
Large	299.9%	290.7%	292.5%
Mid	391.5%	355.6%	319.9%
Small	346.4%	340.6%	331.8%

### Current P/E vs. 15-year avg. P/E\*

	Value	Blend	Growth
Large	16.2 / 13.8	16.9 / 15.3	18.1 / 17.6
Mid	17.0 / 14.7	18.1 / 16.4	19.5 / 19.1
Small	19.6 / 14.3	23.5 / 19.8	30.3 / 23.8

### Current P/E as % of 15-year avg. P/E\*

	Value	Blend	Growth
Large	117.5%	110.2%	102.9%
Mid	115.8%	110.3%	102.0%
Small	136.9%	118.9%	127.1%

Source: FactSet, Russell Investment Group, Standard & Poor's, J.P. Morgan Asset Management.

All calculations are cumulative total return, including dividends reinvested for the stated period. Since Market Peak represents period 10/9/07 – 12/31/16, illustrating market returns since the S&P 500 Index high on 10/9/07. Since Market Low represents period 3/9/09 – 12/31/16, illustrating market returns since the S&P 500 Index low on 3/9/09. Returns are cumulative returns, not annualized. For all time periods, total return is based on Russell-style indexes with the exception of the large blend category, which is based on the S&P 500 Index. Past performance is not indicative of future returns.

\*Timeframe of average valuation decreased from 20 to 15 years because of a discontinued data series. The new data series shown is the next 12-months FactSet Market Aggregate Price to Earnings ratio.

Guide to the Markets – U.S. Data as of December 31, 2016.

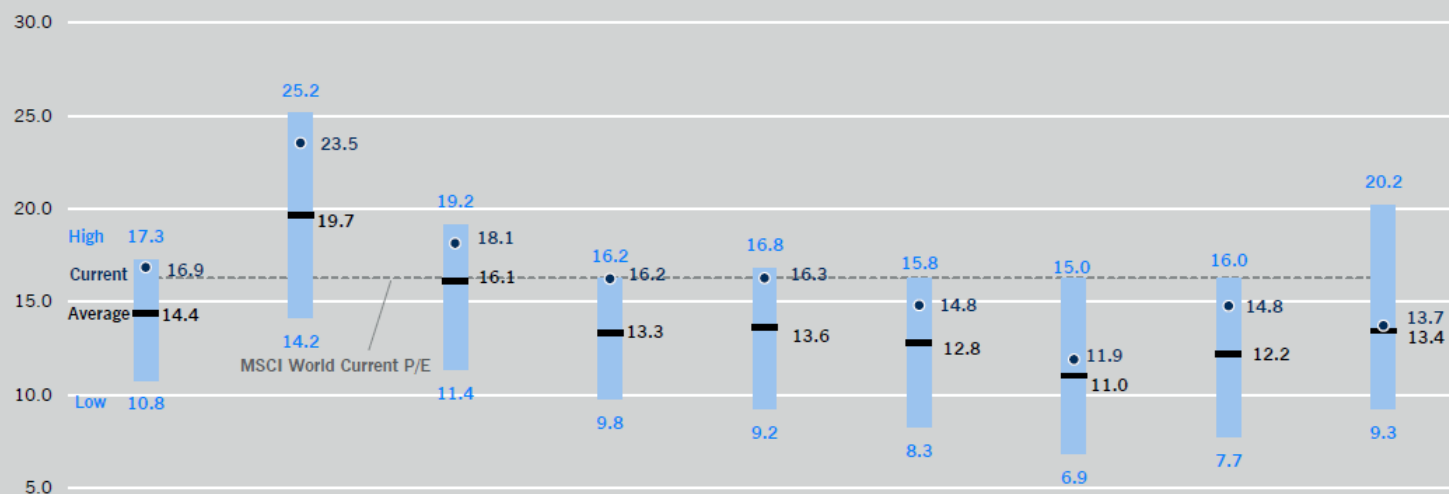
**J.P.Morgan**  
Asset Management

# World equities are expensive



## Valuation analysis

Regions/Styles: Current NTM P/E vs. 10-Year High, Low, Average



	S&P 500	Russell 2000	Russell 1000 Growth	Russell 1000 Value	MSCI World	MSCI EAFE	MSCI EM	MSCI Europe	MSCI AC Asia Pac
High Date	2/15	7/09	5/07	12/16	2/15	5/15	10/07	3/15	7/09
Low Date	9/11	9/11	11/08	9/11	10/08	10/08	10/08	10/08	10/08

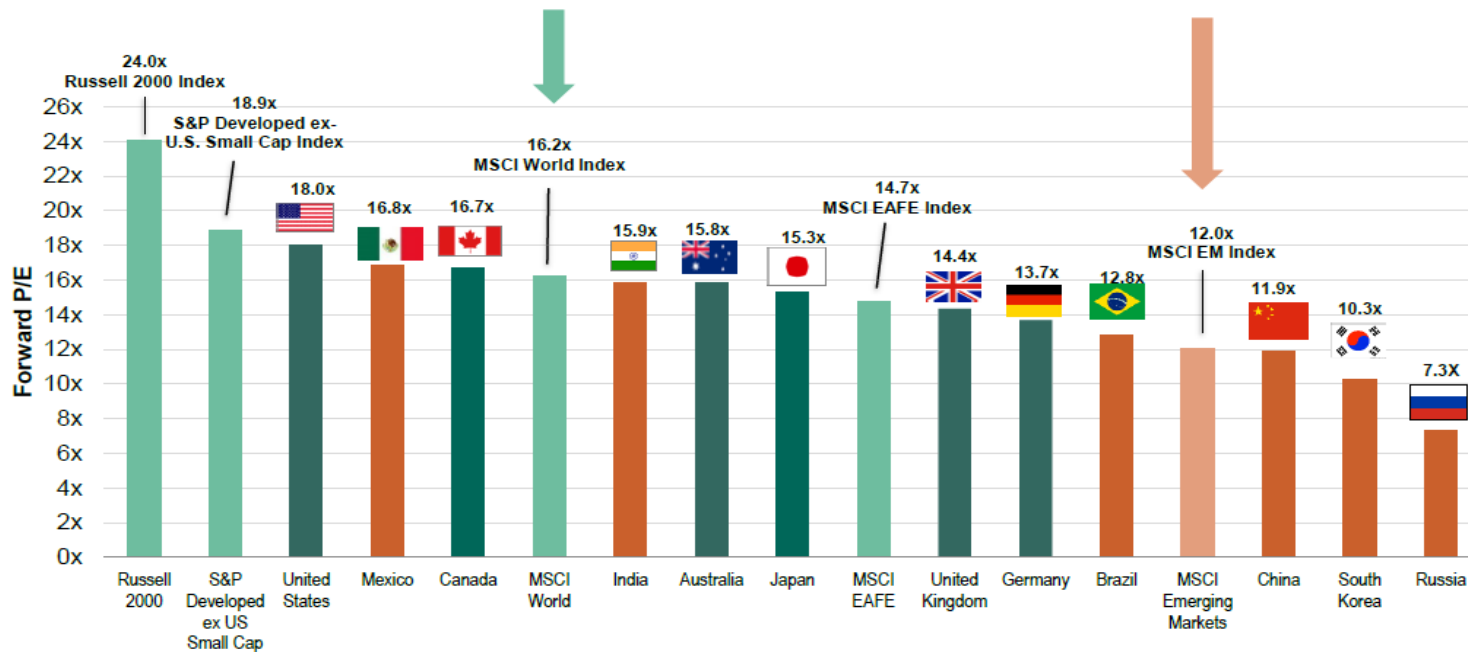
Source: FactSet as of 12/31/16. NTM P/E is market price per share divided by expected earnings per share over the next twelve months.

Data provided is for informational use only. Past performance is no guarantee of future results. See end of report for important additional information.

# Emerging Markets Relatively Attractive

## Valuations Globally

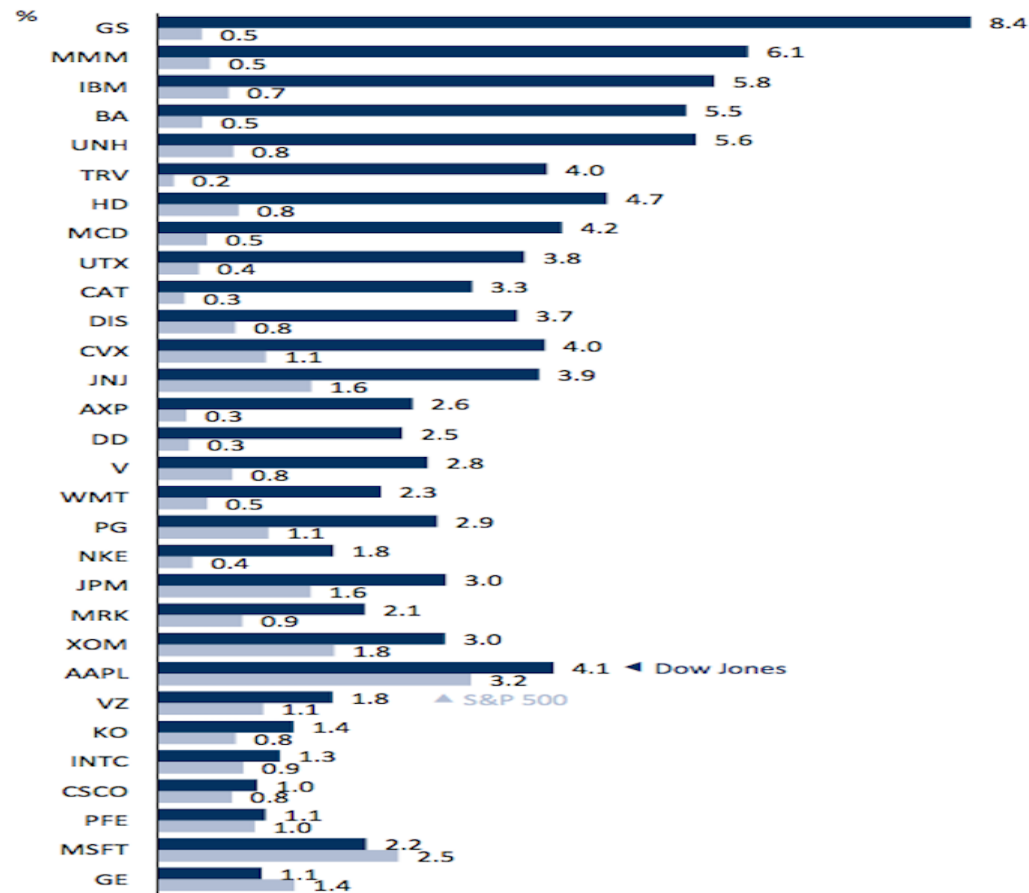
### Emerging Markets Among the Cheapest in the World



AS OF DECEMBER 12, 2016 | Source: FactSet. Forward Price to Earnings is Price / Next Twelve Months Time-Weighted Annual estimates via FactSet Market Aggregates. MSCI has not approved, reviewed or produced this report, makes no express or implied warranties or representations and is not liable whatsoever for any data in the report. You may not redistribute the MSCI data or use it as a basis for other indices or investment products. Country-specific ratios compiled from the FactSet World Index (formerly Global Aggregates).

# The Dow is NOT a good measure of the market

Exhibit 5: Constituent Weights – Dow Jones vs. S&P 500



Source: S&P, Thomson Financial, Compustat, Factset and RBC Capital Markets

Is it Value's turn?



Bespoke @bespokeinvest · Dec 2

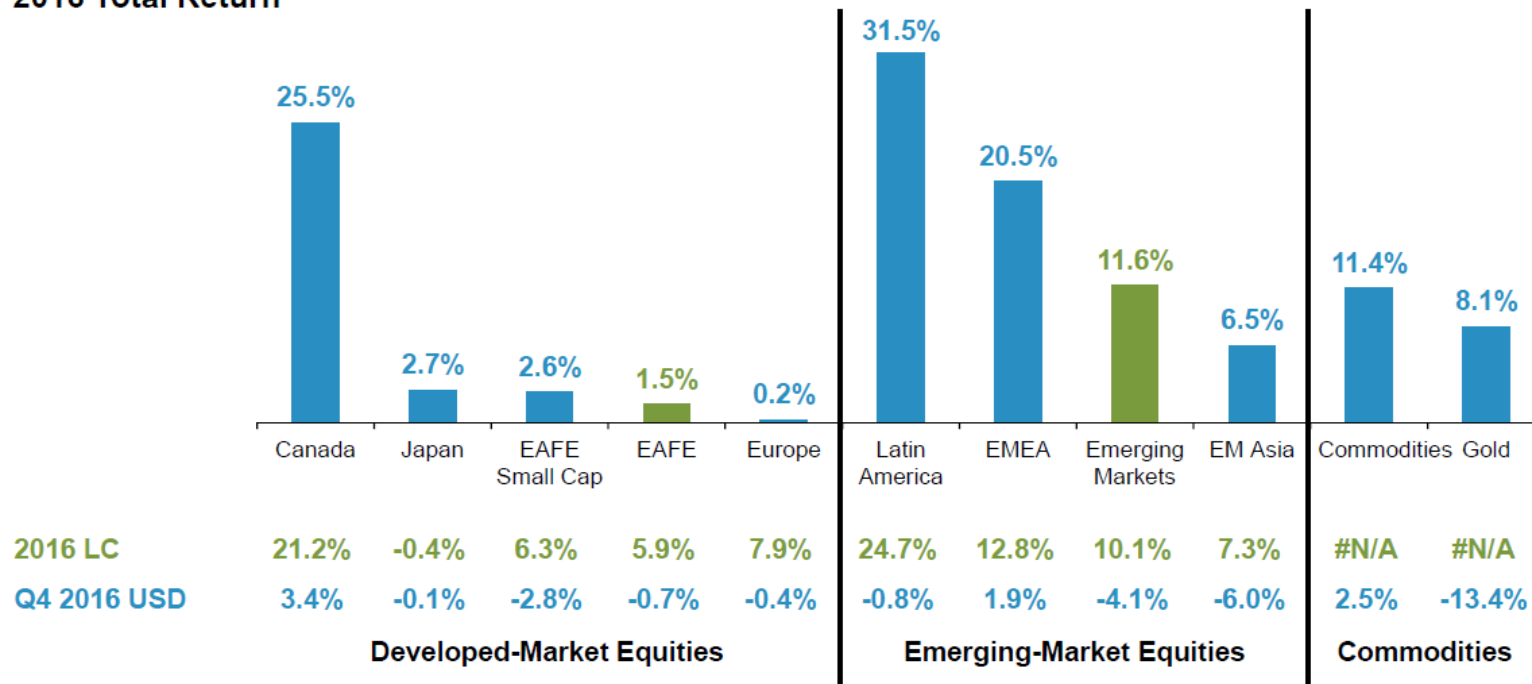
Value and Growth diverging since election.

S&P 500 Value vs. S&P 500 Growth Index: 2016 YTD % Change



# Foreign Markets in 2016

## 2016 Total Return

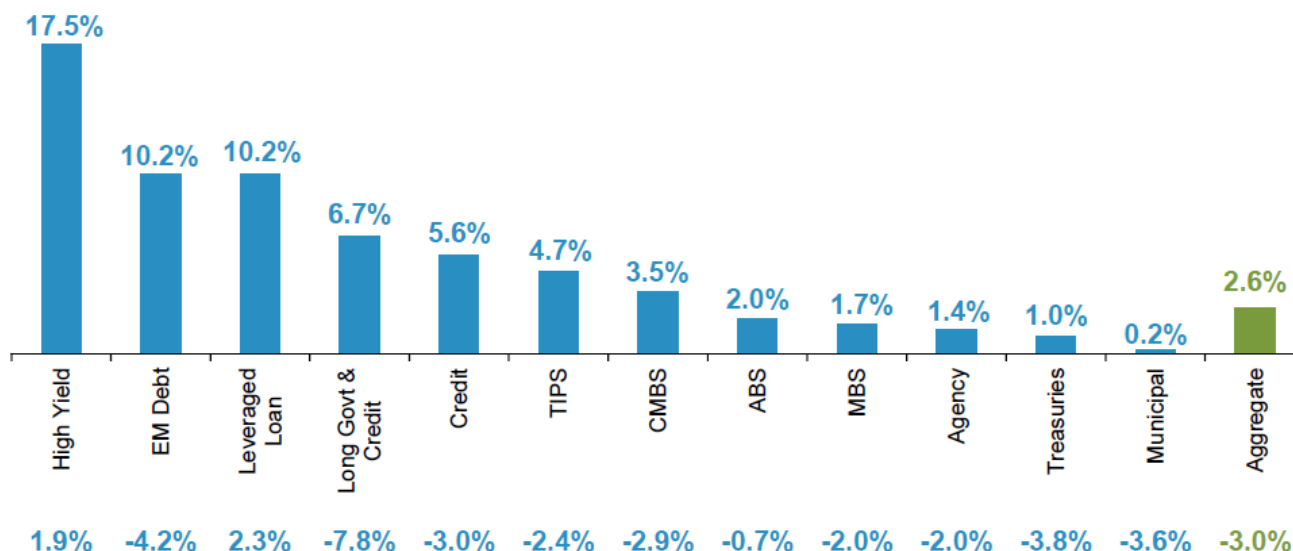


EM: emerging markets. LC: local currency. All returns are gross in U.S. dollars unless otherwise noted. Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indices are unmanaged. Please see appendix for important index information. Index returns represented by: Canada – MSCI Canada Index; Commodities – S&P GSCI Commodities Index; EAFE – MSCI Europe, Australasia, Far East Index; EAFE Small Cap – MSCI EAFE Small Cap Index; EM Asia – MSCI Emerging Markets Asia Index; EMEA (Europe, Middle East, and Africa) – MSCI EM EMEA Index; Emerging Markets (EM) – MSCI EM Index; Europe – MSCI Europe Index; Gold – Gold Bullion Price, LBMA PM Fix; Japan – MSCI Japan Index; Latin America – MSCI EM Latin America Index. Sources: FactSet, Fidelity Investments (AART), as of 12/31/16.



# Credit Sectors Outperformed in 2016

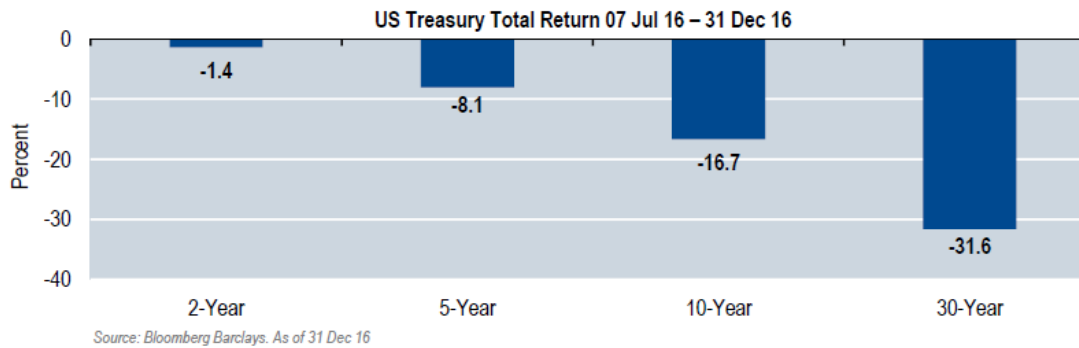
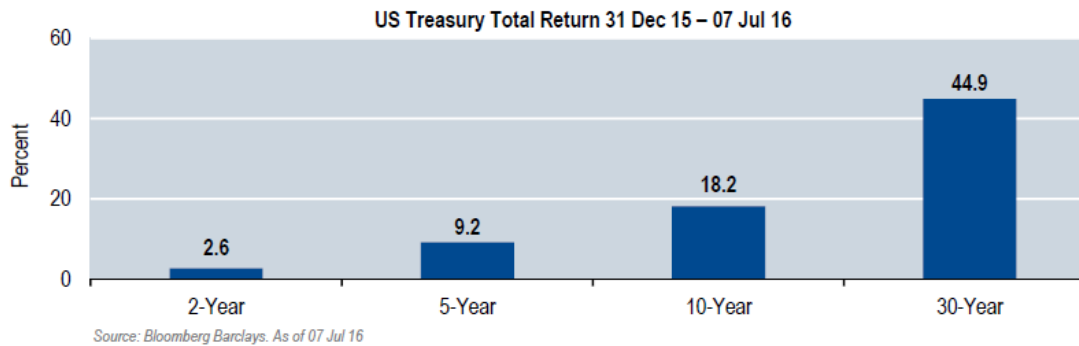
## 2016 Total Return



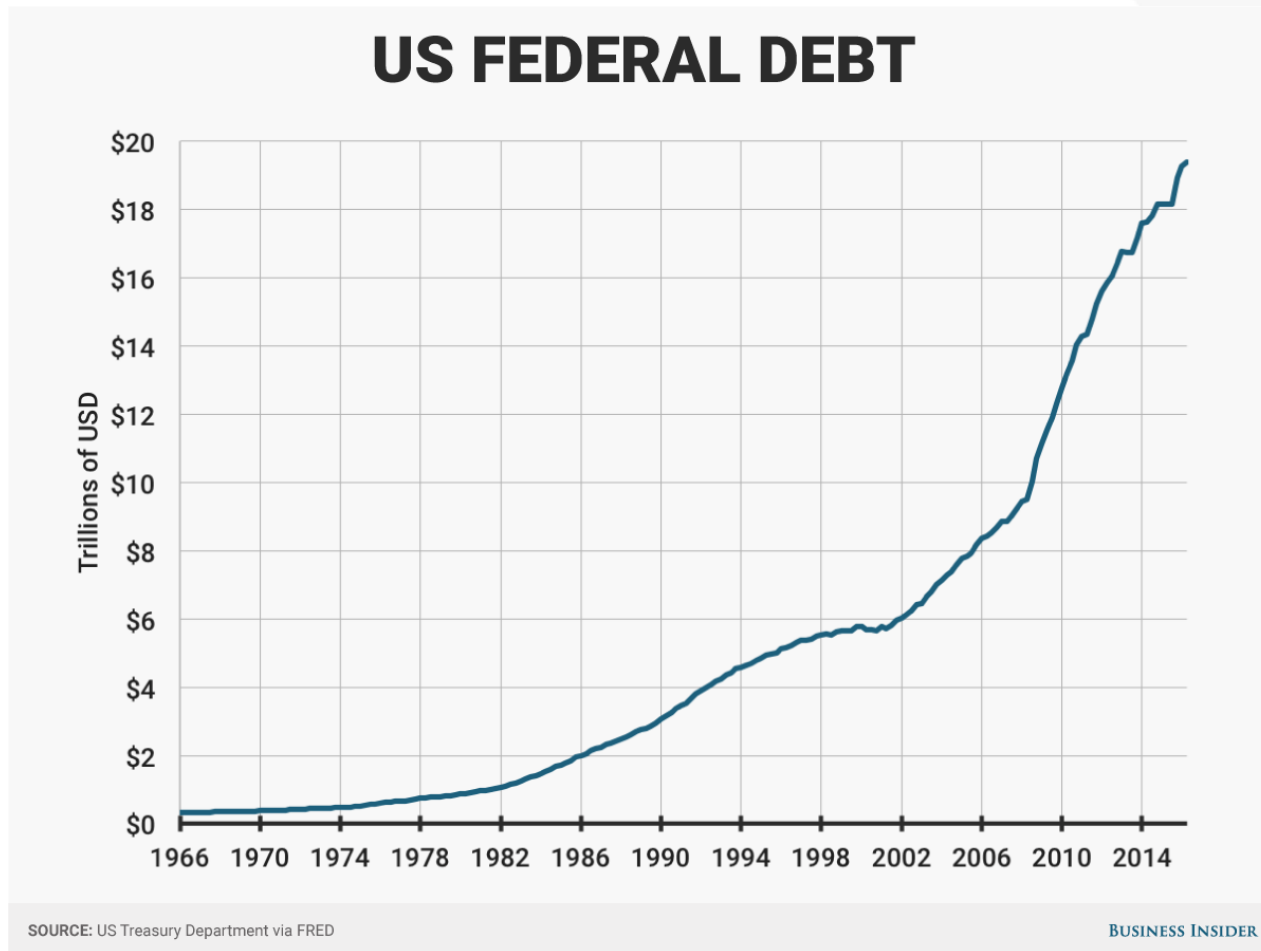
Past performance is no guarantee of future results. You cannot invest directly in an index. Please see appendix for important index information. All indices are unmanaged. Index returns represented by: ABS (Asset-Backed Securities) – Barclays ABS Index; Agency – Barclays U.S. Agency Index; Aggregate – Barclays U.S. Aggregate Bond Index; CMBS (Commercial Mortgage-Backed Securities) – Barclays Investment-Grade CMBS Index; Credit – Barclays U.S. Credit Bond Index; EM Debt (Emerging-Market Debt) – JP Morgan EMBI Global Index; High Yield – BofA ML U.S. High Yield Index; Leveraged Loan – S&P/LSTA Leveraged Loan Index; Long Government & Credit (Investment-Grade) – Barclays Long Government & Credit Index; MBS (Mortgage-Backed Securities) – Barclays MBS Index; Municipal – Barclays Municipal Bond Index; TIPS (Treasury Inflation-Protected Securities) – Barclays U.S. TIPS Index; Treasuries – Barclays U.S. Treasury Index. Source: FactSet, Fidelity Investments (AART), as of 12/31/16.



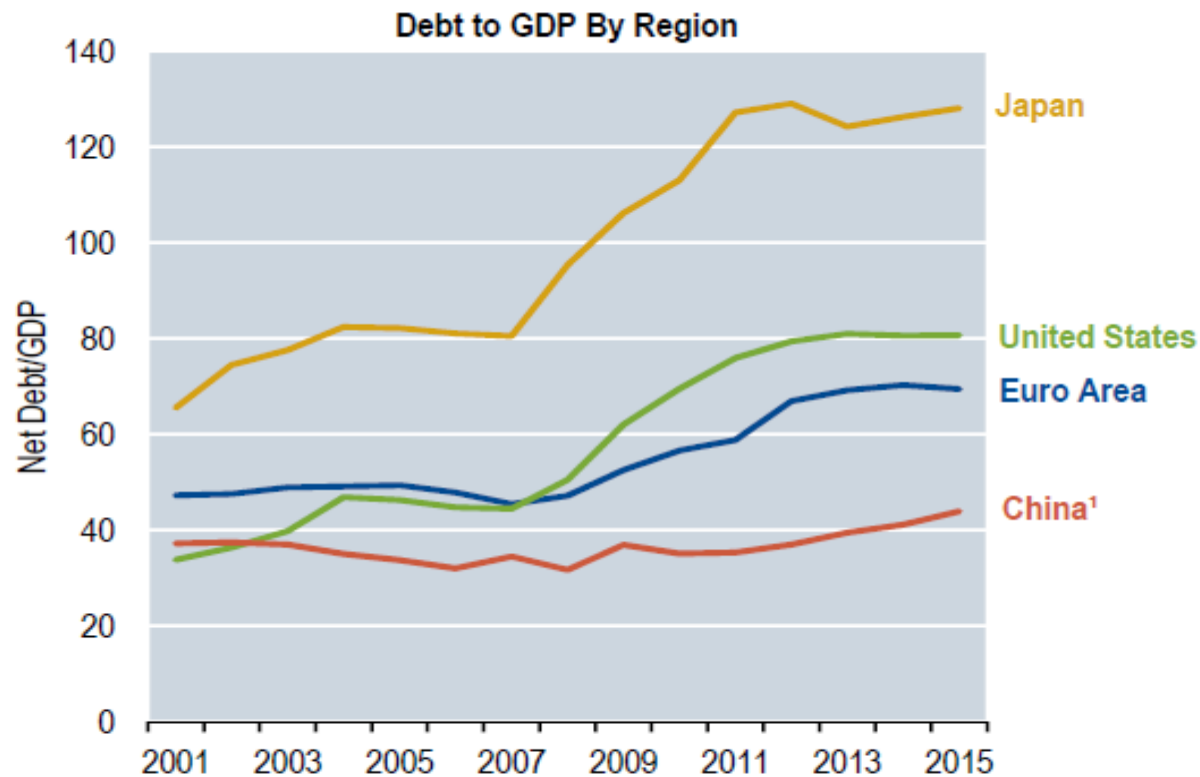
# A Tale of Two Halves for Fixed Income



What's going to fuel the next expansion?



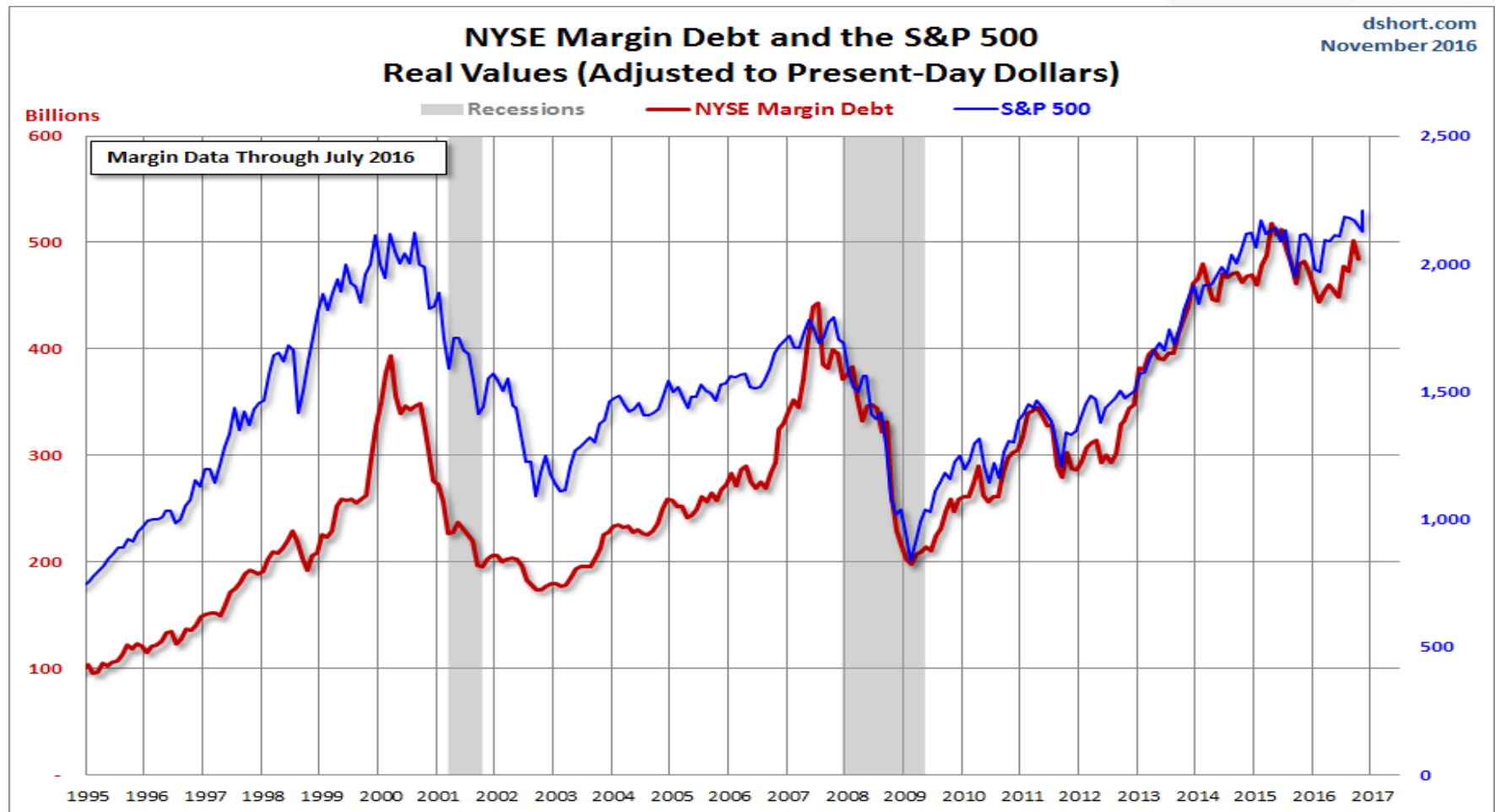
# Global Debt Remains at Record Levels



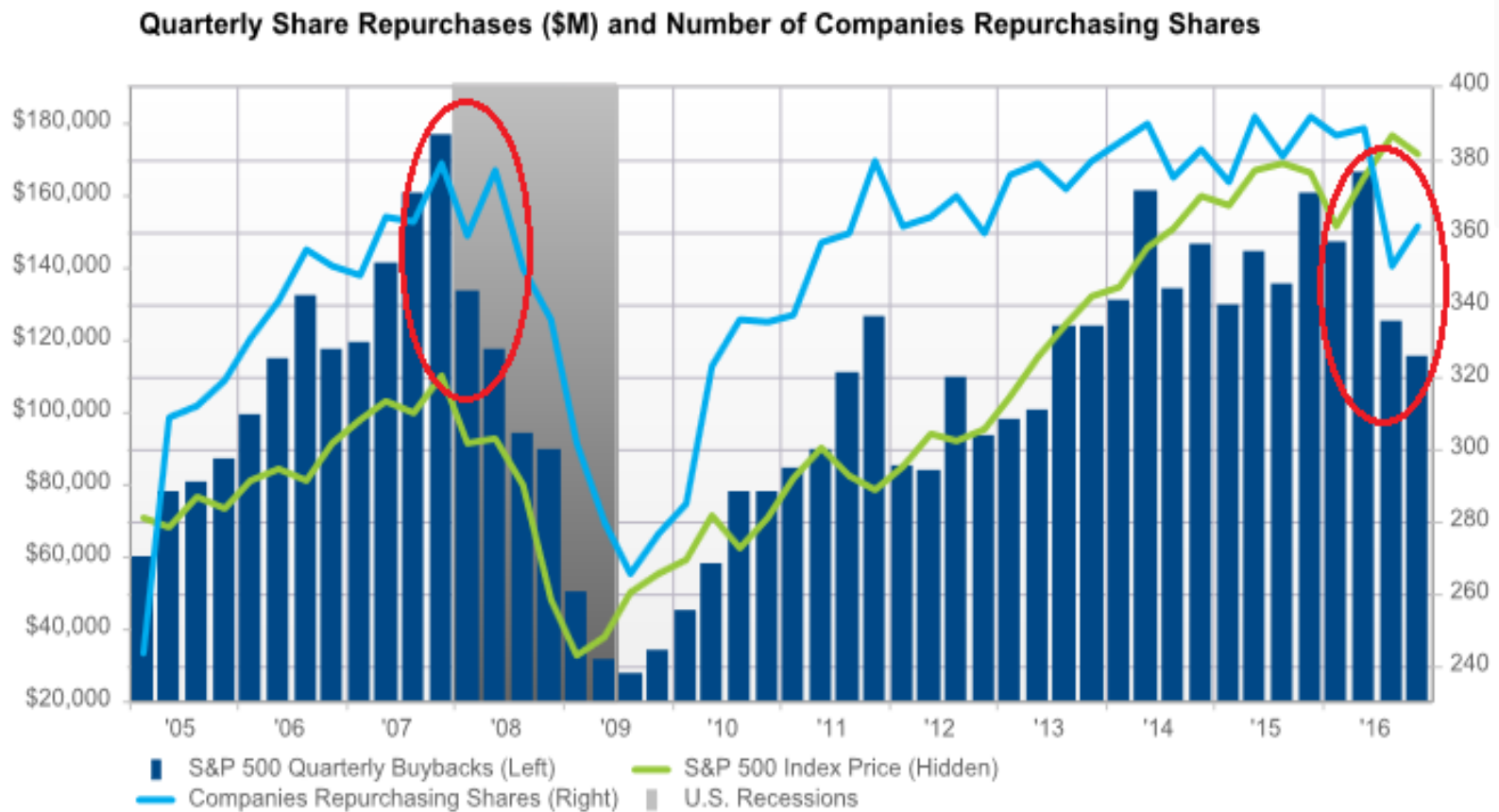
Source: International Monetary Fund. As of 31 Dec 15

<sup>1</sup>Gross Debt/GDP as Net Debt GDP is unavailable

# Margin Debt Still at Record Levels



Buybacks declined...are they making a comeback?



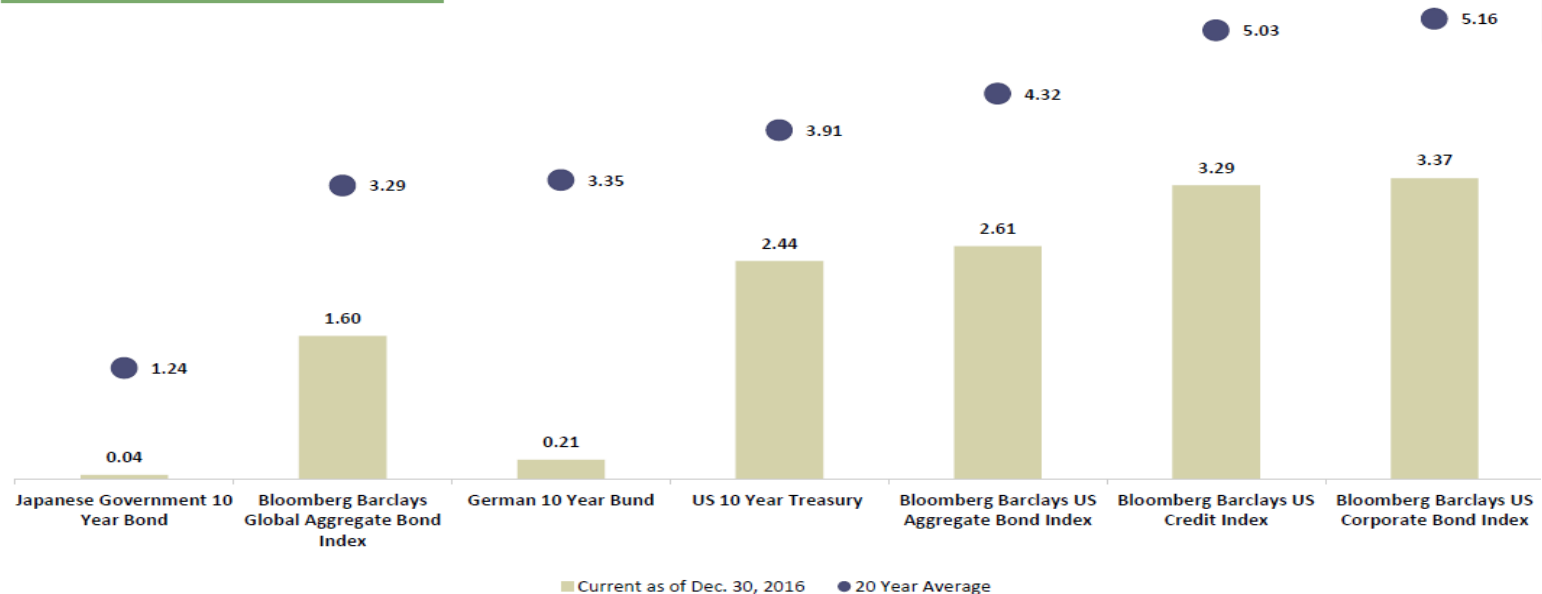
Source: FactSet

# Yields are still well below nominal averages though

## Yield to Worst — Even as the Yield Curve Shifted Higher, the World is Still Facing Yields well Below the Long Term Averages

Global Yields (%) Still Low Relative to Averages

A 4% Yield is Hard to Come by These Days, Unlike in the Last 20 Years



Source: Bloomberg Finance L.P. As of December 30, 2016.

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Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income.

Performance returns for periods of less than one year are not annualized.

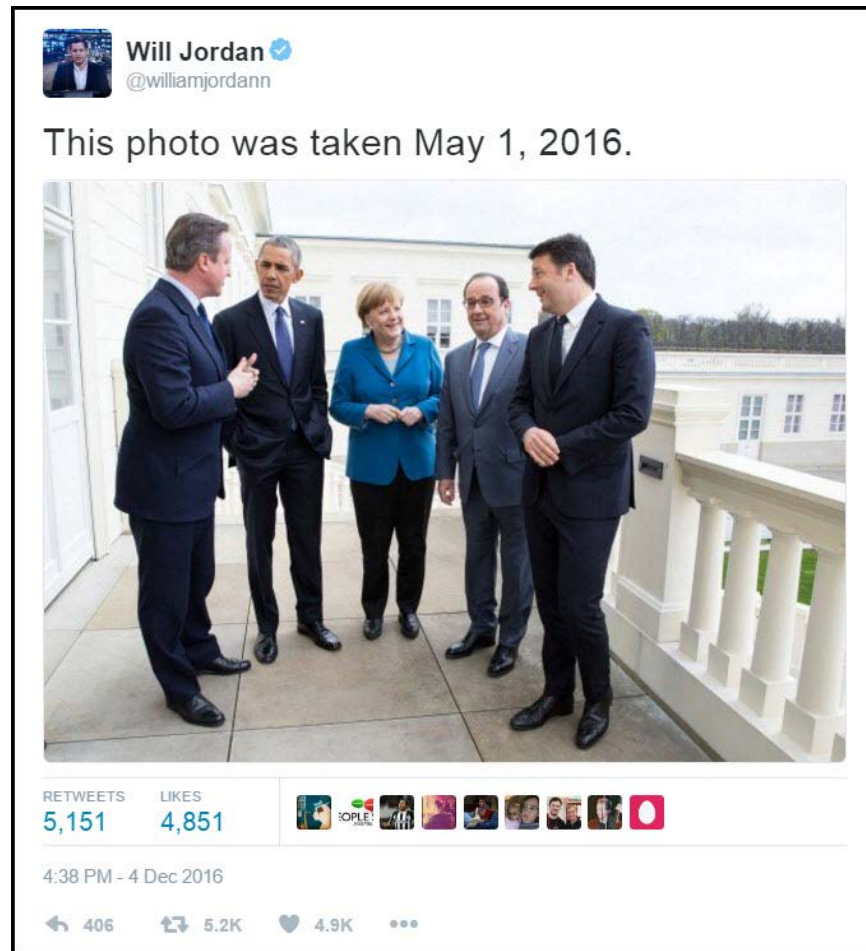
**STATE STREET**  
**GLOBAL ADVISORS**

IBG-22328

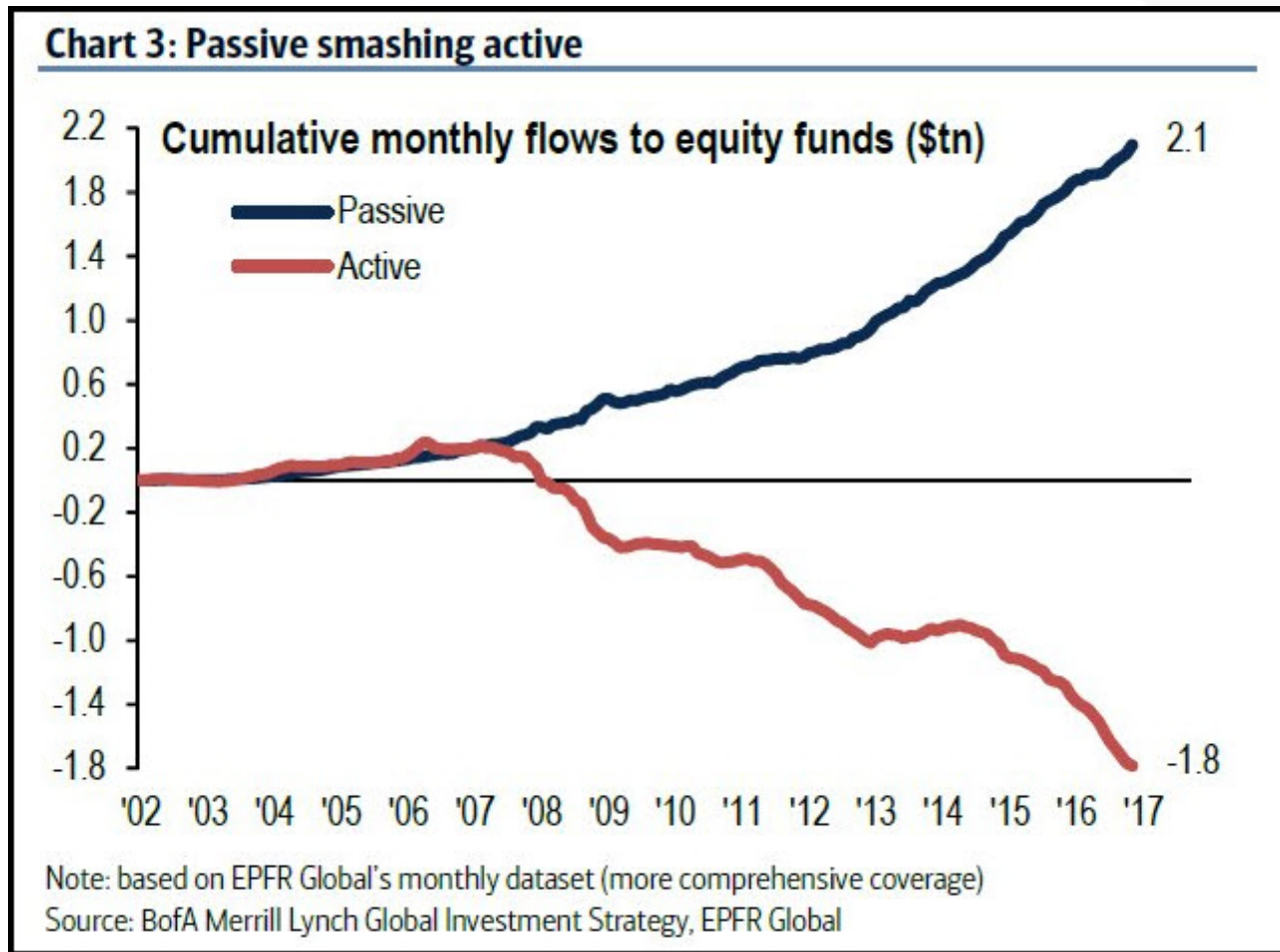
# 2017 Outlook

## Key Factors to Watch

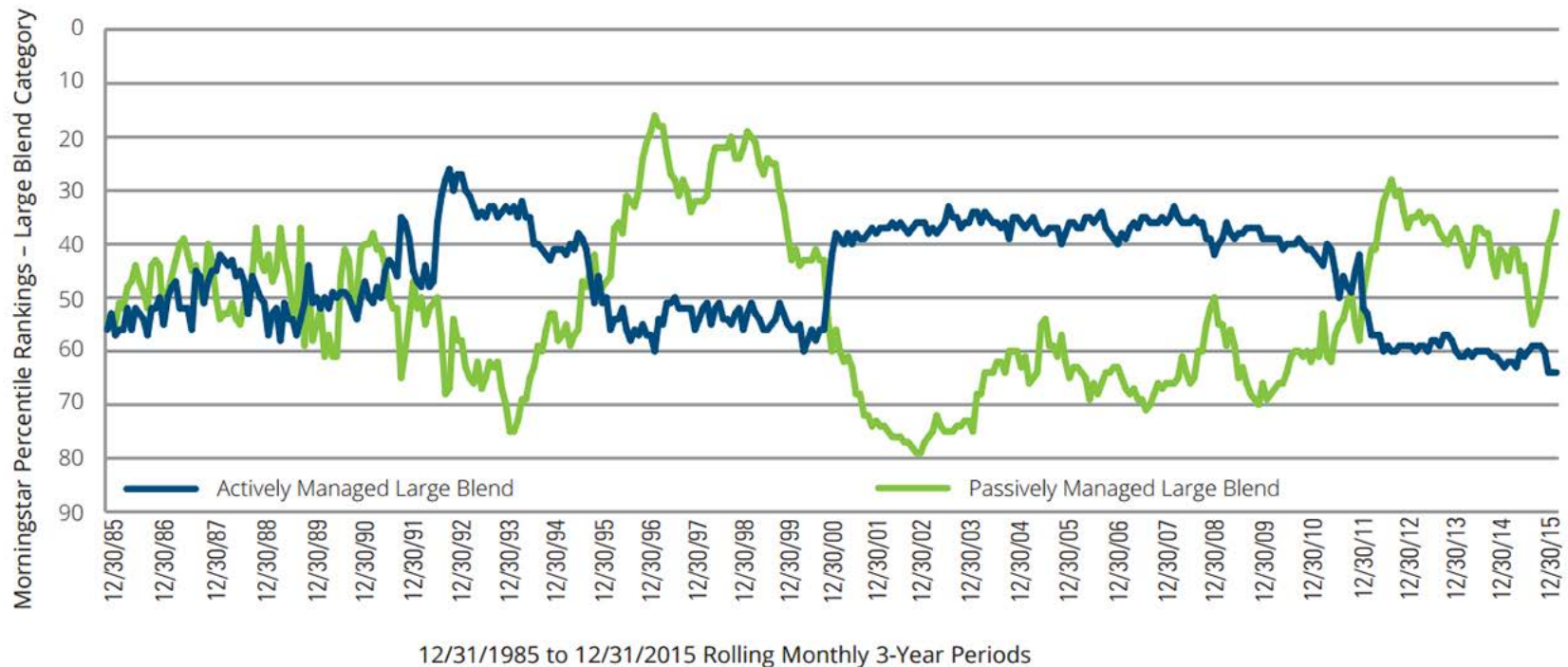
Four out of five are no longer leaders... is Merkel next?



Active \$ flows have lagged passive for nearly 8 years....

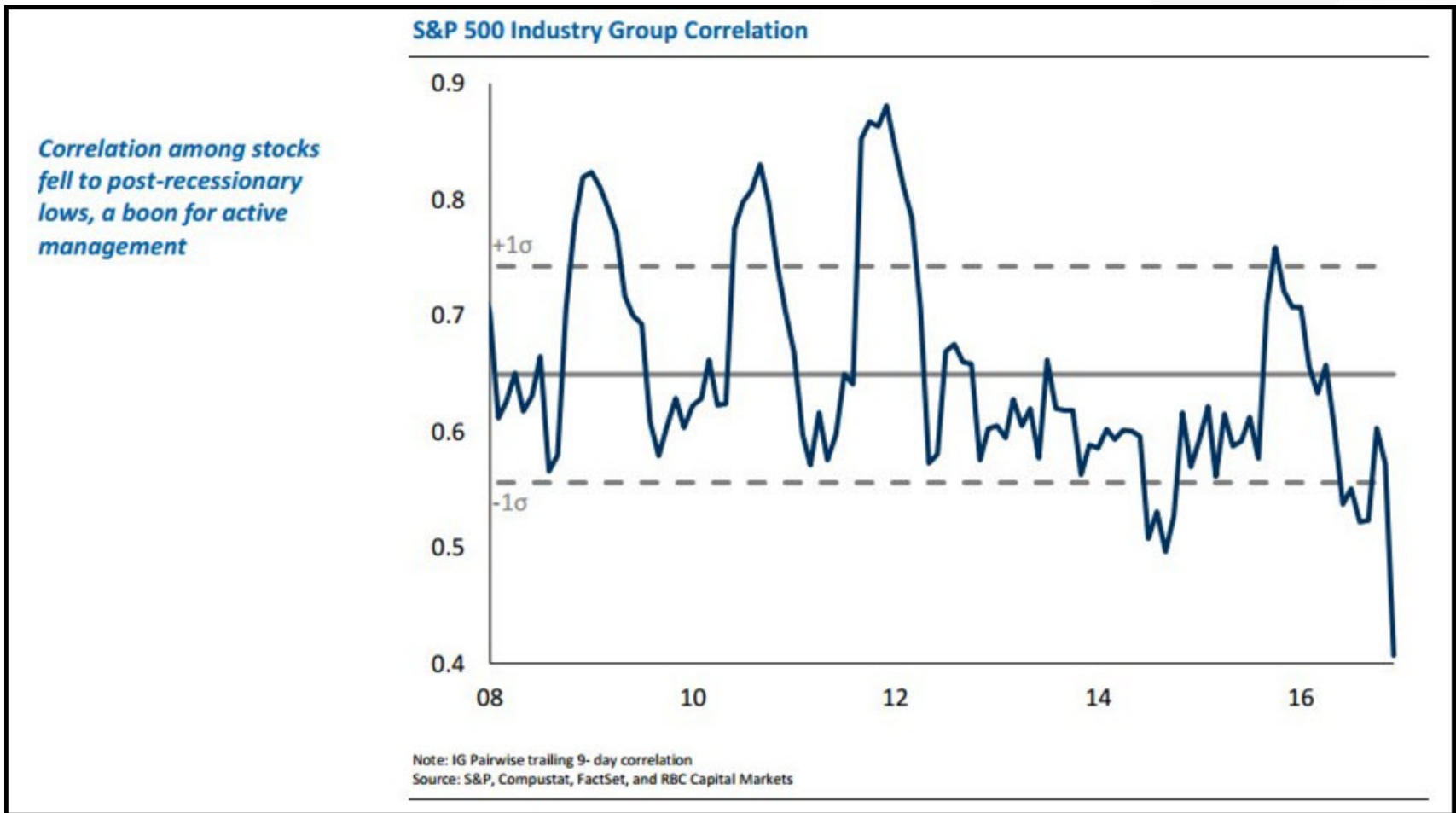


...but these trends go in long cycles



Source: <https://www.hartfordfunds.com/insights/featured-perspectives/TheCyclicalNatureofActiveandPassiveInvesting.htm>

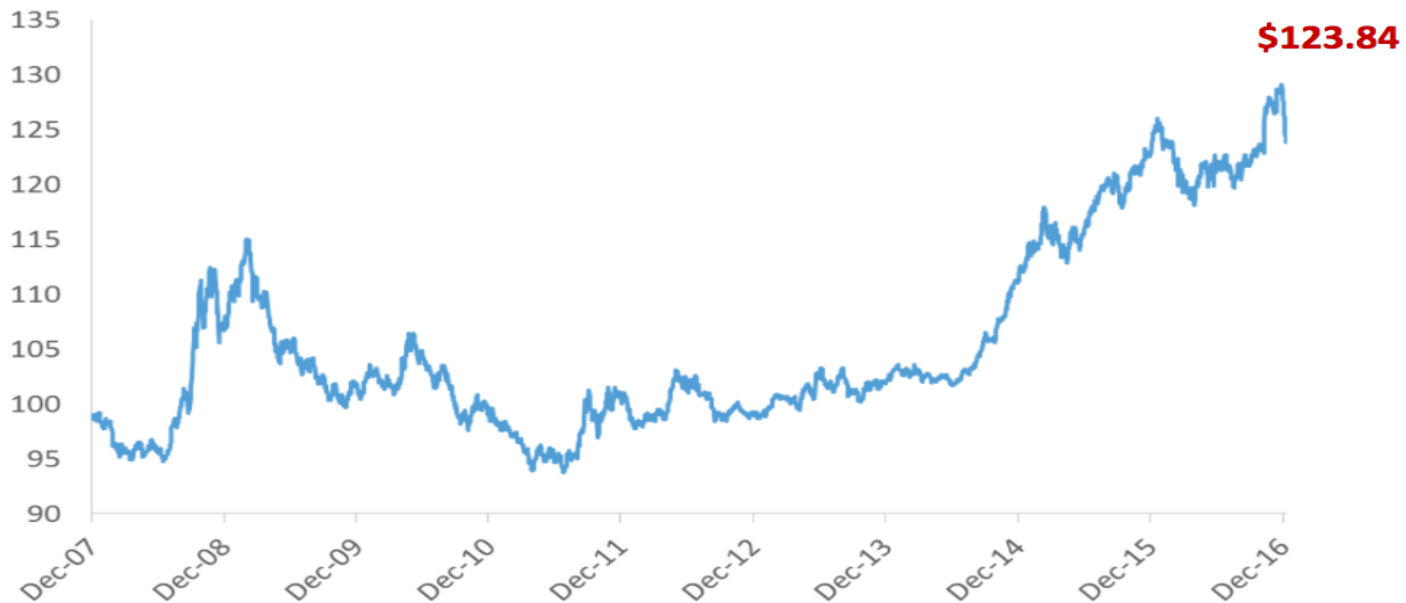
Correlations are declining...time for active management?



# The dollar has become an economic concern

## U.S. Dollar Index Spot (DXY)

December 31, 2007 through January 9, 2017



Source: Bloomberg Financial Services, Doubleline Capital LP

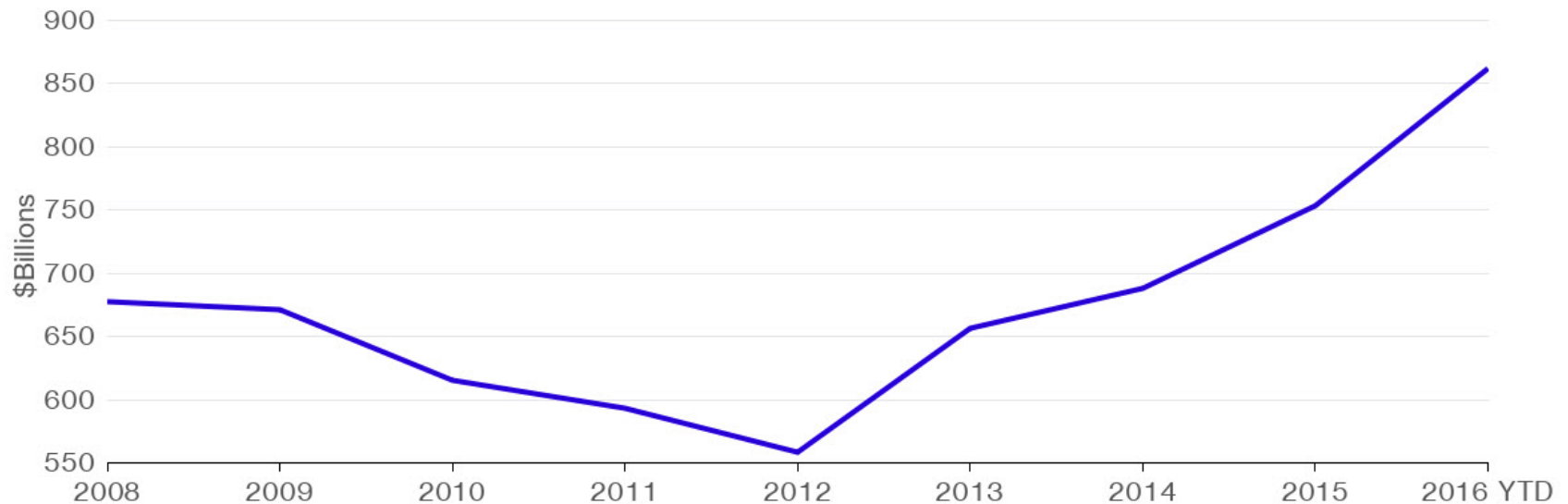
DXY=US Dollar Index (USDIX) indicates general value of US dollar. Average exchange rates between the US dollar and six major world currencies. An investment cannot be made directly in an index.

A lot of cash on the sidelines...

## Powder Keg

Buyout firms are sitting on the biggest cash piles in at least nine years

■ Private equity firms' dry powder



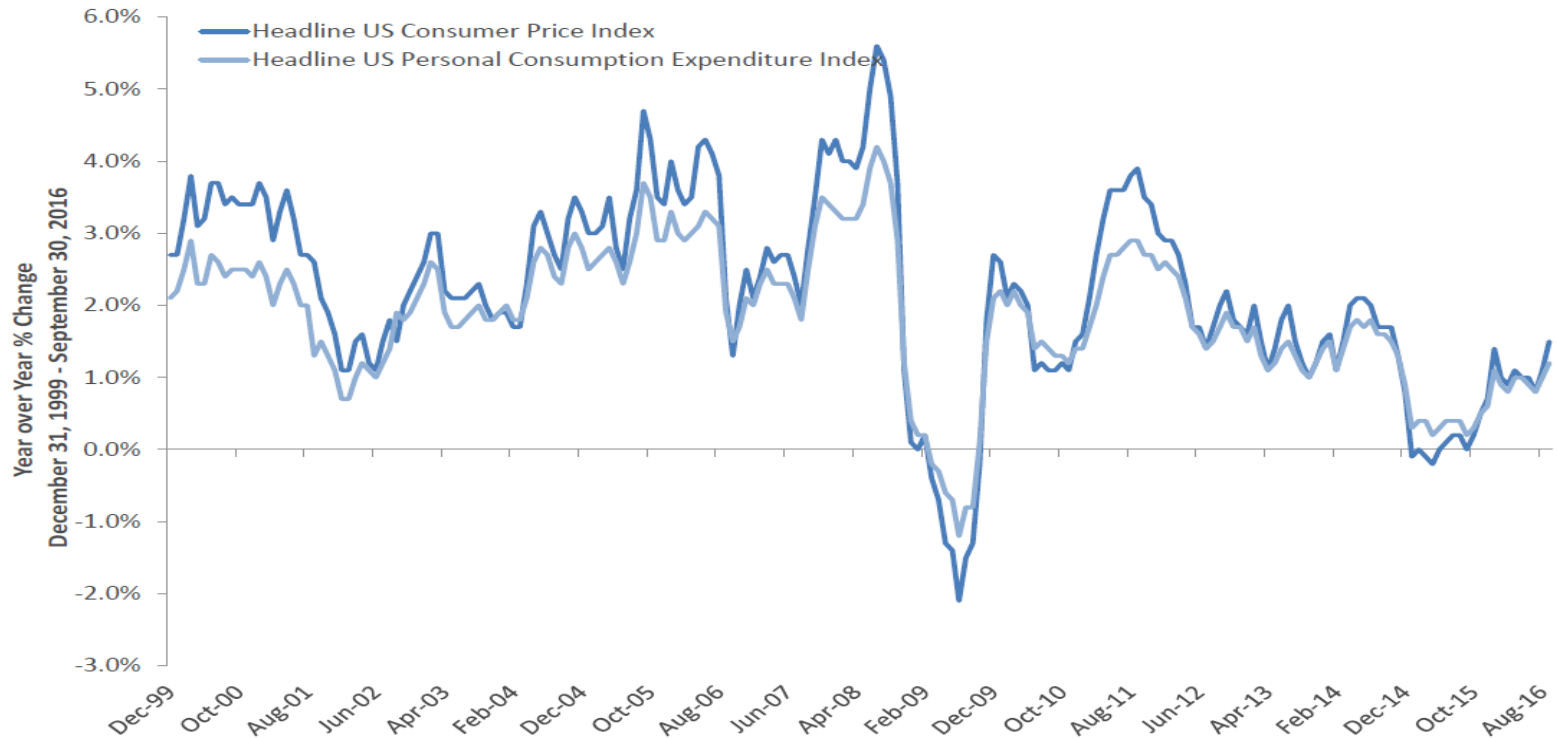
Source: Preqin

Bloomberg 

# Is inflation a risk?

## Headline Inflation

December 31, 1999 through September 30, 2016



Source: Bloomberg, Doubleline

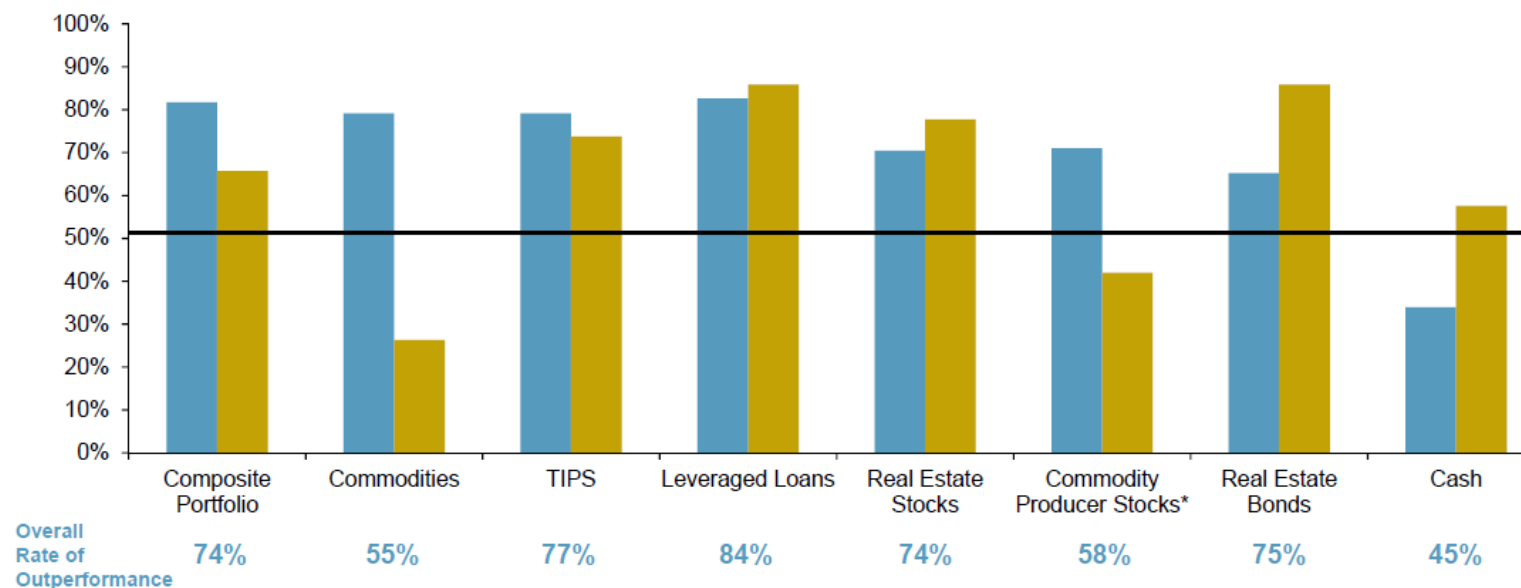
Consumer Price Index measures a weighted average of prices for a basket of goods and services, such as transportation, food and medical care. You cannot invest directly in an index.

# Asset classes during periods of inflation

## Frequency of Outperforming Inflation, 1998–2015

■ Outperformed during Rising Inflation ■ Outperformed during Falling Inflation

% of Periods Outperforming Inflation Rate



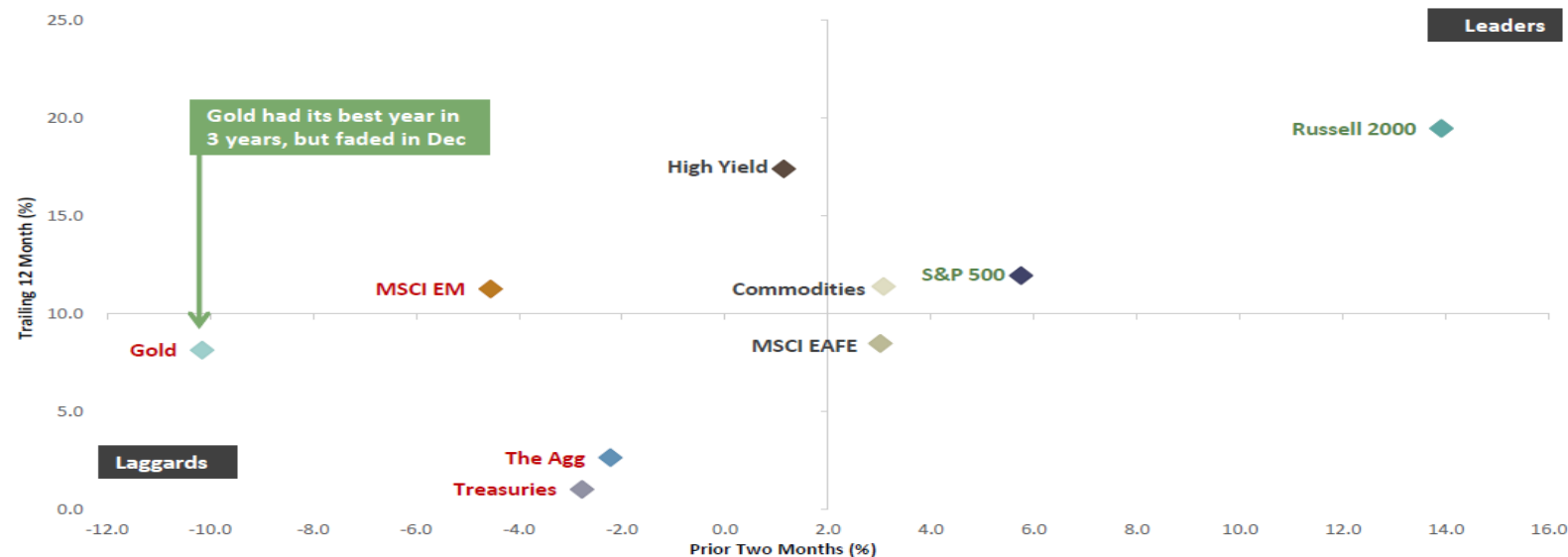
\*Commodity producer stocks not part of composite portfolio. Past performance is no guarantee of future results. Diversification does not ensure a profit or guarantee against loss. It is not possible to invest directly in an index. Please see appendix for important index information. Inflation rate: year-over-year change in the consumer price index. Asset classes represented by: Cash – IA SBBI U.S. 30 Day Treasury Bill Index; Commodities – Bloomberg Commodity Index; Composite portfolio – 30% TIPS, 25% leveraged loans, 25% commodities, 10% real estate equity, 10% real estate income; Leveraged Loans – S&P/LSTA Leveraged Performing Loan Index; Real Estate Bonds – BofA ML U.S. Corporate Real Estate Index; Real Estate Stocks – Dow Jones U.S. Select Real Estate Securities Index; TIPS (Treasury Inflation Protected Securities) – Bloomberg Barclays U.S. TIPS Index, Commodity Producer Stocks – MSCI ACWI Commodity Producers (1999-2015), Fidelity proprietary calculation (1998). Sources: Morningstar, Fidelity Investments (AART), as of 12/31/15.



# Winners and Losers Post-Election

## Asset Class Performance — Small Caps Continued to Benefit from the ‘Trump Jump’, While Traditional Bonds (Agg) Were Still Hit By a ‘Trump Slump’

### Major Asset Class Performance



	Russell 2000 Index	Bloomberg US High Yield Index	S&P 500 Index	Bloomberg Commodity Index	MSCI Emerging Markets Index	MSCI EAFE Index	Gold	Barclays US Aggregate Index	Bloomberg US Treasury Index
	US Small Cap	High Yield	US Large Cap	Broad Commodities	Emerging	Developed	Gold	Agg	Treasuries
2016	19.5	17.4	12.0	11.4	11.3	8.5	8.1	2.6	1.0

Source: State Street Global Advisors and Bloomberg Finance LP. As of 12/31/16

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Index returns reflect all items of income, gain and loss and reinvestment in dividends and other income. Performance returns for periods of less than one year are not annualized.

# New Presidents Often Encounter Recessions

## Presidents & Recessions

January 1960 through November 30, 2016



### Fresh Faces in White House Met by Recession in 1<sup>st</sup> Year



Source(s): @HumbleStudent

MORGAN CREEK  
CAPITAL MANAGEMENT

8

Source: Morgan Creek

1-10-17 Just Markets 18

# Final Thoughts

- It would be difficult to pick a more unpredictable year for markets or politics than 2016, but we have a feeling that 2017 will be similar.
- Elevated equity valuations, the potential for rising interest rates and high levels of uncertainty over upcoming U.S. government policy will likely lead to more volatility. In addition, a number of key elections overseas will take place.
- The consensus entering 2017 is for the Fed to raise rates at least 3 times. Keep in mind that the consensus last year called for multiple hikes, but we only saw one.
- A more difficult environment for equities will open up opportunities for active management. Combining passive index funds to control costs with skilled active managers is our preferred method of building portfolios.

“In Markets, The Only Thing Certain Is Uncertainty” - Robert Samuelson



Q&A

## Appendix: Important Information

Information presented herein is for discussion and illustrative purposes only and is not a recommendation or an offer or solicitation to buy or sell any securities. Views expressed are as of the date indicated, based on the information available at that time, and may change based on market and other conditions. Unless otherwise noted, the opinions provided are those of the authors and not necessarily those of Fidelity Investments or its affiliates. Fidelity does not assume any duty to update any of the information.

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**Past performance and dividend rates are historical and do not guarantee future results.**

Investing involves risk, including risk of loss.

Diversification does not ensure a profit or guarantee against loss.

Index or benchmark performance presented in this document does not reflect the deduction of advisory fees, transaction charges, and other expenses, which would reduce performance.

Indexes are unmanaged. It is not possible to invest directly in an index.

Although bonds generally present less short-term risk and volatility than stocks, bonds do contain interest rate risk (as interest rates rise, bond prices usually fall, and vice versa) and the risk of default, or the risk that an issuer will be unable to make income or principal payments. Additionally, bonds and short-term investments entail greater inflation risk—or the risk that the return of an investment will not keep up with increases in the prices of goods and services—than stocks. Increases in real interest rates can cause the price of inflation-protected debt securities to decrease.

Stock markets, especially non-U.S. markets, are volatile and can decline significantly in response to adverse issuer, political, regulatory, market, or economic developments. Foreign securities are subject to interest rate, currency exchange rate, economic, and political risks, all of which are magnified in emerging markets.

The securities of smaller, less well-known companies can be more volatile than those of larger companies.

Growth stocks can perform differently from the market as a whole and from other types of stocks, and can be more volatile than other types of stocks. Value stocks can perform differently from other types of stocks and can continue to be undervalued by the market for long periods of time.

Lower-quality debt securities generally offer higher yields but also involve greater risk of default or price changes due to potential changes in the credit quality of the issuer. Any fixed-income security sold or redeemed prior to maturity may be subject to loss.

Floating-rate loans generally are subject to restrictions on resale, and sometimes trade infrequently in the secondary market; as a result, they may be more difficult to value, buy, or sell. A floating-rate loan may not be fully collateralized and therefore may decline significantly in value.

The municipal market can be affected by adverse tax, legislative, or political changes, and by the financial condition of the issuers of municipal securities. Interest income generated by municipal bonds is generally expected to be exempt from federal income taxes and, if the bonds are held by an investor resident in the state of issuance, from state and local income taxes. Such interest income may be subject to federal and/or state alternative minimum taxes. Investing in municipal bonds for the purpose of generating tax-exempt income may not be appropriate for investors in all tax brackets. Generally, tax-exempt municipal securities are not appropriate holdings for tax-advantaged accounts such as IRAs and 401(k)s.

The commodities industry can be significantly affected by commodity prices, world events, import controls, worldwide competition, government regulations, and economic conditions.

The gold industry can be significantly affected by international monetary and political developments, such as currency devaluations or revaluations, central bank movements, economic and social conditions within a country, trade imbalances, or trade or currency restrictions between countries.

Changes in real estate values or economic downturns can have a significant negative effect on issuers in the real estate industry.

Leverage can magnify the impact that adverse issuer, political, regulatory, market, or economic developments have on a company. In the event of bankruptcy, a company's creditors take precedence over the company's stockholders.

### Market Indices

**BofA ML Corporate Real Estate Index**, a subset of BofA ML U.S. Corporate Index, is a market capitalization-weighted index of U.S. dollar-denominated investment-grade corporate debt publicly issued in the U.S. domestic market by real estate issuers. Qualifying securities must have an investment-grade rating (based on an average of Moody's, S&P, and Fitch). In addition, qualifying securities must have at least one year remaining to final maturity, a fixed coupon schedule, and a minimum amount outstanding of \$250 million. **BofA ML U.S. Real Estate Index** is a subset of the BofA ML Real Estate Corporate Index; qualifying securities must have an investment grade rating and an investment grade-rated country of risk. **BofA ML U.S. High Yield Bond Index** is a market capitalization-weighted index of U.S. dollar-denominated below investment grade corporate debt publicly issued in the U.S. domestic market.



## Appendix: Important Information

### Market Indices (continued)

The **BofA/Merrill Lynch High-Yield Bond Master II Index** is an unmanaged index that tracks the performance of below-investment-grade, U.S.-dollar-denominated corporate bonds publicly issued in the U.S. domestic market.

**Bloomberg Barclays U.S. 1-3 (1-5) Year Government Credit Index** includes all publicly issued U.S. government and corporate securities that have a remaining maturity between one and three (five) years and are rated investment grade. **Bloomberg Barclays U.S. 1-5 Year Credit Index** is designed to cover publicly issued U.S. corporate and specified non-U.S. debentures and secured notes with a maturity between one and five years and meet the specified liquidity and quality requirements; bonds must be SEC-registered to qualify. **Bloomberg Barclays U.S. 1-5 Year Municipal Index** covers the one- to five-year maturity, U.S. dollar-denominated, tax-exempt bond market with four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds.

**Bloomberg Barclays ABS Index** is a market value-weighted index that covers fixed-rate asset-backed securities with average lives greater than or equal to one year and that are part of a public deal; the index covers the following collateral types: credit cards, autos, home equity loans, stranded-cost utility (rate-reduction bonds), and manufactured housing. **Bloomberg Barclays CMBS Index** is designed to mirror commercial mortgage-backed securities of investment-grade quality (Baa3/BBB-/BBB- or above) using Moody's, S&P, and Fitch, respectively, with maturities of at least one year. **Bloomberg Barclays Emerging Market Bond Index** is an unmanaged index that tracks total returns for external-currency-denominated debt instruments of the emerging markets. **Bloomberg Barclays Euro Aggregate Bond Index** is a broad-based flagship benchmark that measures the investment grade, euro-denominated, fixed rate bond market, including treasuries, government-related, corporate and securitized issues. **Bloomberg Barclays Long U.S. Government Credit Index** includes all publicly issued U.S. government and corporate securities that have a remaining maturity of 10 or more years, are rated investment grade, and have \$250 million or more of outstanding face value. **Bloomberg Barclays Municipal Bond Index** is a market value-weighted index of investment-grade municipal bonds with maturities of one year or more. **Bloomberg Barclays U.S. Agency Bond Index** is a market value-weighted index of U.S. Agency government and investment-grade corporate fixed-rate debt issues. **Bloomberg Barclays U.S. Aggregate Bond** is a broad-based, market-value-weighted benchmark that measures the performance of the investment-grade, U.S. dollar-denominated, fixed-rate taxable bond market. **Bloomberg Barclays U.S. Corporate High Yield Bond Index** is a market value-weighted index that covers the universe of dollar-denominated, fixed-rate, non-investment grade debt. **Bloomberg Barclays U.S. Credit Bond Index** is a market value-weighted index of investment-grade corporate fixed-rate debt issues with maturities of one year or more. **Bloomberg Barclays U.S. Government Index** is a market value-weighted index of U.S. Government fixed-rate debt issues with maturities of one year or more. **Bloomberg Barclays Global Aggregate ex-USD Index Unhedged** is a measure of global investment grade debt from 24 local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

**Bloomberg Barclays U.S. MBS Index** is a market value-weighted index of fixed-rate securities that represent interests in pools of mortgage loans, including balloon mortgages, with original terms of 15 and 30 years that are issued by the Government National Mortgage Association (GNMA), the Federal National Mortgage Association (FNMA), and the Federal Home Loan Mortgage Corp. (FHLMC).

**Bloomberg Barclays U.S. Treasury Inflation-Protected Securities (TIPS) Index (Series-L)** is a market value-weighted index that measures the performance of inflation-protected securities issued by the U.S. Treasury. **Bloomberg Barclays U.S. Treasury Bond Index** is a market value-weighted index of public obligations of the U.S. Treasury with maturities of one year or more. **Bloomberg Commodity Index** measures the performance of the commodities market. It consists of exchange-traded futures contracts on physical commodities that are weighted to account for the economic significance and market liquidity of each commodity.

**Dow Jones U.S. Select Real Estate Securities Index** is a float-adjusted, market capitalization-weighted index of publicly traded real estate securities, such as real estate investment trusts (REITs) and real estate operating companies (REOCs).

**FTSE 100 Index** is a market capitalization-weighted index of the 100 most highly capitalized blue chip companies listed on the London Stock Exchange. **FTSE National Association of Real Estate Investment Trusts (NAREIT) All REITs Index** is a market capitalization-weighted index that is designed to measure the performance of all tax-qualified REITs listed on the NYSE, the American Stock Exchange, or the NASDAQ National Market List. **FTSE NAREIT Equity REIT Index** is an unmanaged market value-weighted index based on the last closing price of the month for tax-qualified REITs listed on the New York Stock Exchange (NYSE).

**The IA SBBI U.S. Small Cap Stock Index** is a custom index designed to measure the performance of small capitalization U.S. stocks. **IA SBBI U.S. Intermediate-Term Government Bond Index** is an unweighted index that measures the performance of five-year maturity U.S. Treasury bonds. Each year, a one-bond portfolio containing the shortest non-callable bond having a maturity of not less than five years is constructed. **IA SBBI U.S. Long-Term Corporate Bond Index** is a custom index designed to measure the performance of long-term U.S. corporate bonds. **IA SBBI U.S. 30-Day Treasury Bill Index** is an unweighted index that measures the performance of 30-day maturity U.S. Treasury bills. **JPM® EMBI Global Index**, and its country sub-indices, total returns for the U.S. dollar-denominated debt instruments issued by Emerging Market sovereign and quasi-sovereign entities, such as Brady bonds, loans, and Eurobonds. **JPM® EMBI Global Investment Grade Index**, and its country sub-indices, tracks total returns for traded external debt instruments issued by emerging-market sovereign and quasi-sovereign entities rated investment grade.

## Appendix: Important Information

### Market Indices (continued)

**MSCI® All Country (AC) Europe Index** is a market capitalization-weighted index that is designed to measure the equity market performance of Europe; it consists of the following developed and emerging-market country indices: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, Switzerland, Turkey, and United Kingdom. **MSCI All Country World Index (ACWI)** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors of developed and emerging markets. **MSCI Europe Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors of the developed markets in Europe. **MSCI Europe Financials Index (Total Return)** captures large- and mid-cap representations of financial securities across 15 developed-market countries in Europe, represented by the MSCI Europe Index. **MSCI Japan Financials Index (Total Return)** captures large- and mid-cap representations of financial securities across Japan, represented by the MSCI Japan Index, an index designed to measure the performance of the large- and mid-cap segments of the Japanese equity market. With 318 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan. **MSCI North America Index** is a market capitalization-weighted index designed to measure the performance of large- and mid-cap segments of the U.S. and Canada markets. **MSCI Pacific ex Japan Index** is a market capitalization-weighted index that is designed to measure the equity market performance of four of the five developed market countries in the Pacific region including Australia, Hong Kong, New Zealand and Singapore. **MSCI World Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors of developed markets. **MSCI World ex USA Index** is a market capitalization-weighted index designed to measure the equity market performance of developed markets excluding the U.S.

**MSCI Emerging Markets (EM) Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors in emerging markets. **MSCI EM Asia Index** is a market capitalization-weighted index designed to measure equity market performance in Asia. **MSCI EM Europe, Middle East, and Africa (EMEA) Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors in the emerging-market countries of Europe, the Middle East, and Africa. **MSCI EM Latin America Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors in the emerging-market countries of Latin America. **MSCI EM Large Cap Index** is composed of those securities in the MSCI EM Index that are defined as large-capitalization stocks.

**MSCI Europe, Australasia, Far East Index (EAFE)** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors in developed markets, excluding the U.S. and Canada. **MSCI EAFE Small Cap Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance of small-cap stocks for global investors in developed markets, excluding the U.S. and Canada.

**MSCI Canada Index** is a market capitalization-weighted index designed to measure equity market performance in Canada. **MSCI Japan Index** is a market capitalization-weighted index designed to measure equity market performance in Japan. **MSCI USA Index** is a market capitalization-weighted index designed to measure the equity market performance of the U.S.

**MSCI REIT Preferred Index** is a preferred stock market capitalization-weighted total return index of certain exchange-traded perpetual preferred securities issued by U.S. Equity and U.S. Hybrid REITs.

**Russell 2000® Index** is a market capitalization-weighted index designed to measure the performance of the small-cap segment of the U.S. equity market. It includes approximately 2,000 of the smallest securities in the Russell 3000 Index. **Russell 3000® Index** is a market capitalization-weighted index designed to measure the performance of the 3,000 largest companies in the U.S. equity market. **Russell 3000 Growth Index** is a market capitalization-weighted index designed to measure the performance of the broad growth segment of the U.S. equity market. It includes those Russell 3000 Index companies with higher price-to-book ratios and higher forecasted growth rates. **Russell 3000 Value Index** is a market capitalization-weighted index designed to measure the performance of the small to mid-cap value segment of the U.S. equity market. It includes those Russell 3000 Index companies with lower price-to-book ratios and lower forecasted growth rates. **Russell Midcap® Index** is a market capitalization-weighted index designed to measure the performance of the mid-cap segment of the U.S. equity market. It contains approximately 800 of the smallest securities in the Russell 1000 Index.

The **S&P 500® Index** is a market capitalization-weighted index of 500 common stocks chosen for market size, liquidity, and industry group representation to represent U.S. equity performance. S&P 500 is a registered service mark of The McGraw-Hill Companies, Inc., and has been licensed for use by Fidelity Distributors Corporation and its affiliates. The **S&P 500 Total Return Index** represents the price changes and reinvested dividends of the S&P 500® Index. The **S&P SmallCap 600** is a market capitalization-weighted index of 600 small-capitalization stocks. The **S&P GSCI® Commodities Index** provides investors with a reliable and publicly available benchmark for investment performance in the commodity markets.

## Appendix: Important Information

### Market Indices (continued)

The **Sectors and Industries** defined by Global Industry Classification Standards (GICS®), except where noted otherwise. **S&P 500 sectors** are defined as follows: Consumer Discretionary – companies that tend to be the most sensitive to economic cycles. Consumer Staples – companies whose businesses are less sensitive to economic cycles. Energy – companies whose businesses are dominated by either of the following activities: the construction or provision of oil rigs, drilling equipment, and other energy-related services and equipment, including seismic data collection; or the exploration, production, marketing, refining, and/or transportation of oil and gas products, coal, and consumable fuels. Financials – companies involved in activities such as banking, consumer finance, investment banking and brokerage, asset management, insurance and investments, and real estate, including REITs. Health Care – companies in two main industry groups: health care equipment suppliers, manufacturers, and providers of health care services; and companies involved in research, development, production, and marketing of pharmaceuticals and biotechnology products. Industrials – companies whose businesses manufacture and distribute capital goods, provide commercial services and supplies, or provide transportation services. Information Technology – companies in technology software and services and technology hardware and equipment. Materials – companies that are engaged in a wide range of commodity-related manufacturing. Telecommunication Services – companies that provide communications services primarily through fixed-line, cellular, wireless, high bandwidth, and/or fiber-optic cable networks. Utilities – companies considered electric, gas, or water utilities, or companies that operate as independent producers and/or distributors of power.

**Standard & Poor's/Loan Syndications and Trading Association (S&P/LSTA) Leveraged Performing Loan Index** is a market value-weighted index designed to represent the performance of U.S. dollar-denominated institutional leveraged performing loan portfolios (excluding loans in payment default) using current market weightings, spreads and interest payments.

### Other Indices

The **Consumer Price Index (CPI)** is a monthly inflation indicator that measures the change in the cost of a fixed basket of products and services, including housing, electricity, food, and transportation.

**KOF Index of Globalization** measures the economic, social, and political dimensions of globalization and is calculated referring to actual economic flows, economic restrictions, data on information flows, data on personal contact, and data on cultural proximity.

The **London Bullion Market Association (LBMA)** publishes the international benchmark price of gold in USD, twice daily. The **LBMA Gold price auction** takes place by ICE Benchmark Administration (IBA) at 10:30 and 15:00 with the price set in U.S. dollars per fine troy ounce.

The **Philadelphia Gold and Silver Index** is a market-capitalization index of precious metal mining company stocks.

A **Purchasing Managers' Index (PMI)** is a survey of purchasing managers in a certain economic sector. A PMI over 50 represents expansion of the sector compared to the previous month, while a reading under 50 represents a contraction, and a reading of 50 indicates no change. The Institute for Supply Management® reports the U.S. manufacturing PMI®. Markit compiles non-U.S. PMIs.

**S&P Global BMI Gold Capped Index** is a modified market capitalization-weighted index of stocks designed to measure the performance of companies that produce gold and related products, including companies that mine or process gold and the South African finance houses that primarily invest in, but do not operate, gold mines.

### Definitions

**Correlation coefficient** measures the interdependencies of two random variables that range in value from -1 to +1, indicating perfect negative correlation at -1, absence of correlation at 0, and perfect positive correlation at +1.

The **Price-to-Earnings (P/E) ratio** is the ratio of a company's current share price to its current earnings, typically trailing 12-months earnings per share. A Forward P/E calculation will typically use an average of analysts' published estimates of earnings for the next 12 months in the denominator.

**Excess return:** the amount by which a portfolio's performance exceeds its benchmark, net (in the case of the analysis in this article) or gross of operating expenses, in percentage points.

## Appendix: Important Information

### Definitions (continued)

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## J.P. Morgan Asset Management - Index definitions

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All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

*Equities:*

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The **MSCI ACWI (All Country World Index)** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

The **MSCI EAFE Index (Europe, Australasia, Far East)** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The **MSCI Europe Index** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The **MSCI Pacific Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The **Russell 1000 Index®** measures the performance of the 1,000 largest companies in the Russell 3000.

The **Russell 1000 Growth Index®** measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 1000 Value Index®** measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 2000 Index®** measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The **Russell 2000 Growth Index®** measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 2000 Value Index®** measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 3000 Index®** measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell Midcap Index®** measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index®** measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index.

The **Russell Midcap Value Index®** measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value Index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

*Fixed income:*

The **Barclays 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Barclays Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBS high yield securities.

The **Barclays Municipal Index** consists of a broad selection of investment-grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Barclays US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Barclays US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

The **Barclays US High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

The **Barclays US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The **Barclays US TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index (EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified)** is an expansion of the J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI). The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.

## J.P. Morgan Asset Management - Index definitions &amp; disclosures

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*Other asset classes:*

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc.

The **Cambridge Associates U.S. Global Buyout and Growth Index®** is based on data compiled from 1,768 global (U.S. & ex - U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US\$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index - Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

*Definitions:*

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

**Bonds** are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

**Distressed Restructuring Strategies** employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

The price of **equity securities** may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

**Equity market neutral strategies** employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

**Global macro strategies** trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

**International investing** involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

**Merger arbitrage strategies** which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

**Mid-capitalization investing** typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. Price to book value compares a stock's market value to its book value. Price to cash flow is a measure of the market's expectations of a firm's future financial health. Price to dividends is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

**Real estate investments** may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

**Relative Value Strategies** maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

**Small-capitalization investing** typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.

## J.P. Morgan Asset Management – Risks &amp; disclosures

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The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.

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Unless otherwise stated, all data are as of December 31, 2016 or most recently available.

Guide to the Markets – U.S.

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## Glossary of terms

### Index definitions

**Bloomberg Barclays Global Aggregate Ex-USD Index** is a broad-based measure of global Investment Grade fixed-rate debt investments, excluding USD-denominated debt

**Bloomberg Barclays High Yield Municipal Bond Index** is an unmanaged index of non-Investment Grade Municipal bonds traded in the U.S.

**Bloomberg Barclays Municipal Bond Index** is an unmanaged index of Municipal bonds traded in the U.S.

**Bloomberg Barclays Taxable Municipal Bond Index** is an unmanaged index of Taxable Municipal bonds traded in the U.S.

**Bloomberg Barclays U.S. Agency Index** measures agency securities issued by U.S. government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. government

**Bloomberg Barclays U.S. Aggregate Index** is an unmanaged index of domestic investment-grade bonds, including corporate, government and mortgage-backed securities

**Bloomberg Barclays U.S. Asset Backed Securities (ABS) Index** measures ABS with the following collateral type: credit and charge card, auto, and utility loans

**Bloomberg Barclays U.S. CMBS Index** measures the market of conduit and fusion CMBS deals with a minimum current deal size of \$300mn

**Bloomberg Barclays U.S. Corporate Investment Grade Index** is an unmanaged index that measures the performance of investment-grade corporate securities within the Barclays U.S. Aggregate Index

**Bloomberg Barclays U.S. Mortgage Backed Securities (MBS) Index** measures agency mortgage-backed pass-through securities issued by GNMA, FNMA, and FHLMC

**Bloomberg Barclays U.S. Treasury Index** measures public debt

instruments issued by the U.S. Treasury

**BofA Merrill Lynch US Inflation-Linked Treasury Index** tracks the performance of USD denominated inflation linked sovereign debt publicly issued by the US government

**BofA Merrill Lynch Fixed Rate Preferred Securities Index** is an unmanaged index of fixed-rate, preferred securities issued in the U.S.

**BofA Merrill Lynch UK Gilts Index** tracks the performance of GBP denominated sovereign debt publicly issued by the UK government in its domestic market.

**BofA Merrill Lynch European Union Government Bond Index** tracks the performance of sovereign debt publicly issued by countries that are members of the European Union

**BofA Merrill Lynch U.S. High Yield Index** is an unmanaged index of below-investment grade U.S. corporate bonds.

**Bloomberg Commodity Index** is a broadly diversified index tracking futures contracts on physical commodities

**CBOE Volatility Index (VIX)** tracks the implied volatilities of a wide range of S&P 500 Index options

**CBOE S&P 500 BuyWrite Index** measures the performance of a hypothetical buy-write strategy on the S&P 500 Index

**FTSE 100 Index** is an unmanaged market-capitalization weighted index representing the performance of the 100 largest UK listed blue chip companies, which pass screening for size and liquidity

**FTSE All Small Index** consists of all the companies in the FTSE SmallCap and FTSE Fledgling indices

**JPMorgan Corporate Emerging Markets Bond Index (CEMBI)**

**Broad Diversified** is an unmanaged index of USD-denominated emerging market corporate bonds.

**JPMorgan Emerging Markets Bond Index (EMBI) Global Diversified** is an unmanaged index of USD-denominated bonds

with maturities of more than one year issued by emerging markets governments.

**JPMorgan Government Bond Index-Emerging Markets (GBI-EM) Global Diversified** is an unmanaged index of local-currency bonds with maturities of more than one year issued by emerging market governments

**Morgan Stanley Capital International (MSCI) Emerging Markets Index** is an unmanaged index of emerging markets common stocks

**Morgan Stanley Capital International All Country Asia Pacific Index (MSCI AC Asia Pac)** is an unmanaged total return, capitalization-weighted index that measures the performance of stock markets in 15 Pacific region countries, including Australia, China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, New Zealand, Pakistan, the Philippines, Singapore, Sri Lanka, Taiwan and Thailand

**Morgan Stanley Capital International (MSCI) Japan Index** is an unmanaged index designed to measure the performance of the large and mid cap segments of the Japan market

**Morgan Stanley Capital International (MSCI) World Index** is an unmanaged index of equity securities in the developed markets

**Morgan Stanley Capital International All Country World (MSCI AC World) Index** is an unmanaged free float-adjusted market-capitalization-weighted index designed to measure the equity market performance of developed and emerging markets

**Morgan Stanley Capital International Europe (MSCI Europe) Index** is an unmanaged free float-adjusted

market-capitalization-weighted index designed to measure the equity market performance of the developed markets in Europe

Unless otherwise stated, index returns do not reflect the effect of any applicable sales charges, commissions, expenses, taxes or leverage, as applicable. It is not possible to invest directly in an index. Data provided is for informational use only. Past performance is no guarantee of future results. See end of report for important additional information.



## Glossary of terms and about risk

### Index definitions (cont.)

**Morgan Stanley Capital International Europe, Australasia, Far East (MSCI EAFE) Index** is an unmanaged index of equities in the developed markets, excluding the U.S. and Canada  
**Nikkei 225 Stock Average Index** is unmanaged price-weighted index of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange

**Russell 1000 Index** is an unmanaged index of 1,000 U.S. large-cap stocks

**Russell 1000 Growth Index** is an unmanaged index of 1,000 U.S. large-cap growth stocks

**Russell 1000 Value Index** is an unmanaged index of 1,000 U.S. large-cap value stocks

**Russell 2000 Index** is an unmanaged index of 2,000 U.S. small-cap stocks

**Russell 2500 Index** is an unmanaged index of approximately 2,500 U.S. small- and mid-cap U.S. stocks

**Russell Midcap Index** is an unmanaged index of U.S. mid-cap stocks

**Standard & Poor's 500 Index** is an unmanaged

index of large-cap stocks commonly used as a measure of U.S. stock market performance

**S&P/LSTA Leveraged Loan Index** is an unmanaged index of the institutional leveraged loan market

**STOXX Europe 600 Index** is a fixed component number index designed to provide a broad yet liquid representation of large, mid and small capitalization companies in Europe

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### Terms

**Municipal-to-Treasury Yield Ratios** are relative value indicators that measure the richness or cheapness of Municipal bond yields to comparable maturity Treasury bond yields.

**Yield to Worst** is a measure which reflects the lowest potential yield earned on a bond without the issuer defaulting. The yield to worst is

calculated by making worst-case scenario assumptions by calculating the returns that would be received if provisions, including prepayment, call or sinking fund, are used by the issuer.

### About risk

**Bank Loans** – There can be no assurance that the liquidation of collateral securing an investment will satisfy the issuer's obligation in the event of non-payment or that collateral can be readily liquidated. The ability to realize the benefits of any collateral may be delayed or limited.

**Commodities** – The value of commodities investments will generally be affected by overall market movements and factors specific to a particular industry or commodity including weather, embargoes, tariffs, or health, political, international and regulatory developments. **Credit** – Investments in income securities may be affected by changes in the creditworthiness of the issuer and are subject to the risk of non-payment of principal and interest. The value of income securities also may decline because of real or perceived concerns about the issuer's ability to make principal and interest payments.

**Duration** – Securities with longer durations tend to be more sensitive to interest rate changes than securities with shorter durations. **Equity** – Equity investment values are sensitive to stock market volatility. **Foreign** – Investments in foreign instruments or currencies can involve greater risk and volatility than U.S. investments because of adverse market, economic, political, regulatory, geopolitical, or other conditions. In emerging countries, these risks may be more significant. **Gov't Agency** – While certain U.S. Government-sponsored agencies may be chartered or sponsored by acts of Congress, their securities are neither issued nor guaranteed by the U.S. Treasury. **Income Market** – An imbalance in supply and demand in the income market may result in valuation uncertainties and greater volatility, less liquidity, widening credit spreads and a lack of price transparency in the market. There generally is limited public information about Municipal issuers. **Inflation-Linked** – Interest payments on inflation-linked securities may vary widely and will fluctuate as principal and interest are adjusted for inflation. Investments in inflation-linked securities may lose value in the event that the actual rate of inflation is different than the rate of the inflation index. **Interest Rate** – As interest rates rise, the value of certain income investments is likely to decline. **Lower-Rated** – Investments rated below Investment Grade (typically referred to as "junk") are generally subject to greater price volatility and illiquidity than higher rated investments. **Maturity** – Longer-term bonds typically are more sensitive to interest rate changes than shorter-term bonds. **Preferred Stocks** – When interest rates rise, the value of preferred stocks will generally decline. **Prepayment - MBS** – Mortgage-backed securities are subject to prepayment risk. **Prepayment - Bank Loan** – Bank Loans are subject to prepayment risk. **Real Estate** – Changes in real estate values or economic downturns can have a significant negative effect on issuers in the real estate industry, including REITs.

Unless otherwise stated, index returns do not reflect the effect of any applicable sales charges, commissions, expenses, taxes or leverage, as applicable. It is not possible to invest directly in an index. Data provided is for informational use only. Past performance is no guarantee of future results. See end of report for important additional information.

# Appendix

## Important Disclosures Continued

The views expressed in this material are the views of SPDR ETFs and SSGA Funds Research Team through the period ended as of As of December 30, 2016 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected.

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All the index performance results referred to are provided exclusively for comparison purposes only. It should not be assumed that they represent the performance of any particular investment.

**Bonds** generally present less short-term risk and volatility than stocks, but contain interest rate risk (as interest rates rise, bond prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

The values of **debt securities** may decrease as a result of many factors, including, by way of example, general market fluctuations; increases in interest rates; actual or perceived inability or unwillingness of issuers, guarantors or liquidity providers to make scheduled principal or interest payments; illiquidity in debt securities markets; and prepayments of principal, which often must be reinvested in obligations paying interest at lower rates.

**Equity securities** may fluctuate in value in response to the activities of individual companies and general market and economic conditions.

Investments in **small-sized companies** may involve greater risks than in those of larger, better known companies.

Investments in **mid-sized companies** may involve greater risks than in those of larger, better known companies, but may be less volatile than investments in smaller companies.

Companies with **large market capitalizations** go in and out of favor based on market and economic conditions. Larger companies tend to be less volatile than companies with smaller market capitalizations. In exchange for this potentially lower risk, the value of the security may not rise as much as companies with smaller market capitalizations.

**Value stocks** can perform differently from the market as a whole. They can remain undervalued by the market for long periods of time.

**Foreign investments** involve greater risks than US investments, including political and economic risks and the risk of currency fluctuations, all of which may be magnified in emerging markets.

Because of their narrow focus, **sector funds** tend to be more volatile.

**Commodities** investing entail significant risk as commodity prices can be extremely volatile due to wide range of factors Bond funds contain interest rate risk (as interest rates rise bond prices usually fall); the risk of issuer default; issuer credit risk; liquidity risk; and inflation risk.

**Asset Allocation** is a method of diversification which positions assets among major investment categories. Asset Allocation may be used in an effort to manage risk and enhance returns. It does not, however, guarantee a profit or protect against loss.

# Appendix

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