



NEPC, LLC

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Ventura County Employees' Retirement Association

Investment Summary
Quarter Ending September 30, 2016

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Market Environment Update and Outlook

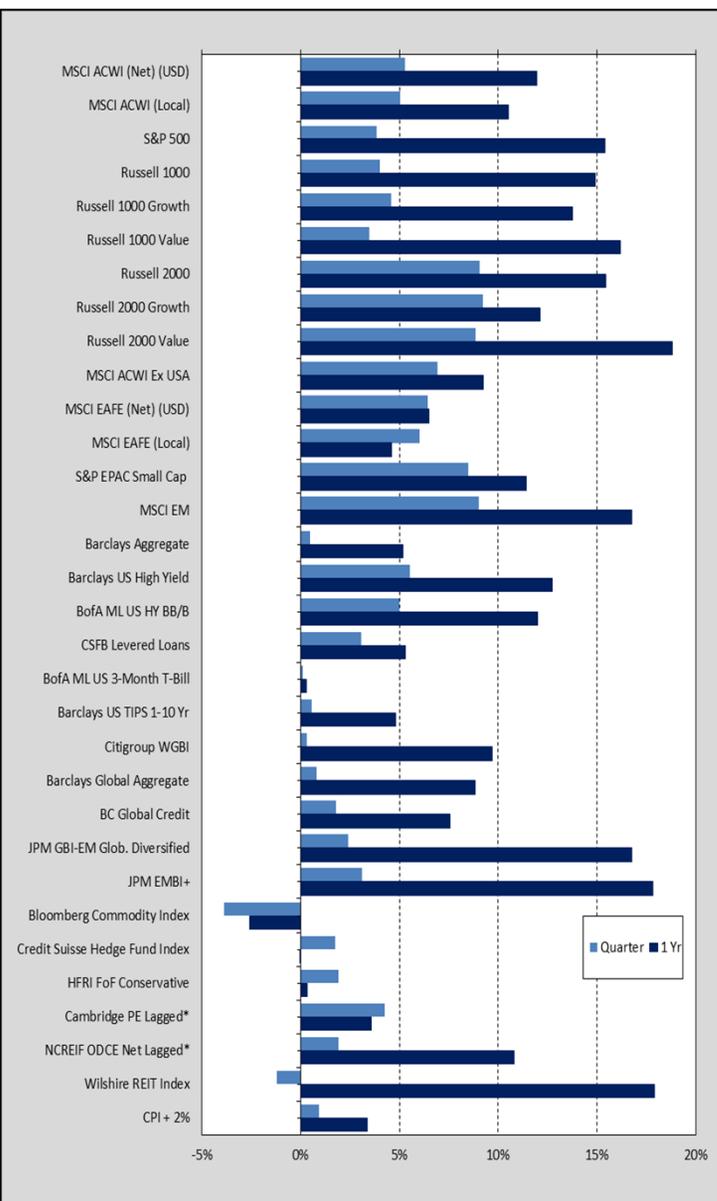


Economic Environment

- **Second quarter GDP growth rate (third estimate) printed at a modest 1.4%.**
 - Retail sales ended August at +1.6% on a year-over-year basis. In the same period last year the YoY growth rate was 1.3%.
 - The inventory-to-sales ratio ended August flat at 1.4 and has remained relatively flat since early 2010.
 - Corporate profits (ended April) as a percent of GDP increased to 8.8% from 8.5% (in January) and remain elevated relative to historical levels.
 - The U.S. trade deficit widened ending August as the rate of change in imports increased to a level not seen since last September.
- **The unemployment rate increased 0.1% to 5.0% in Q3; U-6, a broader measure of unemployment, increased to 9.7% during the third quarter from 9.6%.**
- **The Case-Shiller Home Price Index (ended July) increased to 183.6 from 180.7 in July and is at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally adjusted CPI saw an uptick to 1.36% at the end of September; Capacity Utilization was flat at 75.4% ended Q3.**
- **Fed Funds rate was unchanged at 0.50%. The 10-year Treasury Yield (constant maturity) finished Q3 unchanged at 1.6% vs Q2.**
- **The Fed balance sheet decreased slightly during Q3 2016, while the European Central Bank balance sheet continues to increase.**
 - ECB held its benchmark refinancing rate at 0%, deposit rates -0.4% and asset purchases at €80 billion per month of corporate and public securities.
- **S&P valuations increased slightly in Q3 remaining above the 10-year and long-term averages.**
 - Cyclically adjusted Shiller PE ratio (26.71x) is above the long-term average of 16.68x and above the 10-year average of 22.92x.

Market Environment – Q3 2016 Overview

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI (Net) (USD)	World	5.3%	12.0%	5.2%	10.6%	4.3%
MSCI ACWI (Local)	World (Local Currency)	5.1%	10.5%	7.7%	12.6%	4.6%
Domestic Equity Benchmarks						
S&P 500	Large Core	3.9%	15.4%	11.2%	16.4%	7.2%
Russell 1000	Large Core	4.0%	14.9%	10.8%	16.4%	7.4%
Russell 1000 Growth	Large Growth	4.6%	13.8%	11.8%	16.6%	8.8%
Russell 1000 Value	Large Value	3.5%	16.2%	9.7%	16.2%	5.9%
Russell 2000	Small Core	9.0%	15.5%	6.7%	15.8%	7.1%
Russell 2000 Growth	Small Growth	9.2%	12.1%	6.6%	16.1%	8.3%
Russell 2000 Value	Small Value	8.9%	18.8%	6.8%	15.4%	5.8%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	6.9%	9.3%	0.2%	6.0%	2.2%
MSCI EAFE (Net) (USD)	Int'l Developed	6.4%	6.5%	0.5%	7.4%	1.8%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	6.0%	4.6%	5.3%	11.2%	2.2%
S&P EPAC Small Cap	Small Cap Int'l	8.5%	11.4%	5.6%	11.5%	4.8%
MSCI EM	Emerging Equity	9.0%	16.8%	-0.6%	3.0%	3.9%
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	0.5%	5.2%	4.0%	3.1%	4.8%
Barclays US High Yield	High Yield	5.6%	12.7%	5.3%	8.3%	7.7%
BofA ML US HY BB/B	High Yield	5.0%	12.0%	5.6%	8.0%	7.1%
CSFB Levered Loans	Bank Loans	3.1%	5.3%	3.6%	5.4%	4.3%
BofA ML US 3-Month T-Bill	Cash	0.1%	0.3%	0.1%	0.1%	0.9%
Barclays US TIPS 1-10 Yr	Inflation	0.6%	4.8%	1.5%	1.3%	3.8%
Global Fixed Income Benchmarks						
Citigroup WGBI	World Gov. Bonds	0.3%	9.7%	1.8%	0.8%	4.1%
Barclays Global Aggregate	Global Core Bonds	0.8%	8.8%	2.1%	1.7%	4.3%
BC Global Credit	Global Bonds	1.8%	7.6%	2.9%	3.7%	4.6%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	2.4%	16.8%	-2.7%	0.0%	5.5%
JPM EMBI+	Em. Mkt. Bonds	3.1%	17.8%	8.0%	7.3%	7.6%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodity	-3.9%	-2.6%	-12.3%	-9.4%	-5.3%
Credit Suisse Hedge Fund Index	Hedge Fund	1.8%	-0.0%	2.6%	4.3%	4.2%
HFRI FoF Conservative	Fund of Hedge Funds	1.9%	0.3%	2.2%	3.1%	1.5%
Cambridge PE Lagged*	Private Equity	4.2%	3.6%	11.3%	11.3%	10.8%
NCREIF ODCE Net Lagged*	Real Estate	1.9%	10.8%	12.0%	11.7%	5.2%
Wilshire REIT Index	REIT	-1.2%	17.9%	14.3%	15.8%	5.9%
CPI + 2%	Inflation/Real Assets	0.9%	3.4%	3.0%	3.2%	3.8%



* As of 6/30/2016

Global Equity

- **U.S. equities posted modest gains in the third quarter (+3.9%) according to the S&P 500. Volatility related to political change and economic uncertainty continued in the quarter.**
- **Small cap stocks outperformed large cap stocks during the quarter, with the Russell 2000 Index returning 9.0% and the Russell 1000 Index returning 4.0%.**
- **International equities outperformed U.S. markets during the quarter, returning +6.9%, as measured by the MSCI ACWI ex-U.S. Index. Emerging markets returned +9.0 as measured by the MSCI Emerging Markets Index in U.S. dollar terms.**
 - Developed international markets returned +6.4% as measured by the MSCI EAFE Index.

Private Equity

- **Private equity fundraising totaled \$71.7 billion in Q3 2016.**
- **Buyout and Special Situations fundraising totaled \$38 billion in Q3 2016.**
- **Venture capital fundraising totaled \$11.7 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 \$3 billion.**
- **Growth equity fundraising totaled \$7.2 billion.**

Fixed Income

- **The nominal yield curve flattened in the Q3. Intermediate yields increased 13 –to- 17 basis points and long duration yields increased 2 basis points.**
- **The spread between two and 10-year rates decreased to 83 basis points in Q3 from 91 basis points in Q2. Treasury Inflation-Protected Securities, or TIPS, returned +0.6% during the quarter, as measured by the Barclays US TIPS 1-10 Yr Index.**
- **The Barclays Long Duration Credit Index gained +2.26% as the long end of the curve ended the quarter 2 basis points higher.**
- **Long Treasuries lost -0.36% and investment-grade US corporate debt gained +0.5%.**
- **The Barclays 1-3 year Government/ Credit Index returned +0.02%. US high yield bonds gained +5.6% driven by lower quality and Energy names.**
- **Emerging markets debt continued its broad rally.**
 - US dollar-denominated debt, as measured by the JP Morgan EMBI Index, gained +3.1%; local currency debt gained +2.4%, according to the JP Morgan GBI-EM Index.
 - 90% of flows have been into EM Hard Currency
 - Despite a spectacular +17% YTD, EM Local 3-year return is still -3.17%

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.**

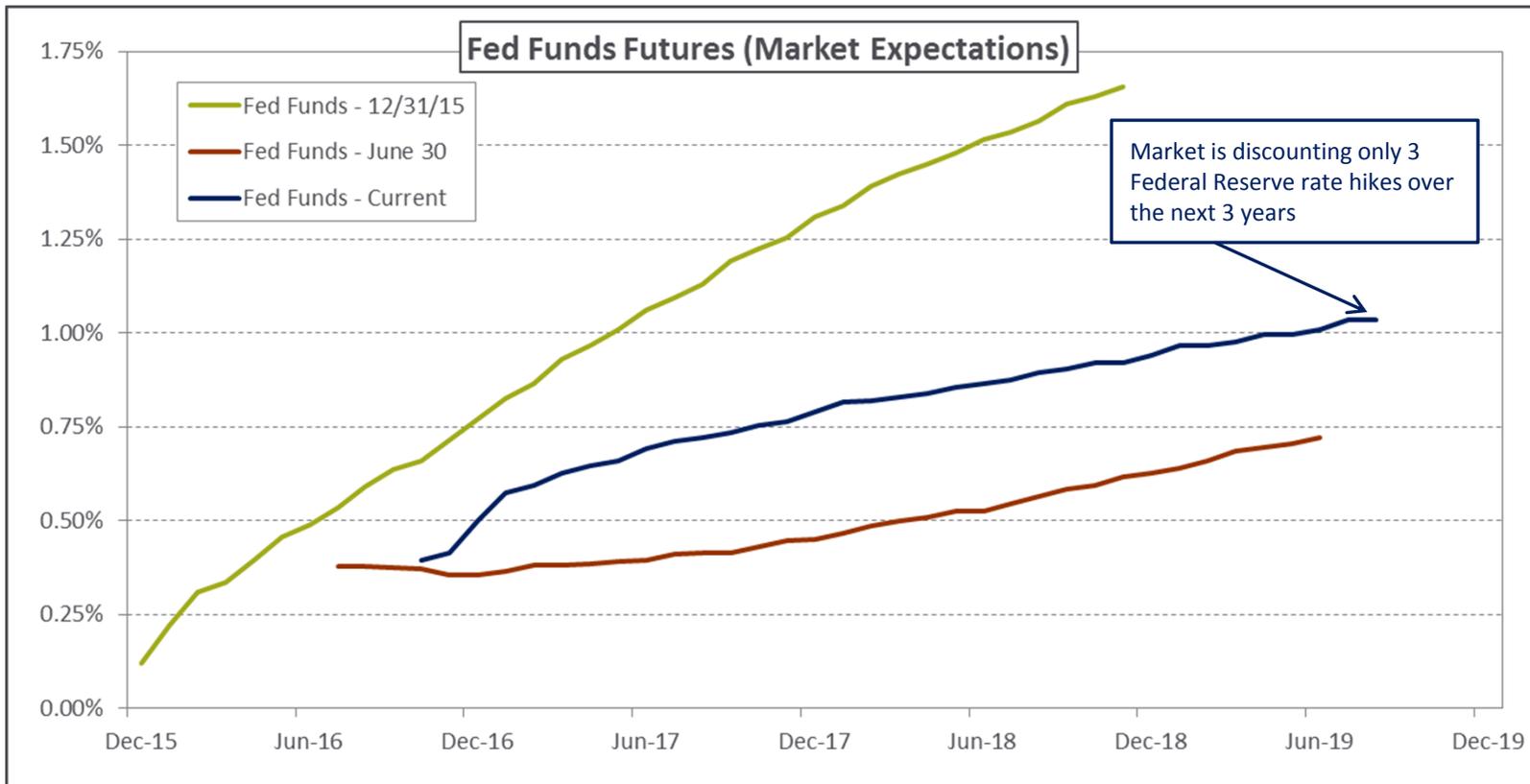
Commodities

- **Commodities ended quarter down -3.9% as measured by the Bloomberg Commodity Index.**
 - Gold lost -0.5% in the third quarter though rallying YTD approximately 24%.
 - Agricultural commodities were lower during the quarter.

Real Estate

- **NEPC continues to be neutral on core real estate in the US 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.**
- **US REITs recorded negative returns -1.2% as measured by the Wilshire REIT Index. The sector is trading at a slight premium to NAV ending Q3.**
- **Europe is viewed as the best place for a marginal dollar of non-core real estate investment.**
 - Current US-dollar denominated investors with currency exposure will feel near-term impact of Brexit, but new investors may benefit from a strong US-dollar. Long-term Brexit implications, however, are unclear.

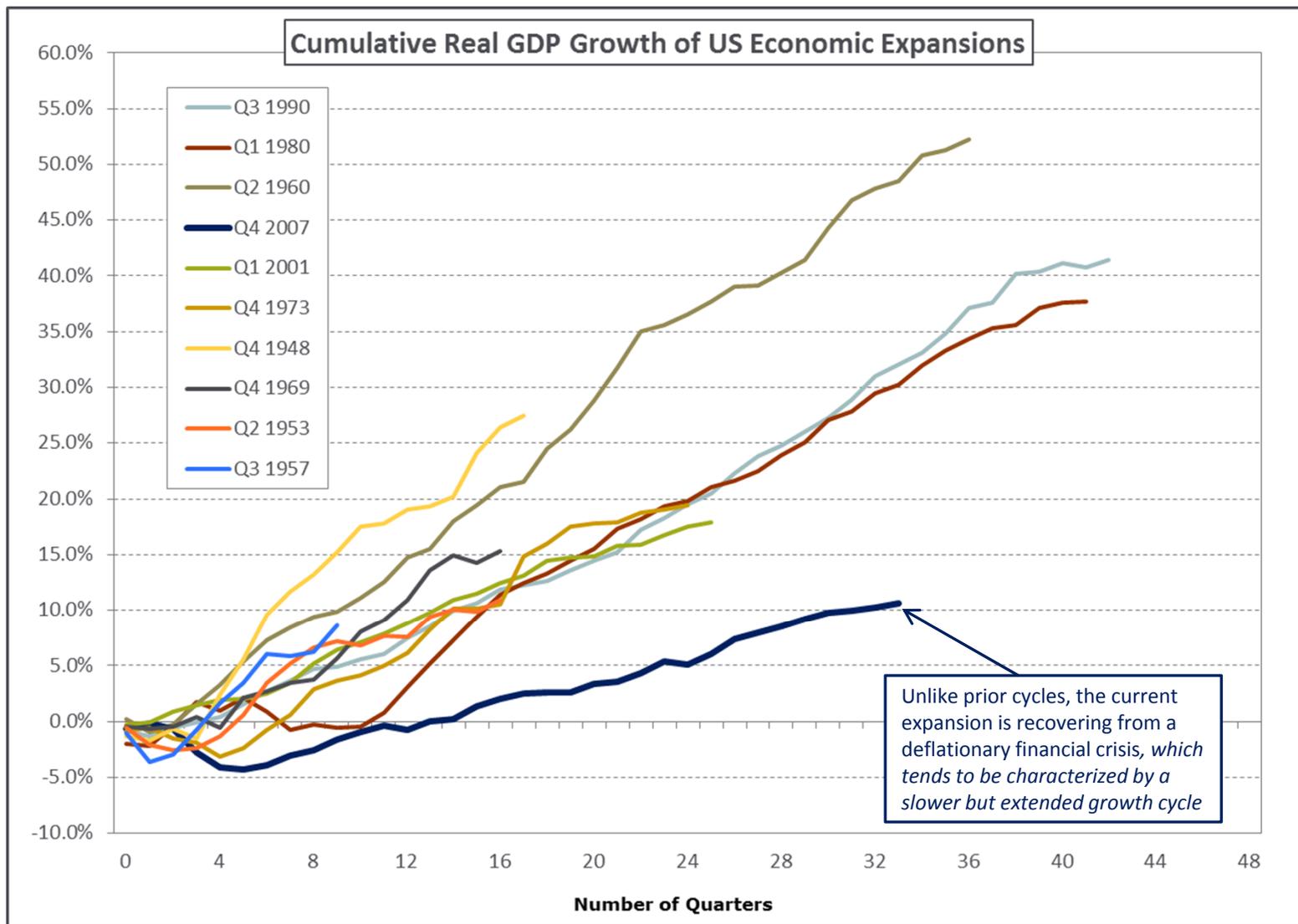
Expectations of Federal Reserve Action Have Decreased Considerably



Source: Bloomberg

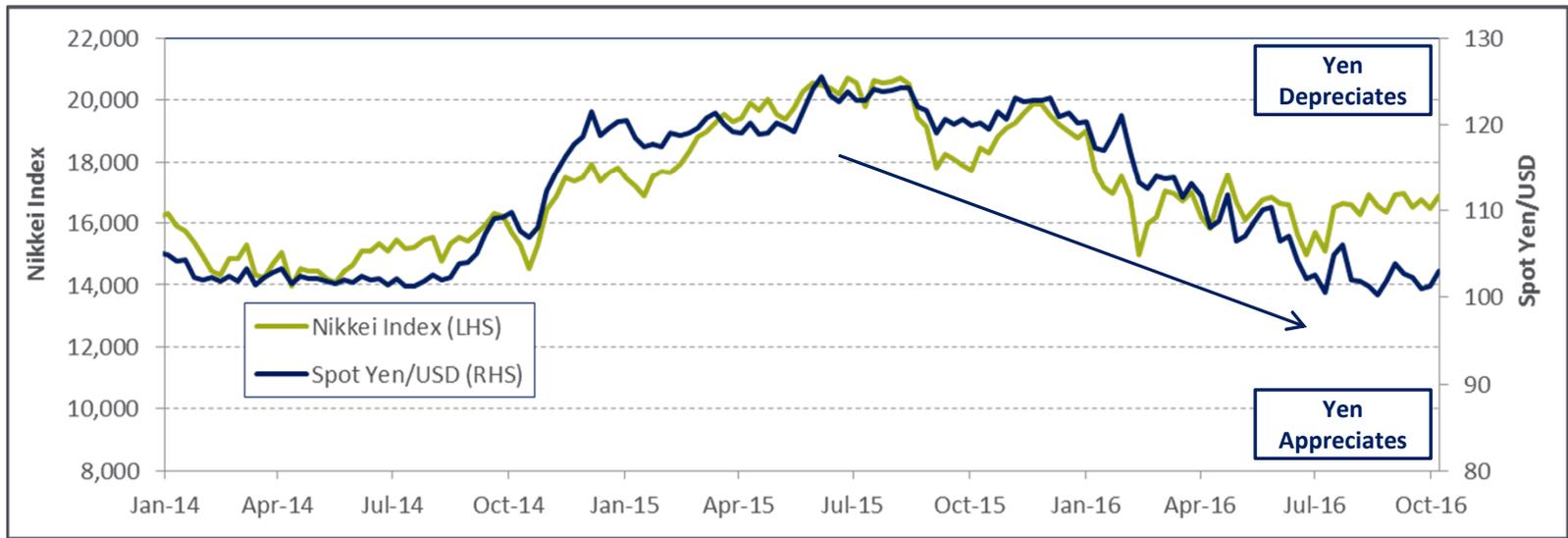
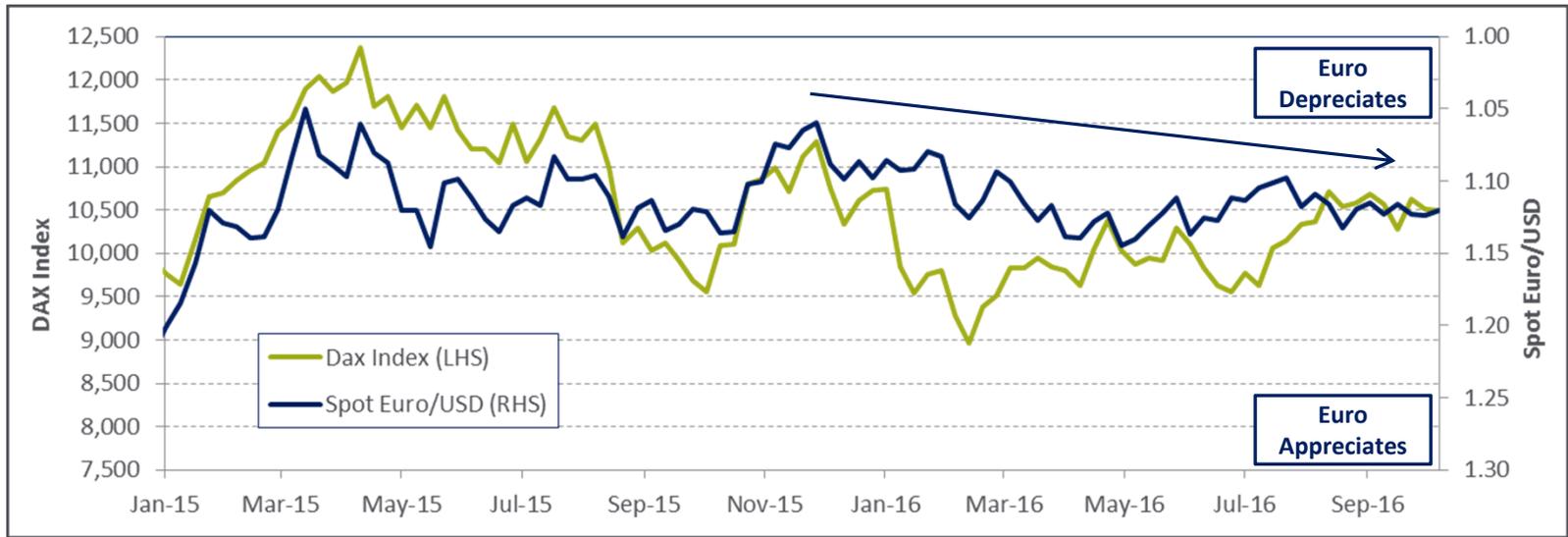
- **Muted, but consistent, US economic growth gives the Fed flexibility to move slowly with policy tightening**
- **Markets discounting a more muted pace increases potential for a negative Fed surprise**

A Prolonged US Economic Expansion can Support an Extended Rally for Risk Assets



Source: Federal Reserve Bank of St. Louis

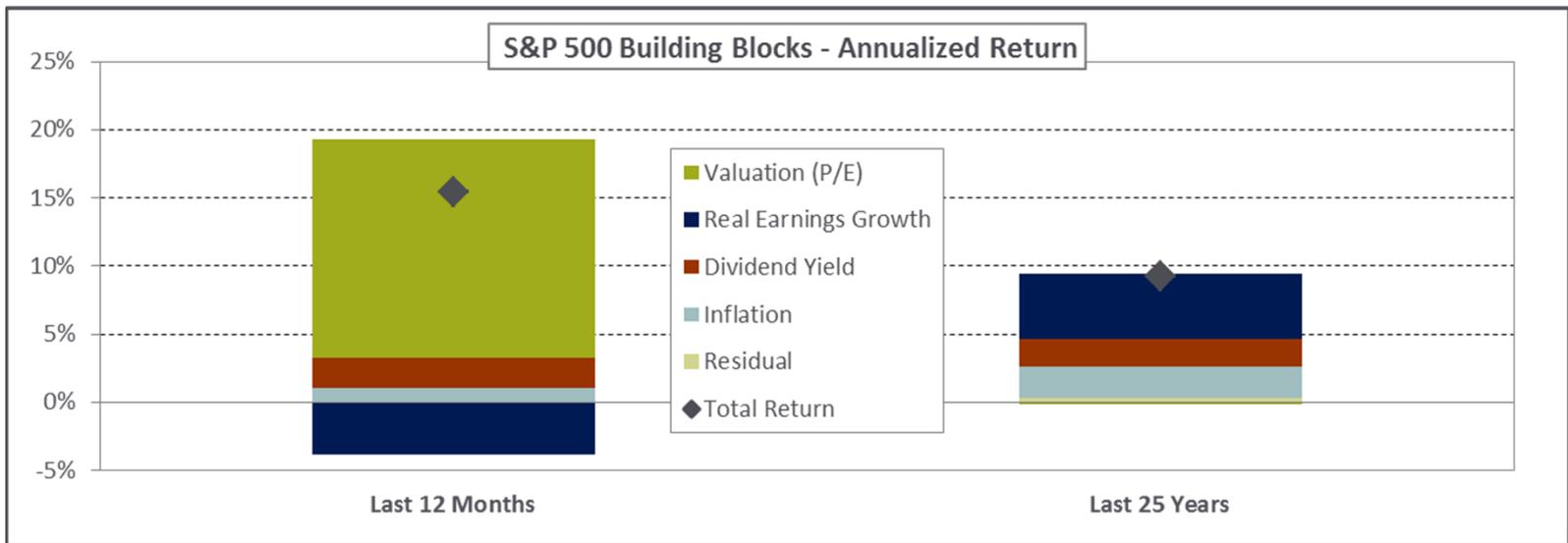
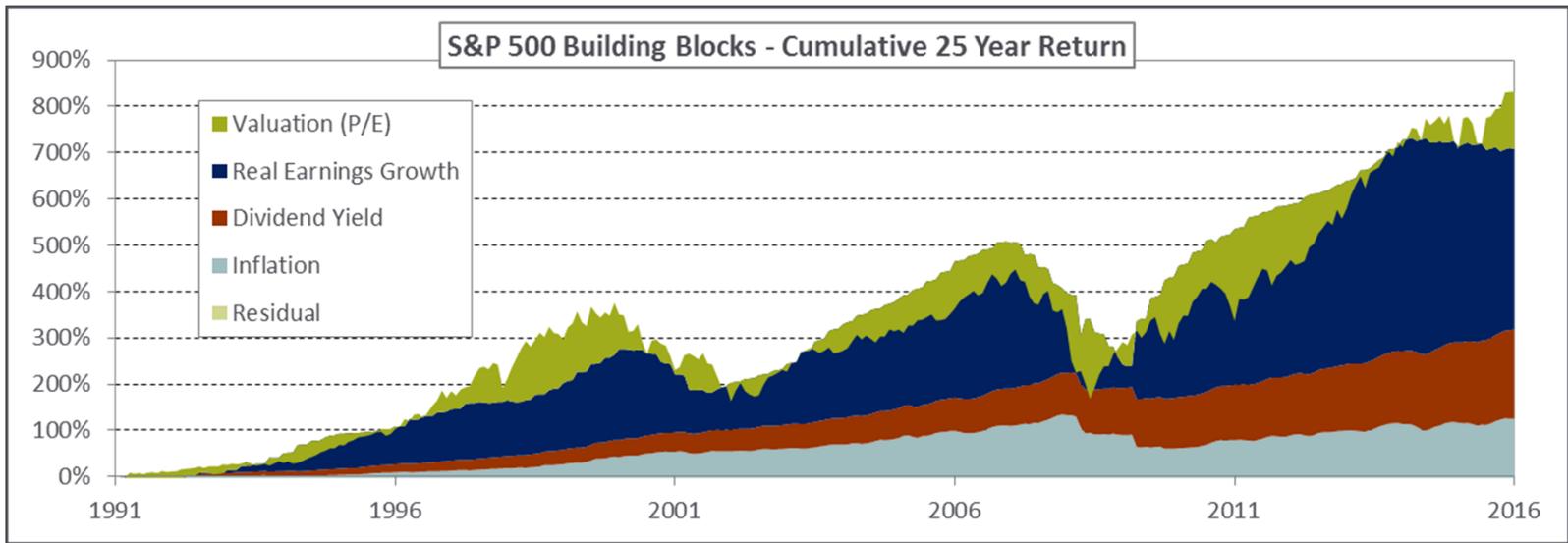
Central Bank Ability to Weaken the Currency and Stimulate Equity Markets has Waned



Source: Bloomberg



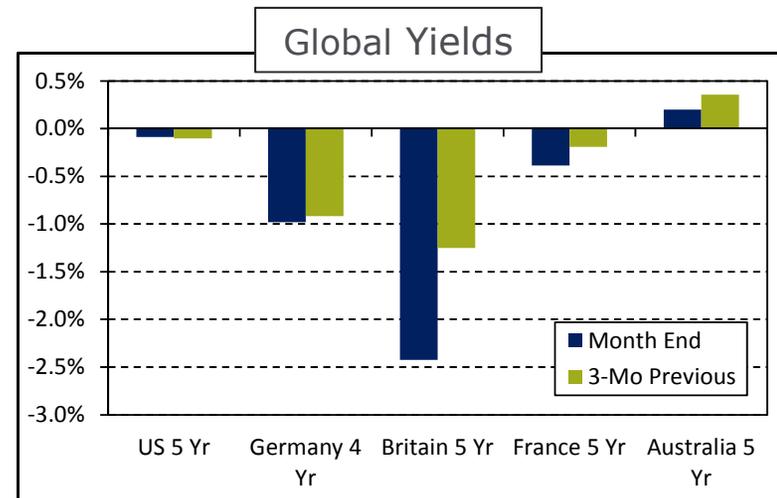
S&P Earnings Weakness has been Overlooked as Expanding Valuations Drive Recent Returns



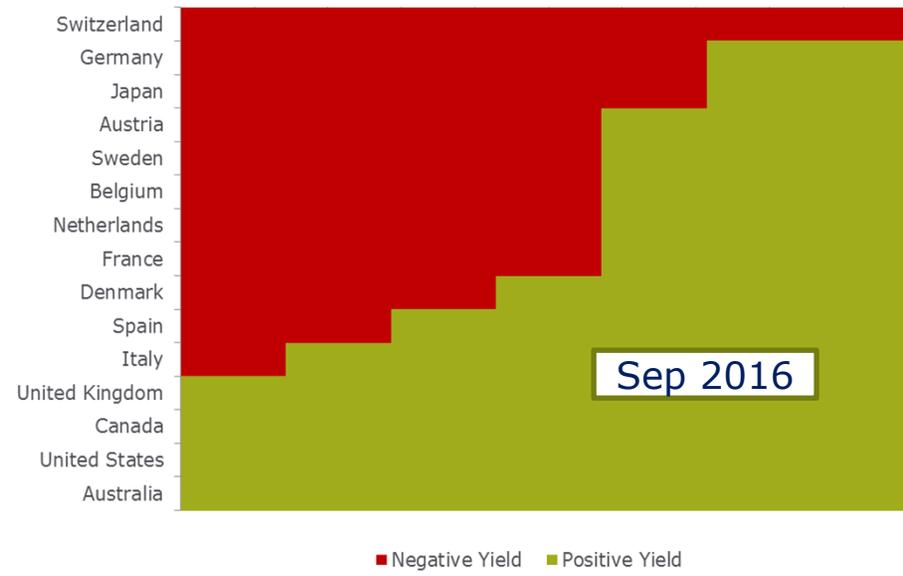
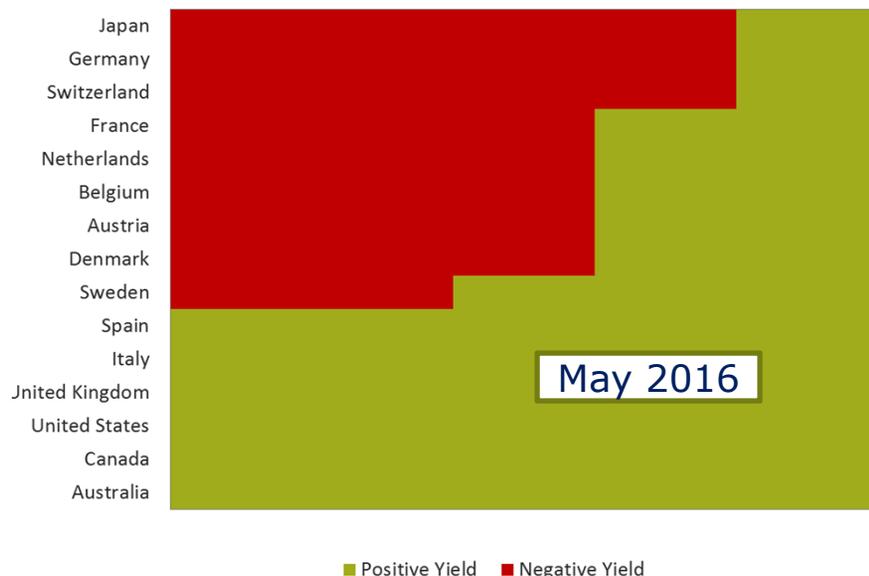
Source: Bloomberg, NEPC

Global Bonds – Developed Market Sovereign Debt

- **Global real yields continue trending lower**

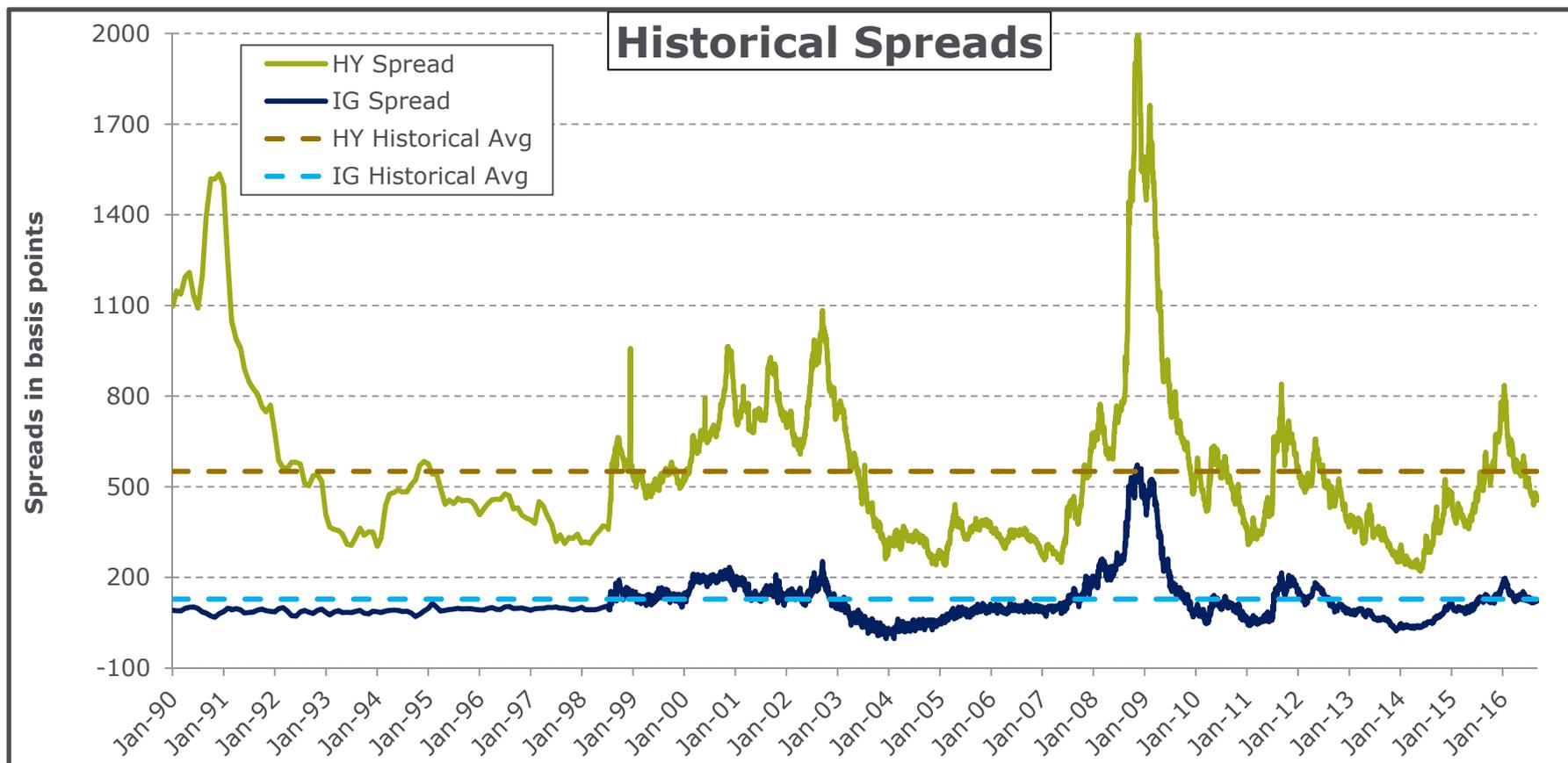


- **Global government yields by maturity buckets – more than a third is negative yielding!**



Credit Cycle and Historical Spreads

- **IG and HY spreads are at or below historical averages**



- **Trim US equity exposure as US markets have rebounded significantly**
 - Remain disciplined and look for rebalancing opportunities should equity markets decline
 - Use tactical strategies to capture pockets of value in US high yield as spreads compress
- **Maintain overweight exposure to non-US developed market equities**
 - Central bank support and dollar strength provide a positive economic backdrop
 - Small-cap equity and global equity are preferred implementation approaches
 - These strategies offer the best opportunity to exploit valuation discrepancies among stocks
- **Emerging Markets offer the most attractive total return opportunity for investors in public markets**
 - 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 US duration exposure with a bias towards TIPS over core bonds
 - Rebalance long treasuries, long credit, and risk parity following recent gains
 - Look to eliminate WGBI focused global bond strategies with yields at historic lows
- **Embrace illiquidity in opportunistic credit and private credit strategies**
 - Stressed credit liquidity magnifies the scale of price movements in traditional credit assets
 - Credit markets ability to absorb an exodus from crowded positions is challenged

Highlights of Third Quarter Happenings at NEPC

September 30, 2016

NEPC Insights

Recent White Papers

- “DC Governance: Slaying the Hydra” (August)
- “Nonprofit Annual Audit Survival Guide” (August)
- “Class is in Session: Lawsuits Against Higher Education Retirement Plans” (September)
- Market Chatter: “NEPC’s Summer Travel: Perspectives on China” (September)
- NEPC’s 11th Annual Defined Contribution Plan & Fee Survey

Webinar

- “2016 Defined Contribution Plan & Fee Survey Webinar” (September); Panel reviewed key findings from our 11th annual NEPC 2016 Defined Contribution Plan & Fee Survey.

Video Series

- “Five Questions with Jeff Roberts on Healthcare Strategic Private Equity Investing” (July)
- “Five Questions with Richard M. Charlton” (July)
- “Discussing Pension Risk Transfers with Chris Levell and Craig Svendsen” (August)

NEPC Recognitions

We are pleased to announce that *Chief Investment Officer* published their fifth annual list of the world’s most influential investment consultants featuring NEPC’s **Tim McCusker, FSA, CFA, CAIA, CIO, Partner**, and **Scott Perry, CAIA, Partner**.



Upcoming Events

The 8th Annual NEPC, LLC Public Fund Workshop will be held January 23-24, 2017 in Tempe, Arizona at the Tempe Mission Palms.

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

ESG – Clearing Up The Confusion Webinar (Coming in December)

NEPC is hosting a webinar to continue the conversation around Environmental, Social and Governance integration (ESG). We aim to help clear up the confusion around what ESG represents and why it has become a growing topic of interest. NEPC will be joined by investment managers from different asset classes who will offer their insights into how they are implementing ESG into their investment portfolios.

NEPC Gives Back

- NEPC employees went “sock-less” and participated in the *Sox for Socks* drive to support the Boston Health Care for the Homeless Program, which provides socks for the homeless men and women of Boston.
- Eighteen NEPC employees volunteered to work with Habitat for Humanity Greater Boston, stepping up to help build new homes for low-income families in need of decent and affordable housing.

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
Total Fund	\$4,666,540,419	3.3%	82	7.2%	35	10.2%	19	6.0%	41	10.1%	17	5.5%	38	7.9%	Apr-94
<i>Policy Index</i>		3.6%	61	7.1%	40	10.7%	3	6.8%	7	10.2%	13	5.8%	21	7.9%	Apr-94
<i>60% MSCI ACWI (Net)/40% CITI WGBI</i>		3.3%	82	8.5%	8	11.3%	1	4.0%	95	6.8%	97	4.6%	86	--	Apr-94
<i>InvestorForce Public DB > \$1B Net Median</i>		3.8%		6.8%		9.3%		5.5%		9.0%		5.4%		7.4%	Apr-94

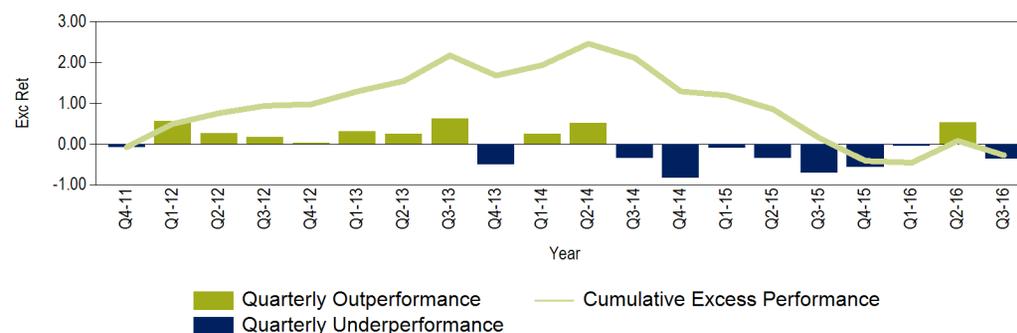
- For the five-year period ending September 30, 2016, the Fund returned 10.1%, trailing the policy index by 0.1% and ranking in the 17th percentile of its peers. However, outperforming the actuarial assumed rate of 7.5%. The Fund's volatility, as measured by standard deviation, ranked in the 73rd percentile of its peers, and the risk-adjusted return, or Sharpe Ratio, ranks in the 37th percentile. This means that the Fund has earned more return per unit of volatility taken than 63% of its peers.

- For the three-year period, the Fund returned 6.0%, trailing the policy index by 0.8% and ranking in the 41st 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 44th percentile.

- For the one-year period, the Fund returned 10.2%, trailing the policy index by 0.5% and ranking in the 19th 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 \$446 million, which includes a net investment gain of \$154 million in the quarter. Assets decreased from \$4.21 billion one year ago to \$4.67 billion.

Quarterly and Cumulative Excess Performance



3 Years Ending September 30, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	6.0%	41	6.8%	68	0.9	44	1.5	31
Policy Index	6.8%	7	6.7%	67	1.0	17	1.7	11
InvestorForce Public DB > \$1B Net Median	5.5%	--	6.4%	--	0.8	--	1.4	--

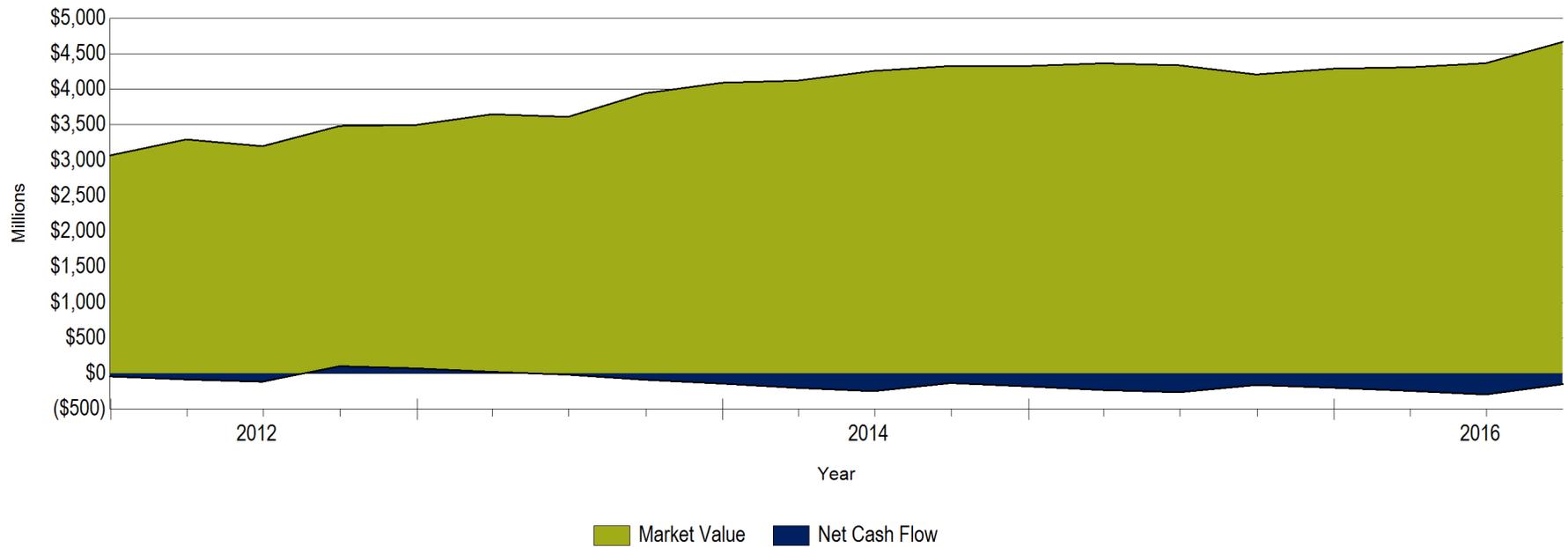
5 Years Ending September 30, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	10.1%	17	7.5%	73	1.3	37	2.3	20
Policy Index	10.2%	13	7.5%	74	1.4	35	2.2	27
InvestorForce Public DB > \$1B Net Median	9.0%	--	7.0%	--	1.3	--	2.1	--

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 September 30, 2016

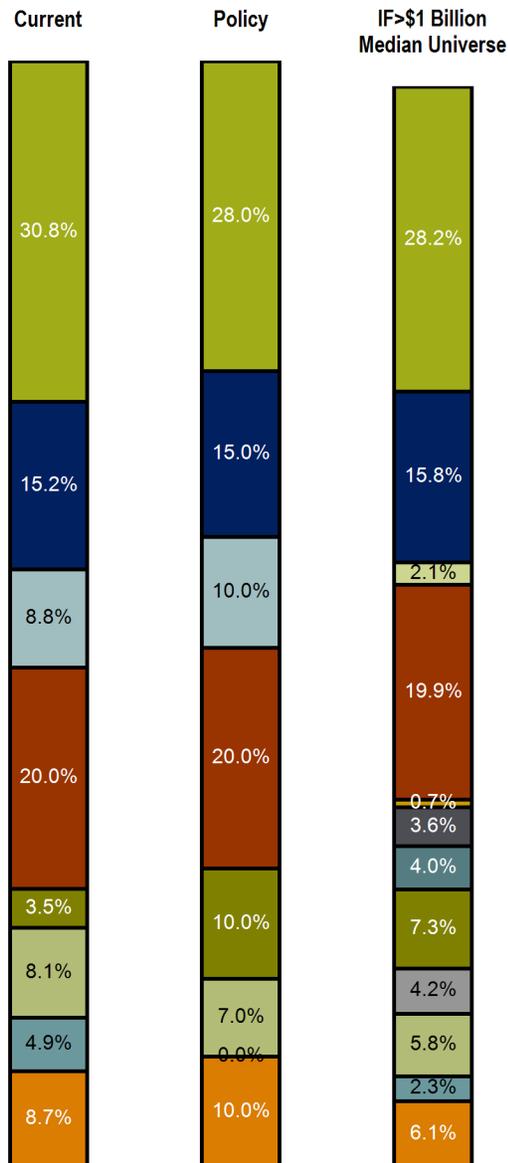


Summary of Cash Flows

	Last Three Months	Year-To-Date	One Year	Three Years	Five Years
Beginning Market Value	\$4,367,190,644	\$4,290,811,595	\$4,208,105,148	\$3,944,521,428	\$2,927,905,337
Net Cash Flow	\$145,278,429	\$50,345,120	\$11,964,262	-\$61,098,474	-\$148,882,893
Net Investment Change	\$154,071,346	\$325,383,704	\$446,471,009	\$783,117,465	\$1,887,517,975
Ending Market Value	\$4,666,540,419	\$4,666,540,419	\$4,666,540,419	\$4,666,540,419	\$4,666,540,419

Ventura County Employees' Retirement Association

Total Fund Asset Allocation vs. Policy Targets



	Current	Current	Policy	Difference*	Policy Range	Within Range
U.S. Equity	\$1,435,332,432	30.8%	28.0%	2.8%	24.0% - 32.0%	Yes
Non-US Equity	\$709,064,570	15.2%	15.0%	0.2%	12.0% - 18.0%	Yes
Emerging Markets Equity	\$412,652,763	8.8%	10.0%	-1.2%	7.0% - 13.0%	Yes
Global Equity	\$935,255,229	20.0%	20.0%	0.0%	16.0% - 24.0%	Yes
U.S. Fixed Income						
Fixed Income - Emerging						
Fixed Income - Global						
Global Asset Allocation						
Private Equity	\$165,502,550	3.5%	10.0%	-6.5%	0.0% - 12.0%	Yes
Hedge Funds						
Real Estate	\$377,332,470	8.1%	7.0%	1.1%	4.0% - 10.0%	Yes
Cash	\$226,472,444	4.9%	0.0%	4.9%	0.0% - 3.0%	No
Liquid Alternatives	\$404,927,961	8.7%	10.0%	-1.3%	5.0% - 15.0%	Yes
Total	\$4,666,540,419	100.0%	100.0%			

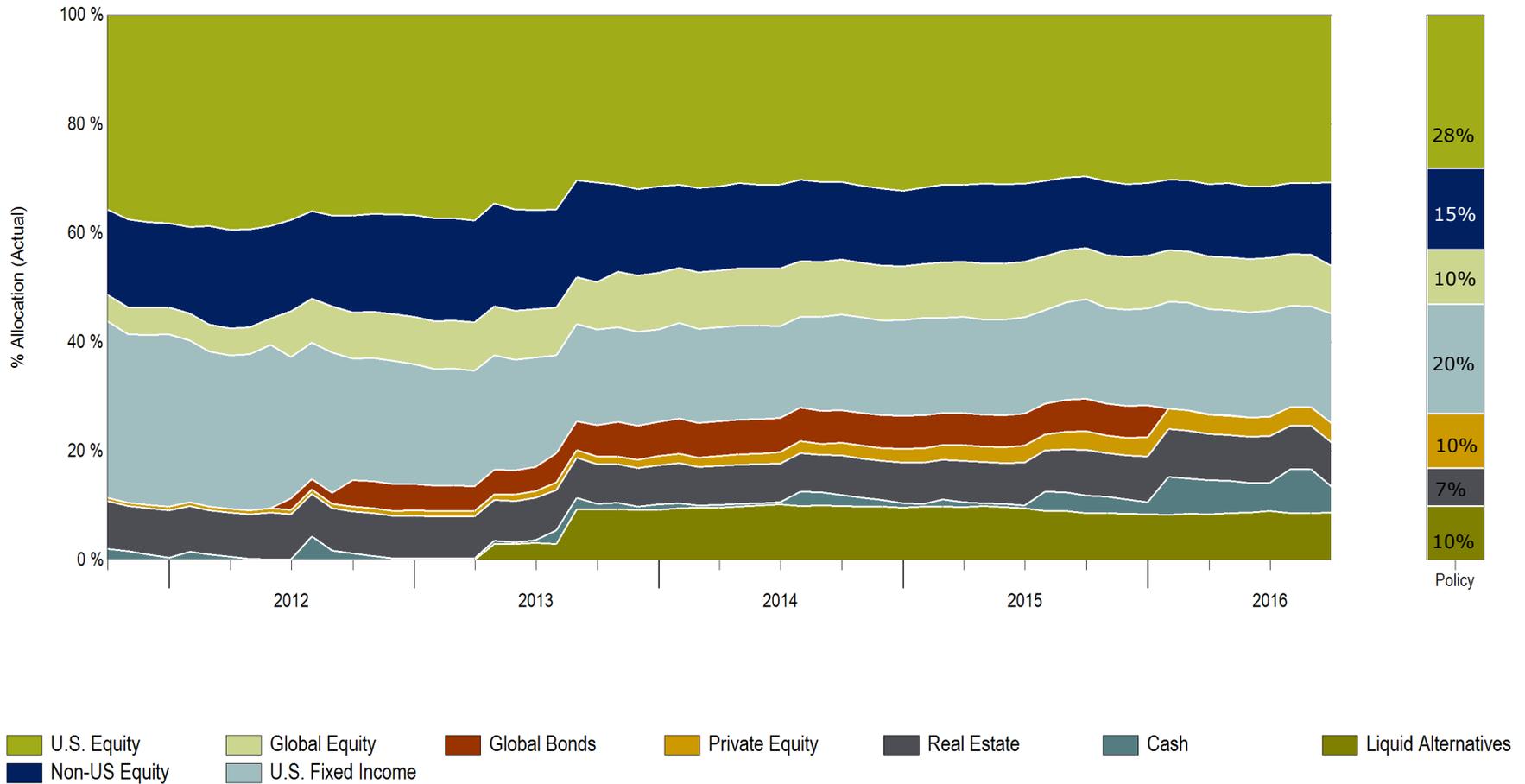
*Difference between Policy and Current Allocation

Cash represents asset in Parametric Overlay.

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.

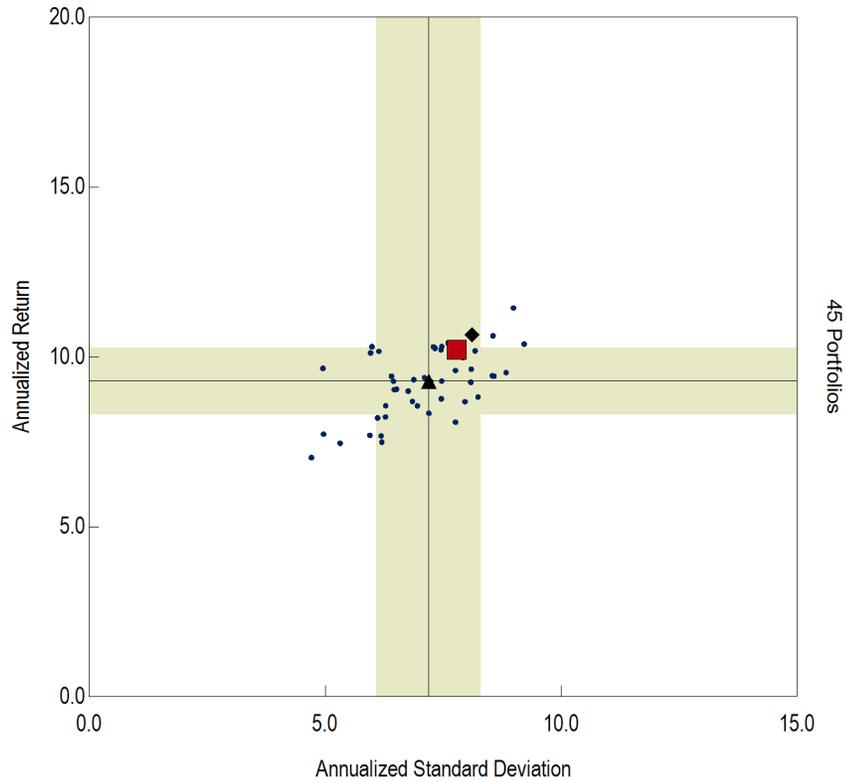
Total Fund Allocation History

Asset Allocation History
5 Years Ending September 30, 2016



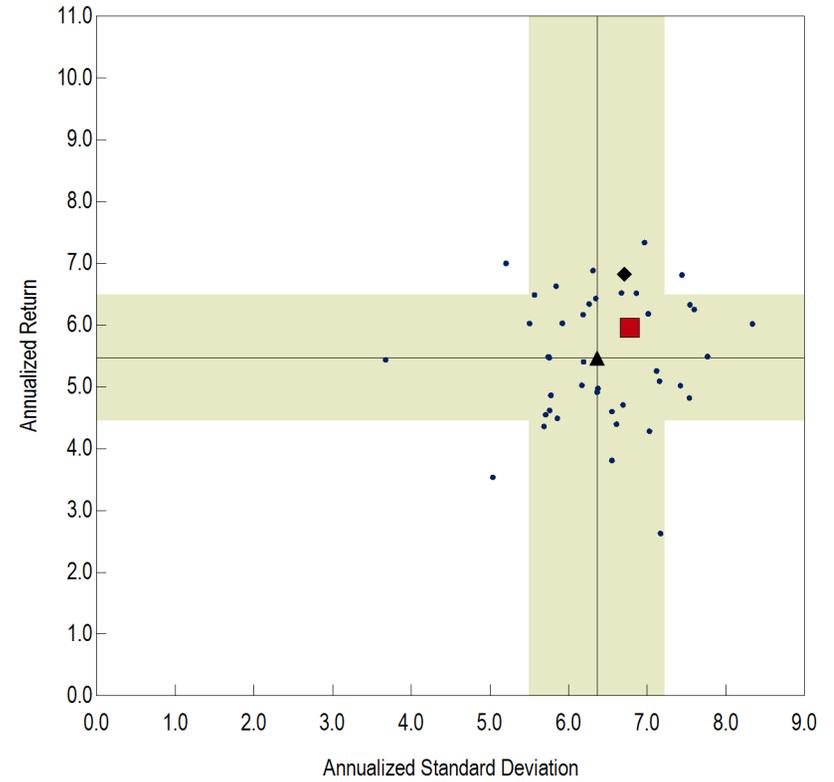
Policy Index shown is most recently approved index

1 Years Ending September 30, 2016



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

3 Years Ending September 30, 2016

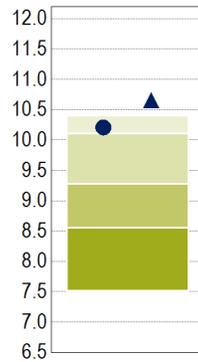


- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Net

Total Fund Risk Statistics vs. Peer Universe

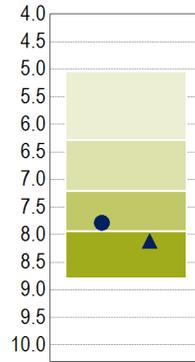
Total Fund vs. InvestorForce Public DB > \$1B Net
1 Year

Anlzd Return



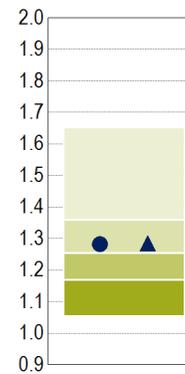
● Total Fund	
Value	10.2
Rank	19
▲ Policy Index	
Value	10.7
Rank	3
Universe	
5th %tile	10.4
25th %tile	10.1
Median	9.3
75th %tile	8.6
95th %tile	7.5

Anlzd Standard Deviation



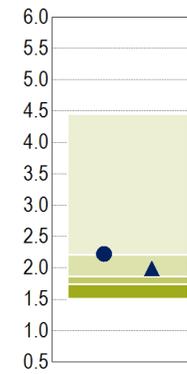
● Total Fund	
Value	7.8
Rank	74
▲ Policy Index	
Value	8.1
Rank	83
Universe	
5th %tile	5.0
25th %tile	6.3
Median	7.2
75th %tile	7.9
95th %tile	8.8

Sharpe Ratio



● Total Fund	
Value	1.3
Rank	47
▲ Policy Index	
Value	1.3
Rank	47
Universe	
5th %tile	1.7
25th %tile	1.4
Median	1.3
75th %tile	1.2
95th %tile	1.1

Sortino Ratio

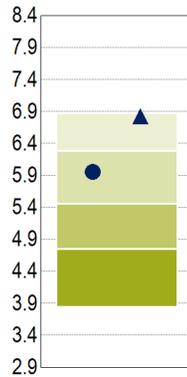


● Total Fund	
Value	2.2
Rank	25
▲ Policy Index	
Value	2.0
Rank	44
Universe	
5th %tile	4.5
25th %tile	2.2
Median	1.9
75th %tile	1.8
95th %tile	1.5

Total Fund Risk Statistics vs. Peer Universe

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

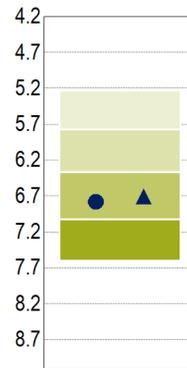
Anlzd Return



● Total Fund	
Value	6.0
Rank	41
▲ Policy Index	
Value	6.8
Rank	7

Universe	
5th %tile	6.9
25th %tile	6.3
Median	5.5
75th %tile	4.8
95th %tile	3.9

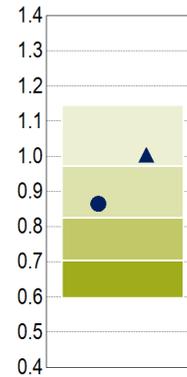
Anlzd Standard Deviation



● Total Fund	
Value	6.8
Rank	68
▲ Policy Index	
Value	6.7
Rank	67

Universe	
5th %tile	5.2
25th %tile	5.8
Median	6.4
75th %tile	7.0
95th %tile	7.6

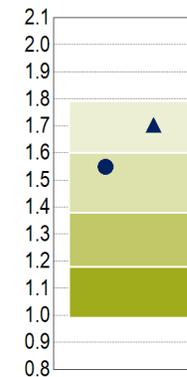
Sharpe Ratio



● Total Fund	
Value	0.9
Rank	44
▲ Policy Index	
Value	1.0
Rank	17

Universe	
5th %tile	1.1
25th %tile	1.0
Median	0.8
75th %tile	0.7
95th %tile	0.6

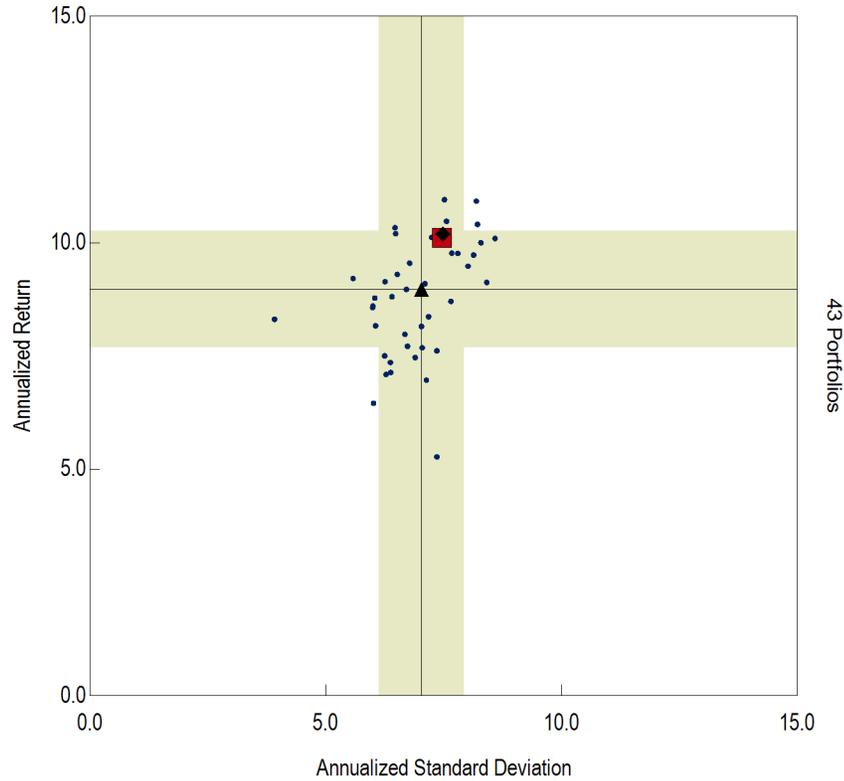
Sortino Ratio



● Total Fund	
Value	1.5
Rank	31
▲ Policy Index	
Value	1.7
Rank	11

Universe	
5th %tile	1.8
25th %tile	1.6
Median	1.4
75th %tile	1.2
95th %tile	1.0

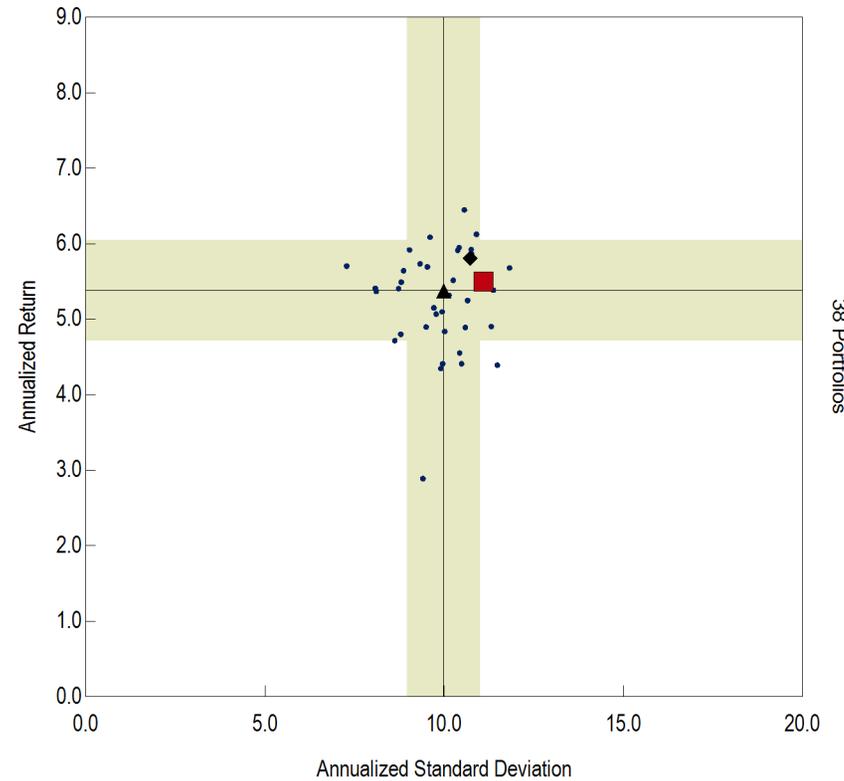
5 Years Ending September 30, 2016



43 Portfolios

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

10 Years Ending September 30, 2016



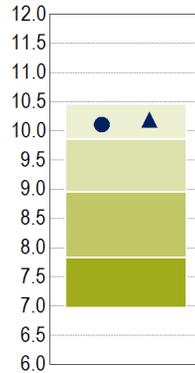
38 Portfolios

- 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

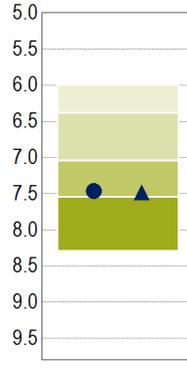
Anlzd Return



● Total Fund	
Value	10.1
Rank	17
▲ Policy Index	
Value	10.2
Rank	13

Universe	
5th %tile	10.5
25th %tile	9.9
Median	9.0
75th %tile	7.8
95th %tile	7.0

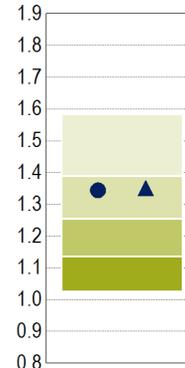
Anlzd Standard Deviation



● Total Fund	
Value	7.5
Rank	73
▲ Policy Index	
Value	7.5
Rank	74

Universe	
5th %tile	6.0
25th %tile	6.4
Median	7.0
75th %tile	7.5
95th %tile	8.3

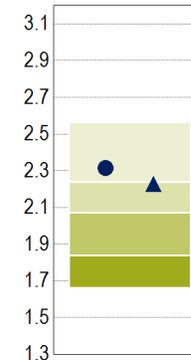
Sharpe Ratio



● Total Fund	
Value	1.3
Rank	37
▲ Policy Index	
Value	1.4
Rank	35

Universe	
5th %tile	1.6
25th %tile	1.4
Median	1.3
75th %tile	1.1
95th %tile	1.0

Sortino Ratio



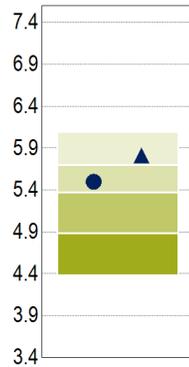
● Total Fund	
Value	2.3
Rank	20
▲ Policy Index	
Value	2.2
Rank	27

Universe	
5th %tile	2.6
25th %tile	2.2
Median	2.1
75th %tile	1.8
95th %tile	1.7

Total Fund Risk Statistics vs. Peer Universe

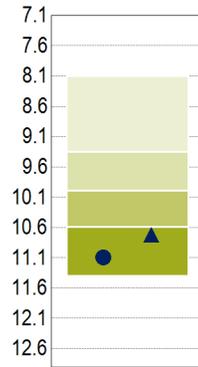
Total Fund vs. InvestorForce Public DB > \$1B Net
10 Years

Anlzd Return



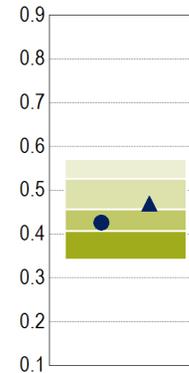
● Total Fund	
Value	5.5
Rank	38
▲ Policy Index	
Value	5.8
Rank	21
Universe	
5th %tile	6.1
25th %tile	5.7
Median	5.4
75th %tile	4.9
95th %tile	4.4

Anlzd Standard Deviation



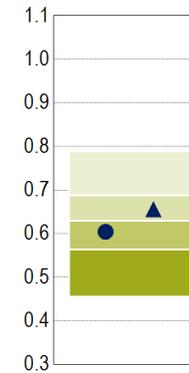
● Total Fund	
Value	11.1
Rank	90
▲ Policy Index	
Value	10.7
Rank	81
Universe	
5th %tile	8.1
25th %tile	9.3
Median	10.0
75th %tile	10.6
95th %tile	11.4

Sharpe Ratio



● Total Fund	
Value	0.4
Rank	69
▲ Policy Index	
Value	0.5
Rank	42
Universe	
5th %tile	0.6
25th %tile	0.5
Median	0.5
75th %tile	0.4
95th %tile	0.3

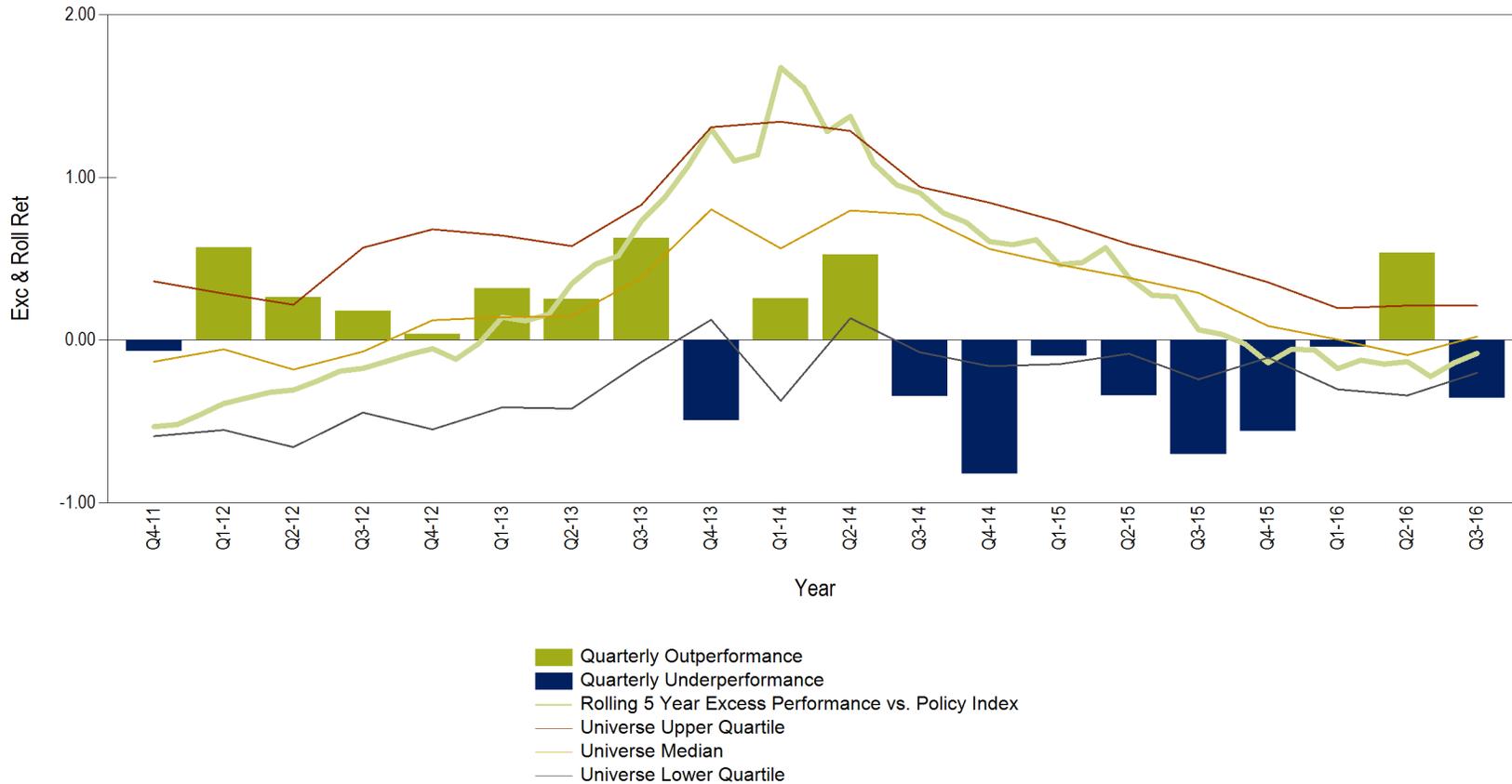
Sortino Ratio



● Total Fund	
Value	0.6
Rank	60
▲ Policy Index	
Value	0.7
Rank	38
Universe	
5th %tile	0.8
25th %tile	0.7
Median	0.6
75th %tile	0.6
95th %tile	0.5

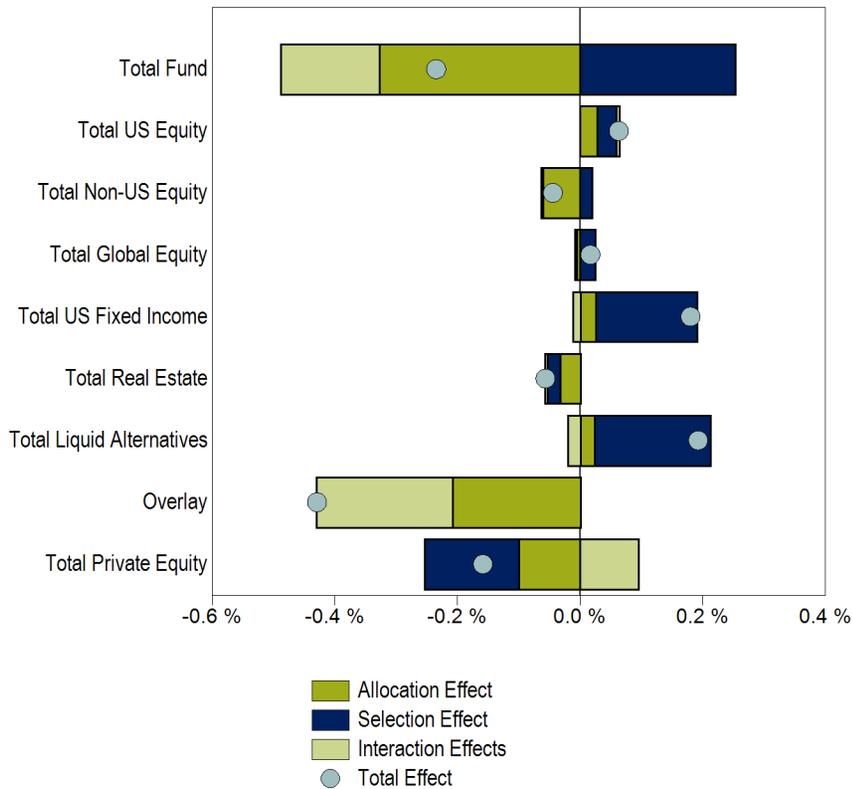
Rolling 5 Year Excess Returns- Net of Fees

Rolling Annualized Excess Performance



Total Fund Attribution Analysis

Attribution Effects
3 Months Ending September 30, 2016

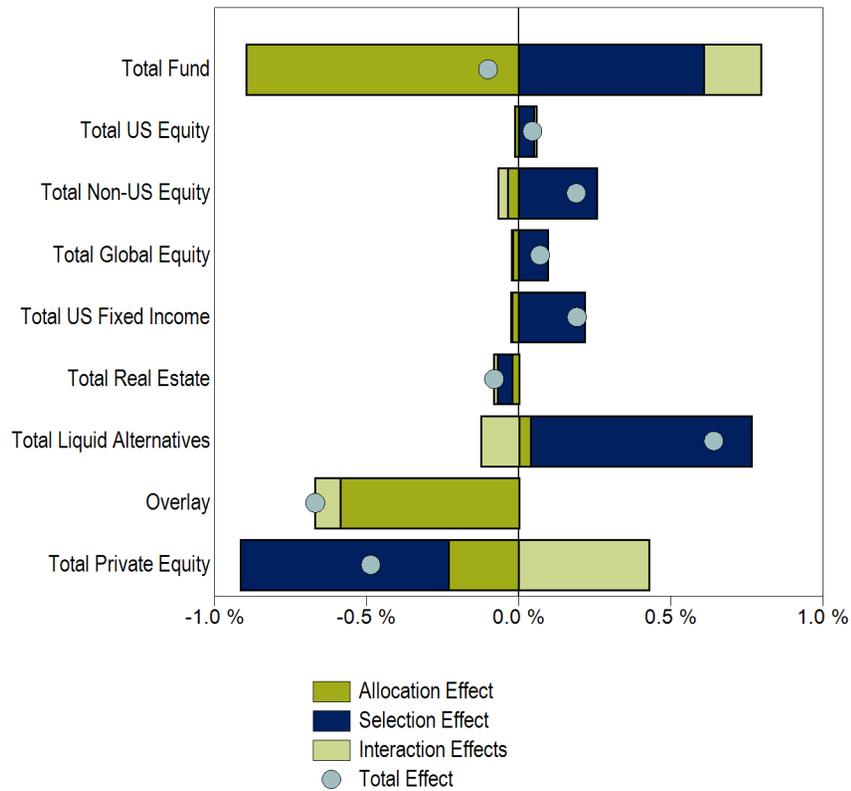


Attribution Summary
3 Months Ending September 30, 2016

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total US Equity	4.5%	4.4%	0.1%	0.0%	0.0%	0.0%	0.1%
Total Non-US Equity	7.0%	6.9%	0.1%	0.0%	-0.1%	0.0%	0.0%
Total Global Equity	5.6%	5.3%	0.3%	0.0%	0.0%	0.0%	0.0%
Total US Fixed Income	1.3%	0.5%	0.8%	0.2%	0.0%	0.0%	0.2%
Total Real Estate	1.5%	1.8%	-0.3%	0.0%	0.0%	0.0%	-0.1%
Total Liquid Alternatives	3.0%	1.2%	1.9%	0.2%	0.0%	0.0%	0.2%
Overlay	-4.4%	0.1%	-4.4%	0.0%	-0.2%	-0.2%	-0.4%
Total Private Equity	3.6%	5.2%	-1.6%	-0.2%	-0.1%	0.1%	-0.2%
Total	3.4%	3.6%	-0.2%	0.3%	-0.3%	-0.2%	-0.2%

Total Fund Attribution Analysis

Attribution Effects
Year to Date Ending September 30, 2016

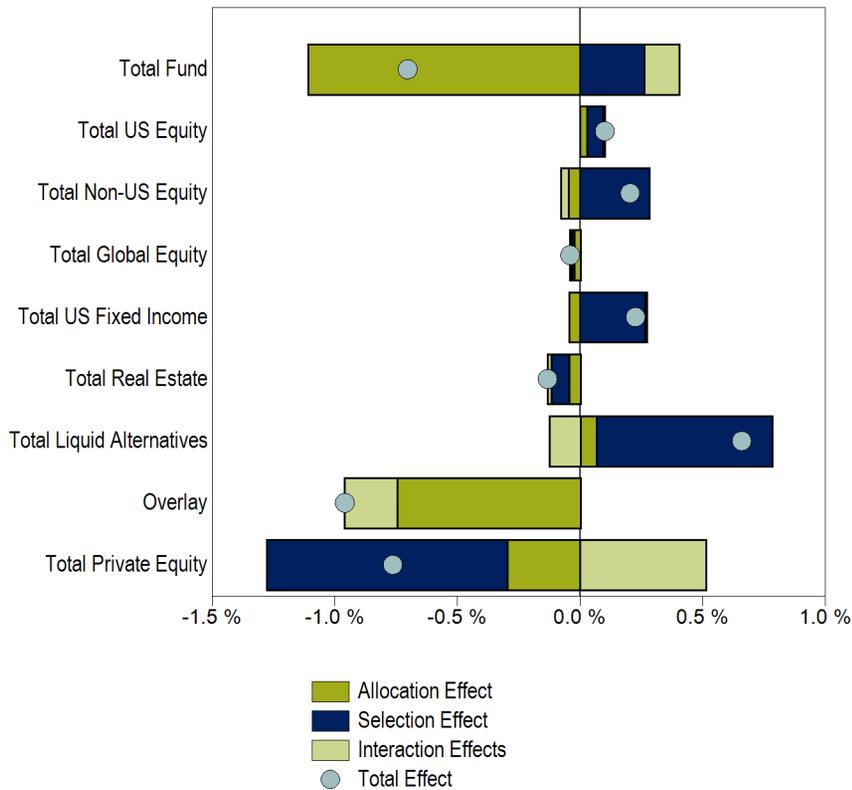


Attribution Summary
Year to Date Ending September 30, 2016

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total US Equity	8.4%	8.2%	0.2%	0.1%	0.0%	0.0%	0.0%
Total Non-US Equity	7.6%	5.8%	1.8%	0.3%	0.0%	0.0%	0.2%
Total Global Equity	7.5%	6.6%	0.9%	0.1%	0.0%	0.0%	0.1%
Total US Fixed Income	6.9%	5.8%	1.1%	0.2%	0.0%	0.0%	0.2%
Total Real Estate	5.1%	5.8%	-0.7%	0.0%	0.0%	0.0%	-0.1%
Total Liquid Alternatives	12.1%	5.1%	7.0%	0.7%	0.0%	-0.1%	0.6%
Overlay	4.6%	0.2%	4.4%	0.0%	-0.6%	-0.1%	-0.7%
Total Private Equity	4.1%	10.5%	-6.5%	-0.7%	-0.2%	0.4%	-0.5%
Total	7.0%	7.1%	-0.1%	0.6%	-0.9%	0.2%	-0.1%

Total Fund Attribution Analysis

Attribution Effects
1 Year Ending September 30, 2016

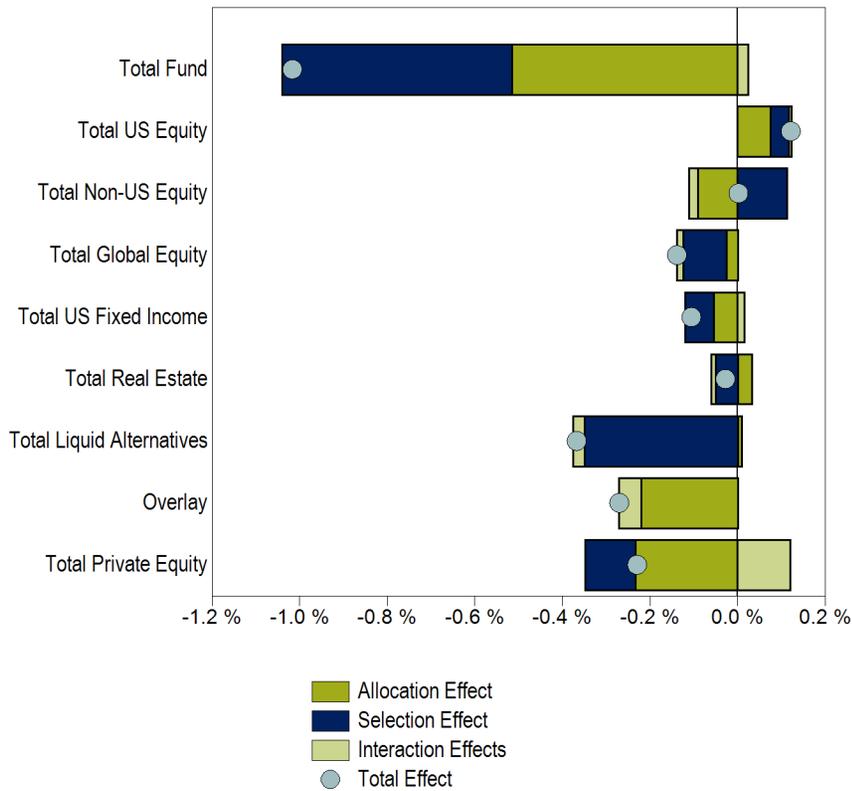


Attribution Summary
1 Year Ending September 30, 2016

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total US Equity	15.2%	14.9%	0.2%	0.1%	0.0%	0.0%	0.1%
Total Non-US Equity	11.2%	9.3%	2.0%	0.3%	0.0%	0.0%	0.2%
Total Global Equity	11.9%	12.0%	-0.1%	0.0%	0.0%	0.0%	0.0%
Total US Fixed Income	6.5%	5.2%	1.3%	0.3%	0.0%	0.0%	0.2%
Total Real Estate	8.1%	9.1%	-1.0%	-0.1%	0.0%	0.0%	-0.1%
Total Liquid Alternatives	12.0%	5.5%	6.5%	0.7%	0.1%	-0.1%	0.7%
Overlay	1.1%	0.2%	0.9%	0.0%	-0.7%	-0.2%	-1.0%
Total Private Equity	6.4%	18.3%	-11.9%	-1.0%	-0.3%	0.5%	-0.8%
Total	10.2%	10.7%	-0.5%	0.3%	-1.1%	0.1%	-0.7%

Total Fund Attribution Analysis

Attribution Effects
3 Years Ending September 30, 2016

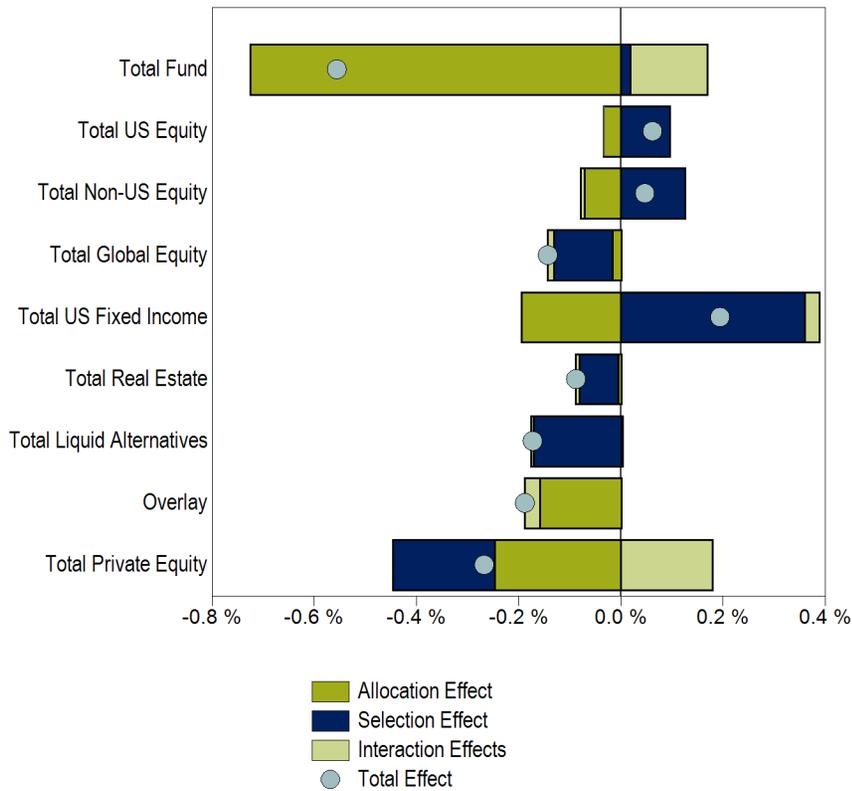


Attribution Summary
3 Years Ending September 30, 2016

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total US Equity	10.5%	10.4%	0.1%	0.0%	0.1%	0.0%	0.1%
Total Non-US Equity	1.0%	0.2%	0.8%	0.1%	-0.1%	0.0%	0.0%
Total Global Equity	4.2%	5.2%	-1.0%	-0.1%	0.0%	0.0%	-0.1%
Total US Fixed Income	3.7%	4.0%	-0.3%	-0.1%	-0.1%	0.0%	-0.1%
Total Real Estate	10.7%	11.4%	-0.8%	-0.1%	0.0%	0.0%	0.0%
Total Liquid Alternatives	3.2%	7.0%	-3.8%	-0.4%	0.0%	0.0%	-0.4%
Overlay	3.9%	0.1%	3.8%	0.0%	-0.2%	0.0%	-0.3%
Total Private Equity	14.0%	13.7%	0.4%	-0.1%	-0.2%	0.1%	-0.2%
Total	6.1%	6.9%	-0.8%	-0.5%	-0.5%	0.0%	-1.0%

Total Fund Attribution Analysis

**Attribution Effects
5 Years Ending September 30, 2016**



**Attribution Summary
5 Years Ending September 30, 2016**

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total US Equity	16.6%	16.3%	0.3%	0.1%	0.0%	0.0%	0.1%
Total Non-US Equity	6.9%	6.0%	0.9%	0.1%	-0.1%	0.0%	0.0%
Total Global Equity	9.4%	10.6%	-1.2%	-0.1%	0.0%	0.0%	-0.1%
Total US Fixed Income	4.3%	3.1%	1.2%	0.4%	-0.2%	0.0%	0.2%
Total Real Estate	10.3%	11.3%	-1.0%	-0.1%	0.0%	0.0%	-0.1%
Total Liquid Alternatives	--	--	--	-0.2%	0.0%	0.0%	-0.2%
Overlay	--	--	--	0.0%	-0.2%	0.0%	-0.2%
Total Private Equity	--	--	--	-0.2%	-0.2%	0.2%	-0.3%
Total	10.0%	10.4%	-0.4%	0.0%	-0.7%	0.1%	-0.6%

Ventura County Employees' Retirement Association

Total Fund Risk Statistics

1 Year Ending September 30, 2016

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.8%	13.6%	39	13.1%	45	2.0%	41	1.0%	1	1.7	3	1.0
MSCI ACWI	--	12.0%	51	13.5%	52	0.0%	57	0.0%	1	--	--	1.0
Total US Equity	30.8%	15.2%	27	12.8%	41	0.1%	29	0.1%	1	2.1	1	1.0
Russell 3000	--	14.9%	28	12.7%	39	0.0%	30	0.0%	1	--	--	1.0
Total Non-US Equity	15.2%	11.2%	18	14.3%	60	2.4%	24	1.4%	1	1.5	1	1.0
MSCI ACWI ex USA	--	9.3%	34	15.0%	77	0.0%	40	0.0%	1	--	--	1.0
Total Global Equity	8.8%	11.9%	47	13.2%	56	0.2%	52	1.1%	1	-0.1	49	1.0
MSCI ACWI	--	12.0%	45	13.5%	60	0.0%	53	0.0%	1	--	--	1.0
Total Fixed Income	20.0%	6.4%	40	2.9%	63	2.3%	24	3.3%	79	-0.7	94	0.4
Barclays Global Aggregate	--	8.8%	8	5.0%	98	0.0%	85	0.0%	1	--	--	1.0
Total US Fixed Income	20.0%	6.5%	36	3.0%	65	2.5%	34	2.4%	65	0.5	39	0.8
Barclays Aggregate	--	5.2%	50	2.3%	55	0.0%	75	0.0%	1	--	--	1.0
Total Liquid Alternatives	8.7%	12.0%	--	10.6%	--	-15.5%	--	10.3%	--	0.6	--	5.2
CPI + 4% (Unadjusted)	--	5.5%	--	0.9%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	8.1%	8.1%	88	3.5%	46
NCREIF ODCE Net	--	9.1%	67	3.9%	66
Total Private Equity	3.5%	6.4%	29	3.9%	41
DJ U.S. Total Stock Market Index + 3%	--	18.3%	1	12.8%	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 consists of 50 portfolios) and Total Private Equity(InvestorForce Public DB Private Eq consists of 29 portfolios).

Ventura County Employees' Retirement Association

Total Fund Risk Statistics

3 Years Ending September 30, 2016

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.8%	6.8%	70	11.0%	23	1.8%	72	1.1%	1	1.4	6	1.0
MSCI ACWI	--	5.2%	84	11.3%	32	0.0%	86	0.0%	1	--	--	1.0
Total US Equity	30.8%	10.5%	20	11.0%	23	0.1%	22	0.1%	1	1.8	1	1.0
Russell 3000	--	10.4%	21	11.0%	23	0.0%	23	0.0%	1	--	--	1.0
Total Non-US Equity	15.2%	1.0%	63	12.0%	49	0.8%	63	1.2%	1	0.7	26	0.9
MSCI ACWI ex USA	--	0.2%	81	12.7%	82	0.0%	81	0.0%	1	--	--	1.0
Total Global Equity	8.8%	4.2%	74	11.5%	48	-1.0%	75	1.3%	1	-0.8	92	1.0
MSCI ACWI	--	5.2%	62	11.3%	42	0.0%	66	0.0%	1	--	--	1.0
Total Fixed Income	20.0%	3.2%	67	2.3%	37	2.2%	10	2.7%	82	0.4	43	0.4
Barclays Global Aggregate	--	2.1%	99	4.2%	97	0.0%	86	0.0%	1	--	--	1.0
Total US Fixed Income	20.0%	3.7%	52	2.2%	42	1.7%	24	2.2%	57	-0.1	51	0.5
Barclays Aggregate	--	4.0%	45	2.6%	57	0.0%	77	0.0%	1	--	--	1.0
Total Liquid Alternatives	8.7%	3.2%	--	10.2%	--	-6.1%	--	9.8%	--	-0.4	--	1.3
CPI + 4% (Unadjusted)	--	7.0%	--	2.0%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	8.1%	10.7%	81	4.4%	46
NCREIF ODCE Net	--	11.4%	72	4.7%	52
Total Private Equity	3.5%	14.0%	15	6.9%	74
DJ U.S. Total Stock Market Index + 3%	--	13.7%	20	11.0%	93

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 consists of 45 portfolios) and Total Private Equity (InvestorForce Public DB Private Eq consists of 28 portfolios).

Ventura County Employees' Retirement Association

Total Fund Risk Statistics

5 Years Ending September 30, 2016

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.8%	12.8%	87	11.6%	23	2.8%	88	1.6%	1	1.4	4	0.9
MSCI ACWI	--	10.6%	97	12.3%	36	0.0%	98	0.0%	1	--	--	1.0
Total US Equity	30.8%	16.6%	26	11.5%	21	0.2%	20	0.3%	1	1.1	1	1.0
Russell 3000	--	16.3%	32	11.4%	20	0.0%	25	0.0%	1	--	--	1.0
Total Non-US Equity	15.2%	6.9%	86	13.3%	38	1.3%	86	1.4%	1	0.7	49	0.9
MSCI ACWI ex USA	--	6.0%	97	14.2%	81	0.0%	98	0.0%	1	--	--	1.0
Total Global Equity	8.8%	9.4%	82	11.6%	26	-0.5%	79	1.9%	1	-0.7	93	0.9
MSCI ACWI	--	10.6%	69	12.3%	42	0.0%	74	0.0%	1	--	--	1.0
Total Fixed Income	20.0%	4.0%	45	2.7%	37	3.1%	15	2.6%	75	0.9	21	0.5
Barclays Global Aggregate	--	1.7%	99	4.2%	83	0.0%	97	0.0%	1	--	--	1.0
Total US Fixed Income	20.0%	4.3%	42	2.6%	46	2.2%	26	2.1%	45	0.6	45	0.7
Barclays Aggregate	--	3.1%	60	2.7%	47	0.0%	84	0.0%	1	--	--	1.0
Total Liquid Alternatives	8.7%	--	--	--	--	--	--	--	--	--	--	--
CPI + 4% (Unadjusted)	--	12.7%	--	9.5%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	8.1%	10.3%	84	4.2%	33
NCREIF ODCE Net	--	11.3%	75	4.6%	41

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 consists of 37 portfolios).

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
Total Fund	4,666,540,419	100.0	100.0	3.3	82	7.2	35	10.2	19	6.0	41	10.1	17	5.5	38	7.9	Apr-94
Policy Index				3.6	61	7.1	40	10.7	3	6.8	7	10.2	13	5.8	21	7.9	Apr-94
Over/Under				-0.3		0.1		-0.5		-0.8		-0.1		-0.3		0.0	
Allocation Index				3.6	62	6.7	54	10.4	6	6.0	37	9.3	38	5.3	57	--	Apr-94
60% MSCI ACWI (Net)/40% CITI WGBI				3.3	82	8.5	8	11.3	1	4.0	95	6.8	97	4.6	86	--	Apr-94
InvestorForce Public DB > \$1B Net Median				3.8		6.8		9.3		5.5		9.0		5.4		7.4	Apr-94
Total Fund ex Parametric	4,440,067,975	95.1	--	2.9	--	7.5	--	10.4	--	6.2	--	10.0	--	5.5	--	7.9	Apr-94
Total Fund ex Private Equity	4,501,037,869	96.5	--	3.3	83	7.4	25	10.3	8	5.7	42	--	--	--	--	8.6	Jan-12
Policy Index				3.6	61	7.1	40	10.7	3	6.8	7	10.2	13	5.8	21	9.3	Jan-12
Over/Under				-0.3		0.3		-0.4		-1.1						-0.7	
InvestorForce Public DB > \$1B Net Median				3.8		6.8		9.3		5.5		9.0		5.4		8.3	Jan-12
Total US Equity	1,435,332,432	30.8	28.0	4.5	60	8.4	41	15.2	27	10.5	20	16.6	26	7.1	60	8.8	Dec-93
Russell 3000				4.4	61	8.2	42	14.9	28	10.4	21	16.3	32	7.5	49	9.2	Dec-93
Over/Under				0.1		0.2		0.3		0.1		0.3		-0.4		-0.4	
eA All US Equity Net Median				5.1		7.3		12.1		8.4		15.3		7.4		9.9	Dec-93
BlackRock Equity Market Fund	1,231,500,384	26.4		4.4	61	8.2	42	15.0	28	10.5	20	16.4	30	--	--	7.1	Dec-07
Dow Jones U.S. Total Stock Market				4.4	61	8.1	43	14.9	28	10.4	21	16.3	32	7.5	48	7.1	Dec-07
Over/Under				0.0		0.1		0.1		0.1		0.1				0.0	
eA All US Equity Net Median				5.1		7.3		12.1		8.4		15.3		7.4		7.0	Dec-07
Western U.S. Index Plus	154,227,107	3.3		4.2	65	9.2	33	16.8	17	11.8	7	17.6	12	--	--	4.0	May-07
S&P 500				3.9	70	7.8	46	15.4	25	11.2	12	16.4	30	7.2	56	6.1	May-07
Over/Under				0.3		1.4		1.4		0.6		1.2				-2.1	
eA All US Equity Net Median				5.1		7.3		12.1		8.4		15.3		7.4		6.1	May-07
BlackRock Extended Equity Index	49,604,941	1.1		7.1	28	9.9	36	13.3	33	7.5	34	16.3	25	8.3	40	11.4	Oct-02
Dow Jones U.S. Completion Total Stock Market				7.1	28	9.7	39	13.0	35	7.4	35	16.0	30	8.3	40	11.4	Oct-02
Over/Under				0.0		0.2		0.3		0.1		0.3		0.0		0.0	
eA US Small-Mid Cap Equity Net Median				5.9		8.5		11.2		6.4		14.9		7.9		11.0	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
Total Non-US Equity	709,064,570	15.2	15.0	7.0	39	7.6	9	11.2	18	1.0	63	6.9	86	2.3	63	6.1	Mar-94
MSCI ACWI ex USA				6.9	43	5.8	19	9.3	34	0.2	81	6.0	97	2.2	70	4.8	Mar-94
Over/Under				0.1		1.8		1.9		0.8		0.9		0.1		1.3	
MSCI EAFE				6.4	51	1.7	59	6.5	57	0.5	73	7.4	73	1.8	80	4.5	Mar-94
MSCI ACWI ex USA Local Currency				6.4	52	2.0	56	6.9	50	5.2	14	9.9	34	2.9	51	--	Mar-94
MSCI EAFE Local Currency				6.0	63	-1.6	94	4.6	78	5.3	14	11.2	20	2.2	69	4.4	Mar-94
eA All EAFE Equity Net Median				6.5		2.6		6.9		1.9		9.0		2.9		6.1	Mar-94
BlackRock ACWI ex-U.S. Index	346,658,699	7.4		7.1	36	6.3	34	10.1	39	0.8	80	6.6	83	--	--	1.3	Mar-07
MSCI ACWI ex USA				6.9	40	5.8	34	9.3	49	0.2	82	6.0	90	2.2	78	0.8	Mar-07
Over/Under				0.2		0.5		0.8		0.6		0.6				0.5	
MSCI ACWI ex USA Local Currency				6.4	54	2.0	76	6.9	70	5.2	13	9.9	26	2.9	59	1.9	Mar-07
eA ACWI ex-US All Cap Equity Net Median				6.6		3.8		9.0		2.8		8.6		3.4		2.3	Mar-07
Sprucegrove	180,032,965	3.9		8.8	7	9.1	13	11.3	33	0.2	83	6.6	83	2.7	62	6.9	Mar-02
MSCI ACWI ex USA				6.9	40	5.8	34	9.3	49	0.2	82	6.0	90	2.2	78	6.1	Mar-02
Over/Under				1.9		3.3		2.0		0.0		0.6		0.5		0.8	
MSCI EAFE				6.4	53	1.7	80	6.5	76	0.5	82	7.4	79	1.8	88	5.5	Mar-02
MSCI ACWI ex USA Local Currency				6.4	54	2.0	76	6.9	70	5.2	13	9.9	26	2.9	59	4.6	Mar-02
MSCI EAFE Local Currency				6.0	61	-1.6	99	4.6	89	5.3	13	11.2	13	2.2	76	3.8	Mar-02
eA ACWI ex-US All Cap Equity Net Median				6.6		3.8		9.0		2.8		8.6		3.4		6.9	Mar-02
Hexavest	80,475,702	1.7		4.1	87	4.7	30	7.1	44	1.1	58	7.0	86	--	--	3.5	Dec-10
MSCI EAFE				6.4	40	1.7	57	6.5	49	0.5	76	7.4	70	1.8	76	3.4	Dec-10
Over/Under				-2.3		3.0		0.6		0.6		-0.4				0.1	
MSCI EAFE Local Currency				6.0	52	-1.6	94	4.6	78	5.3	2	11.2	10	2.2	60	6.5	Dec-10
eA EAFE All Cap Equity Net Median				6.2		2.9		6.2		1.7		8.5		2.5		4.2	Dec-10
Walter Scott	101,897,203	2.2		6.1	60	10.5	7	17.8	5	2.7	51	7.7	72	--	--	4.6	Dec-10
MSCI ACWI ex USA				6.9	40	5.8	34	9.3	49	0.2	82	6.0	90	2.2	78	1.9	Dec-10
Over/Under				-0.8		4.7		8.5		2.5		1.7				2.7	
MSCI ACWI ex USA Local Currency				6.4	54	2.0	76	6.9	70	5.2	13	9.9	26	2.9	59	5.4	Dec-10
eA ACWI ex-US All Cap Equity Net Median				6.6		3.8		9.0		2.8		8.6		3.4		4.3	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
Total Global Equity	412,652,763	8.8	10.0	5.6	41	7.5	39	11.9	47	4.2	74	9.4	82	3.4	77	5.0	May-05
MSCI ACWI				5.3	46	6.6	47	12.0	45	5.2	62	10.6	69	4.3	65	6.0	May-05
Over/Under				0.3		0.9		-0.1		-1.0		-1.2		-0.9		-1.0	
eA All Global Equity Net Median				5.0		6.3		11.2		6.0		11.7		4.8		6.9	May-05
BlackRock MSCI ACWI Equity Index	258,912,948	5.5		5.4	44	7.0	44	12.5	41	5.6	55	--	--	--	--	9.8	Jul-12
MSCI ACWI				5.3	46	6.6	47	12.0	45	5.2	62	10.6	69	4.3	65	9.4	Jul-12
Over/Under				0.1		0.4		0.5		0.4						0.4	
eA All Global Equity Net Median				5.0		6.3		11.2		6.0		11.7		4.8		10.2	Jul-12
GMO Global Equity	153,739,815	3.3		5.7	37	8.2	32	11.3	50	2.7	84	8.3	89	4.2	67	5.8	May-05
MSCI ACWI				5.3	46	6.6	47	12.0	45	5.2	62	10.6	69	4.3	65	6.0	May-05
Over/Under				0.4		1.6		-0.7		-2.5		-2.3		-0.1		-0.2	
eA All Global Equity Net Median				5.0		6.3		11.2		6.0		11.7		4.8		6.9	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
Total Private Equity	165,502,550	3.5	10.0	3.6	33	4.1	54	6.4	29	14.0	15	--	--	--	--	13.8	Jan-12
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>5.2</u>	4	<u>10.5</u>	1	<u>18.3</u>	1	<u>13.7</u>	20	<u>19.7</u>	1	--	--	<u>17.8</u>	<i>Jan-12</i>
Over/Under				-1.6		-6.4		-11.9		0.3						-4.0	
<i>InvestorForce Public DB Private Eq Net Median</i>				2.3		4.1		4.5		11.7		10.1		9.2		11.3	<i>Jan-12</i>
Adams Street Global Fund Series	101,802,531	2.2		3.1	--	3.7	--	6.6	--	12.3	--	--	--	--	--	12.6	Jan-12
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>5.2</u>	--	<u>10.5</u>	--	<u>18.3</u>	--	<u>13.7</u>	--	<u>19.7</u>	--	--	--	<u>17.8</u>	<i>Jan-12</i>
Over/Under				-2.1		-6.8		-11.7		-1.4						-5.2	
Harbourvest- Dover Street VII	47,936,336	1.0		2.4	--	3.4	--	6.2	--	19.7	--	--	--	--	--	18.1	Jul-13
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>5.2</u>	--	<u>10.5</u>	--	<u>18.3</u>	--	<u>13.7</u>	--	<u>19.7</u>	--	--	--	<u>14.9</u>	<i>Jul-13</i>
Over/Under				-2.8		-7.1		-12.1		6.0						3.2	
Pantheon Global Secondary Funds	15,397,544	0.3		11.2	--	9.2	--	7.7	--	11.6	--	--	--	--	--	10.0	Jan-12
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>5.2</u>	--	<u>10.5</u>	--	<u>18.3</u>	--	<u>13.7</u>	--	<u>19.7</u>	--	--	--	<u>17.8</u>	<i>Jan-12</i>
Over/Under				6.0		-1.3		-10.6		-2.1						-7.8	
Drive Capital Fund	366,139	0.0															

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.

Drive Capital Fund funded 9/1/2016.

Ventura County Employees' Retirement Association

Private Equity Limited Partnership Performance

Fund Name	Vintage Year	Initial Investment Date	Capital Commitment	Capital Called to Date ¹	Outstanding Commitment ¹	Call Ratio	Add'l Fees ²	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	\$33,373,243	\$44,137,724	\$14,457,511	14.0%	0.36x	1.49x
Adams Street 2010 Non-U.S. Dev. Mkts Fund	2010	5/21/2010	\$25,500,000	\$19,545,749	\$5,954,251	77%	\$1,589	\$7,653,243	\$15,577,320	\$23,230,563	\$3,683,225	7.2%	0.39x	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	\$7,510,516	\$7,824,952	\$1,713,452	9.1%	0.05x	1.28x
Adams Street 2010 Direct Fund	2010	5/21/2010	\$8,500,000	\$7,879,500	\$620,500	93%	\$6,697	\$4,831,957	\$7,079,912	\$11,911,869	\$4,025,672	12.0%	0.61x	1.51x
Total Adams Street 2010	2010	5/21/2010	\$85,000,000	\$63,201,749	\$21,798,251	74%	\$23,499	\$23,564,117	\$63,540,991	\$87,105,108	\$23,879,860	11.6%	0.37x	1.38x
Adams Street 2013 Global Fund	2013	6/27/2013	\$75,000,000	\$38,925,000	\$36,075,000	52%	\$10,728	\$2,698,535	\$38,261,534	\$40,960,069	\$2,024,341	3.2%	0.07x	1.05x
Adams Street 2016 Global Fund	TBD	TBD	\$60,000,000	\$0	\$60,000,000	0%	\$0	\$0	\$0	\$0	\$0	--	--	--
Drive Capital Fund II	2016	9/1/2016	\$15,000,000	\$366,139	\$14,633,861	2%	\$3,210	\$0	\$366,139	\$366,139	(\$3,210)	-0.9%	--	0.99x
HarbourVest - Dover Street VIII	2013	5/30/2013	\$67,500,000	\$55,687,500	\$11,812,500	83%	\$84,954	\$26,738,658	\$48,145,524	\$74,884,182	\$19,111,728	24.5%	0.48x	1.34x
HarbourVest - Dover Street IX	TBD	TBD	\$60,000,000	\$0	\$60,000,000	0%	\$0	\$0	\$0	\$0	\$0	--	--	--
Pantheon Global Secondary Fund IV	2010	8/20/2010	\$15,000,000	\$9,960,000	\$5,040,000	66%	\$0	\$8,310,001	\$6,050,666	\$14,360,667	\$4,400,667	13.8%	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	\$9,346,877	\$9,346,877	\$2,042,847	16.5%	--	1.28x
Total VCERA Private Equity Program	--	5/21/2010	\$427,500,000	\$175,581,898	\$251,918,102	41%	(\$15,089)	\$61,311,311	\$165,711,731	\$227,023,042	\$51,456,233	13.1%	0.35x	1.29x

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 6/30/2016 NAVs cash-adjusted for cash flows through 9/30/2016.

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
Total US Fixed Income	935,255,229	20.0	20.0	1.3	37	6.9	37	6.5	36	3.7	52	4.3	42	5.9	27	6.1	Feb-94
Barclays Aggregate				0.5	63	5.8	49	5.2	50	4.0	45	3.1	60	4.8	50	5.6	Feb-94
Over/Under				0.8		1.1		1.3		-0.3		1.2		1.1		0.5	
eA All US Fixed Inc Net Median				0.8		5.6		5.2		3.8		3.7		4.8		5.5	Feb-94
BlackRock U.S. Debt Fund	221,798,339	4.8		0.5	63	5.8	49	5.2	50	4.1	44	3.2	59	4.9	48	5.5	Nov-95
Barclays Aggregate				0.5	63	5.8	49	5.2	50	4.0	45	3.1	60	4.8	50	5.5	Nov-95
Over/Under				0.0		0.0		0.0		0.1		0.1		0.1		0.0	
eA All US Fixed Inc Net Median				0.8		5.6		5.2		3.8		3.7		4.8		5.4	Nov-95
Western	289,877,431	6.2		1.4	35	7.5	31	7.3	30	5.3	23	5.1	34	5.7	30	6.5	Dec-96
Barclays Aggregate				0.5	63	5.8	49	5.2	50	4.0	45	3.1	60	4.8	50	5.5	Dec-96
Over/Under				0.9		1.7		2.1		1.3		2.0		0.9		1.0	
eA All US Fixed Inc Net Median				0.8		5.6		5.2		3.8		3.7		4.8		5.4	Dec-96
Reams	301,979,211	6.5		1.0	45	6.3	42	6.0	41	1.6	83	3.6	52	6.0	26	5.7	Sep-01
Reams Custom Index				0.2	74	0.5	98	0.6	96	0.4	98	1.2	89	3.8	72	4.1	Sep-01
Over/Under				0.8		5.8		5.4		1.2		2.4		2.2		1.6	
Barclays Aggregate				0.5	63	5.8	49	5.2	50	4.0	45	3.1	60	4.8	50	4.8	Sep-01
eA All US Fixed Inc Net Median				0.8		5.6		5.2		3.8		3.7		4.8		4.8	Sep-01
Loomis Sayles Multi Strategy	77,961,468	1.7		3.6	13	10.4	20	9.3	22	5.6	19	7.0	17	6.9	14	6.8	Jul-05
Loomis Custom Index				1.9	26	8.6	25	7.4	30	4.3	39	4.6	40	5.6	31	5.5	Jul-05
Over/Under				1.7		1.8		1.9		1.3		2.4		1.3		1.3	
Barclays Govt/Credit				0.4	65	6.7	38	5.9	42	4.2	40	3.2	58	4.9	48	4.7	Jul-05
eA All US Fixed Inc Net Median				0.8		5.6		5.2		3.8		3.7		4.8		4.7	Jul-05
Loomis Strategic Alpha	43,638,780	0.9		1.8	28	4.3	62	3.5	70	2.5	73	--	--	--	--	2.2	Jul-13
Barclays Aggregate				0.5	63	5.8	49	5.2	50	4.0	45	3.1	60	4.8	50	4.0	Jul-13
Over/Under				1.3		-1.5		-1.7		-1.5						-1.8	
eA All US Fixed Inc Net Median				0.8		5.6		5.2		3.8		3.7		4.8		3.8	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
Total Real Estate	377,332,470	8.1	7.0	1.5	49	5.1	87	8.1	88	10.7	81	10.3	84	3.7	87	7.9	Mar-94
NCREIF ODCE Net				1.8	37	5.8	70	9.1	67	11.4	72	11.3	75	5.0	50	8.2	Mar-94
Over/Under				-0.3		-0.7		-1.0		-0.7		-1.0		-1.3		-0.3	
InvestorForce Public DB Real Estate Pub+Priv Net Median				1.5		6.3		9.9		12.0		12.2		5.0		7.2	Mar-94
Prudential Real Estate	132,029,661	2.8		1.8	--	5.7	--	8.9	--	12.1	--	11.7	--	4.7	--	6.1	Jun-04
NCREIF ODCE Net				1.8	--	5.8	--	9.1	--	11.4	--	11.3	--	5.0	--	7.1	Jun-04
Over/Under				0.0		-0.1		-0.2		0.7		0.4		-0.3		-1.0	
NCREIF ODCE				2.1	--	6.5	--	10.1	--	12.4	--	12.4	--	6.0	--	8.1	Jun-04
UBS Real Estate	244,298,789	5.2		1.5	--	4.9	--	7.8	--	9.8	--	9.6	--	5.4	--	7.6	Mar-03
NCREIF ODCE Net				1.8	--	5.8	--	9.1	--	11.4	--	11.3	--	5.0	--	7.3	Mar-03
Over/Under				-0.3		-0.9		-1.3		-1.6		-1.7		0.4		0.3	
NCREIF ODCE				2.1	--	6.5	--	10.1	--	12.4	--	12.4	--	6.0	--	8.3	Mar-03
RREEF	1,004,019	0.0		-12.6	--	-16.2	--	-17.0	--	5.2	--	10.2	--	--	--	-6.4	Sep-07
NCREIF ODCE Net				1.8	--	5.8	--	9.1	--	11.4	--	11.3	--	5.0	--	3.8	Sep-07
Over/Under				-14.4		-22.0		-26.1		-6.2		-1.1				-10.2	
NCREIF ODCE				2.1	--	6.5	--	10.1	--	12.4	--	12.4	--	6.0	--	4.7	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
Total Liquid Alternatives	404,927,961	8.7	10.0	3.0	--	12.1	--	12.0	--	3.2	--	--	--	--	--	5.0	Apr-13
<i>CPI + 4% (Unadjusted)</i>				<u>1.2</u>	--	<u>5.1</u>	--	<u>5.5</u>	--	<u>7.0</u>	--	<u>12.7</u>	--	--	--	<u>6.3</u>	<i>Apr-13</i>
Over/Under				1.8		7.0		6.5		-3.8						-1.3	
Bridgewater All Weather Fund	286,030,977	6.1		3.3	--	11.9	--	10.8	--	4.2	--	--	--	--	--	4.9	Aug-13
<i>CPI + 5% (Unadjusted)</i>				<u>1.4</u>	--	<u>5.9</u>	--	<u>6.5</u>	--	<u>6.1</u>	--	--	--	--	--	<u>6.1</u>	<i>Aug-13</i>
Over/Under				1.9		6.0		4.3		-1.9						-1.2	
Tortoise Energy Infrastructure	118,896,984	2.5		2.5	--	12.6	--	15.1	--	1.0	--	--	--	--	--	2.0	Apr-13
<i>Wells Fargo MLP Index</i>				<u>3.0</u>	--	<u>18.1</u>	--	<u>10.5</u>	--	<u>-3.7</u>	--	<u>5.7</u>	--	--	--	<u>-3.1</u>	<i>Apr-13</i>
Over/Under				-0.5		-5.5		4.6		4.7						5.1	
Overlay	226,472,444	4.9	0.0														
Parametric	226,472,444	4.9															

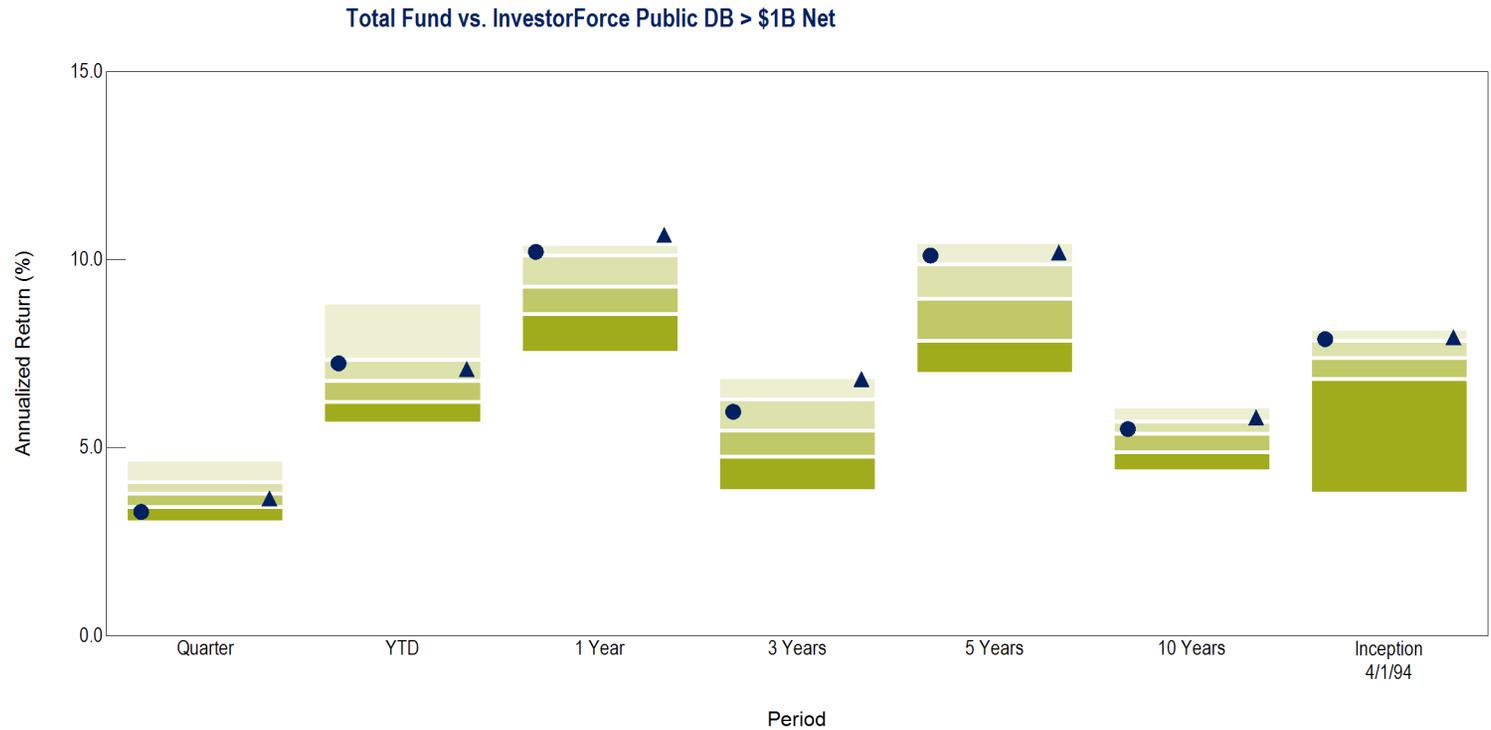
Overlay performance is not applicable on an individual account level

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

Ventura County Employees' Retirement Association

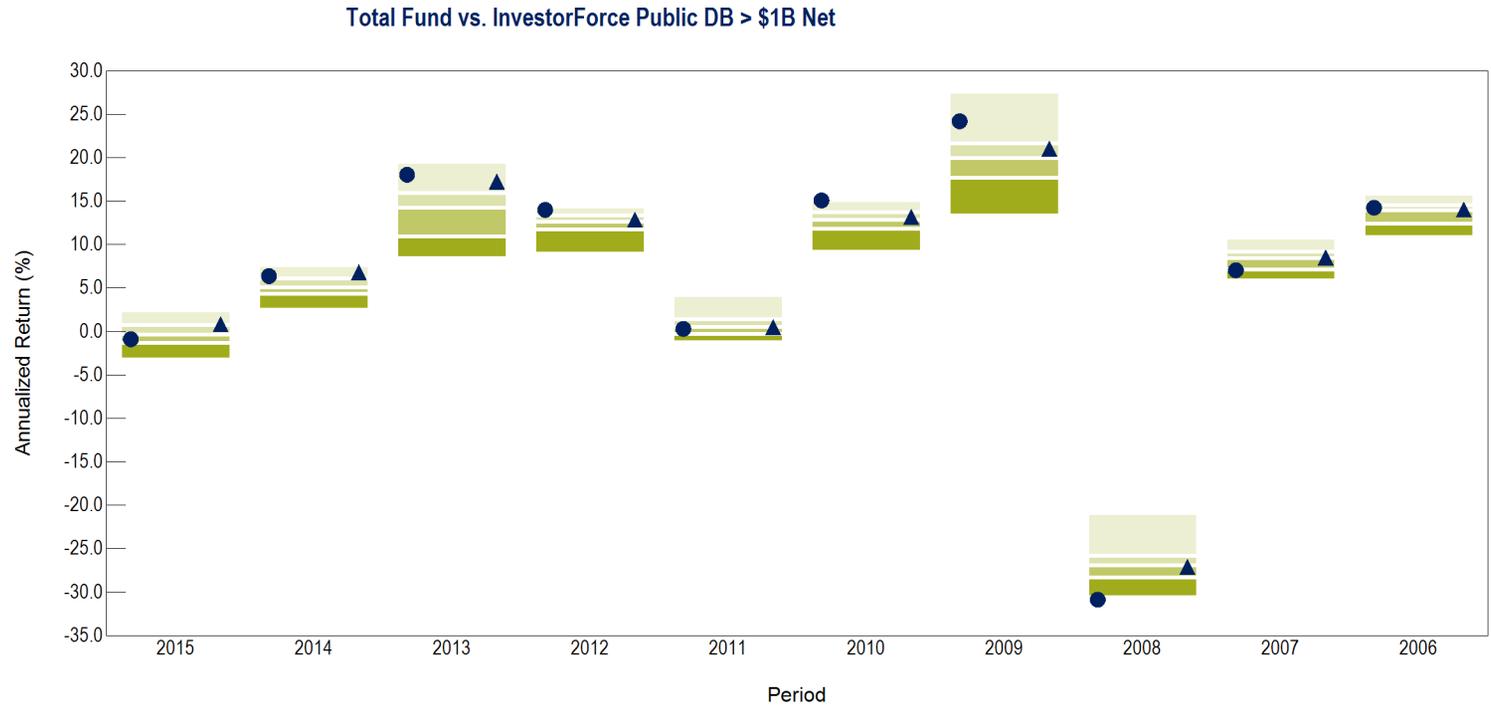
Total Fund Return Summary vs. Peer Universe



	Return (Rank)													
5th Percentile	4.7	8.9	10.4	6.9	10.5	6.1	8.2							
25th Percentile	4.1	7.3	10.1	6.3	9.9	5.7	7.8							
Median	3.8	6.8	9.3	5.5	9.0	5.4	7.4							
75th Percentile	3.4	6.2	8.6	4.8	7.8	4.9	6.8							
95th Percentile	3.0	5.7	7.5	3.9	7.0	4.4	3.8							
# of Portfolios	45	45	45	43	43	38	25							
● Total Fund	3.3	(82)	7.2	(35)	10.2	(19)	6.0	(41)	10.1	(17)	5.5	(38)	7.9	(21)
▲ Policy Index	3.6	(61)	7.1	(40)	10.7	(3)	6.8	(7)	10.2	(13)	5.8	(21)	7.9	(19)

Ventura County Employees' Retirement Association

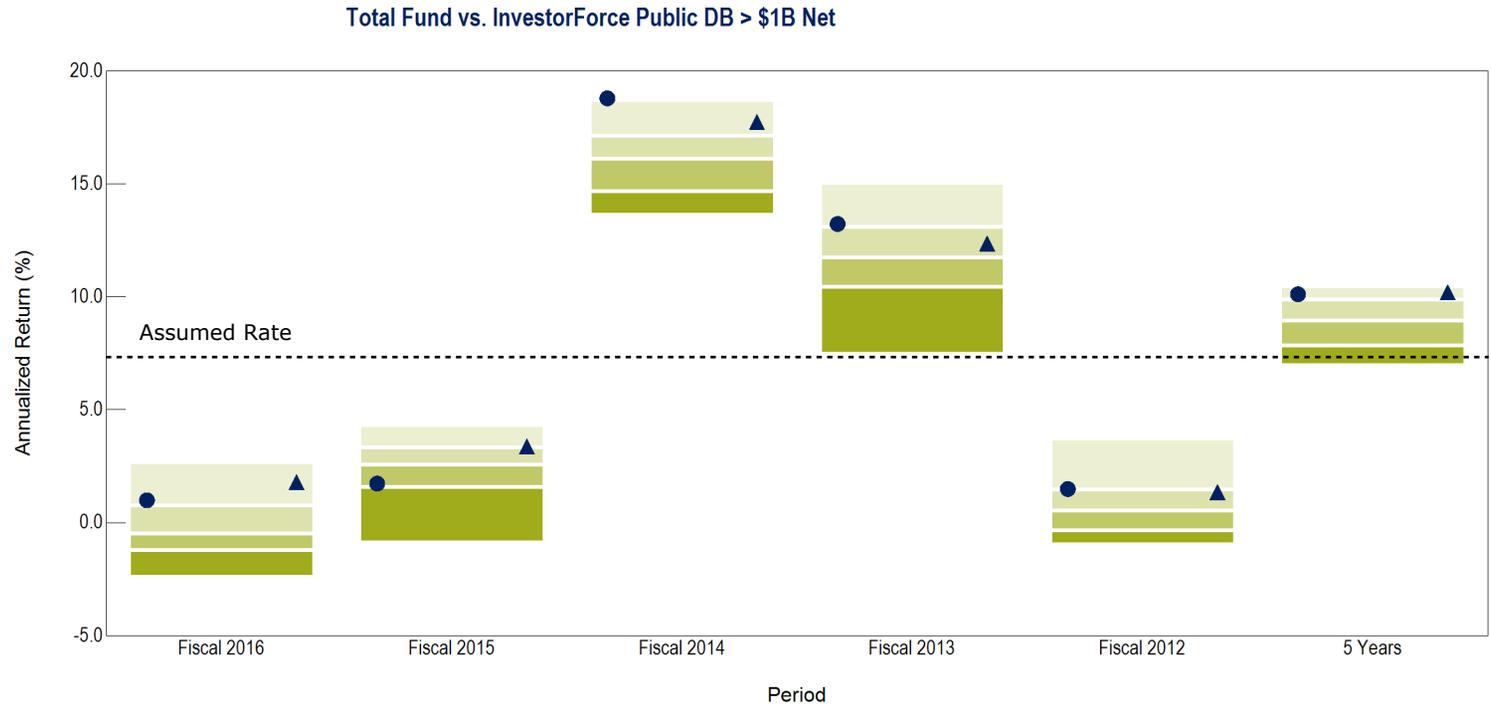
Total Fund Return Summary vs. Peer Universe



	Return (Rank)																			
5th Percentile	2.4	7.6	19.5	14.3	4.2	15.1	27.5	-20.9	10.7	15.8										
25th Percentile	0.8	6.1	16.0	13.4	1.5	13.8	21.7	-25.7	9.2	14.6										
Median	-0.4	5.1	14.3	12.7	0.6	12.8	20.0	-26.9	8.5	14.0										
75th Percentile	-1.3	4.4	11.0	11.8	-0.3	11.8	17.7	-28.3	7.1	12.5										
95th Percentile	-3.2	2.6	8.5	9.0	-1.2	9.3	13.4	-30.5	5.9	10.9										
# of Portfolios	57	55	48	44	42	41	40	39	39	38										
● Total Fund	-0.9	(61)	6.4	(19)	18.0	(10)	14.0	(15)	0.3	(61)	15.1	(6)	24.2	(16)	-30.9	(98)	7.0	(77)	14.2	(41)
▲ Policy Index	0.8	(25)	6.8	(12)	17.2	(14)	12.9	(41)	0.5	(55)	13.2	(44)	21.0	(33)	-27.1	(54)	8.5	(50)	14.0	(50)

Ventura County Employees' Retirement Association

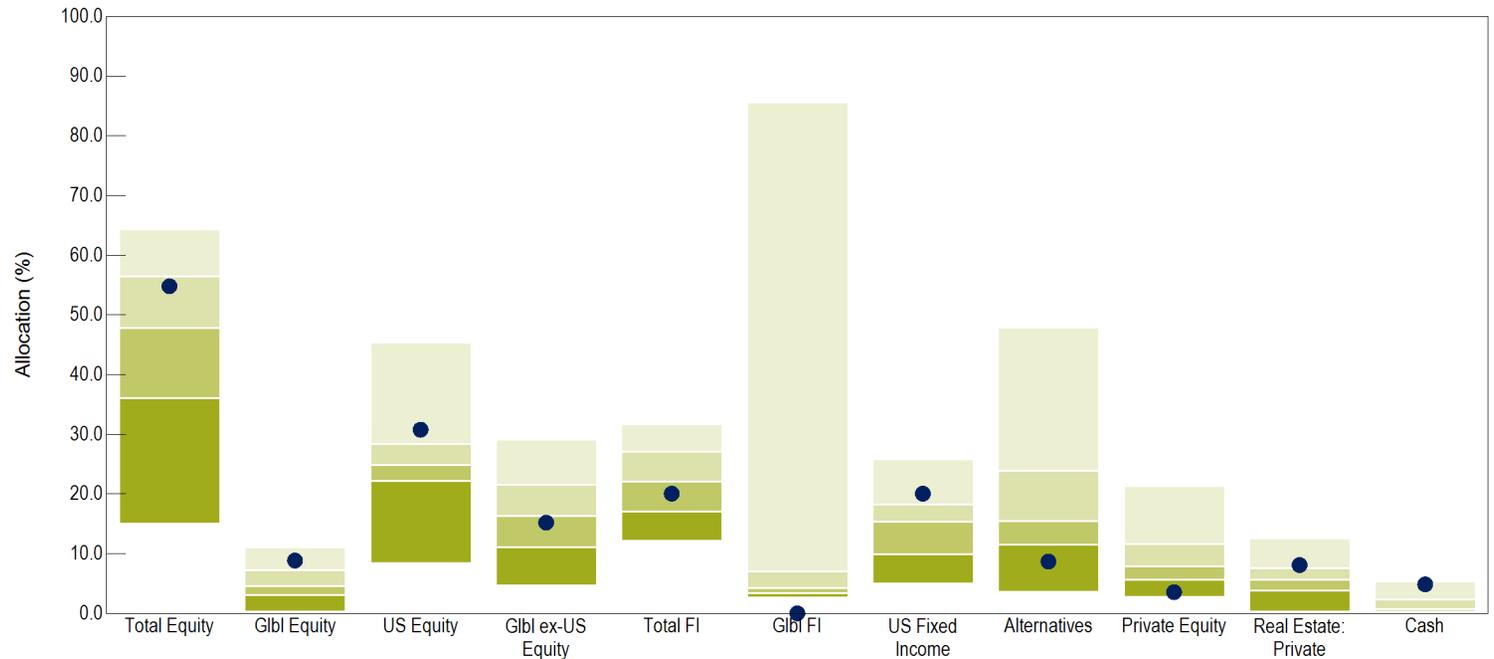
Total Fund Return Summary vs. Peer Universe



	Return (Rank)		Fiscal 2016		Fiscal 2015		Fiscal 2014		Fiscal 2013		Fiscal 2012		5 Years	
5th Percentile			2.7		4.3		18.7		15.0		3.7		10.5	
25th Percentile			0.8		3.3		17.2		13.1		1.5		9.9	
Median			-0.5		2.6		16.1		11.8		0.5		9.0	
75th Percentile			-1.2		1.6		14.7		10.5		-0.3		7.8	
95th Percentile			-2.4		-0.9		13.6		7.5		-0.9		7.0	
# of Portfolios			55		53		43		56		41		43	
● Total Fund			1.0	(21)	1.7	(70)	18.8	(5)	13.2	(22)	1.5	(25)	10.1	(17)
▲ Policy Index			1.8	(9)	3.4	(25)	17.7	(19)	12.4	(39)	1.4	(27)	10.2	(13)

Total Fund Allocations vs. Peer Universe

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



	Allocation (Rank)																							
5th Percentile	64.3	11.1	45.4	29.1	31.7	85.6	25.8	47.9	21.3	12.6	5.3	--	64.3	11.1	45.4	29.1	31.7	85.6	25.8	47.9	21.3	12.6	5.3	--
25th Percentile	56.6	7.3	28.5	21.6	27.2	7.1	18.3	24.0	11.7	7.7	2.5	--	56.6	7.3	28.5	21.6	27.2	7.1	18.3	24.0	11.7	7.7	2.5	--
Median	47.9	4.7	24.9	16.5	22.2	4.3	15.4	15.6	8.0	5.7	0.9	--	47.9	4.7	24.9	16.5	22.2	4.3	15.4	15.6	8.0	5.7	0.9	--
75th Percentile	36.2	3.2	22.3	11.2	17.1	3.5	10.0	11.6	5.8	3.9	0.4	--	36.2	3.2	22.3	11.2	17.1	3.5	10.0	11.6	5.8	3.9	0.4	--
95th Percentile	15.2	0.4	8.5	4.7	12.2	2.7	5.1	3.7	2.9	0.4	0.1	--	15.2	0.4	8.5	4.7	12.2	2.7	5.1	3.7	2.9	0.4	0.1	--
# of Portfolios	41	15	33	37	42	19	32	37	34	32	36	--	41	15	33	37	42	19	32	37	34	32	36	--
● Total Fund	54.8	(33)	8.8	(11)	30.8	(23)	15.2	(55)	20.0	(59)	0.0	(99)	20.0	(20)	8.7	(85)	3.5	(93)	8.1	(23)	4.9	(10)	--	

Manager Due Diligence

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	Top Decile	Yes	Hold	Watch (Board Driven)	3Q 2014 Departure & Performance	N/A
Hexavest	Bottom Quartile	-	-	-		1/2013
Walter Scott	-	-	-	-		10/2012
BlackRock MSCI ACWI Index	-	-	-	-		10/2013
GMO	-	-	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

No Action	Informational items have surfaced; no action is recommended.
Watch	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.
Hold	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.
Client Review	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.
Terminate	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

Sprucegrove

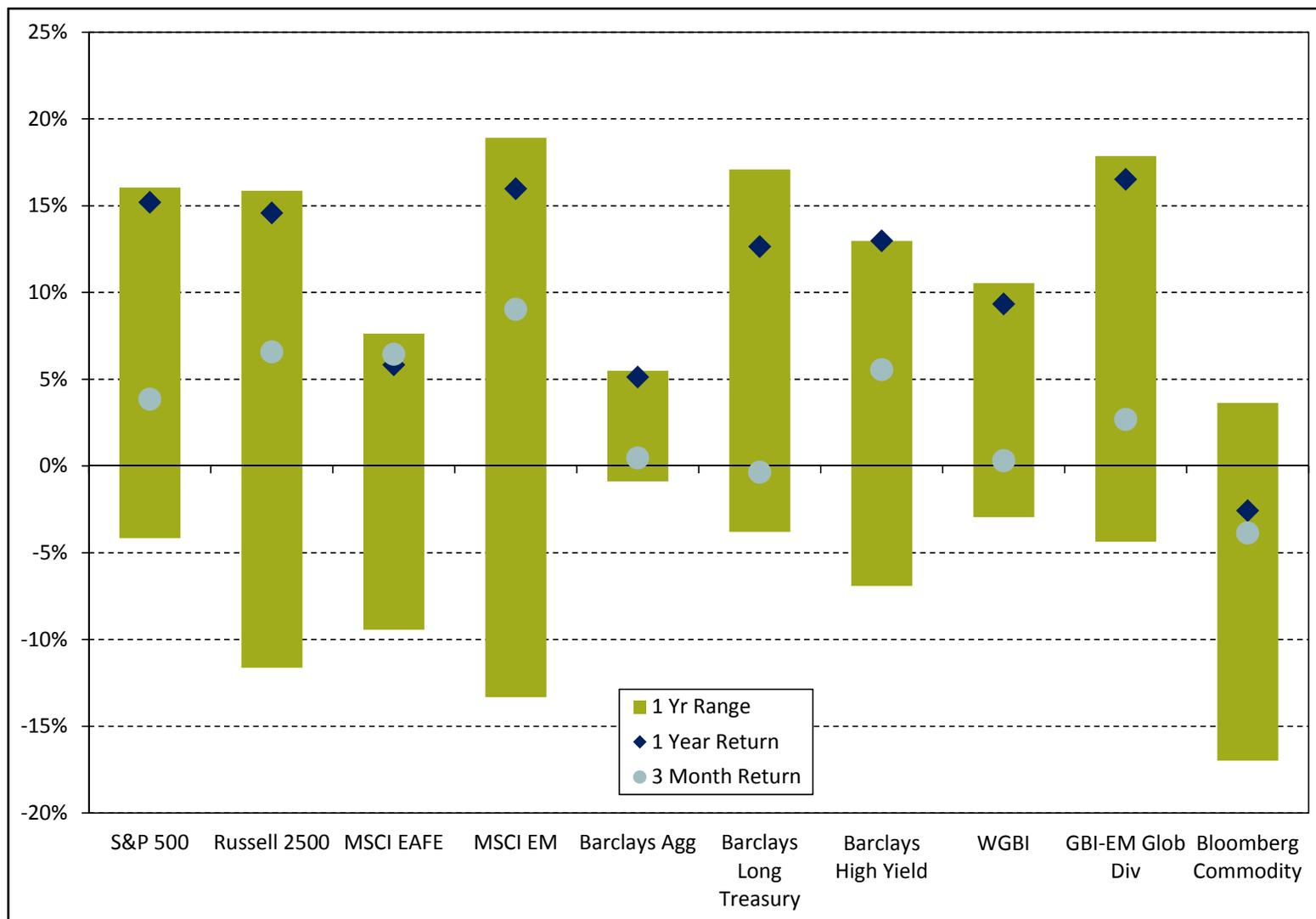
On July 27th Sprucegrove announced that they will open all products at the firm for new investment. They had been closed for a number of years, but following a period of poor performance and asset outflows they now have capacity. While this is a positive event, it triggers an opportunity to reconsider any allocation to the products. Assets have been declining. YTD performance has rebounded, but longer term numbers remain challenged.

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

Appendix: Market Environment



Near Term Broad Market Performance Summary as of 09/30/2016



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

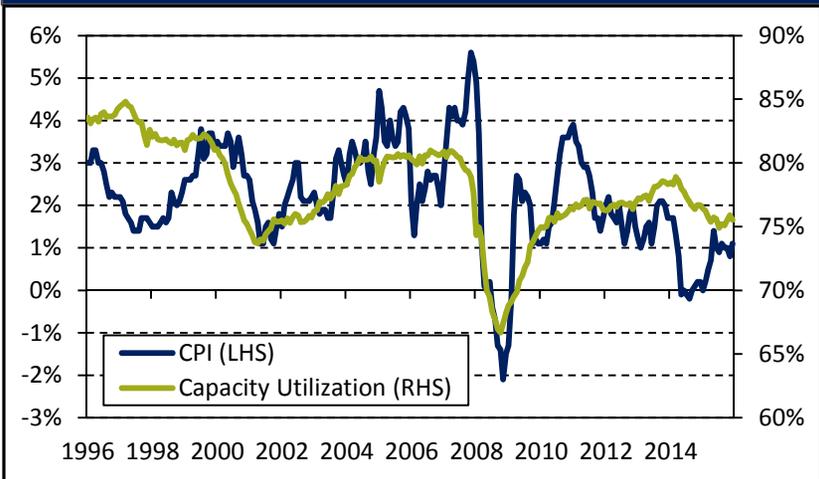
Long Term Broad Market Performance Summary as of 09/30/2016



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

US Economic Indicators

Inflation experiences slight uptick



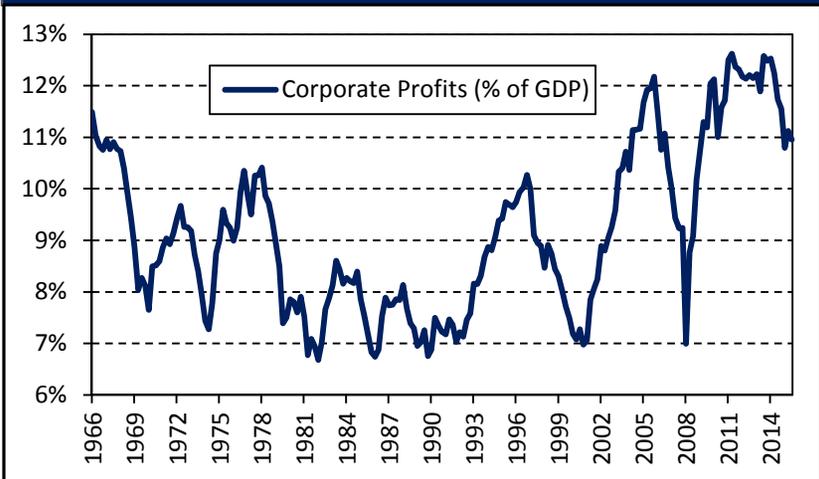
Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics

Unemployment remains steady



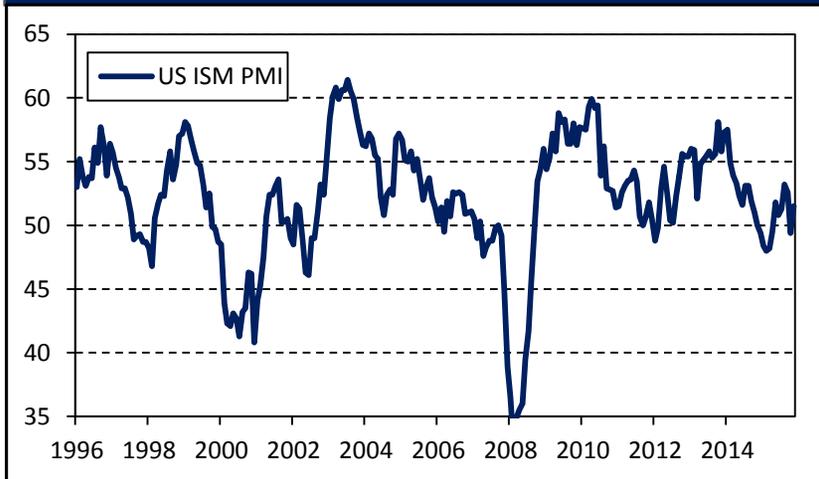
Source: Bloomberg, Bureau of Labor Statistics

Corporate profits continue to decline



Source: Bloomberg, Bureau of Economic Analysis

Manufacturing is relatively neutral

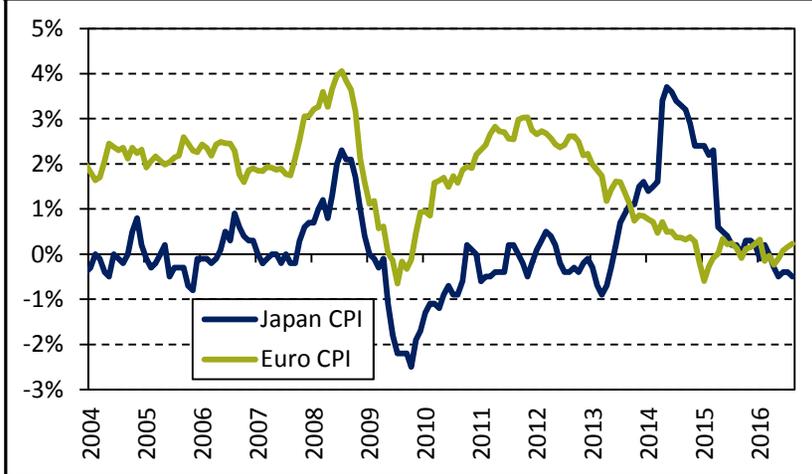


Source: Bloomberg, Institute for Supply Management



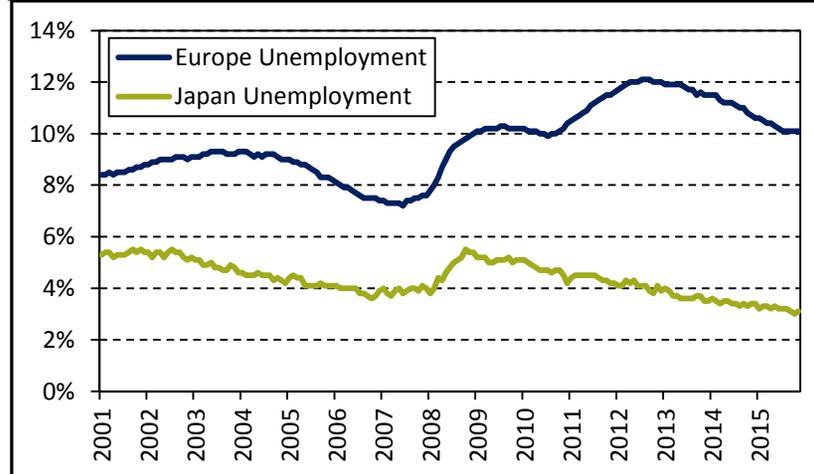
International Economic Indicators

Inflation in Europe experiences a slight uptick



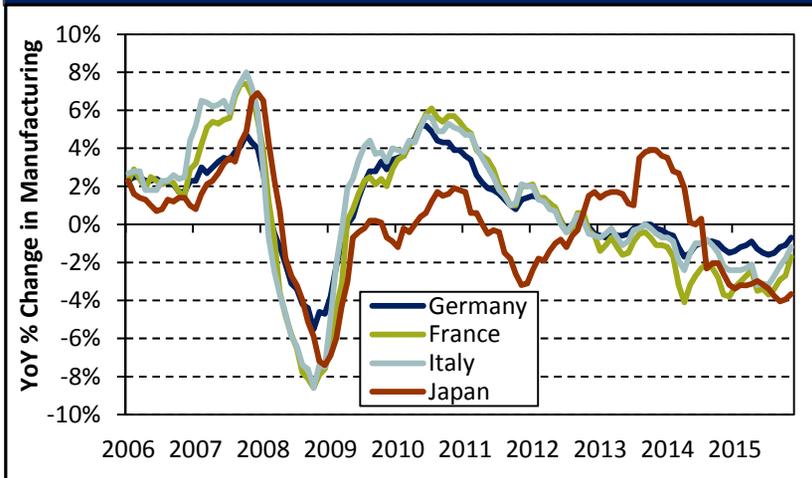
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

Europe unemployment trending lower



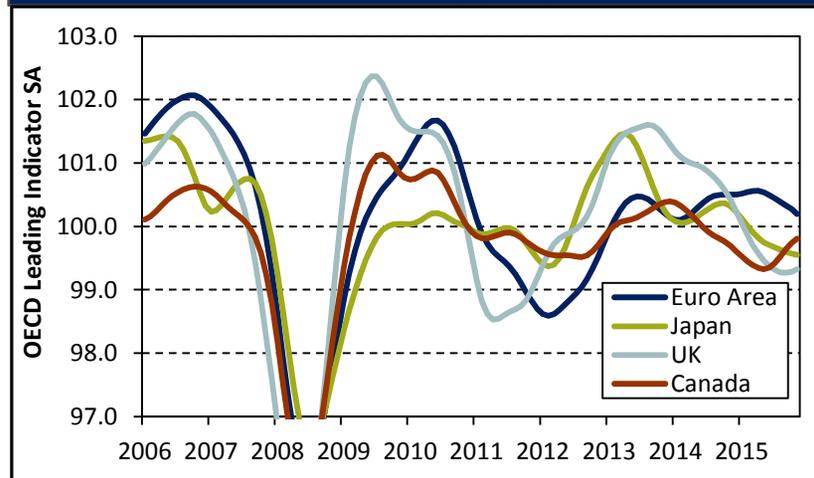
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

Manufacturing approaches neutral territory



Source: Bloomberg, OECD, Eurostat

Euro Area and Japan leading indicators have declined

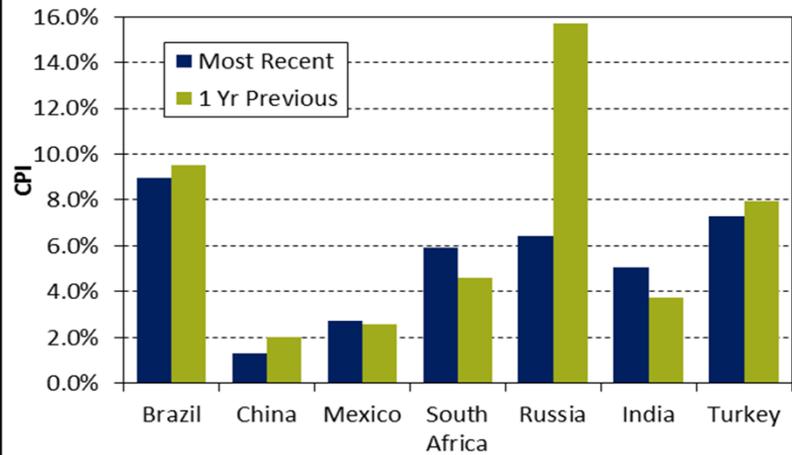


Source: Bloomberg, OECD



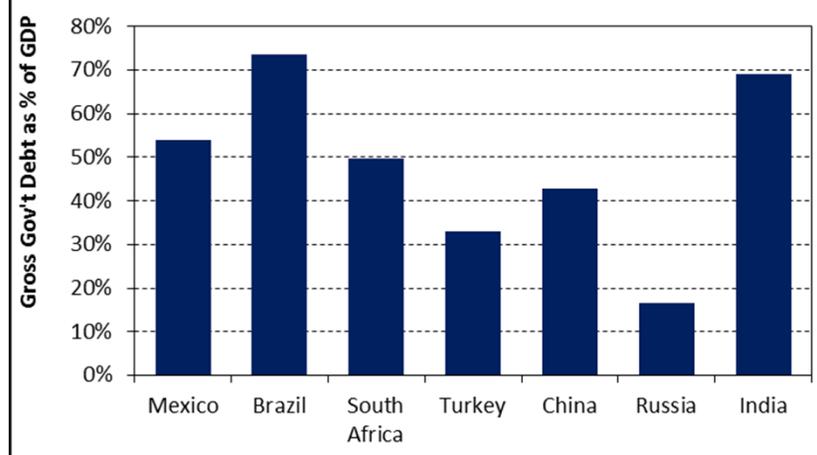
Emerging Market Economic Indicators

EM inflation varies by country



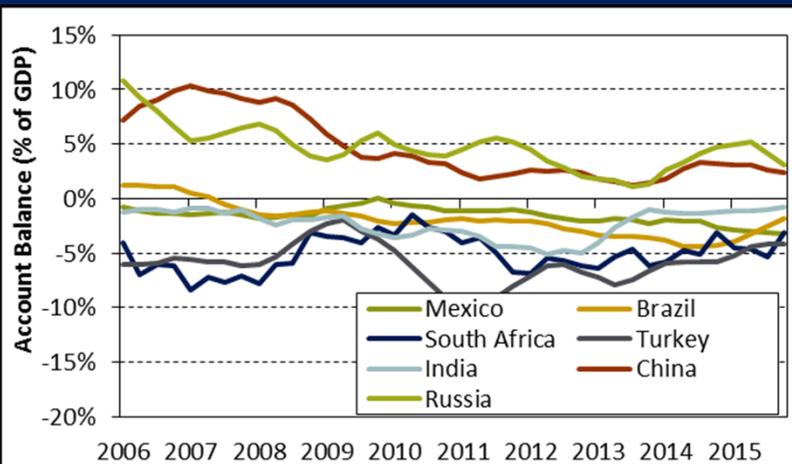
Source: Bloomberg

Relatively healthy Debt/GDP ratios



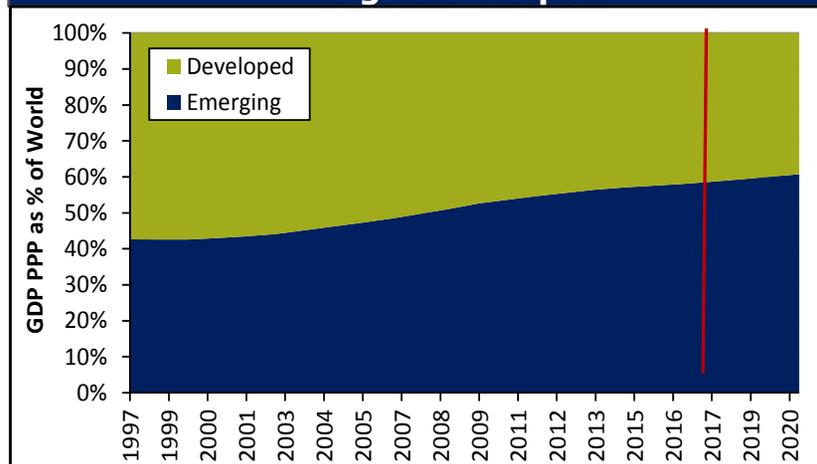
Source: Bloomberg, IMF

Account balances remain steady



Source: Bloomberg

EM continues trending higher as a percent of global output

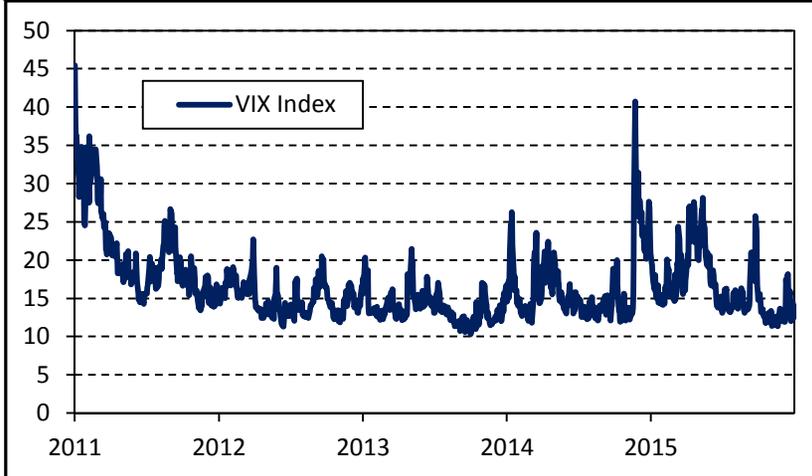


Source: Bloomberg, IMF



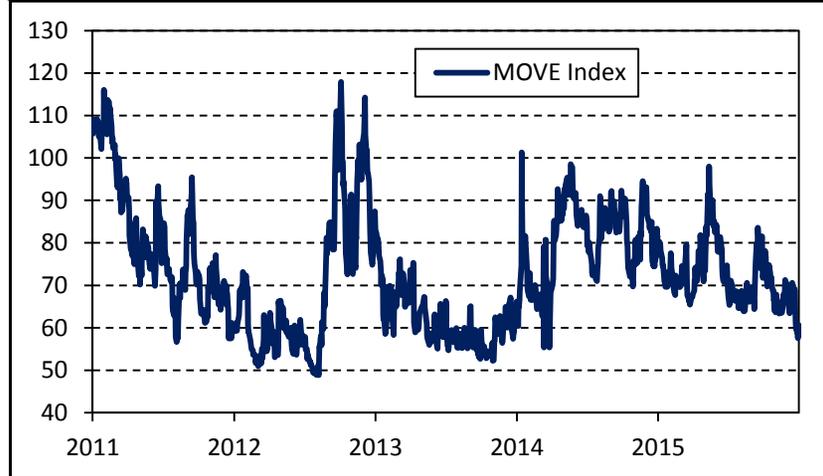
Volatility

Equity volatility seeing recent decrease



Source: Bloomberg, CBOE

Treasury volatility continues decreasing as a rate hike approaches



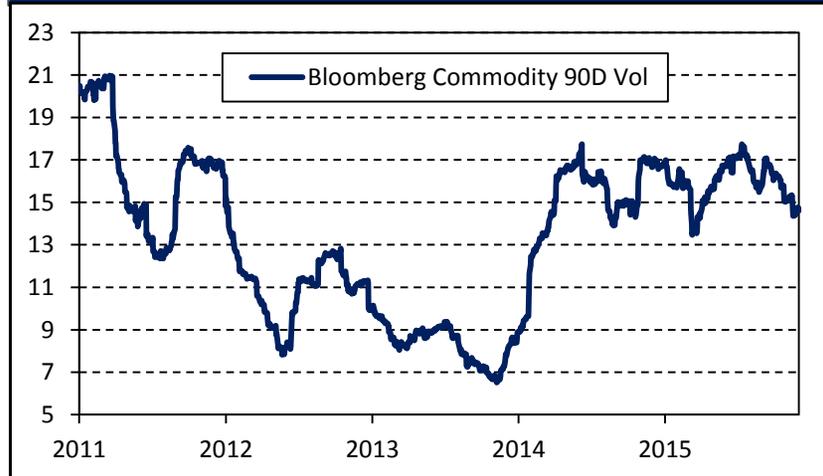
Source: Bloomberg, Merrill Lynch

Currency volatility remains elevated



Source: Bloomberg, Deutsche Bank

Commodity volatility continues to decline

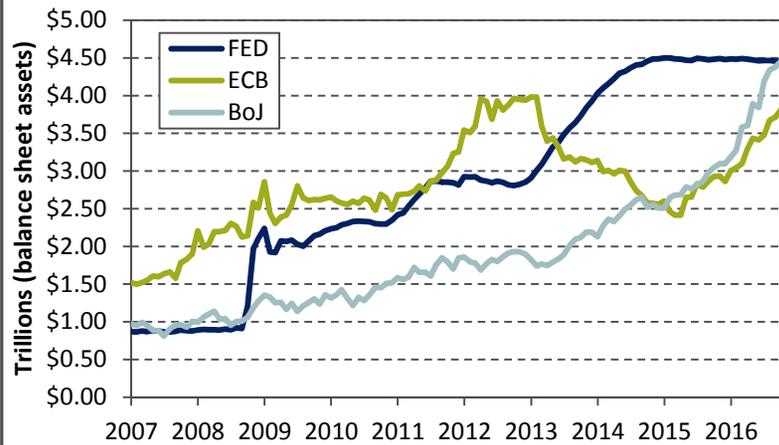


Source: Bloomberg, Merrill Lynch



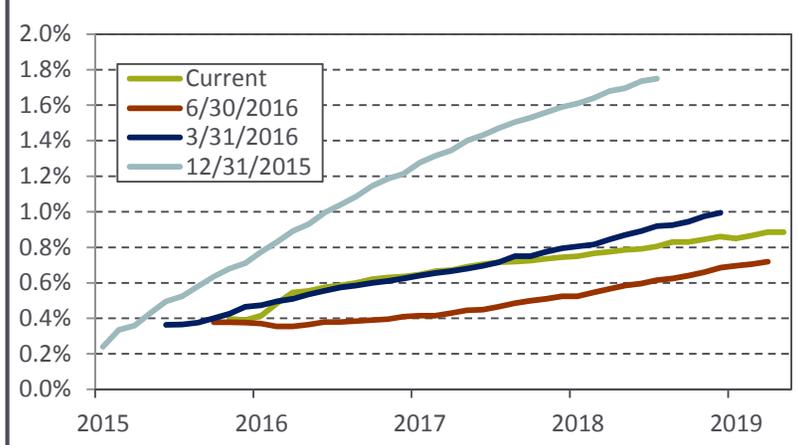
Central Banks

Central banks continue increasing balance sheet size



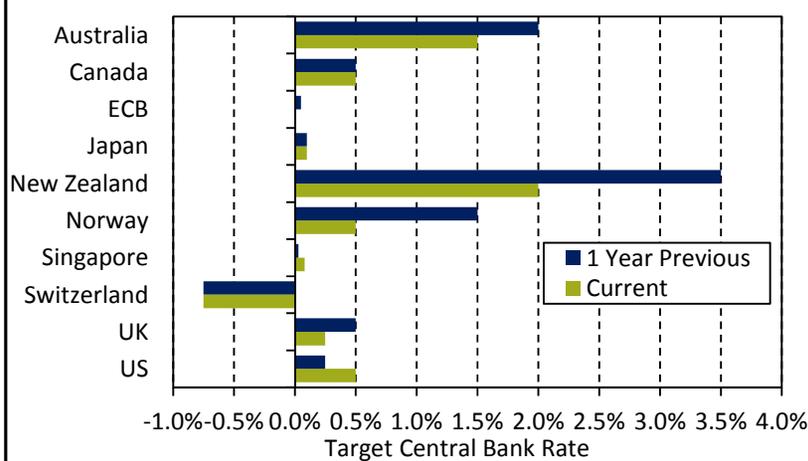
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC

Market expectations for interest rates echo the lower for longer sentiment



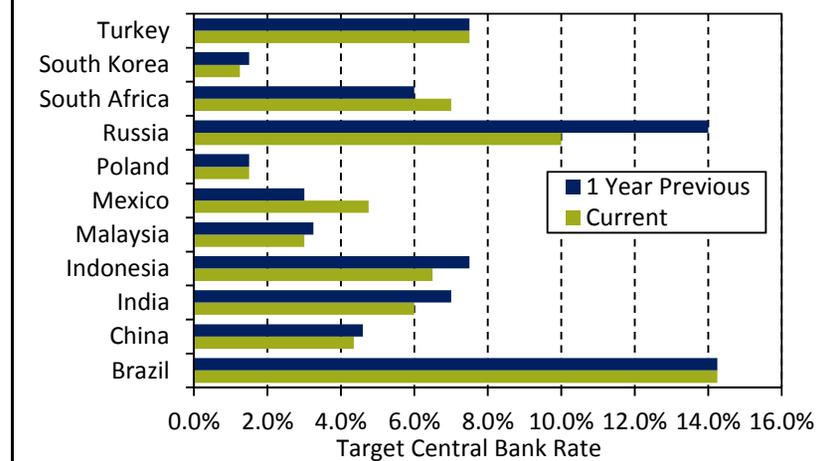
Source: Bloomberg, Federal Reserve

Developed market interest rates are mostly lower than one year previous



Source: Bloomberg

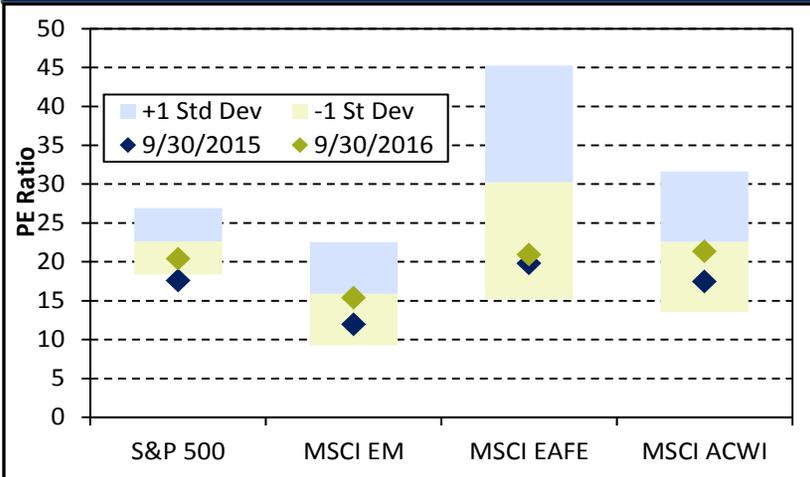
EM central bank policies vary by country-specific economic conditions



Source: Bloomberg

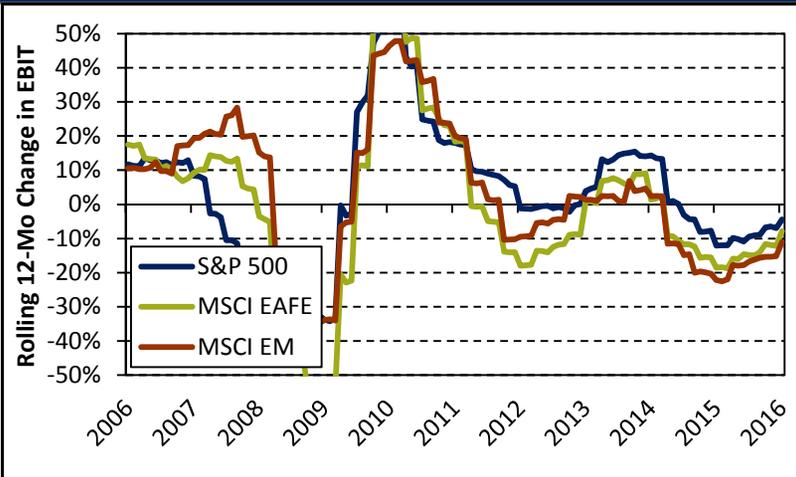
Global Equity

Global valuations increased over the year



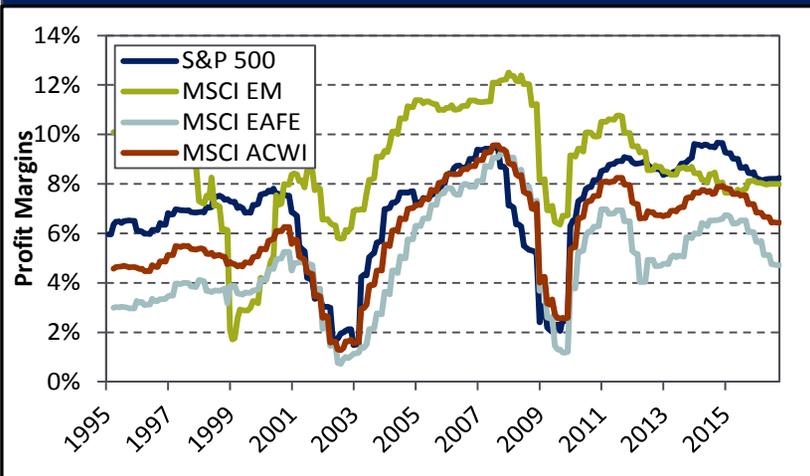
Source: Bloomberg, Standard and Poors, MSCI *MSCI EAFE is ex UK Telecom
*Standard deviation calculations based on 20 years of data

Earnings growth increases slightly



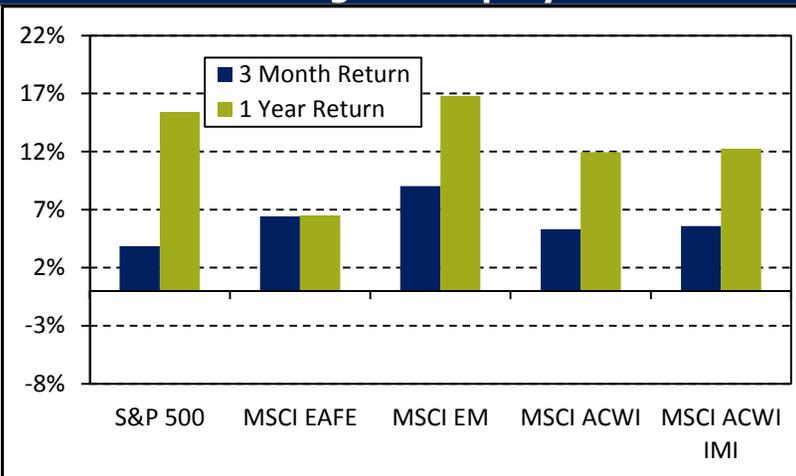
Source: Bloomberg, Standard and Poors, MSCI

Profit margins continue to decline



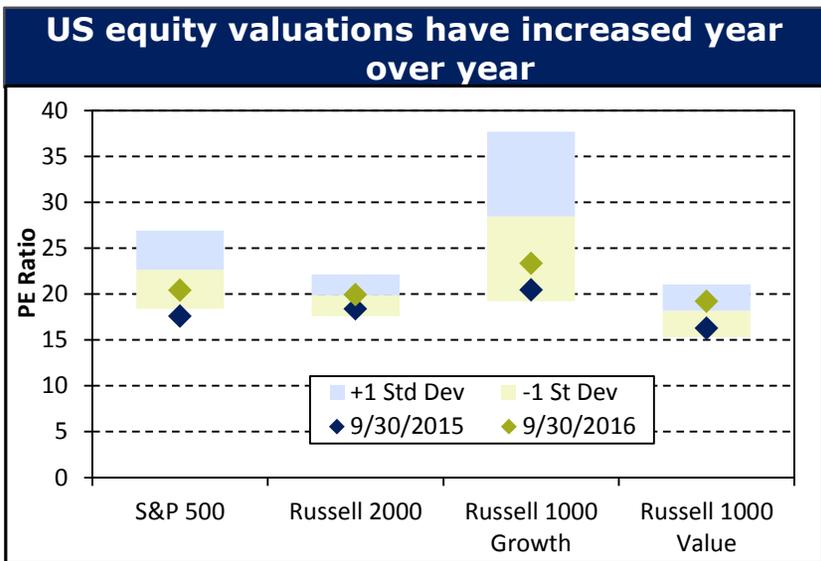
Source: Bloomberg, MSCI

Broadly positive short-term returns for global equity

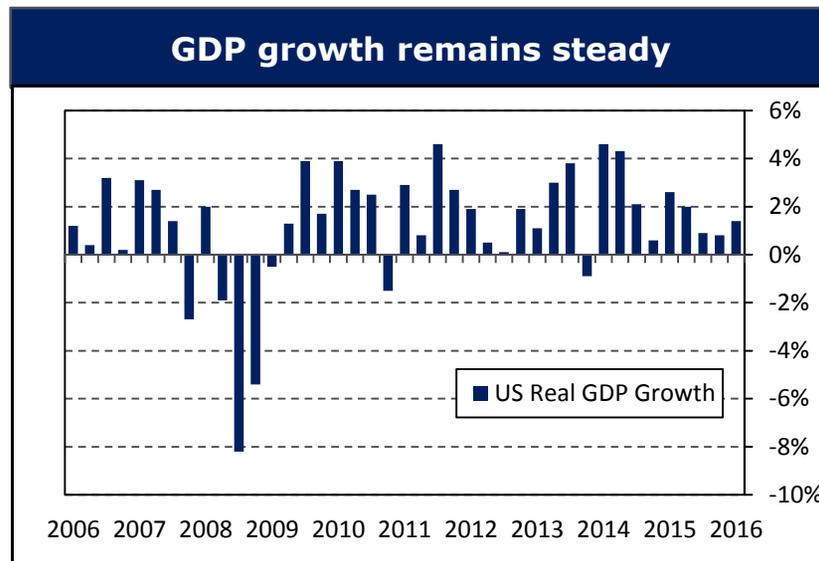


Source: Bloomberg, MSCI

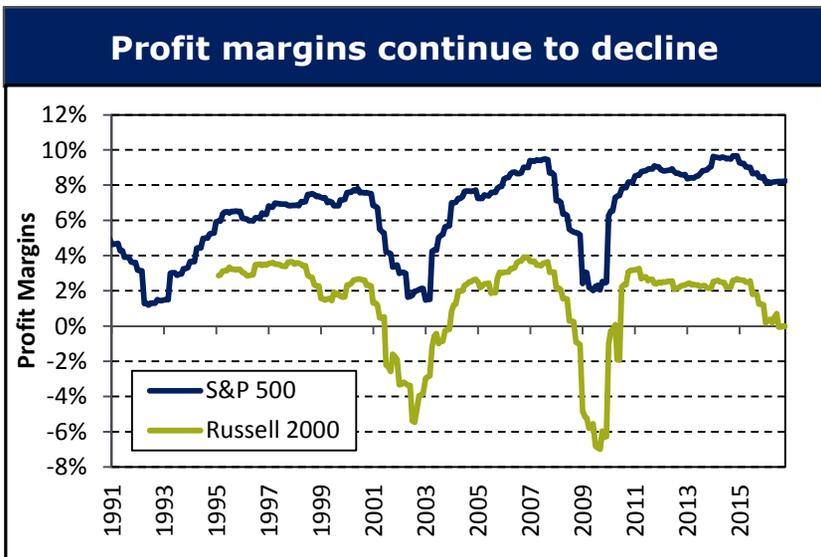




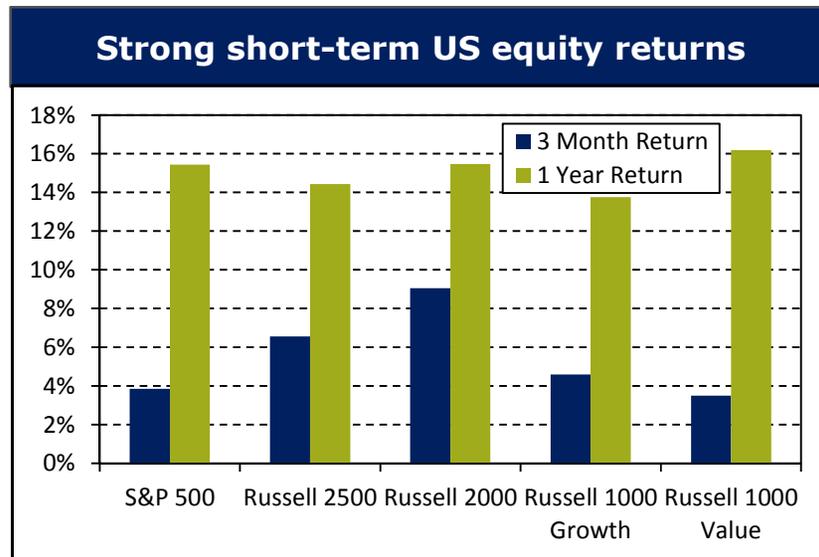
Source: Bloomberg, Standard and Poors, Russell *Russell 2000 PE is index adjusted positive* Standard deviation calculations based on 20 years of data



Source: Bloomberg, Bureau of Economic Analysis



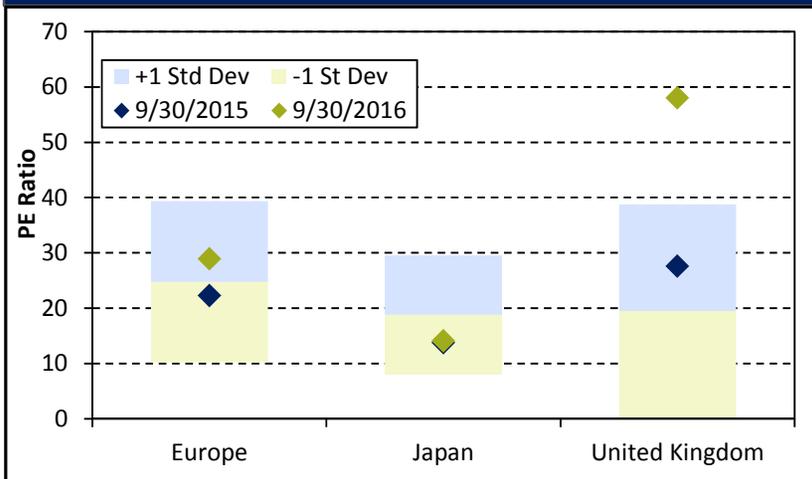
Source: Bloomberg, Standard and Poors, Russell



Source: Bloomberg, Standard and Poors, Russell

International Equity

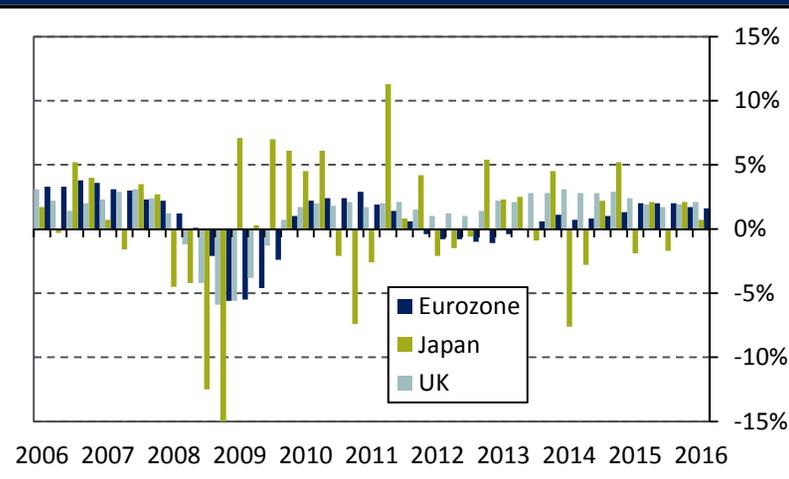
UK PE ratio remains elevated



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

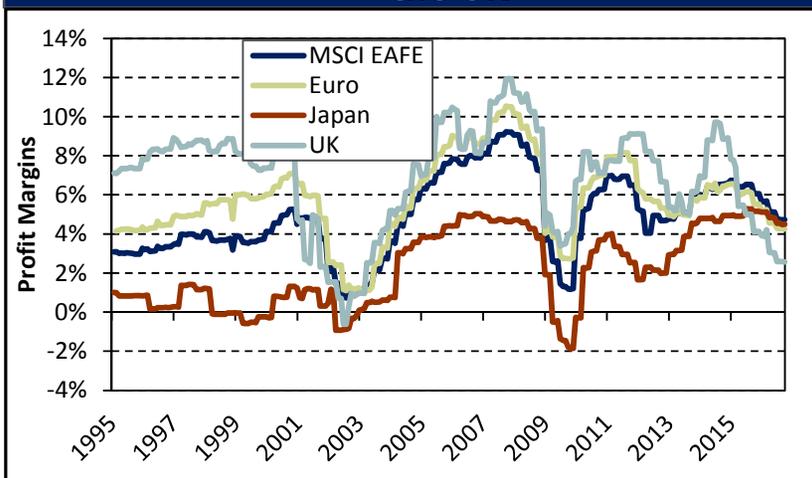
*Standard deviation calculations based on 20 years of data, with Europe since 12/1998

Global growth varies by country



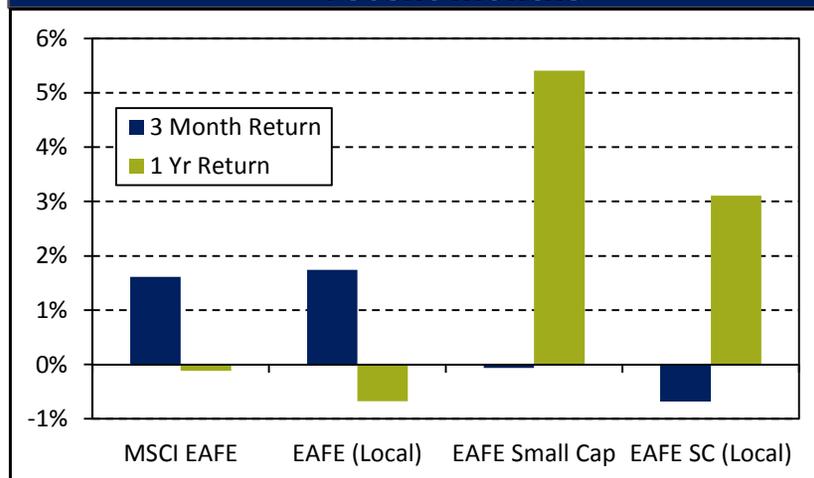
Source: Bloomberg

Margins continue to decline, particularly in the UK



Source: Bloomberg, MSCI

EAFE small cap returns have struggled in recent months

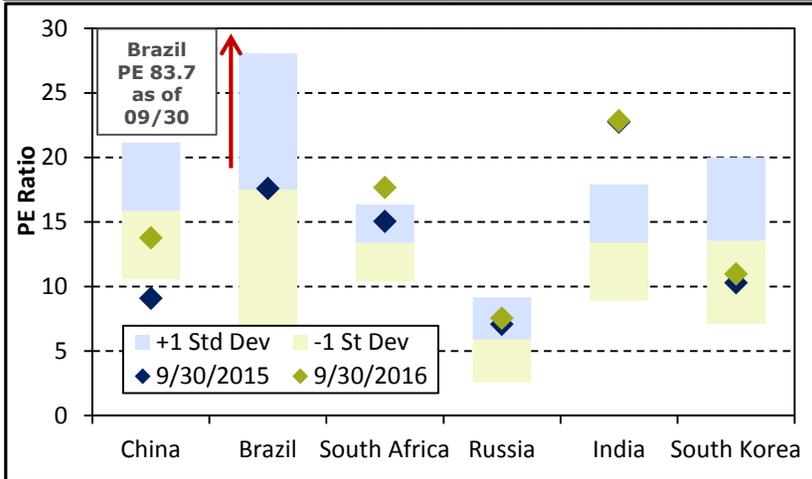


Source: Bloomberg, MSCI



Emerging Markets Equity

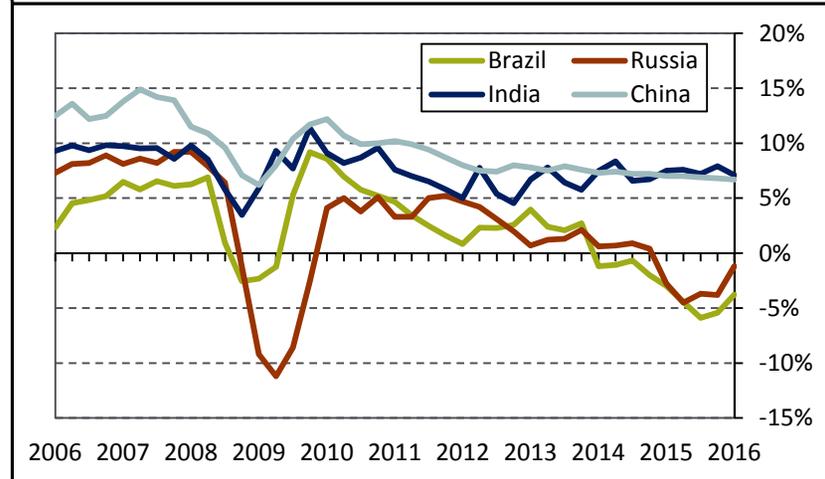
Regional valuations similar year over year with the exception of Brazil



Source: Bloomberg, MSCI

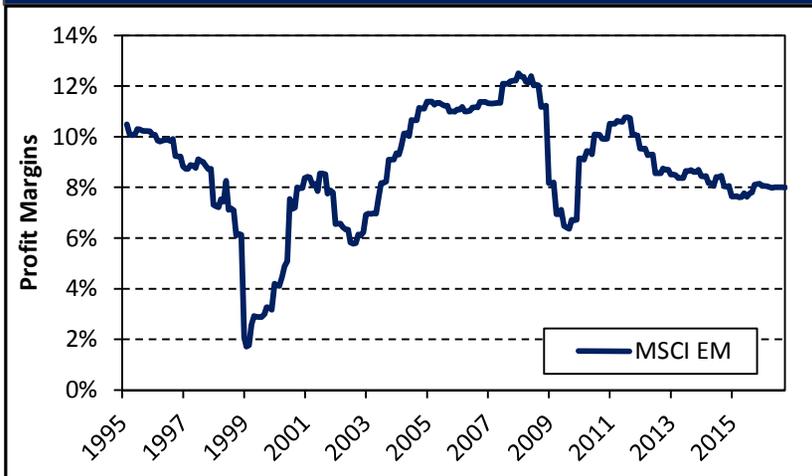
*Standard deviation calculations based on 20 years of data, with Russia since 01/1998

Russia and Brazil experience upward trends in growth



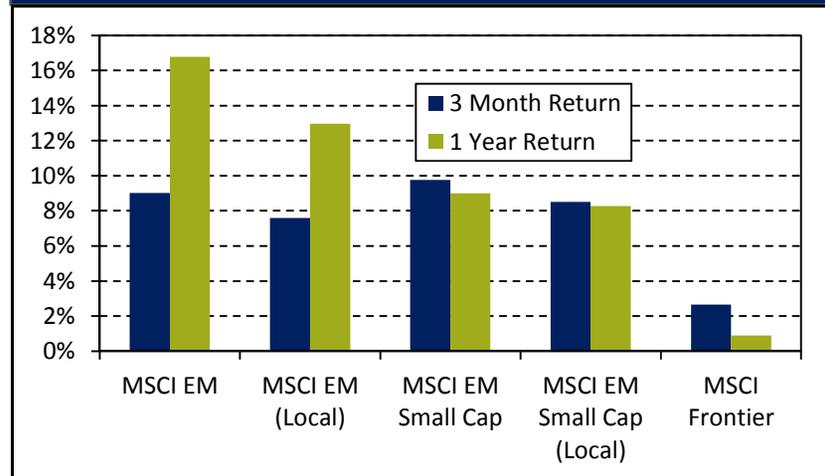
Source: Bloomberg

Profit margins in line with history



Source: Bloomberg, MSCI

Strong short-term returns for EM

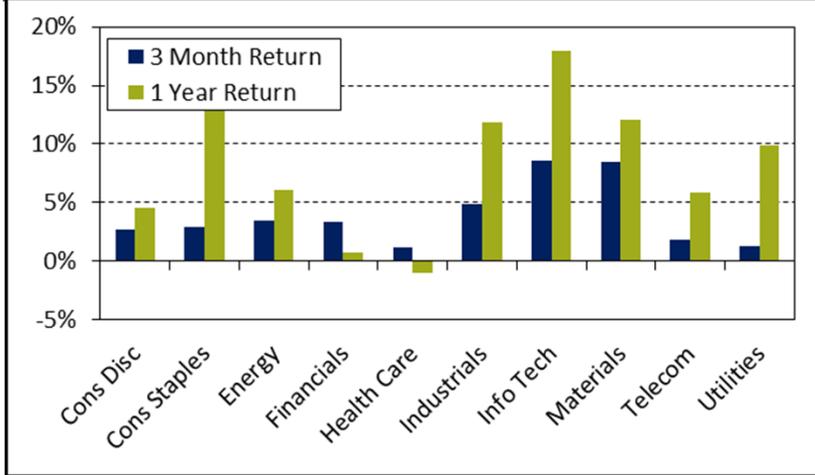


Source: Bloomberg, MSCI



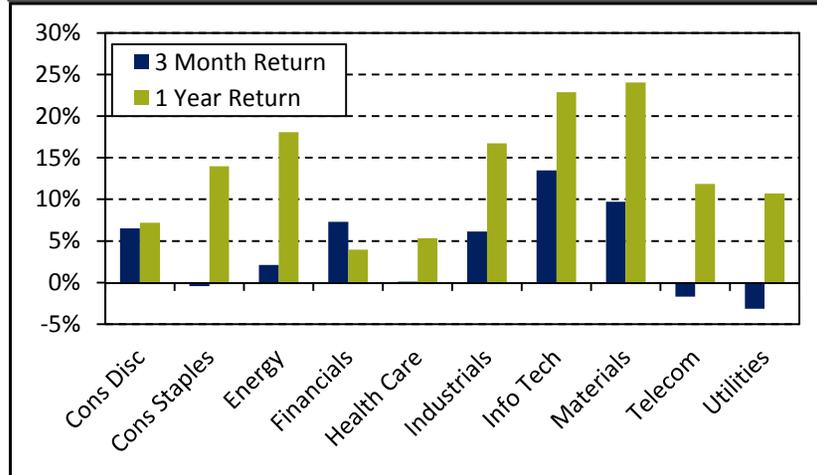
Global Equity by Sector

MSCI ACWI short-term returns driven by Info Tech and Materials



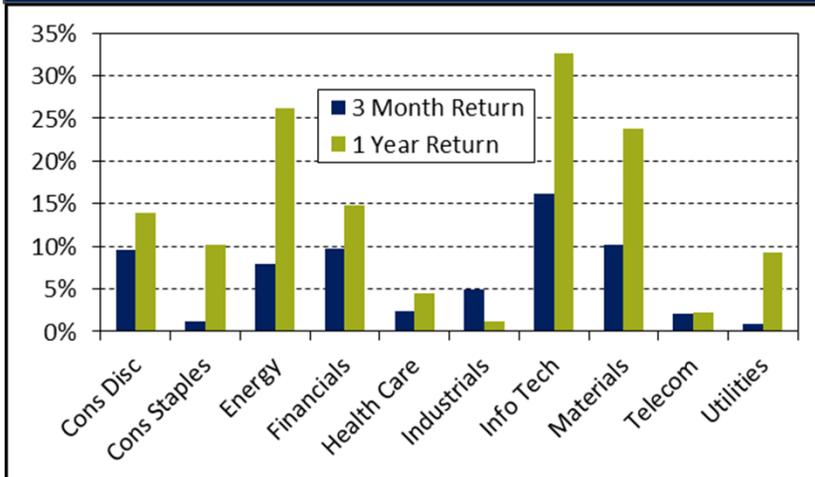
Source: Bloomberg, MSCI

S&P 500 sectors post broadly positive short-term returns



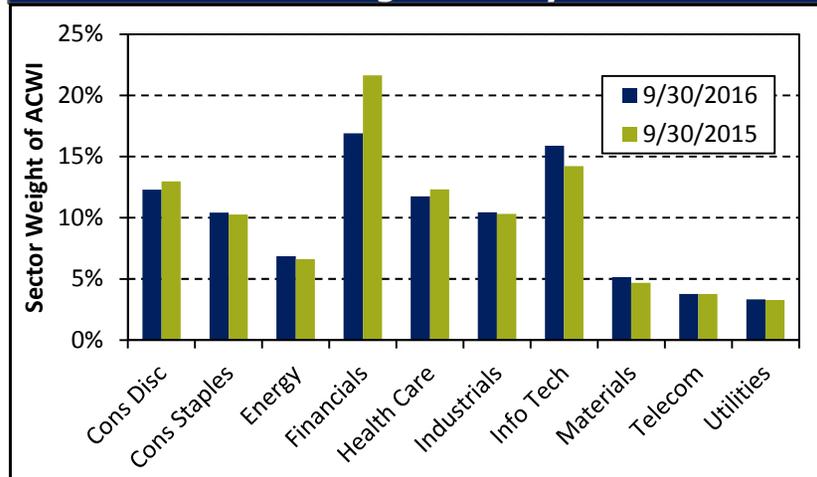
Source: Bloomberg, Standard and Poors

EM sectors posting strong short-term returns



Source: Bloomberg, MSCI

Financials sector weight has decreased significantly

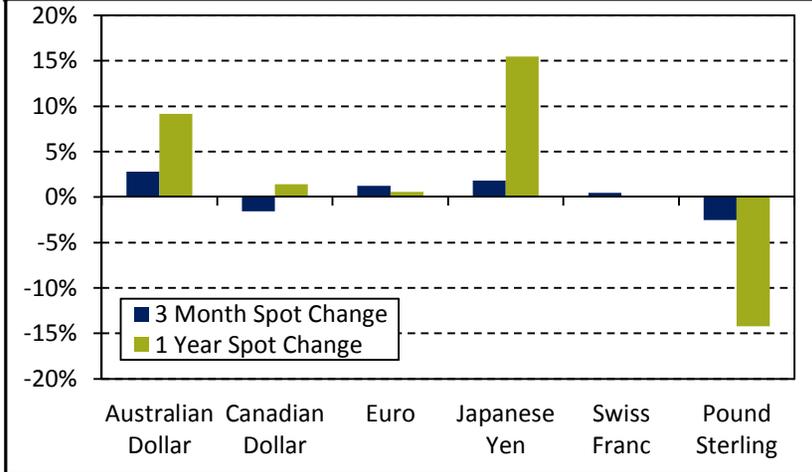


Source: Bloomberg, MSCI



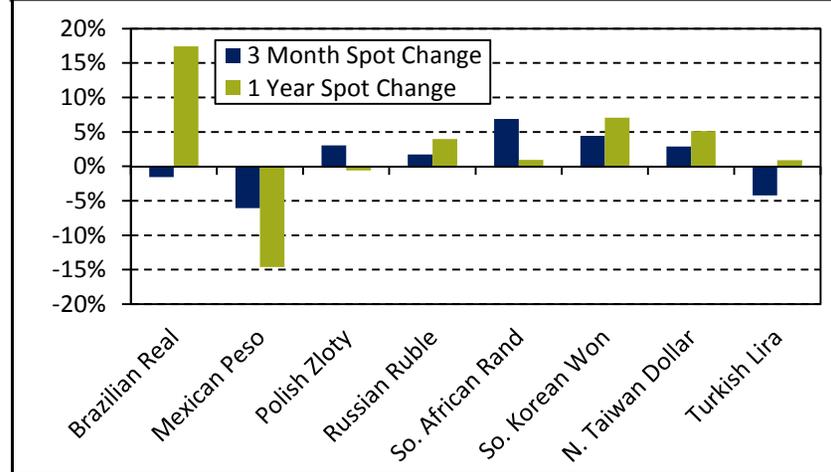
Currencies

Developed currencies experience mixed results versus the dollar



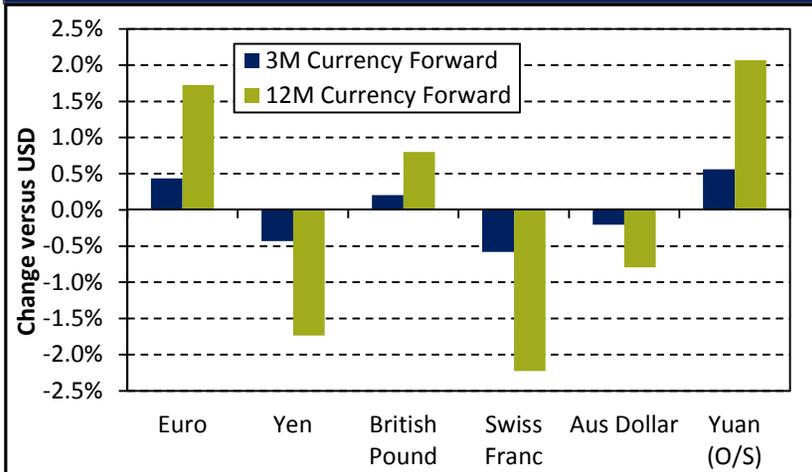
Source: Bloomberg

Diverse EM currency performance versus the dollar



Source: Bloomberg

USD expectations vary across developed markets



Source: Bloomberg

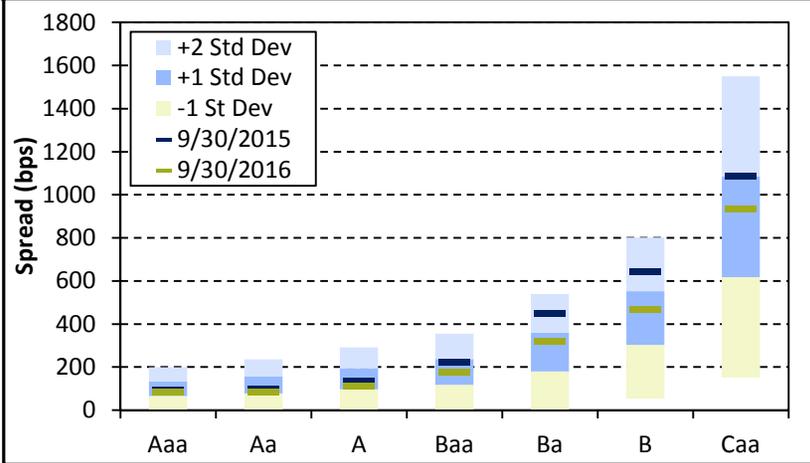
Dollar strength retreated slightly off highs



Source: Bloomberg, Federal Reserve

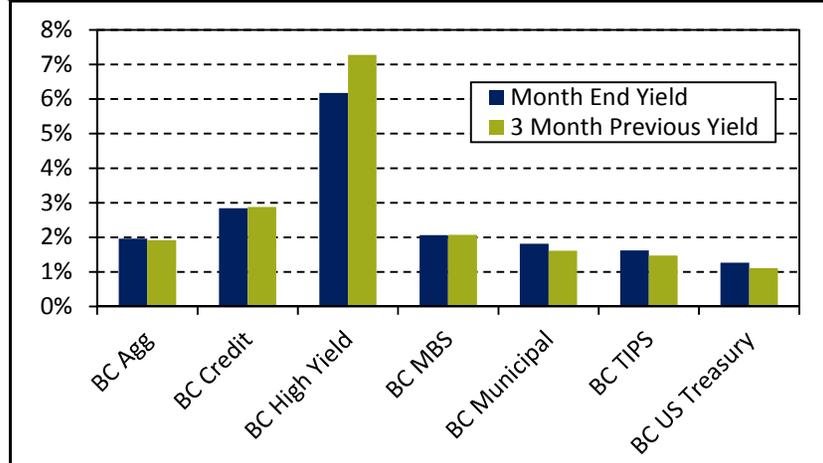


Spreads remain lower than the previous year



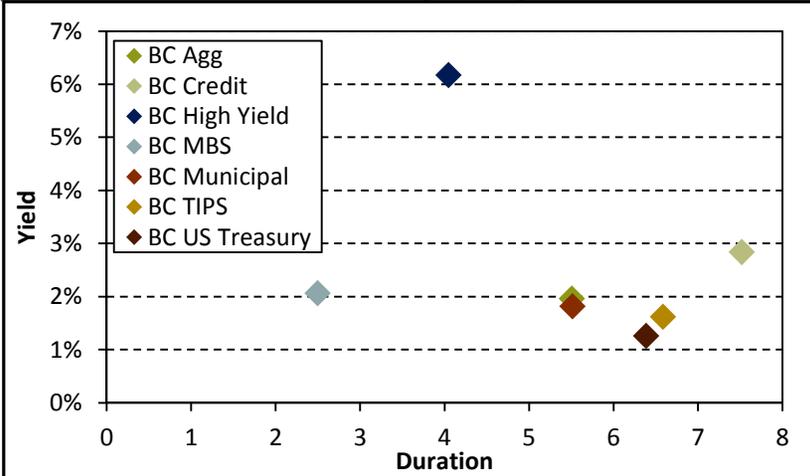
Source: Bloomberg, Barclays
*Standard deviation calculations based on 20 years of data

Except high yield, yields have remained similar over recent months



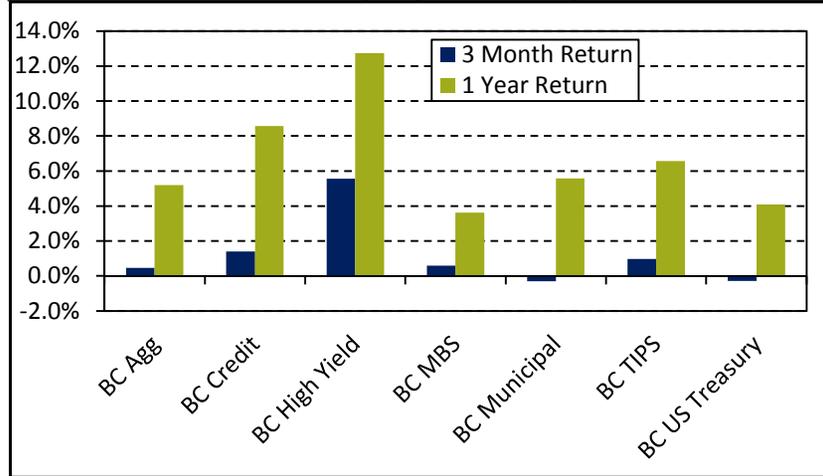
Source: Bloomberg, Barclays

TIPS look attractive among similar duration/yield profiles



Source: Bloomberg, Barclays

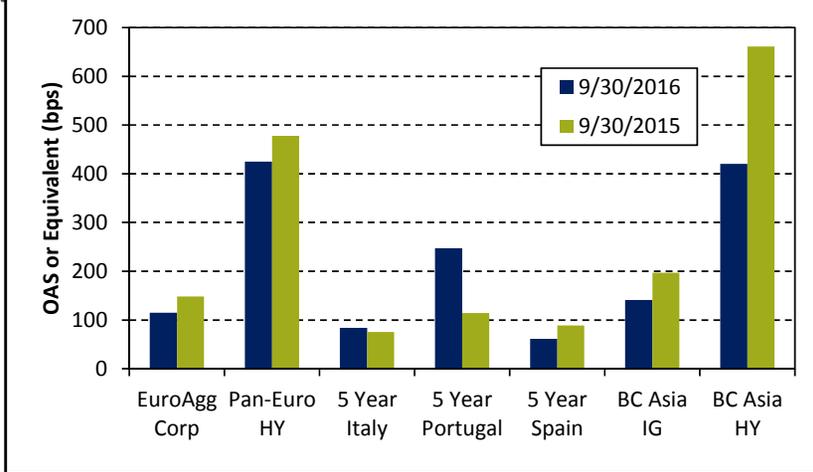
Relatively flat returns except the credit and high yield rally



Source: Bloomberg, Barclays

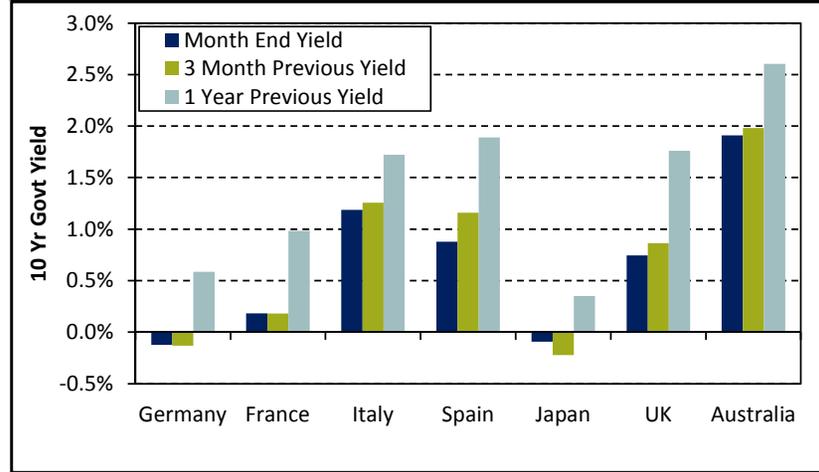
International Developed Fixed Income

European periphery yields vary relative to Germany



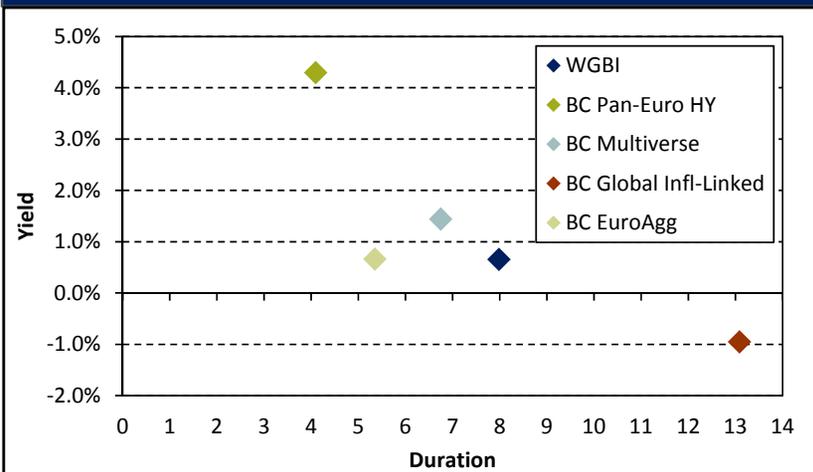
Source: Barclays, Bloomberg, *European periphery spreads are over equivalent German Bund

Global yields continue to fall with the exception of Japan



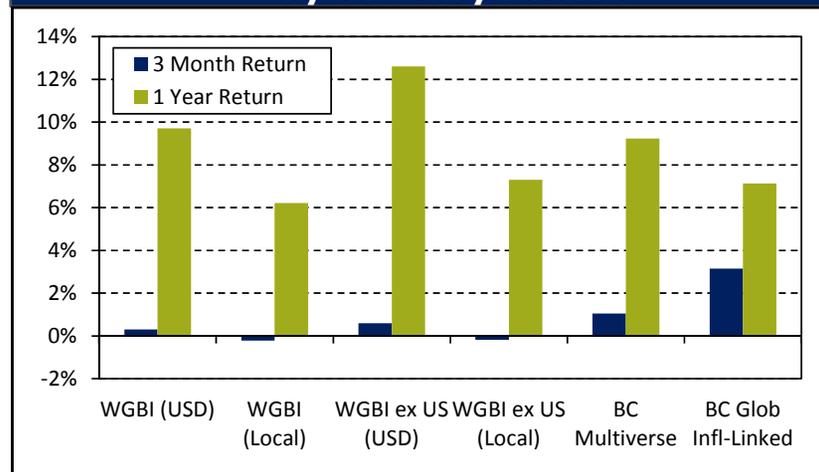
Source: Bloomberg

Low global yields relative to duration



Source: Bloomberg, Citigroup, Barclays

Global bond returns are heavily influenced by currency returns

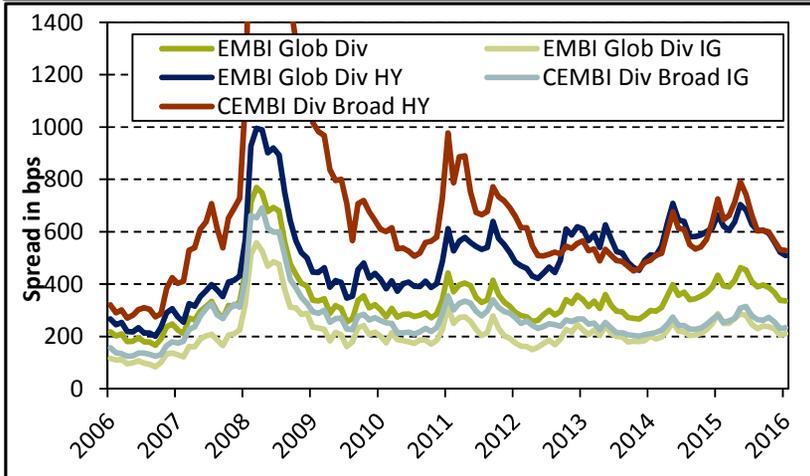


Source: Bloomberg, Citigroup, Barclays



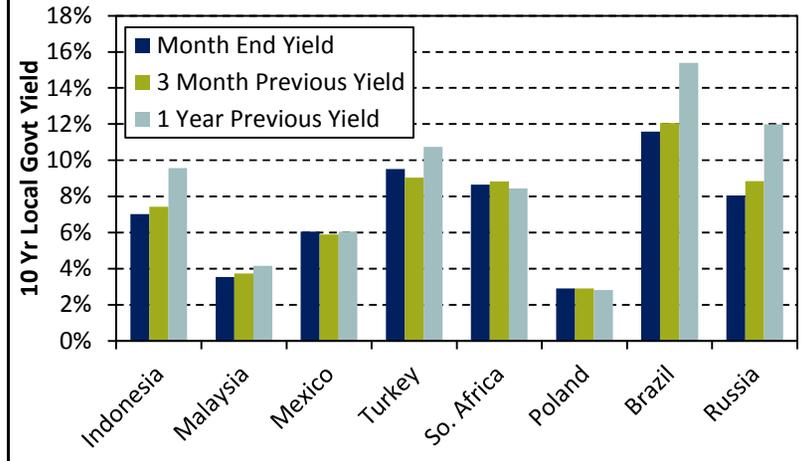
Emerging Markets Fixed Income

Spreads continue to decline



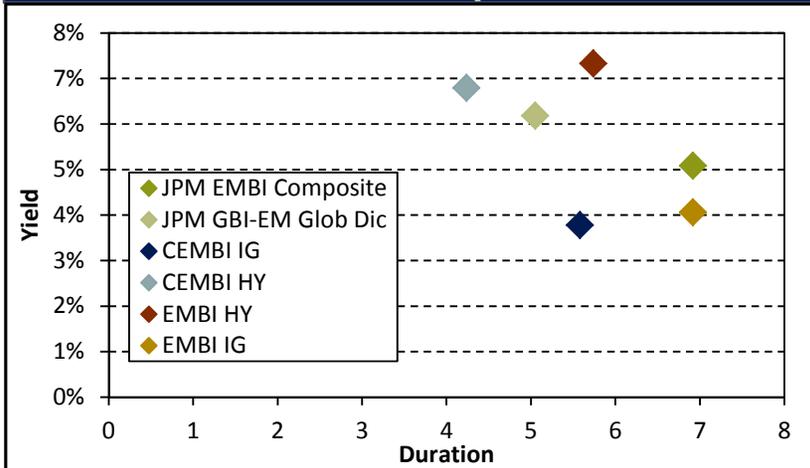
Source: Bloomberg, JP Morgan

EM local bond yields have declined for more volatile markets



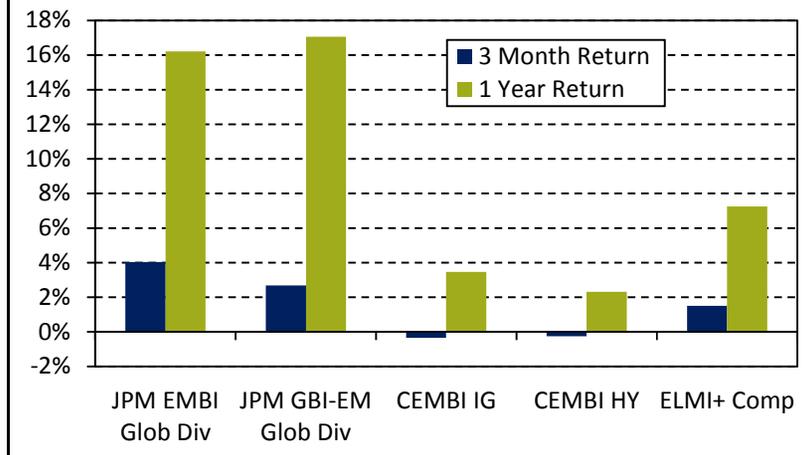
Source: Bloomberg

EM yields remain attractive versus global counterparts



Source: Bloomberg, JP Morgan

EM debt continues to perform well

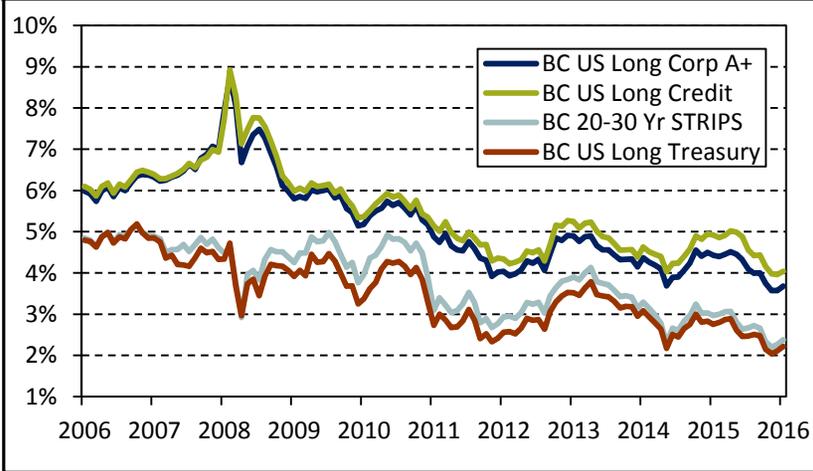


Source: Bloomberg, JP Morgan



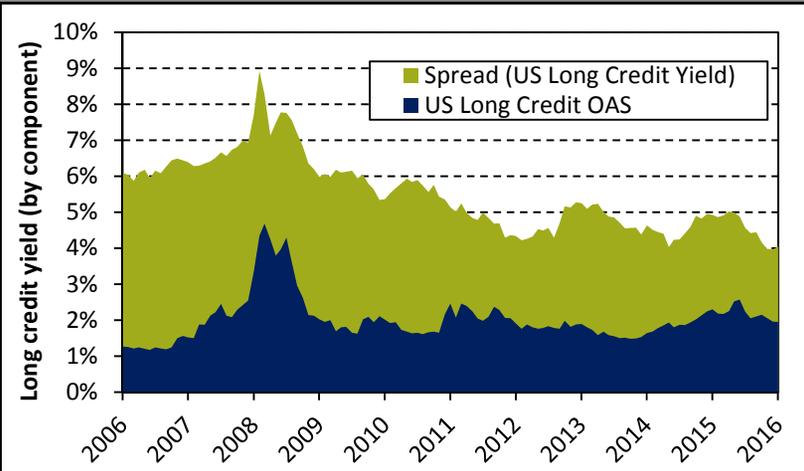
Long Rates and Liability

Long duration yields continue to decline



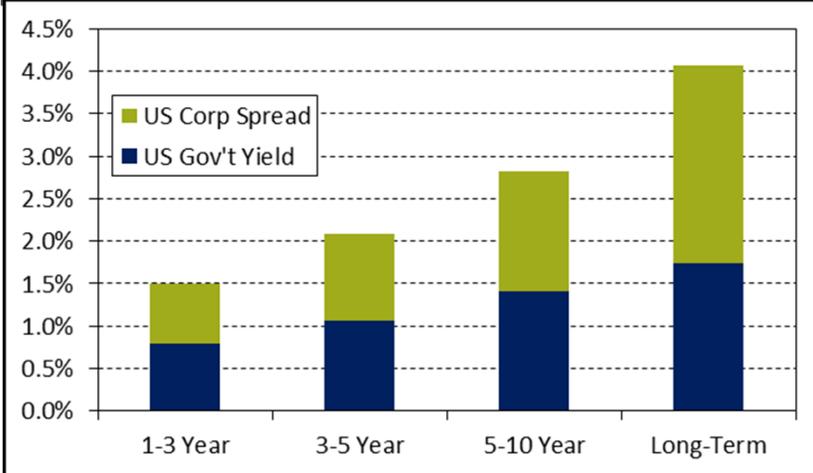
Source: Bloomberg, Citigroup, Barclays

Lower yields driven by real rates



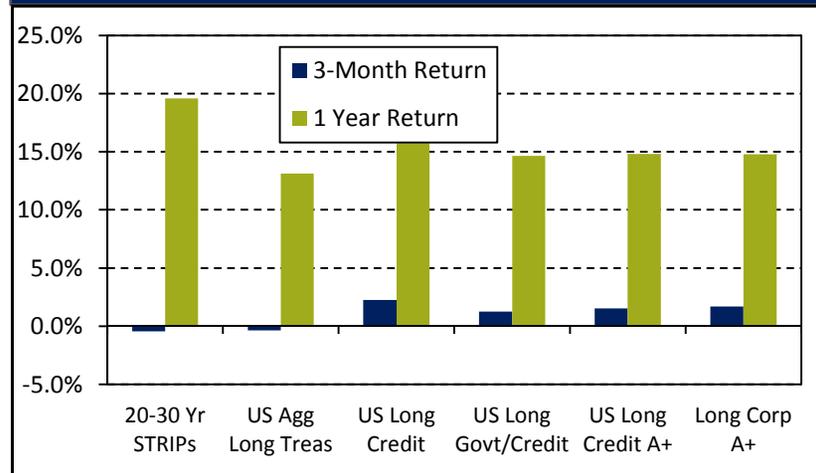
Source: Bloomberg, US Treasury, Barclays, NEPC

Yield and spread components continue to offer modest returns



Source: Bloomberg, Barclays

Long duration short-term returns are flat

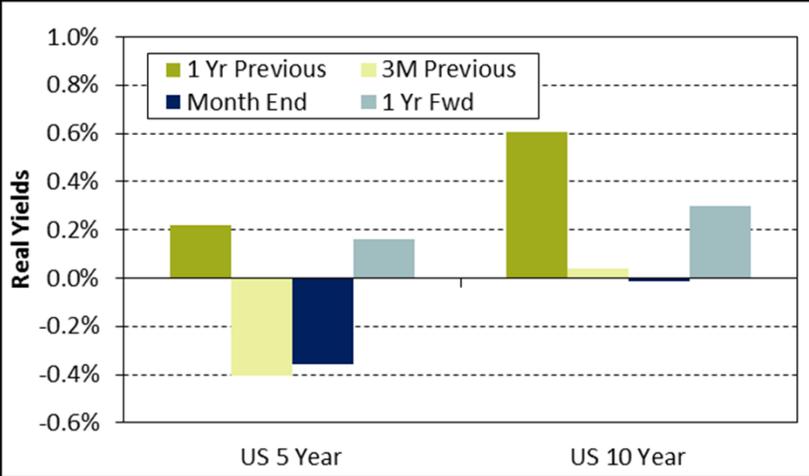


Source: Bloomberg, Barclays



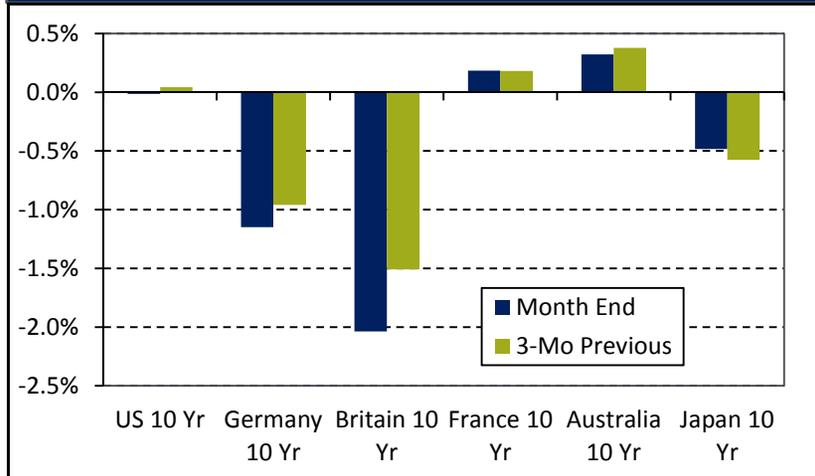
Inflation and Real Rates

US real yields have decreased



Source: Bloomberg

Global real yields dip even lower



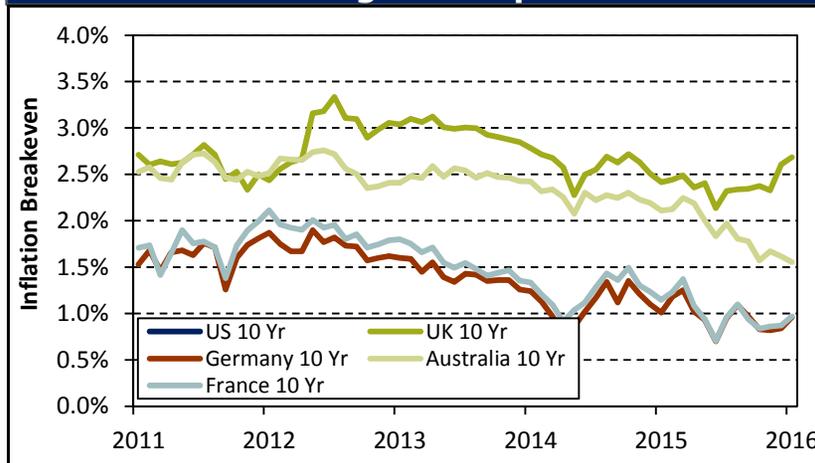
Source: Bloomberg

US inflation expectations remain low



Source: Bloomberg

Global inflation expectations remain mostly unchanged except the UK

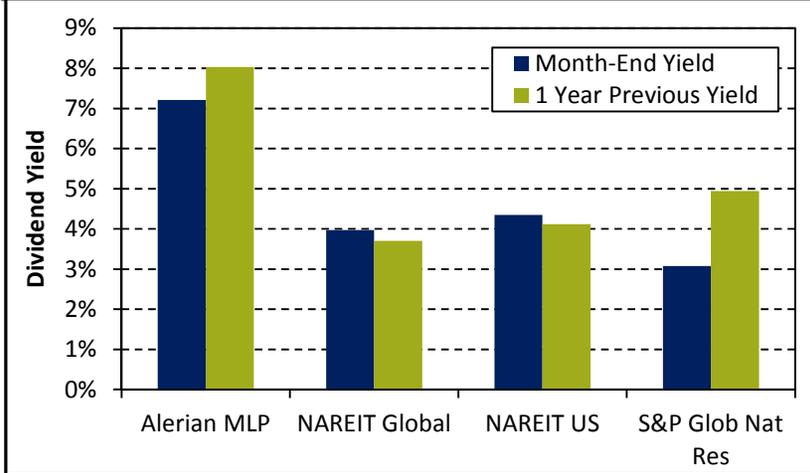


Source: Bloomberg



Inflation Sensitive Growth Assets

Yields remain similar to the previous year



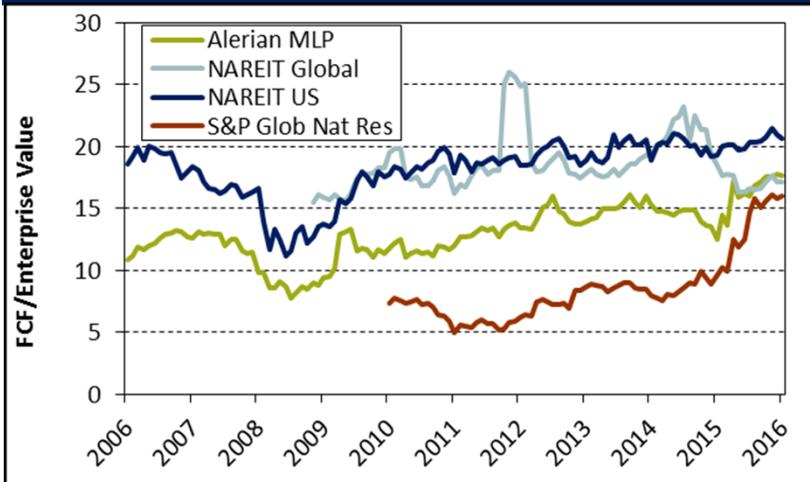
Source: Bloomberg, Alerian, Nareit, Standard and Poors

Sustained recovery in commercial real estate occupancy rates



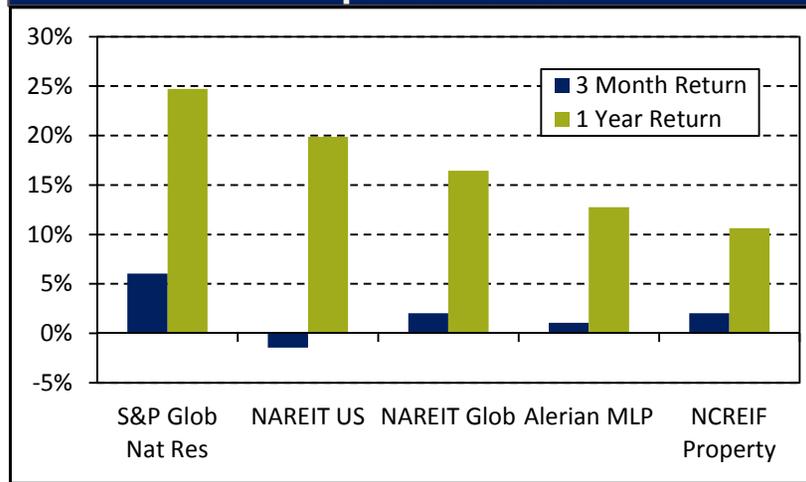
Source: NCREIF

Valuations remain steady



Source: Bloomberg, US Census Bureau

REITs exhibit mixed short-term performance

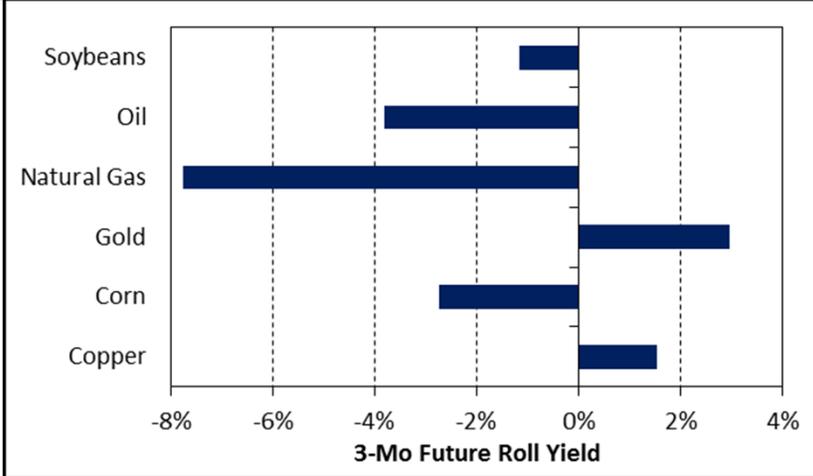


Source: Bloomberg, Alerian, Nareit, Standard and Poors



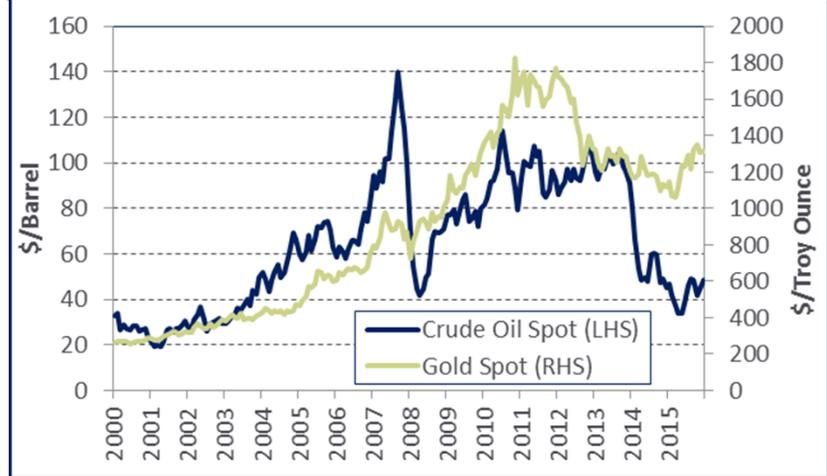
Commodities

Negative roll yields remain a hurdle for investing directly in oil and natural gas



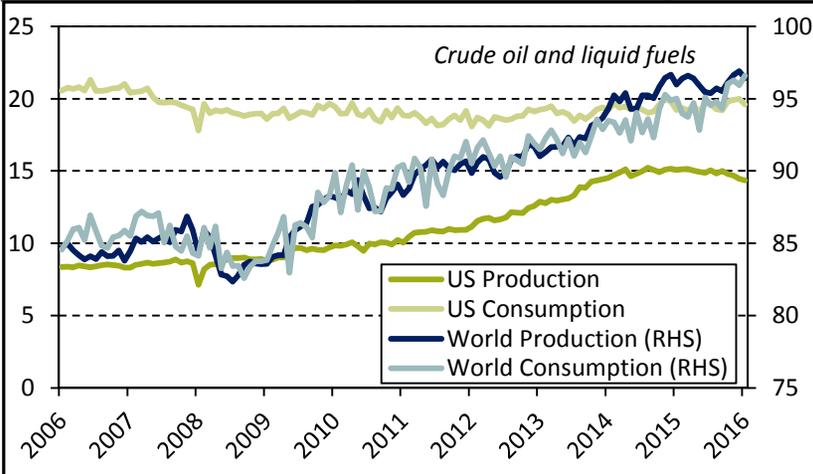
Source: Bloomberg

Recent spike in gold and decline in oil as oversupply concerns continue



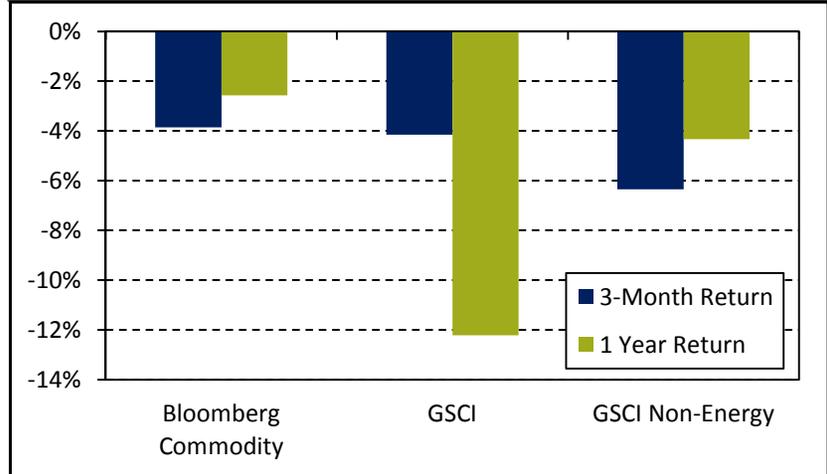
Source: Bloomberg

Recent decline in world production as consumption holds steady



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

Commodity indices continue to decline



Source: Bloomberg, Standard and Poors



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- **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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