

NORTHERN TRUST WEALTH MANAGEMENT

# Economic and Market Environment:

## S / Low for Long

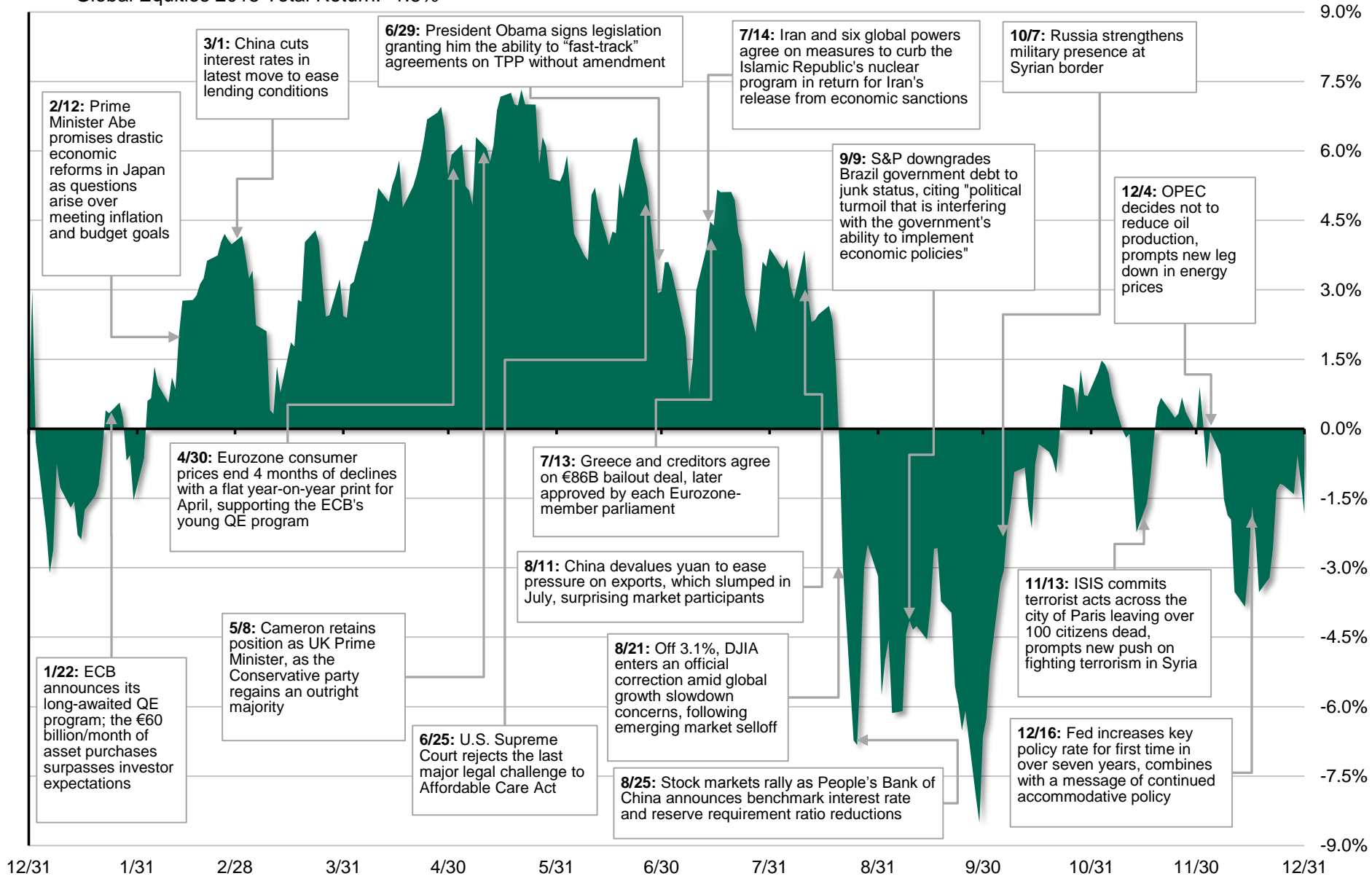
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**Katherine Ellis Nixon CFA CIMA CPWA**

Chief Investment Officer, Wealth Management

# 2015 TIMELINE:

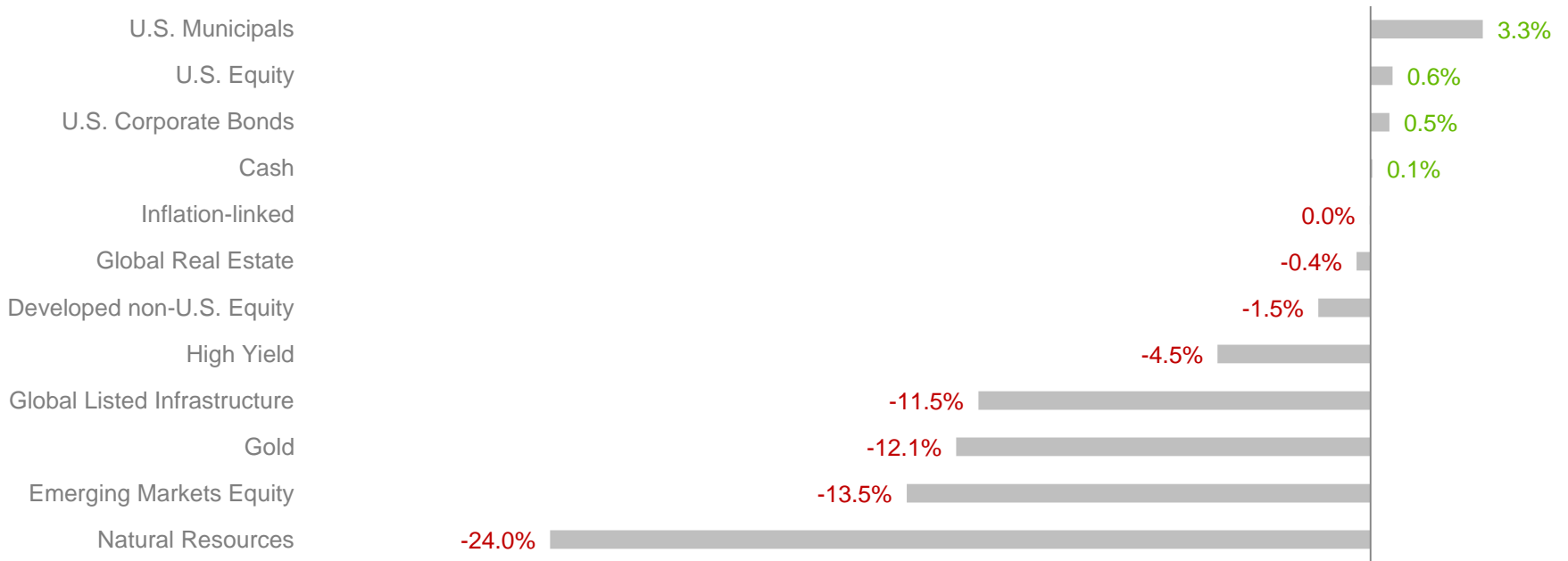
■ Global Equities 2015 Total Return: -1.8%



Source: Northern Trust. Global equities gross total returns in USD and proxied by the MSCI All Country World Index. Past performance is no guarantee of future results. Index performance returns do not reflect any management fees, transaction costs or expenses. It is not possible to invest directly in any index. There are risks involved in investing including possible loss of principal. There is no guarantee that the investment objectives of any fund or strategy will be met. Risk controls and models do not promise any level of performance or guarantee against loss of principal.

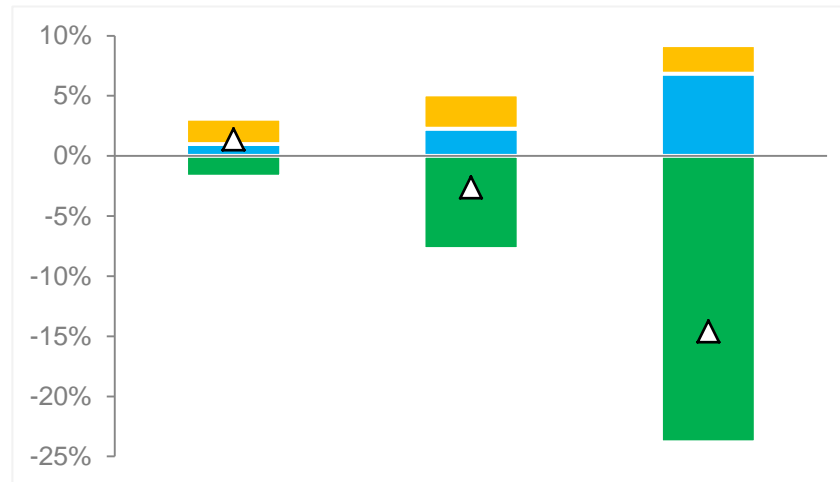
# NEGATIVE RETURNS ACROSS GLOBAL RISK ASSETS

## 2015 Index Returns



Source: Morningstar, Northern Trust Wealth Management. Barclays Muni Intermediate 5-10Yr TR, MSCI USA IMI GR USD, Barclays US Aggregate Bond TR USD, BofaML US Treasury Bill 3mo TR USD, FTSE/NAREIT Global TR USD, MSCI Ex US IMI GR USD, Barclays US Corp High Yield TR USD, S&P Global Infrastructure TR USD, LBMA Gold Price PM USD, MSCI EM IMI GR USD, Morningstar Global Upstream Nat. Res. TR USD indices were used to calculate returns by asset class for 2015.

# GLOBAL EARNINGS HEADWINDS



## 2015 Global Equity Return Attribution

	U.S.	World Ex-U.S.	Emerging Markets
• Earnings	-1.7%	-7.7%	-23.8%
• Multiple	1.0%	2.3%	6.9%
• Dividends (reinvested)	2.1%	2.8%	2.4%
$\Delta$ Total Return (incl. Currency)	1.4%	-2.6%	-14.6%
Gain/Loss from FX	0.0%	-7.1%	-9.2%

Source: Bloomberg, Northern Trust. MSCI U.S. Equity Index for U.S. attribution, MSCI World Ex-U.S. Index for World Ex-U.S. attribution, and MSCI Emerging Markets Index for Emerging Market return attribution. Gain/Loss from FX calculated as difference between MSCI Total Return Index [USD] and MSCI Total Return Index [Local].

Earnings contribution is calculated as the difference between actual and expected earning growth as a percent. Multiple contribution is calculated as the difference between actual and expected growth in price-to-earnings ratio as a percent. Dividends are assumed to be reinvested in the index.



# Key Global Market Conditions

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# 2016 KEY AREAS OF CONCERN

*The Four “C”s*

***Commodities***

***Credit***

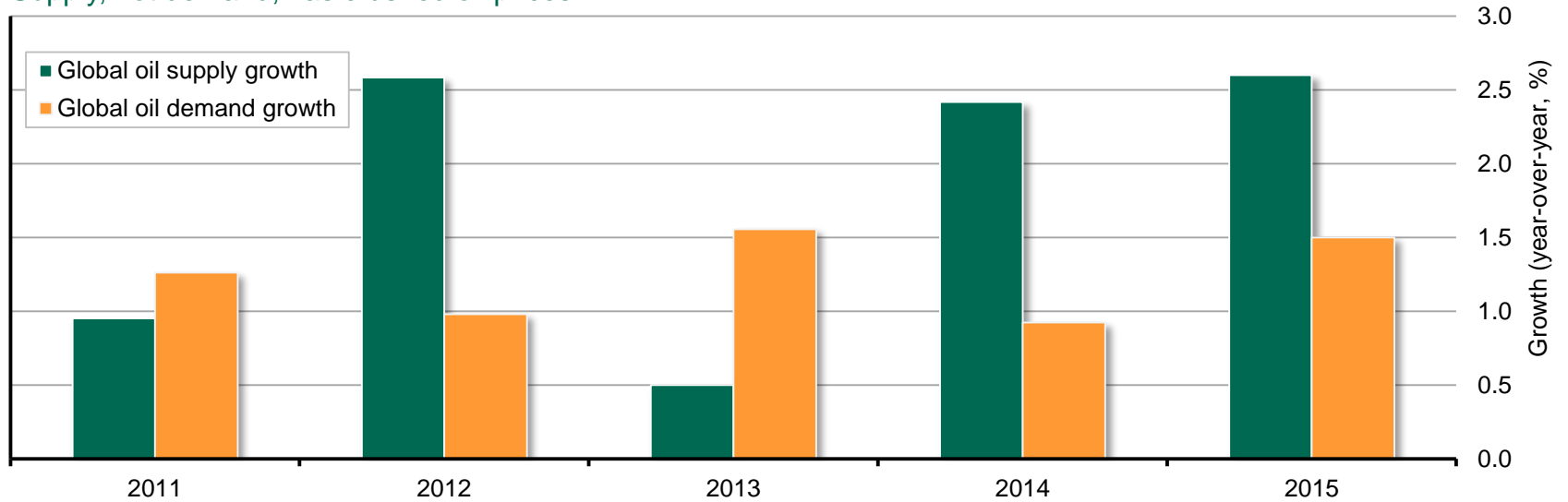
***China***

***The Conundrum***

# SUPPLY / DEMAND IMBALANCE

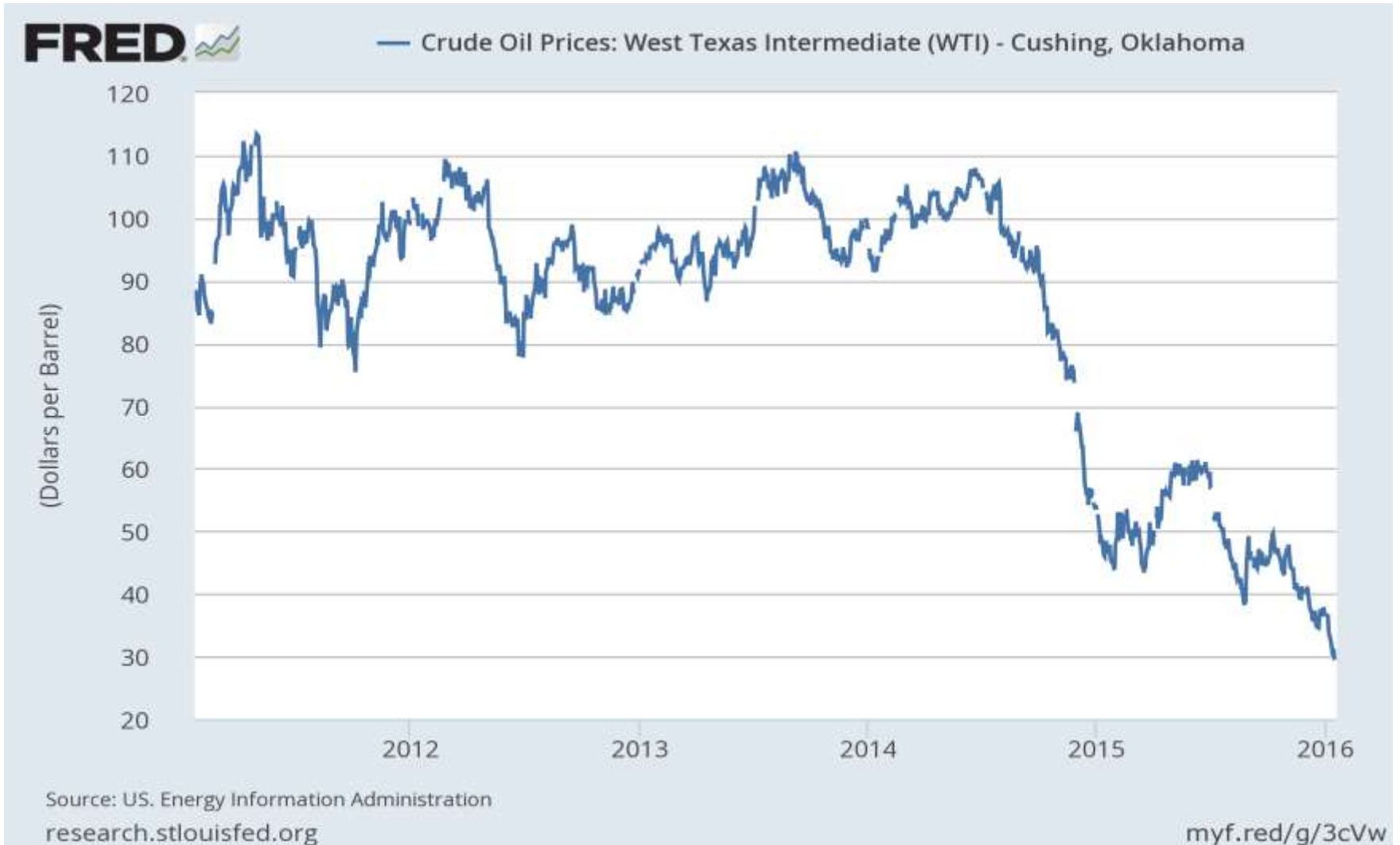
## AWASH IN OIL

Supply, not demand, has crushed oil prices.



Source: Northern Trust, BP, Energy Information Administration.

# OVER-REACTION?





# ENERGY DIVIDEND IN THE BANK



# CREDIT STRESS

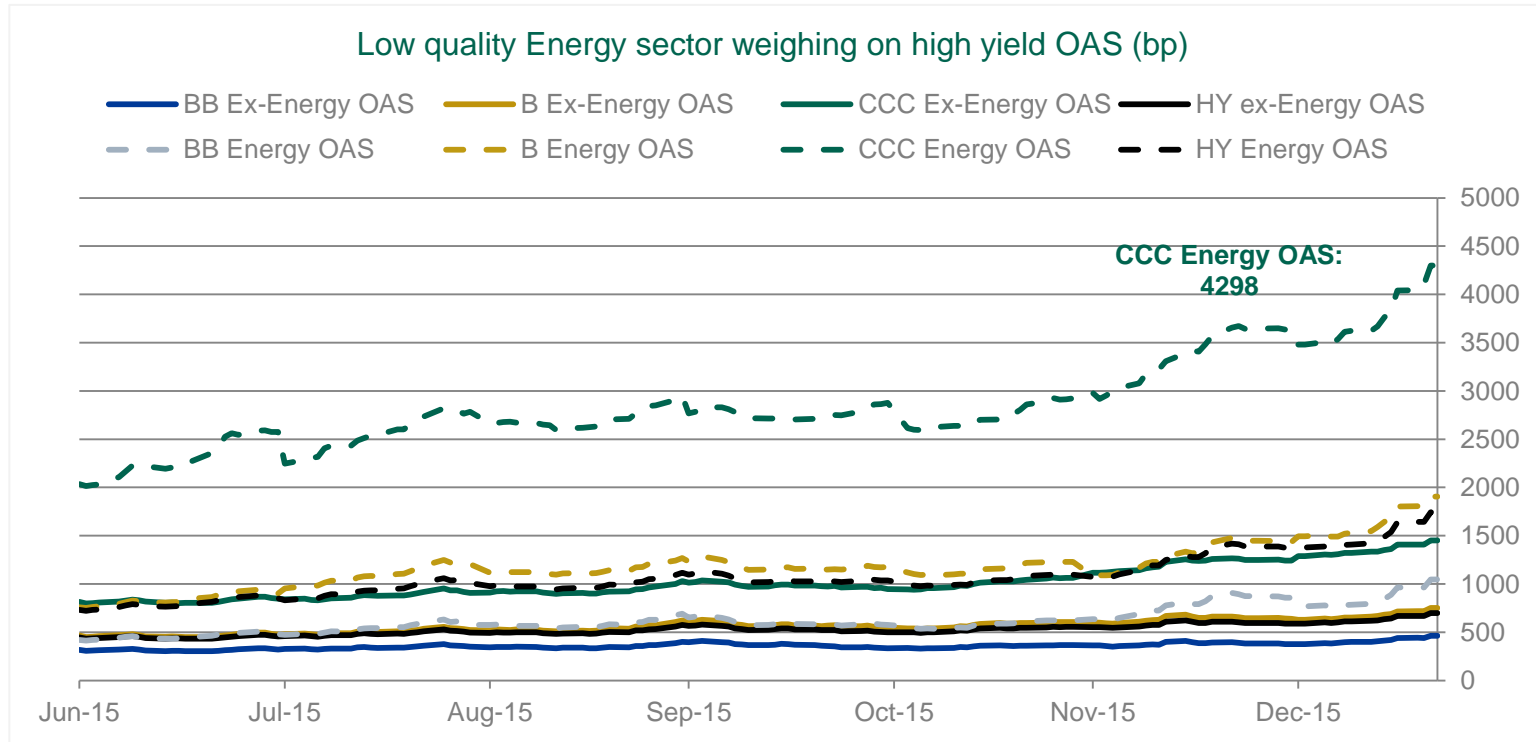
*Current levels usually coincide with a recession...*



Source: Bloomberg. US Corporate High Yield OAS Index. Monthly data 1994-2015

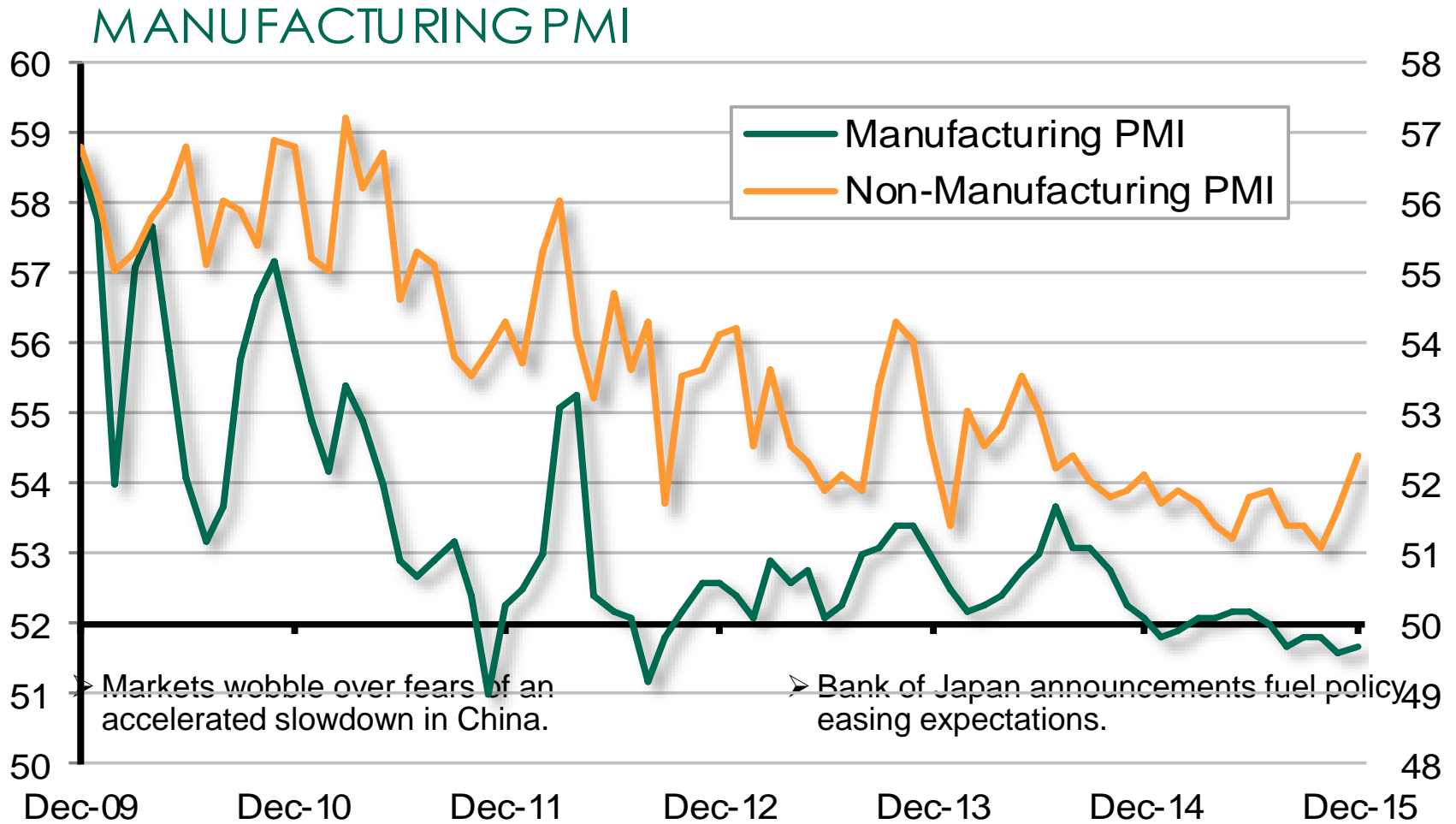
# HIGH YIELD CREDIT SPREADS

*...but stress is largely limited to low quality issuers in the Energy sector*



Source: Bloomberg, US Corporate High Yield OAS Index. Monthly data 1994-2015

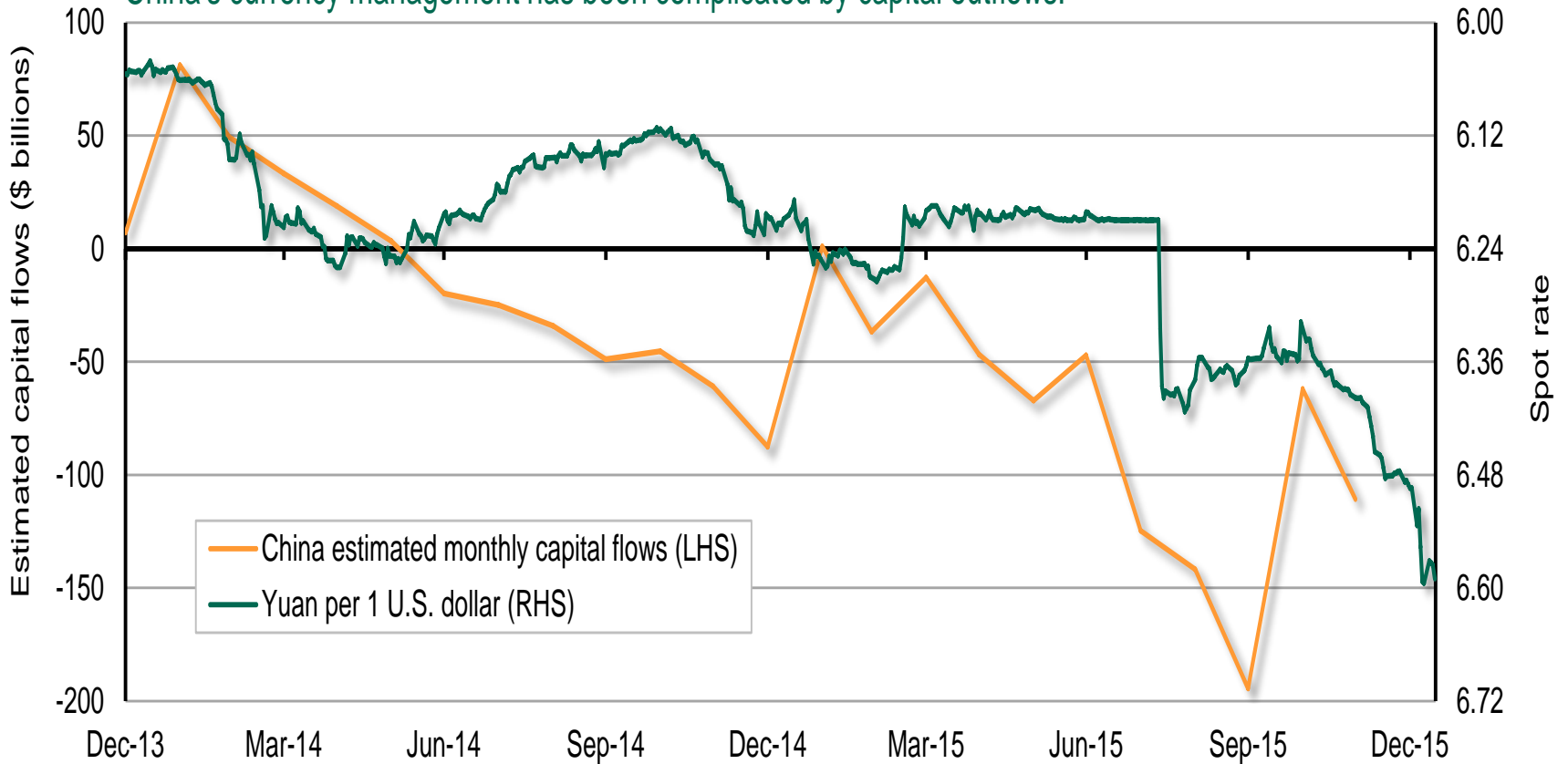
# TRANSITION FROM EXPORTS TO CONSUMPTION-LED GROWTH



# CAPITAL FLIGHT STOKING FEARS

## CAPITAL OUTFLOWS

China's currency management has been complicated by capital outflows.

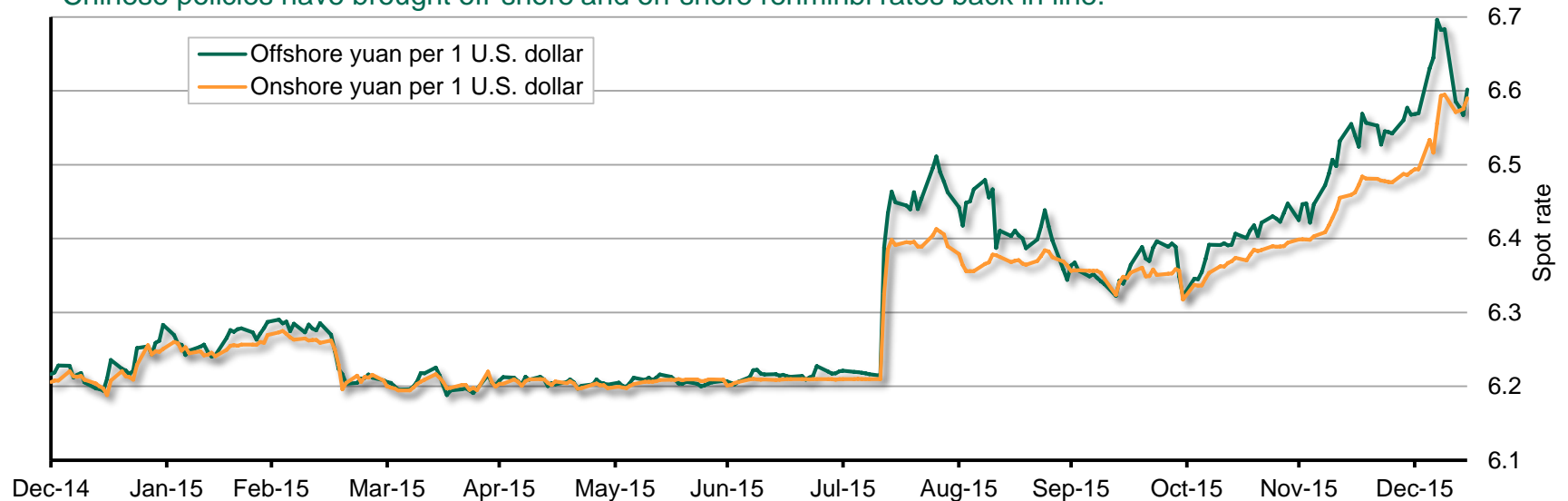


Source: Northern Trust, Bloomberg; FX data through 1/14/2016, capital flow data through 11/30/2015.

# WHAT IS A HARD LANDING?

## MANAGEMENT TEST

Chinese policies have brought off-shore and on-shore renminbi rates back in line.



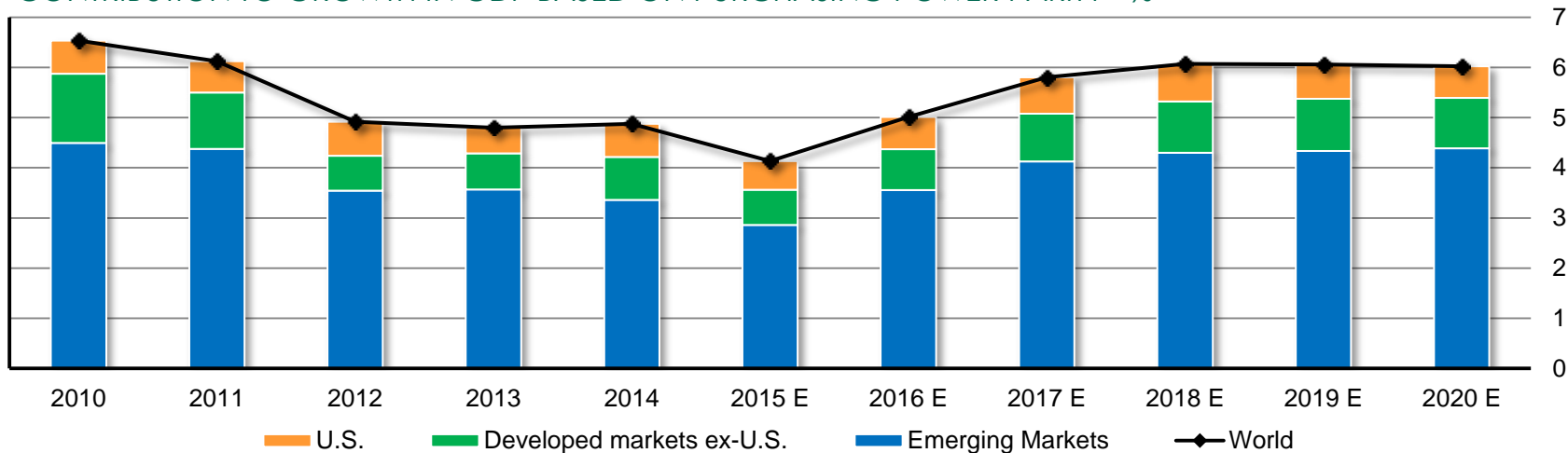
Source: Northern Trust, Bloomberg; data through 1/14/2016.

➤ The volatility in China's currency has been manageable so far.

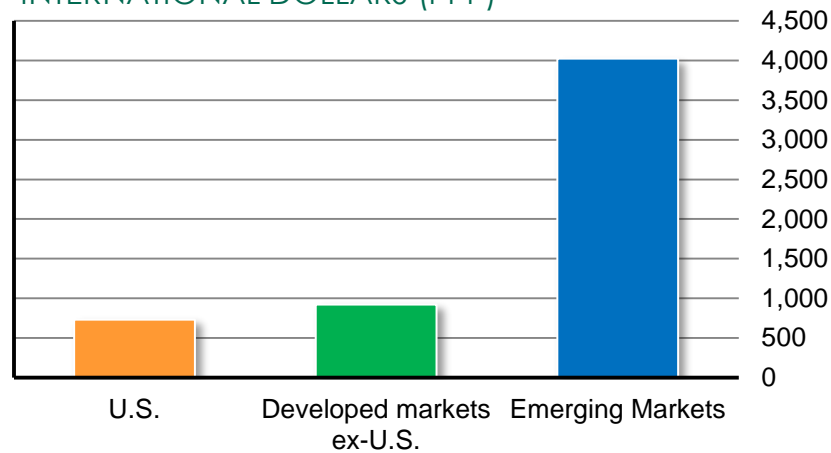
➤ An uncontrolled devaluation of China's currency would signal much greater economic stress.

# EMERGING MARKETS MATTER

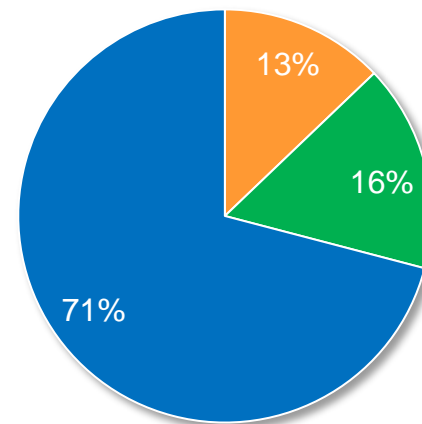
CONTRIBUTION TO GROWTH IN GDP BASED ON PURCHASING POWER PARITY - %



2016 EST. GROWTH - BILLIONS OF INTERNATIONAL DOLLARS (PPP)



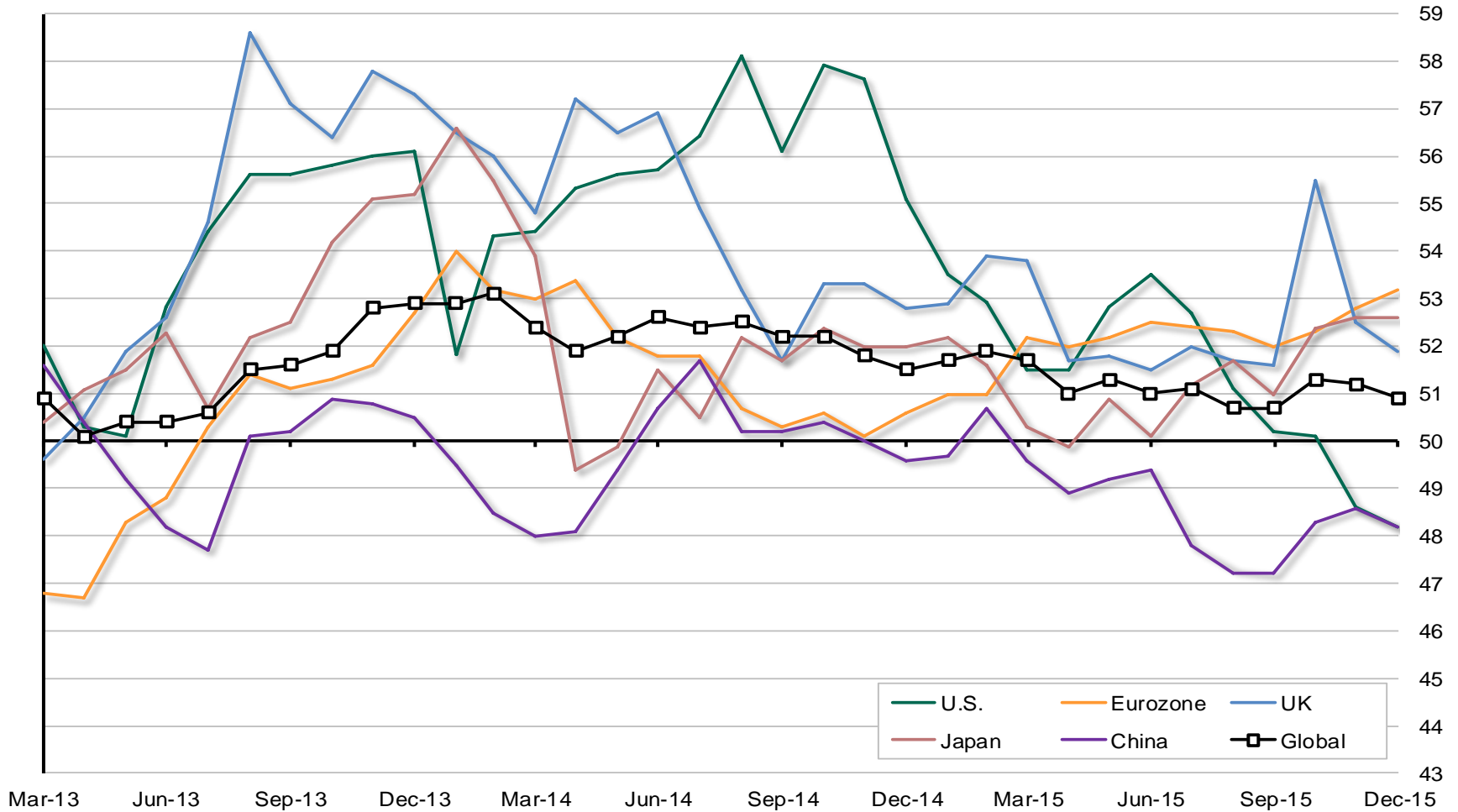
BREAKDOWN OF 2016 EST. GROWTH



Sources: Northern Trust, IMF World Economic Outlook (October 2015 database), Bloomberg.

# SLOW BUT STEADY GLOBAL GROWTH

## SELECT REGION MANUFACTURING PMI SURVEYS - INDEX LEVEL

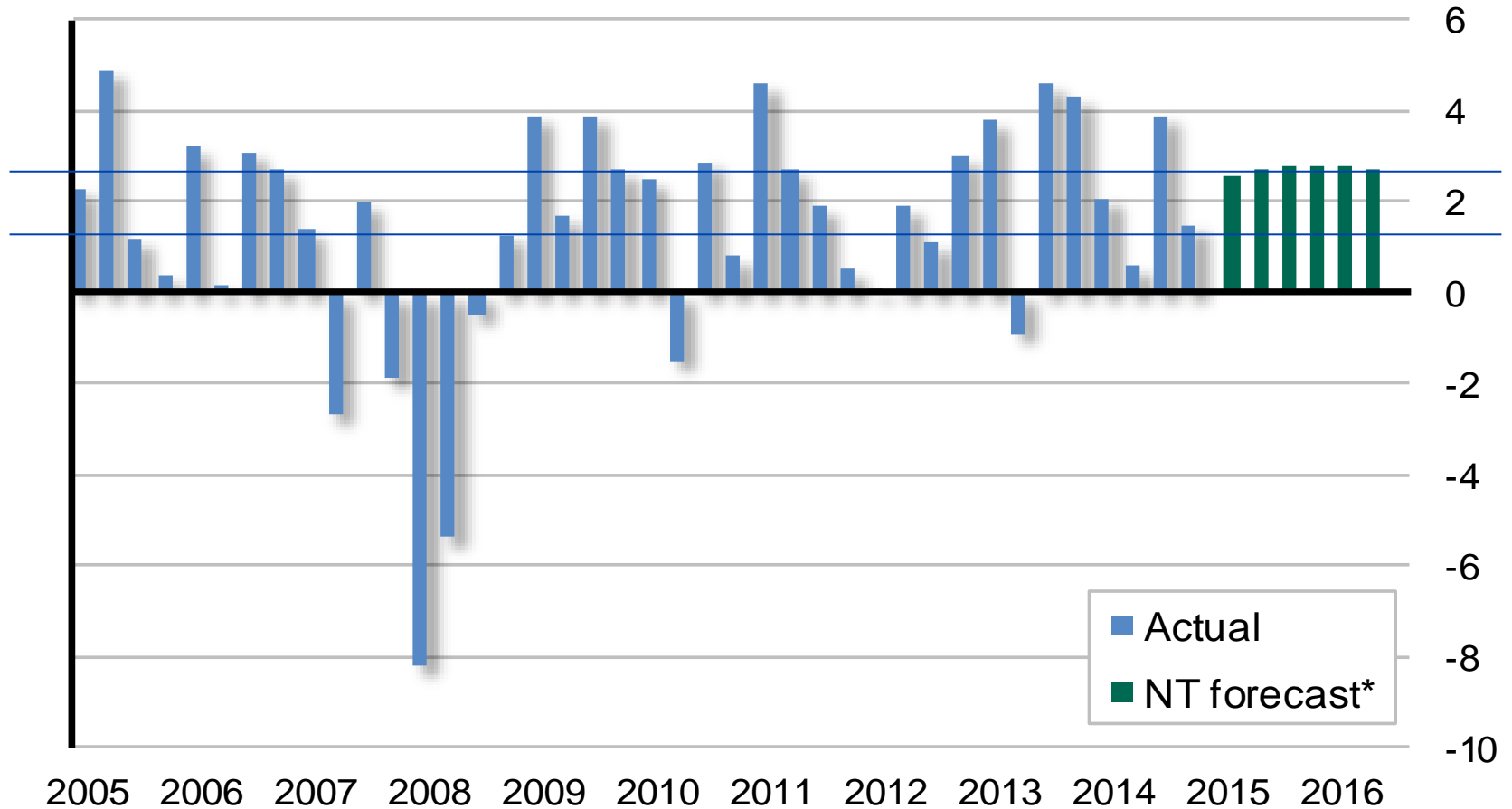


Source: Northern Trust, Bloomberg. PMI = Purchasing Managers' Index. Expansion: above 50; contraction: below 50. Monthly data through 12/31/2015. Preliminary 'flash' readings shown for current period, where available.



# US: STUCK IN GROWTH CHANNEL

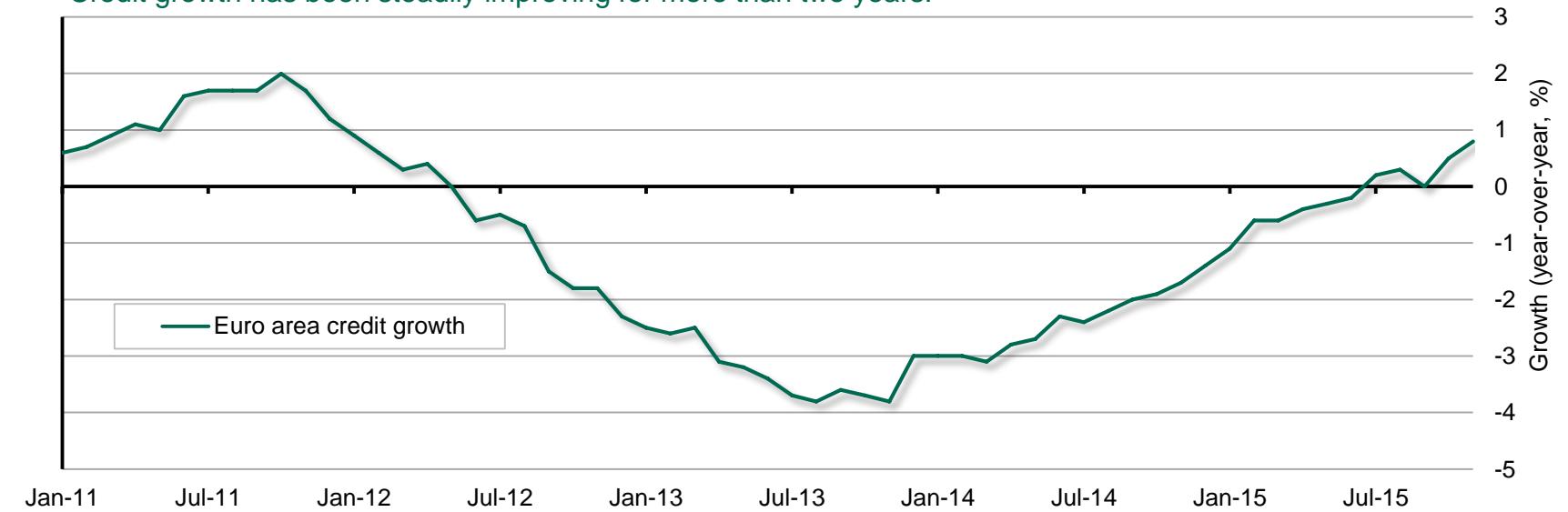
## REAL GDP - QOQ % CHANGE, SAAR



# EU: GREEN SHOOTS OFF LOW BASE

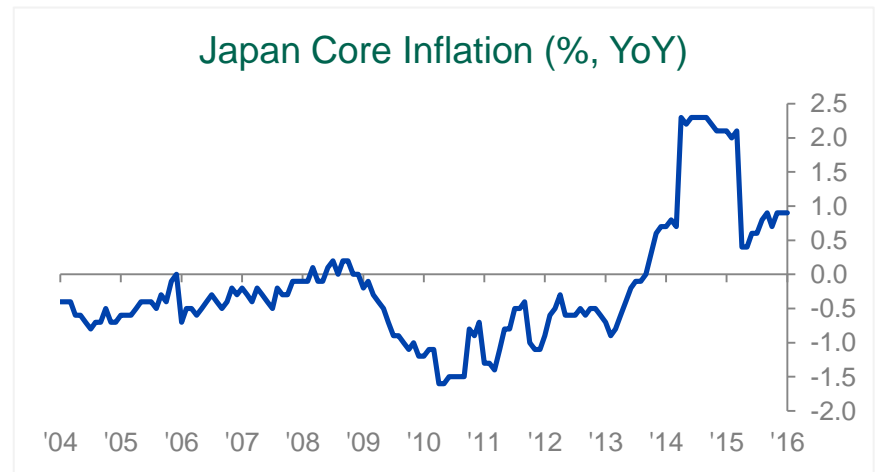
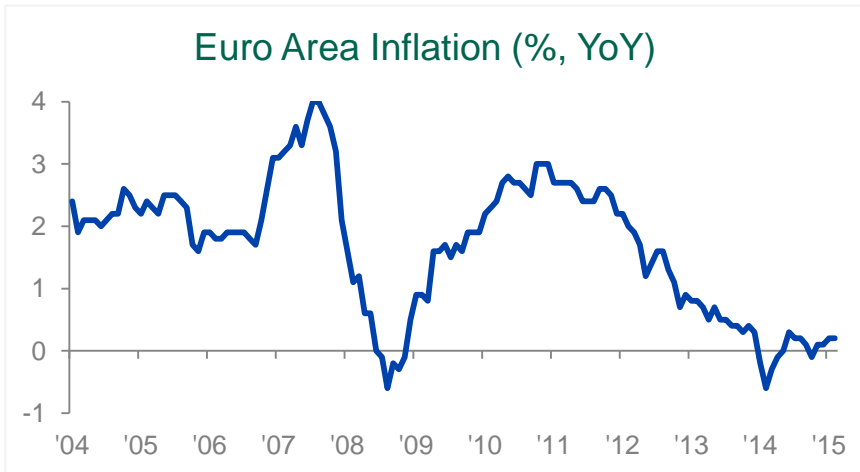
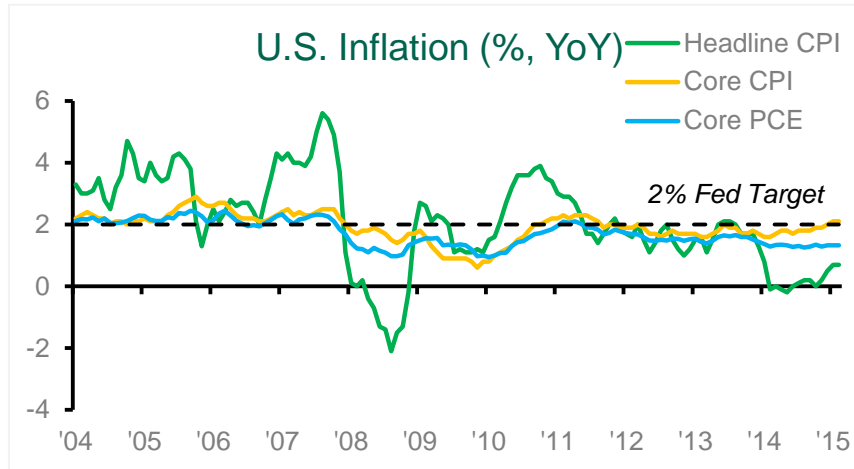
## EUROPE GETS CREDIT

Credit growth has been steadily improving for more than two years.



Source: Northern Trust, Bloomberg, ECB; data through 11/30/2015.

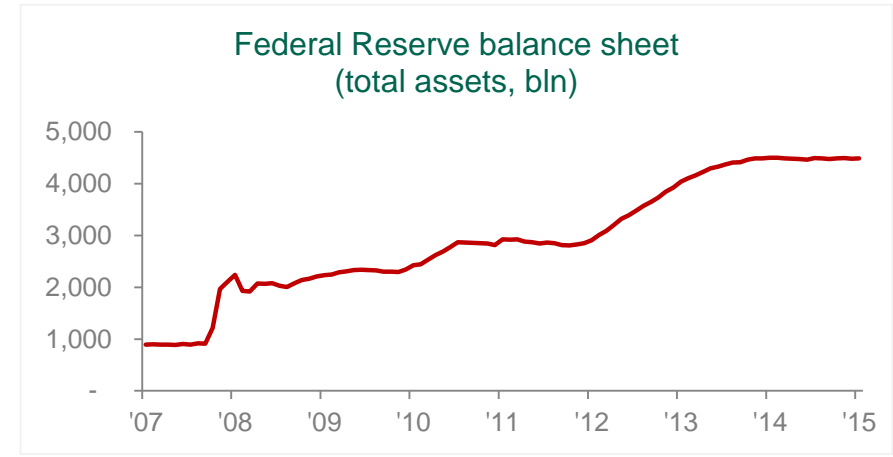
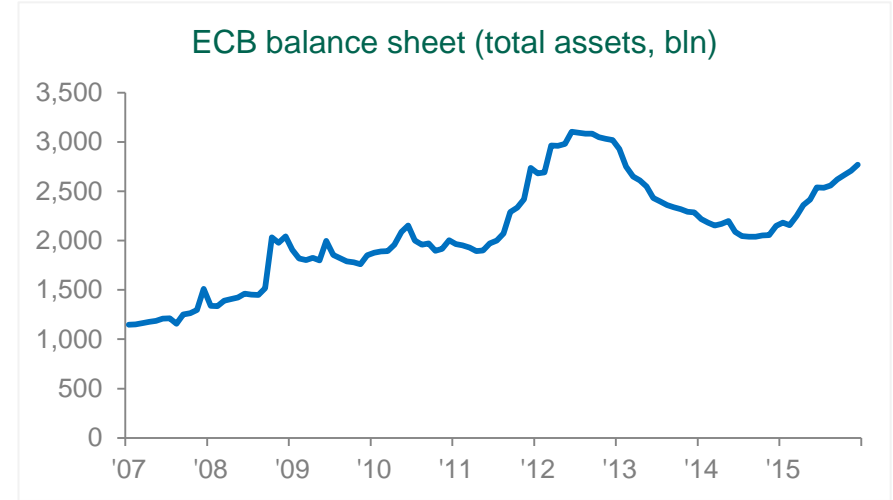
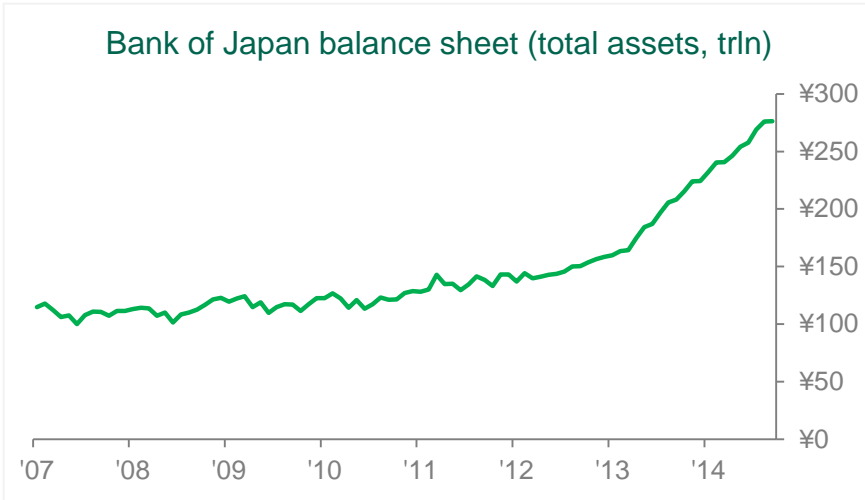
# GLOBAL DISINFLATIONARY PRESSURES



Source: Bloomberg, ECB, Federal Reserve. Data through January 2016.

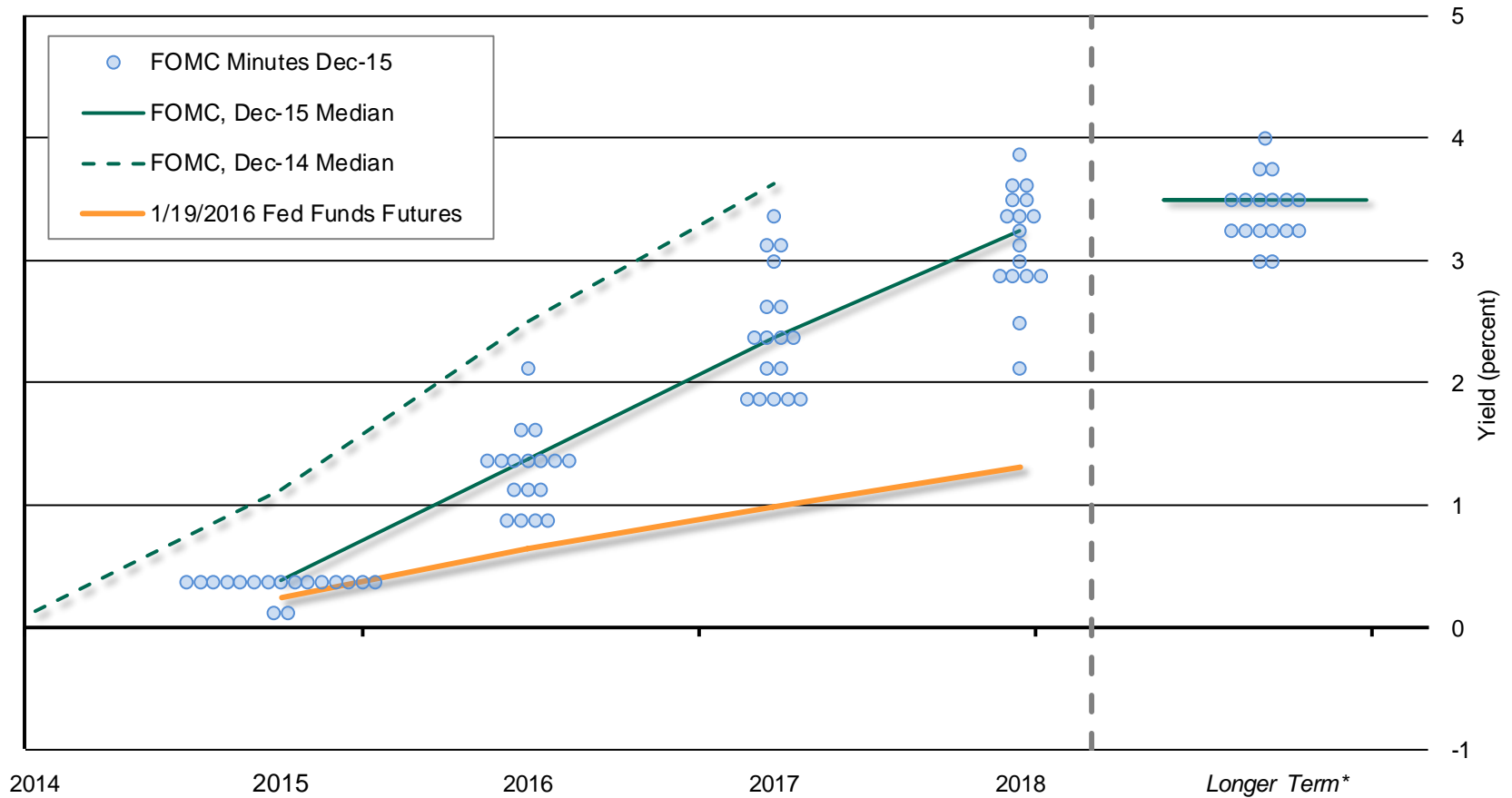
# GLOBAL CENTRAL BANKS REMAIN ACCOMMODATIVE

*Fed reinvesting assets, ECB and BoJ buying assets, and China lowers rates/supports Renminbi*



# MARKET FIGHTING THE FED

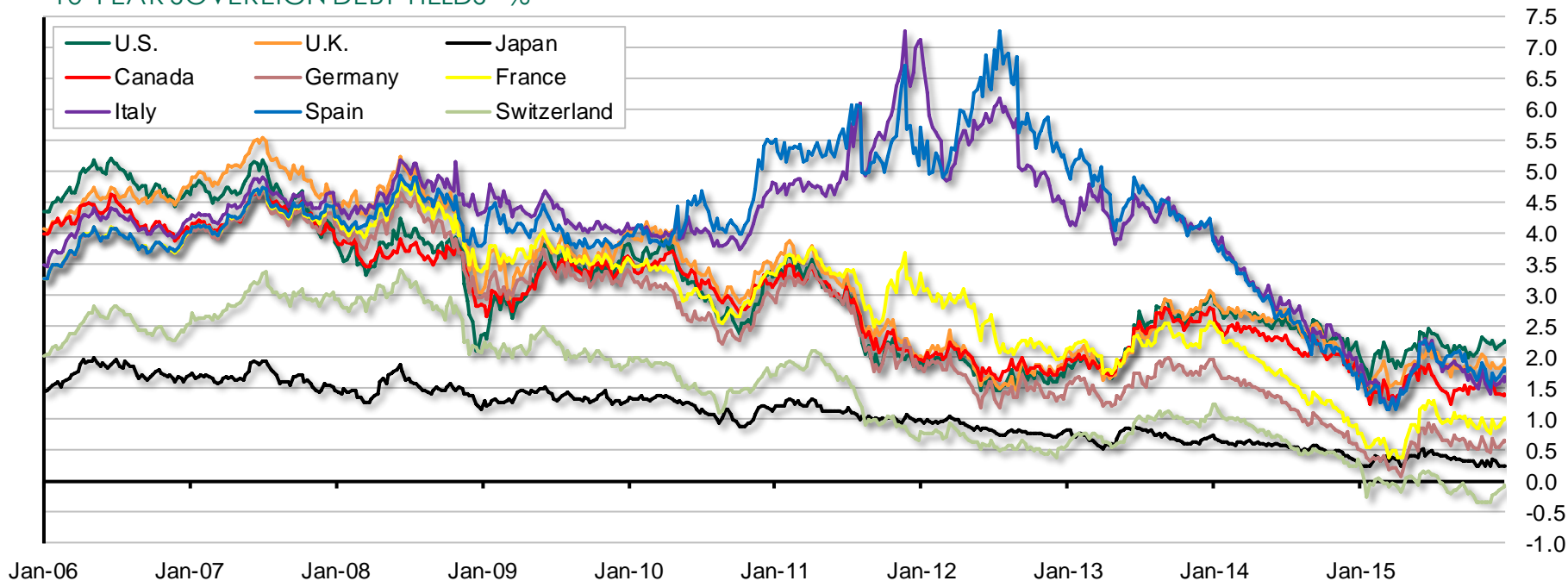
## FED VS. MARKET EXPECTATIONS



Source: Northern Trust, Bloomberg, Federal Open Market Committee (FOMC) Summary of Economic Projections. Most recent FOMC projections as of the 12/16/15 committee meeting. \*Longer term represents FOMC expectations for where the rate is expected to converge over time. Fed funds futures data as of 1/19/2016. Past performance is no guarantee of future results.

# GRAVITY IS A POWERFUL FORCE

## 10-YEAR SOVEREIGN DEBT YIELDS - %



10-YEAR SOVEREIGNS	CURRENT* YIELD	12/31/14 YIELD	YTD CHANGE (BPS)	CURRENT SPREAD TO U.S. (BPS)	1YR FORWARD YIELD	5YR FORWARD YIELD
United States	2.27	2.17	10	-	2.50	2.88
United Kingdom	1.96	1.76	20	-31	2.20	2.76
Japan	0.27	0.33	-6	-200	0.37	0.94
Canada	1.39	1.79	-39	-88	1.57	2.35
Germany	0.63	0.54	9	-164	0.78	1.43
France	0.99	0.83	16	-128	1.19	2.03
Italy	1.60	1.89	-29	-67	1.85	2.74
Spain	1.77	1.61	16	-50	2.07	3.20
Switzerland	-0.06	0.32	-38	-233	0.05	0.58

Source: Northern Trust, Bloomberg. Weekly data through 1/1/2016 (\*current).

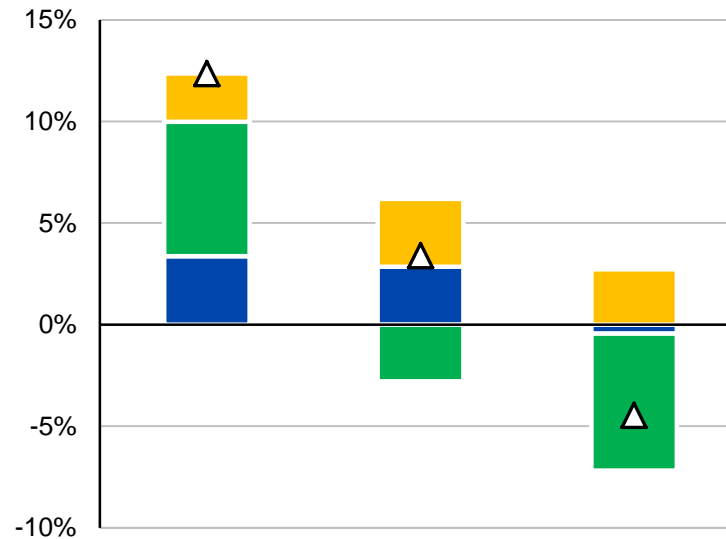
# What Does This Mean for Investors?

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# SOURCES OF RETURN SINCE THE GLOBAL FINANCIAL CRISIS

Annualized returns 2010-2015

Sources of Total Return (annualized)



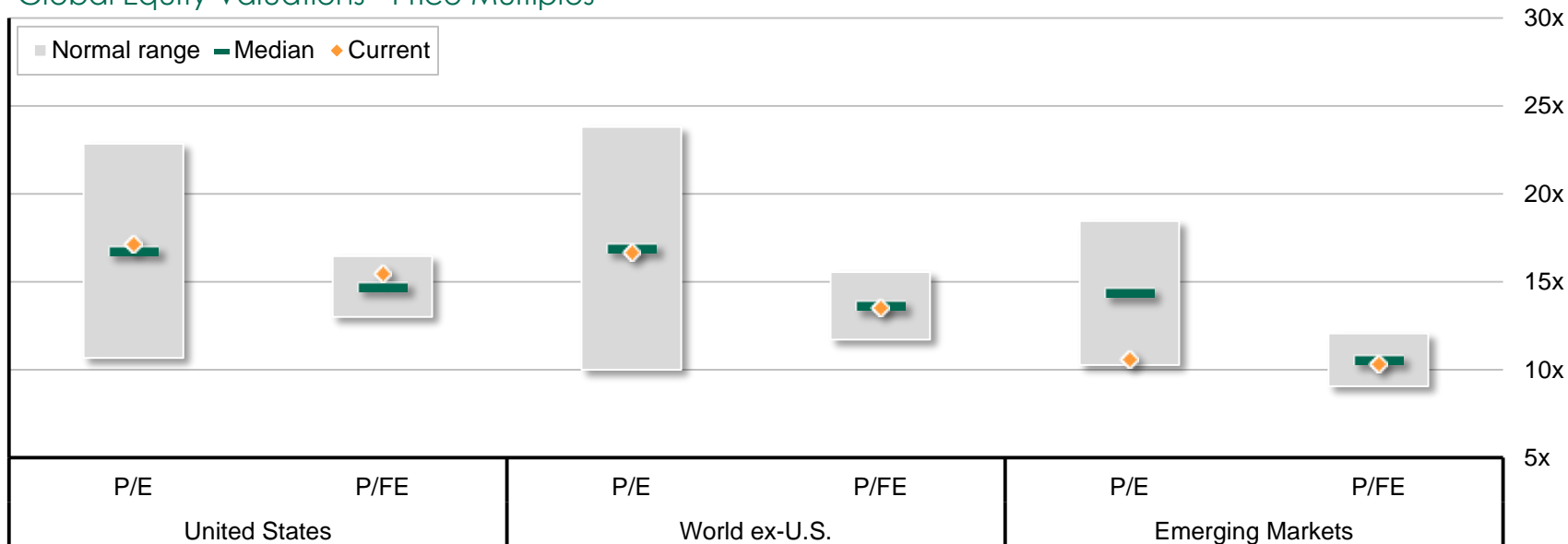
	U.S.	World Ex-U.S.	Emerging Markets
• Earnings	6.6%	-2.8%	-6.8%
• Multiple	3.4%	2.8%	-0.4%
• Dividends	2.4%	3.3%	2.7%
Δ Total Return	12.4%	3.4%	-4.5%

Source: Bloomberg, Northern Trust. MSCI U.S. Equity Index for U.S. attribution, MSCI World Ex-U.S. Index for World Ex-U.S. attribution, and MSCI Emerging Markets Index for Emerging Market return attribution. Gain/Loss from FX calculated as difference between MSCI Total Return Index [USD] and MSCI Total Return Index [Local]. Earnings contribution is calculated as the difference between actual and expected earning growth as a percent. Multiple contribution is calculated as the difference between actual and expected growth in price-to-earnings ratio as a percent. Dividends are assumed to be reinvested in the index.



# GLOBAL EQUITIES VALUATION SUMMARY

## Global Equity Valuations - Price Multiples



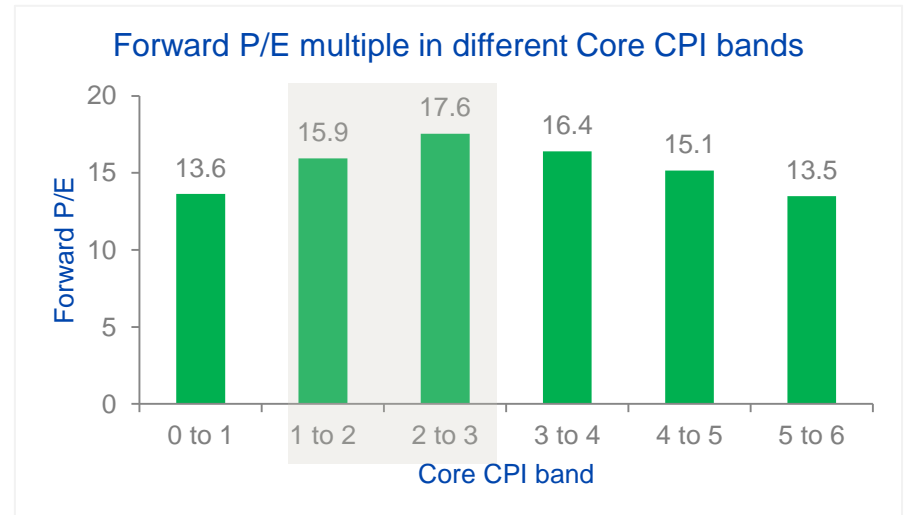
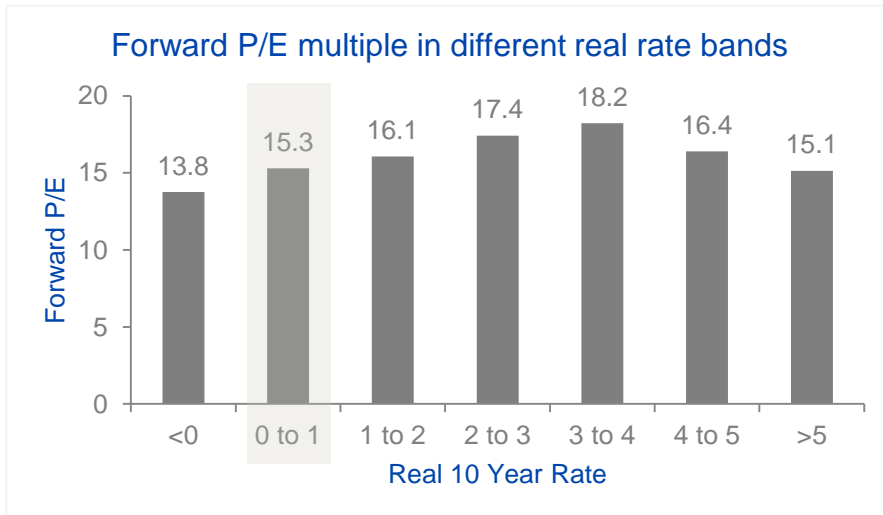
REGION	P/E		P/FE		P/B		P/CF		DIVIDEND YIELD	
	Current	LT Median	Current	LT Median	Current	LT Median	Current	LT Median	Current	LT Median
<b>U.S.</b>	17.1	16.8	15.5	14.7	2.5	2.2	9.9	9.5	2.4%	2.9%
<b>World ex-U.S.</b>	16.7	16.9	13.6	13.6	1.4	1.8	7.0	8.1	3.8%	2.9%
<i>Europe</i>	20.4	14.2	13.7	12.6	1.4	1.7	7.1	6.9	4.1%	3.6%
<i>Japan</i>	13.5	22.2	12.5	15.1	1.1	1.9	7.0	8.5	2.4%	1.2%
<b>EM</b>	10.6	14.4	10.3	10.6	1.2	1.7	5.8	8.3	3.4%	2.4%

Source: Northern Trust, MSCI. Monthly data through 12/31/2015. Indices are MSCI US, MSCI World Ex-US, and MSCI Emerging Markets: US and World ex-US data begin in 1970, EM data begins in 1995. Normal Range: +/- 1 standard deviation from the median. L-T: long-term. As of 1/21/2016.



# U.S. FORWARD P/E MULTIPLE AND INFLATION

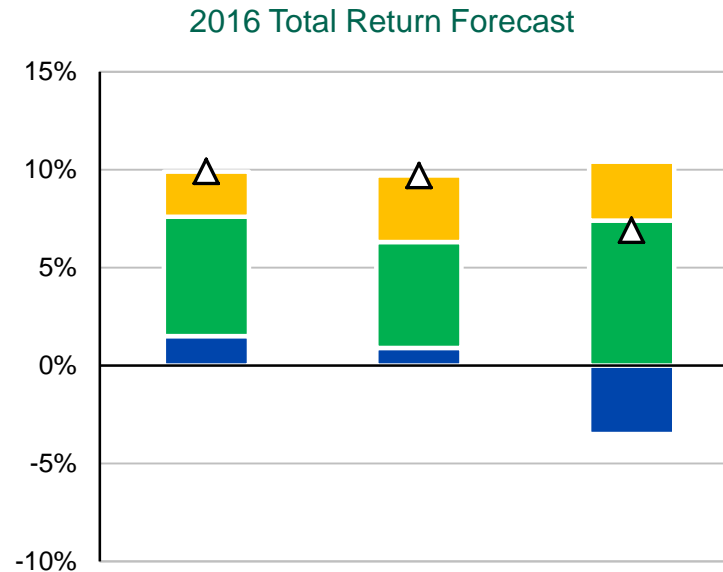
*Low level of inflation consistent with P/E multiple*



Source: Bloomberg, US. Bureau of Labor Statistics, *Consumer Price Index for All Urban Consumers: All Items Less Food and Energy*

# GLOBAL EQUITY RETURN FORECAST

Forecast sources of return in 2016

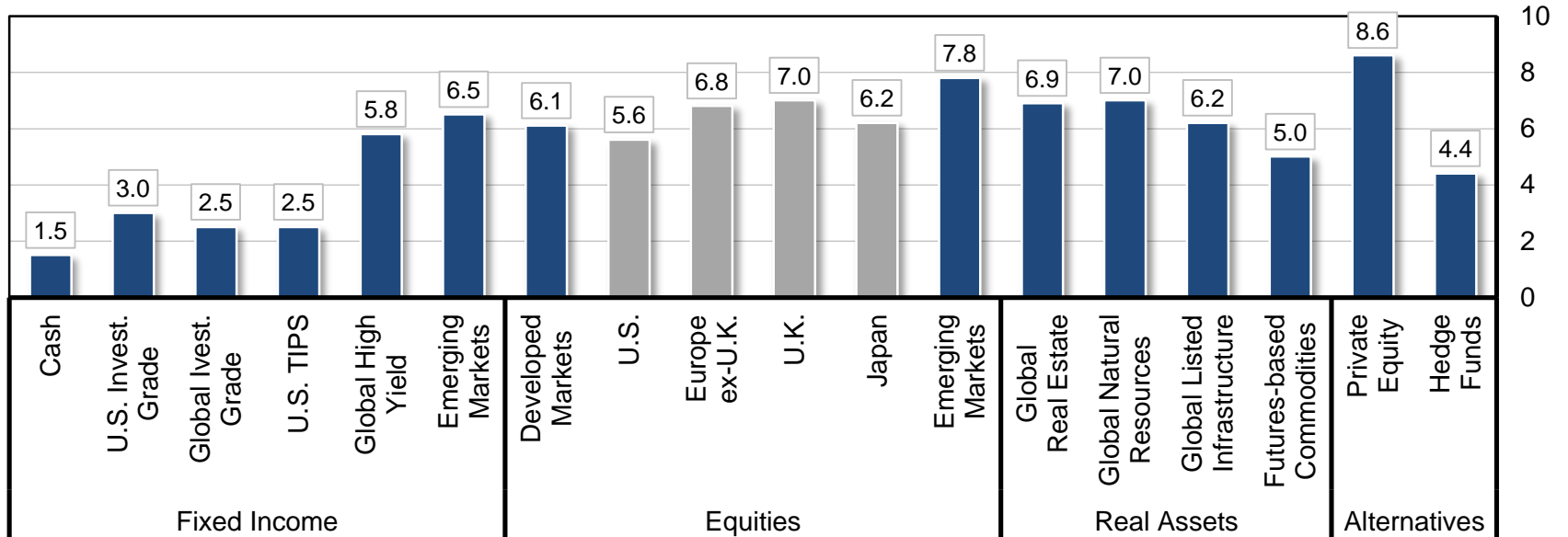


	U.S.	World Ex-U.S.	Emerging Markets
• Earnings	6.1%	5.4%	7.4%
• Multiple	1.5%	0.9%	-3.5%
• Dividends	2.3%	3.4%	3.0%
Δ Total Return	9.9%	9.7%	6.9%

Source: Bloomberg, Northern Trust. MSCI U.S. Equity Index for U.S. attribution, MSCI World Ex-U.S. Index for World Ex-U.S. attribution, and MSCI Emerging Markets Index for Emerging Market return attribution. Index return forecasts provided by Northern Trust Research.

# ASSET CLASS RETURN FORECASTS

Five year asset class total return forecasts - %



Source: Northern Trust Capital Market Assumptions

# HISTORICAL & EXPECTED RETURNS BY ASSET CLASS

## Strategic Risk Assets

Asset Class	5 Year CMA Expected Return	Last 3 Years	Last 10 Years
US Equity	5.6%	14.7%	7.6%
Dev. ex-US Equity	6.9%	4.9%	3.6%
Emerging Markets	7.8%	-5.8%	4.3%
High Yield	5.8%	1.5%	7.3%
Nat. Resources	7.0%	-11.1%	3.2%
Global Real Estate	6.9%	5.3%	5.2%
Global Infrastructure	6.2%	4.8%	6.0%

Sources: Northern Trust Research and Morningstar. 5-year expected return is from Northern Trust Investment Policy Committee's 2015 capital market assumptions. Last 3 and 10 year returns are through 12/31/15. Asset classes are defined by the following indices: US Equity – MSCI USA IMI, Developed Ex-US Equity - MSCI World ex USA IMI, Emerging Markets – MSCI Emerging Markets IMI, , High Yield – Barclays Global High Yield, Natural Resources – Morningstar Global Upstream Natural Resources, Global Real Estate – FTSE EPRA/NAREIT, Global Infrastructure – S&P Global Infrastructure.



# RISK CASE SCENARIOS

## What could cause a change in our views?

### **China hard landing:**

Our primary risk case focuses directly on the Chinese government's ability to navigate the current slowdown and implement policy tools appropriately to orchestrate a smooth (and not heavy-handed) transition. Recent stimulus efforts are supportive but continued market intervention is concerning.

### **Financial market dislocations from dollar strength:**

We are mindful of potential market dislocations resulting from the continued strength of the world's reserve currency (e.g., dollar-denominated emerging market debt).

### **Flubbed Fed liftoff:**

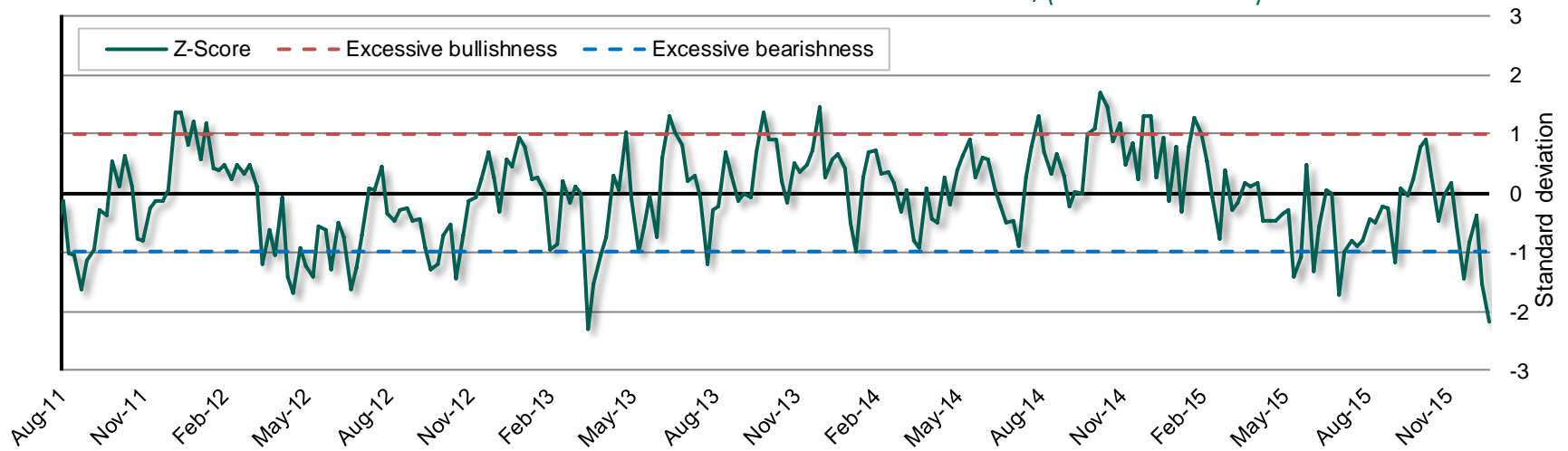
Optimally, the Fed would combine a rate hike in December with a clear message of monetary policy accommodation; the complexity of this message, lack of clear FOMC leadership and potential politicization of the Fed may prevent that.

# Volatility Will Remain Elevated: Struggling to Stay the Course

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# EMOTIONS GET THE BEST OF INVESTORS

AMERICAN ASSC. OF INDIVIDUAL INVESTORS SENTIMENT SURVEY - BULLS/(BULLS + BEARS)



Source: Northern Trust, Bloomberg. VIX & volume: Daily data through 1/15/2016. Survey: Weekly data through 1/14/2016.

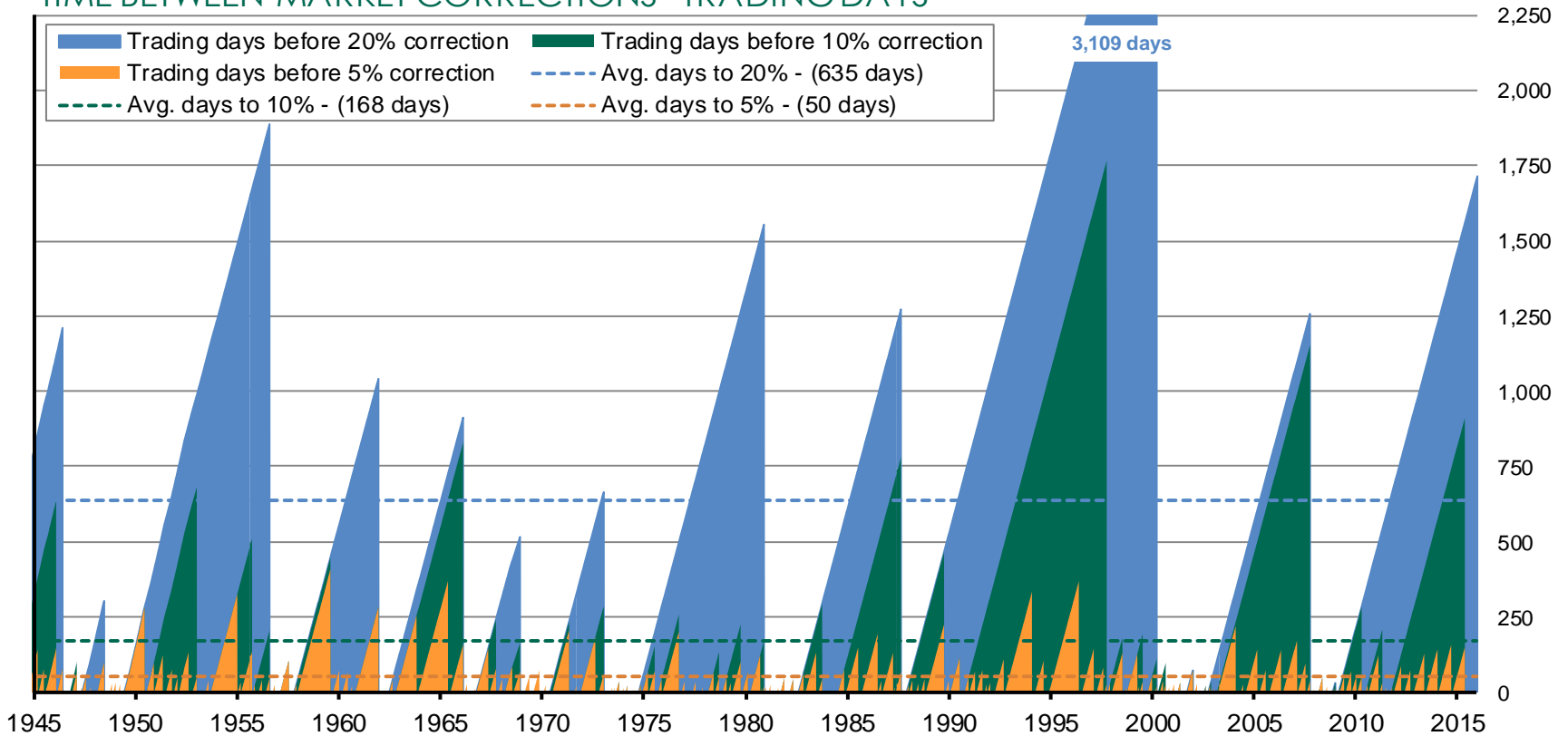
Median covers period from 1988-present.

Past performance is no guarantee of future results. Periods greater than one year are annualized except where indicated. Returns reflect the reinvestment of dividends and other earnings and are shown before the deduction of investment management fees, unless indicated otherwise. Returns of the indexes also do not typically reflect the deduction of investment management fees, trading costs or other expenses. It is not possible to invest directly in an index. Indexes are the property of their respective owners, all rights reserved



# VOLATILITY IS NORMAL

## TIME BETWEEN MARKET CORRECTIONS- TRADING DAYS



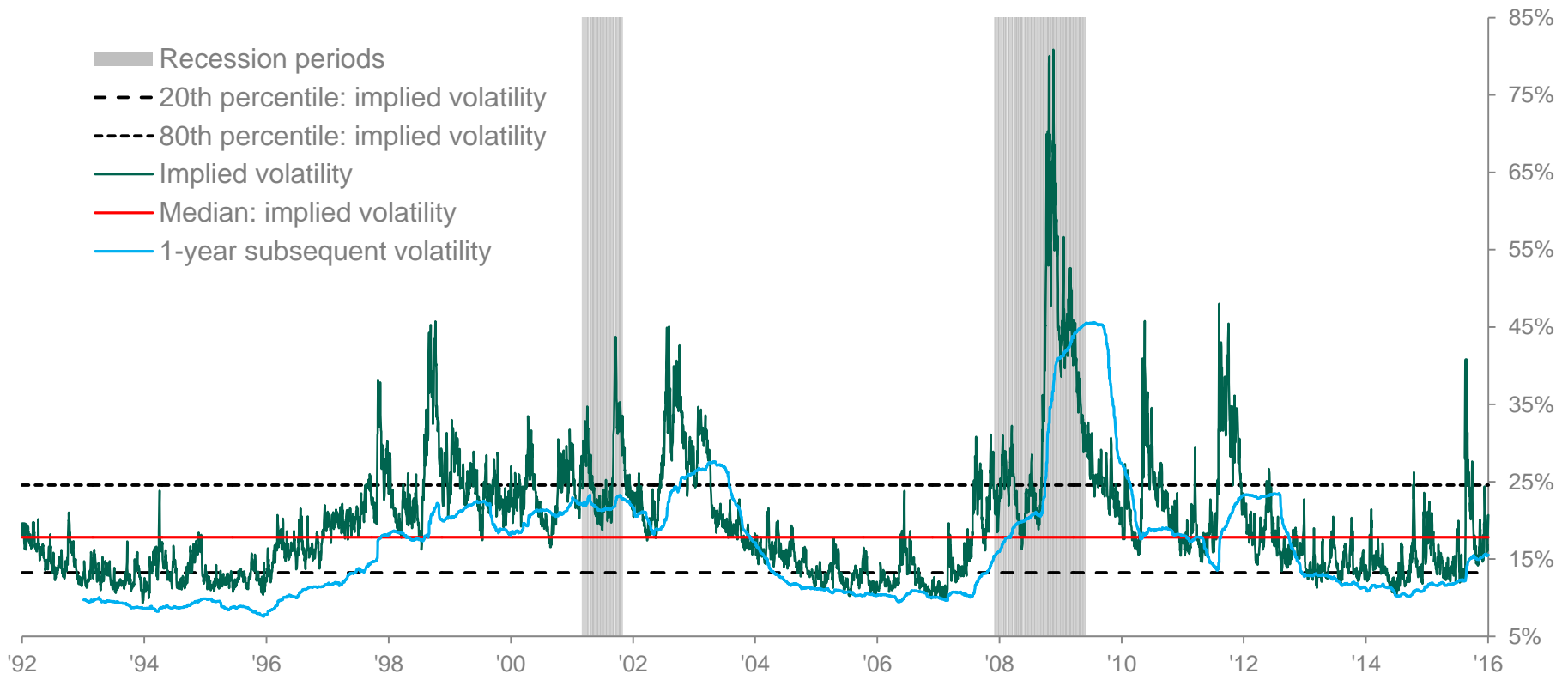
	5% CORRECTION	10% CORRECTION	20% CORRECTION
Average number of trading days before a correction	50	168	635
Average number of weeks before a correction	10	34	127
Current period (trading days)	-	-	1,716
Current period (weeks)	-	-	343

Source: Northern Trust, Ned Davis Research. S&P 500 data through 12/31/2015. Averages are back to 1928. First appeared in Volatility Happens (2014).  
 Past performance is no guarantee of future results.

# ...AND VOLATILITY IS VOLATILE

*Investors consistently over-estimate future volatility.*

*The best defense against behavioral biases is to align your portfolio with your lifestyle objectives*

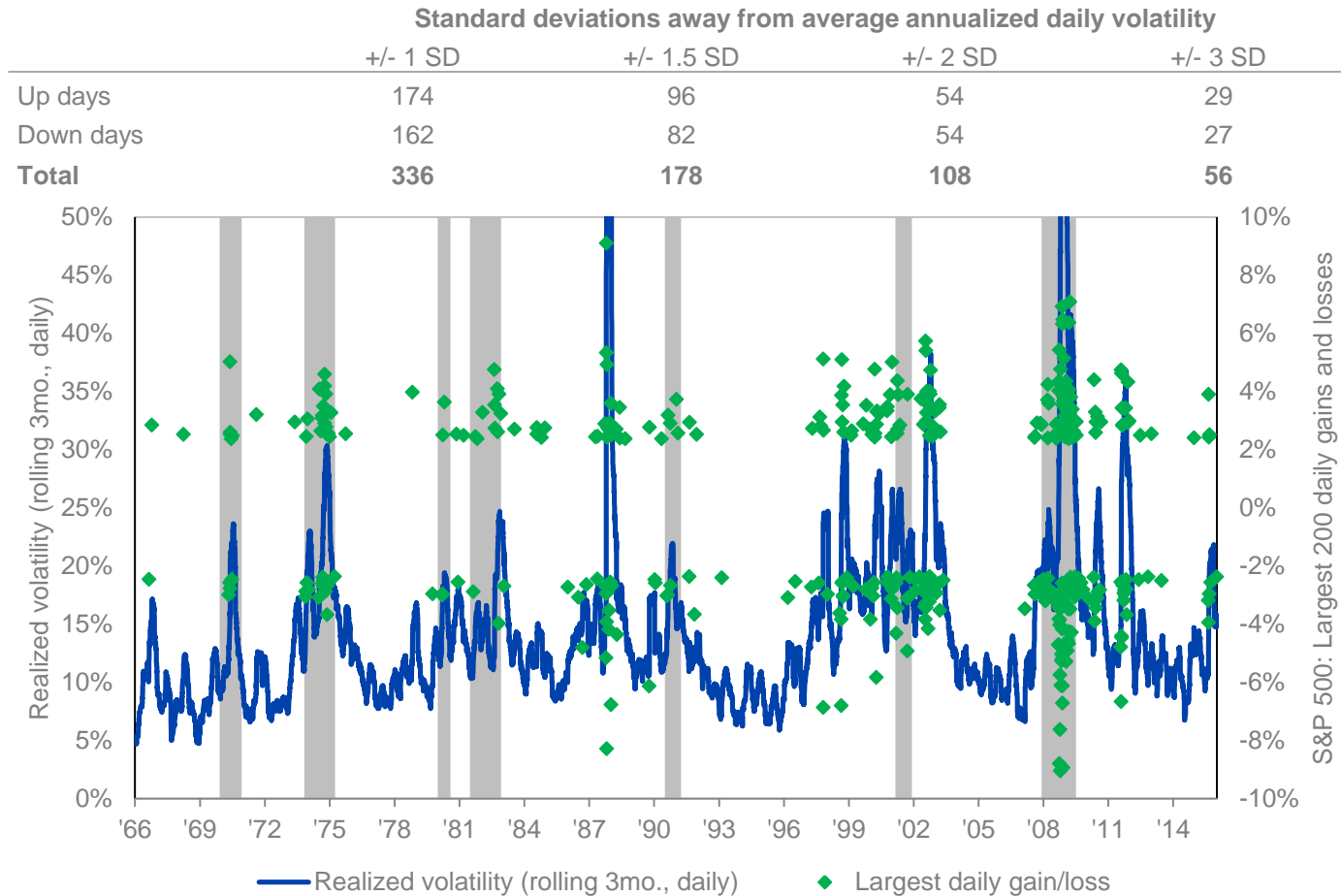


Source: Bloomberg VIX Index; end of day pricing as of 1/4/2016



# WHIPLASH

Majority of the best single daily equity returns follow large daily declines



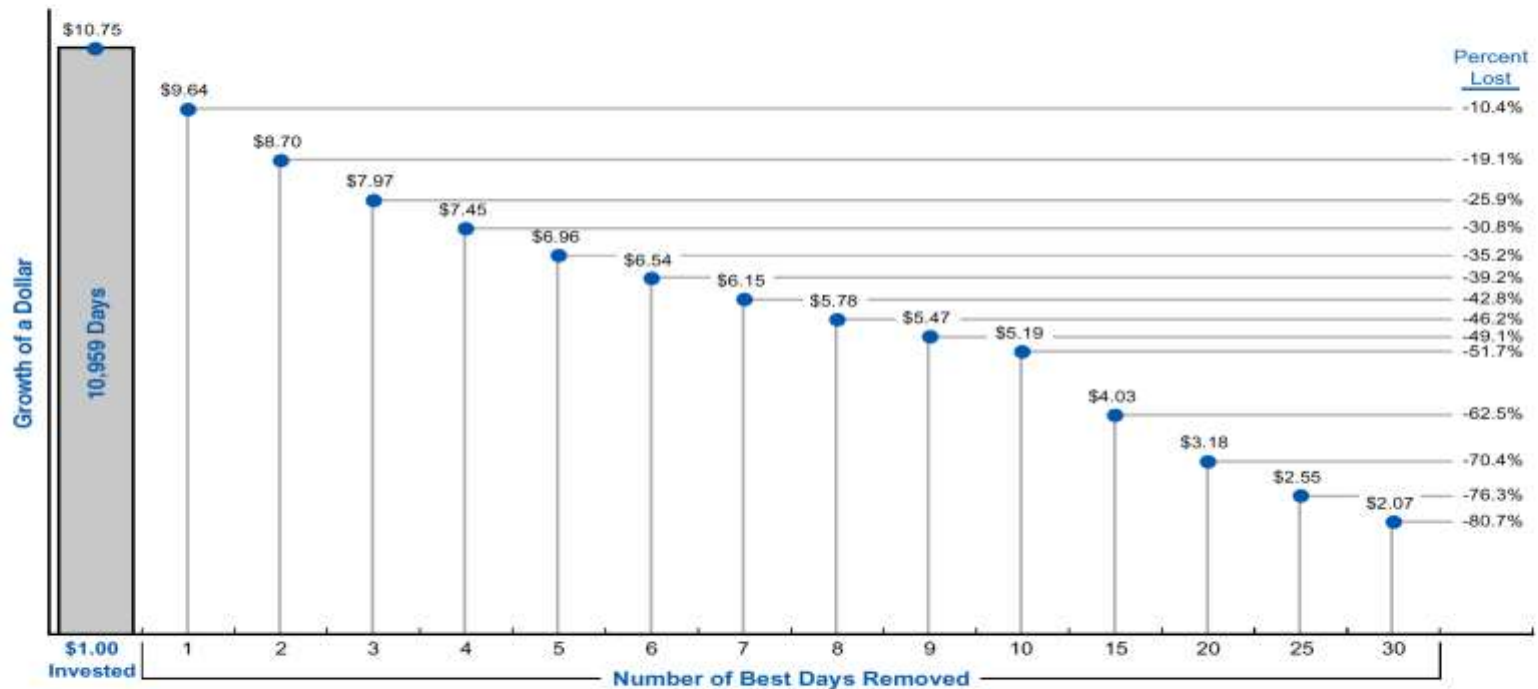
Sources: Bloomberg, Northern Trust Wealth Management. US Equity returns based on S&P 500 daily returns beginning 1966.



**Northern Trust**

# DON'T MISS OUT

## Market Timing - Caution Standard & Poor's 500 Stock Index 30 Years Ending 6/30/15



Data: Capital Appreciation

Sources: Standard & Poor's Corporation; Copyright © 2015 Crandall, Pierce & Company • All rights reserved.

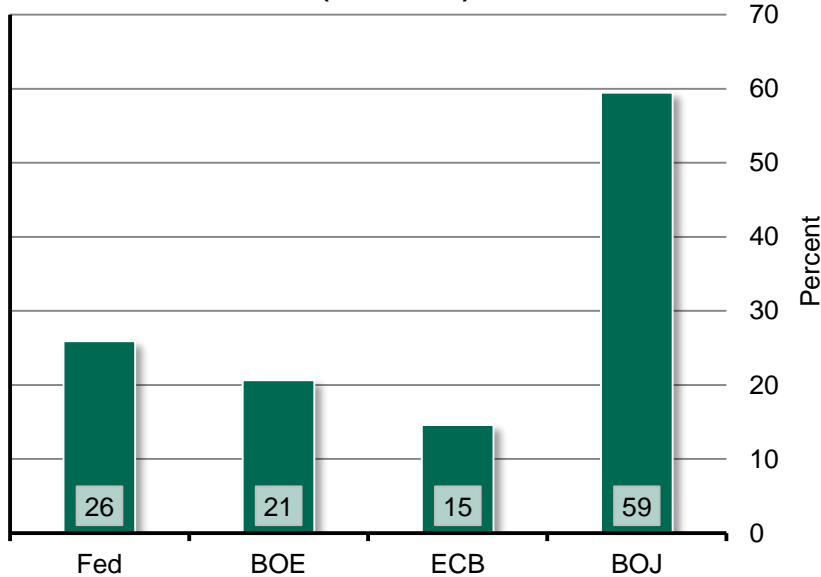
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# Longer Term Themes

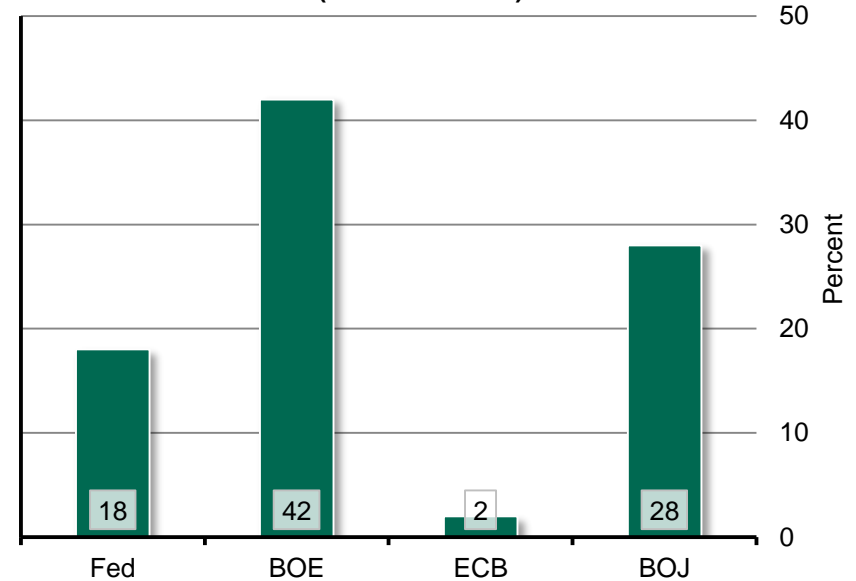
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# THEME: LOW AND SLOW MONETARY POLICY

**BALANCE SHEET ASSETS**  
(% OF GDP)



**SOVEREIGN DEBT HOLDINGS**  
(% OF MARKET)

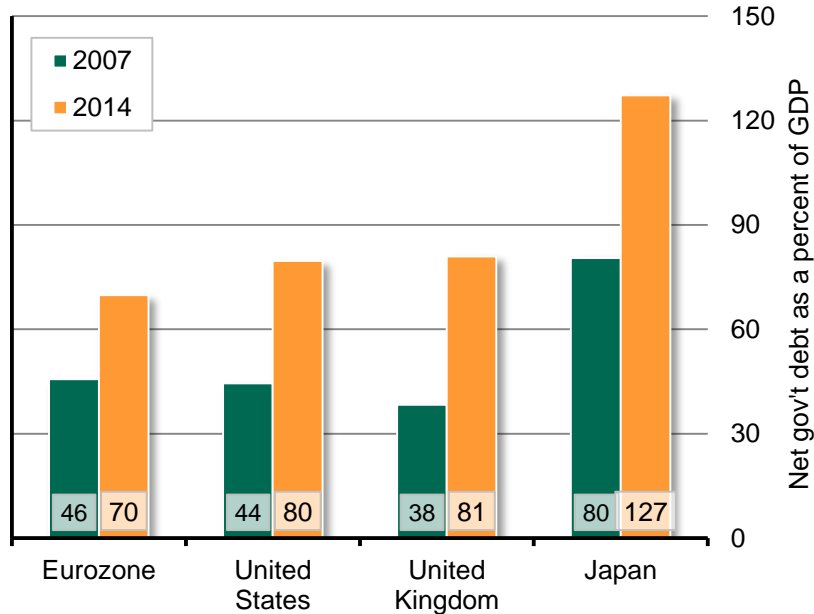


- Analyzing central bank policy now involves both forecasting interest rates and understanding central bank balance sheet management

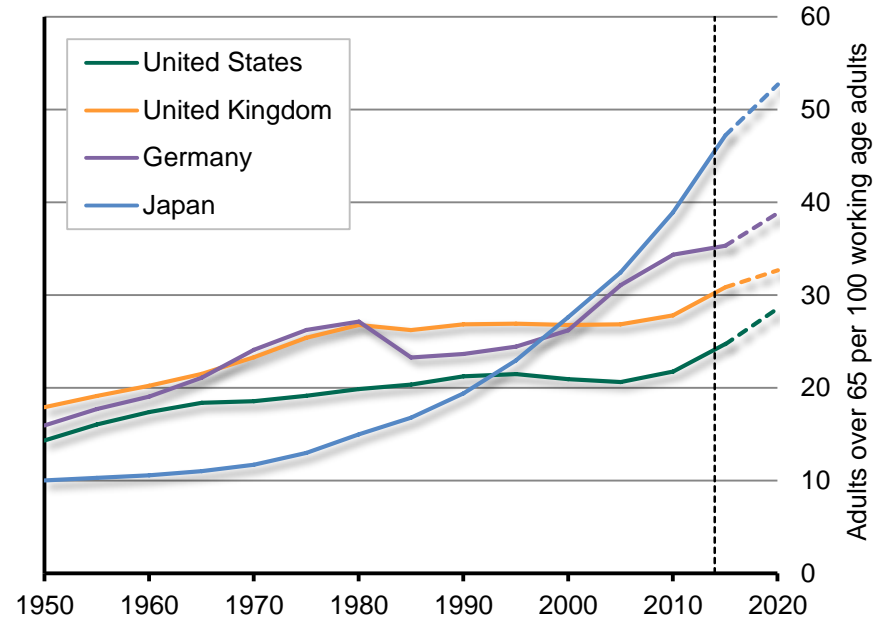
- The meaningful percent of gov't bonds owned by central banks combined with reduced investment bank market-making capabilities will keep volatility elevated

# THEME: THE SLOW BURN OF LOW GROWTH

## GOVERNMENT DEBT



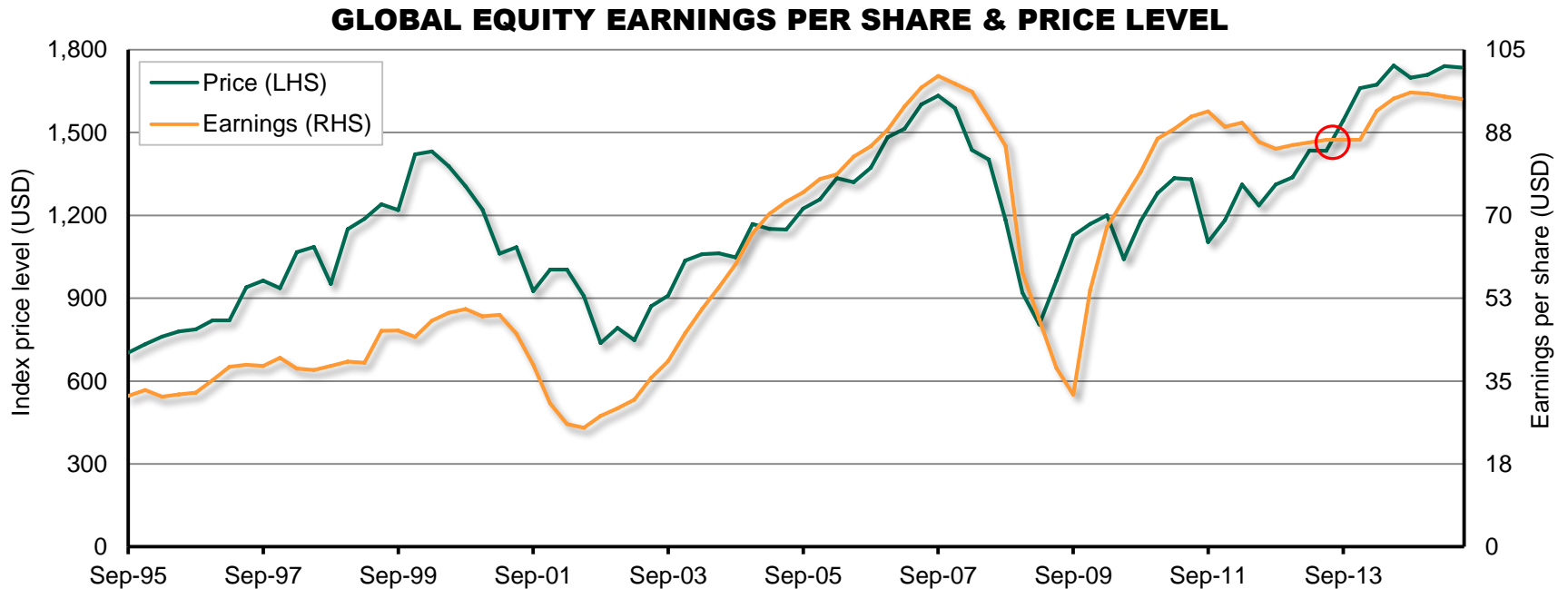
## NATIONAL DEMOGRAPHICS



➤ High aggregate debt levels and quickly aging demographics are preventing economic growth acceleration

➤ Growth is failing to outpace government deficits, leaving debt as a % of GDP elevated; demographic issues are now well within the five year outlook

# THEME: CYCLICAL MEETS STRUCTURAL



➤ Global equity valuations reached historical average valuation levels in June 2013 (see red circle), and have continued their upward march since then

➤ As seen in the 90s, valuations can remain above historical averages for extended periods of time; we believe valuations can remain elevated, but structurally low growth will begin to weigh on equity market returns



## KEY TAKEAWAYS

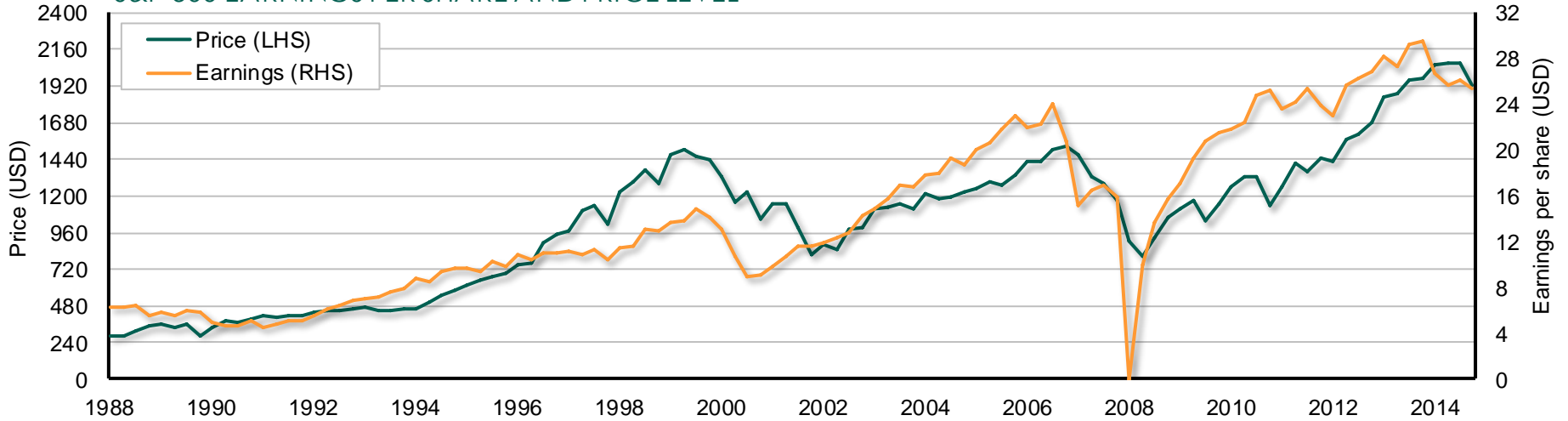
*2016 has been a challenging year for investors, with the combined concerns of potentially divergent global central bank action, slowing global growth, Emerging Market stress, and a commodity bear market. Our base case remains*

- ***Asynchronized global “channel” growth:*** low potential for upside break out, with US remaining most stable source of persistent (albeit low) growth
- ***Lower and Slower Monetary Policy:*** global monetary policy will remain accommodative, even after Fed lift off, and global rates will remain structurally low in the face of more secular headwinds
- ***Risk Asset Returns Lower:*** starting valuations appear higher than historical median, pointing to lower intermediate (5 year) returns. US cycle is long in the tooth with peak profit margins, Europe remains mired in structural morass, and EM growth is slowing
- ***Volatility May Remain Elevated:*** synchronous global central bank policy has created “goldilocks” market volatility environment

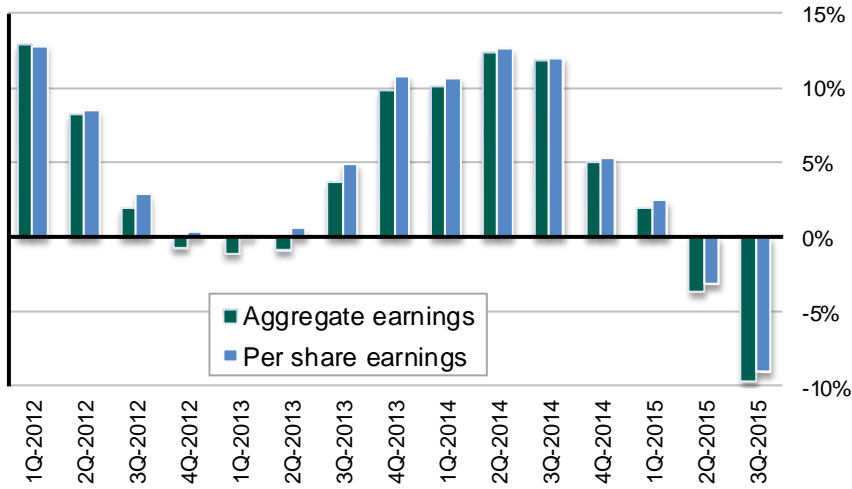
# Appendix

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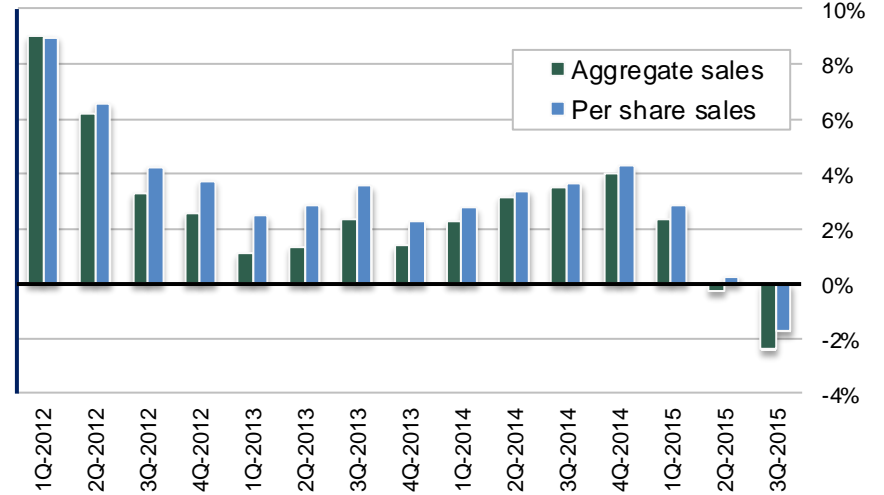
### S&P 500 EARNINGS PER SHARE AND PRICE LEVEL



### S&P 500 EARNINGS BREAKDOWN - YOY %



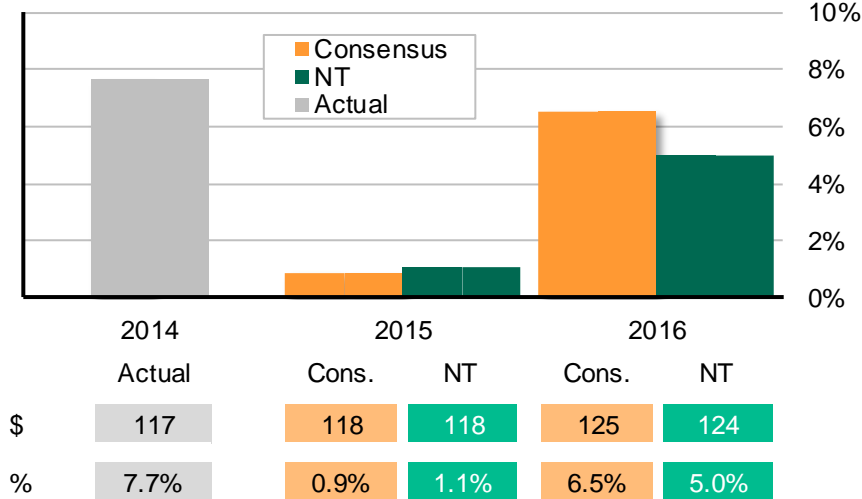
### S&P 500 SALES BREAKDOWN - YOY %



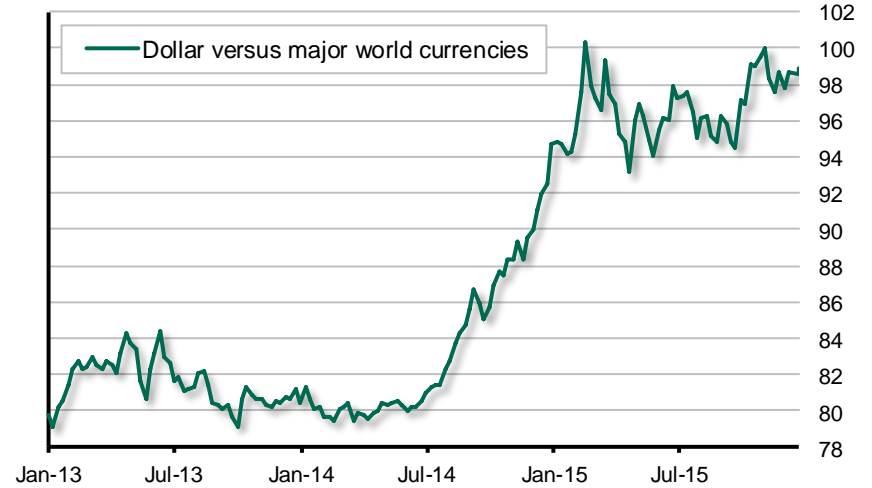
Source: Northern Trust, Standard & Poor's, Bloomberg. Data through 9/30/2015.

Past performance is no guarantee of future results. Periods greater than one year are annualized except where indicated. Returns reflect the reinvestment of dividends and other earnings and are shown before the deduction of investment management fees, unless indicated otherwise. Returns of the indexes also do not typically reflect the deduction of investment management fees, trading costs or other expenses. It is not possible to invest directly in an index. Indexes are the property of their respective owners, all rights reserved

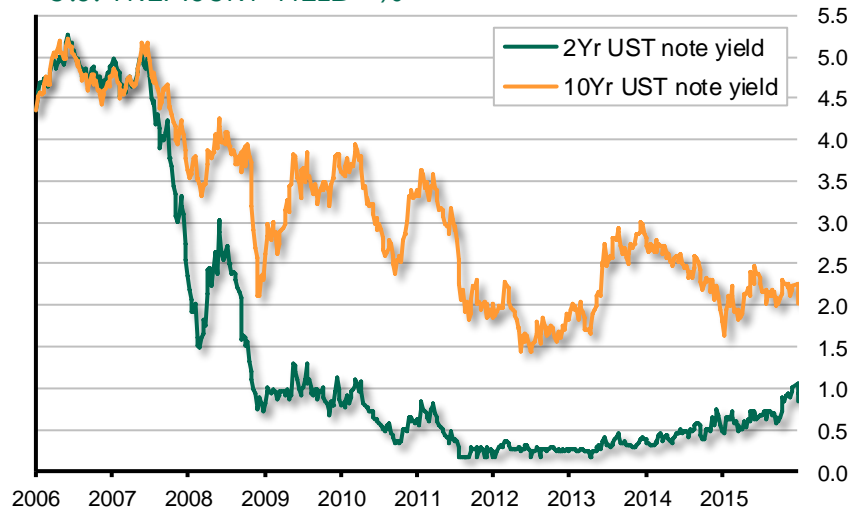
## S&P 500 EARNINGS OUTLOOK



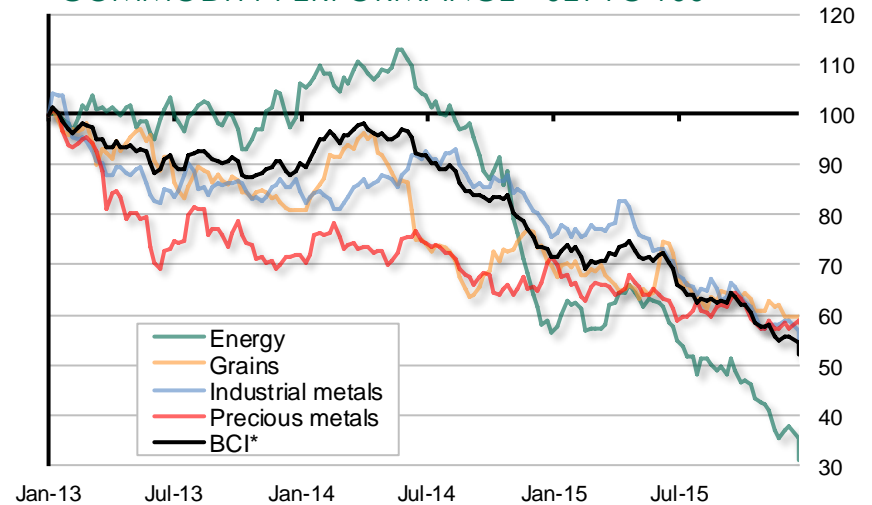
## U.S. DOLLAR INDEX



## U.S. TREASURY YIELD - %

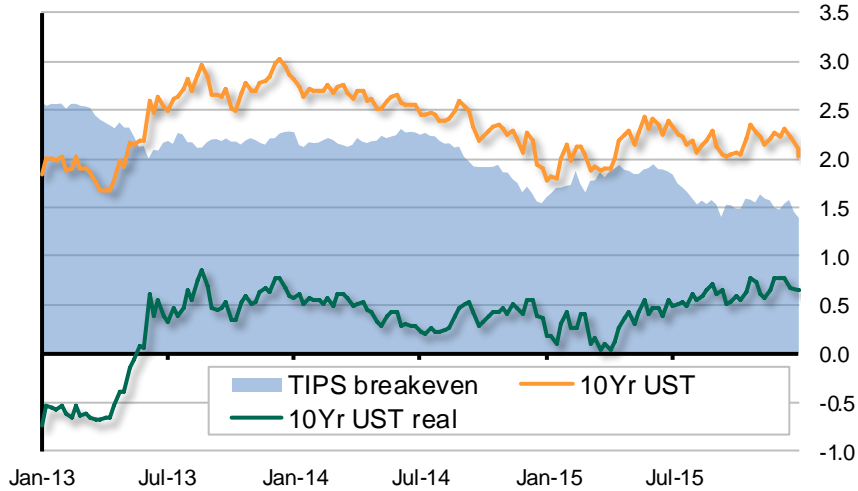


## COMMODITY PERFORMANCE - SET TO 100

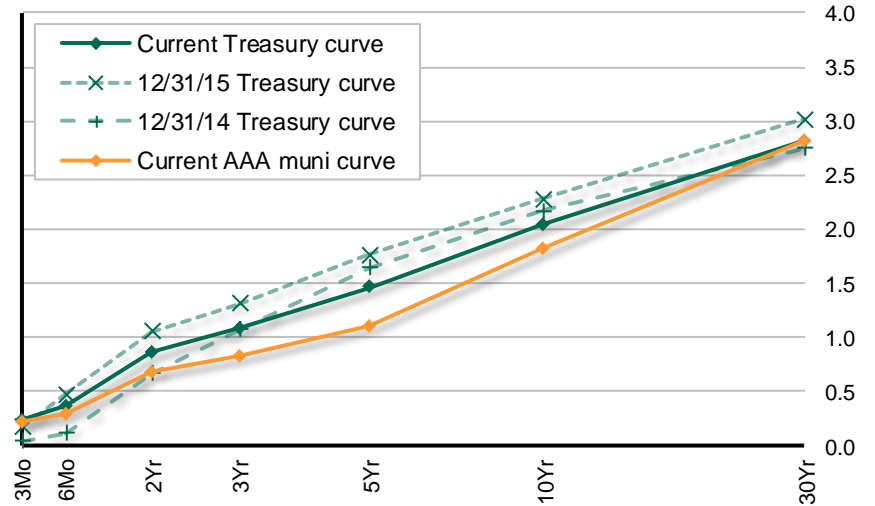


Source: Northern Trust, Factset consensus estimates as of 1/19/2016. Charts: Bloomberg through 1/8/2016. \*Bloomberg Commodity Index. Past performance is no guarantee of future results. Periods greater than one year are annualized except where indicated. Returns reflect the reinvestment of dividends and other earnings and are shown before the deduction of investment management fees, unless indicated otherwise. Returns of the indexes also do not typically reflect the deduction of investment management fees, trading costs or other expenses. It is not possible to invest directly in an index. Indexes are the property of their respective owners, all rights reserved

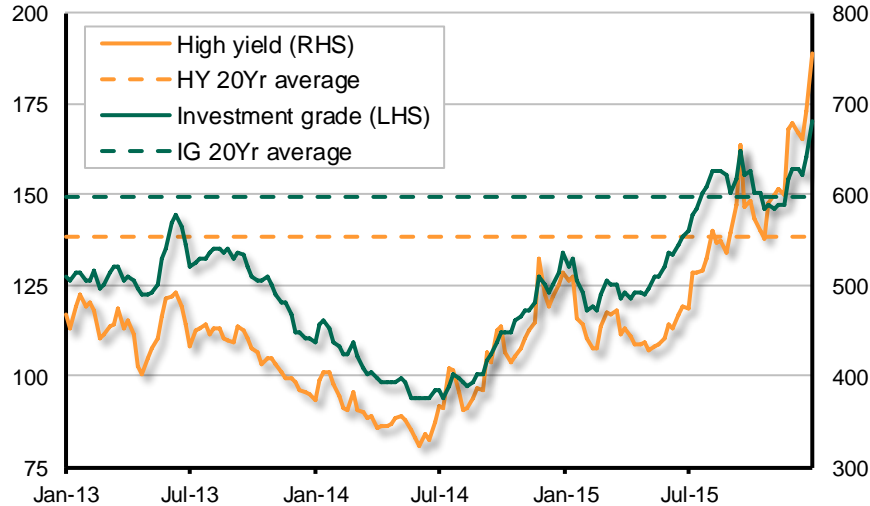
### U.S. 10 YEAR TREASURY YIELD - %



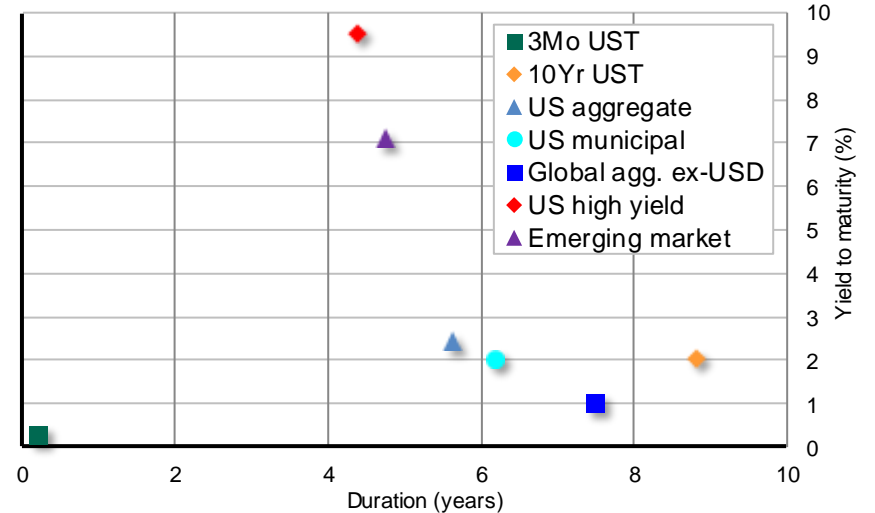
### U.S. TREASURY & AAA MUNI YIELD CURVE - %



### OPTION ADJUSTED SPREAD - BASIS POINTS



### SELECT YIELD TO MATURITY & DURATION

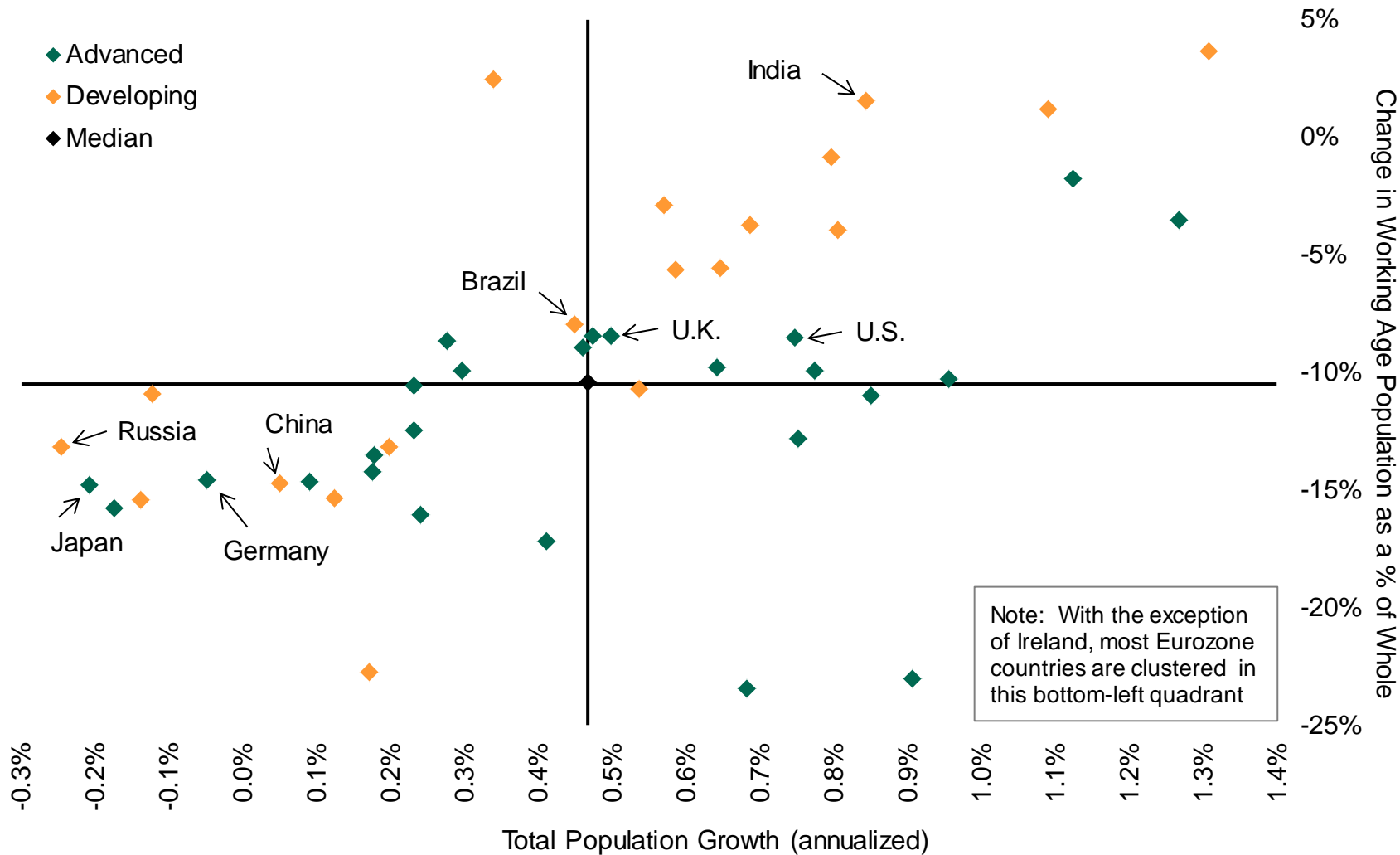


Source: Northern Trust, Bloomberg. Data through 1/15/2016. All non-gov't indices are Barclays Capital bond indices, except for emerging markets

(JP Morgan GBI-EM Global Diversified bond index).

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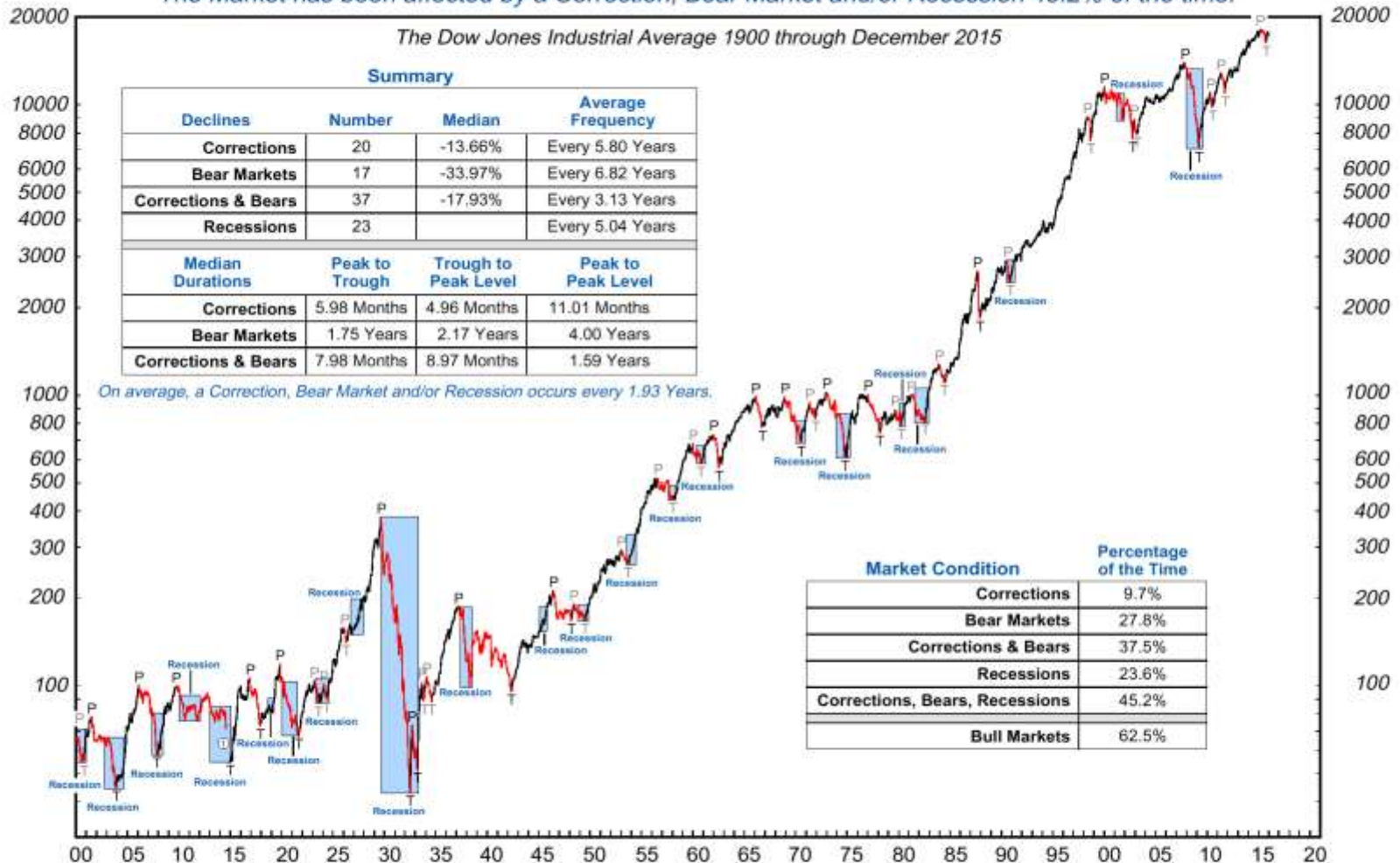
# GLOBAL POPULATION GROWTH: 2011 - 2050



Source: Northern Trust, United Nations Population Division. Data series represents countries in the MSCI AC World index. Y-axis explanation using the U.S. as an example: Currently 64.2% of the population is working age; by 2050 that number is projected to fall to 55.6%, thus leading to the -8.6% figure seen on the scatter plot.

# Why Have a Disciplined Investment Approach?

The Market has been affected by a Correction, Bear Market and/or Recession 45.2% of the time.



Note: On average, the market's trough occurs 5.3 months prior to the end of a recession.

Red Line Segments: Corrections (P,T) - Minimum 10% decline but less than 20% & Bear Markets (P,T) - Minimum 20% decline. Data: Dow Jones Industrial Average (end of month)

Recessions are as defined by The National Bureau of Economic Research. <sup>1</sup>The Stock Exchange was closed due to World War I.

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