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## Ventura County Employees' Retirement Association

### Investment Performance Analysis for the period ending June 30, 2016

September 19, 2016

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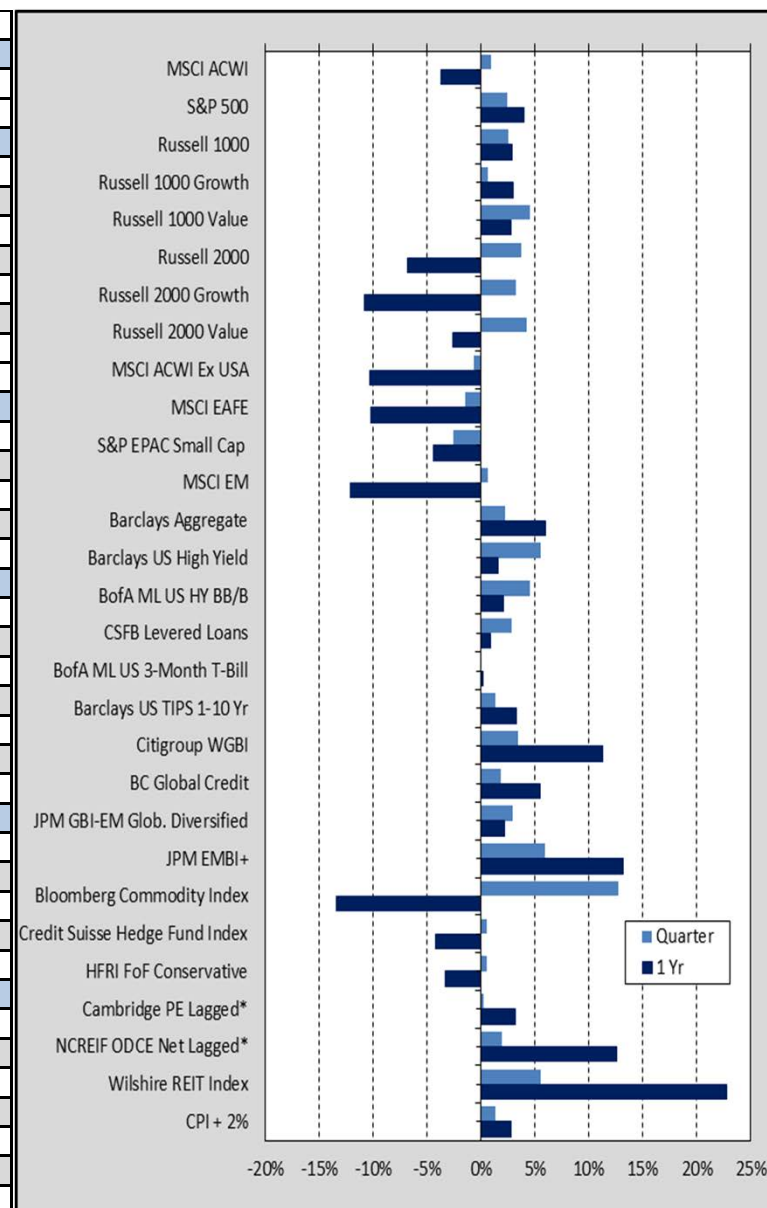
# Market Environment Update and Outlook

- **Second quarter GDP growth rate (first estimate) printed at a modest 1.2%.**
  - Retail sales ended May at +1.8% on a year-over-year basis. Over the same period last year, the YoY growth rate was 1.6%.
  - The inventory-to-sales ratio ended May flat at 1.4 and has remained relatively flat since early 2010.
  - Corporate profits (ended January) as a percent of GDP increased slightly to 9.3% from 9.9% (in September) and remain elevated relative to historical levels.
  - The U.S. trade deficit widened ending May due to a strong dollar and higher oil prices.
- **The unemployment rate decreased 0.1% to 4.9% in Q2; U-6, a broader measure of unemployment, fell to 9.6% during the second quarter.**
- **The Case-Shiller Home Price Index (ended May) increased to 180.7 from 176.9 in March and is at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally adjusted CPI saw a meager uptick to 0.8% at the end of June; Capacity Utilization increased to 75.4% in Q2 from 74.8% in Q1.**
- **Fed Funds rate was unchanged at 0.50%. The 10-year Treasury Yield (constant maturity) finished Q2 at 1.6% down from 1.9% in Q1.**
- **The Fed balance sheet decreased slightly during Q2 2016, while the European Central Bank balance sheet continues to increase.**
  - ECB held its benchmark refinance rate at 0%, deposit rates -0.4% and asset purchases at €80 billion per month.
- **S&P valuations increased slightly in Q2 remaining above the 10-year and long-term averages.**
  - Cyclically adjusted Shiller PE ratio (25.83x) is above the long-term average of 16.67x and above the 10-year average of 22.88x.

# Ventura County Employees' Retirement Association

## Market Environment – Q2 2016 Overview

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>World Equity Benchmarks</b>						
MSCI ACWI	World	1.0%	-3.7%	6.0%	5.4%	4.3%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Domestic Equity Benchmarks</b>						
S&P 500	Large Core	2.5%	4.0%	11.7%	12.1%	7.4%
Russell 1000	Large Core	2.5%	2.9%	11.5%	11.9%	7.5%
Russell 1000 Growth	Large Growth	0.6%	3.0%	13.1%	12.3%	8.8%
Russell 1000 Value	Large Value	4.6%	2.9%	9.9%	11.4%	6.1%
Russell 2000	Small Core	3.8%	-6.7%	7.1%	8.4%	6.2%
Russell 2000 Growth	Small Growth	3.2%	-10.8%	7.7%	8.5%	7.1%
Russell 2000 Value	Small Value	4.3%	-2.6%	6.4%	8.1%	5.2%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>International Equity Benchmarks</b>						
MSCI ACWI Ex USA	World ex-US	-0.6%	-10.2%	1.2%	0.1%	1.9%
MSCI EAFE	Int'l Developed	-1.5%	-10.2%	2.1%	1.7%	1.6%
S&P EPAC Small Cap	Small Cap Int'l	-2.6%	-4.4%	7.6%	5.0%	4.3%
MSCI EM	Emerging Equity	0.7%	-12.1%	-1.6%	-3.8%	3.5%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Domestic Fixed Income Benchmarks</b>						
Barclays Aggregate	Core Bonds	2.2%	6.0%	4.1%	3.8%	5.1%
Barclays US High Yield	High Yield	5.5%	1.6%	4.2%	5.8%	7.6%
BofA ML US HY BB/B	High Yield	4.6%	2.1%	4.6%	5.9%	7.0%
CSFB Levered Loans	Bank Loans	2.9%	0.9%	3.0%	4.0%	4.2%
BofA ML US 3-Month T-Bill	Cash	0.1%	0.2%	0.1%	0.1%	1.0%
Barclays US TIPS 1-10 Yr	Inflation	1.3%	3.3%	1.6%	1.6%	4.0%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Global Fixed Income Benchmarks</b>						
Citigroup WGBI	World Gov. Bonds	3.4%	11.3%	2.6%	1.2%	4.2%
BC Global Credit	Global Bonds	1.9%	5.5%	3.2%	3.1%	4.7%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local)	3.0%	2.2%	-3.5%	-2.2%	5.7%
JPM EMBI+	Em. Mkt. Bonds	6.0%	13.2%	7.1%	6.4%	8.0%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Alternative Benchmarks</b>						
Bloomberg Commodity Index	Commodity	12.7%	-13.4%	-10.6%	-10.8%	-5.6%
Credit Suisse Hedge Fund Index	Hedge Fund	0.6%	-4.2%	2.5%	2.9%	4.2%
HFRI FoF Conservative	Fund of Funds	0.5%	-3.3%	1.9%	1.9%	1.4%
Cambridge PE Lagged*	Private Equity	0.3%	3.2%	10.9%	11.4%	10.8%
NCREIF ODCE Net Lagged*	Real Estate	2.0%	12.6%	12.6%	12.2%	5.4%
Wilshire REIT Index	REIT	5.6%	22.8%	13.6%	12.5%	7.0%
CPI + 2%	Inflation/Real Assets	1.3%	2.8%	3.0%	3.3%	3.8%



\* As of 3/31/2016



June 30, 2016

## Market Environment

### Global Equity

- U.S. equities posted modest gains in the second quarter (+2.5%) amid volatile trading at the end of the quarter as market participants digested news of the Brexit vote.
- Small cap stocks outperformed large cap stocks during the quarter, with the Russell 2000 Index returning 3.8% and the Russell 1000 Index returning 2.5%.
- International equities trailed U.S. markets during the quarter, returning -0.6%, as measured by the MSCI ACWI ex-U.S. Index. Emerging markets returned 0.7% as measured by the MSCI Emerging Markets Index in U.S. dollar terms.
  - Developed international markets returned -1.5% as measured by the MSCI EAFE Index.
- Strength of U.S. Dollar in recent years has negatively impacted performance of non-U.S. equity allocations.

	One Year	Three Year	Five Year	Ten Year
MSCI EAFE	-10.2%	2.1%	1.7%	1.6%
MSCI EAFE (Local)	<u>-9.8%</u>	<u>6.3%</u>	<u>6.7%</u>	<u>2.6%</u>
Over/Under	-0.4%	-4.2%	-5.0%	-1.0%
MSCI EAFE Small Cap	-3.7%	7.3%	4.8%	3.6%
MSCI EAFE Small Cap (Local)	<u>-4.9%</u>	<u>11.2%</u>	<u>9.8%</u>	<u>4.3%</u>
Over/Under	1.2%	-3.9%	-5.0%	-0.7%
MSCI Emerging Markets	-12.1%	-1.6%	-3.8%	3.5%
MSCI Emerging Markets (Local)	<u>-7.7%</u>	<u>3.7%</u>	<u>2.0%</u>	<u>5.7%</u>
Over/Under	-4.4%	-5.3%	-5.8%	-2.2%

### Private Equity

- Private equity fundraising totaled \$104 billion in Q2 2016.
- Buyout and Special Situations fundraising totaled \$88 billion in Q2 2016, more than twice the amount contracted in Q1.
  - While exit volume also increased over the first quarter, the first half total for 2016 is down 33% from the prior year period. The primary driver of slower exit volume is a sharp decrease in IPOs that occurred during the first quarter, which was the slowest quarter for IPOs since 2009.
- Venture capital fundraising totaled \$16.9 billion.
  - VC fundraising as a percent of total new PE funds is in line with historical post-dot com levels.
- Fund of fund and multi-manager co-investment fundraising totaled \$5.6 billion.
- Growth equity fundraising totaled \$3.4 billion.

**Fixed Income**

- **The yield curve shifted down for maturities greater than 6 months. Intermediate yields decreased 20-29 basis points and long duration yields decreased 31-34 basis points.**
- **The spread between two and 10-year rates decreased to 91 basis points from 105 basis points ended June. Treasury Inflation-Protected Securities, or TIPS, returned +1.3% during the quarter, as measured by the Barclays U.S. TIPS 1-10 Yr Index.**
- **The Barclays Long Duration Credit Index gained +6.65% as the long end of the curve ended the quarter 31 basis points lower.**
- **Long Treasuries gained +6.44% and investment-grade U.S. corporate debt gained 2.21%.**
- **The Barclays 1-3 year Government/ Credit Index returned +0.67%. U.S. high yield bonds gained +5.52% driven by Energy names.**
- **Emerging markets debt gained broadly reversing trend with US denominated issuances gaining relative to Local Currency denominated debt.**
  - U.S. dollar-denominated debt, as measured by the JP Morgan EMBI Index, gained 6.0%; local currency debt gained +3.0%, according to the JP Morgan GBI-EM Index.

**Real Assets/Inflation-Linked Assets**

- **Massive energy market dislocation.**
  - Seek inflation sensitive asset classes that offer positive yield.
  - Oil prices stabilizing and remain low.
  - Private equity and private debt opportunities may be relatively attractive.
  - Potential for public stressed/distressed credit, equity and commodity plays.
  
- **Select infrastructure opportunities showing signs of being attractive.**
  - Target opportunistic strategies in niche sub-sectors to take advantage of market dislocations.
  - Secular opportunities may exist within the shipping industry as traditional financing sources (both debt and equity) are less abundant.
  
- **Timber opportunities remain elusive.**
  - Income yields (net) are low as assets are predominantly traded between like-minded institutions.
  - Private strategies are illiquid and constrain quick entrance/exit (i.e. long-term lock-up).
  - Liquid strategies have limited pure timber exposure (and limited active-play options).
  
- **Metals & Mining; weakened commodity prices may be the new norm as China growth shifts.**
  
- **Agriculture; outlook supported by strong demographic trends.**



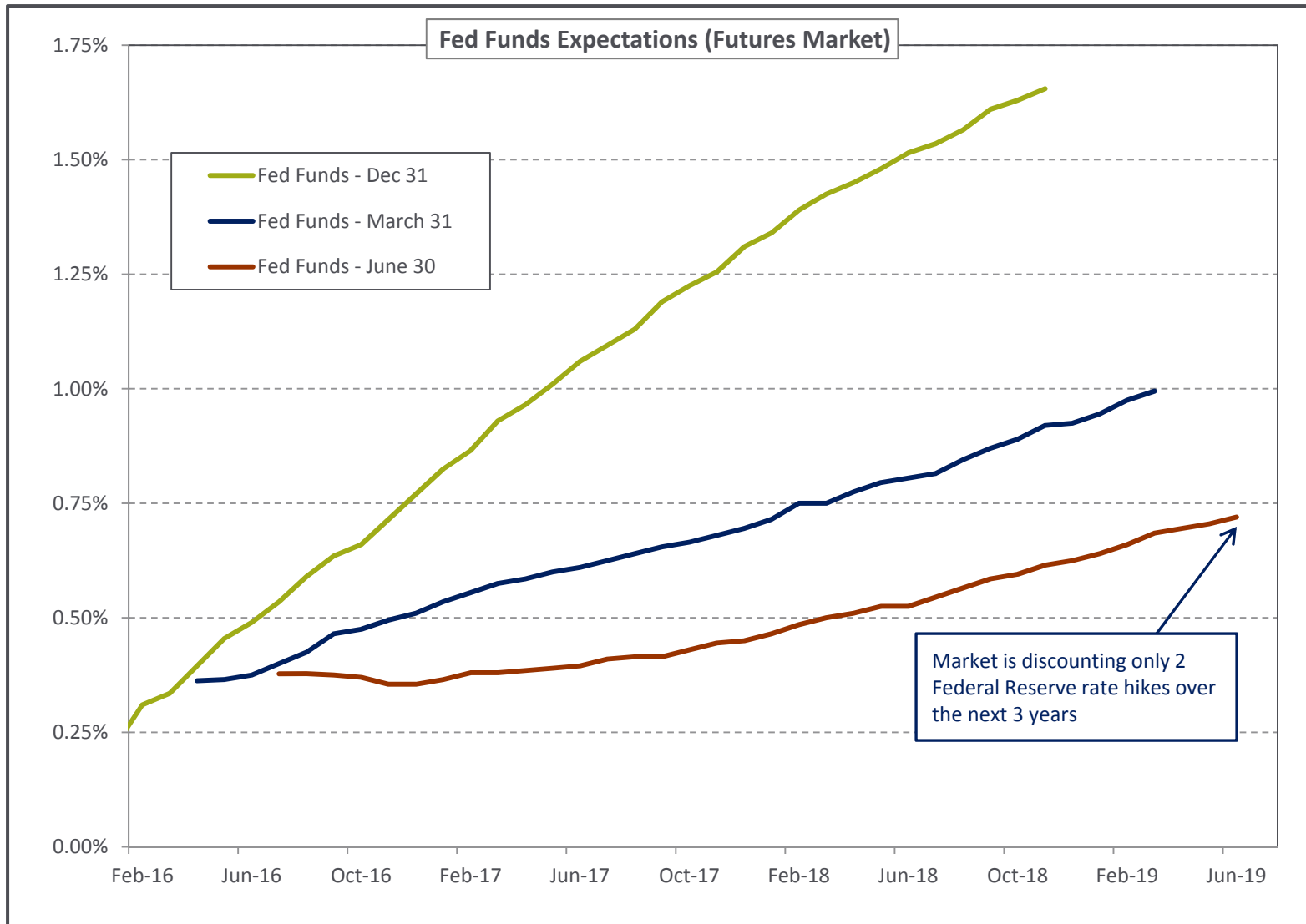
### Commodities

- **Commodities ended quarter with a solid +12.7% as measured by the Bloomberg Commodity Index.**
  - Despite an increase in the value of the U.S. Dollar, commodity prices posted strong gains led by a 26% gain in oil.
  - Gold gained 7% in the second quarter and YTD has gained 24%.

### Real Estate

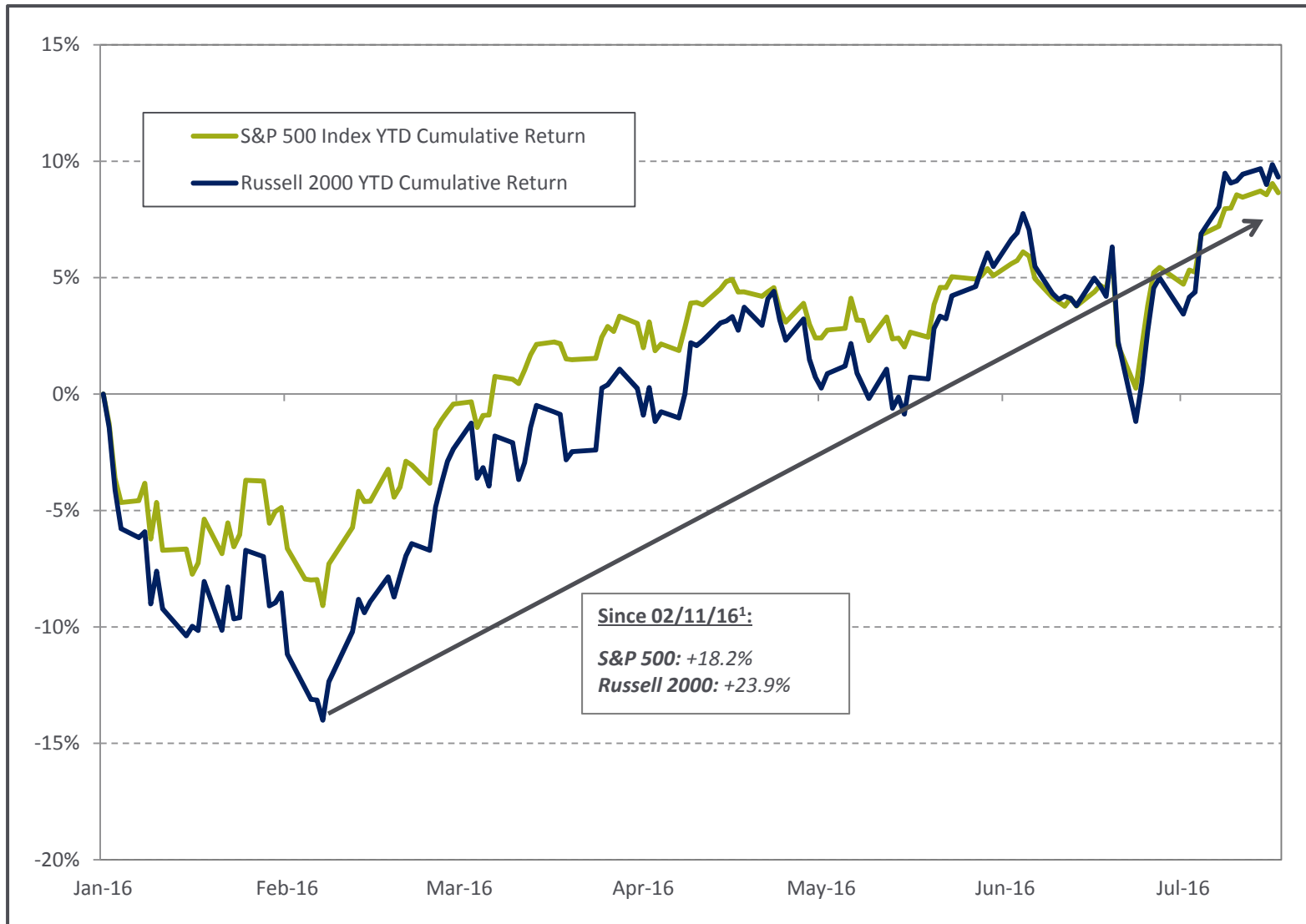
- **NEPC continues to be neutral on core real estate in the U.S. and remains positive on non-core real estate, that is, value-add and opportunistic strategies.**
- **Within U.S. core real estate, strong fundamentals continue to be the story along with attractive income spreads relative to interest rates.**
  - Real estate fundamentals and debt terms are attractive; however, valuations are high and the possibility of rising interest rates and the impact on cap rates causes concern.
- **Overall, the non-core real estate investment environment in the U.S. is normalizing; however, select areas remain attractive.**
- **REIT sector has snapped back to NAV (closing out longest time trading below NAV since the Global Financial Crisis) but remain at high FFO multiples.**
- **Europe is viewed as the best place for a marginal dollar of non-core real estate investment.**
  - Current U.S. dollar denominated investors with currency exposure will feel near-term impact of Brexit, but new investors may benefit from a strong U.S. dollar. Long-term Brexit implications, however, are unclear.

An Uptick in Fed Funds Expectations of Current Lows is Likely to Fuel Dollar Strength



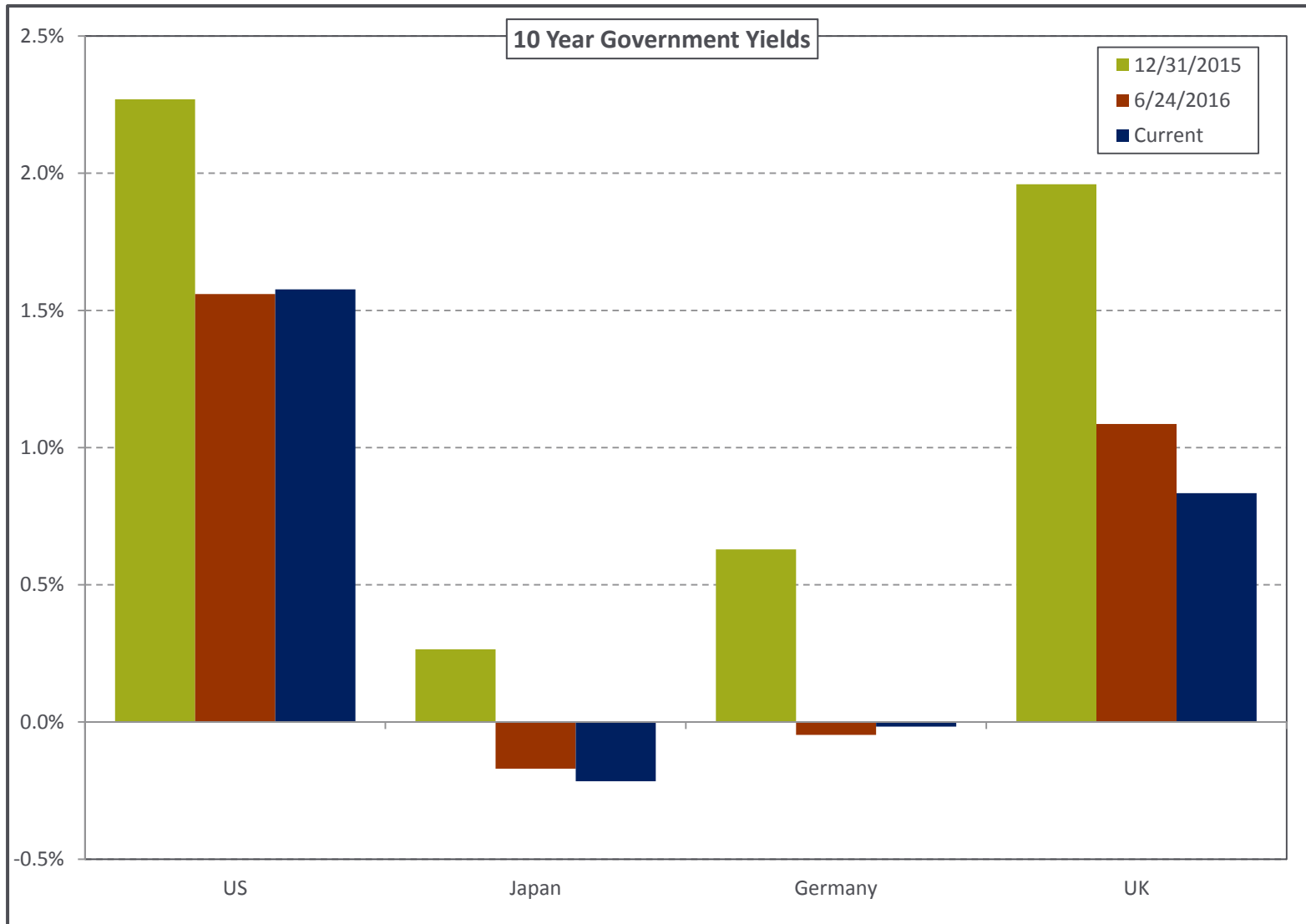
Source: Bloomberg

Significant U.S. Equity Gains From February Lows – Remain Disciplined in Rebalancing



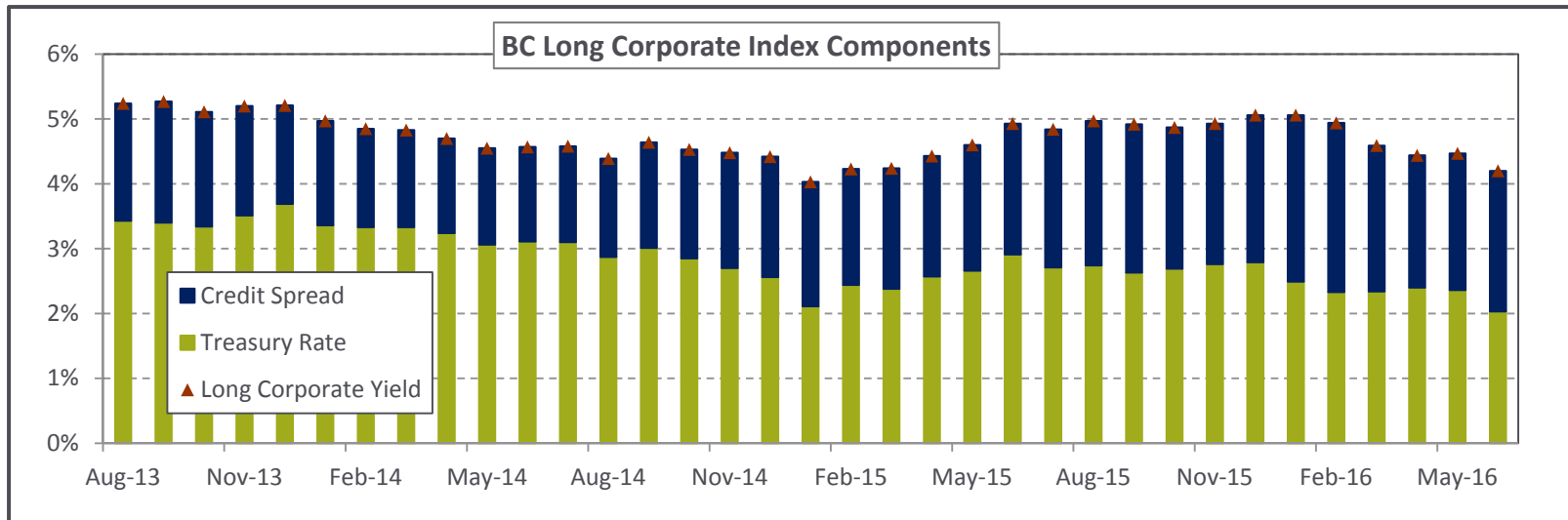
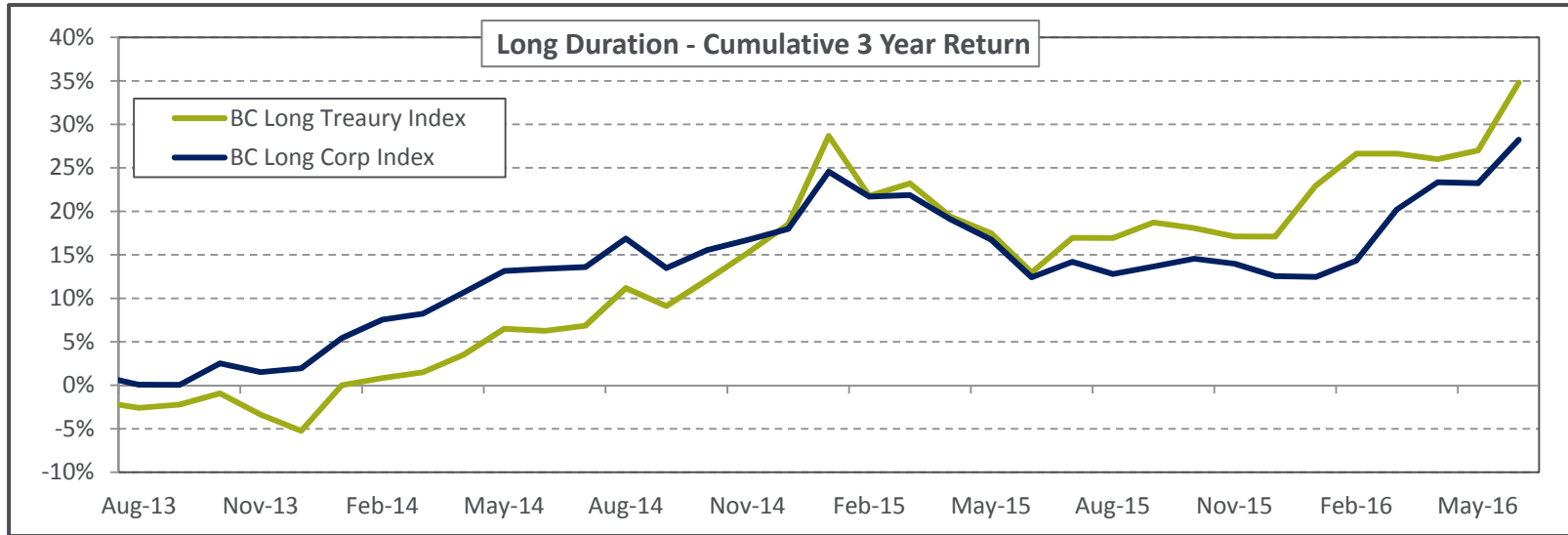
Source: Bloomberg  
¹As of July 22, 2016

Global Bond Yields at Record Lows; Re-Evaluate WGBI Exposure



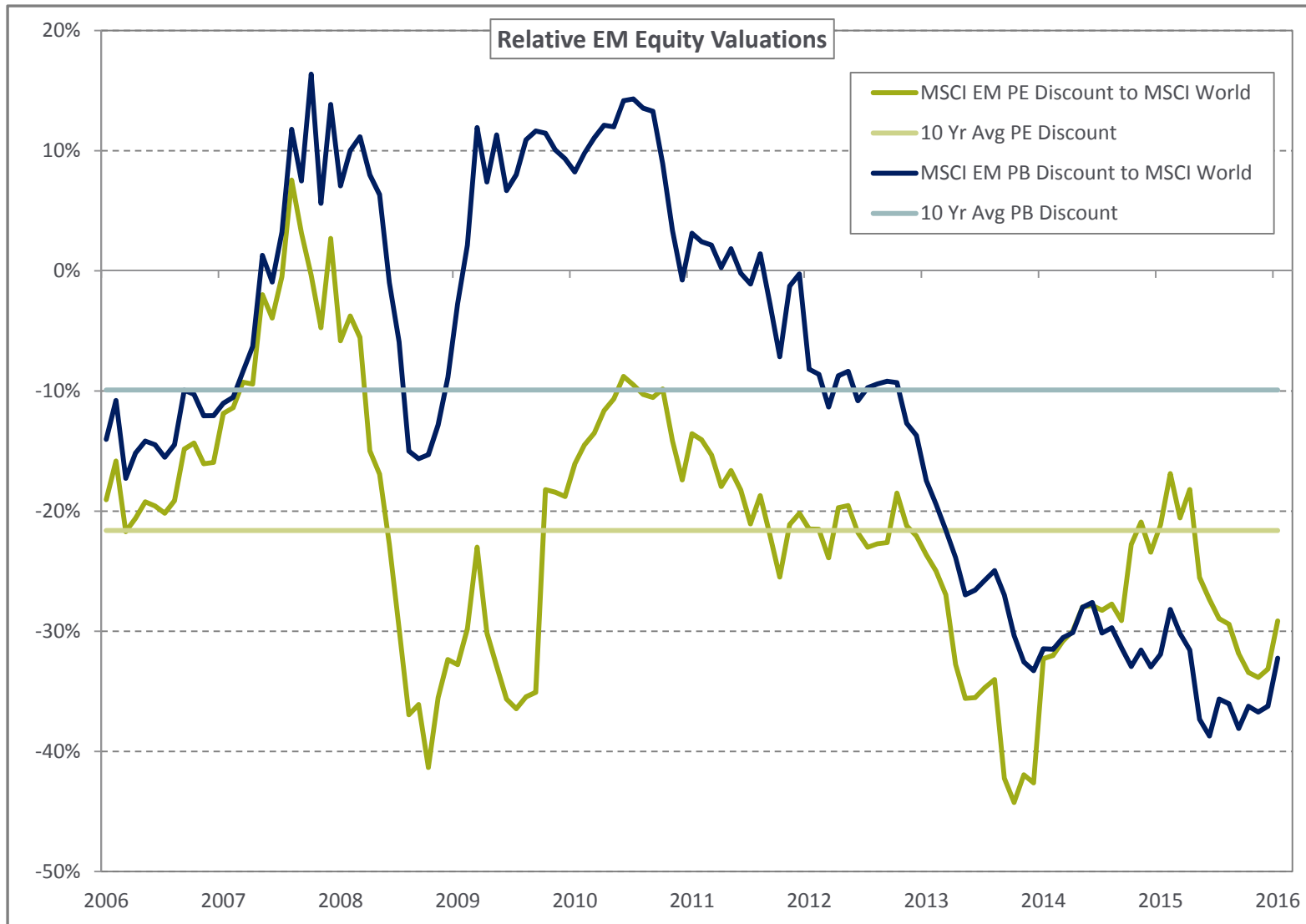
Source: Bloomberg  
Results of Brexit vote announced on 06/24/2016

Treasury Exposure Provided Significant Gains – Opportunities for Profit Taking in Long Bonds



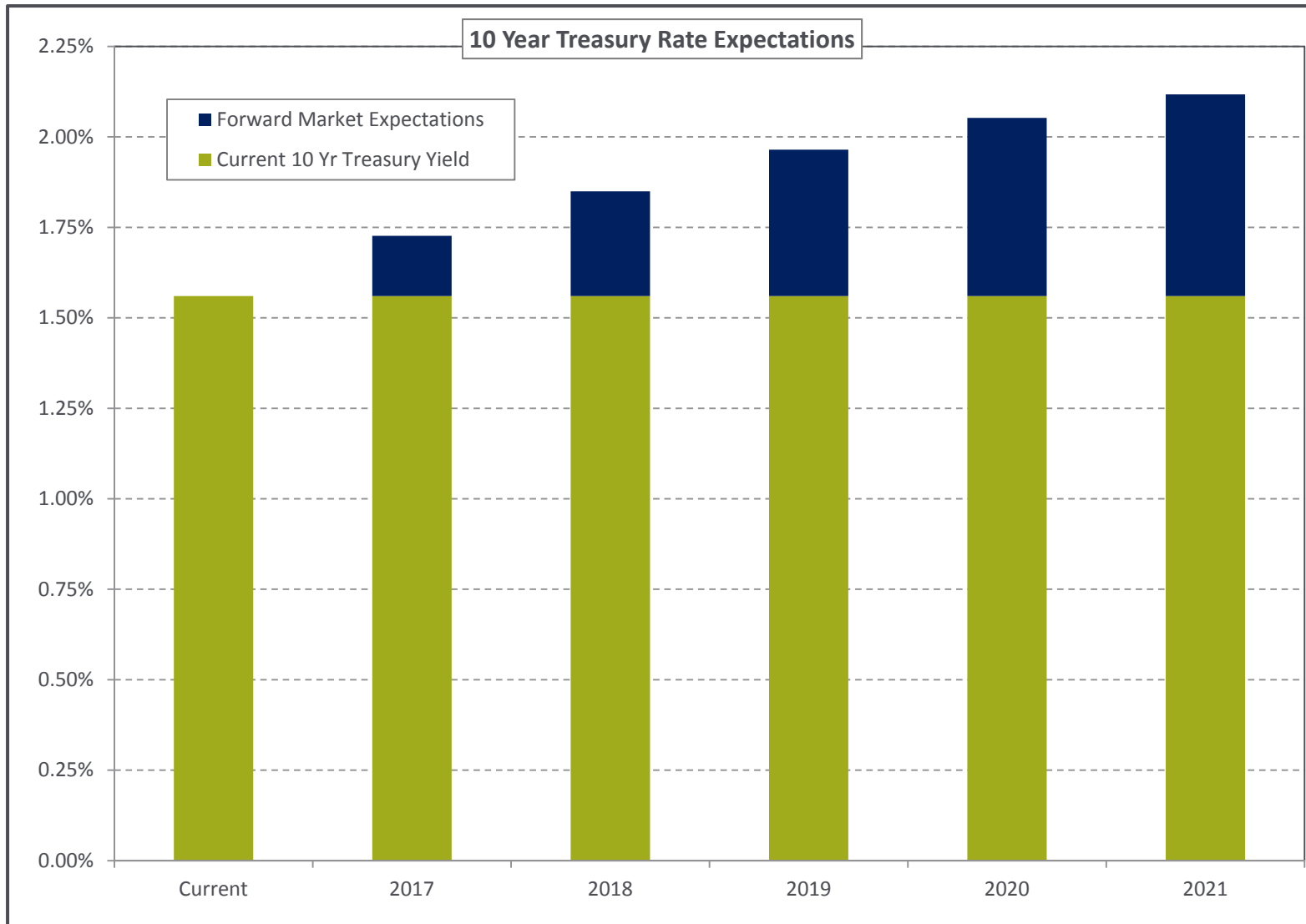
Source: Bloomberg

# Emerging Markets Continue to Offer Reasonable Equity Valuations



Source: Bloomberg

Muted Forward Market Expectations Provide Limited Cushion Should Rates Rise More Rapidly



Source: Bloomberg

- **Trim U.S. equity exposure as U.S. markets have rebounded significantly**
  - Remain disciplined and look for rebalancing opportunities should equity markets decline
  - Look to capture pockets of value in U.S. high yield with credit spreads in-line with averages
  
- **Maintain overweight exposure to non-U.S. developed market equities**
  - Central bank support and dollar strength provide a positive economic backdrop
  - A more dramatic expansion of political risk may soften our overweight view
  - Small cap equity and global equity are preferred implementation approaches
    - These strategies offer the best opportunity to exploit valuation discrepancies among individual stocks that may result from elevated volatility levels
  
- **Recommend investors continue to hedge developed market currencies**
  - 50% hedge ratio remains an ideal neutral point for developed currency exposure
  - Current U.S. Dollar valuation hovers within a neutral band; opportunities to tactically adjust currency hedge ratios may arise should the U.S. Dollar significantly strengthen or weaken
  
- **Recent strength validates commitment to emerging market equities**
  - Valuations and long-term fundamentals suggest an overweight
  - China uncertainty, dollar pressure and idiosyncratic country risks temper excitement
  - Overweight small cap and consumer-focused strategies relative to broad mandates
  
- **Developed market duration exposure is generally unattractive**
  - Preserve U.S. duration exposure with a bias towards TIPS over core bonds
  - Rebalance long Treasuries, long credit, and risk parity following recent outsized gains
  - Look to eliminate WGBI focused global bond strategies with yields at historic lows



# NEPC Updates

June 30, 2016

## Highlights of Second Quarter Happenings at NEPC

### NEPC Research

#### Recent White Papers

- "Thinking Ahead to Stay Ahead: Strategic Private Equity Investing in Healthcare" (April 2016)
- Market Chatter: "Implications of Brexit" (June 2016)
- Market Chatter: "Brexit... What Now?" (June 2016)
- "The Disease of Doubt" (July 2016)

#### Webinar

- "Brexit - A Vote for Volatility" (June 2016); Panel provides perspectives on the EU Referendum.



### NEPC's 21<sup>st</sup> Annual Investment Conference

"Excellent breadth of materials, plenty of concurrent sessions, and the speakers were vibrant and humorous!" is just one of many positive reviews from attendees. The conference attracted more than 200 people to the Hynes Convention Center in Boston on May 10-11, 2016.

### News from NEPC

We are excited to announce NEPC's active presence on five social media channels: Facebook, Google+, LinkedIn, Twitter and YouTube, and we will continue to post on the Endowments and Foundations Twitter. We will be using these online channels to share company news, information and articles throughout the industry. Those interested in keeping up with the latest news from NEPC can follow our accounts. Company news and industry insights will continue to be available on our website, which has been updated with a new optimized search feature.



### Upcoming Events

NEPC's 22<sup>nd</sup> Annual Investment Conference will be held on May 9-10, 2017 at the InterContinental Hotel in Boston, MA.

**MARK YOUR CALENDAR!**

### NEPC Client Recognitions

We are pleased to announce that three of NEPC's public fund clients won Institutional Investor (II) Awards.

- **Arn Andrews**, CIO of San Jose Police & Fire, won the award for Chief Investment Officer of the Year.
- **Sam Masoudi**, CIO of Wyoming Retirement System, won the award for Opportunistic Investment Strategies Award.
- **Bob Jacksha**, CIO of New Mexico Employees Retirement Board, won the award for Portfolio Construction.

We are also pleased to announce that two NEPC clients, **San Bernardino County Employees' Retirement System** and **Arizona Public Safety Personnel Retirement System**, were nominated for Institutional Investor magazine's 14th Annual Hedge Fund Industry Awards in the "Public Plan of the Year, Small" category.

# Total Fund Performance

Note: All of the data shown on the following pages is as of June 30, 2016 and reflects the deduction of investment manager fees, unless otherwise noted.

# Ventura County Employees' Retirement Association

## Total Fund Performance Summary (Net)

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank	Return	Since
<b>Total Fund</b>	<b>\$4,367,190,644</b>	<b>2.4%</b>	<b>12</b>	<b>3.8%</b>	<b>8</b>	<b>1.0%</b>	<b>21</b>	<b>6.9%</b>	<b>27</b>	<b>7.0%</b>	<b>22</b>	<b>5.6%</b>	<b>37</b>	<b>7.8%</b>	<b>Apr-94</b>
<i>Policy Index</i>		1.9%	38	3.3%	23	1.8%	9	7.4%	6	7.1%	12	5.9%	24	7.9%	Apr-94
<i>60% MSCI ACWI (Net)/40% CITI WGBI</i>		2.0%	35	5.1%	1	2.3%	8	4.8%	86	3.9%	99	4.6%	87	--	Apr-94
<i>InvestorForce Public DB &gt; \$1B Net Median</i>		1.7%		2.7%		-0.5%		6.0%		6.0%		5.3%		7.4%	Apr-94

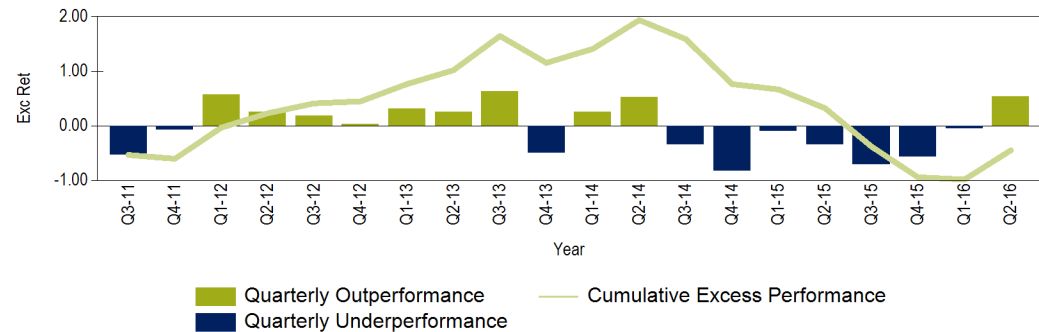
- For the five-year period ending June 30, 2016, the Fund returned 7.0%, trailing the policy index by 0.1% and ranking in the 22nd percentile of its peers. The Fund's volatility, as measured by standard deviation, ranked in the 76th percentile of its peers, and the risk-adjusted return, or Sharpe Ratio, ranks in the 41st percentile. This means that the Fund has earned more return per unit of volatility taken than 59% of its peers.

- For the three-year period, the Fund returned 6.9%, trailing the policy index by 0.5% and ranking in the 27th percentile of its peers. The Fund's volatility ranks in the bottom half of its peers over this period, with the Fund's Sharpe Ratio ranking in the 37th percentile.

- For the one-year period, the Fund returned 1.0%, trailing the policy index by 0.8% and ranking in the 21st percentile of the InvestorForce Public Funds > \$1 Billion Universe (Net of Fees).

- For the one-year period, the Fund experienced a net investment gain of \$61 million, which includes a net investment gain of \$108 million in the quarter. Assets decreased from \$4.34 billion one year ago to \$4.37 billion.

Quarterly and Cumulative Excess Performance



3 Years Ending June 30, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	6.9%	27	7.2%	71	0.9	37	1.8	25
Policy Index	7.4%	6	7.1%	67	1.0	24	1.9	18
InvestorForce Public DB > \$1B Net Median	6.0%	--	6.7%	--	0.9	--	1.6	--

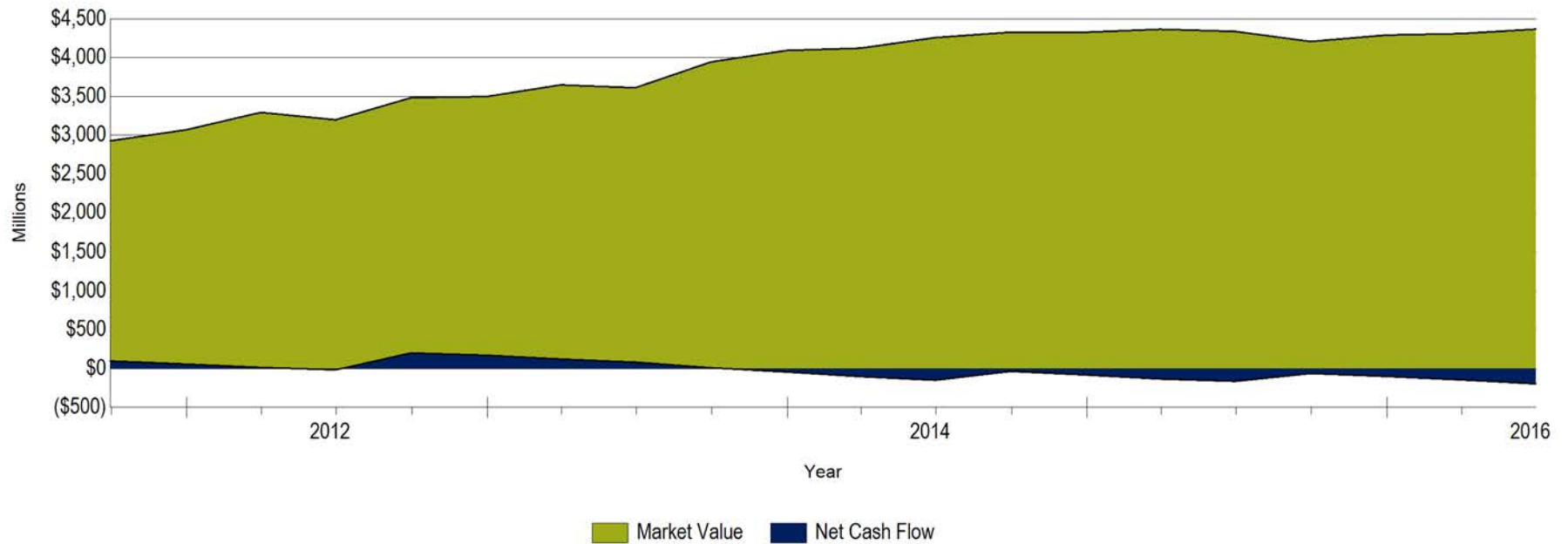
5 Years Ending June 30, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	7.0%	22	8.3%	76	0.8	41	1.3	39
Policy Index	7.1%	12	8.2%	74	0.9	38	1.3	37
InvestorForce Public DB > \$1B Net Median	6.0%	--	7.5%	--	0.8	--	1.2	--

Policy Index as of January 2016: 28% Russell 3000, 20% Barclays Aggregate, 15% MSCI ACWI ex U.S., 10% MSCI ACWI, 10% DJ U.S. Total Stock Market Index + 3%, 10% CPI+4% Index, and 7% NCREIF ODCE Real Estate Index.

**Total Fund Asset Growth Summary**

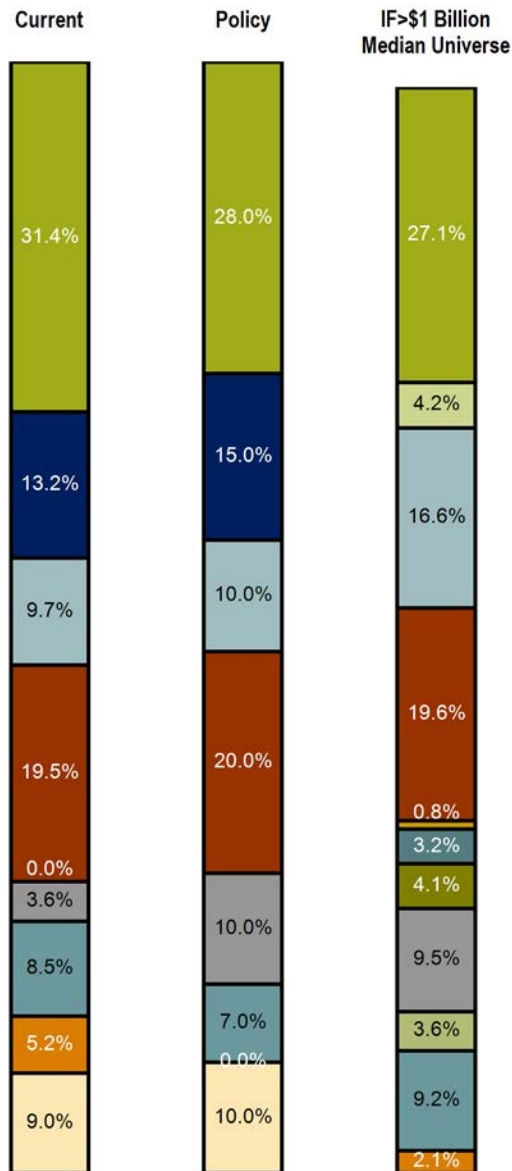
**Market Value History**  
5 Years Ending June 30, 2016



**Summary of Cash Flows**

	Last Three Months	Year-To-Date	One Year	Three Years	Five Years
Beginning Market Value	\$4,309,978,136	\$4,290,811,595	\$4,338,136,581	\$3,612,254,371	\$3,160,376,439
Net Cash Flow	-\$51,046,739	-\$94,933,308	-\$31,700,545	-\$278,252,863	-\$195,989,993
Net Investment Change	\$108,259,247	\$171,312,358	\$60,754,609	\$1,033,189,136	\$1,402,804,199
Ending Market Value	\$4,367,190,644	\$4,367,190,644	\$4,367,190,644	\$4,367,190,644	\$4,367,190,644

# Total Fund Asset Allocation vs. Policy Targets

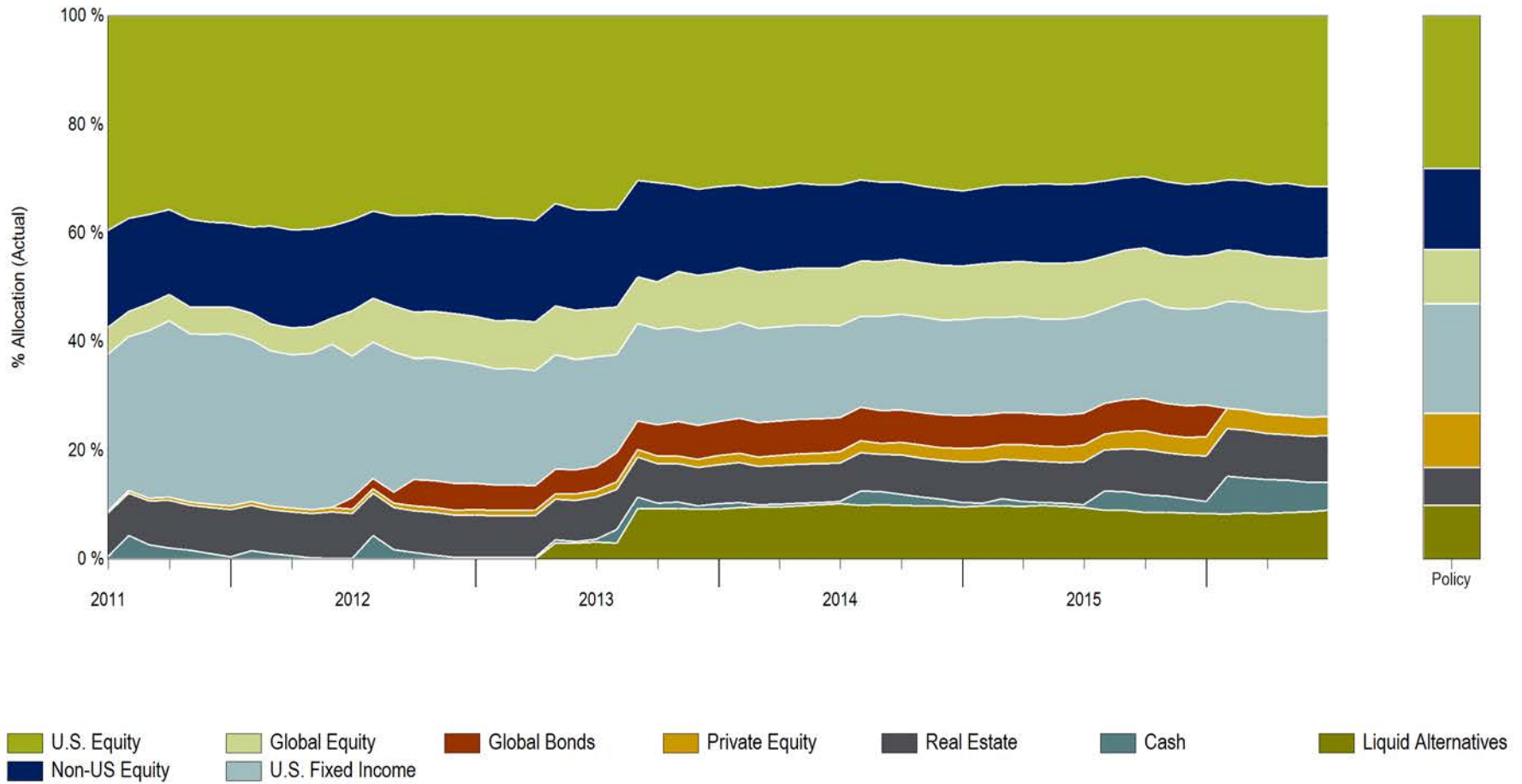


	Current	Current	Policy	Difference*	Policy Range	Within Range
U.S. Equity	\$1,373,234,838	31.4%	28.0%	3.4%	24.0% - 32.0%	Yes
Non-US Equity	\$574,993,318	13.2%	15.0%	-1.8%	12.0% - 18.0%	Yes
Emerging Markets Equity	\$421,734,448	9.7%	10.0%	-0.3%	7.0% - 13.0%	Yes
Global Equity	\$850,561,060	19.5%	20.0%	-0.5%	16.0% - 24.0%	Yes
U.S. Fixed Income						
Fixed Income - Emerging						
Fixed Income - Global						
Global Asset Allocation						
Private Equity	\$156,272,224	3.6%	10.0%	-6.4%	0.0% - 12.0%	Yes
Hedge Funds						
Real Estate	\$371,598,471	8.5%	7.0%	1.5%	4.0% - 10.0%	Yes
Cash	\$225,936,950	5.2%	0.0%	5.2%	0.0% - 3.0%	No
Liquid Alternatives Total	\$392,859,306	9.0%	10.0%	-1.0%	5.0% - 15.0%	Yes
<b>Total</b>	<b>\$4,367,190,644</b>	<b>100.0%</b>	<b>100.0%</b>			

\*Difference between Policy and Current Allocation

Total Fund Allocation History

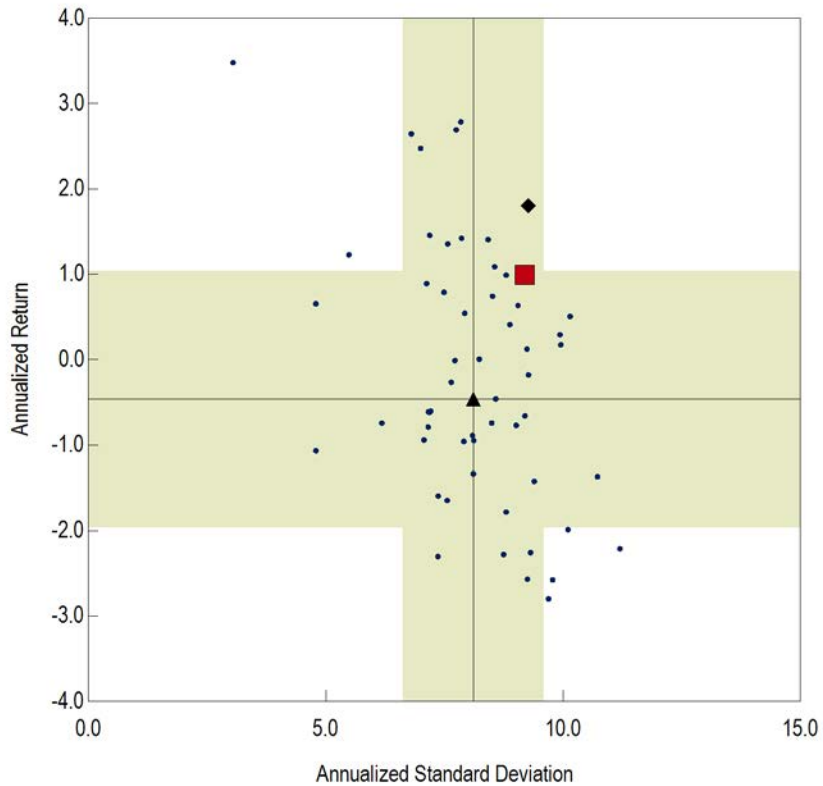
Asset Allocation History  
5 Years Ending June 30, 2016



Policy Index shown is most recently approved index

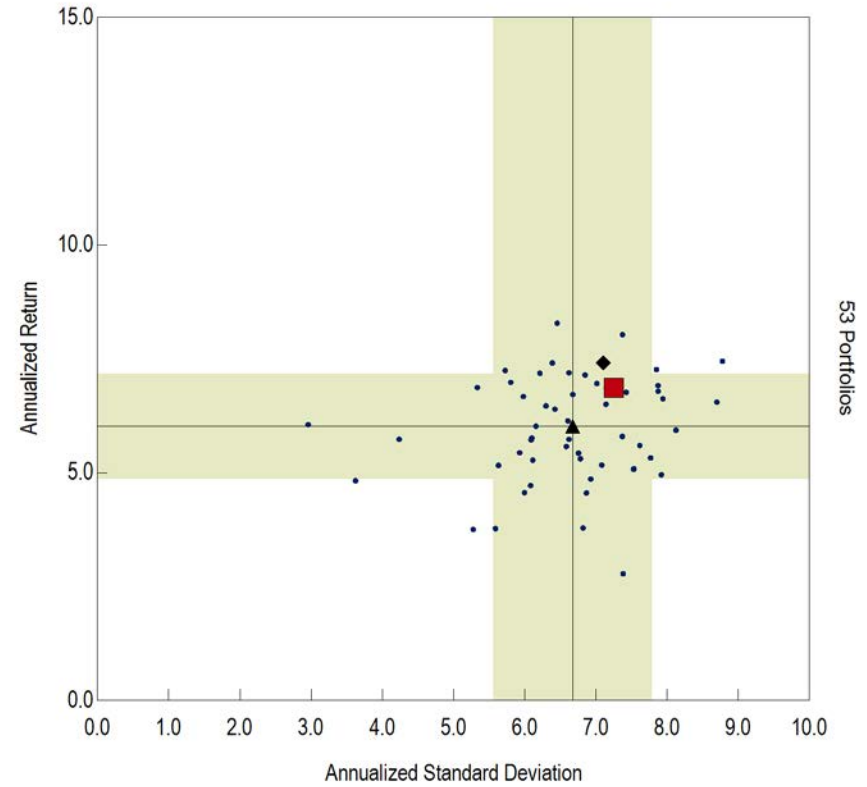
Total Fund Risk/Return

1 Years Ending June 30, 2016



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Net

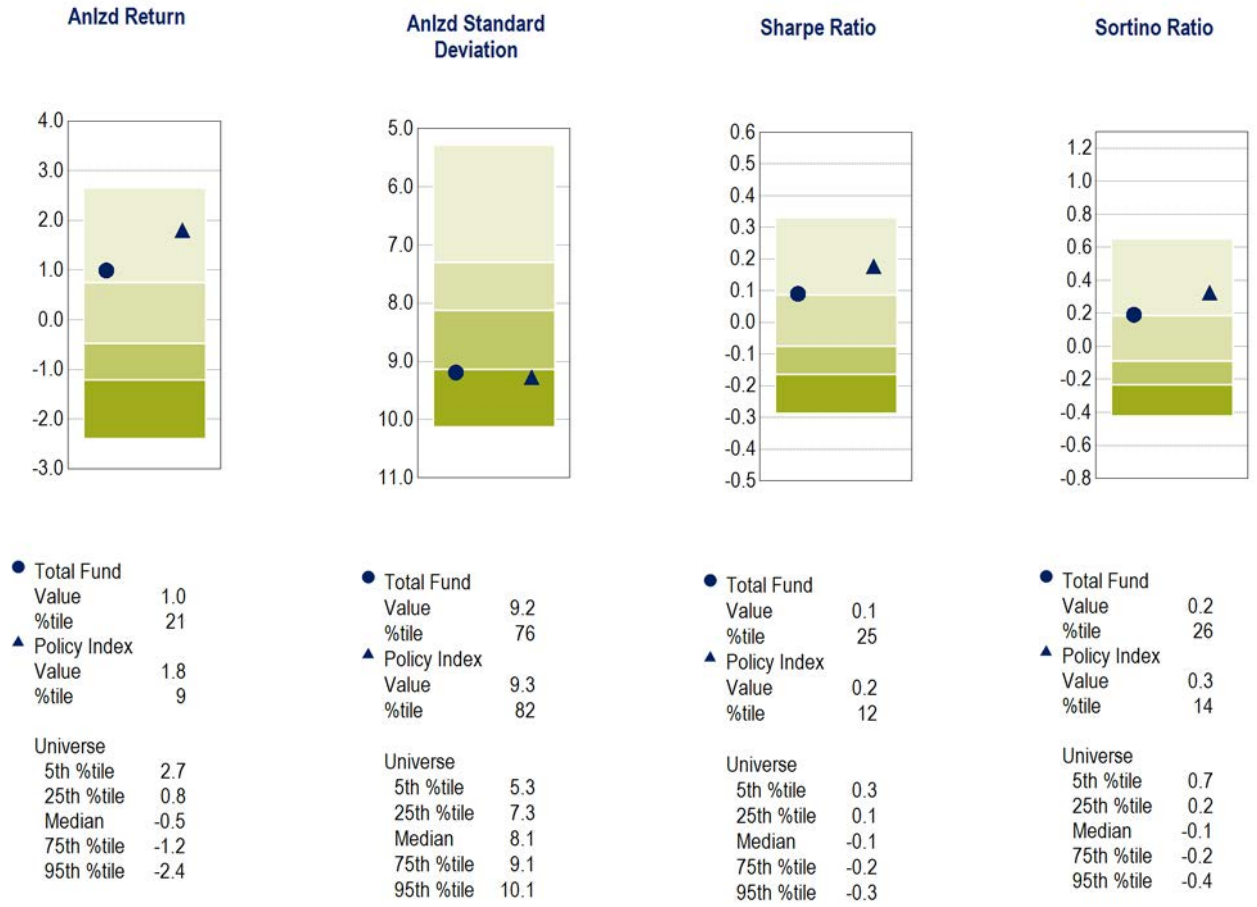
3 Years Ending June 30, 2016



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Net

Total Fund Risk Statistics vs. Peer Universe

Total Fund vs. InvestorForce Public DB > \$1B Net  
1 Year





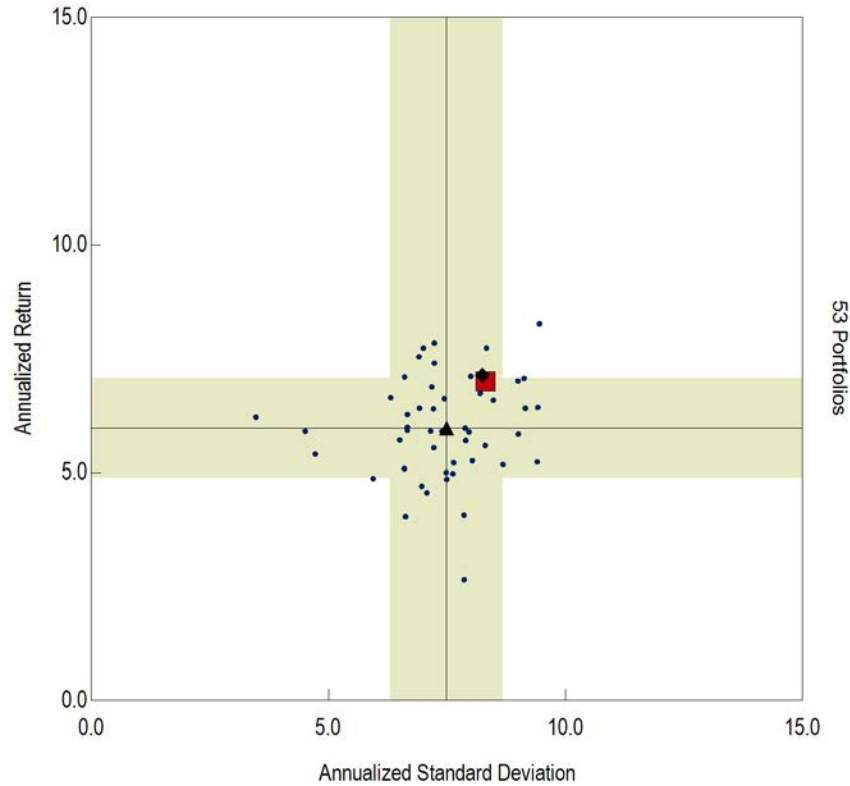
**Total Fund Risk Statistics vs. Peer Universe**

**Total Fund vs. InvestorForce Public DB > \$1B Net  
3 Years**



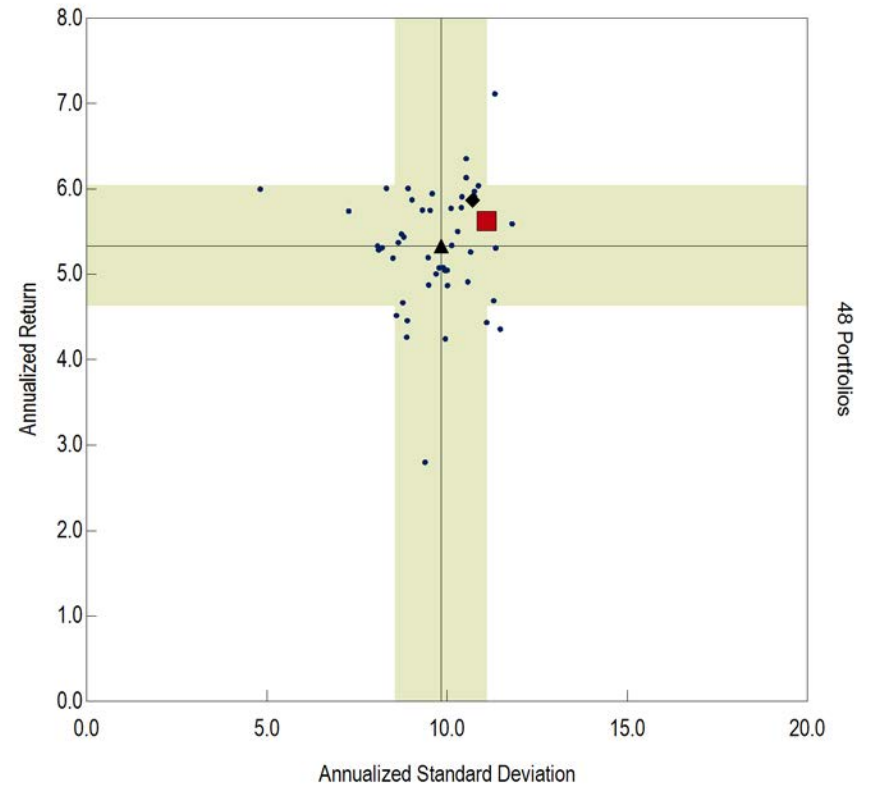
Total Fund Risk/Return

5 Years Ending June 30, 2016



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Net

10 Years Ending June 30, 2016

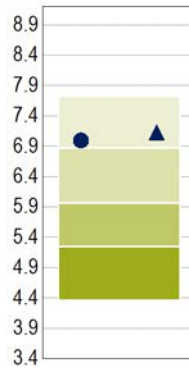


- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Net

Total Fund Risk Statistics vs. Peer Universe

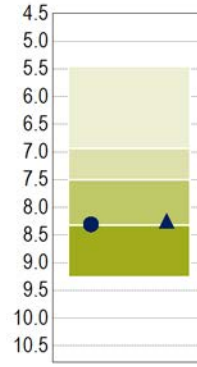
Total Fund vs. InvestorForce Public DB > \$1B Net  
5 Years

Anlzd Return



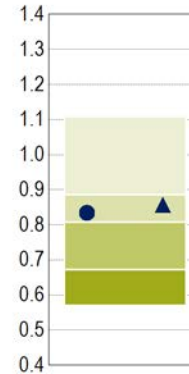
● Total Fund	
Value	7.0
%tile	22
▲ Policy Index	
Value	7.1
%tile	12
Universe	
5th %tile	7.7
25th %tile	6.9
Median	6.0
75th %tile	5.3
95th %tile	4.4

Anlzd Standard Deviation



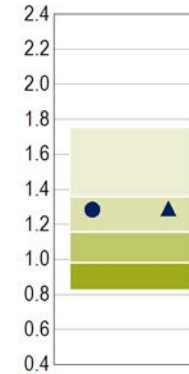
● Total Fund	
Value	8.3
%tile	76
▲ Policy Index	
Value	8.2
%tile	74
Universe	
5th %tile	5.5
25th %tile	6.9
Median	7.5
75th %tile	8.3
95th %tile	9.3

Sharpe Ratio



● Total Fund	
Value	0.8
%tile	41
▲ Policy Index	
Value	0.9
%tile	38
Universe	
5th %tile	1.1
25th %tile	0.9
Median	0.8
75th %tile	0.7
95th %tile	0.6

Sortino Ratio



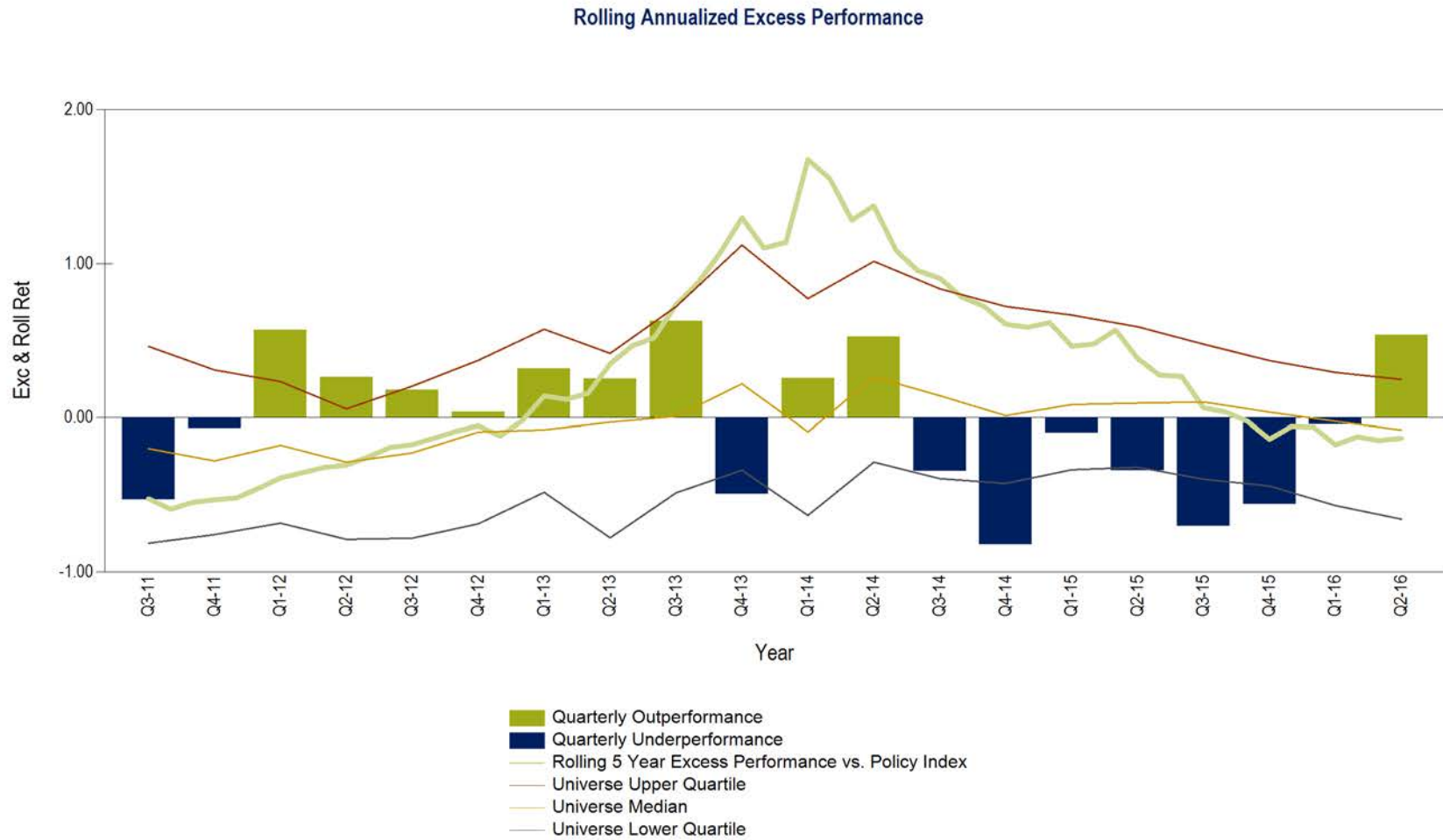
● Total Fund	
Value	1.3
%tile	39
▲ Policy Index	
Value	1.3
%tile	37
Universe	
5th %tile	1.8
25th %tile	1.4
Median	1.2
75th %tile	1.0
95th %tile	0.8

Total Fund Risk Statistics vs. Peer Universe

Total Fund vs. InvestorForce Public DB > \$1B Net  
10 Years

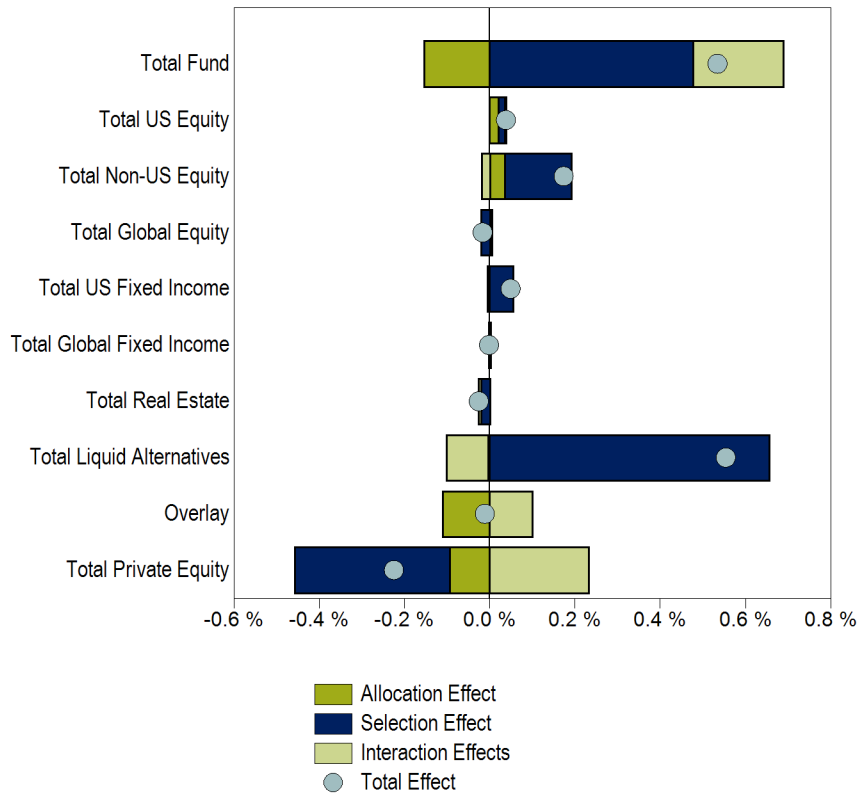


Rolling 5 Year Excess Returns- Net of Fees



**Total Fund Attribution Analysis**

**Attribution Effects  
3 Months Ending June 30, 2016**

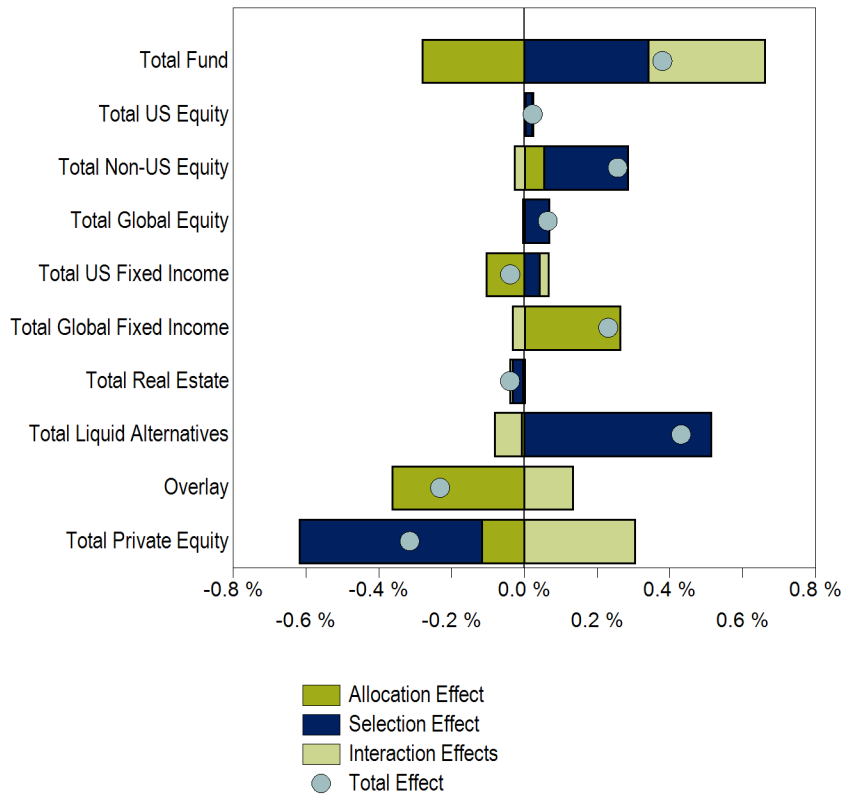


**Attribution Summary  
3 Months Ending June 30, 2016**

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total US Equity	2.7%	2.6%	0.1%	0.0%	0.0%	0.0%	0.0%
Total Non-US Equity	0.4%	-0.6%	1.0%	0.2%	0.0%	0.0%	0.2%
Total Global Equity	0.8%	1.0%	-0.2%	0.0%	0.0%	0.0%	0.0%
Total US Fixed Income	2.5%	2.2%	0.3%	0.1%	0.0%	0.0%	0.0%
Total Global Fixed Income	0.1%	2.9%	-2.8%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	1.6%	1.9%	-0.3%	0.0%	0.0%	0.0%	0.0%
Total Liquid Alternatives	8.9%	2.2%	6.7%	0.7%	0.0%	-0.1%	0.6%
Overlay	1.9%	0.1%	1.9%	0.0%	-0.1%	0.1%	0.0%
Total Private Equity	-0.2%	3.4%	-3.6%	-0.4%	-0.1%	0.2%	-0.2%
<b>Total</b>	<b>2.4%</b>	<b>1.9%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>-0.2%</b>	<b>0.2%</b>	<b>0.5%</b>

**Total Fund Attribution Analysis**

**Attribution Effects**  
Year to Date Ending June 30, 2016

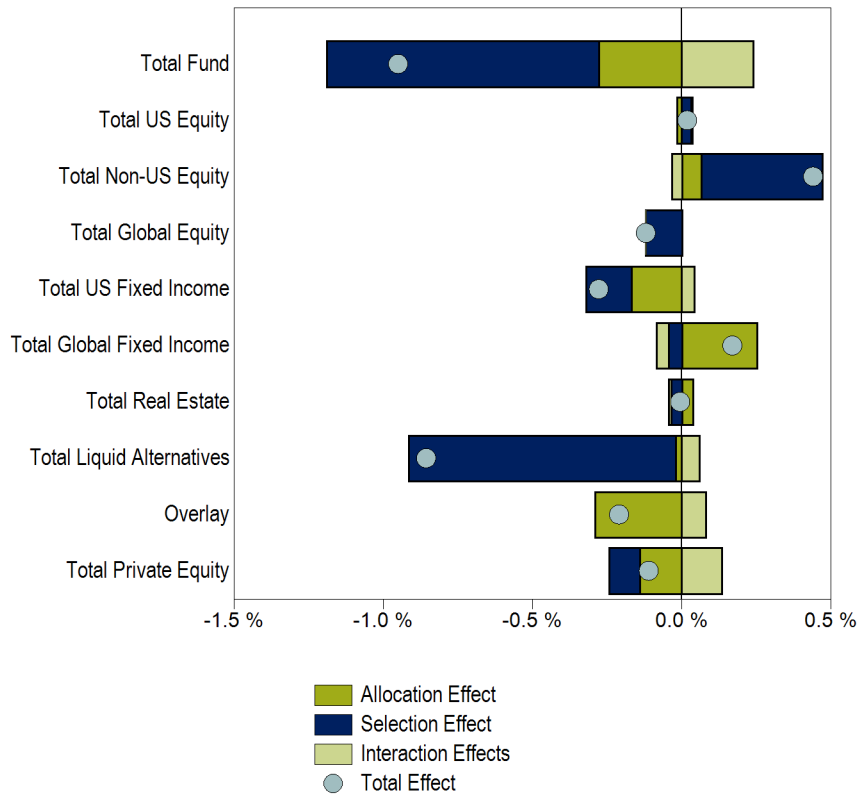


**Attribution Summary**  
Year to Date Ending June 30, 2016

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total US Equity	3.7%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%
Total Non-US Equity	0.5%	-1.0%	1.5%	0.2%	0.1%	0.0%	0.3%
Total Global Equity	1.9%	1.2%	0.6%	0.1%	0.0%	0.0%	0.1%
Total US Fixed Income	5.5%	5.3%	0.2%	0.0%	-0.1%	0.0%	0.0%
Total Global Fixed Income	2.7%	9.0%	-6.2%	0.0%	0.3%	0.0%	0.2%
Total Real Estate	3.5%	3.9%	-0.4%	0.0%	0.0%	0.0%	0.0%
Total Liquid Alternatives	8.8%	3.9%	4.9%	0.5%	0.0%	-0.1%	0.4%
Overlay	9.4%	0.1%	9.3%	0.0%	-0.4%	0.1%	-0.2%
Total Private Equity	0.5%	5.1%	-4.6%	-0.5%	-0.1%	0.3%	-0.3%
<b>Total</b>	<b>3.8%</b>	<b>3.3%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>-0.3%</b>	<b>0.3%</b>	<b>0.4%</b>

**Total Fund Attribution Analysis**

**Attribution Effects  
1 Year Ending June 30, 2016**



**Attribution Summary  
1 Year Ending June 30, 2016**

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total US Equity	2.2%	2.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Total Non-US Equity	-7.6%	-10.2%	2.6%	0.4%	0.1%	0.0%	0.4%
Total Global Equity	-4.8%	-3.7%	-1.1%	-0.1%	0.0%	0.0%	-0.1%
Total US Fixed Income	5.1%	6.0%	-0.9%	-0.1%	-0.2%	0.0%	-0.3%
Total Global Fixed Income	1.7%	8.9%	-7.1%	0.0%	0.3%	0.0%	0.2%
Total Real Estate	10.3%	10.8%	-0.5%	0.0%	0.0%	0.0%	0.0%
Total Liquid Alternatives	-4.7%	5.0%	-9.8%	-0.9%	0.0%	0.1%	-0.9%
Overlay	11.7%	0.2%	11.5%	0.0%	-0.3%	0.1%	-0.2%
Total Private Equity	9.0%	5.1%	3.9%	-0.1%	-0.1%	0.1%	-0.1%
<b>Total</b>	<b>1.0%</b>	<b>1.8%</b>	<b>-1.0%</b>	<b>-0.9%</b>	<b>-0.3%</b>	<b>0.2%</b>	<b>-0.9%</b>



# Ventura County Employees' Retirement Association

## Total Fund Risk Statistics

### 1 Year Ending June 30, 2016

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.3%	-1.6%	43	15.0%	55	1.9%	42	1.0%	1	2.1	8	1.0
MSCI ACWI	--	-3.7%	58	15.5%	63	0.0%	56	0.0%	1	--	--	1.0
Total US Equity	31.4%	2.2%	20	14.8%	50	0.1%	21	0.1%	1	1.1	7	1.0
Russell 3000	--	2.1%	21	14.7%	49	0.0%	22	0.0%	1	--	--	1.0
Total Non-US Equity	13.2%	-7.6%	40	16.0%	77	2.1%	31	1.5%	1	1.8	6	0.9
MSCI ACWI ex USA	--	-10.2%	62	16.9%	93	0.0%	51	0.0%	1	--	--	1.0
Total Global Equity	9.7%	-4.8%	58	15.3%	65	-1.2%	58	1.3%	1	-0.9	78	1.0
MSCI ACWI	--	-3.7%	50	15.5%	68	0.0%	51	0.0%	1	--	--	1.0
Total Fixed Income	19.5%	5.0%	22	3.1%	59	0.6%	22	3.2%	76	-1.2	82	0.5
Barclays Global Aggregate	--	8.9%	2	4.9%	93	0.0%	42	0.0%	1	--	--	1.0
Total US Fixed Income	19.5%	5.1%	35	3.1%	67	0.4%	30	2.5%	67	-0.3	31	0.8
Barclays Aggregate	--	6.0%	27	2.3%	54	0.0%	45	0.0%	1	--	--	1.0
Total Liquid Alternatives	9.0%	-4.7%	--	14.0%	--	-48.9%	--	13.4%	--	-0.7	--	9.0
CPI + 4% (Unadjusted)	--	5.0%	--	1.0%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	8.5%	10.3%	85	4.5%	55
NCREIF ODCE Net	--	10.8%	81	4.7%	58
Total Private Equity	3.6%	9.0%	14	7.6%	88
DJ U.S. Total Stock Market Index + 3%	--	5.1%	38	14.7%	99

Total U.S. Equity Benchmark: Russell 3000 Index. Prior to January 2016, the Benchmark is a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index.

Total Non-U.S. Equity Benchmark: MSCI ACWI ex US Free, prior to May 2002, the MSCI EAFE.

Composite rankings are used for Total Real Estate (InvestorForce Public DB Real Estate Pub+Priv) and Total Private Equity(InvestorForce Public DB Private Eq).

Ventura County Employees' Retirement Association

**Total Fund Risk Statistics**

**3 Years Ending June 30, 2016**

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.3%	7.5%	72	11.5%	22	1.7%	72	1.2%	1	1.3	8	1.0
MSCI ACWI	--	6.0%	84	11.8%	30	0.0%	86	0.0%	1	--	--	1.0
Total US Equity	31.4%	11.3%	21	11.5%	23	0.3%	24	0.3%	1	1.2	1	1.0
Russell 3000	--	11.0%	26	11.5%	22	0.0%	26	0.0%	1	--	--	1.0
Total Non-US Equity	13.2%	1.9%	74	12.5%	39	0.8%	73	1.2%	1	0.6	37	0.9
MSCI ACWI ex USA	--	1.2%	85	13.3%	78	0.0%	85	0.0%	1	--	--	1.0
Total Global Equity	9.7%	4.7%	77	12.0%	48	-1.3%	78	1.2%	1	-1.0	96	1.0
MSCI ACWI	--	6.0%	62	11.8%	44	0.0%	66	0.0%	1	--	--	1.0
Total Fixed Income	19.5%	3.1%	73	2.4%	37	1.8%	6	2.8%	81	0.1	52	0.4
Barclays Global Aggregate	--	2.8%	85	4.4%	96	0.0%	78	0.0%	1	--	--	1.0
Total US Fixed Income	19.5%	3.6%	50	2.2%	43	1.5%	21	2.2%	55	-0.2	48	0.5
Barclays Aggregate	--	4.1%	39	2.7%	57	0.0%	75	0.0%	1	--	--	1.0
Total Liquid Alternatives	9.0%	3.7%	--	10.2%	--	-9.3%	--	10.0%	--	-0.1	--	2.6
CPI + 4% (Unadjusted)	--	5.1%	--	1.1%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	8.5%	11.1%	77	4.5%	51
NCREIF ODCE Net	--	12.0%	65	4.9%	63
Total Private Equity	3.6%	14.7%	13	7.3%	73
DJ U.S. Total Stock Market Index + 3%	--	14.3%	18	11.5%	92

# Ventura County Employees' Retirement Association

## Total Fund Risk Statistics

### 5 Years Ending June 30, 2016

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.3%	7.8%	80	12.8%	25	2.8%	77	1.6%	1	1.5	4	0.9
MSCI ACWI	--	5.4%	95	13.5%	38	0.0%	94	0.0%	1	--	--	1.0
Total US Equity	31.4%	11.8%	19	12.6%	23	0.2%	21	0.3%	1	0.9	1	1.0
Russell 3000	--	11.5%	21	12.6%	21	0.0%	23	0.0%	1	--	--	1.0
Total Non-US Equity	13.2%	1.1%	82	14.7%	38	1.0%	82	1.4%	1	0.7	39	0.9
MSCI ACWI ex USA	--	0.1%	94	15.5%	73	0.0%	94	0.0%	1	--	--	1.0
Total Global Equity	9.7%	4.6%	77	12.7%	22	-0.4%	73	1.9%	2	-0.4	87	0.9
MSCI ACWI	--	5.4%	67	13.5%	40	0.0%	68	0.0%	1	--	--	1.0
Total Fixed Income	19.5%	4.0%	40	2.8%	32	3.1%	11	2.7%	68	0.8	10	0.5
Barclays Global Aggregate	--	1.8%	99	4.4%	87	0.0%	89	0.0%	1	--	--	1.0
Total US Fixed Income	19.5%	4.3%	40	2.7%	45	1.9%	24	2.2%	46	0.3	40	0.6
Barclays Aggregate	--	3.8%	52	2.8%	49	0.0%	82	0.0%	1	--	--	1.0
Total Liquid Alternatives	9.0%	--	--	--	--	--	--	--	--	--	--	--
CPI + 4% (Unadjusted)	--	5.4%	--	1.1%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	8.5%	10.6%	77	4.3%	31
NCREIF ODCE Net	--	11.7%	57	4.7%	39

Total U.S. Equity Benchmark: Russell 3000 Index. Prior to January 2016, the Benchmark is a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index.

Total Non-U.S. Equity Benchmark: MSCI ACWI ex US Free, prior to May 2002, the MSCI EAFE.

Composite rankings are used for Total Real Estate (InvestorForce Public DB Real Estate Pub+Priv).

# Ventura County Employees' Retirement Association

## Total Fund Performance Detail (Net)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>Total Fund</b>	<b>4,367,190,644</b>	<b>100.0</b>	<b>100.0</b>	<b>2.4</b>	<b>12</b>	<b>3.8</b>	<b>8</b>	<b>1.0</b>	<b>21</b>	<b>6.9</b>	<b>27</b>	<b>7.0</b>	<b>22</b>	<b>5.6</b>	<b>37</b>	<b>7.8</b>	<b>Apr-94</b>
Policy Index				1.9	38	3.3	23	1.8	9	7.4	6	7.1	12	5.9	24	7.9	Apr-94
Over/Under				0.5		0.5		-0.8		-0.5		-0.1		-0.3		-0.1	
Allocation Index				2.1	26	3.0	33	0.4	35	6.5	42	6.5	37	5.4	48	--	Apr-94
60% MSCI World (Net) / 40% CITI WGBI				2.0	34	4.7	2	2.9	2	5.4	70	4.6	94	4.7	84	6.3	Apr-94
InvestorForce Public DB > \$1B Net Median				1.7		2.7		-0.5		6.0		6.0		5.3		7.4	Apr-94
<b>Total Fund ex Parametric</b>	<b>4,135,147,320</b>	<b>94.7</b>	<b>--</b>	<b>2.5</b>	<b>--</b>	<b>4.5</b>	<b>--</b>	<b>1.8</b>	<b>--</b>	<b>7.1</b>	<b>--</b>	<b>7.1</b>	<b>--</b>	<b>5.6</b>	<b>--</b>	<b>7.8</b>	<b>Apr-94</b>
<b>Total Fund ex Private Equity</b>	<b>4,210,918,421</b>	<b>96.4</b>	<b>--</b>	<b>2.5</b>	<b>11</b>	<b>4.0</b>	<b>7</b>	<b>0.7</b>	<b>26</b>	<b>6.2</b>	<b>46</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>8.3</b>	<b>Jan-12</b>
Policy Index				1.9	38	3.3	23	1.8	9	7.4	6	7.1	12	5.9	24	9.0	Jan-12
Over/Under				0.6		0.7		-1.1		-1.2						-0.7	
InvestorForce Public DB > \$1B Net Median				1.7		2.7		-0.5		6.0		6.0		5.3		7.9	Jan-12
<b>Total US Equity</b>	<b>1,373,234,838</b>	<b>31.4</b>	<b>28.0</b>	<b>2.7</b>	<b>39</b>	<b>3.7</b>	<b>33</b>	<b>2.2</b>	<b>20</b>	<b>11.3</b>	<b>21</b>	<b>11.8</b>	<b>19</b>	<b>7.1</b>	<b>51</b>	<b>8.7</b>	<b>Dec-93</b>
Russell 3000				2.6	40	3.6	33	2.1	21	11.0	26	11.5	21	7.5	40	9.1	Dec-93
Over/Under				0.1		0.1		0.1		0.3		0.3		-0.4		-0.4	
eA All US Equity Net Median				2.1		1.7		-2.7		9.1		9.8		7.1		9.9	Dec-93
BlackRock Equity Market Fund	1,179,003,548	27.0		2.6	40	3.6	33	2.2	20	11.1	24	11.6	20	--	--	6.8	Dec-07
Dow Jones U.S. Total Stock Market				2.6	40	3.6	34	2.0	21	11.0	26	11.5	21	7.5	40	6.7	Dec-07
Over/Under				0.0		0.0		0.2		0.1		0.1				0.1	
eA All US Equity Net Median				2.1		1.7		-2.7		9.1		9.8		7.1		6.5	Dec-07
Western U.S. Index Plus	147,935,411	3.4		3.1	32	4.8	24	4.6	11	12.2	13	12.9	6	--	--	3.6	May-07
S&P 500				2.5	43	3.8	31	4.0	13	11.7	18	12.1	13	7.4	43	5.8	May-07
Over/Under				0.6		1.0		0.6		0.5		0.8				-2.2	
eA All US Equity Net Median				2.1		1.7		-2.7		9.1		9.8		7.1		5.7	May-07
BlackRock Extended Equity Index	46,295,879	1.1		3.4	26	2.6	46	-5.3	49	8.4	41	9.5	34	7.6	44	11.1	Oct-02
Dow Jones U.S. Completion Total Stock Market				3.3	29	2.4	47	-5.6	51	8.3	45	9.2	37	7.5	44	11.0	Oct-02
Over/Under				0.1		0.2		0.3		0.1		0.3		0.1		0.1	
eA US Small-Mid Cap Equity Net Median				2.2		2.2		-5.6		7.8		8.4		7.3		10.6	Oct-02

Color Coding: PERFORMANCE: Green-Over performance, Red-Under performance / Color Coding: RANKS: 1 - 25 Green - Positive Result, 26 - 50 Yellow, 50 - 75 Orange, 76 - 100 Red - Negative Result.

Policy Index: Currently, 28% Russell 3000 Index, 20% Barclays Aggregate, 15% MSCI ACWI ex U.S., 10% MSCI ACWI, 10% DJ U.S. Total Stock Market Index + 3%, 10% CPI+4% Index, and 7% NCREIF ODCE Real Estate Index.

Total U.S. Equity Benchmark: Russell 3000 Index. Prior to January 2016, the Benchmark is a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index.

# Ventura County Employees' Retirement Association

## Total Fund Performance Detail (Net)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>Total Non-US Equity</b>	<b>574,993,318</b>	<b>13.2</b>	<b>15.0</b>	<b>0.4</b>	<b>19</b>	<b>0.5</b>	<b>13</b>	<b>-7.6</b>	<b>40</b>	<b>1.9</b>	<b>74</b>	<b>1.1</b>	<b>82</b>	<b>2.2</b>	<b>61</b>	<b>5.9</b>	<b>Mar-94</b>
MSCI ACWI ex USA				-0.6	29	-1.0	19	-10.2	62	1.2	85	0.1	94	1.9	69	4.6	Mar-94
Over/Under				1.0		1.5		2.6		0.7		1.0		0.3		1.3	
MSCI EAFE				-1.5	44	-4.4	57	-10.2	62	2.1	68	1.7	73	1.6	76	4.2	Mar-94
MSCI ACWI ex USA Local Currency				-0.1	22	-4.1	52	-9.2	53	5.4	24	5.0	20	2.8	49	--	Mar-94
MSCI EAFE Local Currency				-0.7	31	-7.2	92	-10.2	62	5.8	20	6.2	14	2.1	64	4.2	Mar-94
eA All EAFE Equity Net Median				-1.8		-4.0		-8.8		3.0		2.7		2.5		6.1	Mar-94
<b>BlackRock ACWI ex-U.S. Index</b>	<b>236,703,700</b>	<b>5.4</b>		<b>-0.5</b>	<b>43</b>	<b>-0.7</b>	<b>40</b>	<b>-9.4</b>	<b>64</b>	<b>1.8</b>	<b>81</b>	<b>0.6</b>	<b>84</b>	--	--	<b>0.6</b>	<b>Mar-07</b>
MSCI ACWI ex USA				-0.6	46	-1.0	43	-10.2	66	1.2	82	0.1	89	1.9	77	0.1	Mar-07
Over/Under				0.1		0.3		0.8		0.6		0.5				0.5	
MSCI ACWI ex USA Local Currency				-0.1	36	-4.1	72	-9.2	62	5.4	23	5.0	12	2.8	53	1.2	Mar-07
eA ACWI ex-US All Cap Equity Net Median				-1.1		-2.3		-7.5		3.5		2.7		2.8		1.4	Mar-07
<b>Sprucegrove</b>	<b>165,287,365</b>	<b>3.8</b>		<b>-0.1</b>	<b>36</b>	<b>0.3</b>	<b>30</b>	<b>-10.1</b>	<b>66</b>	<b>0.5</b>	<b>89</b>	<b>0.9</b>	<b>80</b>	<b>2.4</b>	<b>62</b>	<b>6.4</b>	<b>Mar-02</b>
MSCI ACWI ex USA				-0.6	46	-1.0	43	-10.2	66	1.2	82	0.1	89	1.9	77	5.7	Mar-02
Over/Under				0.5		1.3		0.1		-0.7		0.8		0.5		0.7	
MSCI EAFE				-1.5	57	-4.4	77	-10.2	66	2.1	75	1.7	66	1.6	88	5.1	Mar-02
MSCI ACWI ex USA Local Currency				-0.1	36	-4.1	72	-9.2	62	5.4	23	5.0	12	2.8	53	4.3	Mar-02
MSCI EAFE Local Currency				-0.7	46	-7.2	98	-10.2	66	5.8	15	6.2	7	2.1	73	3.4	Mar-02
eA ACWI ex-US All Cap Equity Net Median				-1.1		-2.3		-7.5		3.5		2.7		2.8		6.7	Mar-02
<b>Hexavest</b>	<b>77,183,761</b>	<b>1.8</b>		<b>0.5</b>	<b>12</b>	<b>0.5</b>	<b>13</b>	<b>-4.5</b>	<b>21</b>	<b>2.9</b>	<b>54</b>	<b>2.5</b>	<b>53</b>	--	--	<b>2.9</b>	<b>Dec-10</b>
MSCI EAFE				-1.5	44	-4.4	54	-10.2	55	2.1	76	1.7	73	1.6	70	2.4	Dec-10
Over/Under				2.0		4.9		5.7		0.8		0.8				0.5	
MSCI EAFE Local Currency				-0.7	35	-7.2	95	-10.2	56	5.8	12	6.2	6	2.1	57	5.7	Dec-10
eA EAFE All Cap Equity Net Median				-1.9		-4.2		-9.3		3.0		2.6		2.2		3.2	Dec-10
<b>Walter Scott</b>	<b>95,818,491</b>	<b>2.2</b>		<b>3.4</b>	<b>1</b>	<b>4.1</b>	<b>9</b>	<b>-0.3</b>	<b>11</b>	<b>3.4</b>	<b>53</b>	<b>3.2</b>	<b>39</b>	--	--	<b>3.7</b>	<b>Dec-10</b>
MSCI ACWI ex USA				-0.6	46	-1.0	43	-10.2	66	1.2	82	0.1	89	1.9	77	0.8	Dec-10
Over/Under				4.0		5.1		9.9		2.2		3.1				2.9	
MSCI ACWI ex USA Local Currency				-0.1	36	-4.1	72	-9.2	62	5.4	23	5.0	12	2.8	53	4.4	Dec-10
eA ACWI ex-US All Cap Equity Net Median				-1.1		-2.3		-7.5		3.5		2.7		2.8		3.3	Dec-10

# Ventura County Employees' Retirement Association

## Total Fund Performance Detail (Net)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>Total Global Equity</b>	<b>421,734,448</b>	<b>9.7</b>	<b>10.0</b>	<b>0.8</b>	<b>54</b>	<b>1.9</b>	<b>43</b>	<b>-4.8</b>	<b>58</b>	<b>4.7</b>	<b>77</b>	<b>4.6</b>	<b>77</b>	<b>3.3</b>	<b>76</b>	<b>4.6</b>	<b>May-05</b>
MSCI ACWI				1.0	51	1.2	46	-3.7	50	6.0	62	5.4	67	4.3	64	5.6	May-05
Over/Under				-0.2		0.7		-1.1		-1.3		-0.8		-1.0		-1.0	
eA All Global Equity Net Median				1.0		0.7		-3.8		7.0		6.5		4.7		6.6	May-05
BlackRock MSCI ACWI Equity Index	221,476,026	5.1		1.1	48	1.5	45	-3.3	48	6.4	59	--	--	--	--	9.0	Jul-12
MSCI ACWI				1.0	51	1.2	46	-3.7	50	6.0	62	5.4	67	4.3	64	8.6	Jul-12
Over/Under				0.1		0.3		0.4		0.4						0.4	
eA All Global Equity Net Median				1.0		0.7		-3.8		7.0		6.5		4.7		9.6	Jul-12
GMO Global Equity	200,258,422	4.6		0.4	60	2.3	41	-6.5	71	3.0	87	4.1	82	4.0	69	5.4	May-05
MSCI ACWI				1.0	51	1.2	46	-3.7	50	6.0	62	5.4	67	4.3	64	5.6	May-05
Over/Under				-0.6		1.1		-2.8		-3.0		-1.3		-0.3		-0.2	
eA All Global Equity Net Median				1.0		0.7		-3.8		7.0		6.5		4.7		6.6	May-05

# Ventura County Employees' Retirement Association

## Total Fund Performance Detail (Net)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>Total Private Equity</b>	<b>156,272,224</b>	<b>3.6</b>	<b>10.0</b>	<b>-0.2</b>	<b>76</b>	<b>0.5</b>	<b>65</b>	<b>9.0</b>	<b>14</b>	<b>14.7</b>	<b>13</b>	--	--	--	--	<b>13.7</b>	<b>Jan-12</b>
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>3.4</u>	3	<u>5.1</u>	4	<u>5.1</u>	38	<u>14.3</u>	18	<u>14.9</u>	2	--	--	<u>17.6</u>	<i>Jan-12</i>
Over/Under				-3.6		-4.6		3.9		0.4						-3.9	
<i>InvestorForce Public DB Private Eq Net Median</i>				0.2		1.3		3.7		11.1		9.5		9.4		10.8	<i>Jan-12</i>
<b>Adams Street Global Fund Series</b>	<b>97,098,303</b>	<b>2.2</b>		<b>-0.7</b>	--	<b>0.6</b>	--	<b>6.3</b>	--	<b>13.9</b>	--	--	--	--	--	<b>12.5</b>	<b>Jan-12</b>
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>3.4</u>	--	<u>5.1</u>	--	<u>5.1</u>	--	<u>14.3</u>	--	<u>14.9</u>	--	--	--	<u>17.6</u>	<i>Jan-12</i>
Over/Under				-4.1		-4.5		1.2		-0.4						-5.1	
<b>Harbourvest- Dover Street VII</b>	<b>45,324,825</b>	<b>1.0</b>		<b>1.3</b>	--	<b>1.0</b>	--	<b>14.8</b>	--	<b>18.8</b>	--	--	--	--	--	<b>18.8</b>	<b>Jul-13</b>
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>3.4</u>	--	<u>5.1</u>	--	<u>5.1</u>	--	<u>14.3</u>	--	<u>14.9</u>	--	--	--	<u>14.3</u>	<i>Jul-13</i>
Over/Under				-2.1		-4.1		9.7		4.5						4.5	
<b>Pantheon Global Secondary Funds</b>	<b>13,849,096</b>	<b>0.3</b>		<b>-1.8</b>	--	<b>-1.7</b>	--	<b>9.6</b>	--	<b>8.2</b>	--	--	--	--	--	<b>8.0</b>	<b>Jan-12</b>
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>3.4</u>	--	<u>5.1</u>	--	<u>5.1</u>	--	<u>14.3</u>	--	<u>14.9</u>	--	--	--	<u>17.6</u>	<i>Jan-12</i>
Over/Under				-5.2		-6.8		4.5		-6.1						-9.6	

Private equity performance shown above is calculated using a time-weighted return methodology. Market values shown are cash-adjusted based on the current period's cash flows.

Adams Street Global Fund Series includes Adams Street 2010 U.S. Fund, 2010 Non-U.S. Developed Markets Fund, 2010 Non-U.S. Emerging Markets Fund, 2010 Direct Fund, and 2013 Global Fund.

Pantheon Global Secondary Funds includes Pantheon Global Secondary Fund IV and Global Secondary Fund V.

Ventura County Employees' Retirement Association

Private Equity Limited Partnership Performance

Fund Name	Vintage Year	Initial Investment Date	Initial Commitment	Capital Called to Date <sup>1</sup>	Outstanding Commitment <sup>1</sup>	Call Ratio	Add'l Fees <sup>2</sup>	Distributions to Date	Valuation	Total Value	Net Benefit	IRR	Since Inception	
													Distributions to Paid In Multiple (DPI)	Total Value to Paid In Multiple (TVPI)
Adams Street 2010 U.S. Fund	2010	5/21/2010	\$42,500,000	\$29,665,000	\$12,835,000	70%	\$15,213	\$10,764,481	\$31,385,819	\$42,150,300	\$12,470,087	13.3%	0.36x	1.42x
Adams Street 2010 Non-U.S. Dev. Mkts Fund	2010	5/21/2010	\$25,500,000	\$17,697,000	\$7,803,000	69%	\$1,589	\$5,557,179	\$15,476,503	\$21,033,682	\$3,335,093	7.0%	0.31x	1.19x
Adams Street 2010 Non-U.S. Emg Mkts Fund	2010	1/3/2011	\$8,500,000	\$6,111,500	\$2,388,500	72%	\$0	\$314,436	\$7,403,650	\$7,718,086	\$1,606,586	9.3%	0.05x	1.26x
Adams Street 2010 Direct Fund	2010	5/21/2010	\$8,500,000	\$7,837,000	\$663,000	92%	\$6,697	\$4,071,592	\$7,692,441	\$11,764,033	\$3,920,336	12.3%	0.52x	1.5x
<b>Total Adams Street 2010</b>	<b>2010</b>	<b>5/21/2010</b>	<b>\$85,000,000</b>	<b>\$61,310,500</b>	<b>\$23,689,500</b>	<b>72%</b>	<b>\$23,499</b>	<b>\$20,707,688</b>	<b>\$61,958,413</b>	<b>\$82,666,101</b>	<b>\$21,332,102</b>	<b>11.2%</b>	<b>0.34x</b>	<b>1.35x</b>
Adams Street 2013 Global Fund	2013	6/27/2013	\$75,000,000	\$36,375,000	\$38,625,000	49%	\$10,728	\$2,698,535	\$35,139,880	\$37,838,415	\$1,452,687	2.8%	0.07x	1.04x
HarbourVest - Dover Street VIII	2013	5/30/2013	\$67,500,000	\$52,312,500	\$15,187,500	78%	\$84,954	\$24,859,201	\$46,324,609	\$71,183,810	\$18,786,356	27.3%	0.47x	1.36x
Pantheon Global Secondary Fund IV	2010	8/20/2010	\$15,000,000	\$9,960,000	\$5,040,000	66%	\$0	\$8,310,001	\$6,006,502	\$14,316,503	\$4,356,503	14.2%	0.83x	1.44x
Pantheon Global Secondary Fund V	2015	2/26/2015	\$50,000,000	\$7,441,510	\$42,558,490	15%	(\$137,480)	\$0	\$8,523,167	\$8,523,167	\$1,219,137	11.9%	--	1.17x
<b>Total VCERA Private Equity Program</b>	<b>--</b>	<b>5/21/2010</b>	<b>\$292,500,000</b>	<b>\$167,399,510</b>	<b>\$125,100,490</b>	<b>57%</b>	<b>(\$18,299)</b>	<b>\$56,575,425</b>	<b>\$157,952,571</b>	<b>\$214,527,996</b>	<b>\$47,146,785</b>	<b>13.3%</b>	<b>0.34x</b>	<b>1.28x</b>

1. Includes recycled/recallable distributions received to date.

2. Add'l Fees represents notional interest paid/(received).

2. Add'l Fees for Pantheon Global Secondary Fund V includes notional interest paid/(received) and management fee rebates paid to VCERA.

Note: Private equity performance data is reported net of fees.

Performance shown is based on 3/31/2016 NAVs cash-adjusted for cash flows through 6/30/2016.



# Ventura County Employees' Retirement Association

## Total Fund Performance Detail (Net)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>Total US Fixed Income</b>	<b>850,561,060</b>	<b>19.5</b>	<b>20.0</b>	<b>2.5</b>	<b>42</b>	<b>5.5</b>	<b>35</b>	<b>5.1</b>	<b>35</b>	<b>3.6</b>	<b>50</b>	<b>4.3</b>	<b>40</b>	<b>6.2</b>	<b>24</b>	<b>6.1</b>	<b>Feb-94</b>
Barclays Aggregate				2.2	49	5.3	38	6.0	27	4.1	39	3.8	52	5.1	47	5.7	Feb-94
Over/Under				0.3		0.2		-0.9		-0.5		0.5		1.1		0.4	
eA All US Fixed Inc Net Median				2.2		4.5		4.0		3.6		3.9		5.0		5.5	Feb-94
BlackRock U.S. Debt Fund	147,684,373	3.4		2.2	48	5.4	37	6.1	26	4.1	38	3.8	51	5.2	45	5.6	Nov-95
Barclays Aggregate				2.2	49	5.3	38	6.0	27	4.1	39	3.8	52	5.1	47	5.5	Nov-95
Over/Under				0.0		0.1		0.1		0.0		0.0		0.1		0.1	
eA All US Fixed Inc Net Median				2.2		4.5		4.0		3.6		3.9		5.0		5.4	Nov-95
Western	285,861,068	6.5		2.9	32	6.0	28	6.6	20	5.0	21	5.2	27	6.0	28	6.5	Dec-96
Barclays Aggregate				2.2	49	5.3	38	6.0	27	4.1	39	3.8	52	5.1	47	5.6	Dec-96
Over/Under				0.7		0.7		0.6		0.9		1.4		0.9		0.9	
eA All US Fixed Inc Net Median				2.2		4.5		4.0		3.6		3.9		5.0		5.4	Dec-96
Reams	299,002,801	6.8		2.0	56	5.3	38	4.4	45	1.4	84	3.8	52	6.3	23	5.7	Sep-01
Reams Custom Index				0.2	98	0.3	98	0.5	90	0.3	98	1.9	82	4.2	68	4.2	Sep-01
Over/Under				1.8		5.0		3.9		1.1		1.9		2.1		1.5	
Barclays Aggregate				2.2	49	5.3	38	6.0	27	4.1	39	3.8	52	5.1	47	4.8	Sep-01
eA All US Fixed Inc Net Median				2.2		4.5		4.0		3.6		3.9		5.0		4.8	Sep-01
Loomis Sayles Multi Strategy	75,167,471	1.7		3.9	20	6.5	23	2.7	64	4.7	26	5.4	25	7.1	12	6.6	Jul-05
Loomis Custom Index				3.3	26	6.5	23	4.4	44	3.9	42	4.3	40	5.8	30	5.4	Jul-05
Over/Under				0.6		0.0		-1.7		0.8		1.1		1.3		1.2	
Barclays Govt/Credit				2.7	37	6.2	26	6.7	20	4.2	35	4.1	45	5.2	45	4.7	Jul-05
eA All US Fixed Inc Net Median				2.2		4.5		4.0		3.6		3.9		5.0		4.7	Jul-05
Loomis Strategic Alpha	42,845,348	1.0		2.2	51	2.5	75	0.1	94	1.8	80	--	--	--	--	1.8	Jul-13
Barclays Aggregate				2.2	49	5.3	38	6.0	27	4.1	39	3.8	52	5.1	47	4.1	Jul-13
Over/Under				0.0		-2.8		-5.9		-2.3						-2.3	
eA All US Fixed Inc Net Median				2.2		4.5		4.0		3.6		3.9		5.0		3.5	Jul-13

Reams Custom Index: Merrill Lynch 3 Month Libor Constant Maturity Index, prior to February 2013 the Barclays Aggregate

Loomis Custom Index: 65% Barclays Aggregate, 30% Citigroup High Yield Market Index and 5% JPM Non-US Hedged Bond Index

As of January 2016, Loomis Strategic Alpha was moved from the Total Global Fixed Income composite to the Total US Fixed Income composite.

# Ventura County Employees' Retirement Association

## Total Fund Performance Detail (Net)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>Total Real Estate</b>	<b>371,598,471</b>	<b>8.5</b>	<b>7.0</b>	<b>1.6</b>	<b>83</b>	<b>3.5</b>	<b>94</b>	<b>10.3</b>	<b>85</b>	<b>11.1</b>	<b>77</b>	<b>10.6</b>	<b>77</b>	<b>3.9</b>	<b>83</b>	<b>8.0</b>	<b>Mar-94</b>
NCREIF ODCE Net				1.9	72	3.9	81	10.8	81	12.0	65	11.7	57	5.2	45	8.2	Mar-94
Over/Under				-0.3		-0.4		-0.5		-0.9		-1.1		-1.3		-0.2	
InvestorForce Public DB Real Estate Pub+Priv Net Median				2.3		4.7		11.6		12.2		11.9		5.1		7.0	Mar-94
Prudential Real Estate	129,647,890	3.0		1.8	--	3.8	--	12.0	--	12.7	--	12.1	--	4.9	--	6.0	Jun-04
NCREIF ODCE Net				1.9	--	3.9	--	10.8	--	12.0	--	11.7	--	5.2	--	7.1	Jun-04
Over/Under				-0.1		-0.1		1.2		0.7		0.4		-0.3		-1.1	
NCREIF ODCE				2.1	--	4.4	--	11.8	--	13.0	--	12.7	--	6.2	--	8.1	Jun-04
UBS Real Estate	240,801,755	5.5		1.5	--	3.4	--	9.6	--	10.2	--	9.9	--	5.6	--	7.6	Mar-03
NCREIF ODCE Net				1.9	--	3.9	--	10.8	--	12.0	--	11.7	--	5.2	--	7.3	Mar-03
Over/Under				-0.4		-0.5		-1.2		-1.8		-1.8		0.4		0.3	
NCREIF ODCE				2.1	--	4.4	--	11.8	--	13.0	--	12.7	--	6.2	--	8.3	Mar-03
RREEF	1,148,826	0.0		0.7	--	-4.2	--	-10.1	--	11.6	--	14.5	--	--	--	-5.2	Sep-07
NCREIF ODCE Net				1.9	--	3.9	--	10.8	--	12.0	--	11.7	--	5.2	--	3.7	Sep-07
Over/Under				-1.2		-8.1		-20.9		-0.4		2.8				-8.9	
NCREIF ODCE				2.1	--	4.4	--	11.8	--	13.0	--	12.7	--	6.2	--	4.6	Sep-07

Total Real Estate Benchmark: NCREIF ODCE; prior to January 2006, the NCREIF Property Index

Ventura County Employees' Retirement Association

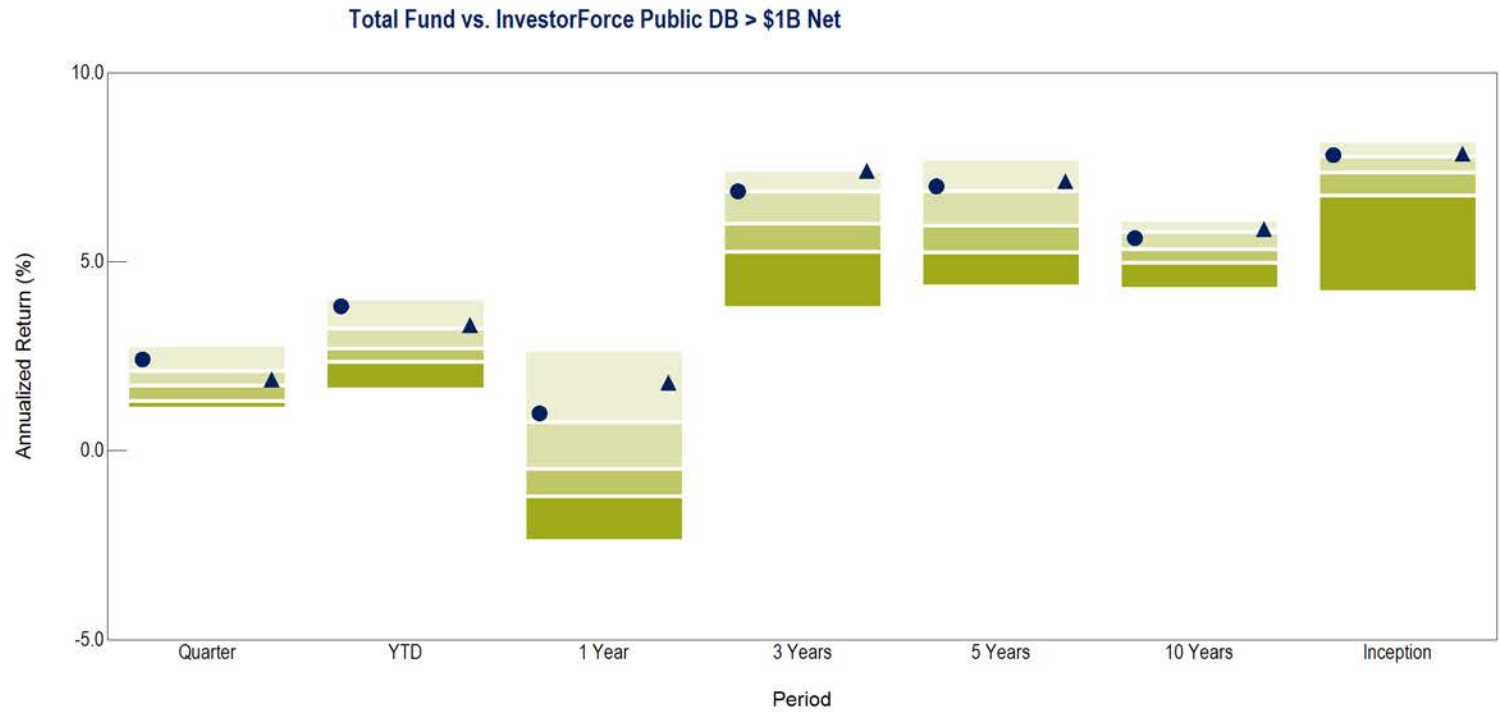
Total Fund Performance Detail (Net)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>Total Liquid Alternatives</b>	<b>392,859,306</b>	<b>9.0</b>	<b>10.0</b>	<b>8.9</b>	--	<b>8.8</b>	--	<b>-4.7</b>	--	<b>3.7</b>	--	--	--	--	--	<b>4.5</b>	<b>Apr-13</b>
<i>CPI + 4% (Unadjusted)</i>				<u>2.2</u>	--	<u>3.9</u>	--	<u>5.0</u>	--	<u>5.1</u>	--	<u>5.4</u>	--	<u>5.8</u>	--	<u>5.2</u>	<i>Apr-13</i>
Over/Under				6.7		4.9		-9.7		-1.4						-0.7	
Bridgewater All Weather Fund	277,000,333	6.3		<b>5.9</b>	--	<b>8.4</b>	--	<b>0.5</b>	--	--	--	--	--	--	--	<b>4.2</b>	Aug-13
<i>CPI + 5% (Unadjusted)</i>				<u>2.5</u>	--	<u>4.4</u>	--	<u>6.1</u>	--	--	--	--	--	--	--	<u>6.1</u>	<i>Aug-13</i>
Over/Under				3.4		4.0		-5.6								-1.9	
Tortoise Energy Infrastructure	115,858,972	2.7		<b>16.8</b>	--	<b>9.9</b>	--	<b>-15.2</b>	--	<b>0.4</b>	--	--	--	--	--	<b>1.3</b>	Apr-13
<i>Wells Fargo MLP Index</i>				<u>21.8</u>	--	<u>14.6</u>	--	<u>-19.2</u>	--	<u>-4.9</u>	--	<u>3.6</u>	--	--	--	<u>-4.2</u>	<i>Apr-13</i>
Over/Under				-5.0		-4.7		4.0		5.3						5.5	
<b>Overlay</b>	<b>225,936,950</b>	<b>5.2</b>	<b>0.0</b>														
Parametric	225,936,950	5.2															

Overlay performance is not applicable on an individual account level

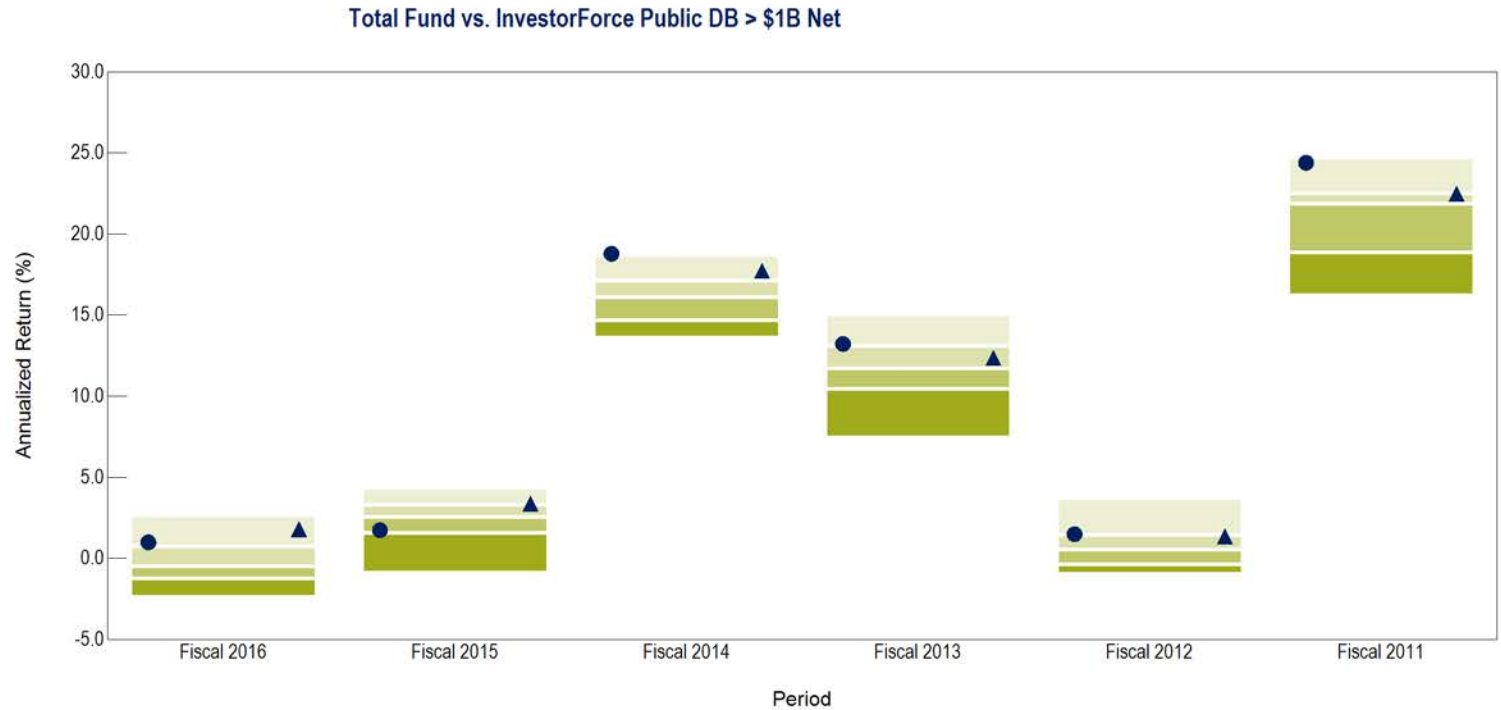
PIMCO Global Fixed Income is liquidating. The market value as of 6/30/2016 is \$30

Ventura County Employees' Retirement Association  
**Total Fund Return Summary vs. Peer Universe**



	Return (Rank)													
5th Percentile	2.8		4.0		2.7		7.4		7.7		6.1		8.2	
25th Percentile	2.1		3.2		0.8		6.9		6.9		5.8		7.8	
Median	1.7		2.7		-0.5		6.0		6.0		5.3		7.4	
75th Percentile	1.3		2.4		-1.2		5.3		5.3		5.0		6.8	
95th Percentile	1.1		1.6		-2.4		3.8		4.4		4.3		4.2	
# of Portfolios	55		55		55		53		53		48		31	
● Total Fund	2.4	(12)	3.8	(8)	1.0	(21)	6.9	(27)	7.0	(22)	5.6	(37)	7.8	(24)
▲ Policy Index	1.9	(38)	3.3	(23)	1.8	(9)	7.4	(6)	7.1	(12)	5.9	(24)	7.9	(23)

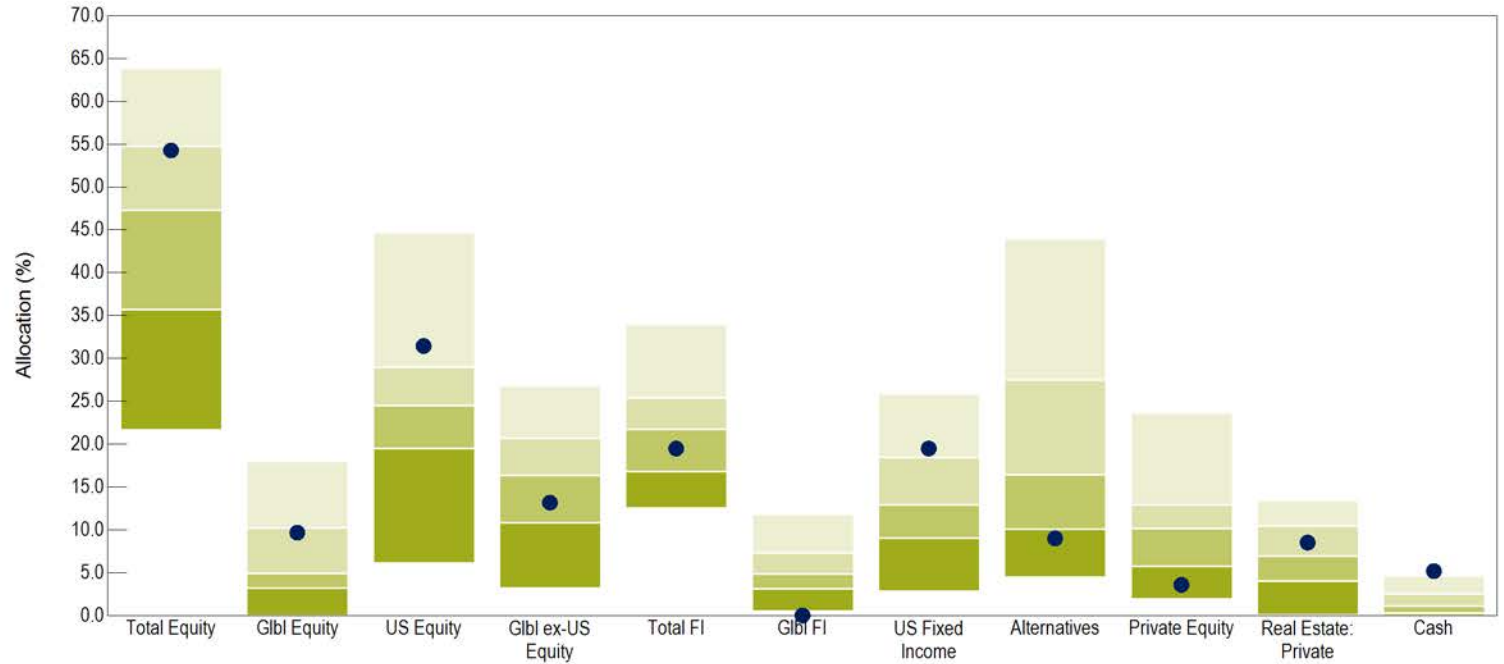
Ventura County Employees' Retirement Association  
**Total Fund Return Summary vs. Peer Universe**



	Return (Rank)											
5th Percentile	2.7	4.3	18.7	15.0	3.7	24.7						
25th Percentile	0.8	3.3	17.2	13.1	1.5	22.5						
Median	-0.5	2.6	16.1	11.8	0.5	21.9						
75th Percentile	-1.2	1.6	14.7	10.5	-0.3	18.9						
95th Percentile	-2.4	-0.9	13.6	7.5	-0.9	16.3						
# of Portfolios	55	53	43	56	41	42						
● Total Fund	1.0	(21)	1.7	(70)	18.8	(5)	13.2	(22)	1.5	(25)	24.4	(10)
▲ Policy Index	1.8	(9)	3.4	(25)	17.7	(19)	12.4	(39)	1.4	(27)	22.5	(30)

Total Fund Allocations vs. Peer Universe

Total Plan Allocation vs. InvestorForce Public DB > \$1B Net



	Allocation (Rank)											
5th Percentile	63.9	18.0	44.7	26.8	34.0	11.8	25.9	44.0	23.7	13.4	4.6	--
25th Percentile	54.8	10.3	29.1	20.8	25.5	7.4	18.5	27.6	13.0	10.5	2.6	--
Median	47.4	5.0	24.6	16.4	21.8	4.9	13.0	16.5	10.2	7.0	1.2	--
75th Percentile	35.8	3.3	19.5	10.9	16.8	3.2	9.1	10.1	5.8	4.1	0.4	--
95th Percentile	21.7	0.0	6.2	3.3	12.6	0.6	2.9	4.5	2.0	0.2	0.1	--
# of Portfolios	52	19	45	47	53	32	44	50	48	41	49	--
● Total Fund	54.3 (28)	9.7 (27)	31.4 (20)	13.2 (62)	19.5 (62)	0.0 (97)	19.5 (21)	9.0 (80)	3.6 (83)	8.5 (36)	5.2 (4)	--

# Manager Due Diligence

# Ventura County Employees' Retirement Association

## Due Diligence Monitor

The items below summarize the recent quarter's performance and any changes or announcements from the Plan's managers/products. A "-" indicates there were no material announcements. A "Yes" indicates there was an announcement and a brief summary is provided on the following pages. NEPC's Due Diligence Committee meets every two weeks to review events as they relate to investment managers and determine if any action should be taken (by NEPC and/or by our clients). Events are rated: No Action, Watch, Hold, Client Review or Terminate. NEPC's recommendation in view of the recent quarter's developments (performance, manager events, and any of the longer-term trending data) is refreshed quarterly.

Investment Options	Performance (Recent Quarter)	Changes/Announcements (Recent Quarter)	NEPC DD Committee Rec.	Plan Rec.	Comments	Last Onsite Conducted
BlackRock Equity Market Index	-	-	-	-		10/2013
Western U.S. Index Plus	-	-	-	-		6/2014
BlackRock Extended Equity Index	-	-	-	-		10/2013
BlackRock MSCI ACWI ex-U.S. Index	-	-	-	-		10/2013
Sprucegrove	-	-	Hold	Watch (Board Driven)	3Q 2014 Departure & Performance	N/A
Hexavest	Top Quartile	-	-	-		1/2013
Walter Scott	Top Quartile	-	-	-		10/2012
BlackRock MSCI ACWI Index	-	-	-	-		10/2013
GMO	-	Yes	Hold	Hold	Organizational Changes & Performance	6/2016
Adams Street	N/A	-	-	-		11/2013
HarbourVest	N/A	-	-	-		3/2014
Pantheon	N/A	-	-	-		1/2015
BlackRock U.S. Debt Fund	-	-	-	-		10/2013
Western	-	-	-	-		6/2014
Reams	-	-	-	-		11/2013
Loomis Sayles Multi-Sector Full Discretion	Top Quartile	-	-	-		11/2013



**Due Diligence Monitor Continued**

Investment Options	Performance (Recent Quarter)	Changes/Announcements (Recent Quarter)	NEPC DD Committee Rec.	Plan Rec.	Comments	Last Onsite Conducted
Loomis Sayles Strategic Alpha	-	-	-	-		11/2013
Prudential	N/A	-	-	-		7/2014
RREEF	N/A	-	-	-		7/2013
UBS	N/A	-	-	-		8/2011
Bridgewater	N/A	-	-	-		9/2012
Tortoise	N/A	-	-	-		8/2013
Parametric/Clifton	N/A	-	-	-		7/2013

NEPC Due Diligence Committee Recommendation Key	
<b>No Action</b>	Informational items have surfaced; no action is recommended.
<b>Watch</b>	Issues have surfaced to be concerned over; manager can participate in future searches, but current and prospective clients must be made aware of the issues.
<b>Hold</b>	Serious issues have surfaced to be concerned over; manager cannot participate in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues.
<b>Client Review</b>	Very serious issues have surfaced with an Investment Manager; manager cannot participate in future searches unless a client specifically requests. Current clients must be advised to review the manager.
<b>Terminate</b>	We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot participate in future searches unless a client specifically requests. Current clients must be advised to replace the manager.

### Due Diligence Commentary

Below is a summary of manager changes, announcements and due diligence events since the issuance of our last quarterly report.

#### Manager Changes/Announcements

##### GMO

On June 2nd, GMO announced a wide range of organization changes that directly impact the multi-asset strategies, global equity strategies, and fixed income strategies with the exception of emerging market debt. NEPC Research has assigned a due diligence rating of Hold for each of these strategies; the specific strategies are highlighted below. We are recommending the Hold recommendation remain in place until a permanent CEO is named at GMO. In addition, should there be any additional senior departures from GMO, we will likely recommend a more serious due diligence status than Hold. To summarize, the following was announced on June 2nd.

1. Firm: GMO will be reducing approximately 10% of the firm's workforce. The majority of the individuals departing the firm are outside the investment team and the total headcount reduction will be approximately 50 individuals. This follows the April announcement that Brad Hilsabeck will be stepping down effective July 1<sup>st</sup>. Peg McGetrick was named acting CEO and she is currently a member of GMO's Board of Directors.

2. Investment Process – Global Equity: The global equity investment strategies will discontinue their use of an active fundamental stock selection component and will be exclusively quantitatively orientated. The asset allocation team will continue to provide the top-down regional weights of the portfolio and stock implementation will be informed entirely by GMO's quantitative models. Strategies impacted include the global equity strategies detailed below. Not impacted by these changes are the Emerging Market Equity strategies led by Arjun Divecha and the International Active strategies led by Drew Spangler.

3. Investment Process – Developed Fixed Income: The developed fixed income strategies, which have expanded and evolved over the last several years to take a more fundamental view of interest rate and currency markets will simplify their investment process. The developed fixed income strategies will revert to the quantitative models previously used by the global bond team and reduce the idiosyncratic risk taking in portfolios. Not impacted by these changes are GMO's Emerging Market Debt strategies.

#### 4. Investment Personnel Changes

- Global Equity Team – With the global equity investment process reverting to a pure quantitative process, members of the team that provided active fundamental stock selection input will be departing GMO. As a result, Dave Cowan, head of the Global Equity team will be leaving GMO on June 30 along with Chris Fortson, Sofia Hou, Karan Arakotaram, and Eric Lu at year end. Neil Constable will assume leadership of the Global Equity team effective July 1. Neil has led GMO's quantitative research effort since 2012 and has been a member of the team since 2006.
- Multi-Asset Team – Sam Wilderman, co-head of Asset Allocation, will be leaving GMO at the end of 2016 and will remain through the end of the year to aid in the transition. Effective Jan 1, Ben Inker will be the sole head of the asset allocation team. No other departures are occurring from the multi-asset investment team.
- Developed Fixed Income – Following Marc Seidner's departure in 2014, Ben Inker and Sam Wilderman were named temporary co-heads of Developed Fixed Income until a permanent head could be found. As a result of the investment process changes and the return to a more quantitative model based approach several relatively new members will be leaving GMO. Michael Emanuel, previously of Convexity, will be departing the Firm along with Carlos Morales and Dom Abdi. Jason Hotra, longstanding member of the team, will assume current portfolio management responsibilities. Ben Inker will continue as the temporary head of Developed Fixed Income.
- Other Investment Teams – Three analysts in the Emerging Market Equity team will be departing GMO, while over 19 investment personnel remain on the team. In addition, one quantitative focused research analyst, Federico Berruto, who was a member of the International Active team will be departing in June.

On June 3rd, NEPC met with senior members of GMO including Ben Inker, Head of Asset Allocation, Sam Wilderman, departing co-Head of Asset Allocation, and Neil Constable, newly named head of the quantitative Global Equity team. NEPC met separately with Peg McGetrick, interim CEO by teleconference. Over the course of the meeting, we reviewed the overall stability of GMO, the global equity investment process changes, and the investment personnel changes.

At this time, we do not have any concerns regarding the viability or profitability of GMO.

***NEPC recommends a Hold rating at this time. We will continue to monitor the situation and provide updates as necessary.***



# Appendix: Market Environment



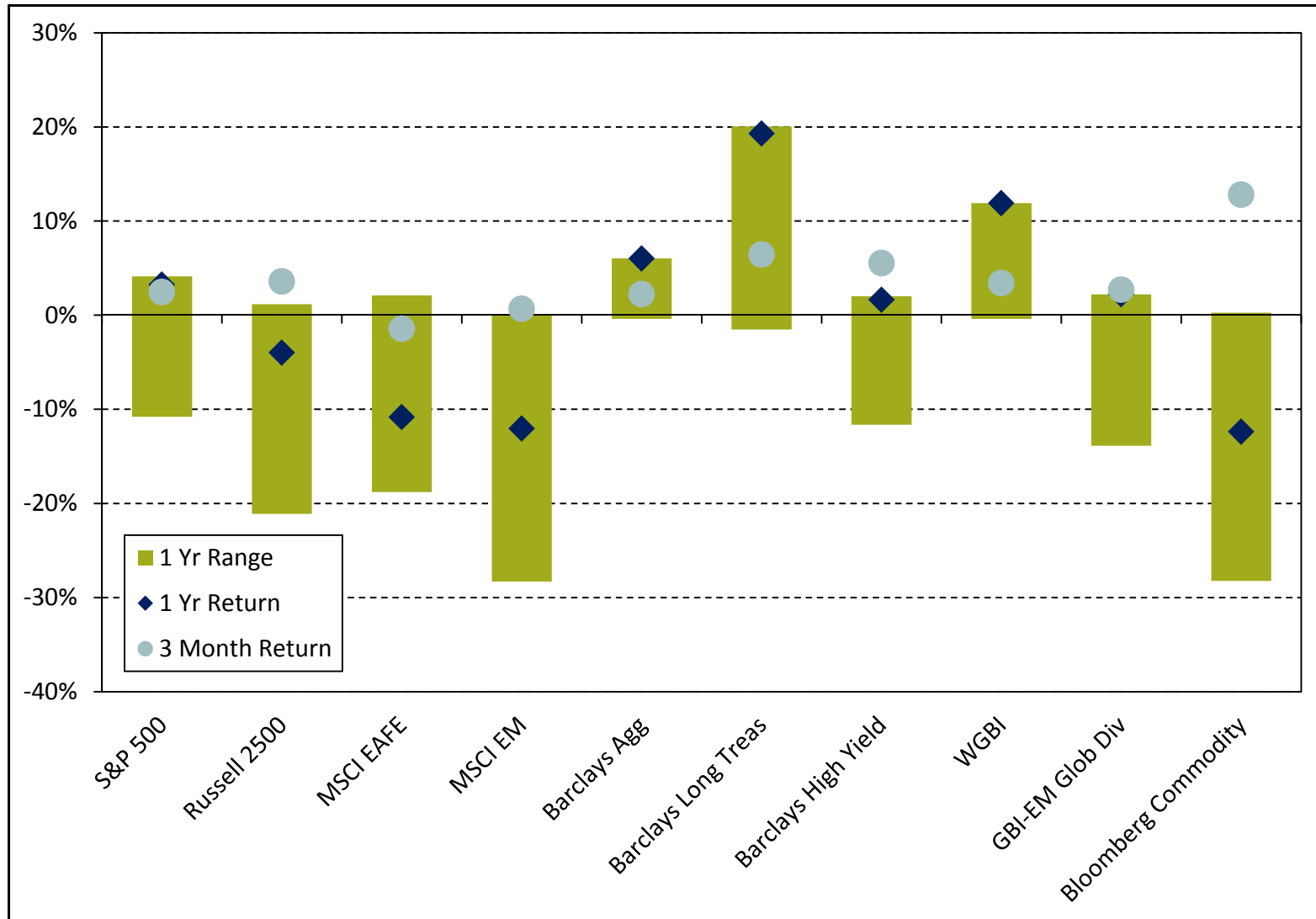
Ventura County Employees' Retirement Association

Index Performance Summary as of 6/30/2016

	2009	2010	2011	2012	2013	2014	2015	Q1	APRIL	MAY	JUNE	Q2	YTD
Barclays US STRIPS 20+ Yr	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	11.4%	-0.9%	1.5%	9.0%	9.6%	22.0%
Alerian MLP	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	-4.2%	11.0%	2.5%	5.1%	19.7%	14.7%
Barclays US Govt/Credit Long	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	-3.3%	7.3%	1.2%	0.3%	4.9%	6.5%	14.3%
JPM GBI-EM Global Div	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	11.0%	2.6%	-5.4%	5.9%	2.7%	14.0%
Barclays US Long Credit	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	6.8%	2.4%	0.0%	4.2%	6.7%	13.9%
FTSE NAREIT Equity REITs	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	6.0%	-2.4%	2.4%	7.0%	7.0%	13.4%
Bloomberg Commodity	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	0.4%	8.5%	-0.2%	4.1%	12.8%	13.3%
Citi WGBI USD	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	7.1%	1.3%	-1.5%	3.7%	3.4%	10.7%
JPM EMBI Global Diversified	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	5.0%	1.8%	-0.2%	3.4%	5.0%	10.3%
Barclays US Corporate HY	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	3.4%	3.9%	0.6%	0.9%	5.5%	9.1%
MSCI EM	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	5.7%	0.5%	-3.7%	4.0%	0.7%	6.4%
Barclays US Agg Bond	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	3.0%	0.4%	0.0%	1.8%	2.2%	5.3%
Barclays Municipal	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	1.7%	0.7%	0.3%	1.6%	2.6%	4.3%
Credit Suisse Leveraged Loan	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	1.3%	1.9%	0.9%	0.0%	2.9%	4.2%
Russell 2500	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	0.4%	1.5%	2.1%	0.0%	3.6%	4.0%
S&P 500	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	1.3%	0.4%	1.8%	0.3%	2.5%	3.8%
Barclays US Agg Interm	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.2%	2.3%	0.2%	0.0%	1.2%	1.4%	3.8%
Russell 1000	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	1.2%	0.5%	1.8%	0.2%	2.5%	3.7%
Russell 2000	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	-1.5%	1.6%	2.3%	-0.1%	3.8%	2.2%
BC US Govt/Credit 1-3 Yr	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.7%	1.0%	0.1%	-0.1%	0.6%	0.7%	1.7%
MSCI ACWI	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	0.2%	1.5%	0.1%	-0.6%	1.0%	1.2%
Credit Suisse Hedge Fund	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	-2.2%	0.3%	0.4%	N/A	N/A	-1.5%
MSCI EAFE	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	-3.0%	2.9%	-0.9%	-3.4%	-1.5%	-4.4%

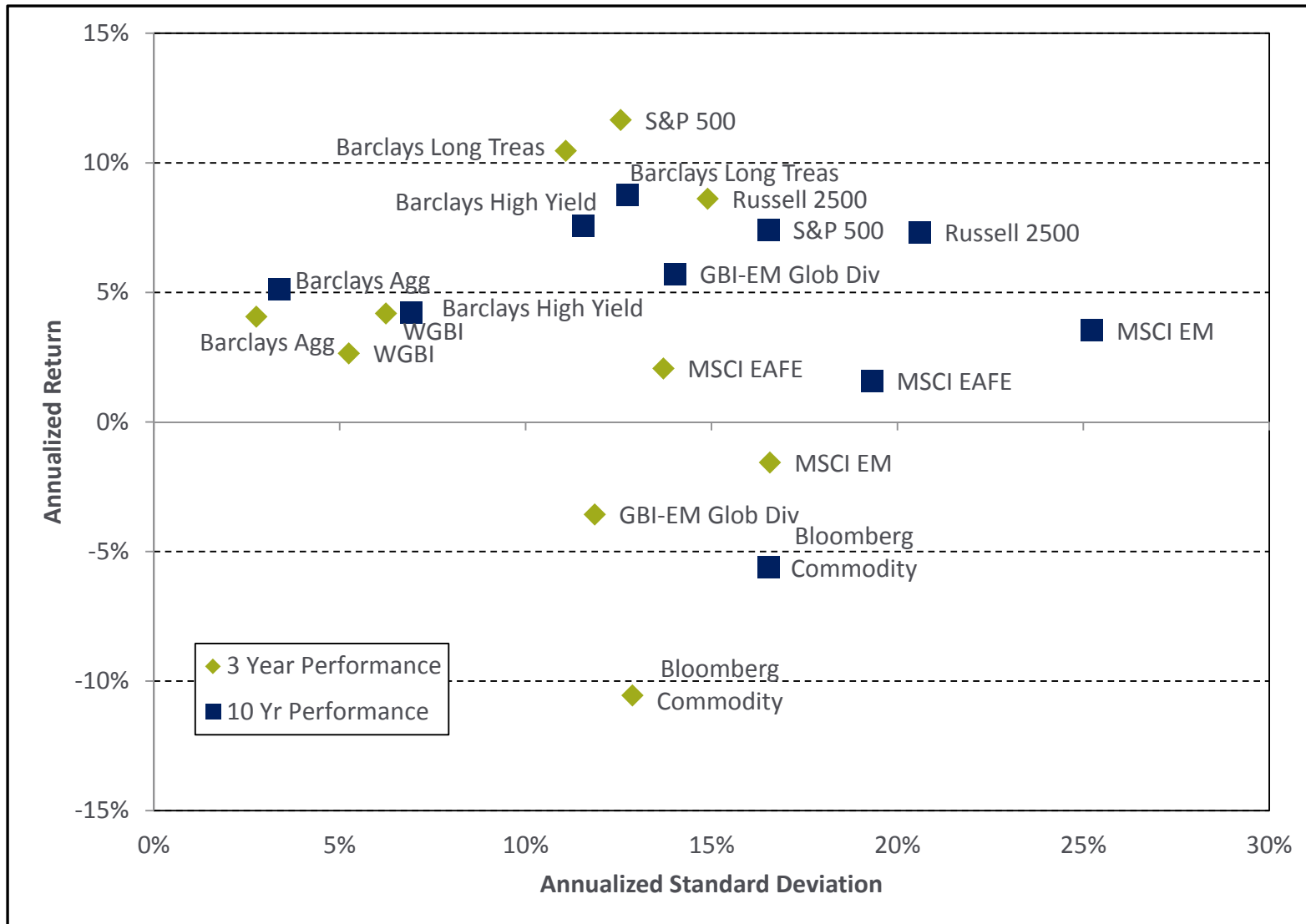
Source: Morningstar Direct

Near-Term Broad Market Performance Summary as of 6/30/2016



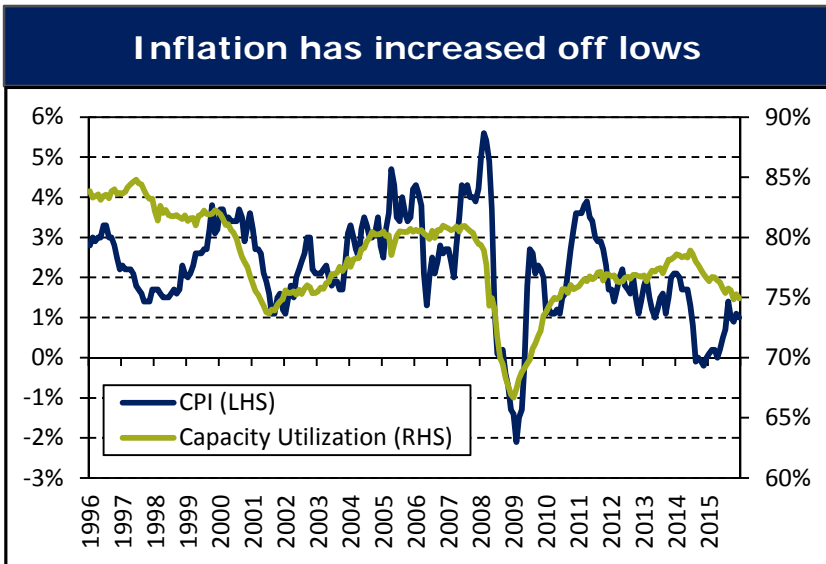
Source: Bloomberg, Standard and Poors, Russell, MSCI, Barclays, Citigroup, JP Morgan  
 \*1 Yr Range: Represents range of cumulative high/low daily index returns for an investment made one year ago

Long-Term Broad Market Performance Summary as of 6/30/2016

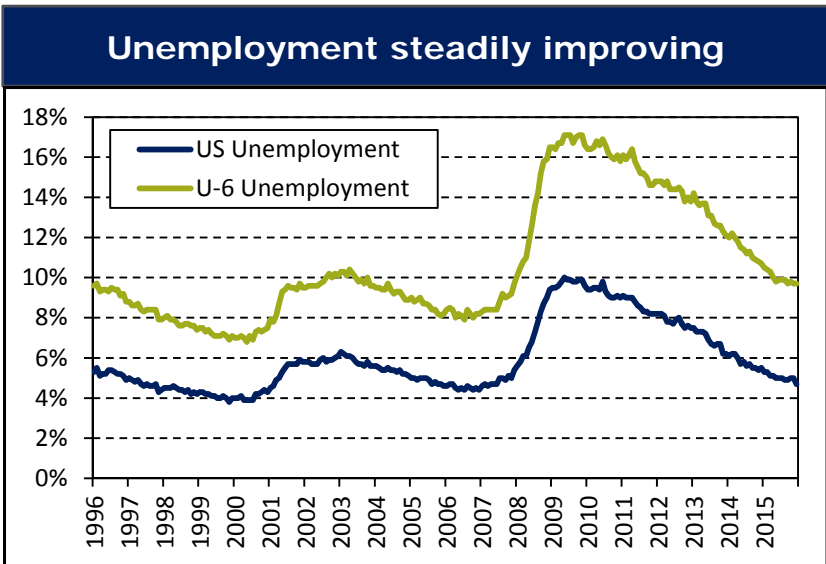


Source: Bloomberg, Standard and Poors, Russell, MSCI, Barclays, Citigroup, JP Morgan

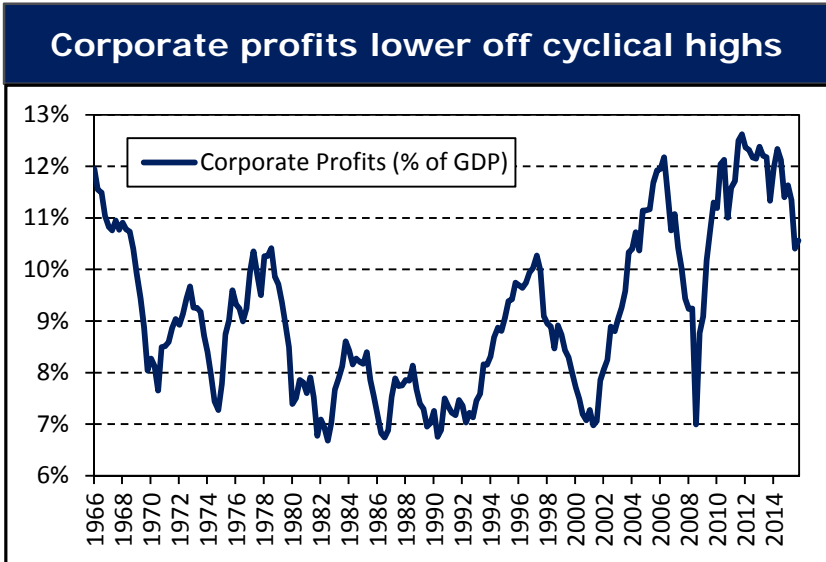
U.S. Economic Indicators



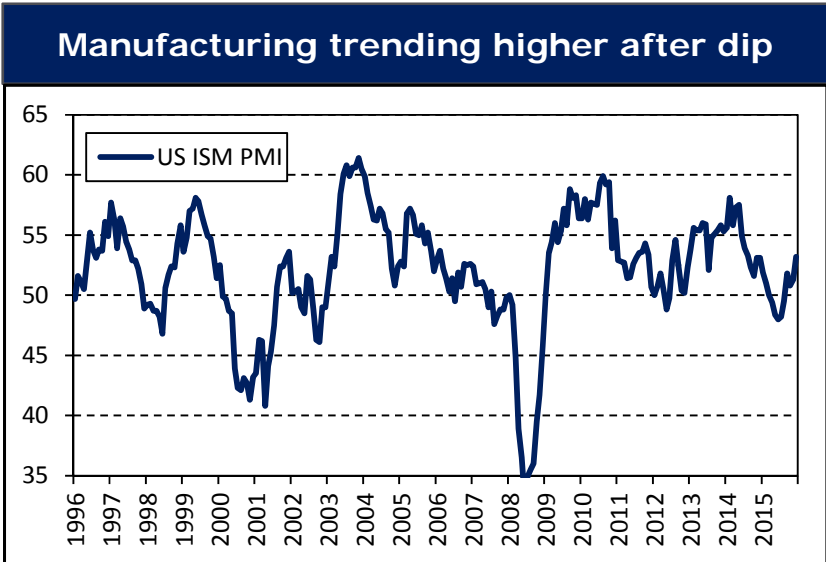
Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics



Source: Bloomberg, Bureau of Labor Statistics

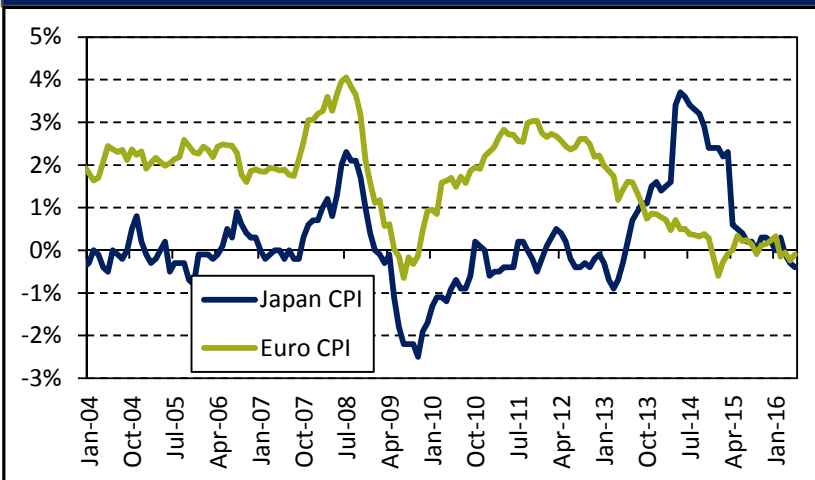


Source: Bloomberg, Bureau of Economic Analysis



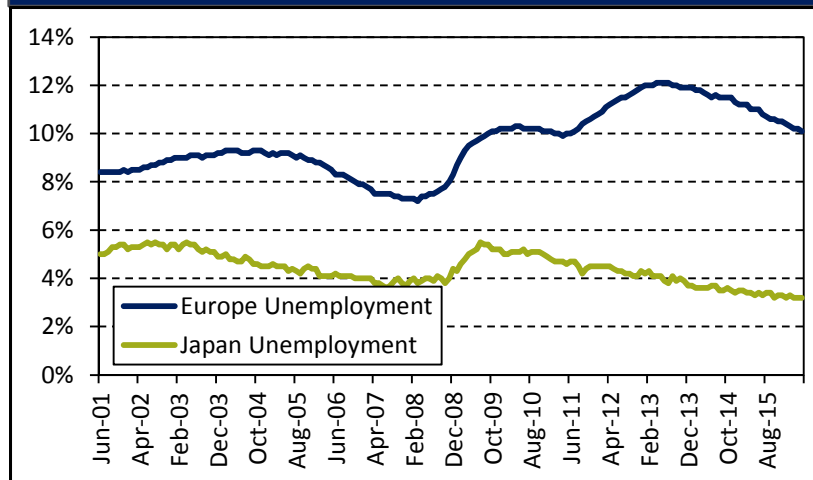
Source: Bloomberg, Institute for Supply Management

### Inflation remains muted



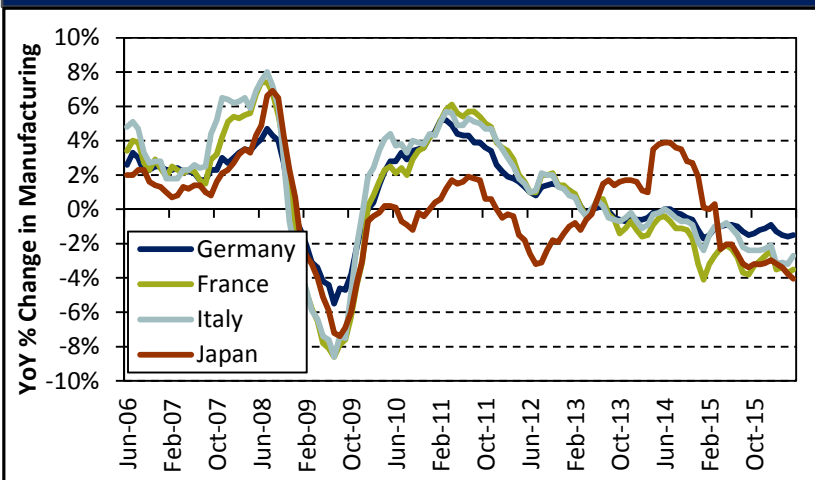
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

### Europe unemployment trending lower



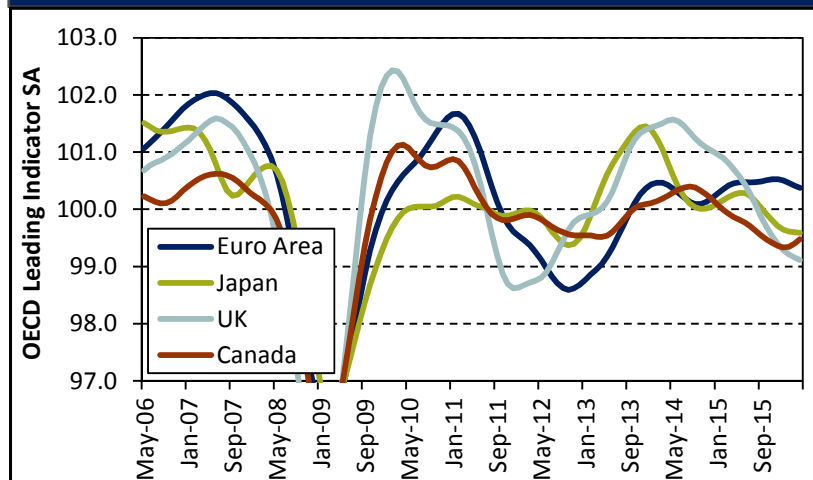
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

### Manufacturing continues to lag



Source: Bloomberg, OECD, Eurostat

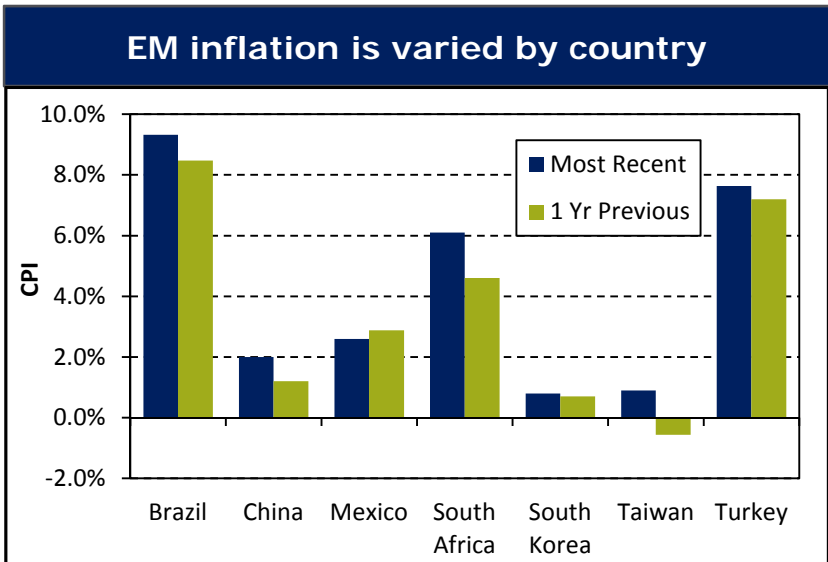
### Leading indicators mostly neutral



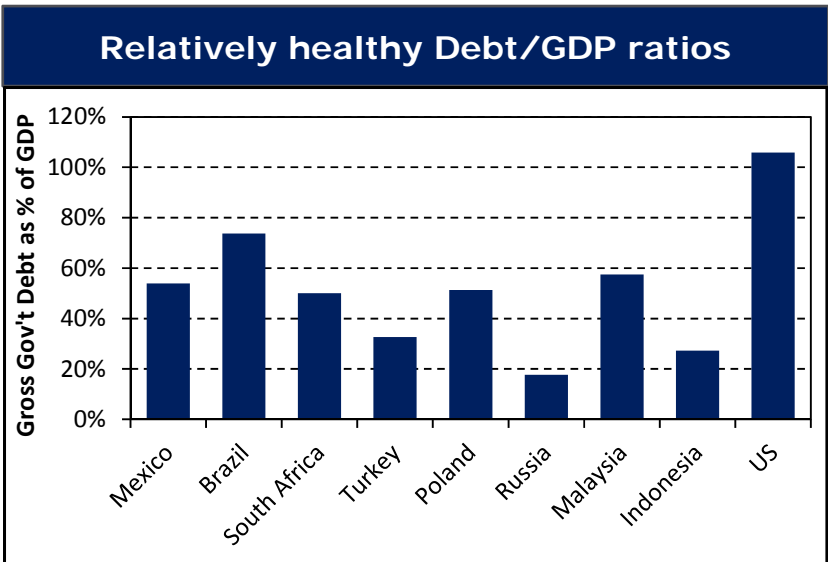
Source: Bloomberg, OECD



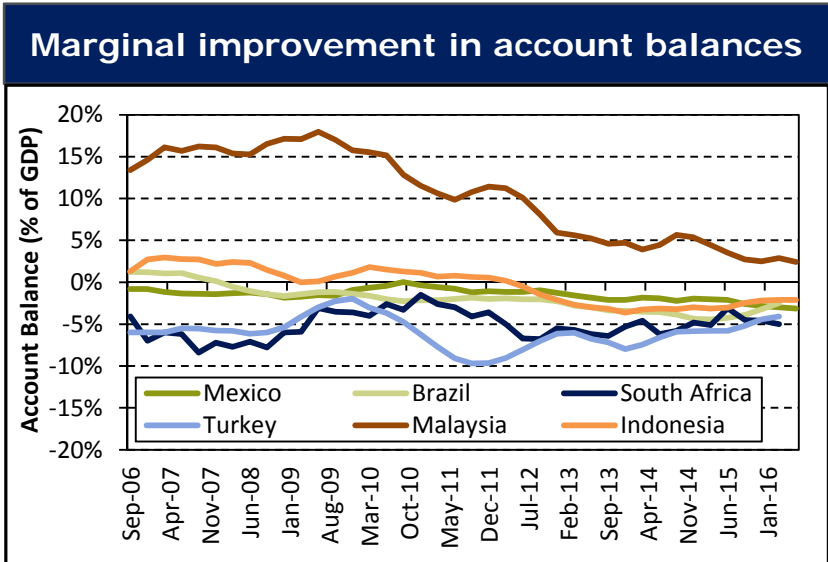
Emerging Market Economic Indicators



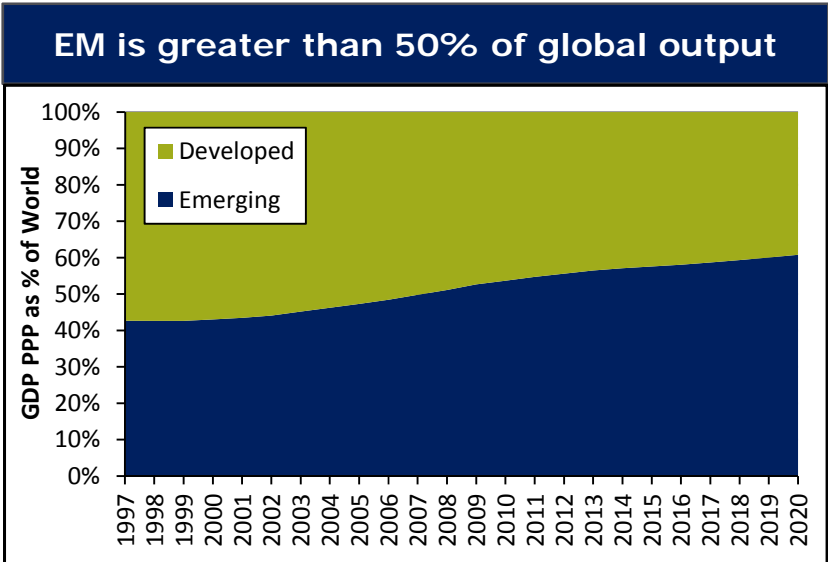
Source: Bloomberg



Source: Bloomberg, IMF



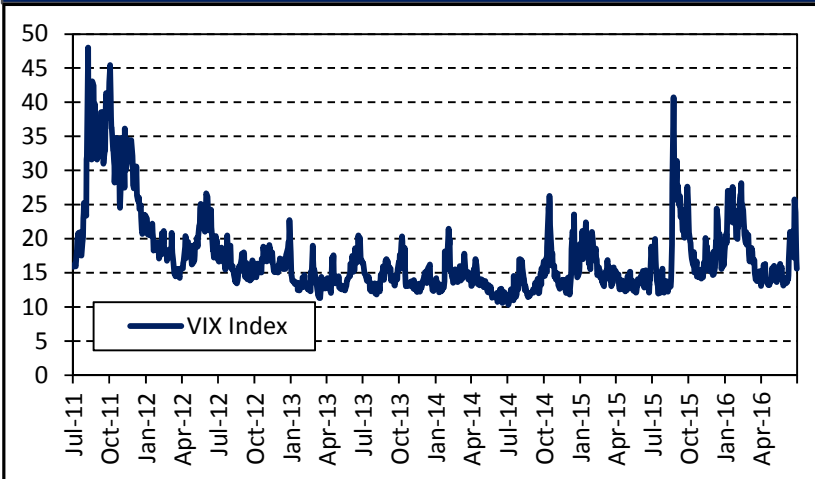
Source: Bloomberg



Source: Bloomberg, IMF

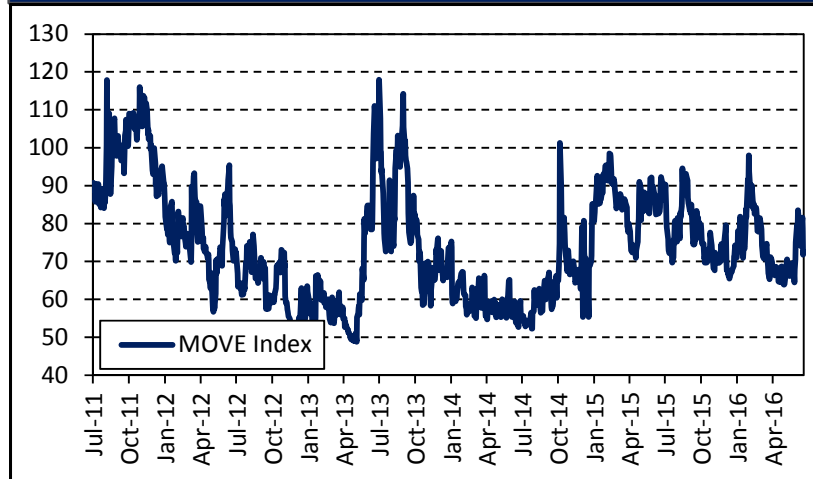
Volatility

Equity volatility seeing recent increase



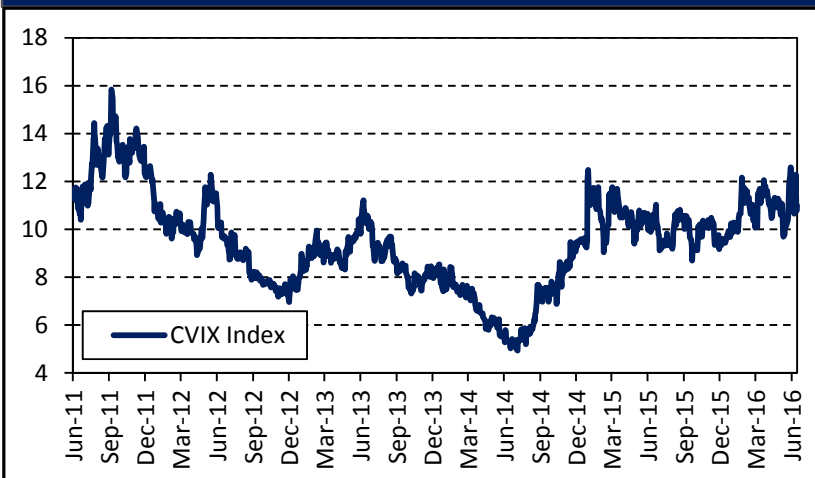
Source: Bloomberg, CBOE

Treasury volatility has increased recently



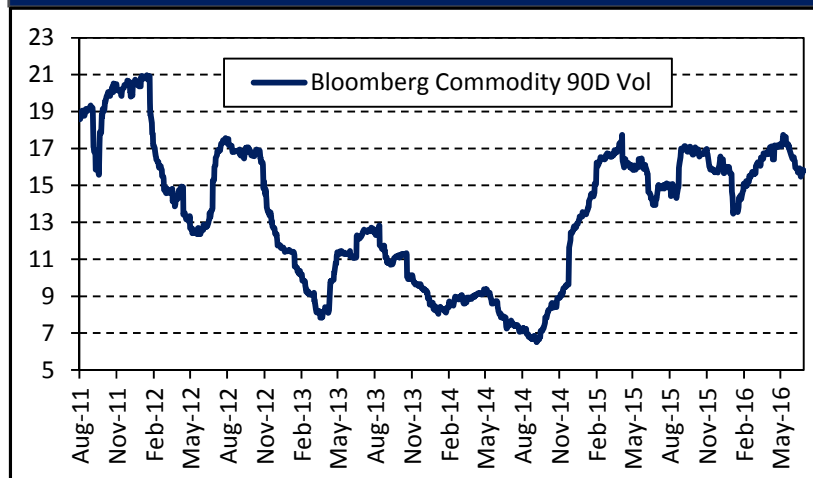
Source: Bloomberg, Merrill Lynch

Currency volatility remains elevated



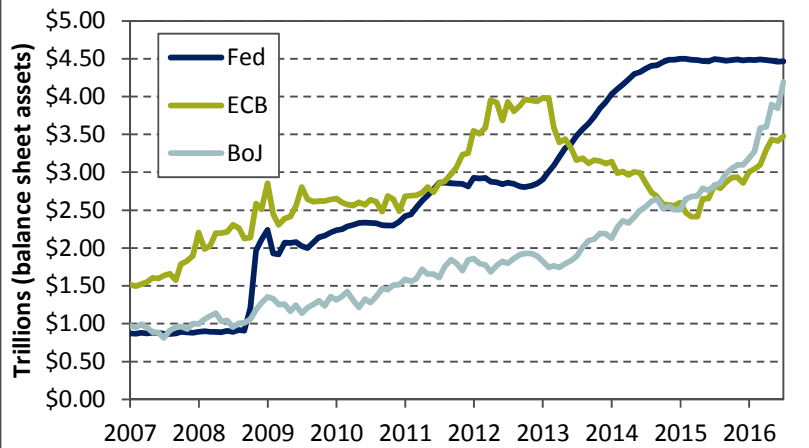
Source: Bloomberg, Deutsche Bank

Commodity volatility remains elevated



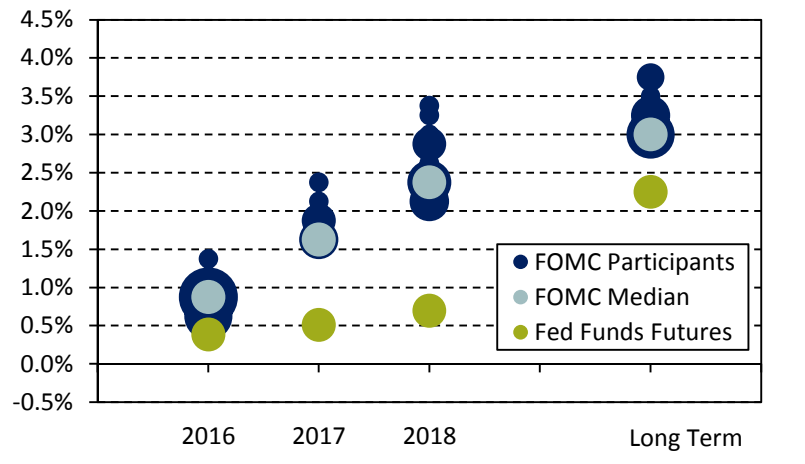
Source: Bloomberg, Merrill Lynch

**Major central bank policy divergence**



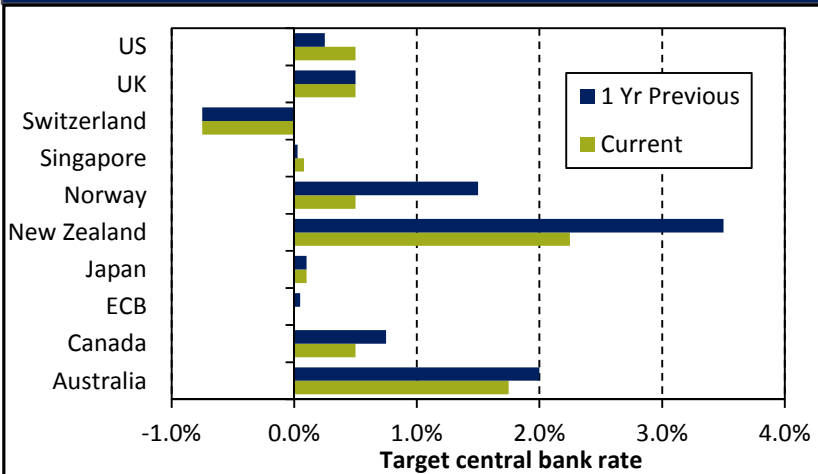
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC

**Fed's projected policy rate firming above market expectations**



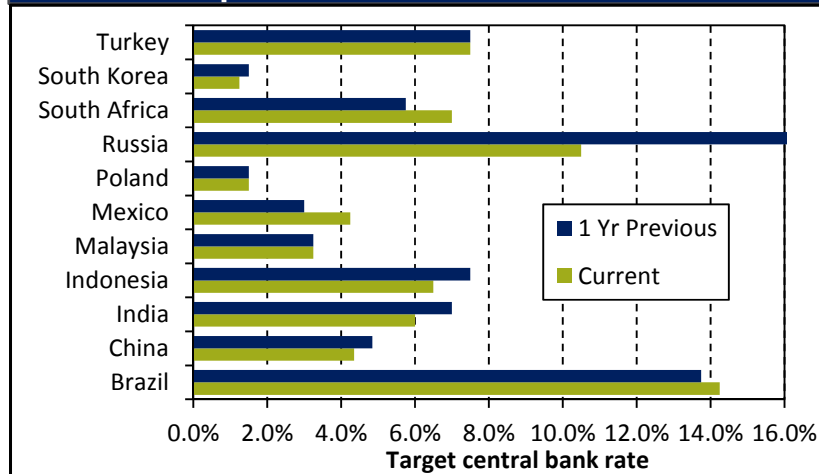
Source: Bloomberg, Federal Reserve, NEPC

**Many developed central banks have maintained low interest rates**



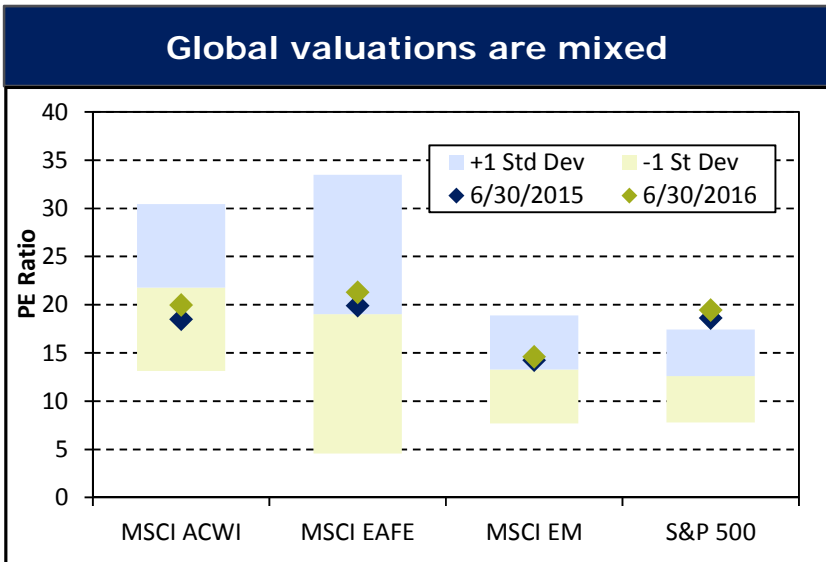
Source: Bloomberg

**EM central bank policies vary by country-specific economic conditions**

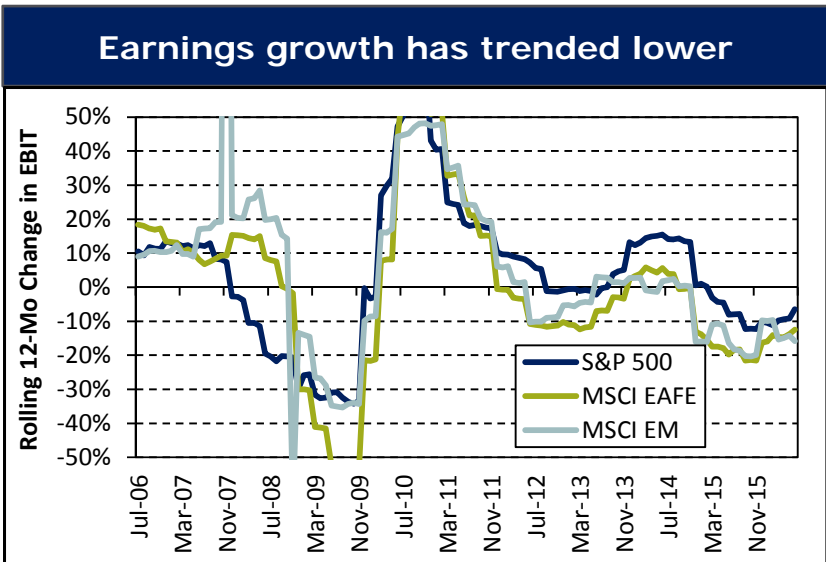


Source: Bloomberg

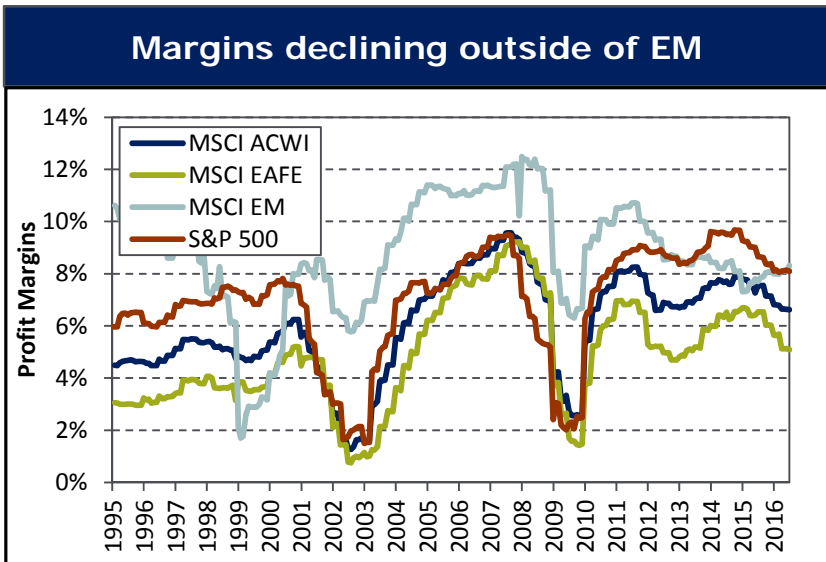
Global Equity



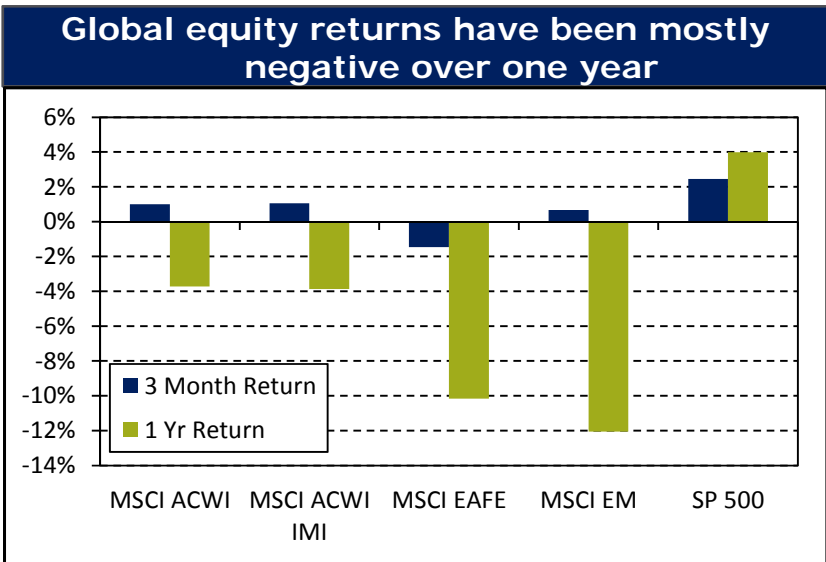
Source: Bloomberg, Standard and Poors, MSCI \*MSCI EAFE is ex UK Telecom



Source: Bloomberg, Standard and Poors, MSCI

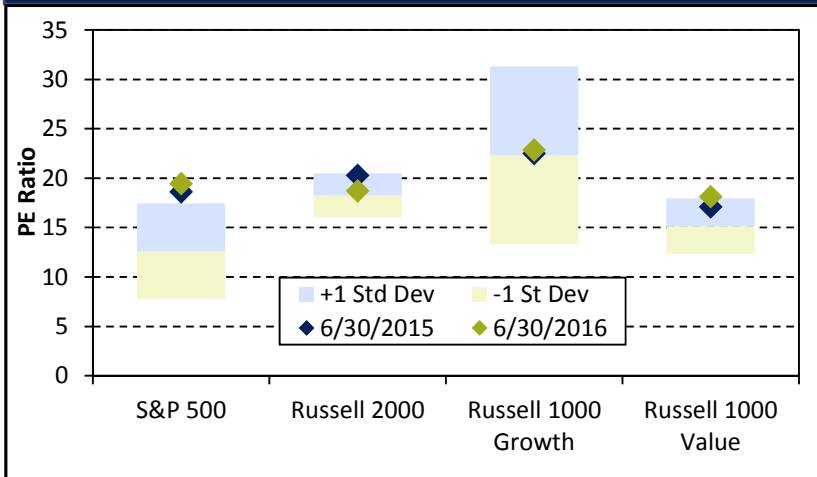


Source: Bloomberg, MSCI



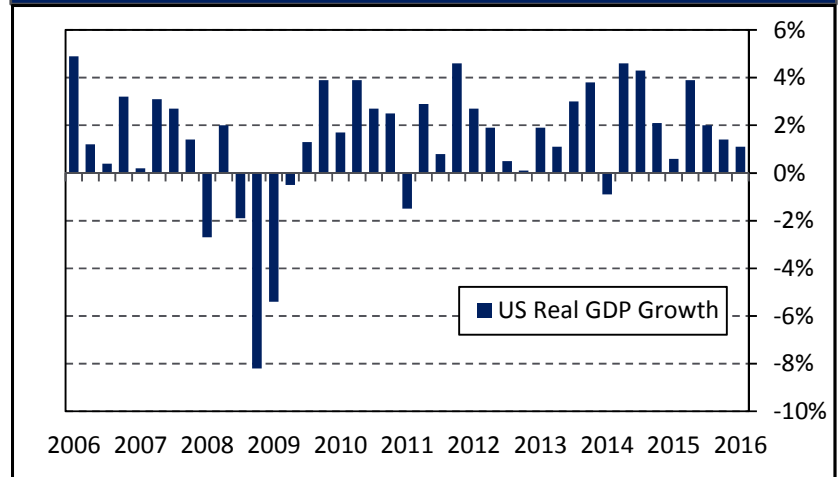
Source: Bloomberg, MSCI

Valuations near or above historical norms



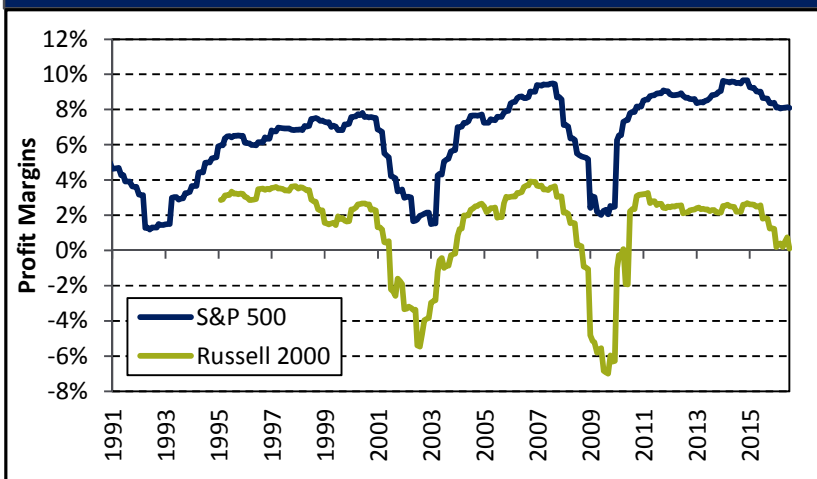
Source: Bloomberg, Standard and Poors, Russell \*Russell 2000 PE is index adjusted positive

Growth recovery marked by inconsistency



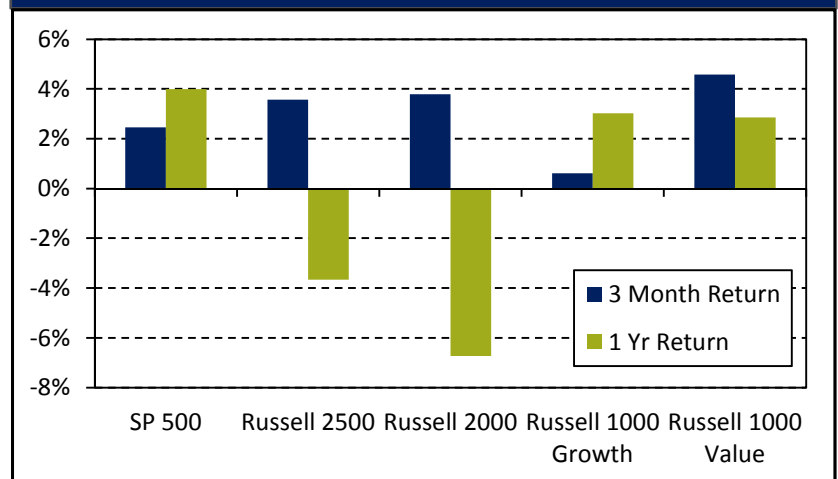
Source: Bloomberg, Bureau of Economic Analysis

Profit margins lower off highs

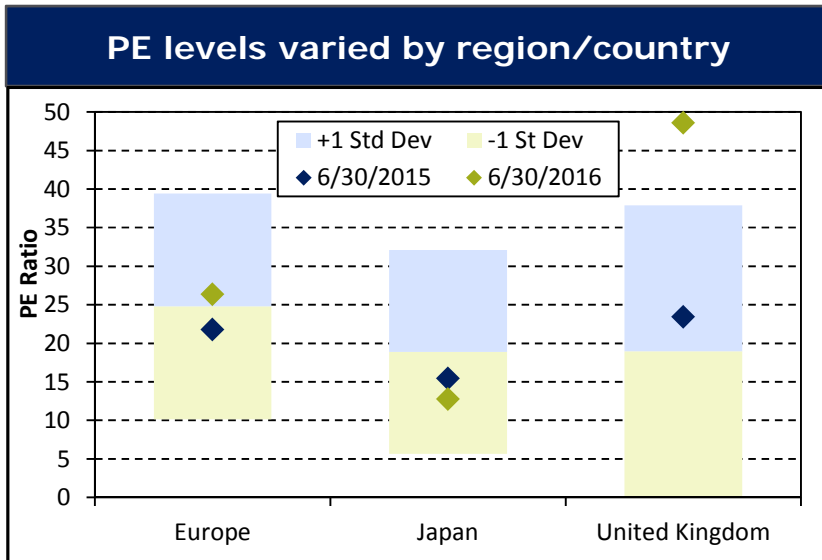


Source: Bloomberg, Standard and Poors, Russell

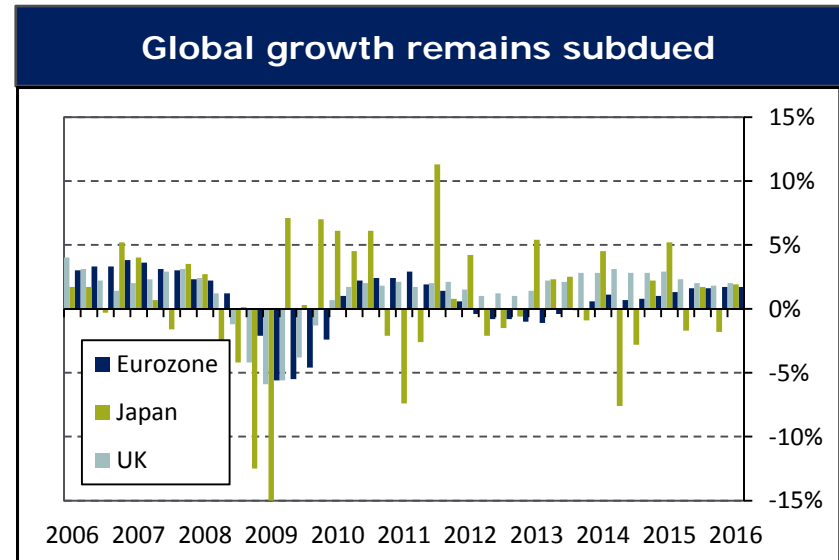
Trailing performance has been mixed



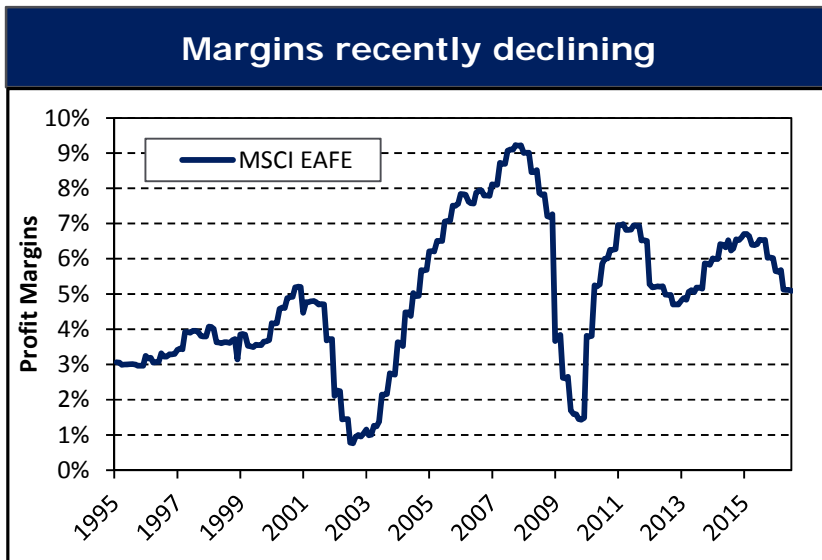
Source: Bloomberg, Standard and Poors, Russell



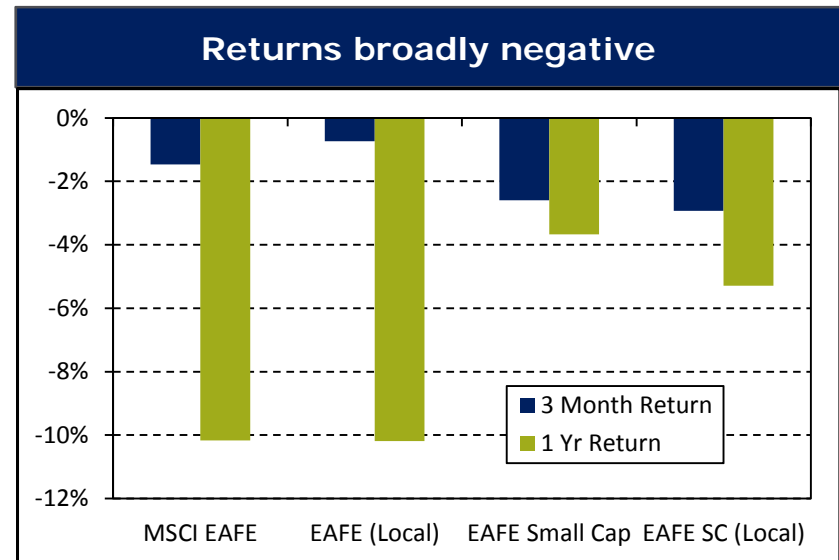
Source: Bloomberg, MSCI, FTSE \*UK represented by FTSE 100 Index



Source: Bloomberg

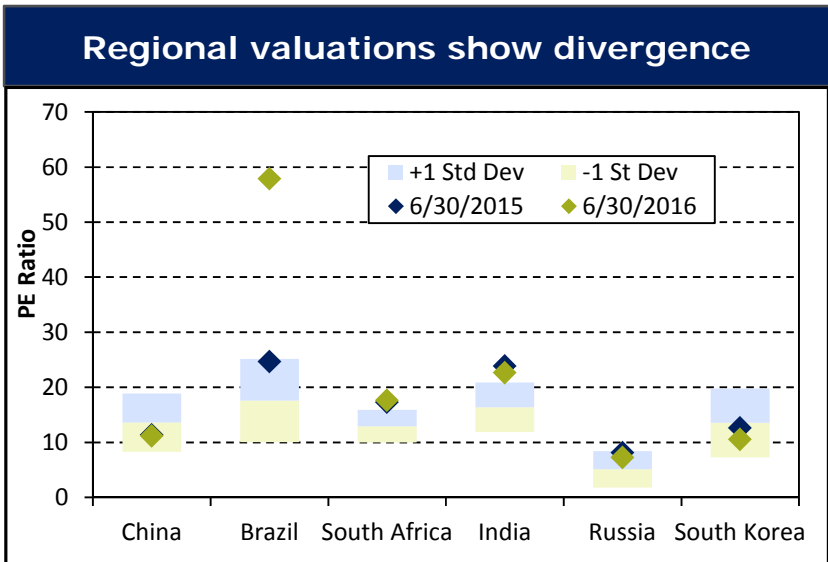


Source: Bloomberg, MSCI

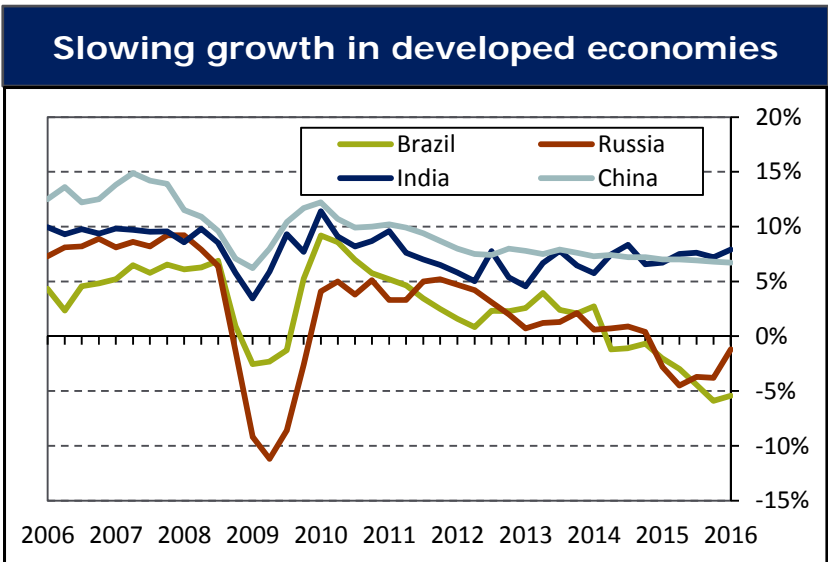


Source: Bloomberg, MSCI

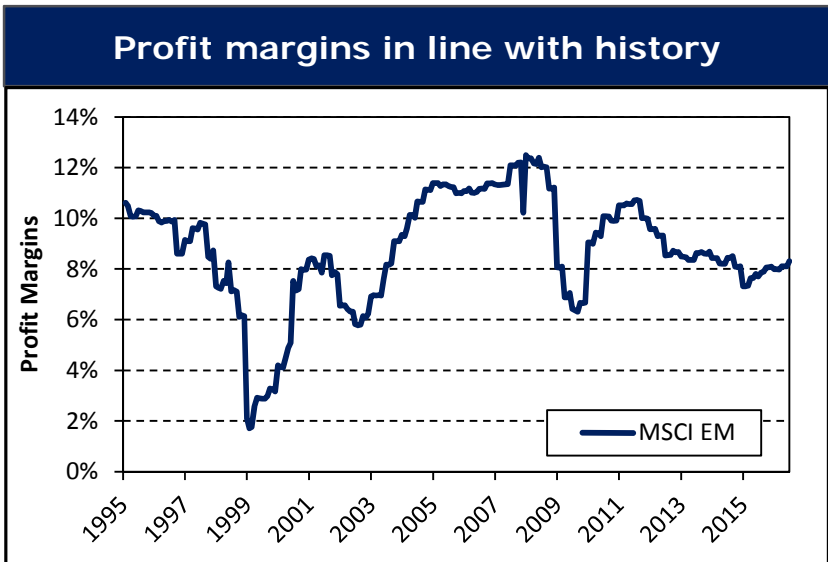
Emerging Markets Equity



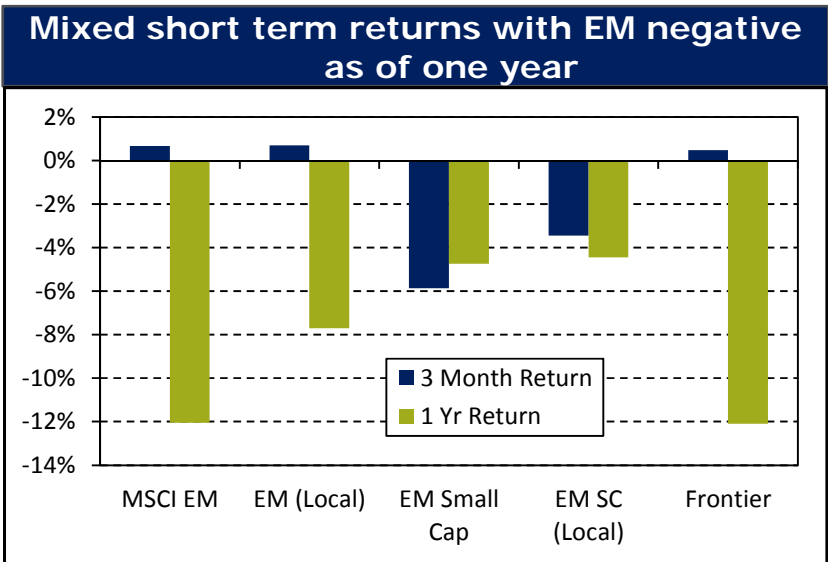
Source: Bloomberg, MSCI



Source: Bloomberg

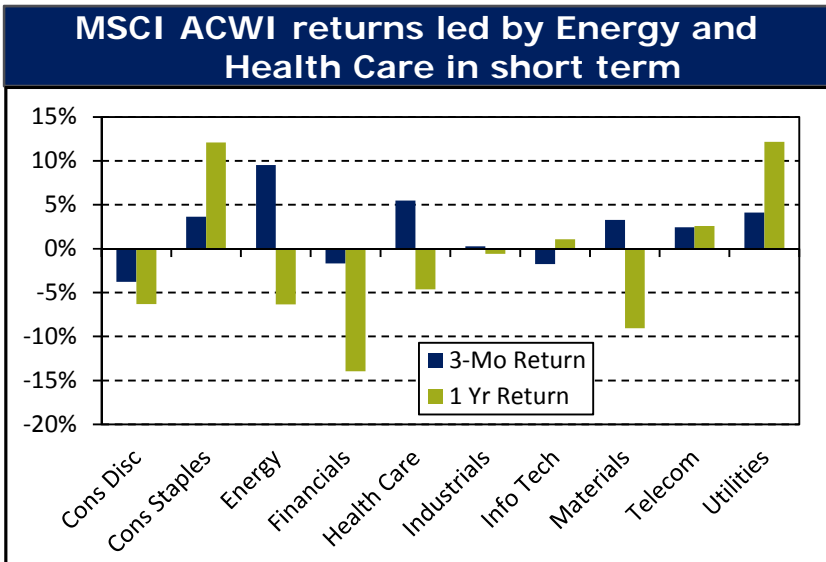


Source: Bloomberg, MSCI

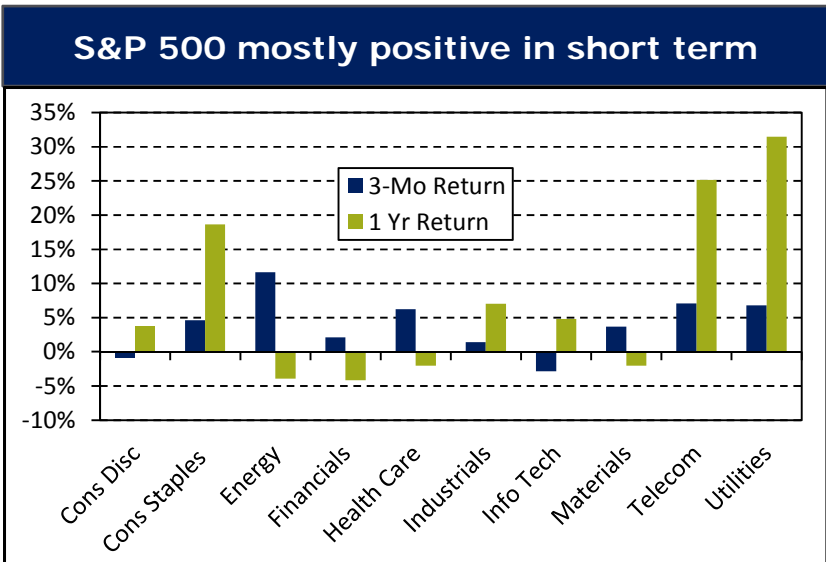


Source: Bloomberg, MSCI

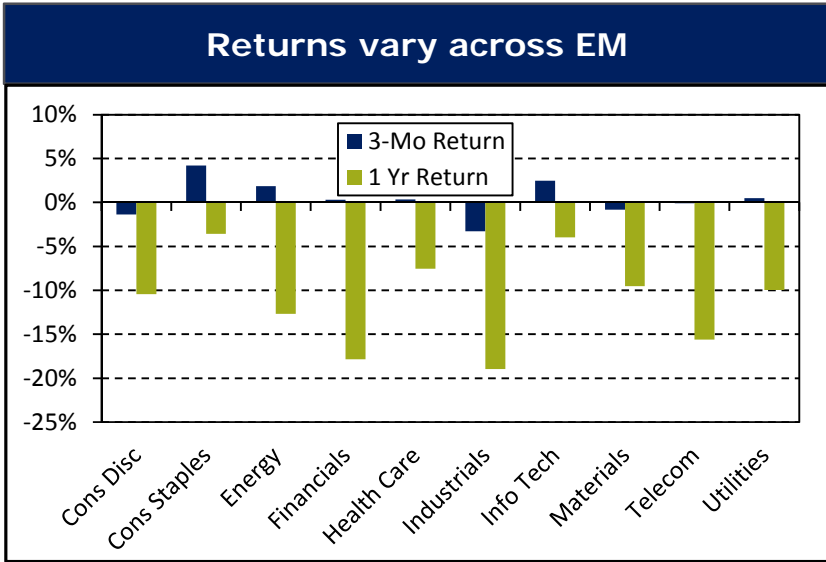
Global Equity by Sector



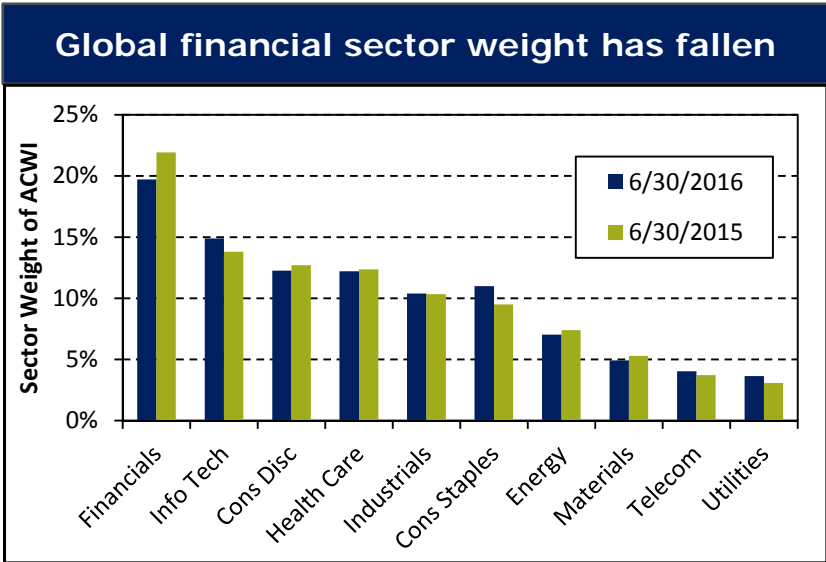
Source: Bloomberg, MSCI



Source: Bloomberg, Standard and Poors



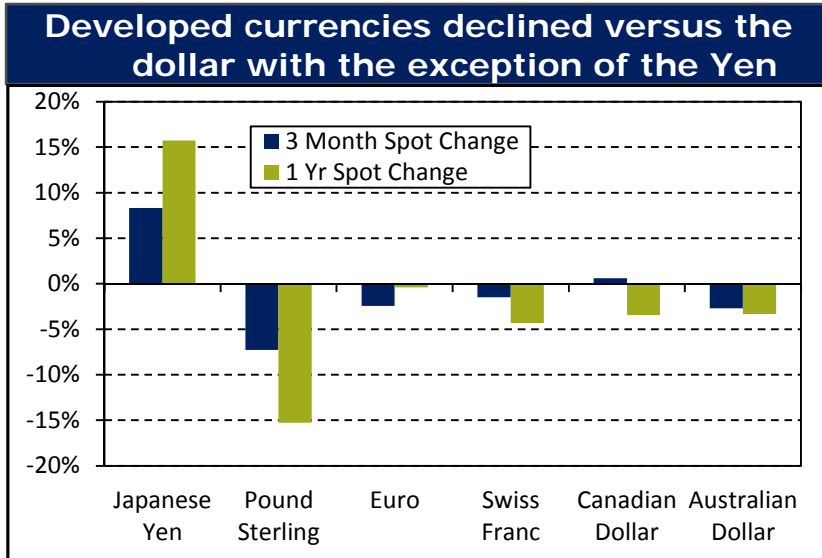
Source: Bloomberg, MSCI



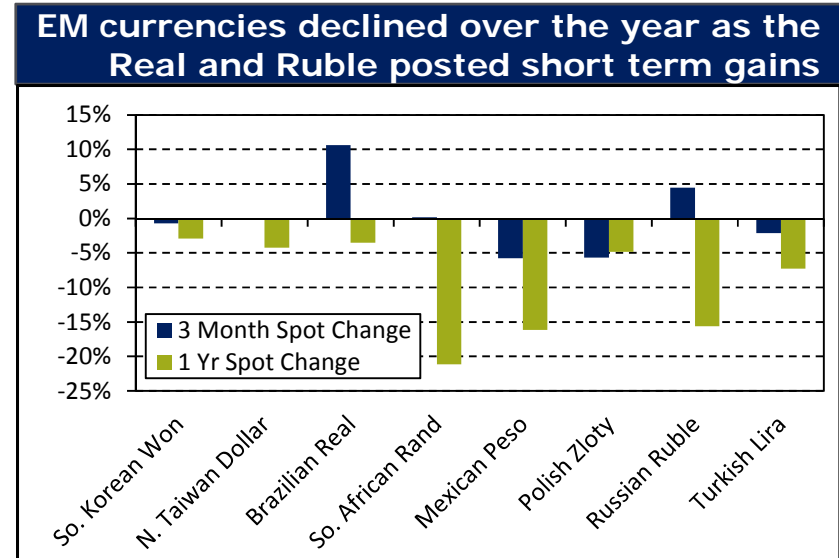
Source: Bloomberg, MSCI



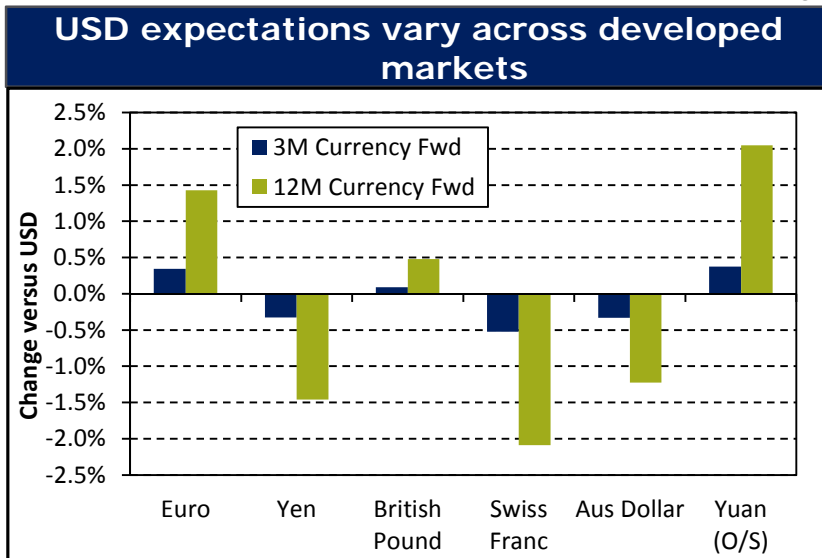
Currencies



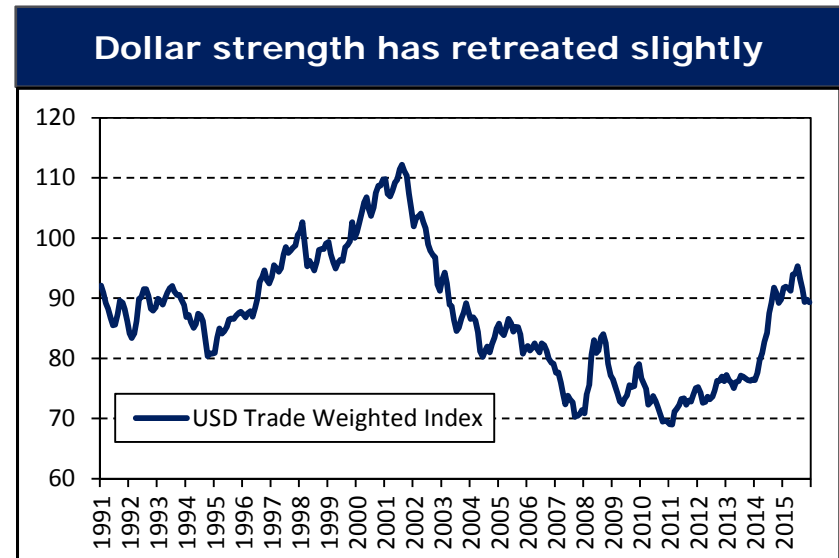
Source: Bloomberg



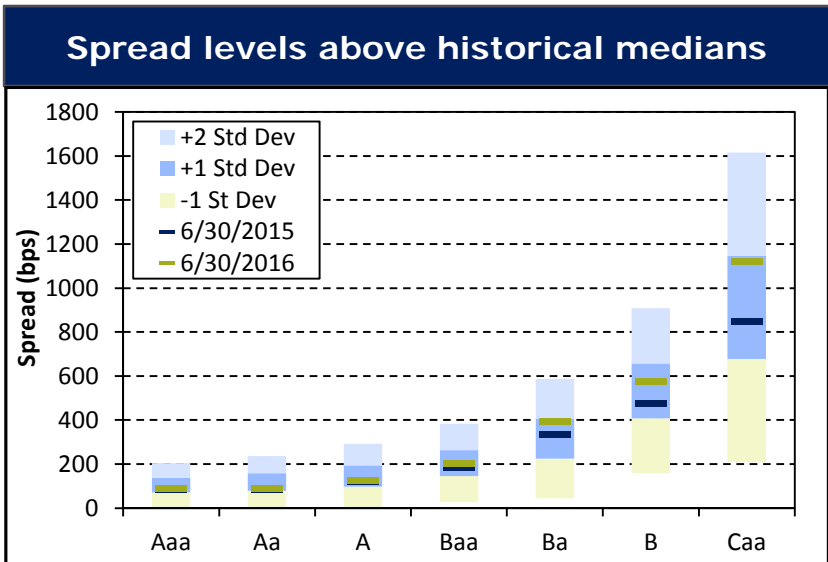
Source: Bloomberg



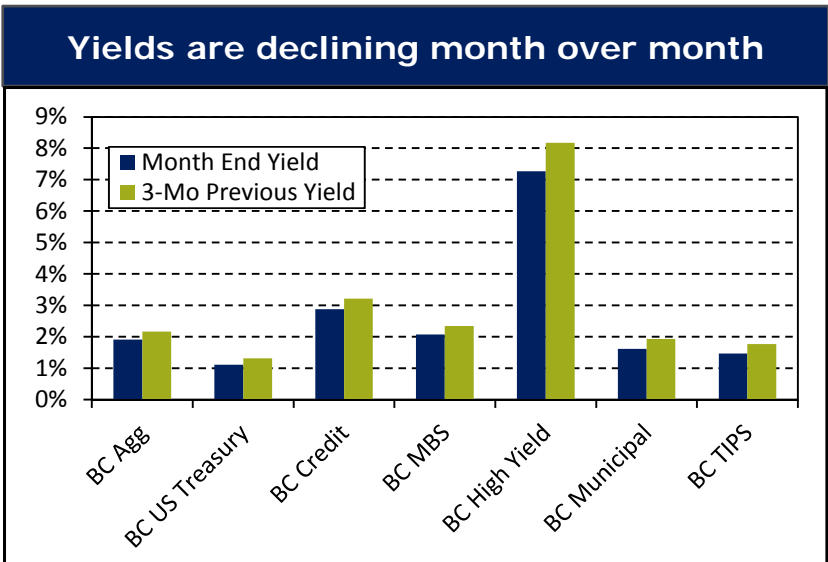
Source: Bloomberg



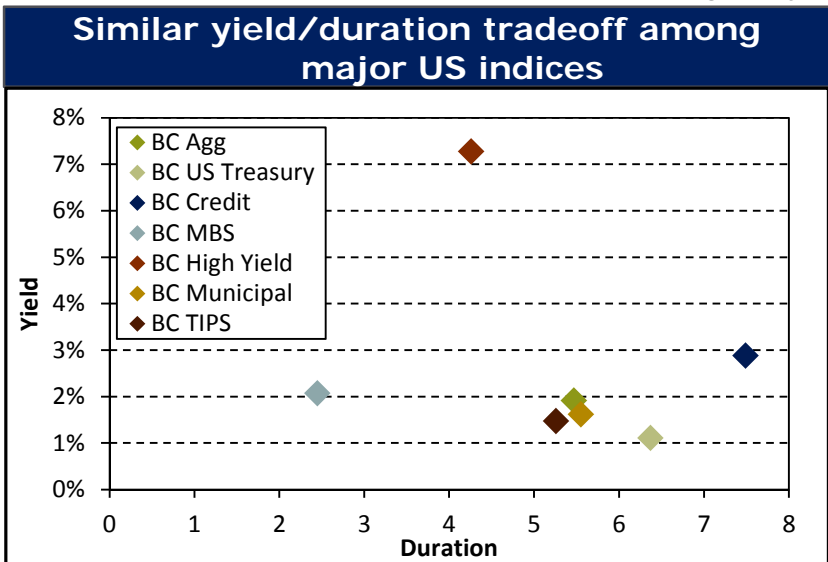
Source: Bloomberg, Federal Reserve



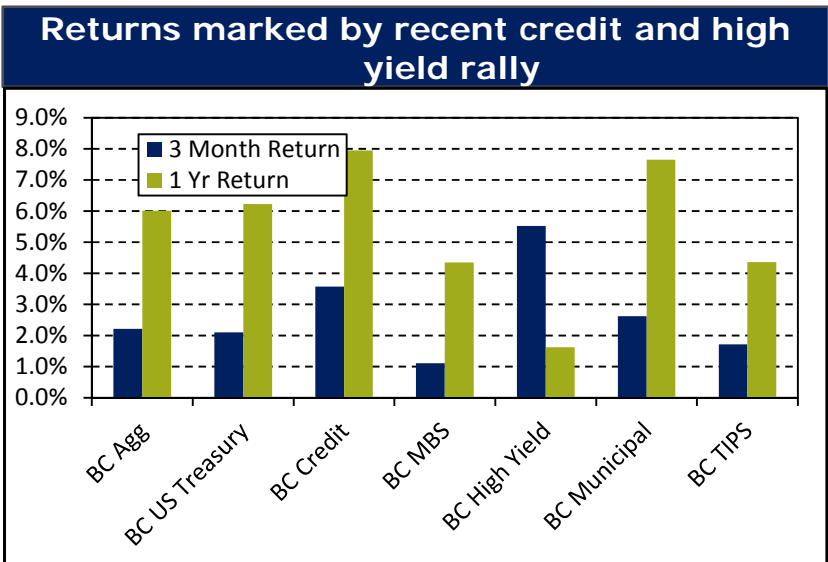
Source: Bloomberg, Barclays



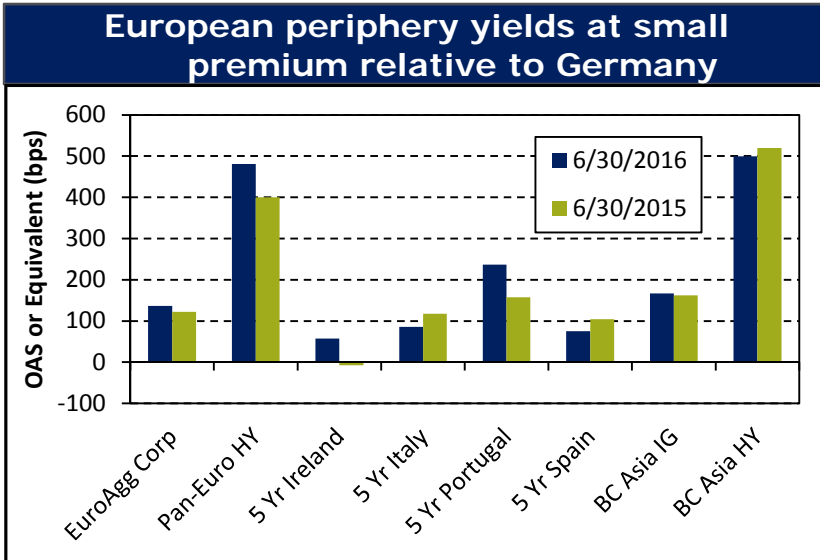
Source: Bloomberg, Barclays



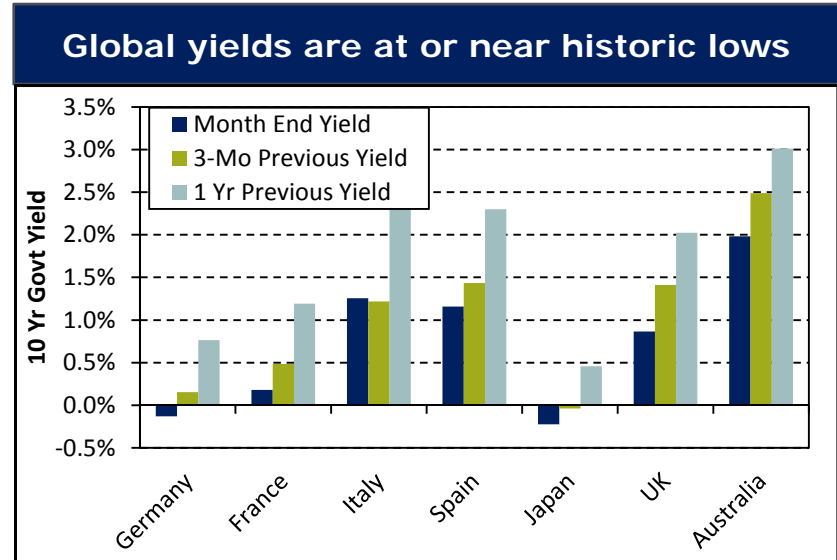
Source: Bloomberg, Barclays



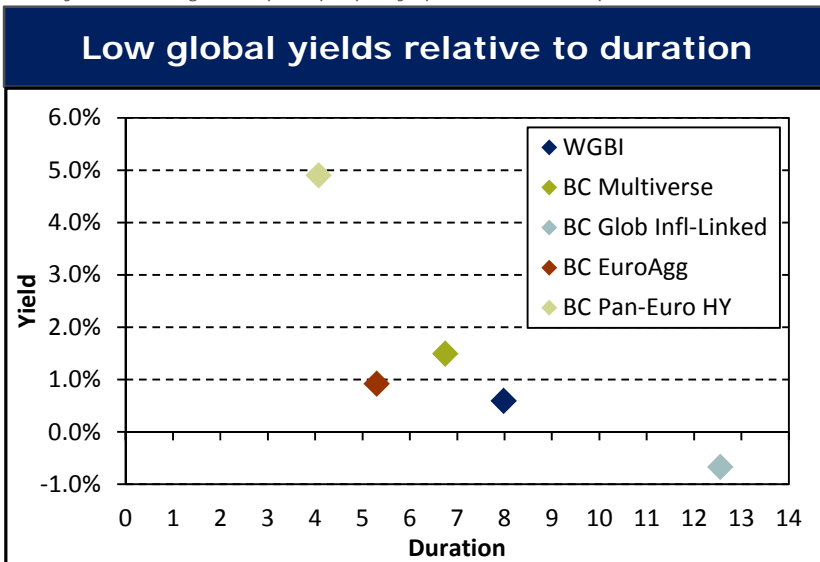
Source: Bloomberg, Barclays



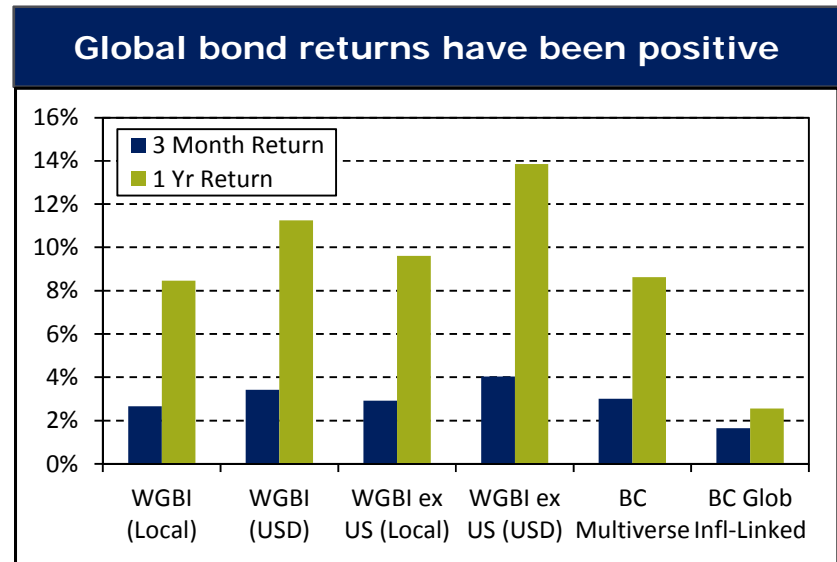
Source: Barclays, Bloomberg, \*European periphery spreads are over equivalent German Bund



Source: Bloomberg

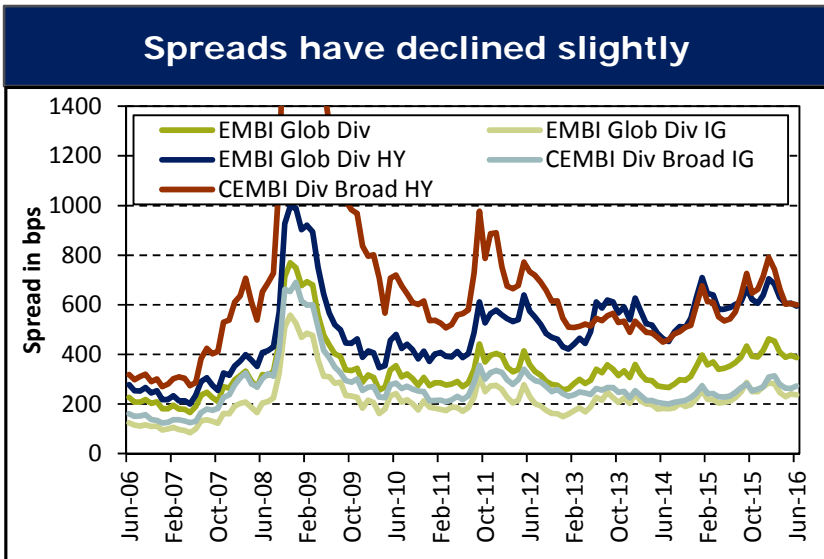


Source: Bloomberg, Citigroup, Barclays

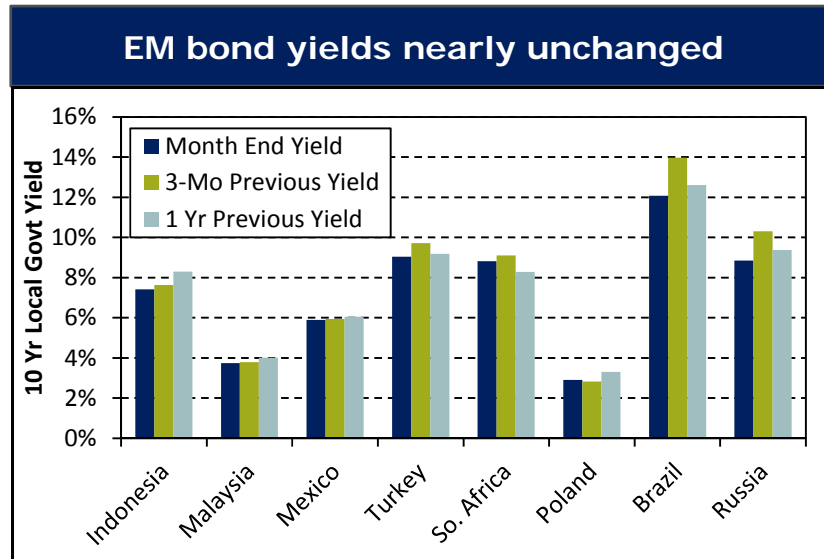


Source: Bloomberg, Citigroup, Barclays

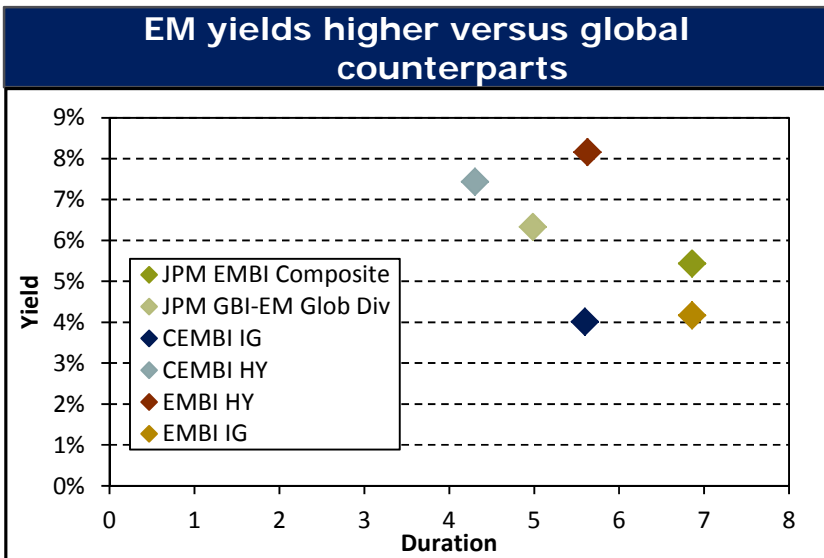
Emerging Markets Fixed Income



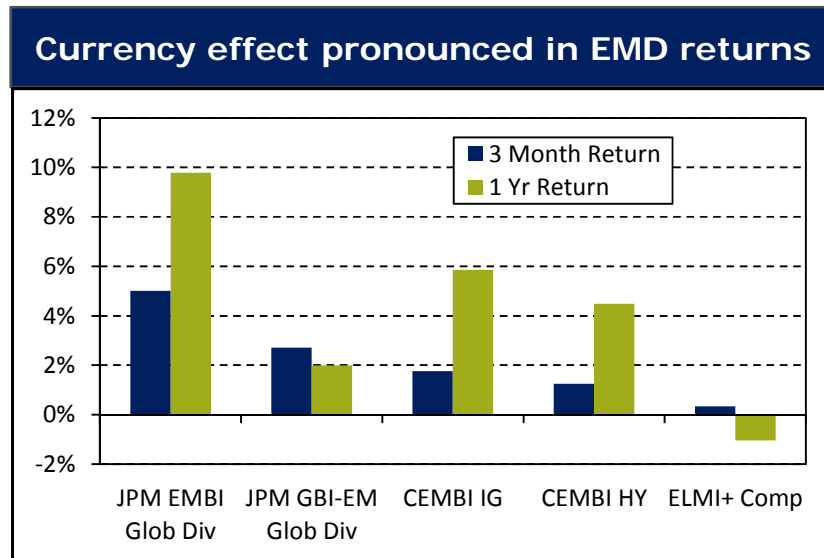
Source: Bloomberg, JP Morgan



Source: Bloomberg

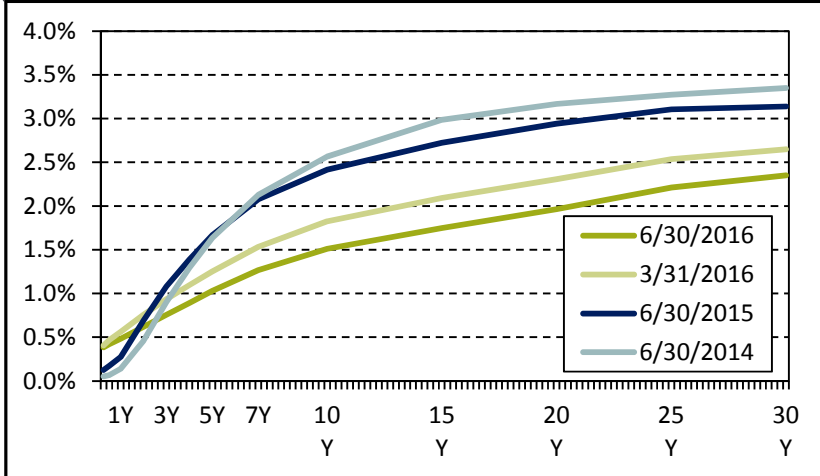


Source: Bloomberg, JP Morgan



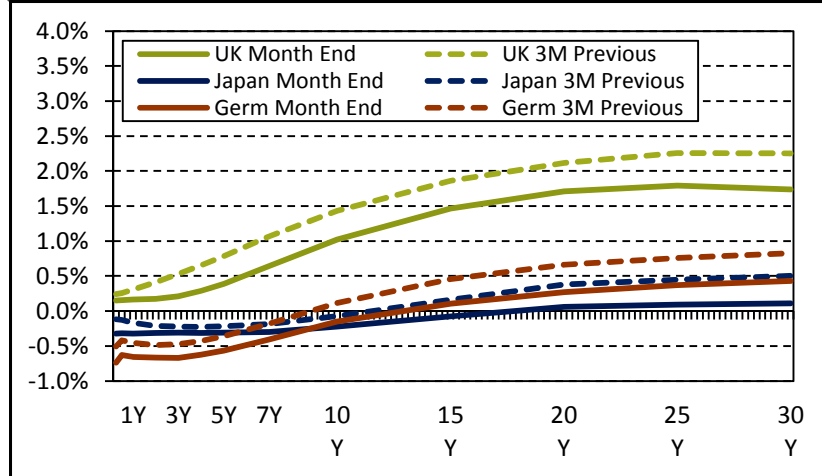
Source: Bloomberg, JP Morgan

Treasury yield curve declined with market uncertainty



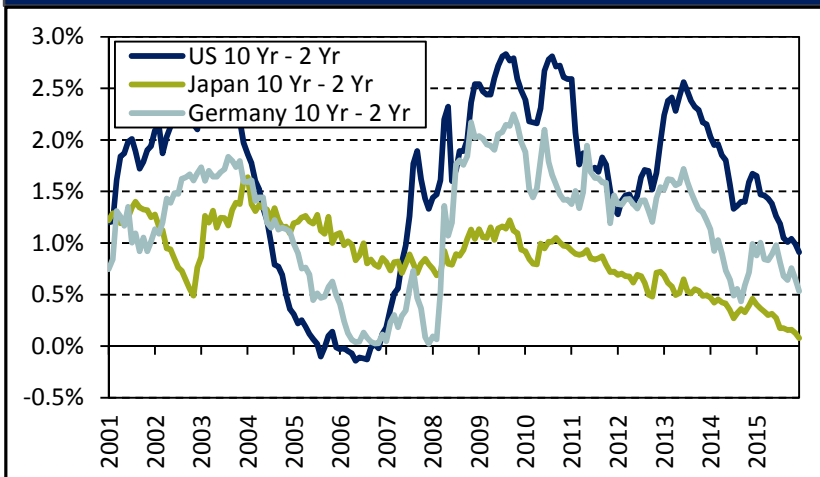
Source: Bloomberg

Lower yields across the board



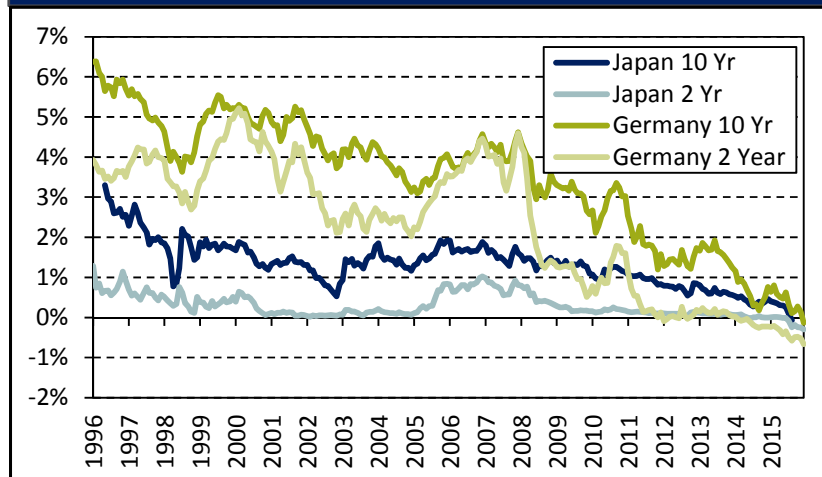
Source: Bloomberg

Global yields nearing lows



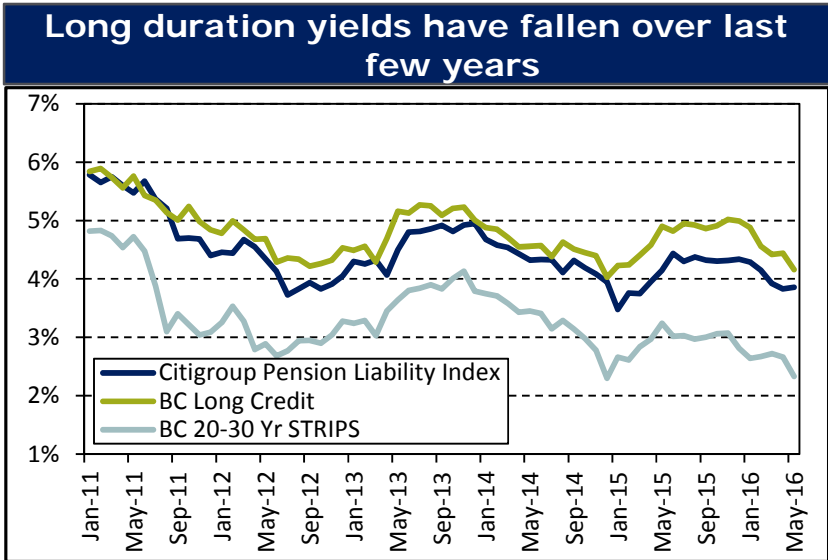
Source: Bloomberg

Global yields trending lower over long term

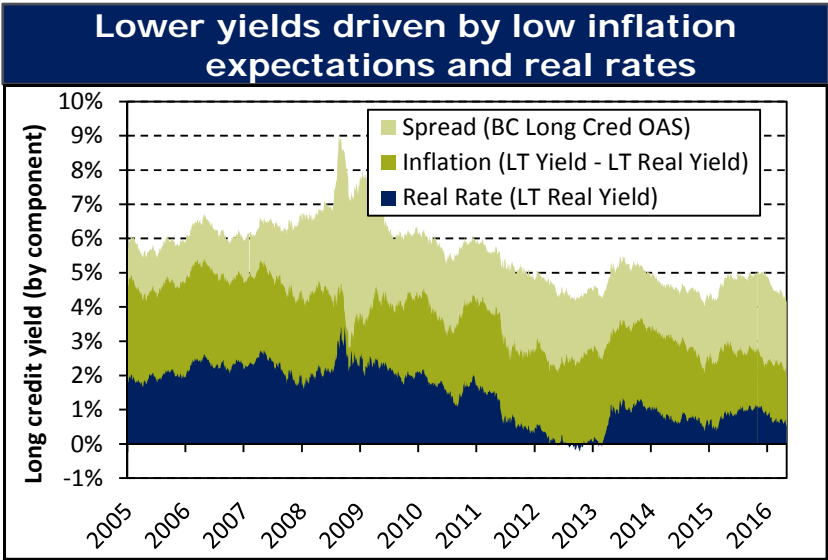


Source: Bloomberg

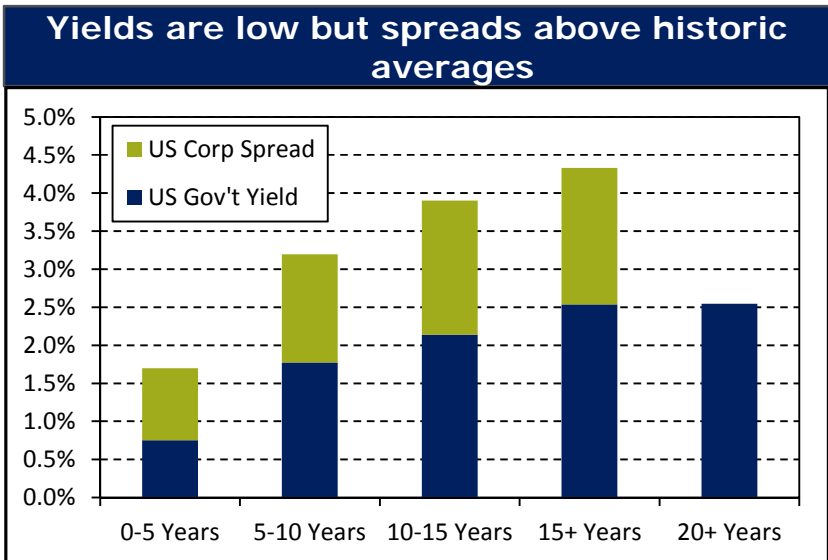
Long Rates and Liability



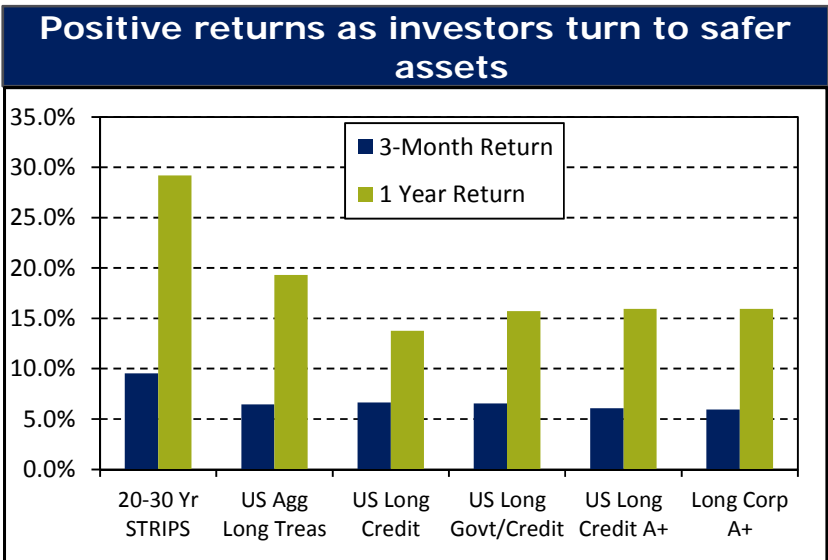
Source: Bloomberg, Citigroup, Barclays



Source: Bloomberg, US Treasury, Barclays, NEPC

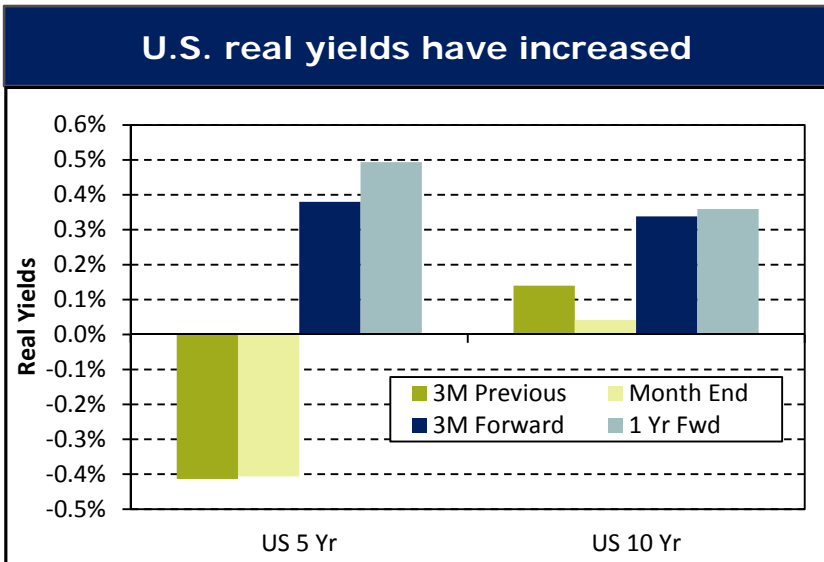


Source: Bloomberg, BofA Merrill Lynch, Barclays \*No index for 20+ year corporate

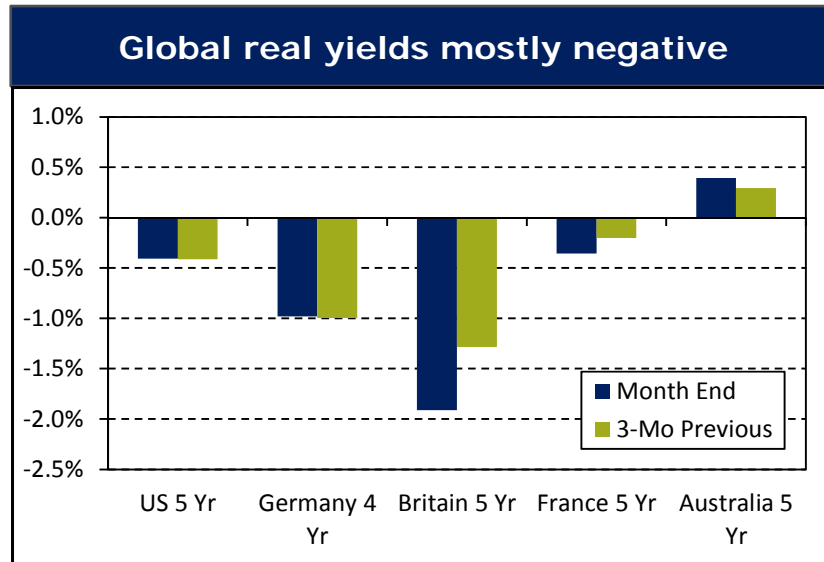


Source: Bloomberg, Barclays

**Inflation and Real Rates**

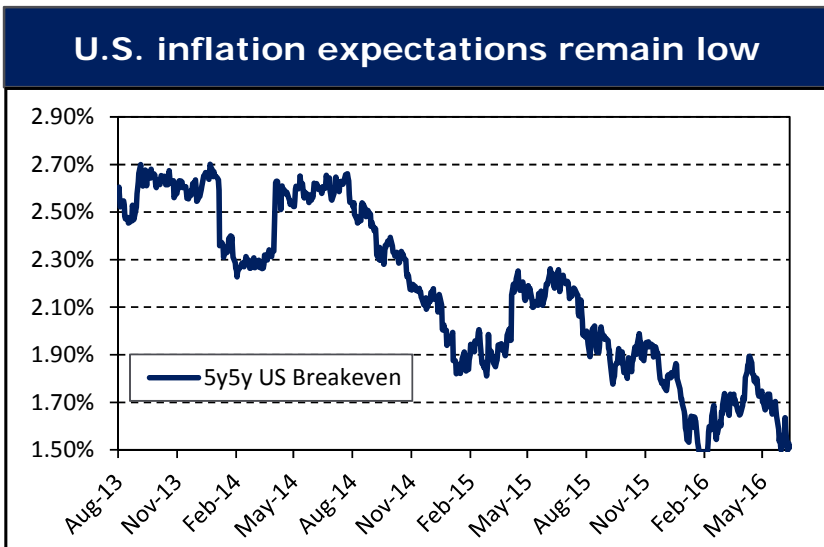


Source: Bloomberg

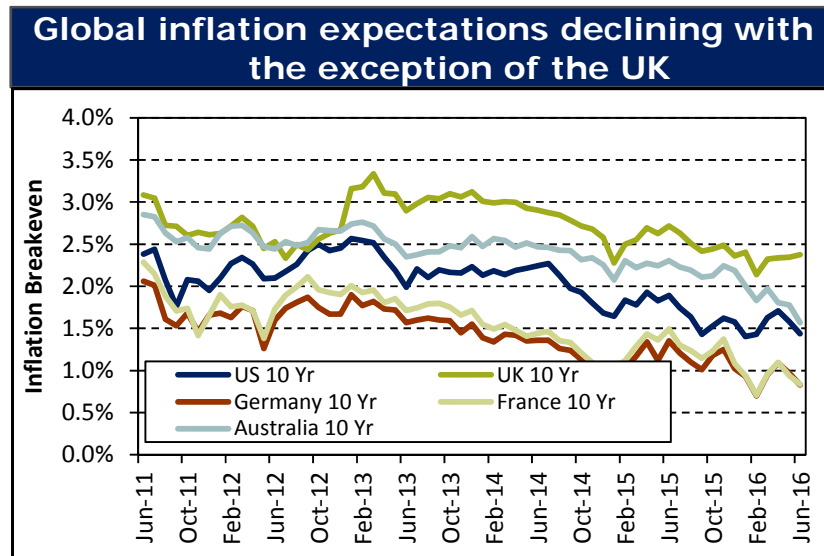


\*3-Mo data not available for Germany 4 year rate

Source: Bloomberg

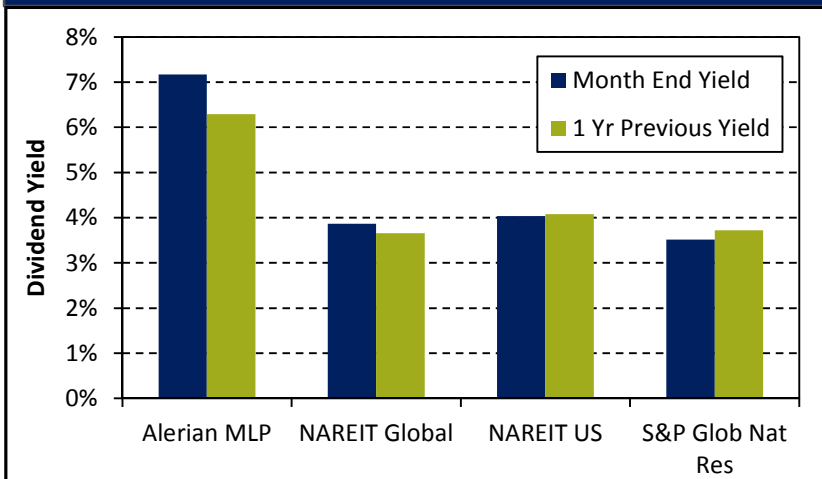


Source: Bloomberg



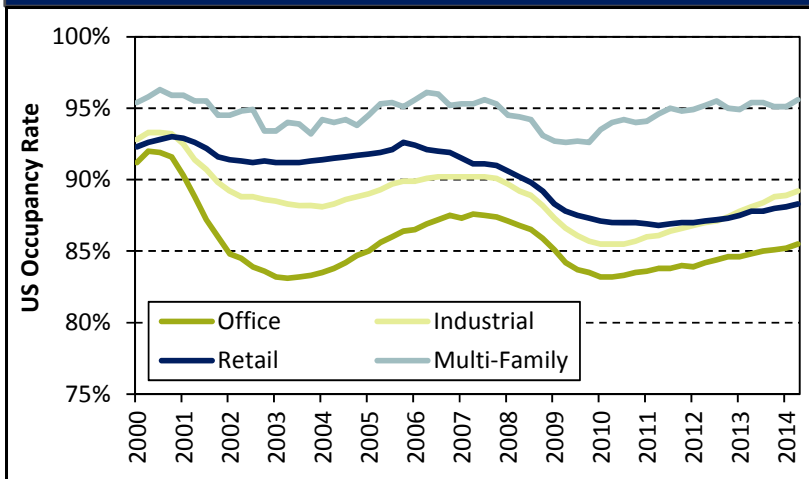
Source: Bloomberg

**Similar yields over time**



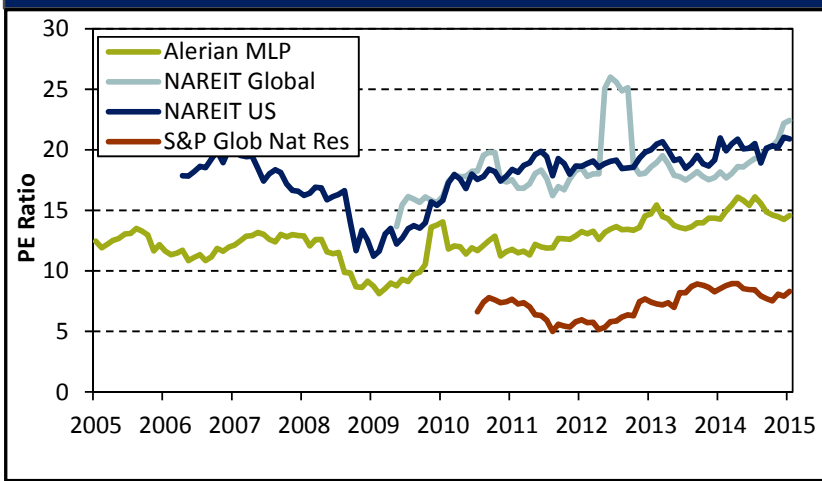
Source: Bloomberg, Alerian, Nareit, Standard and Poors

**Gradual recovery in occupancy rates**



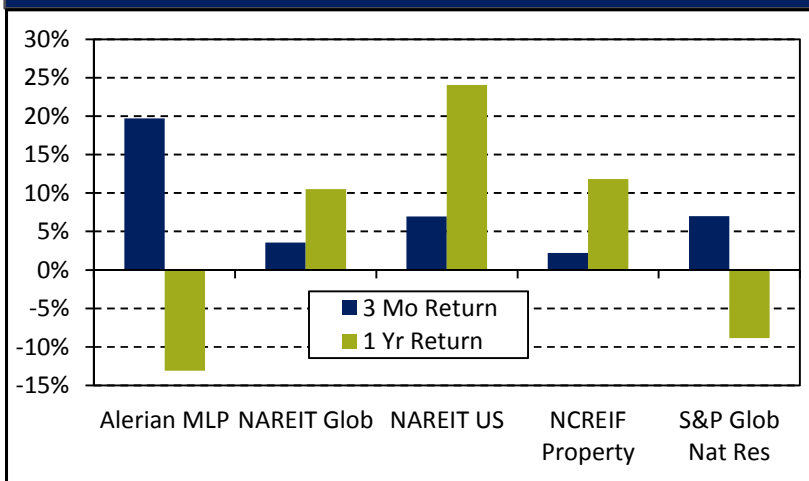
Source: Bloomberg, CB Richard Ellis

**PE Ratios near or above averages**



Source: Bloomberg, US Census Bureau

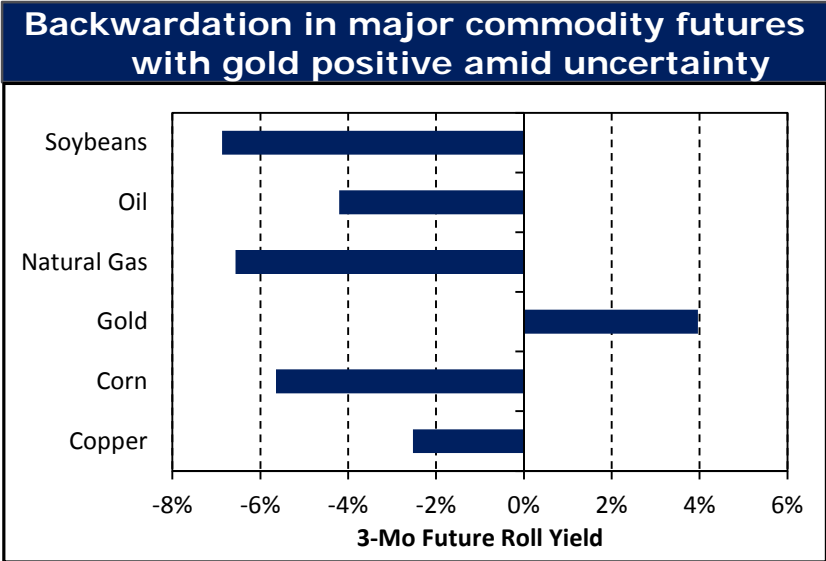
**MLPs have rebounded after selloff**



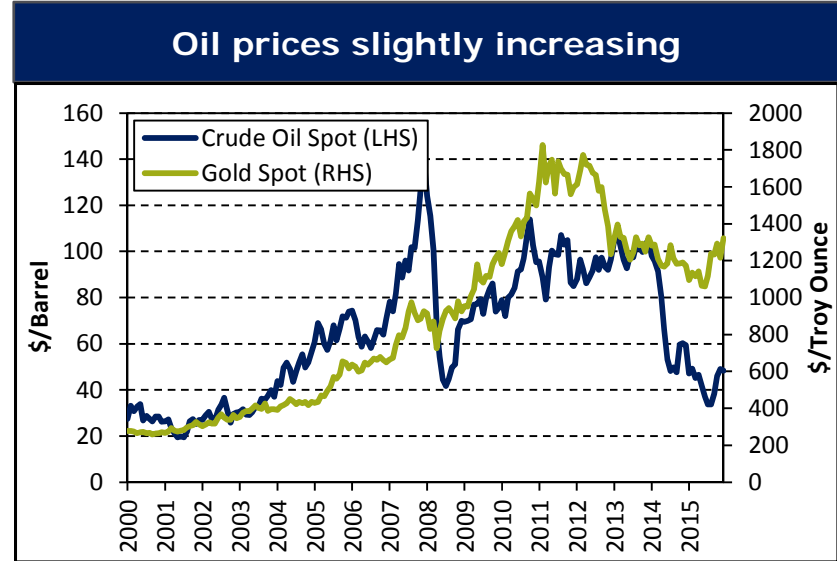
Source: Bloomberg, Alerian, Nareit, Standard and Poors



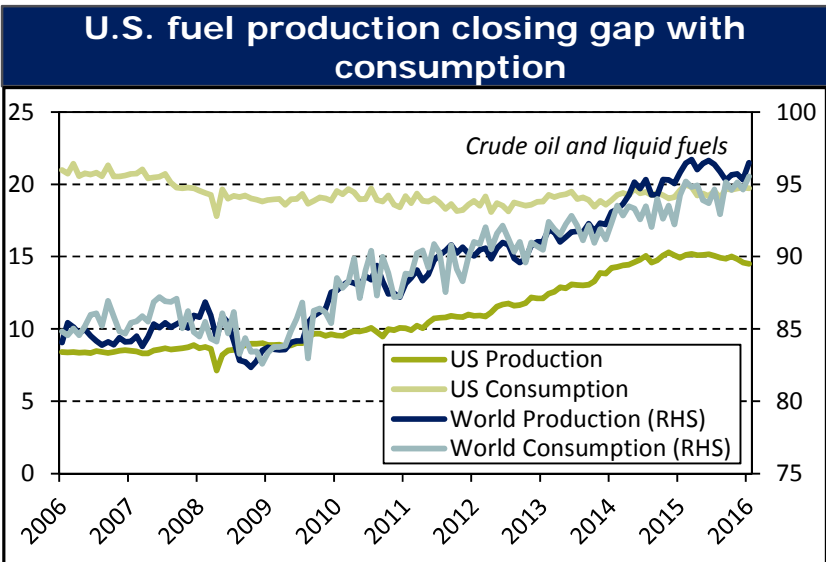
Commodities



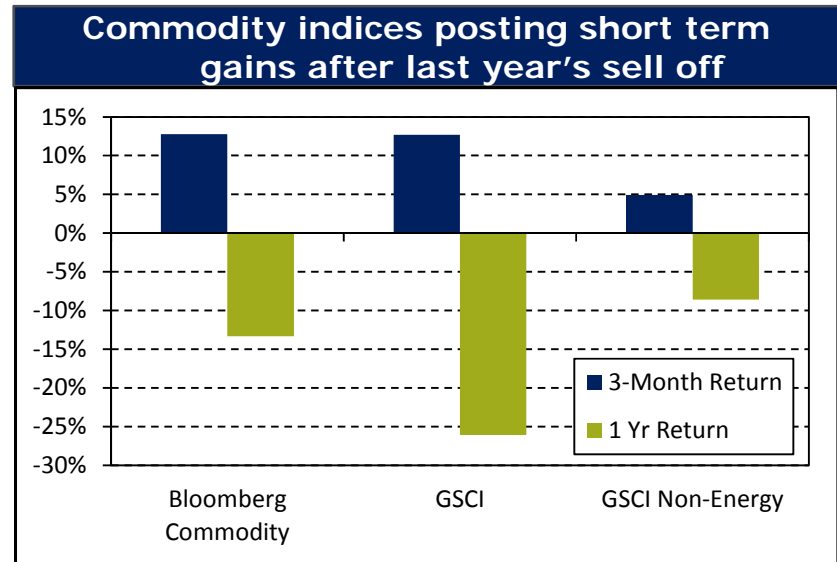
Source: Bloomberg



Source: Bloomberg



Source: Bloomberg, US Department of Energy \*Crude oil and liquid fuels



Source: Bloomberg, Standard and Poors

- **Past performance is no guarantee of future results.**
- **The goal of this report is to provide a basis for monitoring financial markets. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.**
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