



NEPC, LLC

YOU DEMAND MORE. *So do we.*SM



Oklahoma State Pension Commission

Investment Summary

Quarter Ending September 30, 2017

Tony Ferrara, CAIA, Consultant
Don Stracke, CFA, CAIA, Senior Consultant
Allan Martin, Partner

255 State Street, Boston, MA 02109 | TEL: 617.374.1300 | FAX: 617.374.1313 | www.nepc.com

BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

Table of Contents

	<u>Tab</u>
Market Environment Update and Outlook	1
Oklahoma Teachers	2
Oklahoma PERS	3
Oklahoma Firefighters	4
Oklahoma Police	5
Oklahoma Law	6
Oklahoma Judge	7
Oklahoma Wildfire	8
Appendix: Market Environment	9



Market Environment Update and Outlook

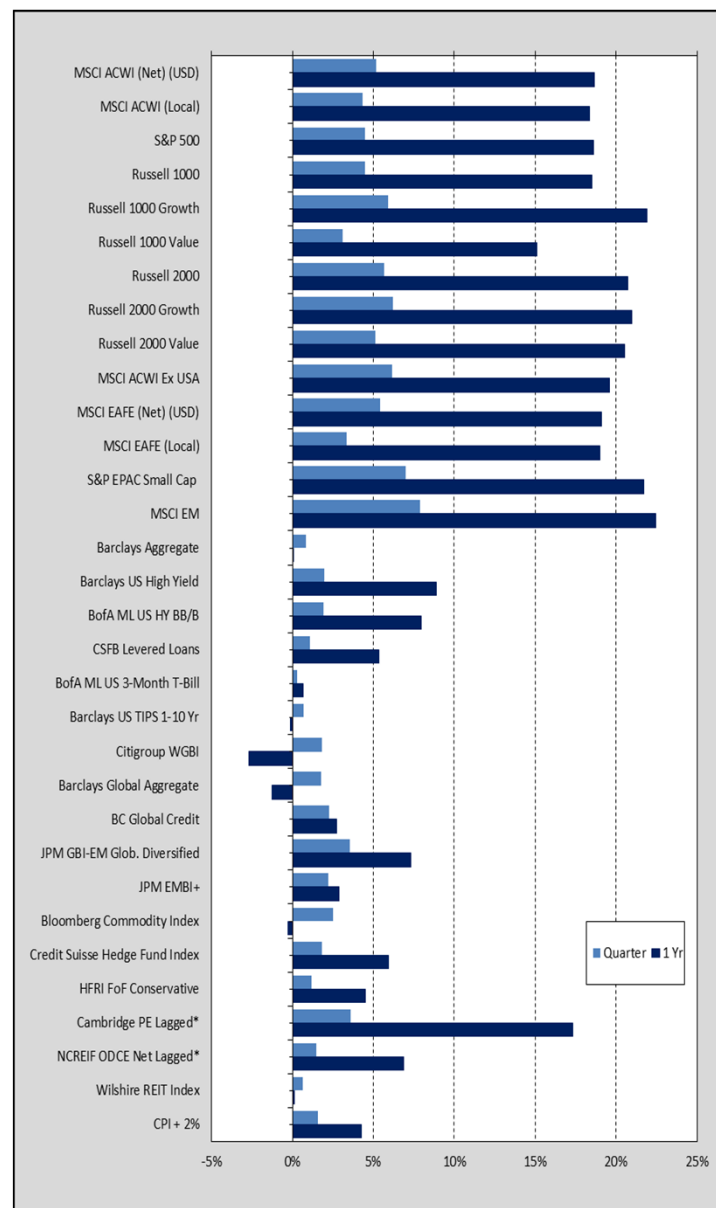


Economic Environment

- **Third quarter GDP growth rate (advance estimate) is estimated at 3.0%.**
 - Retail sales ended September at +4.7% on a YoY basis. In the same period last year the YoY growth rate was 2.6%.
 - Corporate profits (ended April) as a percent of GDP decreased slightly to 9.2% from 9.5% (in January) and remain elevated relative to historical levels.
 - The inventory-to-sales ratio ended August flat at 1.4 and has remained relatively flat since early 2010.
 - The U.S. trade deficit declined by 2.6% ended August as exports increased to a level last seen two and half years ago and imports decreased slightly.
- **The unemployment rate decreased to 4.2% from 4.4% in Q3; U-6, a broader measure of unemployment, decreased to 8.3% from 8.6% during the third quarter.**
- **The Case-Shiller Home Price Index (ended July) increased to 194.1 from 192.7 in June and is at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI saw an up-tick to 2.2% at the end of September from 1.6% at the end of June; Capacity Utilization marginally decreased to 76.0% in Q3 from 76.6% in Q2.**
- **Fed Funds rate was unchanged at a targeted range of 1.0% - to – 1.25%. The 10-year Treasury Yield (constant maturity) finished Q3 at 2.2% flat from Q2.**
- **The Fed balance sheet decreased slightly during Q3 2017, 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 €60 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 (30.2x) is above the long-term average of 16.8x and above the 10-year average of 23.1x.

Market Environment – Q3 2017 Overview

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI (Net) (USD)	World	5.2%	18.6%	7.4%	10.2%	3.9%
MSCI ACWI (Local)	World (Local Currency)	4.3%	18.3%	8.8%	12.2%	4.6%
Domestic Equity Benchmarks						
S&P 500	Large Core	4.5%	18.6%	10.8%	14.2%	7.4%
Russell 1000	Large Core	4.5%	18.5%	10.6%	14.3%	7.5%
Russell 1000 Growth	Large Growth	5.9%	21.9%	12.7%	15.3%	9.1%
Russell 1000 Value	Large Value	3.1%	15.1%	8.5%	13.2%	5.9%
Russell 2000	Small Core	5.7%	20.7%	12.2%	13.8%	7.8%
Russell 2000 Growth	Small Growth	6.2%	21.0%	12.2%	14.3%	8.5%
Russell 2000 Value	Small Value	5.1%	20.5%	12.1%	13.3%	7.1%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	6.2%	19.6%	4.7%	7.0%	1.3%
MSCI EAFE (Net) (USD)	Int'l Developed	5.4%	19.1%	5.0%	8.4%	1.3%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	3.4%	19.0%	7.9%	12.3%	2.6%
S&P EPAC Small Cap	Small Cap Int'l	7.0%	21.7%	11.1%	13.0%	4.4%
MSCI EM	Emerging Equity	7.9%	22.5%	4.9%	4.0%	1.3%
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	0.8%	0.1%	2.7%	2.1%	4.3%
Barclays US High Yield	High Yield	2.0%	8.9%	5.8%	6.4%	7.8%
BofA ML US HY BB/B	High Yield	1.9%	8.0%	5.8%	6.1%	7.2%
CSFB Levered Loans	Bank Loans	1.1%	5.4%	4.0%	4.4%	4.4%
BofA ML US 3-Month T-Bill	Cash	0.3%	0.7%	0.3%	0.2%	0.5%
Barclays US TIPS 1-10 Yr	Inflation	0.7%	-0.1%	1.3%	0.1%	3.3%
Global Fixed Income Benchmarks						
Citigroup WGBI	World Gov. Bonds	1.8%	-2.7%	0.9%	-0.4%	3.0%
Barclays Global Aggregate	Global Core Bonds	1.8%	-1.3%	1.3%	0.5%	3.3%
BC Global Credit	Global Bonds	2.3%	2.7%	2.4%	2.4%	4.1%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	3.6%	7.3%	0.3%	-0.9%	3.8%
JPM EMBI+	Em. Mkt. Bonds	2.2%	2.9%	6.3%	4.0%	7.1%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	2.5%	-0.3%	-10.4%	-10.5%	-6.8%
Credit Suisse Hedge Fund Index	Hedge Fund	1.8%	5.9%	2.0%	4.2%	3.3%
HFRI FoF Conservative	Fund of Hedge Funds	1.2%	4.5%	1.8%	3.5%	1.0%
Cambridge PE Lagged*	Private Equity	3.6%	17.3%	9.7%	13.5%	9.3%
NCREIF ODCE Net Lagged*	Real Estate	1.5%	6.9%	10.3%	10.8%	4.3%
Wilshire REIT Index	REIT	0.6%	0.1%	9.7%	9.5%	5.6%
CPI + 2%	Inflation/Real Assets	1.6%	4.3%	3.2%	3.3%	3.7%



* As of 6/30/2017

Global Equity

- **U.S. equities as measured by the S&P 500 posted moderate gains in the third quarter (+4.5%).**
- **Small cap stocks outperformed large cap stocks during the quarter, with the Russell 2000 Index returning 5.7% and the Russell 1000 Index returning 4.5%.**
- **International equities outperformed U.S. markets during the quarter, returning 6.2%, as measured by the MSCI ACWI ex-U.S. Index. Emerging markets returned 7.9% as measured by the MSCI Emerging Markets Index in U.S. dollar terms.**
 - Developed international markets returned 5.4% in USD terms, while in local currency terms returned 3.4% as measured by the MSCI EAFE Index.

Private Equity

- **Capital commitment momentum slowed slightly in Q3 2017.**
- **Private equity fundraising totaled \$150 billion in Q3 2017.**
 - North America focused private equity funds raised \$64 billion.
 - Asia focused private equity funds raised \$9 billion.
 - Europe focused private equity raised \$20 billion.
- **Private equity dry powder continued its increase to record levels and stands at \$942 billion ended Q3 up from approximately \$906 billion ended Q2.**

Fixed Income

- **The nominal yield curve continued to flatten in Q3. Intermediate –to- long term yields increased 2 –to- 3 basis points across five to 30 year treasury bonds while short term yields increased 12 basis points for the 3 month and 7 basis points in the one year.**
- **The spread between two and 10 year rates decreased to 86 basis points from 93 basis points in Q3.**
- **Treasury Inflation-Protected Securities, or TIPS, returned 0.7% during the quarter, as measured by the BBg Barclays US TIPS 1-10 Yr Index.**
- **The BBg Barclays Long Duration Credit Index gained 0.6%.**
- **Long Treasuries gained 0.6% and investment-grade US corporate debt gained 0.8%.**
- **The BBg Barclays 1-3 year US Government/ Credit Index returned 0.3%. US high yield bonds gained 2.0% driven by tighter spreads.**
- **Emerging markets debt had modest gains.**
 - US dollar-denominated debt, as measured by the JP Morgan EMBI Index, gained 2.2%; local currency debt gained 3.6%, according to the JP Morgan GBI-EM BD Index.

Real Assets/Inflation-Linked Assets

- **Energy remains attractive despite volatile oil prices.**
 - Private equity and debt opportunities are attractive.
 - Fire sale prices never materialized but focusing on assets outside of the hottest zip codes provides potential for strong returns as market normalizes.
- **Infrastructure – select opportunities to access growth markets.**
 - High quality assets are receiving premium bids from direct investors (Pension Funds and Sovereigns) with low costs of capital and long hold horizons; focus on mismanaged or niche opportunities.
- **Metals & Mining – have commodity prices bottomed?**
 - Peak capex occurred in 2012, lagging commodity price drops that began in 2011.
 - Diverse demand drivers for underlying commodity prices.
- **Timber – low return potential and limited opportunity for outperformance.**
- **Agriculture – near-term slowdown in price appreciation creates opportunity to invest in a strong (very) long term outlook supported by demographic trends.**

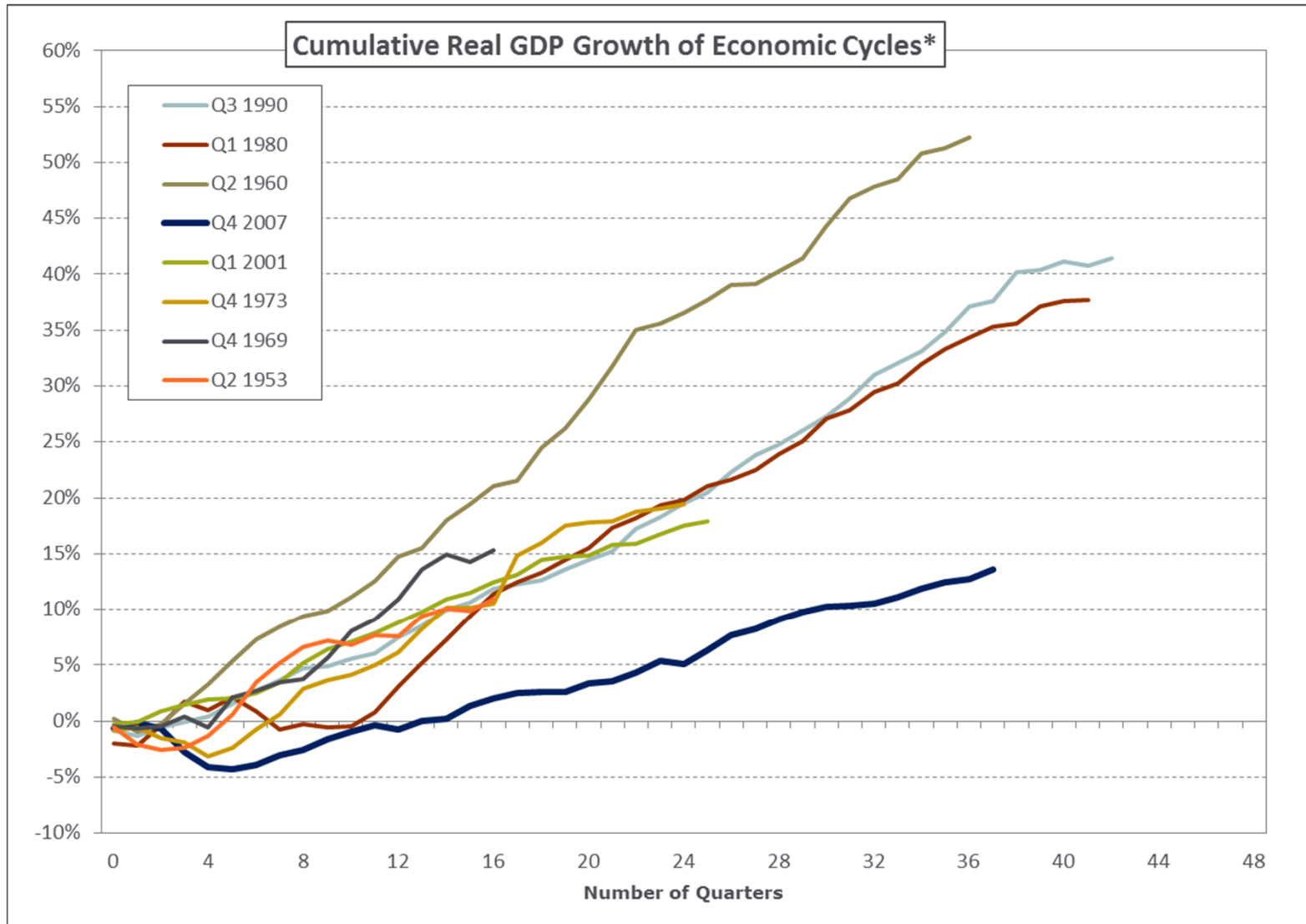
Commodities

- **Commodities gained 2.5% as measured by the Bloomberg Commodity Index.**
 - Energy led gains in commodities with heating oil and crude oil posting strong gains.

Real Estate

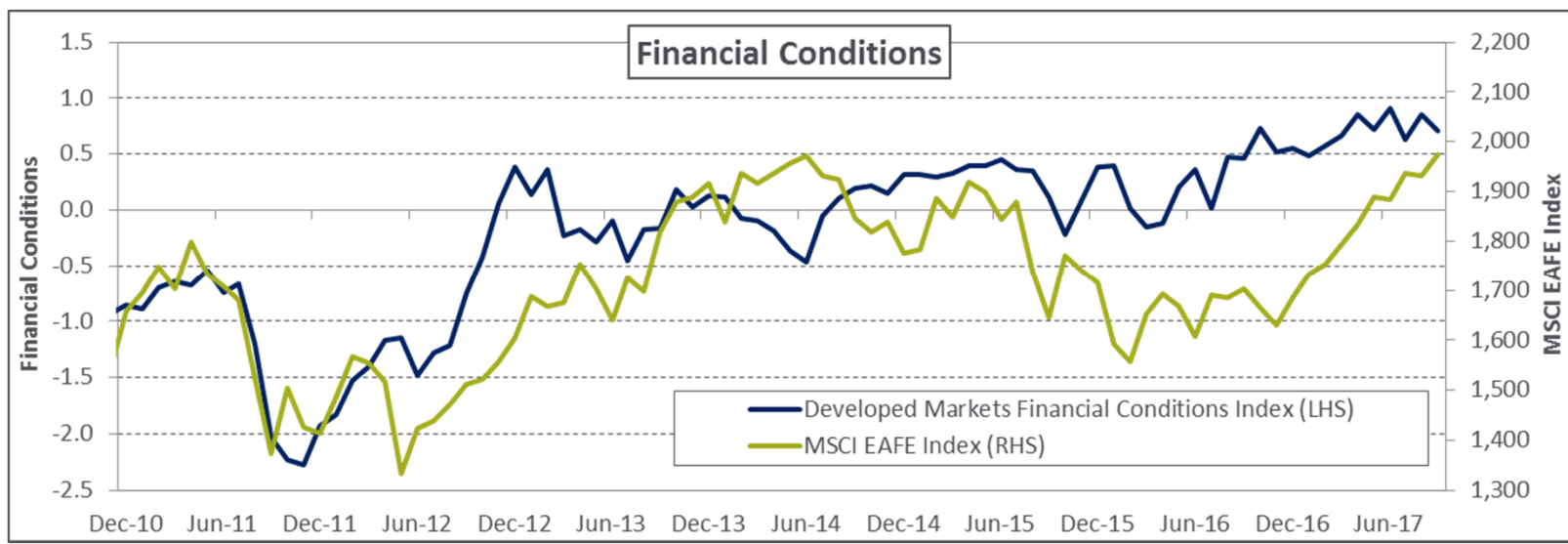
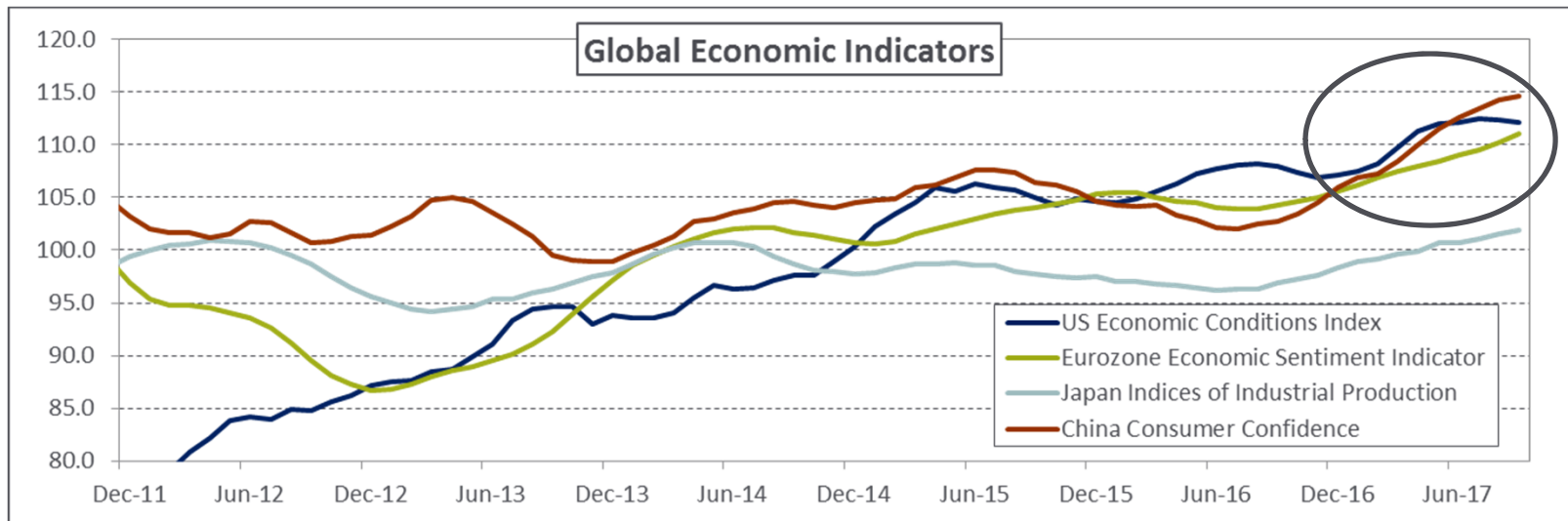
- **NEPC continues to be neutral on core real estate in the US and remains positive on non-core real estate, that is, value-add and opportunistic strategies.**
- **Real estate fundamentals (rent growth, occupancy, net absorption) remain strong; however, valuations are high on an absolute and relative basis.**
 - Rising interest rates have been baked into existing valuations but excess cap rate expansion (beyond general expectations) will reset valuations.
- **Overall, the non-core real estate investment environment in the U.S. is normalizing; however, select areas remain attractive.**
- **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 and broader European political instability, however, are unclear.

A Prolonged US Economic Expansion Can Support An Extended Rally For Risk Assets



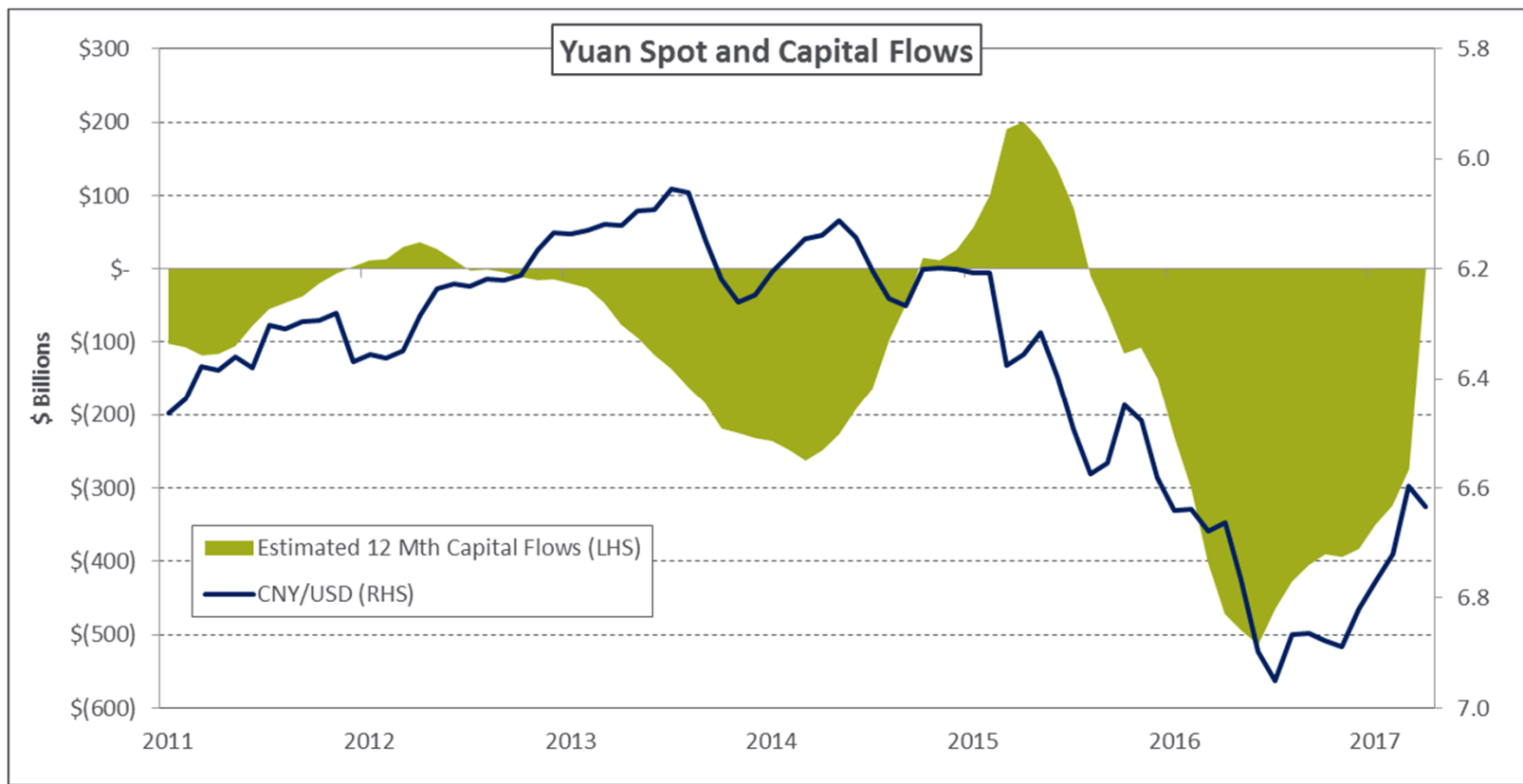
Source: Federal Reserve Bank of St. Louis
 *Cumulative Real GDP growth from recession start

Synchronized Global Growth Conditions Supported Equities Globally In 2017



Source: Bloomberg, Morgan Stanley

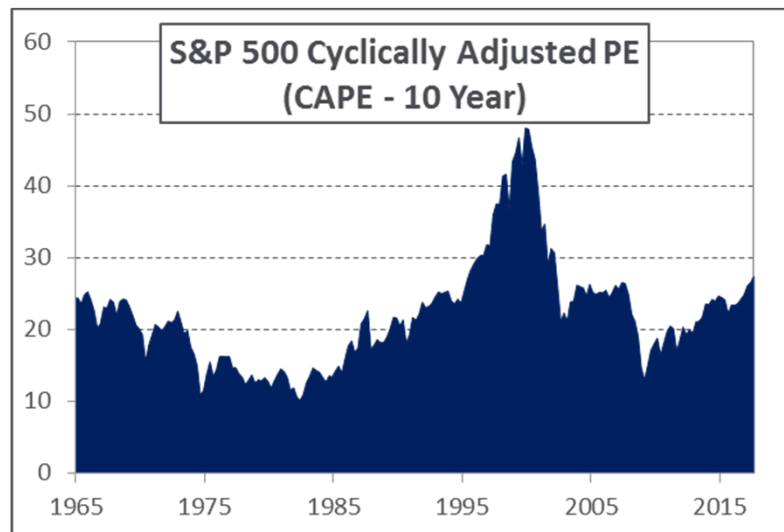
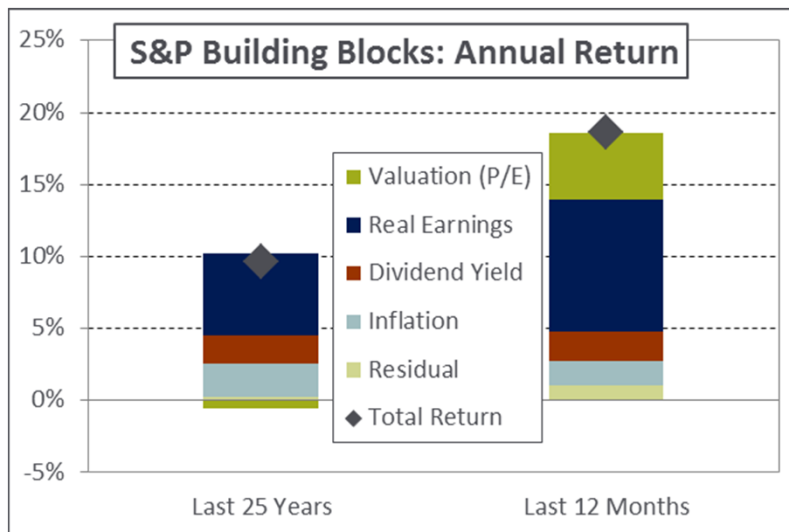
China Transitions – Stable Currency Management Benefits Emerging Markets



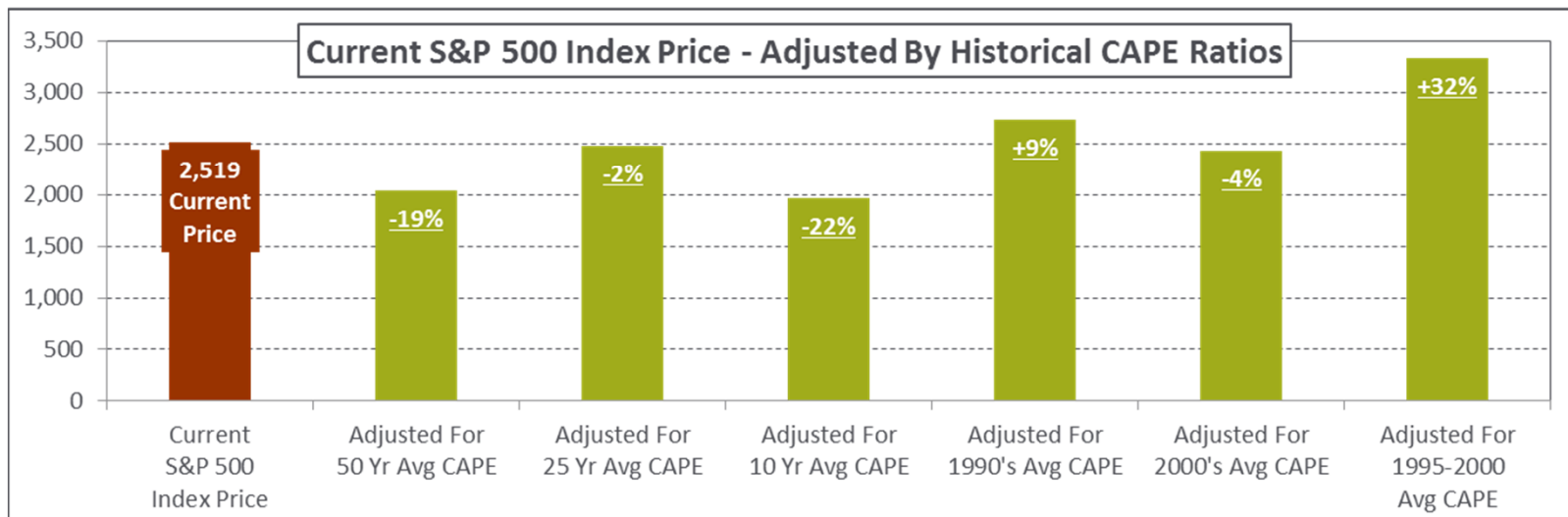
Source: Bloomberg

- **Markets have responded positively to the PBOC’s management of a more stable yuan as capital outflow pressure has eased**
- **Currency devaluation remains a tail risk as continued credit expansion and real estate development risk inflating asset price bubbles**

Expanding US Valuations Have Supported S&P 500 Returns But Could Still Run Further



Source Top/Bottom: Bloomberg, NEPC



Holding the current earnings profile constant, what would the S&P 500 trade at under past CAPE ratios. While the S&P 500 is overvalued, it is not at extreme valuations and is supported by low inflation/interest rates

Oklahoma State Pension Commission

Asset Allocation Summary

Key Policy Items	Teachers ^	TRS 9/30/16	PERS*	PERS 9/30/16	Firefighters	FTRS 9/30/16	Police **	POLICE 9/30/16	
TOTAL EQUITY	Target	57.5%	57.5%	68.0%	68.0%	57.0%	57.0%	50.0%	50.0%
	Actual	58.3%	56.9%	69.1%	67.9%	65.8%	63.1%	53.8%	53.3%
	Range	37.5-73.5	37.5-73.5	59.2-76.8	59.2-76.8	42-62	42-62	25-80	25-80
<i>Large Cap</i>	Target	17.0%	17.0%	34.0%	38.0%	29.4%	29.4%	15.0%	15.0%
	Actual	15.3%	15.2%	34.1%	38.4%	34.7%	34.6%	17.0%	17.8%
	Range	12-23	12-23	31.2-36.8	35-41	24.4-34.4	24.4-34.4	10-20	10-20
<i>MidCap</i>	Target	13.0%	13.0%	-	-	-	-	-	-
	Actual	13.5%	14.3%	-	-	-	-	-	-
	Range	8-18	8-18	-	-	-	-	-	-
<i>Small Cap</i>	Target	10.0%	10.0%	6.0%	6.0%	12.6%	12.6%	5.0%	5.0%
	Actual	10.2%	11.3%	6.8%	6.8%	16.4%	14.7%	7.2%	7.5%
	Range	5-15	5-15	3.2-8.8	3.2-8.8	7.6-17.6	7.6-17.6	0-15	0-15
<i>International / Equity</i>	Target	17.5%	17.5%	28.0%	24.0%	15.0%	15.0%	15.0%	15.0%
	Actual	19.3%	16.1%	28.2%	22.7%	14.6%	13.6%	15.4%	14.2%
	Range	12.5-22.5	12.5-22.5	25-31	21-27	10-20	5-15	5-25	5-25
<i>Long/Short Equity</i>	Target	-	-	-	-	-	-	15.0%	15.0%
	Actual	-	-	-	-	0.1%	-	14.2%	13.8%
	Range	-	-	-	-	-	-	10-20	10-20
TOTAL FIXED INCOME	Target	23.5%	23.5%	32.0%	32.0%	20.0%	20.0%	15.0%	15.0%
	Actual	21.9%	22.3%	30.6%	31.7%	15.1%	16.5%	16.0%	16.9%
	Range	18.5-28.5	18.5-28.5	27.5-36.5	27.5-36.5	10-30	10-30	10-20	10-20
<i>Dom. Fixed Income/High Yield</i>	Target	23.5%	23.5%	32.0%	32.0%	13.0%	13.0%	-	-
	Actual	21.9%	31.7%	30.6%	31.7%	8.9%	10.0%	-	-
	Range	18.5-28.5	18.5-28.5	27.5-36.5	27.5-36.5	0-28	0-28	-	-
<i>Int'l & Global Fixed Income</i>	Target	-	-	-	-	7.0%	7.0%	15.0%	15.0%
	Actual	-	-	-	-	6.2%	6.5%	16.0%	16.9%
	Range	-	-	-	-	2-12	2-12	10-20	10-20
TOTAL ALTERNATIVES	Target	19.0%	19%	0%	0%	23.0%	23%	35.0%	35.0%
	Actual	19.7%	20.8%	0.1%	0.1%	18.8%	19.9%	27.9%	27.7%
	Range	17.1-20.9	17.1-20.9	0-5	0-5	5-40	5-40	10-60	10-60
<i>Low Volatility Hedge Funds</i>	Target	-	-	-	-	5.0%	5.0%	10.0%	10.0%
	Actual	-	-	-	-	3.4%	4.8%	7.7%	7.2%
	Range	-	-	-	-	0-10	0-10	5-15	5-15
<i>Private Equity /MLP's</i>	Target	12.0%	12.0%	-	-	8.0%	8.0%	10.0%	10.0%
	Actual	12.6%	13.7%	-	-	2.3%	2.2%	8.2%	7.9%
	Range	7-17	7-17	-	-	0-15	0-15	5-15	5-15
<i>Real Estate/Real Assets</i>	Target	7.0%	7%	0%	0%	10.0%	10%	15.0%	15.0%
	Actual	7.1%	7.1%	0.1%	0.1%	13.1%	12.9%	12.0%	12.6%
	Range	2-12	2-12	0-5	0-5	5-15	5-15	0-30	0-30
CASH	Actual	0.0%	0.1%	0.2%	0.2%	0.2%	0.5%	2.4%	2.1%
Actuarial Assumed Rates		7.5%		7.25%		7.5%		7.5%	

Out of Range

^Master Limited Partnerships included in Private Equity allocation.
 *The Russell 3000 index was broken down into Large Cap & Small Cap allocations for the PERS retirement plan
 **Real Assets are included in Real Estate
 Please note that allocations may not add to 100% due to rounding.

Asset Allocation Summary

Key Policy Items		Law	Law 9/30/16	Judges	Judges 9/30/16	Wildlife	Wildlife 9/30/16
TOTAL EQUITY	Target	55.0%	55.0%	68.0%	68.0%	50.0%	50.0%
	Actual	59.8%	56.4%	69.6%	67.4%	50.9%	58.8%
	Range	55-65	55-65	59.2-76.8	59.2-76.8	40-65	40-65
Large Cap	Target	20.0%	20.0%	34.0%	38.0%	50.0%	50.0%
	Actual	29.0%	28.9%	34.6%	38.5%	38.4%	42.0%
	Range	15-25	15-25	31.2-36.8	35-41	40-65	40-65
MidCap	Target	-	-	-	-	0.0%	0.0%
	Actual	-	-	-	-	4.7%	5.9%
	Range	-	-	-	-	0-10	0-10
Small Cap	Target	10.0%	10.0%	6.0%	6.0%	0.0%	0.0%
	Actual	6.2%	6.5%	6.5%	6.5%	1.5%	3.2%
	Range	5-15	5-15	3.2-8.8	3.2-8.8	0-10	0-10
International / Equity	Target	15.0%	15.0%	28.0%	24.0%	0.0%	0.0%
	Actual	14.3%	10.4%	28.5%	22.4%	6.4%	7.7%
	Range	5-15	5-15	25-31	21-27	0-15	0-15
Long/Short Equity	Target	10.0%	10.0%	-	-	-	-
	Actual	10.3%	10.6%	-	-	-	-
	Range	5-15	5-15	-	-	-	-
TOTAL FIXED INCOME	Target	30.0%	30.0%	32.0%	32.0%	40.0%	40.0%
	Actual	27.2%	29.7%	30.3%	32.3%	43.4%	36.9%
	Range	25-35	25-35	27.5-36.5	27.5-36.5	35-55	35-55
Dom. Fixed Income/High Yield	Target	20.0%	20.0%	32.0%	32.0%	40.0%	40.0%
	Actual	19.2%	20.6%	30.3%	32.3%	43.4%	36.9%
	Range	15-25	15-25	27.5-36.5	27.5-36.5	35-55	35-55
Int'l & Global Fixed Income	Target	10.0%	10.0%	-	-	-	-
	Actual	8.0%	9.1%	-	-	-	-
	Range	5-15	5-15	-	-	-	-
TOTAL ALTERNATIVES	Target	15.0%	15.0%	-	-	10.0%	0.1
	Actual	12.8%	13.6%	-	-	3.2%	2.4%
	Range	5-15	5-15	-	-	0-10	0-10
Low Volatility Hedge Funds	Target	-	-	-	-	-	-
	Actual	-	-	-	-	-	-
	Range	-	-	-	-	-	-
Private Equity/MLP's	Target	5.0%	5.0%	-	-	-	-
	Actual	2.7%	2.7%	-	-	-	-
	Range	0-5	0-5	-	-	-	-
Real Estate/Real Assets	Target	10.0%	0.10	-	-	-	-
	Actual	10.1%	10.9%	-	-	-	-
	Range	2-12	2-12	-	-	-	-
CASH	Actual	0.1%	0.1%	0.2%	0.3%	2.5%	1.8%
Actuarial Assumed Rates		7.5%		7.25%		7.0%	

^Master Limited Partnerships included in Private Equity allocation.

*The Russell 3000 index was broken down into Large Cap & Small Cap allocations for the PERS retirement plan

**Real Assets are included in Real Estate

Please note that allocations may not add to 100% due to rounding.

Out of
Range

Performance Attribution

Teachers Attribution Analysis	Last 3 Mo.	YTD	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	3.8%	11.6%	13.9%	6.8%	10.4%
Wtd. Index Return *	3.2%	10.9%	12.0%	7.5%	9.5%
Excess Return	0.6%	0.7%	1.9%	-0.7%	0.9%
Selection Effect	0.4%	0.3%	1.1%	-0.3%	0.8%
Allocation Effect	0.1%	0.7%	1.1%	0.4%	0.5%
Interaction Effect	0.0%	-0.3%	-0.4%	-0.5%	-0.3%

PERS Attribution Analysis	Last 3 Mo.	YTD	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	3.9%	12.3%	12.8%	7.1%	8.8%
Wtd. Index Return *	3.8%	12.0%	12.8%	6.9%	8.4%
Excess Return	0.0%	0.3%	0.0%	0.2%	0.4%
Selection Effect	0.0%	0.3%	-0.1%	0.2%	0.3%
Allocation Effect	0.0%	0.0%	0.1%	0.0%	0.2%
Interaction Effect	0.0%	0.0%	0.0%	0.0%	0.0%

Firefighters Attribution Analysis	Last 3 Mo.	YTD	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	4.0%	13.8%	14.6%	8.7%	10.3%
Wtd. Index Return *	3.5%	10.9%	13.0%	7.8%	10.1%
Excess Return	0.5%	2.9%	1.6%	0.8%	0.3%
Selection Effect	0.5%	2.9%	1.6%	0.8%	0.3%
Allocation Effect	0.0%	0.0%	0.0%	0.0%	0.0%
Interaction Effect	0.0%	0.0%	0.0%	0.0%	0.0%

Police Attribution Analysis	Last 3 Mo.	YTD	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	3.0%	9.7%	11.0%	6.3%	8.1%
Wtd. Index Return *	2.8%	9.7%	11.0%	6.6%	8.5%
Excess Return	0.2%	-0.1%	0.0%	-0.3%	-0.4%
Selection Effect	0.1%	-0.2%	-0.3%	-0.4%	-0.3%
Allocation Effect	0.2%	0.5%	0.5%	0.1%	0.2%
Interaction Effect	0.0%	0.1%	0.3%	0.4%	0.1%

Oklahoma State Pension Commission

Total Fund Attribution Analysis

Law Attribution Analysis	Last 3 Mo.	YTD	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	3.7%	10.9%	13.1%	6.5%	8.4%
Wtd. Index Return *	3.2%	10.4%	11.0%	6.8%	8.3%
Excess Return	0.4%	0.6%	2.1%	-0.3%	0.1%
Selection Effect	0.3%	0.3%	1.5%	-0.5%	-0.2%
Allocation Effect	0.1%	0.1%	0.2%	0.1%	0.2%
Interaction Effect	0.1%	0.2%	0.4%	0.1%	0.1%

Judges Attribution Analysis	Last 3 Mo.	YTD	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	3.9%	12.2%	12.7%	7.1%	8.6%
Wtd. Index Return *	3.8%	12.2%	12.7%	6.9%	8.4%
Excess Return	0.1%	0.0%	0.0%	0.2%	0.3%
Selection Effect	0.1%	0.0%	0.0%	0.2%	0.2%
Allocation Effect	0.0%	0.0%	0.1%	-0.1%	0.2%
Interaction Effect	0.0%	0.0%	0.0%	0.0%	0.0%

Wildlife Attribution Analysis	Last 3 Mo.	YTD	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	2.9%	10.3%	10.9%	6.7%	8.1%
Wtd. Index Return *	2.8%	8.8%	9.7%	6.7%	8.3%
Excess Return	0.1%	1.5%	1.3%	0.0%	-0.2%
Selection Effect	0.2%	2.3%	0.4%	-1.3%	-1.6%
Allocation Effect	0.3%	1.1%	1.5%	0.7%	0.4%
Interaction Effect	-0.5%	-2.0%	-0.7%	0.6%	0.9%

OKLAHOMA STATE PENSION COMMISSION

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Oklahoma State Pension Commission	31,732,683,345	100.0	3.7	25	11.9	34	13.4	20	7.2	35	9.7	11	6.4	12
S&P 500			4.5	3	14.2	2	18.6	1	10.8	1	14.2	1	7.4	1
BBgBarc US Aggregate TR			0.8	99	3.1	99	0.1	99	2.7	99	2.1	99	4.3	92
60% S&P 500 / 40% BBgBarc Aggregate			3.0	78	9.7	85	10.9	73	7.7	18	9.3	22	6.5	10
MSCI EAFE			5.4	1	20.0	1	19.1	1	5.0	97	8.4	54	1.3	99
Teachers	15,820,583,998	49.9	3.7	25	11.7	38	14.0	12	7.2	36	10.6	2	7.1	2
TEACHERS Allocation Index			3.1	71	9.9	78	12.3	48	7.4	27	9.8	10	6.3	12
TEACHERS Policy Index			3.2	62	10.2	74	11.9	56	6.6	61	8.9	39	5.8	38
PERS	9,498,693,983	29.9	3.9	17	12.3	20	12.8	33	7.1	38	8.8	40	6.0	24
PERS Allocation Index			3.9	19	11.9	32	12.7	37	7.1	38	8.6	45	5.8	32
PERS Policy Index			3.9	17	12.3	21	12.8	34	7.2	36	8.5	49	5.7	44
Firefighters	2,565,860,049	8.1	4.0	12	13.7	4	14.5	7	8.7	3	10.4	3	6.0	25
FIREFIGHTERS Allocation Index			3.7	27	11.0	54	13.3	23	7.8	13	9.7	12	5.8	34
FIREFIGHTERS Policy Index			3.4	47	11.8	35	13.8	14	8.4	4	10.2	4	6.6	8
Police	2,443,294,424	7.7	3.0	77	9.7	85	10.9	73	6.4	69	8.1	61	5.1	70
POLICE Allocation Index			3.0	79	9.5	88	10.5	81	5.5	92	7.4	82	4.8	79
POLICE Policy Index			3.6	35	11.2	49	11.5	63	5.3	93	7.4	81	5.0	75
Law	962,691,977	3.0	3.7	29	10.9	55	13.1	26	6.5	65	8.4	53	5.4	57
LAW Allocation Index			3.5	41	10.5	65	11.7	59	7.1	38	8.4	54	5.6	50
LAW Policy Index			3.4	54	9.8	83	11.7	59	7.5	23	9.0	35	5.8	34
Judges	330,583,448	1.0	3.9	15	12.2	22	12.8	36	7.1	40	8.6	43	5.9	28
JUDGES Allocation Index			3.9	18	12.0	29	12.6	38	6.9	48	8.4	52	5.6	45
JUDGES Policy Index			3.9	17	12.3	21	12.8	34	7.2	36	8.6	48	5.7	44
Wildlife	110,975,467	0.3	2.6	94	10.0	77	10.6	79	6.6	62	8.0	63	5.0	76
WILDLIFE Allocation Index			3.4	53	10.4	69	11.4	64	7.1	38	8.1	62	5.6	48
WILDLIFE Policy Index			2.8	91	8.8	93	9.7	93	6.7	56	8.3	56	6.2	17
InvestorForce Public DB Gross Median			3.4		11.1		12.2		6.9		8.5		5.6	

Returns are gross of manager fees.

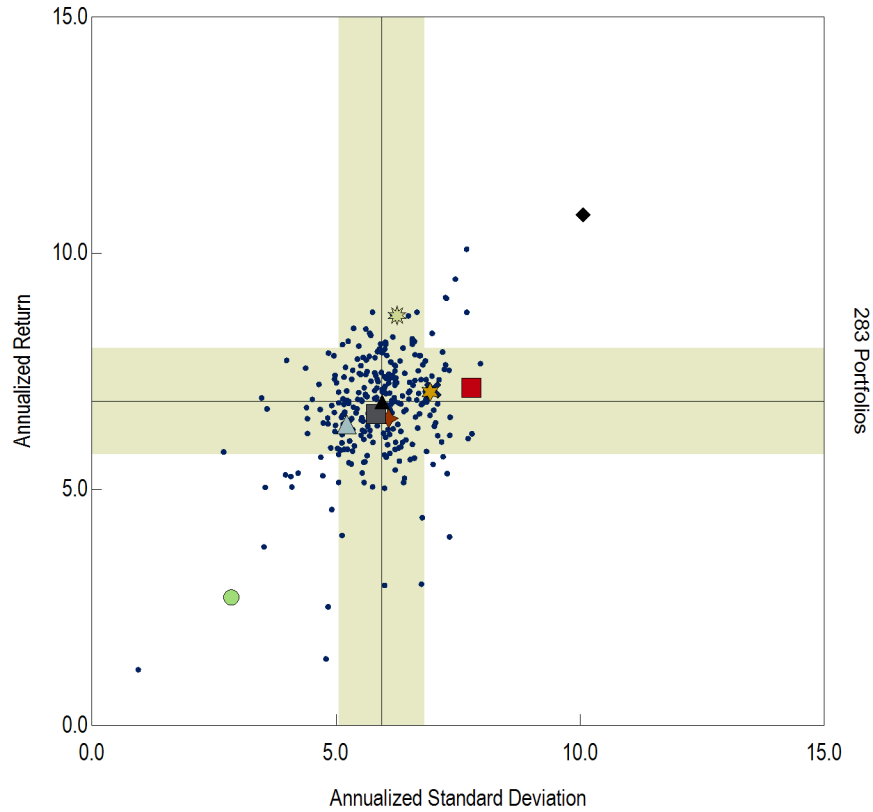
OKLAHOMA STATE PENSION COMMISSION

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	2016 (%)	Rank	2015 (%)	Rank	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank
Oklahoma State Pension Commission	31,732,683,345	100.0	9.5	5	-1.5	83	7.5	12	20.4	7	13.7	19
S&P 500			12.0	1	1.4	11	13.7	1	32.4	1	16.0	1
BBgBarc US Aggregate TR			2.6	99	0.5	35	6.0	45	-2.0	99	4.2	99
60% S&P 500 / 40% BBgBarc Aggregate			8.3	27	1.3	13	10.6	1	17.6	30	11.3	71
MSCI EAFE			1.0	99	-0.8	75	-4.9	99	22.8	1	17.3	1
Teachers	15,820,583,998	49.9	11.4	1	-2.9	98	8.1	4	24.0	1	14.7	4
TEACHERS Allocation Index			11.0	1	-2.0	89	8.2	4	21.2	3	12.4	49
TEACHERS Policy Index			10.6	1	-2.5	95	6.7	28	18.7	20	12.9	38
PERS	9,498,693,983	29.9	7.7	52	-0.8	74	7.4	15	16.6	40	12.9	38
PERS Allocation Index			8.1	34	-0.9	77	7.0	21	15.9	48	12.2	53
PERS Policy Index			8.1	34	-0.9	76	7.0	21	15.3	53	12.5	49
Firefighters	2,565,860,049	8.1	7.3	61	2.1	6	6.9	24	21.1	3	12.6	46
FIREFIGHTERS Allocation Index			9.4	5	0.5	35	6.1	40	21.5	3	12.3	52
FIREFIGHTERS Policy Index			8.7	15	1.6	10	8.7	3	19.8	12	12.6	45
Police	2,443,294,424	7.7	7.5	57	1.0	21	5.1	68	16.1	46	12.1	54
POLICE Allocation Index			6.7	80	-0.4	63	5.0	70	14.8	59	13.5	25
POLICE Policy Index			7.1	70	-1.9	89	4.5	79	14.8	59	14.3	8
Law	962,691,977	3.0	7.2	66	-0.4	65	6.8	28	16.8	38	11.6	66
LAW Allocation Index			8.3	29	0.3	42	7.1	20	14.6	62	12.1	55
LAW Policy Index			8.6	18	1.0	22	7.0	21	17.5	31	11.6	69
Judges	330,583,448	1.0	8.1	36	-1.1	79	7.0	22	16.0	47	12.9	39
JUDGES Allocation Index			7.9	44	-1.2	81	6.7	29	15.9	48	12.1	54
JUDGES Policy Index			8.1	34	-0.9	76	7.0	21	15.3	53	12.5	47
Wildlife	110,975,467	0.3	6.6	82	0.1	49	7.9	7	15.5	50	9.1	92
WILDLIFE Allocation Index			8.0	37	-0.3	61	7.7	10	14.4	64	9.8	83
WILDLIFE Policy Index			7.2	67	1.0	22	9.5	1	15.4	51	10.3	80
InvestorForce Public DB Gross Median			7.7		0.1		5.8		15.5		12.4	

Returns are gross of manager fees.

3 Years Ending September 30, 2017



- Teachers
- ✱ PERS
- ✱ Firefighters
- ▲ Police
- ◆ Law
- ✱ Judges
- Wildlife
- ◆ S&P 500
- BBgBarc US Aggregate TR
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

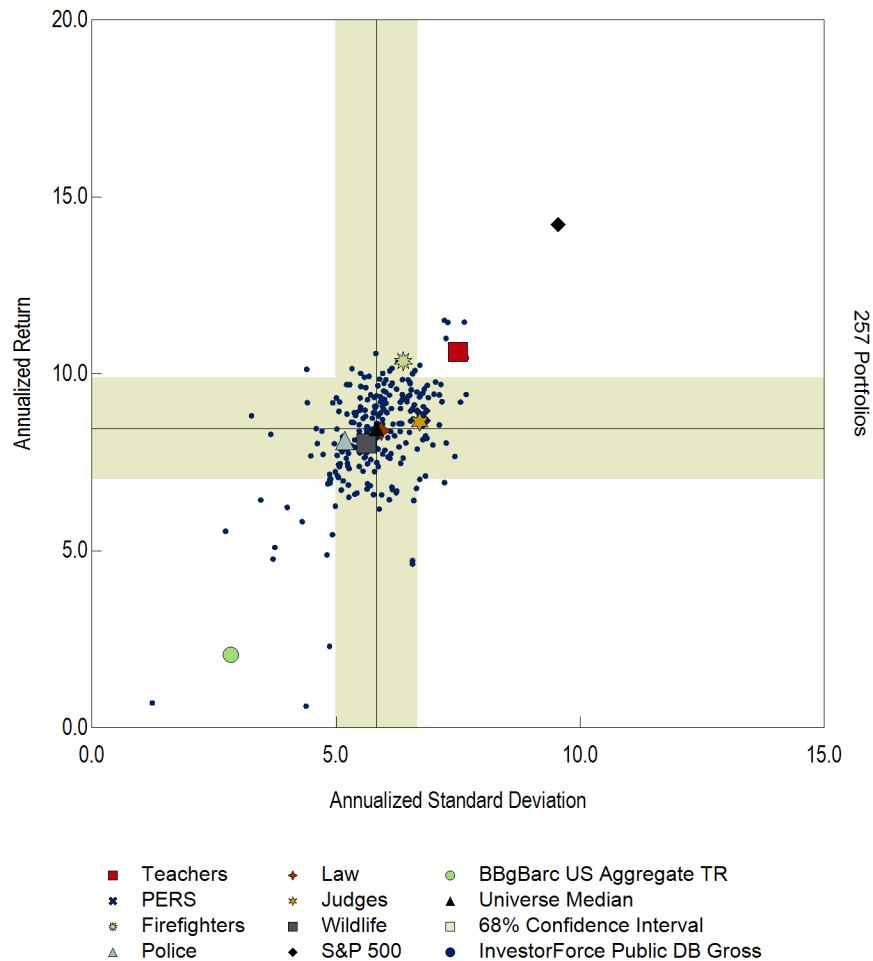
3 Years Ending September 30, 2017

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Oklahoma State Pension Commission	7.18%	35	7.06%	93
Teachers	7.15%	36	7.78%	99
PERS	7.11%	38	6.98%	92
Firefighters	8.68%	3	6.25%	70
Police	6.38%	69	5.22%	20
Law	6.50%	65	6.08%	61
Judges	7.06%	40	6.93%	91
Wildlife	6.59%	62	5.82%	45

3 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
Oklahoma State Pension Commission	0.97	79	1.35	84
Teachers	0.88	90	1.18	94
PERS	0.97	79	1.40	78
Firefighters	1.34	11	1.86	24
Police	1.16	40	1.78	33
Law	1.02	71	1.49	67
Judges	0.97	79	1.42	75
Wildlife	1.08	57	1.51	65

5 Years Ending September 30, 2017



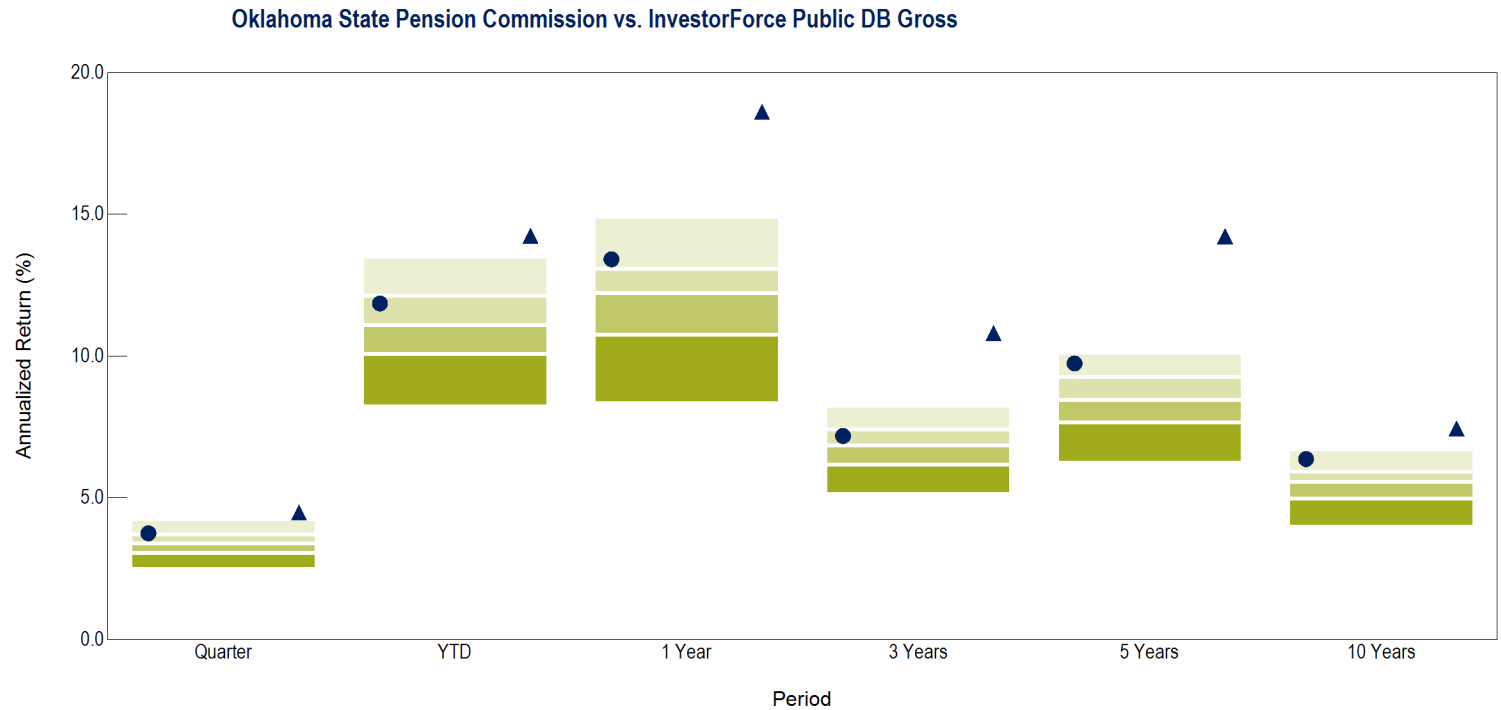
5 Years Ending September 30, 2017

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Oklahoma State Pension Commission	9.74%	11	6.87%	93
Teachers	10.62%	2	7.50%	99
PERS	8.81%	40	6.76%	90
Firefighters	10.36%	3	6.38%	77
Police	8.12%	61	5.18%	20
Law	8.40%	53	5.93%	58
Judges	8.64%	43	6.72%	89
Wildlife	8.04%	63	5.63%	39

5 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
Oklahoma State Pension Commission	1.39	58	2.22	65
Teachers	1.39	58	2.12	74
PERS	1.27	78	2.07	78
Firefighters	1.59	17	2.74	20
Police	1.53	25	2.67	24
Law	1.38	59	2.29	60
Judges	1.26	81	2.09	77
Wildlife	1.39	57	2.32	56

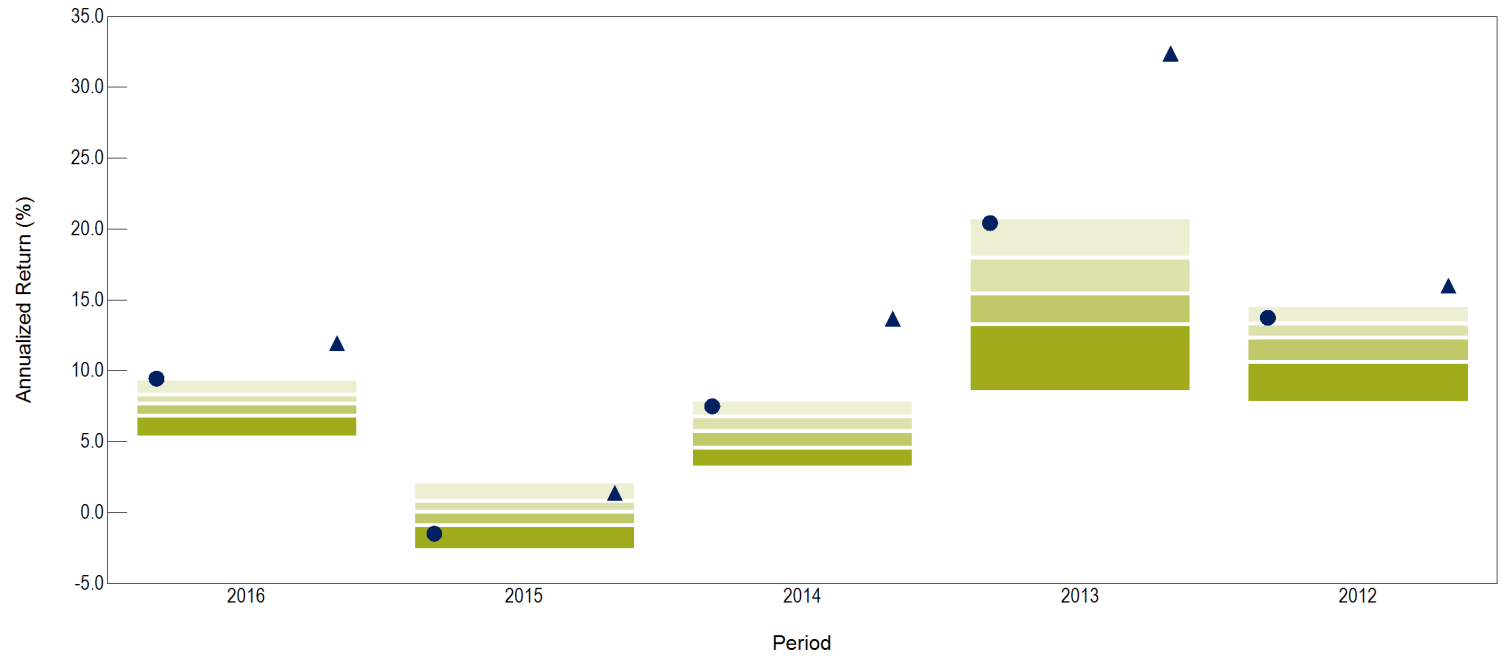
Total Fund Return Summary vs. Peer Universe



	Return (Rank)											
5th Percentile	4.2		13.5		14.9		8.2		10.1		6.7	
25th Percentile	3.7		12.1		13.1		7.4		9.3		5.9	
Median	3.4		11.1		12.2		6.9		8.5		5.6	
75th Percentile	3.1		10.1		10.8		6.2		7.7		5.0	
95th Percentile	2.5		8.2		8.4		5.1		6.3		4.0	
# of Portfolios	311		311		309		283		257		208	
● Oklahoma State Pension Commission	3.7	(25)	11.9	(34)	13.4	(20)	7.2	(35)	9.7	(11)	6.4	(12)
▲ S&P 500	4.5	(3)	14.2	(2)	18.6	(1)	10.8	(1)	14.2	(1)	7.4	(1)

Total Fund Return Summary vs. Peer Universe

Oklahoma State Pension Commission vs. InvestorForce Public DB Gross



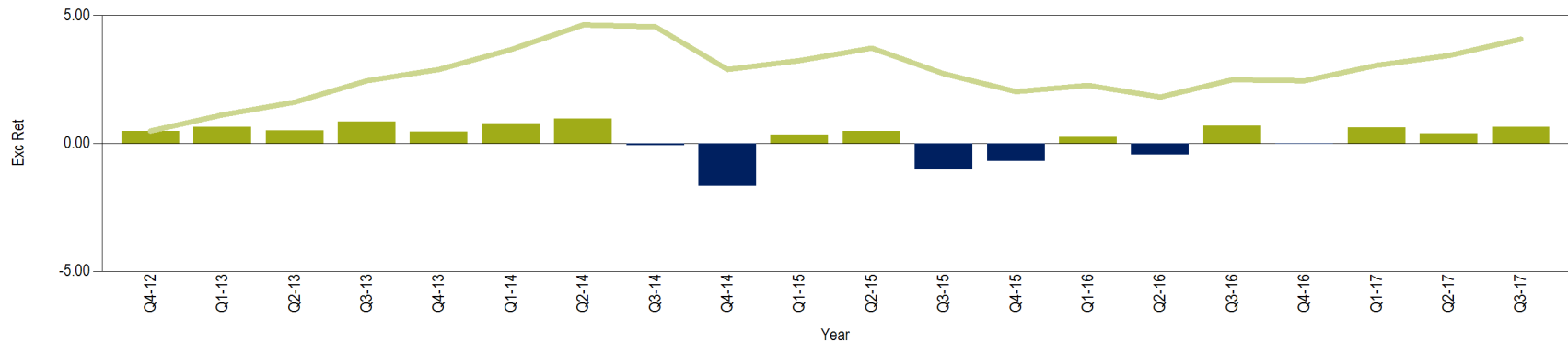
	2016		2015		2014		2013		2012	
Return (Rank)										
5th Percentile	9.4		2.2		8.0		20.8		14.6	
25th Percentile	8.4		0.9		6.8		18.0		13.4	
Median	7.7		0.1		5.8		15.5		12.4	
75th Percentile	6.9		-0.9		4.6		13.3		10.7	
95th Percentile	5.3		-2.6		3.2		8.5		7.8	
# of Portfolios	305		316		248		231		236	
● Oklahoma State Pension Commission	9.5	(5)	-1.5	(83)	7.5	(12)	20.4	(7)	13.7	(19)
▲ S&P 500	12.0	(1)	1.4	(11)	13.7	(1)	32.4	(1)	16.0	(1)

Oklahoma Teachers

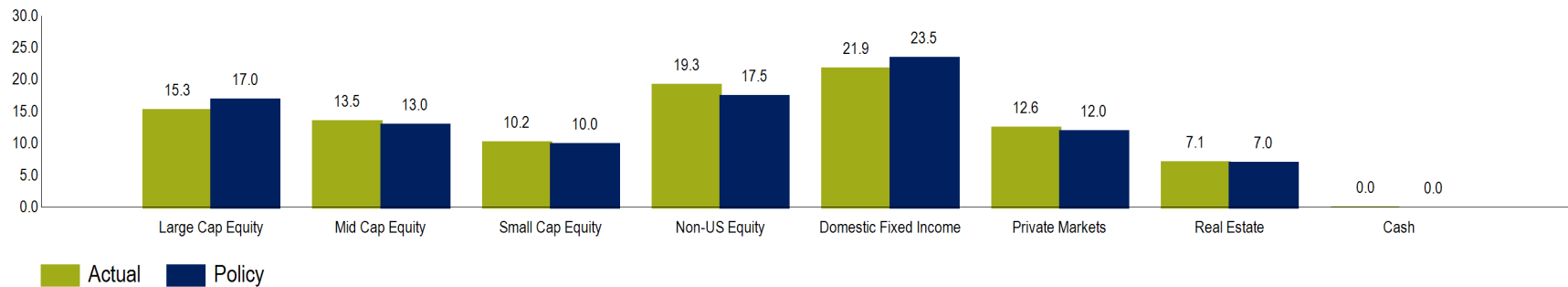
Total Fund Performance Summary

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK TEACHERS	\$15,820,583,998	3.8%	23	11.7%	37	14.0%	12	7.2%	35	10.6%	2	7.1%	2
<i>TEACHERS Allocation Index</i>		3.1%	71	9.9%	78	12.3%	48	7.4%	27	9.8%	10	6.3%	12
<i>TEACHERS Policy Index</i>		3.2%	62	10.2%	74	11.9%	56	6.6%	61	8.9%	39	5.8%	38
<i>InvestorForce Public DB Gross Median</i>		3.4%		11.1%		12.2%		6.9%		8.5%		5.6%	

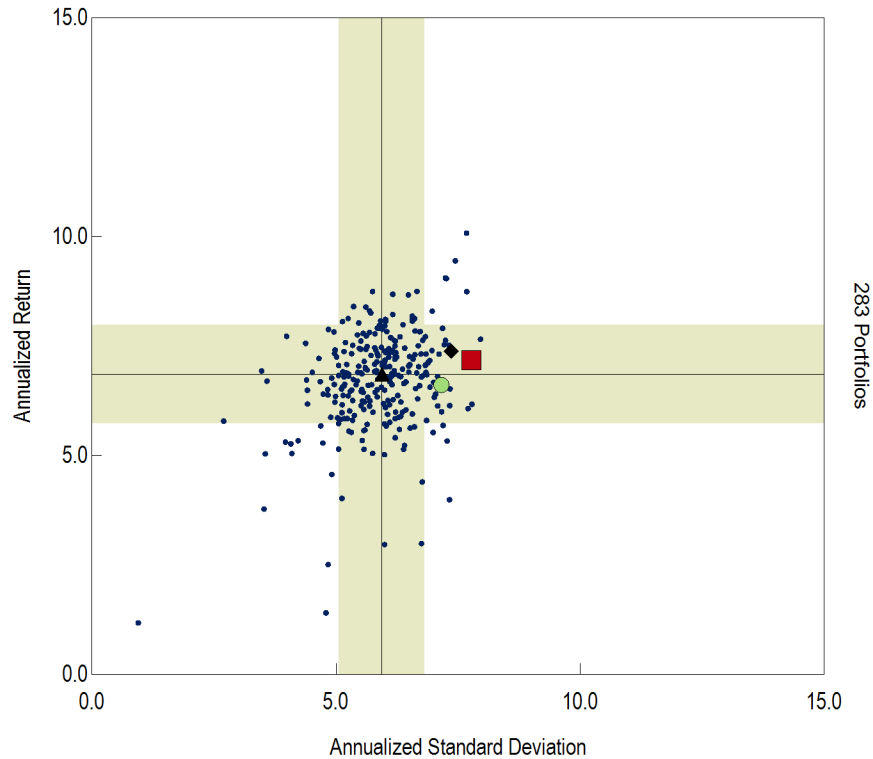
Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)



3 Years Ending September 30, 2017



- OK TEACHERS
- ◆ TEACHERS Allocation Index
- TEACHERS Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

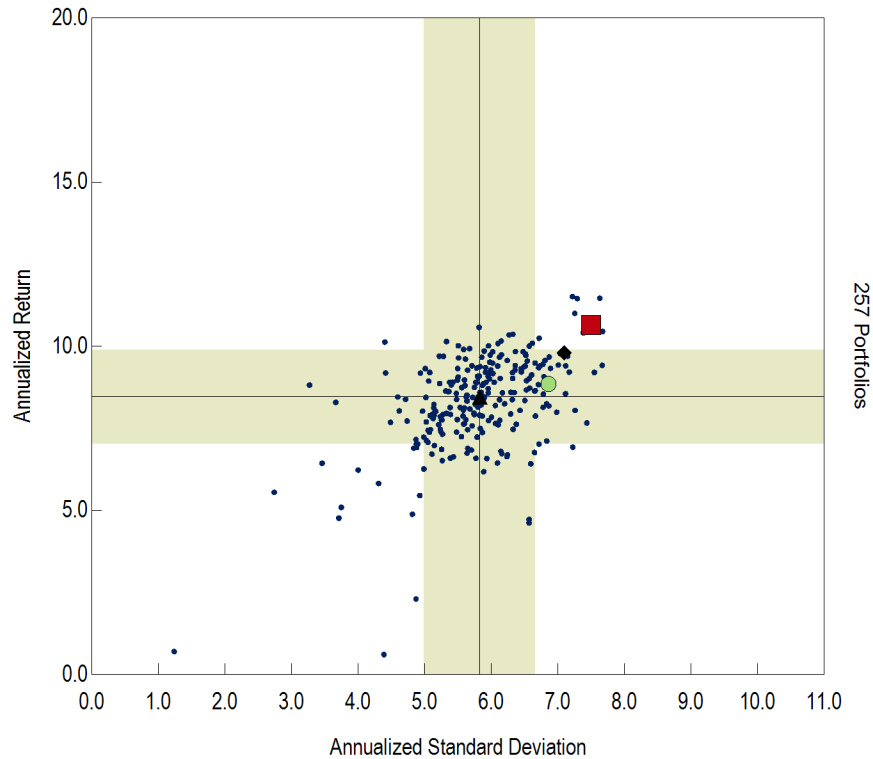
3 Years Ending September 30, 2017

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK TEACHERS	7.18%	35	7.78%	99
TEACHERS Allocation Index	7.39%	27	7.36%	98
TEACHERS Policy Index	6.62%	61	7.16%	94

3 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK TEACHERS	0.88	90	1.19	94
TEACHERS Allocation Index	0.96	80	1.31	87
TEACHERS Policy Index	0.88	90	1.31	87

5 Years Ending September 30, 2017



- OK TEACHERS
- ◆ TEACHERS Allocation Index
- TEACHERS Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

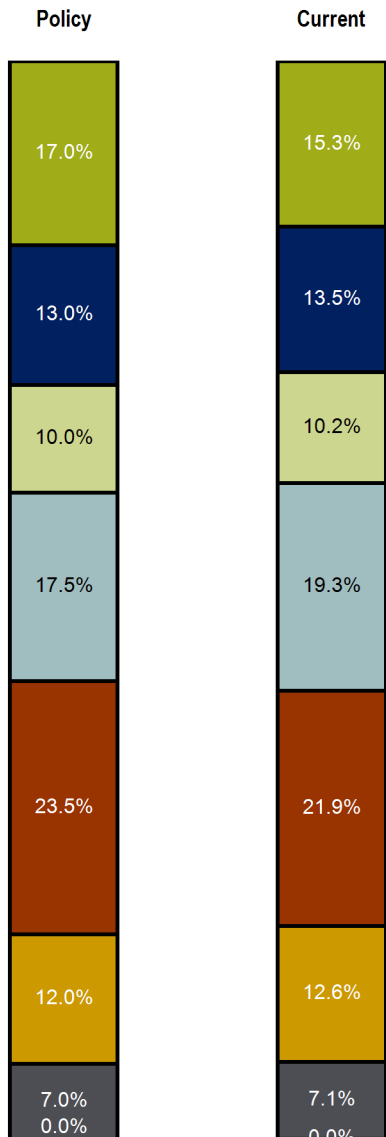
5 Years Ending September 30, 2017

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK TEACHERS	10.64%	2	7.50%	99
TEACHERS Allocation Index	9.81%	10	7.09%	95
TEACHERS Policy Index	8.85%	39	6.86%	93

5 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK TEACHERS	1.39	57	2.13	73
TEACHERS Allocation Index	1.35	65	2.12	74
TEACHERS Policy Index	1.26	81	2.11	74

Total Fund Asset Allocation vs. Policy Targets



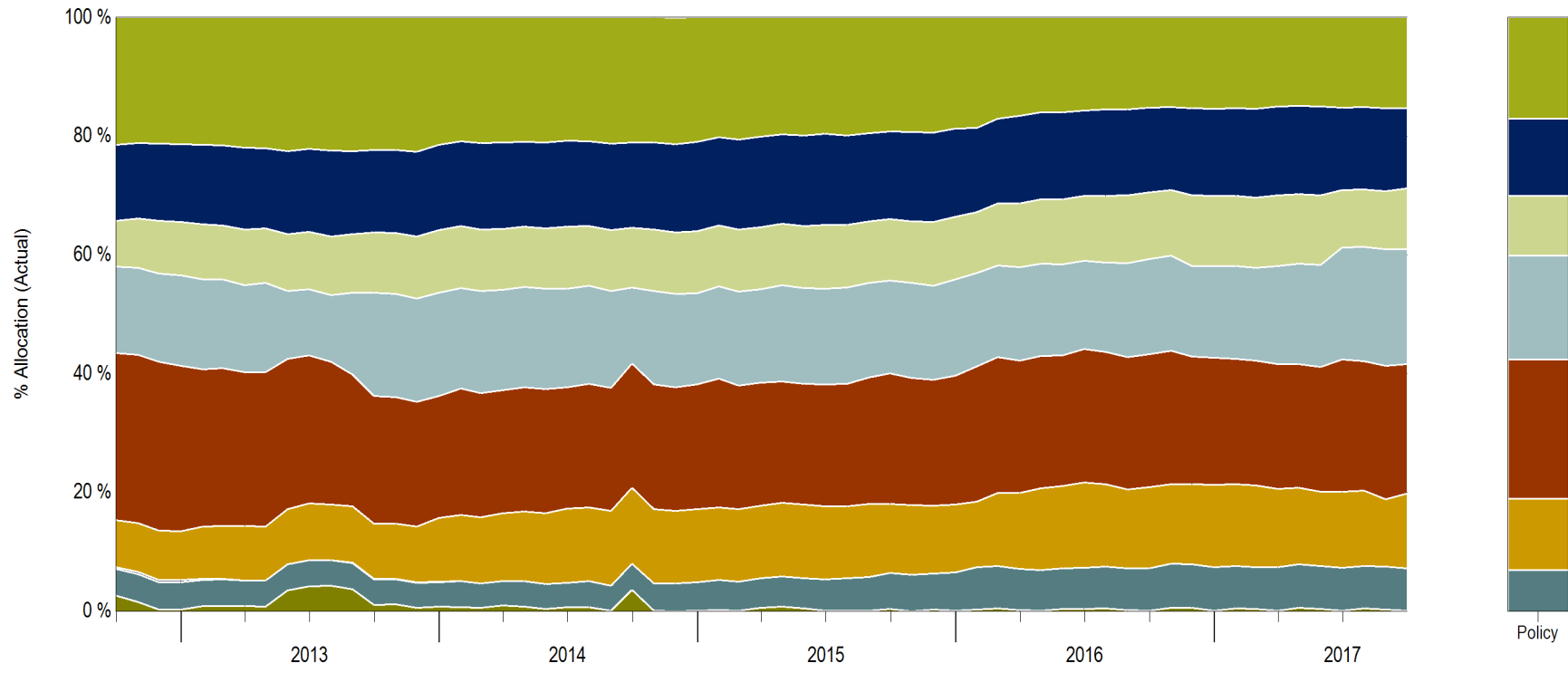
Asset Allocation vs. Target

	Current	Policy	Current Difference*	Policy Range	Within Range	
Large Cap Equity	\$2,419,739,650	17.0%	15.3%	-1.7%	12.0% - 23.0%	Yes
Mid Cap Equity	\$2,142,022,127	13.0%	13.5%	0.5%	8.0% - 18.0%	Yes
Small Cap Equity	\$1,620,672,731	10.0%	10.2%	0.2%	5.0% - 15.0%	Yes
Non-US Equity	\$3,052,826,412	17.5%	19.3%	1.8%	12.5% - 22.5%	Yes
Domestic Fixed Income	\$3,458,235,156	23.5%	21.9%	-1.6%	18.5% - 28.5%	Yes
Private Markets	\$1,992,620,331	12.0%	12.6%	0.6%	7.0% - 17.0%	Yes
Real Estate	\$1,127,337,911	7.0%	7.1%	0.1%	2.0% - 12.0%	Yes
Cash	\$7,129,680	0.0%	0.0%	0.0%	0.0% - 5.0%	Yes
Total	\$15,820,583,998	100.0%	100.0%			

*Difference between Policy and Current Allocation

Total Fund Asset Allocation History

Asset Allocation History



- Large Cap Equity
- Small Cap Equity
- Domestic Fixed Income
- Private Equity
- Cash
- Mid Cap Equity
- Non-US Equity
- Private Markets
- Real Estate

OKLAHOMA TEACHERS

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
OK TEACHERS	15,820,583,998	100.0	3.8	23	11.7	37	14.0	12	7.2	35	10.6	2	7.1	2
<i>TEACHERS Allocation Index</i>			<u>3.1</u>	71	<u>9.9</u>	78	<u>12.3</u>	48	<u>7.4</u>	27	<u>9.8</u>	10	<u>6.3</u>	12
Over/Under			0.7		1.8		1.7		-0.2		0.8		0.8	
<i>TEACHERS Policy Index</i>			3.2	62	10.2	74	11.9	56	6.6	61	8.9	39	5.8	38
<i>InvestorForce Public DB Gross Median</i>			3.4		11.1		12.2		6.9		8.5		5.6	
Total Equity Composite	9,235,260,920	58.4	5.7	40	17.0	51	21.0	31	9.6	35	13.5	21	6.6	26
<i>Russell 3000</i>			<u>4.6</u>	65	<u>13.9</u>	76	<u>18.7</u>	53	<u>10.7</u>	21	<u>14.2</u>	15	<u>7.6</u>	13
Over/Under			1.1		3.1		2.3		-1.1		-0.7		-1.0	
<i>eA All Global Equity Gross Median</i>			5.2		17.1		18.9		8.6		11.5		5.2	
U.S. Equity Comp	6,182,434,508	39.1	5.0	43	13.9	43	20.5	37	10.4	55	14.8	39	7.9	60
<i>S&P 500</i>			<u>4.5</u>	56	<u>14.2</u>	39	<u>18.6</u>	56	<u>10.8</u>	47	<u>14.2</u>	53	<u>7.4</u>	71
Over/Under			0.5		-0.3		1.9		-0.4		0.6		0.5	
<i>eA All US Equity Gross Median</i>			4.6		12.8		19.1		10.7		14.3		8.2	
Sawgrass Large Growth	615,809,816	3.9	4.0	81	14.7	91	16.5	90	9.8	83	13.7	75	8.0	71
<i>Russell 1000 Growth</i>			<u>5.9</u>	38	<u>20.7</u>	46	<u>21.9</u>	41	<u>12.7</u>	32	<u>15.3</u>	41	<u>9.1</u>	42
Over/Under			-1.9		-6.0		-5.4		-2.9		-1.6		-1.1	
<i>eA US Large Cap Growth Equity Gross Median</i>			5.4		20.2		21.2		11.7		14.9		8.8	
Hotchkis & Wiley Large Cap Value	664,017,160	4.2	2.4	90	11.1	40	22.6	9	9.4	43	15.8	10	6.9	54
<i>Russell 1000 Value</i>			<u>3.1</u>	81	<u>7.9</u>	85	<u>15.1</u>	77	<u>8.5</u>	61	<u>13.2</u>	58	<u>5.9</u>	83
Over/Under			-0.7		3.2		7.5		0.9		2.6		1.0	
<i>eA US Large Cap Value Equity Gross Median</i>			4.2		10.4		17.6		8.9		13.5		6.9	
Aronson Mid Cap	536,711,292	3.4	4.4	41	11.2	60	18.7	43	8.2	80	14.7	43	8.7	53
<i>Russell MidCap</i>			<u>3.5</u>	63	<u>11.7</u>	55	<u>15.3</u>	74	<u>9.5</u>	61	<u>14.3</u>	52	<u>8.1</u>	69
Over/Under			0.9		-0.5		3.4		-1.3		0.4		0.6	
<i>eA US Mid Cap Equity Gross Median</i>			3.9		12.5		17.6		10.1		14.3		8.8	
Frontier	534,383,716	3.4	4.4	57	20.0	36	19.9	41	12.0	26	15.0	26	9.4	32
<i>Russell MidCap Growth</i>			<u>5.3</u>	31	<u>17.3</u>	58	<u>17.8</u>	61	<u>10.0</u>	54	<u>14.2</u>	41	<u>8.2</u>	58
Over/Under			-0.9		2.7		2.1		2.0		0.8		1.2	
Wellington	528,784,305	3.3	4.7	43	25.3	6	24.3	8	9.8	59	14.8	28	7.0	85
<i>Russell MidCap Growth</i>			<u>5.3</u>	31	<u>17.3</u>	58	<u>17.8</u>	61	<u>10.0</u>	54	<u>14.2</u>	41	<u>8.2</u>	58
Over/Under			-0.6		8.0		6.5		-0.2		0.6		-1.2	
<i>eA US Mid Cap Growth Equity Gross Median</i>			4.6		18.3		18.8		10.1		13.7		8.7	

OKLAHOMA TEACHERS

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Hotchkis & Wiley Mid Cap	542,142,814	3.4	2.6	77	2.7	97	15.5	69	5.3	96	14.0	68	9.7	25
<i>Russell MidCap Value</i>			<u>2.1</u>	86	<u>7.4</u>	72	<u>13.4</u>	84	<u>9.2</u>	63	<u>14.3</u>	57	<u>7.9</u>	74
Over/Under			0.5		-4.7		2.1		-3.9		-0.3		1.8	
<i>eA US Mid Cap Value Equity Gross Median</i>			3.5		9.1		16.4		10.0		14.7		8.7	
Shapiro Capital	811,096,677	5.1	10.7	3	19.1	2	29.7	3	13.5	28	17.6	7	10.7	15
<i>Russell 2000 Value</i>			<u>5.1</u>	54	<u>5.7</u>	66	<u>20.5</u>	49	<u>12.1</u>	48	<u>13.3</u>	75	<u>7.1</u>	85
Over/Under			5.6		13.4		9.2		1.4		4.3		3.6	
Cove Street Capital Small Cap Value	29,352	0.0	0.3	99	0.9	97	6.0	99	7.0	91	--	--	--	--
<i>Russell 2000 Value</i>			<u>5.1</u>	54	<u>5.7</u>	66	<u>20.5</u>	49	<u>12.1</u>	48	<u>13.3</u>	75	<u>7.1</u>	85
Over/Under			-4.8		-4.8		-14.5		-5.1					
Frontier Capital Management Small Cap Value	202,259,720	1.3	5.3	48	3.3	86	17.3	77	13.2	33	--	--	--	--
<i>Russell 2000 Value</i>			<u>5.1</u>	54	<u>5.7</u>	66	<u>20.5</u>	49	<u>12.1</u>	48	<u>13.3</u>	75	<u>7.1</u>	85
Over/Under			0.2		-2.4		-3.2		1.1					
Neumeier Poma Investment Counsel Small Cap Value	178,971,560	1.1	6.4	24	16.1	4	26.9	8	16.8	2	--	--	--	--
<i>Russell 2000 Value</i>			<u>5.1</u>	54	<u>5.7</u>	66	<u>20.5</u>	49	<u>12.1</u>	48	<u>13.3</u>	75	<u>7.1</u>	85
Over/Under			1.3		10.4		6.4		4.7					
<i>eA US Small Cap Value Equity Gross Median</i>			5.2		7.0		20.4		11.9		14.8		9.0	
Geneva Capital Management Small Cap Growth	223,030,986	1.4	6.6	39	19.9	39	24.4	26	16.9	9	--	--	--	--
<i>Russell 2000 Growth</i>			<u>6.2</u>	49	<u>16.8</u>	62	<u>21.0</u>	60	<u>12.2</u>	55	<u>14.3</u>	58	<u>8.5</u>	59
Over/Under			0.4		3.1		3.4		4.7					
Wasatch Advisors Small Cap Growth	205,284,436	1.3	6.1	51	16.4	63	21.3	55	14.9	25	--	--	--	--
<i>Russell 2000 Growth</i>			<u>6.2</u>	49	<u>16.8</u>	62	<u>21.0</u>	60	<u>12.2</u>	55	<u>14.3</u>	58	<u>8.5</u>	59
Over/Under			-0.1		-0.4		0.3		2.7					
<i>eA US Small Cap Growth Equity Gross Median</i>			6.1		18.5		21.8		12.7		14.7		8.8	

OKLAHOMA TEACHERS

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Domestic Passive Equity	1,139,912,674	7.2	4.3	--	13.7	--	18.0	--	10.2	--	14.4	--	--	--
S&P 500			4.5	--	14.2	--	18.6	--	10.8	--	14.2	--	7.4	--
Over/Under			-0.2		-0.5		-0.6		-0.6		0.2			
Northern Trust S&P 500 Cap Wgt	913,377,484	5.8	4.4	67	14.2	32	18.6	53	10.7	63	14.1	75	--	--
S&P 500			4.5	59	14.2	23	18.6	43	10.8	49	14.2	54	7.4	79
Over/Under			-0.1		0.0		0.0		-0.1		-0.1			
SSgA S&P Eq Weighted Index Fund	226,535,190	1.4	3.5	79	11.8	63	16.0	83	9.6	85	14.7	16	--	--
S&P 500			4.5	59	14.2	23	18.6	43	10.8	49	14.2	54	7.4	79
Over/Under			-1.0		-2.4		-2.6		-1.2		0.5			
eA US Passive Equity Gross Median			4.5		13.7		18.6		10.8		14.2		7.6	
International Equity Composite	3,052,826,412	19.3	7.1	42	24.9	46	21.4	45	7.0	54	9.3	53	2.9	61
MSCI ACWI ex USA			6.2	62	21.1	76	19.6	61	4.7	85	7.0	91	1.3	95
Over/Under			0.9		3.8		1.8		2.3		2.3		1.6	
eA All ACWI ex-US Equity Gross Median			6.7		24.6		20.9		7.1		9.5		3.5	
Causeway - Value	465,278,484	2.9	7.7	14	24.1	18	24.9	20	5.4	65	8.5	71	3.2	54
MSCI EAFE			5.4	64	20.0	58	19.1	65	5.0	74	8.4	74	1.3	83
Over/Under			2.3		4.1		5.8		0.4		0.1		1.9	
eA EAFE Value Equity Gross Median			5.8		20.6		21.0		6.7		9.8		3.3	
Allianz Intl	987,944,859	6.2	7.2	41	22.3	66	23.2	31	--	--	--	--	--	--
MSCI ACWI ex USA			6.2	62	21.1	77	19.6	62	4.7	84	7.0	90	1.3	95
Over/Under			1.0		1.2		3.6							
eA ACWI ex-US Equity Unhedged Gross Median			6.7		24.7		21.1		7.3		9.6		3.6	
Wellington Intl	464,410,946	2.9	8.7	24	31.9	11	20.8	53	--	--	--	--	--	--
MSCI ACWI ex USA			6.2	62	21.1	77	19.6	62	4.7	84	7.0	90	1.3	95
Over/Under			2.5		10.8		1.2							
eA ACWI ex-US Equity Unhedged Gross Median			6.7		24.7		21.1		7.3		9.6		3.6	
Northern Trust Intl - Liquidating	26,924	0.0												

Allianz Intl and Wellington Intl are funded on 6/16/2016.

OKLAHOMA TEACHERS

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
International Small Cap Equity	1,135,165,199	7.2	6.2	75	24.8	74	18.9	72	8.6	74	11.5	65	--	--
MSCI ACWI ex USA			6.2	76	21.1	87	19.6	65	4.7	99	7.0	99	1.3	99
Over/Under			0.0		3.7		-0.7		3.9		4.5			
eA ACWI ex-US Small Cap Equity Gross Median			8.3		28.1		22.9		10.0		12.6		6.3	
Advisory Research Int'l Small Cap	1,385,449	0.0	0.3	99	14.3	96	14.9	84	4.9	99	9.8	83	--	--
MSCI ACWI ex USA			6.2	76	21.1	87	19.6	65	4.7	99	7.0	99	1.3	99
Over/Under			-5.9		-6.8		-4.7		0.2		2.8			
EPOCH Int'l Small Cap	278,132,596	1.8	8.7	42	25.2	69	21.5	56	8.7	74	10.8	74	--	--
MSCI ACWI ex USA			6.2	76	21.1	87	19.6	65	4.7	99	7.0	99	1.3	99
Over/Under			2.5		4.1		1.9		4.0		3.8			
Wasatch Int'l Small Cap	287,987,629	1.8	7.9	56	28.8	48	14.7	85	11.6	35	12.4	54	--	--
MSCI ACWI ex USA			6.2	76	21.1	87	19.6	65	4.7	99	7.0	99	1.3	99
Over/Under			1.7		7.7		-4.9		6.9		5.4			
Wellington Int'l Small Cap	286,319,542	1.8	6.3	75	27.0	55	21.4	57	9.0	65	12.8	47	--	--
MSCI ACWI ex USA			6.2	76	21.1	87	19.6	65	4.7	99	7.0	99	1.3	99
Over/Under			0.1		5.9		1.8		4.3		5.8			
eA ACWI ex-US Small Cap Equity Gross Median			8.3		28.1		22.9		10.0		12.6		6.3	
SSGA Emerging Market Small Cap	281,339,983	1.8	5.2	85	25.9	60	19.9	63	--	--	--	--	--	--
MSCI Emerging Markets Small Cap (Gross)			5.8	77	22.8	85	15.2	82	3.4	99	4.9	99	2.0	99
Over/Under			-0.6		3.1		4.7							
eA ACWI ex-US Small Cap Equity Gross Median			8.3		28.1		22.9		10.0		12.6		6.3	
Fixed Composite	3,458,235,156	21.9	1.4	25	5.5	26	2.8	28	4.1	31	4.1	28	7.3	14
BBgBarc US Aggregate TR			0.8	59	3.1	58	0.1	90	2.7	59	2.1	65	4.3	60
Over/Under			0.6		2.4		2.7		1.4		2.0		3.0	
eA All US Fixed Inc Gross Median			0.9		3.5		1.2		3.1		2.6		4.6	
Loomis Sayles Core Plus	673,103,842	4.3	1.4	20	4.8	30	2.5	31	3.2	75	3.5	32	7.1	3
BBgBarc US Aggregate TR			0.8	99	3.1	99	0.1	99	2.7	94	2.1	99	4.3	99
Over/Under			0.6		1.7		2.4		0.5		1.4		2.8	
Mackay Shields Core Plus	653,006,898	4.1	1.2	47	4.5	39	2.5	34	2.6	97	2.9	70	5.9	31
BBgBarc US Aggregate TR			0.8	99	3.1	99	0.1	99	2.7	94	2.1	99	4.3	99
Over/Under			0.4		1.4		2.4		-0.1		0.8		1.6	

OKLAHOMA TEACHERS

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Lord Abnett Core Plus	666,908,659	4.2	1.1	67	4.0	66	1.5	67	3.3	64	3.2	47	5.8	35
BBgBarc US Aggregate TR			<u>0.8</u>	99	<u>3.1</u>	99	<u>0.1</u>	99	<u>2.7</u>	94	<u>2.1</u>	99	<u>4.3</u>	99
Over/Under			0.3		0.9		1.4		0.6		1.1		1.5	
eA US Core Plus Fixed Inc Gross Median			1.2		4.3		2.0		3.6		3.2		5.5	
Hoisington Long Bonds	536,977,933	3.4	0.6	97	6.6	91	-8.6	98	5.0	91	2.8	98	7.7	81
BBgBarc US Aggregate TR			<u>0.8</u>	92	<u>3.1</u>	99	<u>0.1</u>	62	<u>2.7</u>	99	<u>2.1</u>	99	<u>4.3</u>	99
Over/Under			-0.2		3.5		-8.7		2.3		0.7		3.4	
eA US Long Duration Fixed Inc Gross Median			1.8		8.3		0.8		5.9		4.6		8.3	
Loomis High Yield	297,811,222	1.9	2.3	19	7.8	13	8.8	45	5.2	64	6.3	51	--	--
BofA Merrill Lynch US High Yield Master II TR			<u>2.0</u>	42	<u>7.0</u>	40	<u>9.1</u>	37	<u>5.9</u>	35	<u>6.4</u>	45	<u>7.7</u>	46
Over/Under			0.3		0.8		-0.3		-0.7		-0.1		--	--
Lord Abnett High Yield	317,753,376	2.0	2.5	9	7.9	12	10.7	11	7.0	7	8.0	7	--	--
BofA Merrill Lynch US High Yield Master II TR			<u>2.0</u>	42	<u>7.0</u>	40	<u>9.1</u>	37	<u>5.9</u>	35	<u>6.4</u>	45	<u>7.7</u>	46
Over/Under			0.5		0.9		1.6		1.1		1.6		--	--
Mackay High Yield	312,673,226	2.0	2.5	9	6.9	48	8.8	42	7.0	7	6.9	25	--	--
BofA Merrill Lynch US High Yield Master II TR			<u>2.0</u>	42	<u>7.0</u>	40	<u>9.1</u>	37	<u>5.9</u>	35	<u>6.4</u>	45	<u>7.7</u>	46
Over/Under			0.5		-0.1		-0.3		1.1		0.5		--	--
eA US High Yield Fixed Inc Gross Median			2.0		6.8		8.5		5.5		6.3		7.6	
Total Private Equity	1,182,670,334	7.5	1.9	--	10.2	--	15.9	--	12.9	--	16.7	--	--	--
Cambridge Associates US All PE			<u>0.0</u>	--	<u>8.0</u>	--	<u>12.9</u>	--	<u>9.2</u>	--	<u>12.5</u>	--	<u>9.2</u>	--
Over/Under			1.9		2.2		3.0		3.7		4.2		--	--
Legacy LP - Aldus PE	33,357,199	0.2	-3.8	--	1.8	--	4.4	--	5.6	--	9.7	--	--	--
Pimco Bravo	5,474,809	0.0	-1.7	--	-8.5	--	-5.9	--	3.9	--	14.7	--	--	--
PIMCO Bravo 2	165,088,098	1.0	3.0	--	9.2	--	13.4	--	10.9	--	--	--	--	--
OK - OTRS/Franklin Park	937,921,135	5.9	1.8	--	11.1	--	17.3	--	14.1	--	12.7	--	--	--
Pimco COF II	22,151,410	0.1	2.1	--	7.7	--	16.0	--	--	--	--	--	--	--
PIMCO Bravo 3	18,677,683	0.1	6.1	--	--	--	--	--	--	--	--	--	--	--

OKLAHOMA TEACHERS

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Master Limited Partnerships	809,949,997	5.1	-1.7	--	-7.2	--	-2.7	--	-9.8	--	5.3	--	--	--
<i>Alerian MLP Index</i>			<u>-3.0</u>	--	<u>-5.6</u>	--	<u>-3.7</u>	--	<u>-12.9</u>	--	<u>-0.6</u>	--	<u>6.5</u>	--
Over/Under			1.3		-1.6		1.0		3.1		5.9			
Chickasaw Capital Management	312,262,140	2.0	-2.6	--	-7.7	--	-2.4	--	-8.4	--	8.9	--	--	--
<i>Alerian MLP Index</i>			<u>-3.0</u>	--	<u>-5.6</u>	--	<u>-3.7</u>	--	<u>-12.9</u>	--	<u>-0.6</u>	--	<u>6.5</u>	--
Over/Under			0.4		-2.1		1.3		4.5		9.5			
Swank Capital Cushing	497,570,457	3.1	-0.2	--	-5.8	--	-1.4	--	-9.7	--	6.6	--	--	--
<i>Alerian MLP Index</i>			<u>-3.0</u>	--	<u>-5.6</u>	--	<u>-3.7</u>	--	<u>-12.9</u>	--	<u>-0.6</u>	--	<u>6.5</u>	--
Over/Under			2.8		-0.2		2.3		3.2		7.2			
Fiduciary Asset Management/Advisory Research	18	0.0	-6.5	--	-12.0	--	-9.1	--	-12.7	--	0.7	--	--	--
<i>Alerian MLP Index</i>			<u>-3.0</u>	--	<u>-5.6</u>	--	<u>-3.7</u>	--	<u>-12.9</u>	--	<u>-0.6</u>	--	<u>6.5</u>	--
Over/Under			-3.5		-6.4		-5.4		0.2		1.3			
Advisory Research All	117,382	0.0	--	--	--	--	--	--	--	--	--	--	--	--
<i>Alerian MLP Index</i>			<u>-3.0</u>	--	<u>-5.6</u>	--	<u>-3.7</u>	--	<u>-12.9</u>	--	<u>-0.6</u>	--	<u>6.5</u>	--
Over/Under														
Total Core Real Estate	1,127,337,911	7.1	1.7	--	5.3	--	6.9	--	10.6	--	10.8	--	--	--
<i>NCREIF Property Index</i>			<u>1.7</u>	--	<u>5.1</u>	--	<u>6.9</u>	--	<u>9.8</u>	--	<u>10.3</u>	--	<u>6.2</u>	--
Over/Under			0.0		0.2		0.0		0.8		0.5			
L & B Real Estate	262,120,312	1.7	2.0	--	6.9	--	7.5	--	12.0	--	11.1	--	--	--
<i>NCREIF ODCE</i>			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			0.1		1.5		-0.2		1.2		-0.5			
Heitman Real Estate	290,989,901	1.8	1.4	--	5.4	--	7.8	--	10.9	--	11.7	--	--	--
<i>NCREIF ODCE</i>			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-0.5		0.0		0.1		0.1		0.1			
AEW Real Estate	285,321,997	1.8	2.1	--	5.8	--	7.4	--	10.5	--	10.5	--	--	--
<i>NCREIF ODCE</i>			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			0.2		0.4		-0.3		-0.3		-1.1			
L & B Gold Driller	64,552,465	0.4	-0.1	--	5.5	--	5.5	--	1.1	--	--	--	--	--
<i>NCREIF ODCE</i>			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-2.0		0.1		-2.2		-9.7					

OKLAHOMA TEACHERS

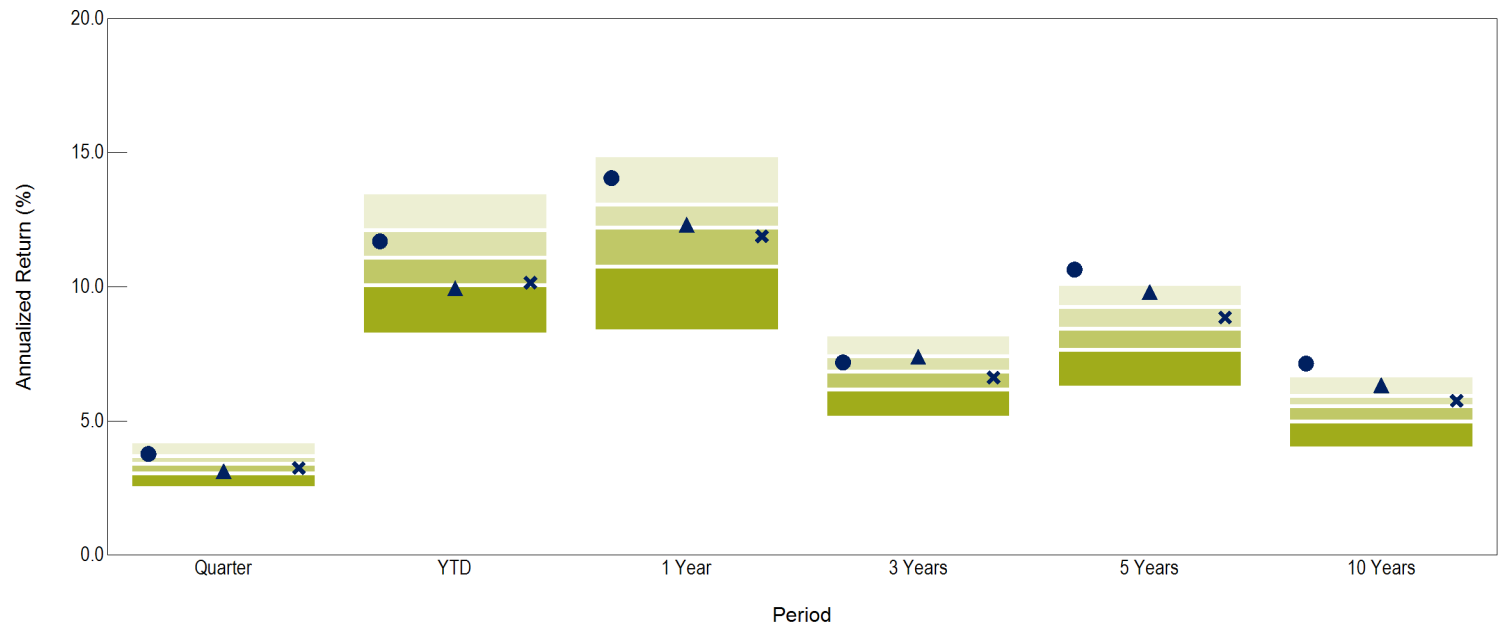
Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Greenoak Real Estate	35,472,579	0.2	1.3	--	8.6	--	10.6	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-0.6		3.2		2.9							
Antheus Capital	44,606,377	0.3	-1.4	--	-11.4	--	-11.4	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-3.3		-16.8		-19.1							
Dune Real Estate	47,972,788	0.3	4.2	--	10.3	--	10.7	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			2.3		4.9		3.0							
Landmark Realty	23,245,574	0.1	0.3	--	5.4	--	6.7	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-1.6		0.0		-1.0							
American Realty	39,425,237	0.2	2.7	--	8.5	--	10.8	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			0.8		3.1		3.1							
Starwood Capital	33,630,681	0.2	3.1	--	9.6	--	15.1	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			1.2		4.2		7.4							
Property ACQ Fund	95,865	0.0	--	--	--	--	--	--	--	--	--	--	--	--
91 Day T-Bills			<u>0.3</u>	--	<u>0.6</u>	--	<u>0.7</u>	--	<u>0.3</u>	--	<u>0.2</u>	--	<u>0.4</u>	--
Over/Under														

Performance numbers are shown gross of fees.

Total Fund Return Summary vs. Peer Universe

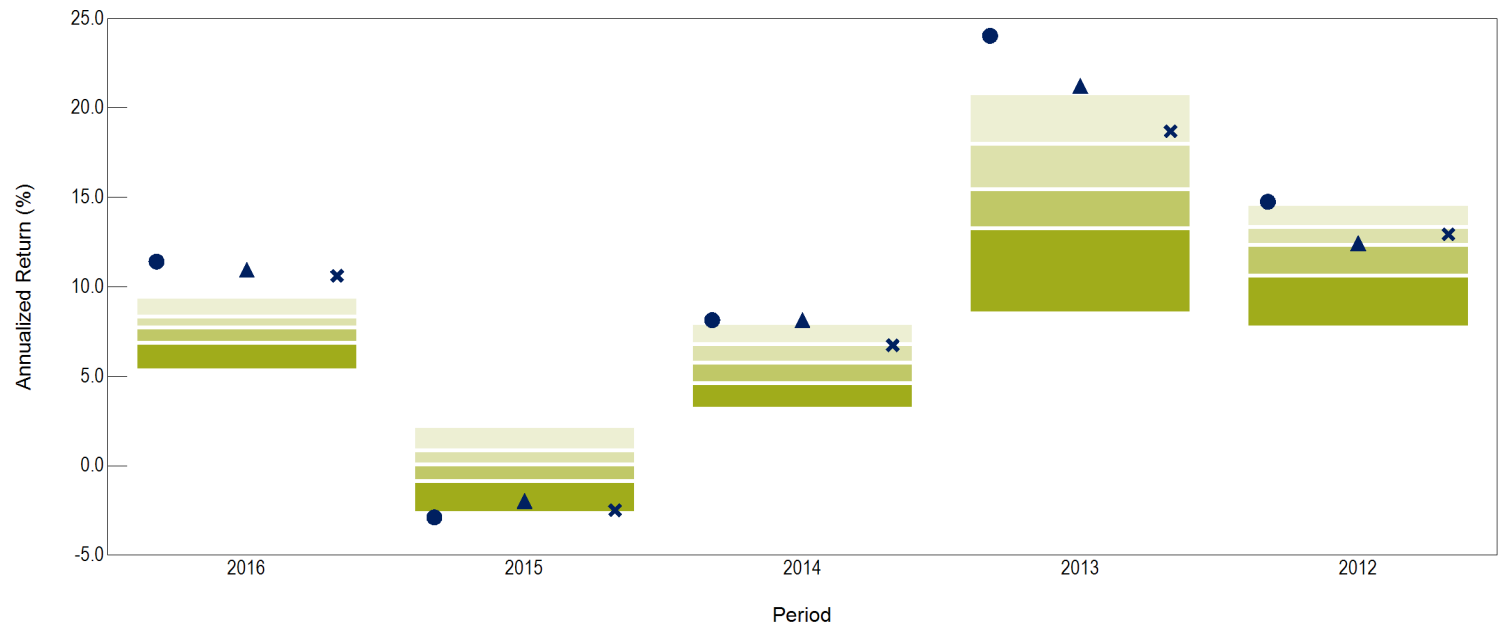
OK TEACHERS vs. InvestorForce Public DB Gross



	Return (Rank)											
5th Percentile			13.5		14.9		8.2		10.1		6.7	
25th Percentile			12.1		13.1		7.4		9.3		5.9	
Median			11.1		12.2		6.9		8.5		5.6	
75th Percentile			10.1		10.8		6.2		7.7		5.0	
95th Percentile			8.2		8.4		5.1		6.3		4.0	
# of Portfolios	311		311		309		283		257		208	
● OK TEACHERS	3.8	(23)	11.7	(37)	14.0	(12)	7.2	(35)	10.6	(2)	7.1	(2)
▲ TEACHERS Allocation Index	3.1	(71)	9.9	(78)	12.3	(48)	7.4	(27)	9.8	(10)	6.3	(12)
× TEACHERS Policy Index	3.2	(62)	10.2	(74)	11.9	(56)	6.6	(61)	8.9	(39)	5.8	(38)

Total Fund Return Summary vs. Peer Universe

OK TEACHERS vs. InvestorForce Public DB Gross

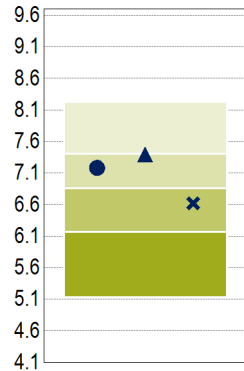


	2016		2015		2014		2013		2012	
	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)
5th Percentile	9.4		2.2		8.0		20.8		14.6	
25th Percentile	8.4		0.9		6.8		18.0		13.4	
Median	7.7		0.1		5.8		15.5		12.4	
75th Percentile	6.9		-0.9		4.6		13.3		10.7	
95th Percentile	5.3		-2.6		3.2		8.5		7.8	
# of Portfolios	305		316		248		231		236	
● OK TEACHERS	11.4	(1)	-2.9	(97)	8.1	(4)	24.0	(1)	14.8	(4)
▲ TEACHERS Allocation Index	11.0	(1)	-2.0	(89)	8.2	(4)	21.2	(3)	12.4	(49)
× TEACHERS Policy Index	10.6	(1)	-2.5	(95)	6.7	(28)	18.7	(20)	12.9	(38)

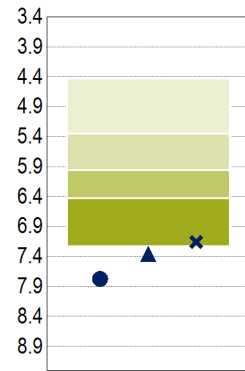
Total Fund Risk Statistics vs. Peer Universe

OK TEACHERS vs. InvestorForce Public DB Gross
3 Years

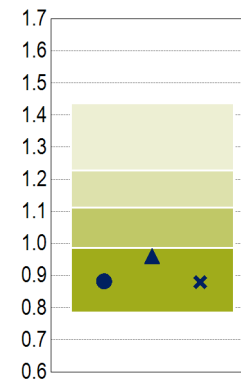
Anlzd Return



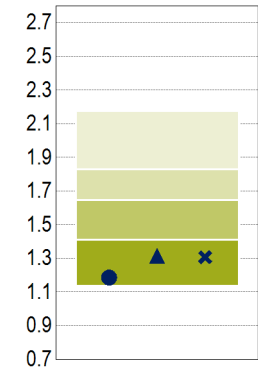
Anlzd Standard Deviation



Sharpe Ratio



Sortino Ratio



● OK TEACHERS	
Value	7.18
Rank	35
▲ TEACHERS Allocation Index	
Value	7.39
Rank	27
✘ TEACHERS Policy Index	
Value	6.62
Rank	61
Universe	
5th %tile	8.22
25th %tile	7.41
Median	6.86
75th %tile	6.18
95th %tile	5.15

● OK TEACHERS	
Value	7.78
Rank	99
▲ TEACHERS Allocation Index	
Value	7.36
Rank	98
✘ TEACHERS Policy Index	
Value	7.16
Rank	94
Universe	
5th %tile	4.43
25th %tile	5.34
Median	5.94
75th %tile	6.42
95th %tile	7.22

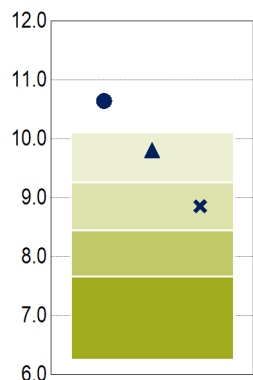
● OK TEACHERS	
Value	0.88
Rank	90
▲ TEACHERS Allocation Index	
Value	0.96
Rank	80
✘ TEACHERS Policy Index	
Value	0.88
Rank	90
Universe	
5th %tile	1.44
25th %tile	1.23
Median	1.11
75th %tile	0.99
95th %tile	0.79

● OK TEACHERS	
Value	1.19
Rank	94
▲ TEACHERS Allocation Index	
Value	1.31
Rank	87
✘ TEACHERS Policy Index	
Value	1.31
Rank	87
Universe	
5th %tile	2.18
25th %tile	1.83
Median	1.65
75th %tile	1.41
95th %tile	1.14

Total Fund Risk Statistics vs. Peer Universe

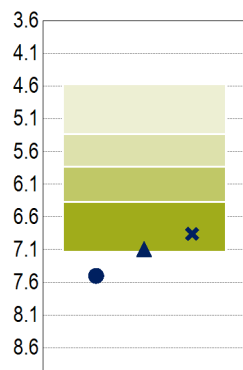
OK TEACHERS vs. InvestorForce Public DB Gross
5 Years

Anlzd Return



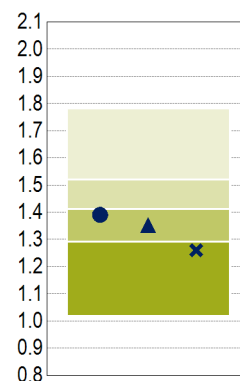
● OK TEACHERS	
Value	10.64
Rank	2
▲ TEACHERS Allocation Index	
Value	9.81
Rank	10
× TEACHERS Policy Index	
Value	8.85
Rank	39
Universe	
5th %tile	10.10
25th %tile	9.27
Median	8.46
75th %tile	7.67
95th %tile	6.26

Anlzd Standard Deviation



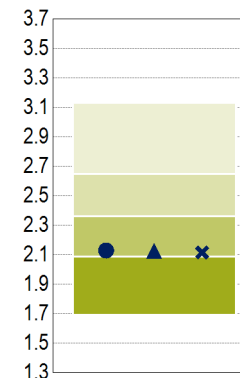
● OK TEACHERS	
Value	7.50
Rank	99
▲ TEACHERS Allocation Index	
Value	7.09
Rank	95
× TEACHERS Policy Index	
Value	6.86
Rank	93
Universe	
5th %tile	4.57
25th %tile	5.33
Median	5.83
75th %tile	6.36
95th %tile	7.12

Sharpe Ratio



● OK TEACHERS	
Value	1.39
Rank	57
▲ TEACHERS Allocation Index	
Value	1.35
Rank	65
× TEACHERS Policy Index	
Value	1.26
Rank	81
Universe	
5th %tile	1.78
25th %tile	1.52
Median	1.41
75th %tile	1.29
95th %tile	1.02

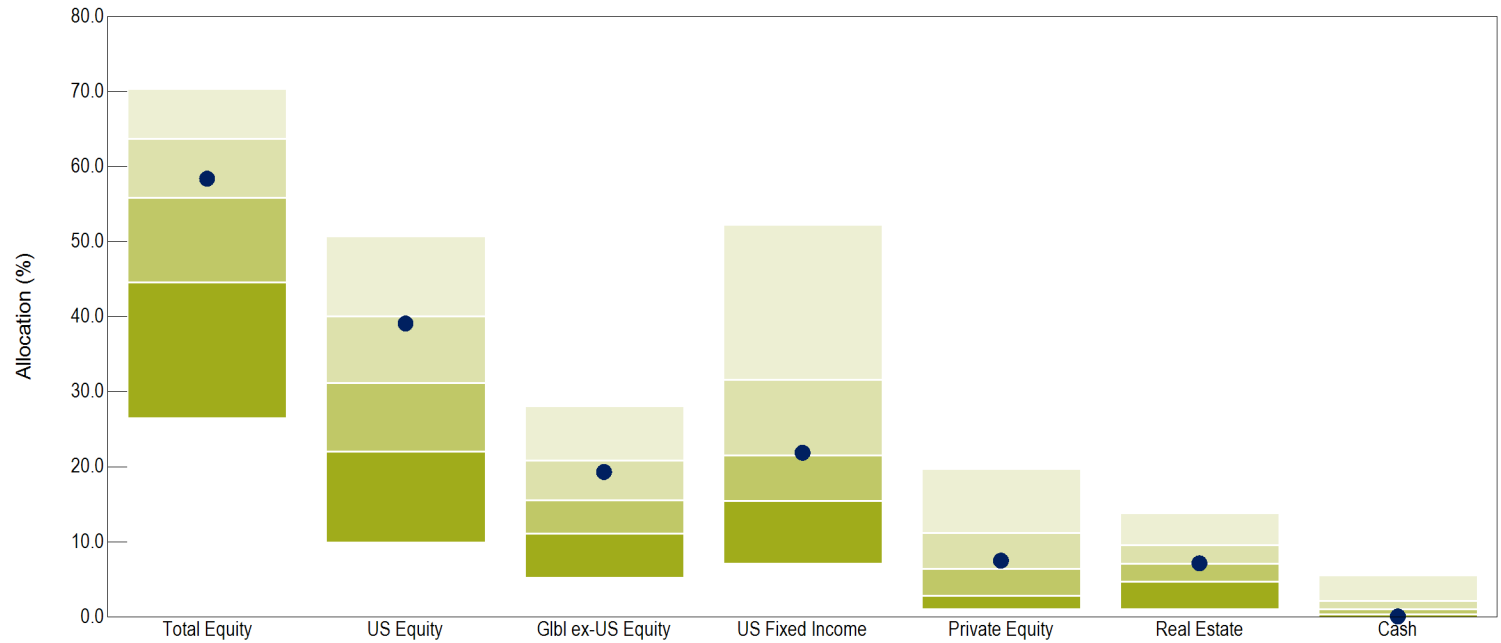
Sortino Ratio



● OK TEACHERS	
Value	2.13
Rank	73
▲ TEACHERS Allocation Index	
Value	2.12
Rank	74
× TEACHERS Policy Index	
Value	2.11
Rank	74
Universe	
5th %tile	3.13
25th %tile	2.65
Median	2.36
75th %tile	2.09
95th %tile	1.69

Total Fund Allocations vs. Peer Universe

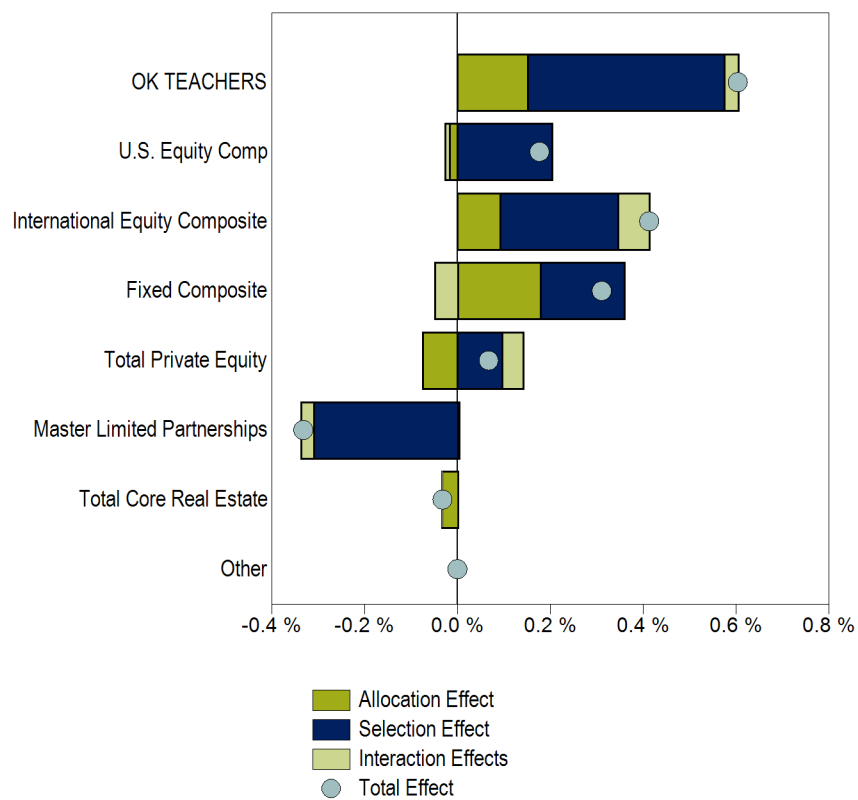
Total Plan Allocation vs. InvestorForce Public DB Gross



	Allocation (Rank)													
5th Percentile	70.3		50.7		28.1		52.3		19.7		13.9		5.5	
25th Percentile	63.7		40.1		20.9		31.6		11.3		9.6		2.2	
Median	55.9		31.3		15.6		21.6		6.5		7.1		1.1	
75th Percentile	44.6		22.1		11.2		15.5		2.9		4.8		0.4	
95th Percentile	26.6		10.0		5.3		7.1		1.1		1.1		0.0	
# of Portfolios	297		231		254		228		106		194		262	
● OK TEACHERS	58.4	(42)	39.1	(27)	19.3	(33)	21.9	(50)	7.5	(46)	7.1	(51)	0.0	(93)

Total Fund Attribution Analysis

Attribution Effects Relative to TEACHERS Policy Index
3 Months Ending September 30, 2017



Attribution Summary
3 Months Ending September 30, 2017

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
U.S. Equity Comp	5.0%	4.5%	0.5%	0.2%	-0.1%	0.0%	0.1%
International Equity Composite	7.1%	5.4%	1.7%	0.3%	0.2%	0.1%	0.5%
Fixed Composite	1.4%	0.8%	0.6%	0.2%	-0.1%	0.0%	0.1%
Total Private Equity	1.9%	0.0%	1.9%	0.1%	0.0%	0.0%	0.1%
Master Limited Partnerships	-1.7%	4.5%	-6.2%	-0.3%	0.0%	0.0%	-0.3%
Total Core Real Estate	1.7%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Other	6.1%	0.3%	5.8%	--	--	--	--
Total	3.8%	3.2%	0.6%	0.4%	0.1%	0.0%	0.6%

*Other includes cash and transition accounts.

*Total returns shown are calculated as a weighted average of the returns of the composites shown and their respective benchmarks and may differ from returns shown throughout the report.

Performance Attribution

	Last 3 Mo.	YTD	1 Yr
Wtd. Actual Return	3.8%	11.6%	13.9%
Wtd. Index Return *	3.2%	10.9%	12.0%
Excess Return	0.6%	0.7%	1.9%
Selection Effect	0.4%	0.3%	1.1%
Allocation Effect	0.1%	0.7%	1.1%
Interaction Effect	0.0%	-0.3%	-0.4%
Returns by Asset Class			
OK TEACHERS	3.8%	11.7%	14.0%
Total Equity Composite	5.7%	17.0%	21.0%
U.S. Equity Comp	5.0%	13.9%	20.5%
Domestic Passive Equity	4.3%	13.7%	18.0%
International Equity Composite	7.1%	24.9%	21.4%
International Small Cap Equity	6.2%	24.8%	18.9%
Fixed Composite	1.4%	5.5%	2.8%
Total Private Equity	1.9%	10.2%	15.9%
Master Limited Partnerships	-1.7%	-7.2%	-2.7%
Total Core Real Estate	1.7%	5.3%	6.9%
Other	6.1%	13.5%	13.7%

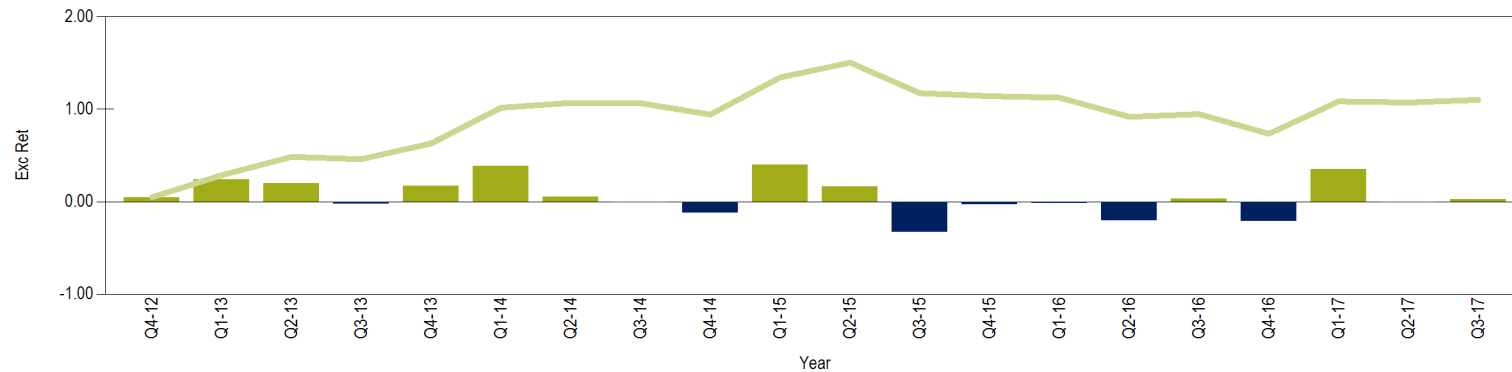
*Calculated from benchmark returns and weightings of each component.

Oklahoma PERS

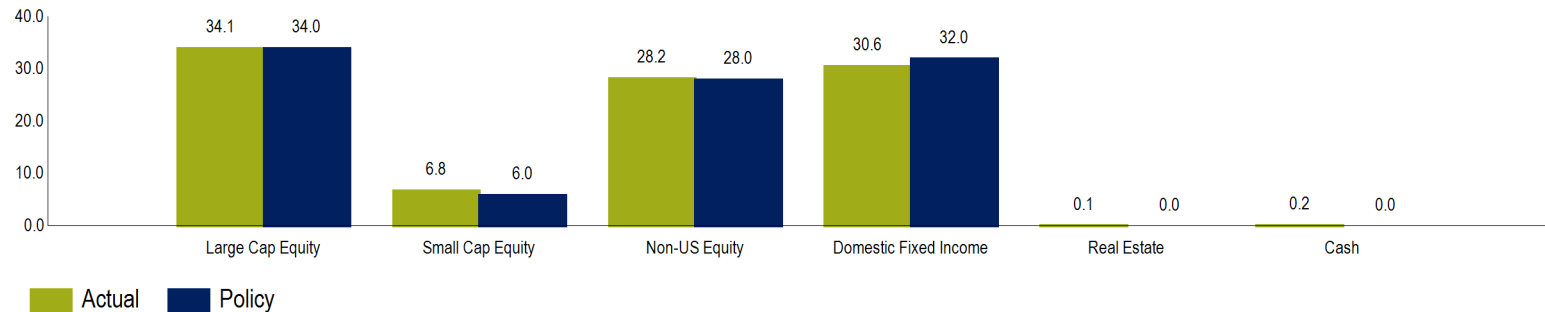
Total Fund Performance Summary

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK PERS	\$9,497,918,983	3.9%	18	12.3%	20	12.8%	34	7.1%	38	8.8%	39	6.0%	24
<i>PERS Allocation Index</i>		3.9%	19	11.9%	32	12.7%	37	7.1%	38	8.6%	45	5.8%	32
<i>PERS Policy Index</i>		3.9%	17	12.3%	21	12.8%	34	7.2%	36	8.5%	49	5.7%	44
<i>InvestorForce Public DB Gross Median</i>		3.4%		11.1%		12.2%		6.9%		8.5%		5.6%	

Quarterly and Cumulative Excess Performance

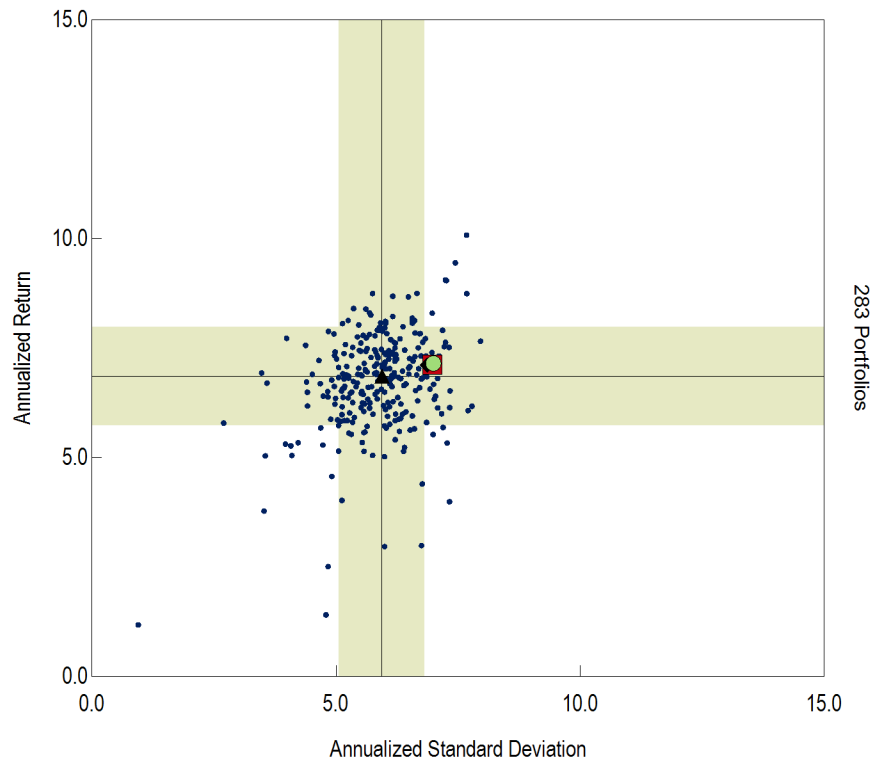


Actual vs Target Allocation (%)



Total Fund Risk/Return - 3 Years

3 Years Ending September 30, 2017



- OK PERS
- ◆ PERS Allocation Index
- PERS Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

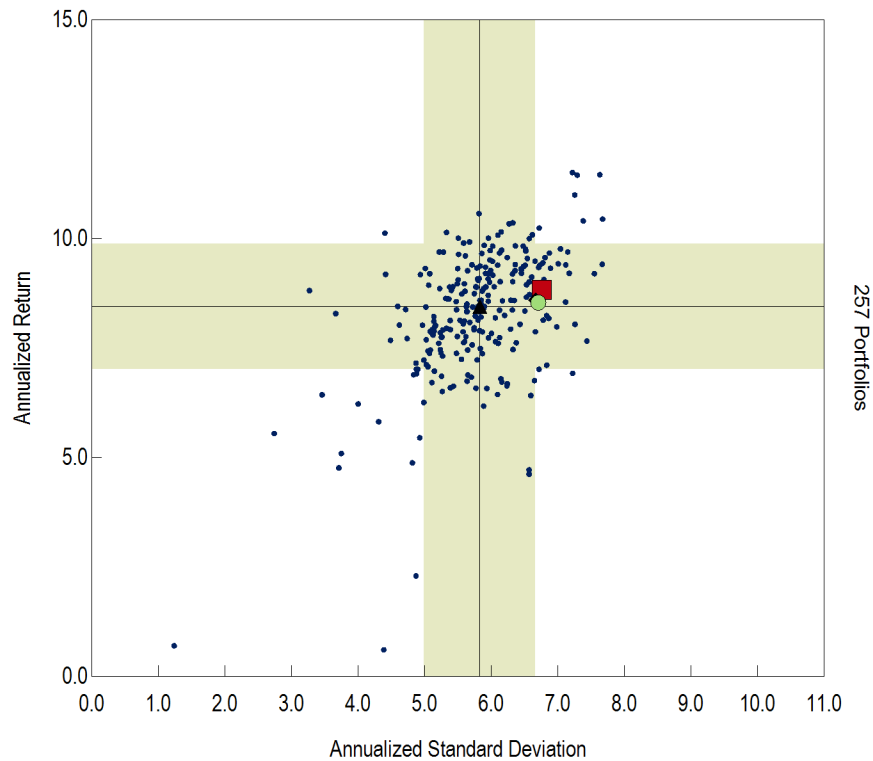
3 Years Ending September 30, 2017

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK PERS	7.12%	38	6.98%	92
PERS Allocation Index	7.12%	38	6.87%	89
PERS Policy Index	7.16%	36	7.00%	92

3 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK PERS	0.97	79	1.40	77
PERS Allocation Index	0.99	74	1.45	71
PERS Policy Index	0.98	79	1.45	71

5 Years Ending September 30, 2017



- OK PERS
- ◆ PERS Allocation Index
- PERS Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

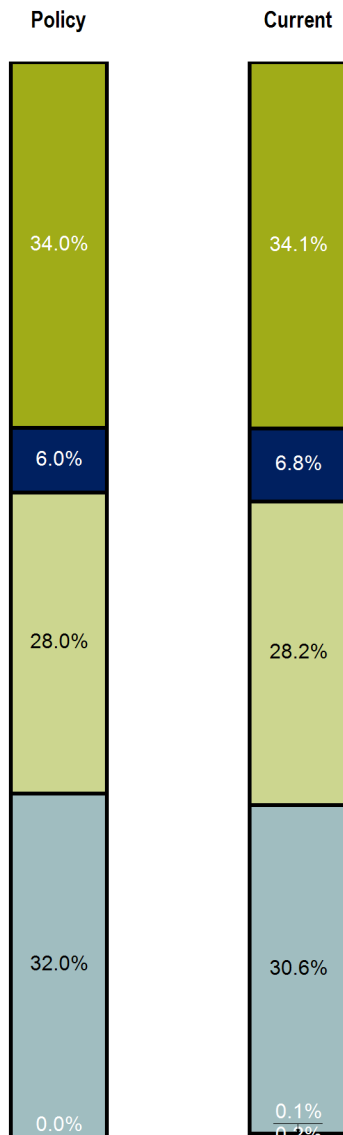
5 Years Ending September 30, 2017

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK PERS	8.83%	39	6.76%	90
PERS Allocation Index	8.60%	45	6.67%	87
PERS Policy Index	8.54%	49	6.71%	88

5 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK PERS	1.27	78	2.08	77
PERS Allocation Index	1.26	81	2.11	75
PERS Policy Index	1.24	82	2.09	75

Total Fund Asset Allocation vs. Policy Targets



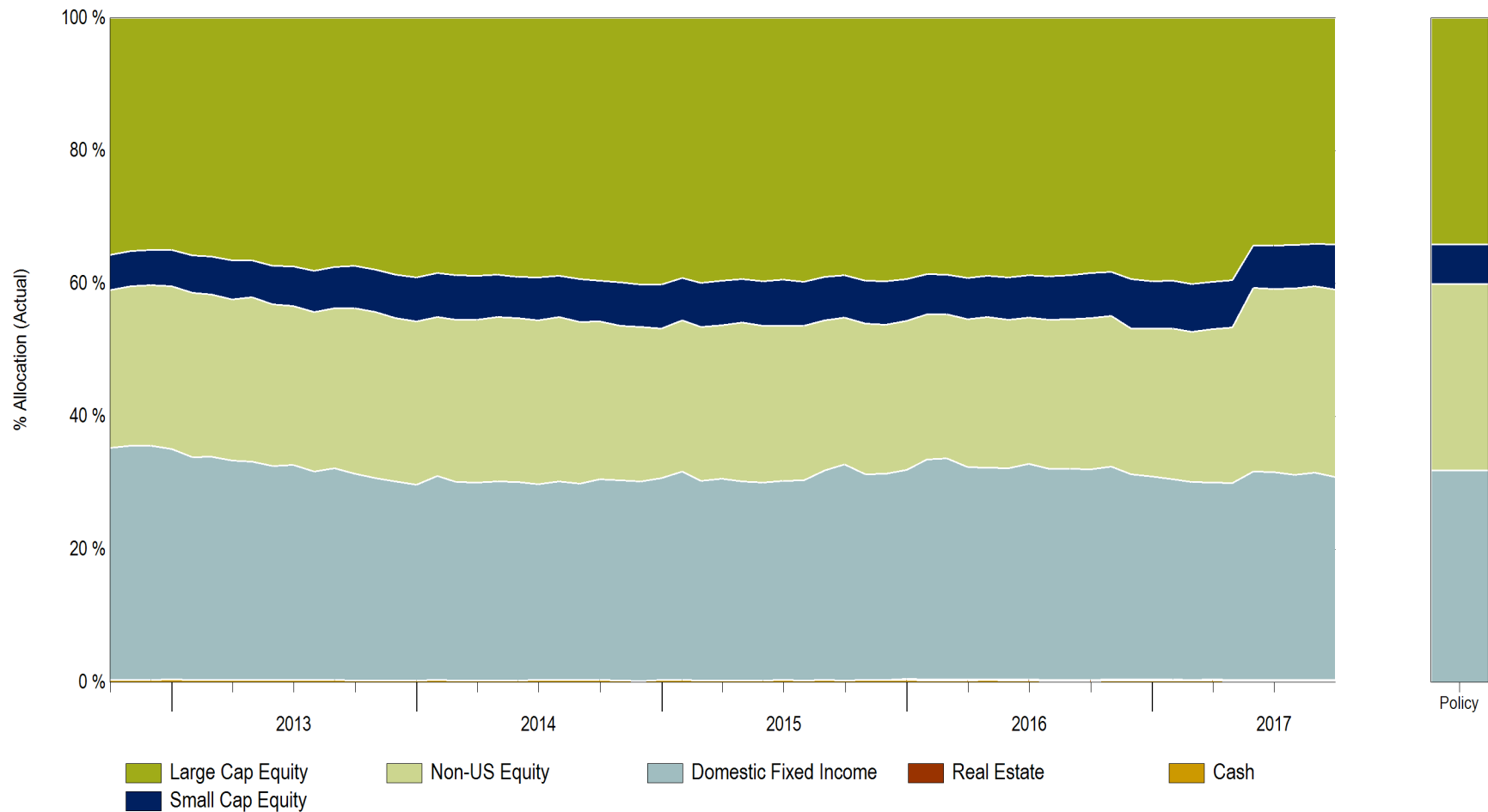
Asset Allocation vs. Target

	Current	Policy	Current	Difference*	Policy Range	Within Range
Large Cap Equity	\$3,236,136,531	34.0%	34.1%	0.1%	31.2% - 36.8%	Yes
Small Cap Equity	\$642,442,602	6.0%	6.8%	0.8%	3.2% - 8.8%	Yes
Non-US Equity	\$2,681,079,406	28.0%	28.2%	0.2%	25.0% - 31.0%	Yes
Domestic Fixed Income	\$2,908,038,469	32.0%	30.6%	-1.4%	27.5% - 36.5%	Yes
Real Estate	\$12,100,000	0.0%	0.1%	0.1%	0.0% - 5.0%	Yes
Cash	\$18,121,975	0.0%	0.2%	0.2%	0.0% - 5.0%	Yes
Total	\$9,497,918,983	100.0%	100.0%			

*Difference between Policy and Current Allocation

Total Fund Asset Allocation History

Asset Allocation History



OKLAHOMA PERS

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
OK PERS	9,497,918,983	100.0	3.9	18	12.3	20	12.8	34	7.1	38	8.8	39	6.0	24
<i>PERS Allocation Index</i>			<u>3.9</u>	19	<u>11.9</u>	32	<u>12.7</u>	37	<u>7.1</u>	38	<u>8.6</u>	45	<u>5.8</u>	32
Over/Under			0.0		0.4		0.1		0.0		0.2		0.2	
<i>PERS Policy Index</i>			3.9	17	12.3	21	12.8	34	7.2	36	8.5	49	5.7	44
<i>InvestorForce Public DB Gross Median</i>			3.4		11.1		12.2		6.9		8.5		5.6	
Domestic Equity Composite	3,878,579,133	40.8	5.0	42	14.0	42	19.7	44	10.7	51	14.4	47	7.6	67
<i>Domestic Equity Benchmark</i>			<u>4.6</u>	51	<u>13.8</u>	44	<u>18.9</u>	52	<u>10.9</u>	46	<u>14.3</u>	51	<u>7.6</u>	66
Over/Under			0.4		0.2		0.8		-0.2		0.1		0.0	
<i>eA All US Equity Gross Median</i>			4.6		12.8		19.1		10.7		14.3		8.2	
Aronson Johnson & Ortiz	279,805,108	2.9	4.7	29	8.5	77	18.4	40	7.4	78	13.0	64	6.5	71
<i>Russell 1000 Value</i>			<u>3.1</u>	81	<u>7.9</u>	85	<u>15.1</u>	77	<u>8.5</u>	61	<u>13.2</u>	58	<u>5.9</u>	83
Over/Under			1.6		0.6		3.3		-1.1		-0.2		0.6	
<i>eA US Large Cap Value Equity Gross Median</i>			4.2		10.4		17.6		8.9		13.5		6.9	
Mellon	552,516,927	5.8	5.4	24	15.5	33	20.4	27	9.6	66	14.2	43	7.4	68
<i>Russell 1000</i>			<u>4.5</u>	54	<u>14.2</u>	49	<u>18.5</u>	51	<u>10.6</u>	41	<u>14.3</u>	40	<u>7.5</u>	65
Over/Under			0.9		1.3		1.9		-1.0		-0.1		-0.1	
State Street Enhanced Index	551,161,436	5.8	4.3	59	14.4	47	18.9	46	10.8	37	14.7	29	7.3	72
<i>Russell 1000</i>			<u>4.5</u>	54	<u>14.2</u>	49	<u>18.5</u>	51	<u>10.6</u>	41	<u>14.3</u>	40	<u>7.5</u>	65
Over/Under			-0.2		0.2		0.4		0.2		0.4		-0.2	
Blackrock Russell 1000	1,550,004,873	16.3	4.5	55	14.2	49	18.6	50	10.6	41	14.3	39	--	--
<i>Russell 1000</i>			<u>4.5</u>	54	<u>14.2</u>	49	<u>18.5</u>	51	<u>10.6</u>	41	<u>14.3</u>	40	<u>7.5</u>	65
Over/Under			0.0		0.0		0.1		0.0		0.0			
<i>eA US Large Cap Core Equity Gross Median</i>			4.6		14.1		18.6		10.3		13.9		7.9	
UBS Global Asset Mgmt	209,816,700	2.2	3.3	89	13.0	82	16.8	84	9.4	81	13.2	75	8.6	54
<i>Russell 2000 Growth</i>			<u>6.2</u>	49	<u>16.8</u>	62	<u>21.0</u>	60	<u>12.2</u>	55	<u>14.3</u>	58	<u>8.5</u>	59
Over/Under			-2.9		-3.8		-4.2		-2.8		-1.1		0.1	
<i>eA US Small Cap Growth Equity Gross Median</i>			6.1		18.5		21.8		12.7		14.7		8.8	

Domestic Equity Benchmark is 86.4% Russell 1000 and 13.6% Russell 2000.

OKLAHOMA PERS

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Barrow Hanley	215,338,014	2.3	10.1	4	13.2	6	27.5	7	14.1	19	16.9	13	11.4	7
<i>Russell 2000 Value</i>			<u>5.1</u>	54	<u>5.7</u>	66	<u>20.5</u>	49	<u>12.1</u>	48	<u>13.3</u>	75	<u>7.1</u>	85
Over/Under			5.0		7.5		7.0		2.0		3.6		4.3	
DePrince Race & Zollo	217,287,888	2.3	5.8	39	5.8	65	21.4	43	11.7	55	13.6	70	--	--
<i>Russell 2000 Value</i>			<u>5.1</u>	54	<u>5.7</u>	66	<u>20.5</u>	49	<u>12.1</u>	48	<u>13.3</u>	75	<u>7.1</u>	85
Over/Under			0.7		0.1		0.9		-0.4		0.3			
<i>eA US Small Cap Value Equity Gross Median</i>			5.2		7.0		20.4		11.9		14.8		9.0	
Westfield	302,648,187	3.2	6.0	35	--	--	--	--	--	--	--	--	--	--
<i>Russell 1000 Growth</i>			<u>5.9</u>	38	<u>20.7</u>	46	<u>21.9</u>	41	<u>12.7</u>	32	<u>15.3</u>	41	<u>9.1</u>	42
Over/Under			0.1											
<i>eA US Large Cap Growth Equity Gross Median</i>			5.4		20.2		21.2		11.7		14.9		8.8	
Domestic Fixed Income Composite	2,908,038,469	30.6	0.9	59	3.6	47	-0.5	96	3.1	49	2.3	58	5.1	39
<i>BBgBarc US Aggregate TR</i>			<u>0.8</u>	59	<u>3.1</u>	58	<u>0.1</u>	90	<u>2.7</u>	59	<u>2.1</u>	65	<u>4.3</u>	60
Over/Under			0.1		0.5		-0.6		0.4		0.2		0.8	
<i>eA All US Fixed Inc Gross Median</i>			0.9		3.5		1.2		3.1		2.6		4.6	
Blackrock	1,423,810,878	15.0	0.9	65	3.4	63	0.4	65	3.0	52	2.4	59	4.4	85
<i>BBgBarc US Aggregate TR</i>			<u>0.8</u>	69	<u>3.1</u>	79	<u>0.1</u>	86	<u>2.7</u>	82	<u>2.1</u>	87	<u>4.3</u>	91
Over/Under			0.1		0.3		0.3		0.3		0.3		0.1	
Met West	859,860,768	9.1	0.9	52	3.3	65	0.7	41	2.9	73	2.6	38	5.7	7
<i>BBgBarc US Aggregate TR</i>			<u>0.8</u>	69	<u>3.1</u>	79	<u>0.1</u>	86	<u>2.7</u>	82	<u>2.1</u>	87	<u>4.3</u>	91
Over/Under			0.1		0.2		0.6		0.2		0.5		1.4	
<i>eA US Core Fixed Inc Gross Median</i>			0.9		3.5		0.6		3.1		2.5		4.9	
Hoisington	319,419,178	3.4	0.6	97	7.4	82	-7.9	97	5.6	73	3.2	95	8.0	63
<i>BBgBarc Treasury Long Term</i>			<u>0.6</u>	97	<u>6.0</u>	93	<u>-6.4</u>	96	<u>4.9</u>	94	<u>2.8</u>	98	<u>6.9</u>	92
Over/Under			0.0		1.4		-1.5		0.7		0.4		1.1	
<i>eA US Long Duration Fixed Inc Gross Median</i>			1.8		8.3		0.8		5.9		4.6		8.3	
Blackrock TIPS	304,947,645	3.2	0.9	12	2.0	94	-0.4	97	1.8	93	0.2	99	--	--
<i>BBgBarc US TIPS TR</i>			<u>0.9</u>	16	<u>1.7</u>	97	<u>-0.7</u>	99	<u>1.6</u>	99	<u>0.0</u>	99	<u>3.9</u>	75
Over/Under			0.0		0.3		0.3		0.2		0.2			
<i>eA US Interm Duration Fixed Inc Gross Median</i>			0.7		2.5		0.6		2.4		1.9		4.1	

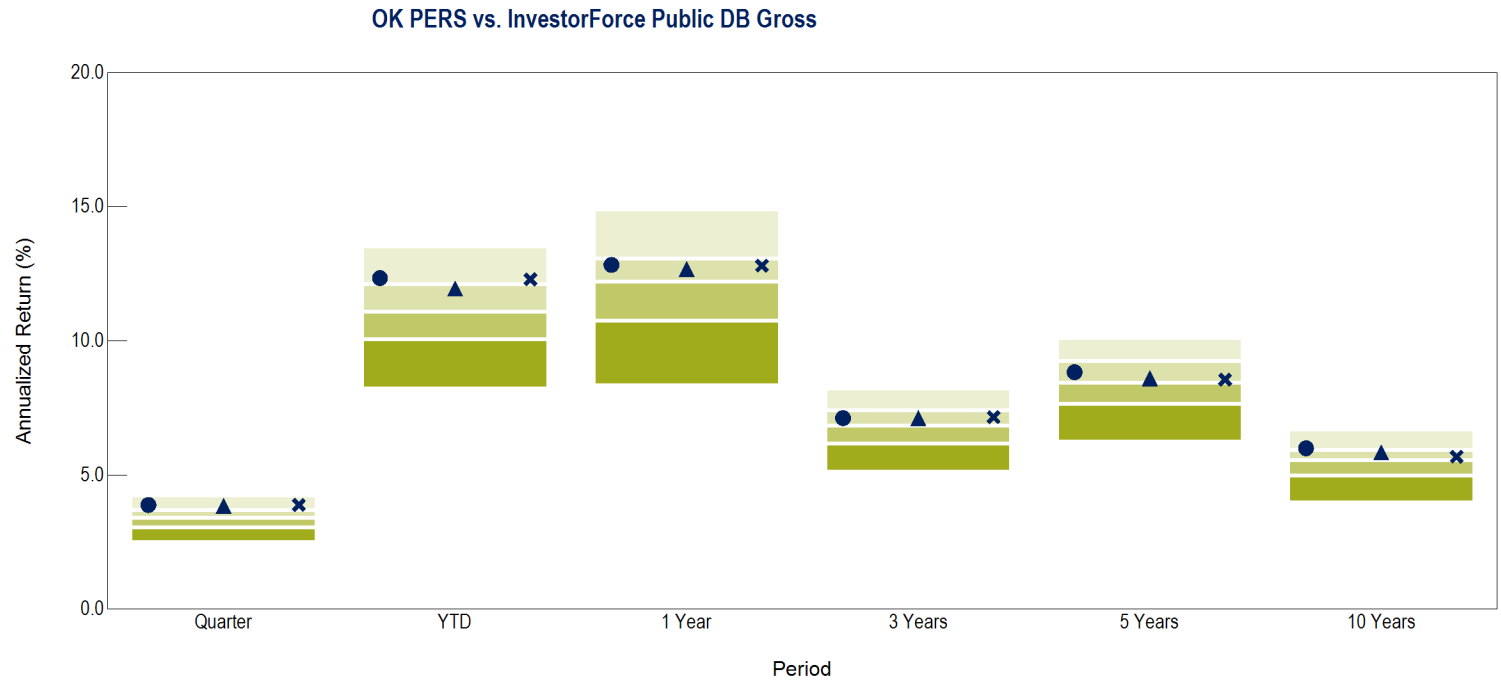
OKLAHOMA PERS

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
International Equity Composite	2,681,079,406	28.2	5.7	71	21.5	71	18.5	72	5.5	76	7.5	84	1.9	85
MSCI ACWI ex USA			<u>6.2</u>	62	<u>21.1</u>	76	<u>19.6</u>	61	<u>4.7</u>	85	<u>7.0</u>	91	<u>1.3</u>	95
Over/Under			-0.5		0.4		-1.1		0.8		0.5		0.6	
eA All ACWI ex-US Equity Gross Median			6.7		24.6		20.9		7.1		9.5		3.5	
Baillie Gifford	336,558,476	3.5	5.1	90	26.1	62	17.4	81	9.0	45	--	--	--	--
MSCI ACWI ex USA Growth			<u>6.3</u>	66	<u>24.8</u>	76	<u>17.7</u>	73	<u>6.4</u>	91	<u>7.9</u>	93	<u>1.9</u>	88
Over/Under			-1.2		1.3		-0.3		2.6					
eA ACWI ex-US All Cap Growth Eq Gross Median			7.8		27.0		20.2		8.6		10.3		4.2	
Blackrock ACWI Ex US	1,411,387,932	14.9	6.2	61	21.4	73	19.9	58	5.0	83	7.3	88	--	--
MSCI ACWI ex USA			<u>6.2</u>	62	<u>21.1</u>	76	<u>19.6</u>	61	<u>4.7</u>	85	<u>7.0</u>	91	<u>1.3</u>	95
Over/Under			0.0		0.3		0.3		0.3		0.3			
eA All ACWI ex-US Equity Gross Median			6.7		24.6		20.9		7.1		9.5		3.5	
Blackrock ACWI Ex US Growth	332,964,789	3.5	5.9	75	23.2	96	17.5	76	6.0	94	7.6	98	--	--
MSCI ACWI ex USA Growth			<u>6.3</u>	66	<u>24.8</u>	76	<u>17.7</u>	73	<u>6.4</u>	91	<u>7.9</u>	93	<u>1.9</u>	88
Over/Under			-0.4		-1.6		-0.2		-0.4		-0.3			
eA ACWI ex-US All Cap Growth Eq Gross Median			7.8		27.0		20.2		8.6		10.3		4.2	
Mondrian	600,168,209	6.3	4.8	89	17.8	93	16.5	83	4.1	89	7.2	89	2.1	77
MSCI ACWI ex USA Value			<u>6.0</u>	63	<u>17.7</u>	94	<u>21.6</u>	44	<u>2.9</u>	97	<u>6.0</u>	96	<u>0.6</u>	97
Over/Under			-1.2		0.1		-5.1		1.2		1.2		1.5	
eA All ACWI ex-US Equity Gross Median			6.7		24.6		20.9		7.1		9.5		3.5	
Real Estate	12,100,000	0.1	-4.3	--	-3.6	--	-3.0	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-6.2		-9.0		-10.7							
Grand Centre	12,100,000	0.1	-4.3	--	-3.6	--	-3.0	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-6.2		-9.0		-10.7							

New Policy Index effective as of November 1, 2013 consist of 38% Large Cap Equity, 6% Small Cap Equity, 24% International Equity, and 32% Domestic Fixed Income.

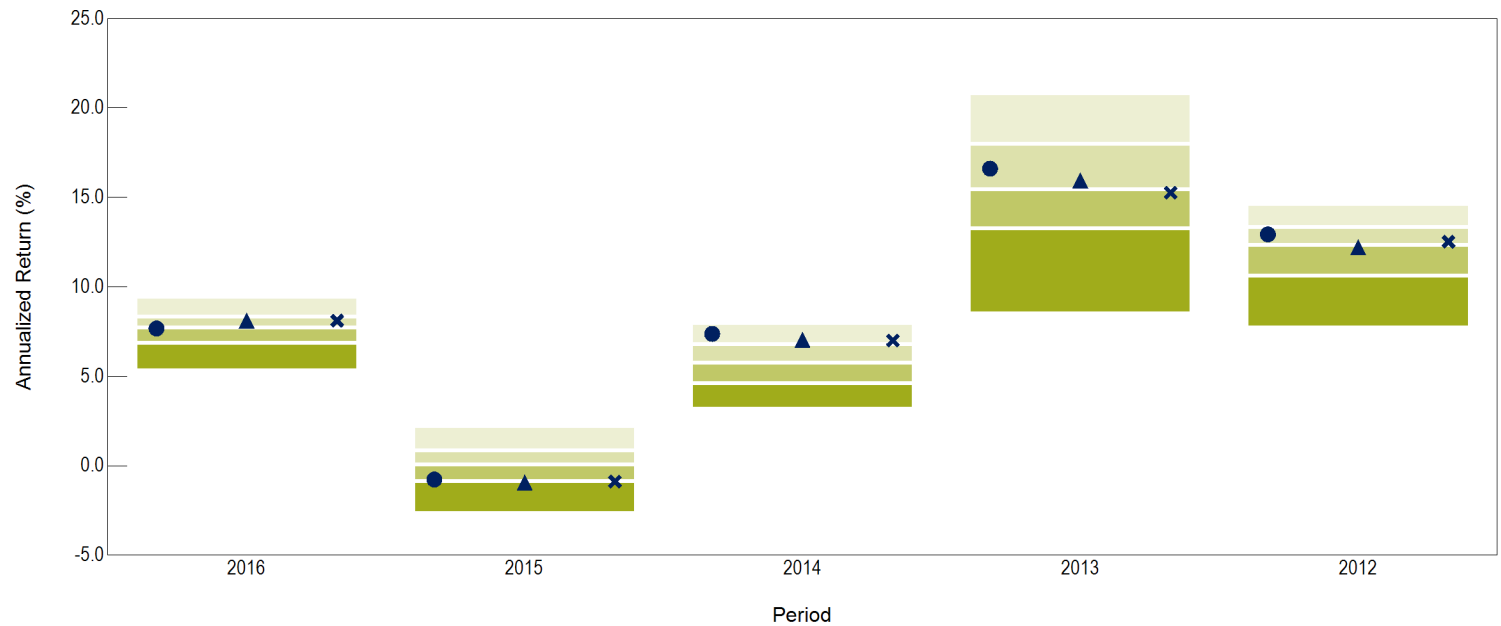
Total Fund Return Summary vs. Peer Universe



	Return (Rank)											
5th Percentile												
25th Percentile	4.2		13.5		14.9		8.2		10.1		6.7	
Median	3.7		12.1		13.1		7.4		9.3		5.9	
75th Percentile	3.4		11.1		12.2		6.9		8.5		5.6	
95th Percentile	3.1		10.1		10.8		6.2		7.7		5.0	
# of Portfolios	2.5		8.2		8.4		5.1		6.3		4.0	
	311		311		309		283		257		208	
● OK PERS	3.9	(18)	12.3	(20)	12.8	(34)	7.1	(38)	8.8	(39)	6.0	(24)
▲ PERS Allocation Index	3.9	(19)	11.9	(32)	12.7	(37)	7.1	(38)	8.6	(45)	5.8	(32)
× PERS Policy Index	3.9	(17)	12.3	(21)	12.8	(34)	7.2	(36)	8.6	(48)	5.7	(44)

Total Fund Return Summary vs. Peer Universe

OK PERS vs. InvestorForce Public DB Gross

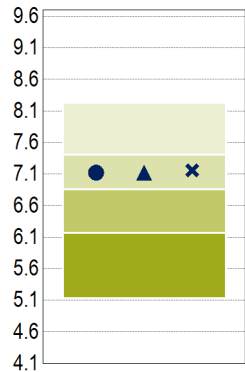


	2016		2015		2014		2013		2012	
	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)
5th Percentile	9.4		2.2		8.0		20.8		14.6	
25th Percentile	8.4		0.9		6.8		18.0		13.4	
Median	7.7		0.1		5.8		15.5		12.4	
75th Percentile	6.9		-0.9		4.6		13.3		10.7	
95th Percentile	5.3		-2.6		3.2		8.5		7.8	
# of Portfolios	305		316		248		231		236	
● OK PERS	7.7	(52)	-0.8	(73)	7.4	(15)	16.6	(40)	12.9	(38)
▲ PERS Allocation Index	8.1	(34)	-0.9	(77)	7.0	(21)	15.9	(48)	12.2	(53)
× PERS Policy Index	8.1	(34)	-0.9	(76)	7.0	(21)	15.3	(53)	12.5	(47)

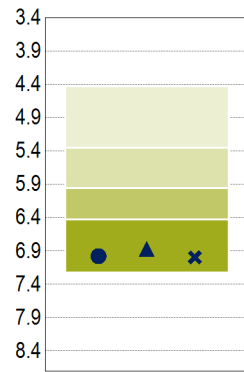
Total Fund Risk Statistics vs. Peer Universe

OK PERS vs. InvestorForce Public DB Gross
3 Years

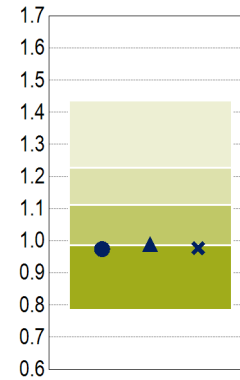
Anlzd Return



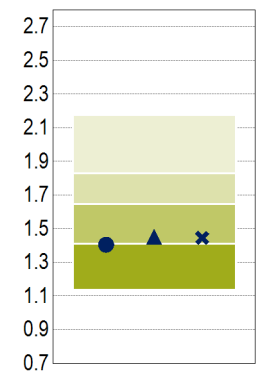
Anlzd Standard Deviation



Sharpe Ratio



Sortino Ratio



● OK PERS	
Value	7.12
Rank	38
▲ PERS Allocation Index	
Value	7.12
Rank	38
× PERS Policy Index	
Value	7.16
Rank	36
Universe	
5th %tile	8.22
25th %tile	7.41
Median	6.86
75th %tile	6.18
95th %tile	5.15

● OK PERS	
Value	6.98
Rank	92
▲ PERS Allocation Index	
Value	6.87
Rank	89
× PERS Policy Index	
Value	7.00
Rank	92
Universe	
5th %tile	4.43
25th %tile	5.34
Median	5.94
75th %tile	6.42
95th %tile	7.22

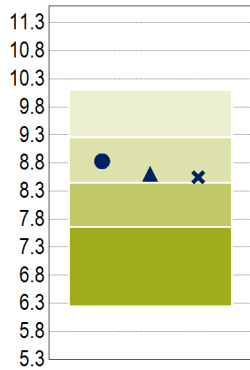
● OK PERS	
Value	0.97
Rank	79
▲ PERS Allocation Index	
Value	0.99
Rank	74
× PERS Policy Index	
Value	0.98
Rank	79
Universe	
5th %tile	1.44
25th %tile	1.23
Median	1.11
75th %tile	0.99
95th %tile	0.79

● OK PERS	
Value	1.40
Rank	77
▲ PERS Allocation Index	
Value	1.45
Rank	71
× PERS Policy Index	
Value	1.45
Rank	71
Universe	
5th %tile	2.18
25th %tile	1.83
Median	1.65
75th %tile	1.41
95th %tile	1.14

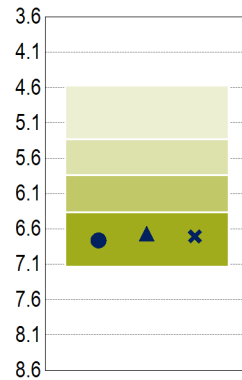
Total Fund Risk Statistics vs. Peer Universe

OK PERS vs. InvestorForce Public DB Gross
5 Years

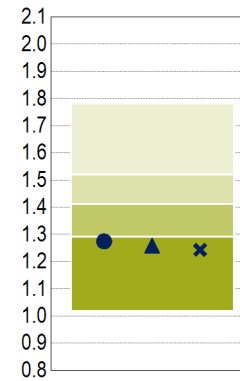
Anlzd Return



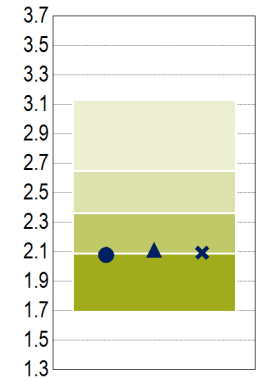
Anlzd Standard Deviation



Sharpe Ratio



Sortino Ratio



● OK PERS	
Value	8.83
Rank	39
▲ PERS Allocation Index	
Value	8.60
Rank	45
× PERS Policy Index	
Value	8.54
Rank	49
Universe	
5th %tile	10.10
25th %tile	9.27
Median	8.46
75th %tile	7.67
95th %tile	6.26

● OK PERS	
Value	6.76
Rank	90
▲ PERS Allocation Index	
Value	6.67
Rank	87
× PERS Policy Index	
Value	6.71
Rank	88
Universe	
5th %tile	4.57
25th %tile	5.33
Median	5.83
75th %tile	6.36
95th %tile	7.12

● OK PERS	
Value	1.27
Rank	78
▲ PERS Allocation Index	
Value	1.26
Rank	81
× PERS Policy Index	
Value	1.24
Rank	82
Universe	
5th %tile	1.78
25th %tile	1.52
Median	1.41
75th %tile	1.29
95th %tile	1.02

● OK PERS	
Value	2.08
Rank	77
▲ PERS Allocation Index	
Value	2.11
Rank	75
× PERS Policy Index	
Value	2.09
Rank	75
Universe	
5th %tile	3.13
25th %tile	2.65
Median	2.36
75th %tile	2.09
95th %tile	1.69

Total Fund Allocations vs. Peer Universe

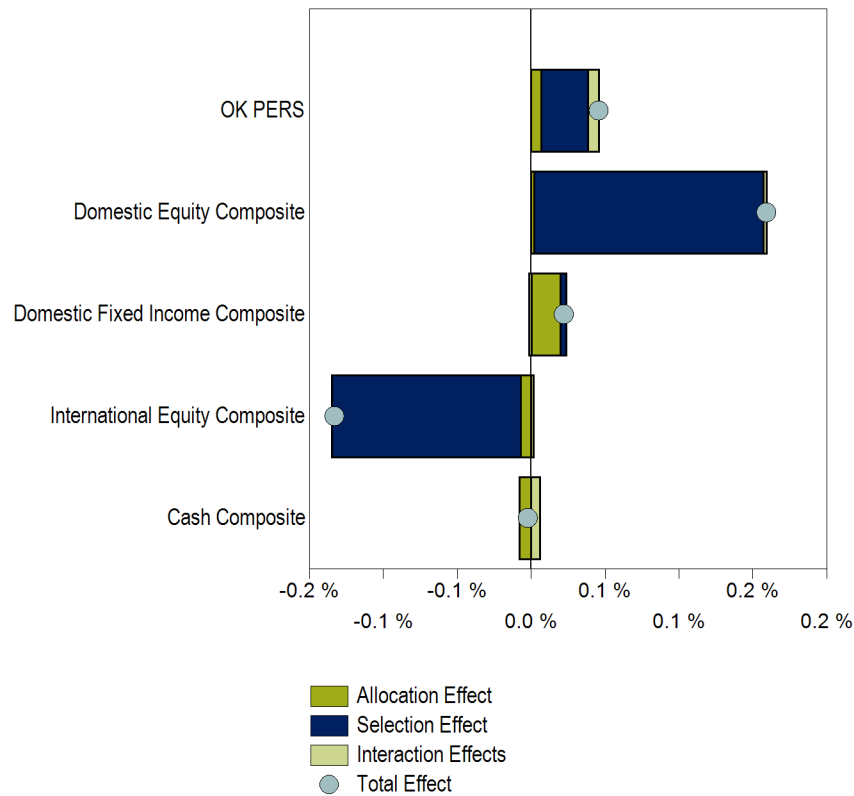
Total Plan Allocation vs. InvestorForce Public DB Gross



	Allocation (Rank)			
5th Percentile	50.7	28.1	52.3	5.5
25th Percentile	40.1	20.9	31.6	2.2
Median	31.3	15.6	21.6	1.1
75th Percentile	22.1	11.2	15.5	0.4
95th Percentile	10.0	5.3	7.1	0.0
# of Portfolios	231	254	228	262
● OK PERS	40.8 (21)	28.2 (5)	30.6 (28)	0.2 (83)

Total Fund Attribution Analysis

**Attribution Effects Relative to PERS Policy Index
3 Months Ending September 30, 2017**



**Attribution Summary
3 Months Ending September 30, 2017**

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Domestic Equity Composite	5.0%	4.6%	0.4%	0.2%	0.0%	0.0%	0.2%
Domestic Fixed Income Composite	0.9%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
International Equity Composite	5.7%	6.2%	-0.5%	-0.1%	0.0%	0.0%	-0.1%
Cash Composite	2.9%	0.3%	2.6%	0.0%	0.0%	0.0%	0.0%
Total	3.9%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%

*Target return show is a weighted average of the composites shown and their respective benchmarks and may differ from returns shown throughout the report.

Performance Attribution

	Last 3 Mo.	YTD	1 Yr
Wtd. Actual Return	3.9%	12.3%	12.8%
Wtd. Index Return *	3.8%	12.0%	12.8%
Excess Return	0.0%	0.3%	0.0%
Selection Effect	0.0%	0.3%	-0.1%
Allocation Effect	0.0%	0.0%	0.1%
Interaction Effect	0.0%	0.0%	0.0%
Asset Class Returns			
OK PERS	3.9%	12.3%	12.8%
Domestic Equity Composite	5.0%	14.0%	19.7%
Domestic Fixed Income Composite	0.9%	3.6%	-0.5%
International Equity Composite	5.7%	21.5%	18.5%
Cash Composite	2.9%	6.2%	6.4%
Z TERMINATED - R/E Composite			
Real Estate	-4.3%	-3.6%	-3.0%

*Calculated from benchmark returns and weightings of each component.

Z TERMINATED represents Composite that fully liquidated.

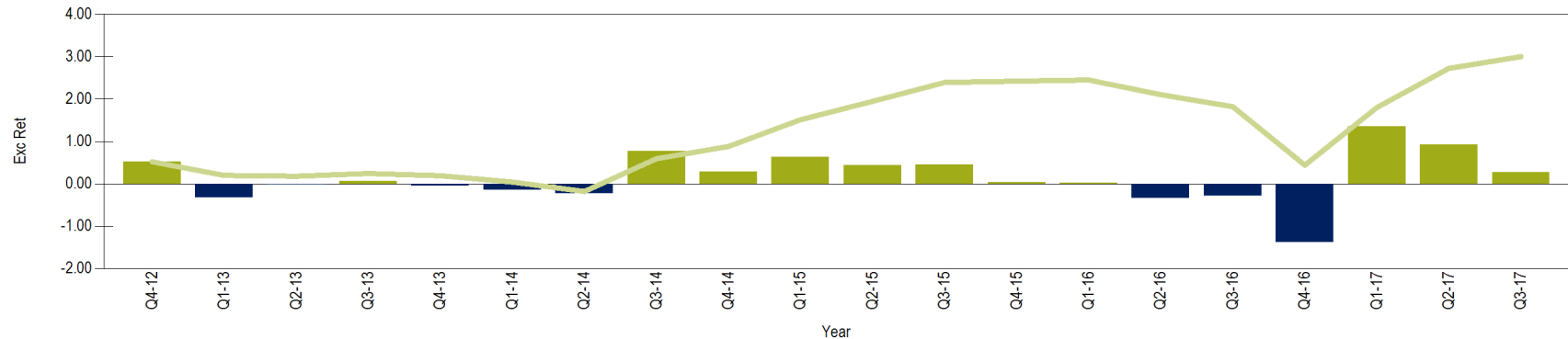
Oklahoma Firefighters

OKLAHOMA FIREFIGHTERS

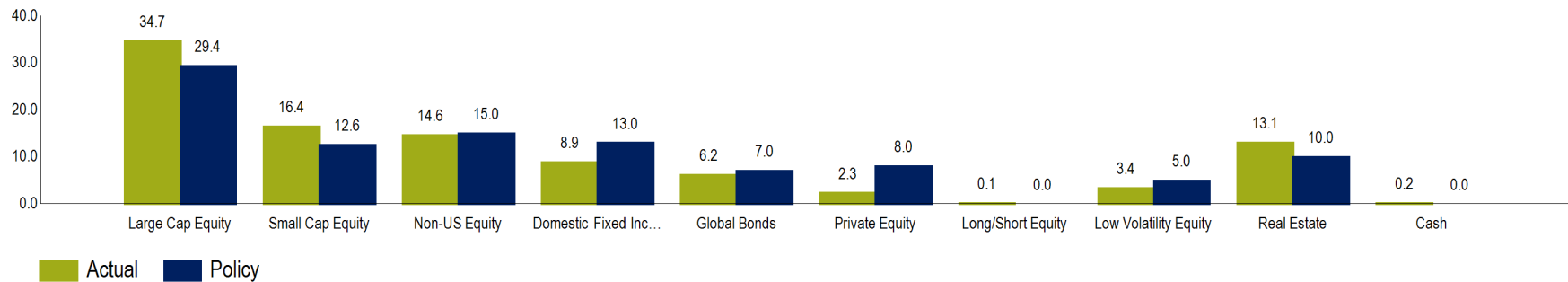
Total Plan Performance Summary

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK FIREFIGHTERS	\$2,565,860,049	4.0%	12	13.7%	4	14.5%	7	8.7%	3	10.4%	3	6.0%	25
<i>FIREFIGHTERS Allocation Index</i>		3.7%	27	11.0%	54	13.3%	23	7.8%	13	9.7%	12	5.8%	34
<i>FIREFIGHTERS Policy Index</i>		3.4%	47	11.8%	35	13.8%	14	8.4%	4	10.2%	4	6.6%	8
<i>InvestorForce Public DB Gross Median</i>		3.4%		11.1%		12.2%		6.9%		8.5%		5.6%	

Quarterly and Cumulative Excess Performance

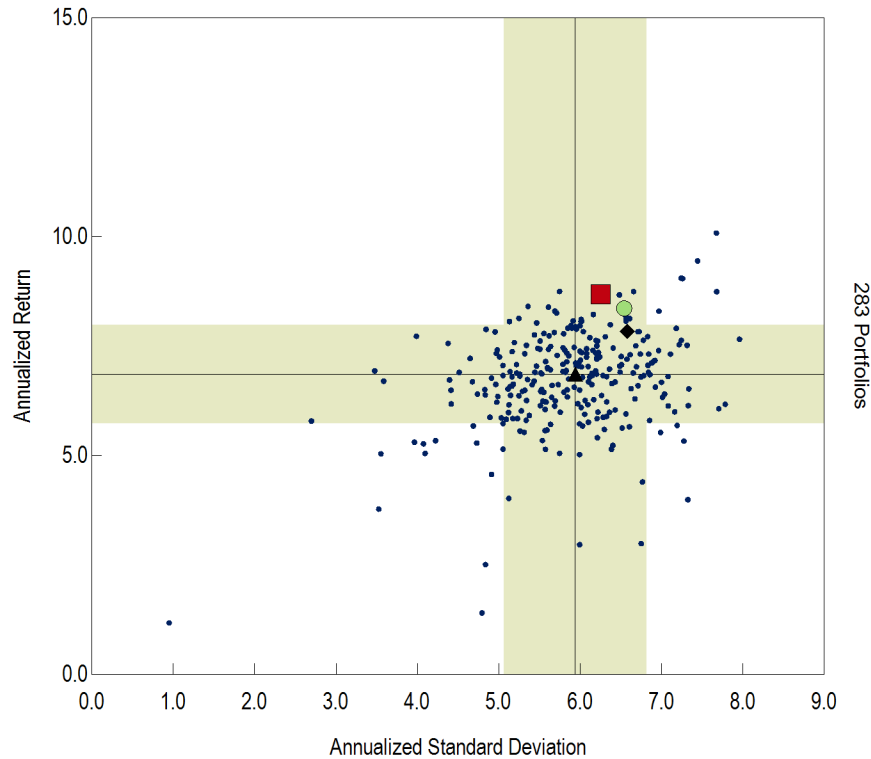


Actual vs Target Allocation (%)



Total Plan Risk/Return - 3 Years

3 Years Ending September 30, 2017



- OK FIREFIGHTERS
- ◆ FIREFIGHTERS Allocation Index
- FIREFIGHTERS Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

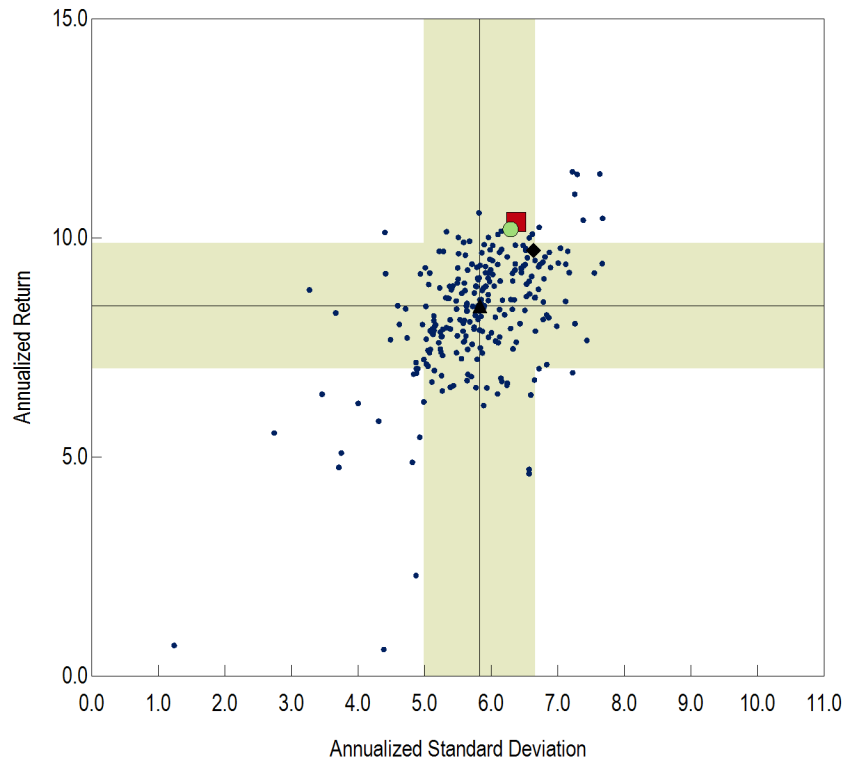
3 Years Ending September 30, 2017

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK FIREFIGHTERS	8.69%	3	6.25%	70
FIREFIGHTERS Allocation Index	7.84%	13	6.58%	80
FIREFIGHTERS Policy Index	8.37%	4	6.54%	78

3 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK FIREFIGHTERS	1.34	11	1.86	24
FIREFIGHTERS Allocation Index	1.14	44	1.52	64
FIREFIGHTERS Policy Index	1.23	25	1.81	28

5 Years Ending September 30, 2017



- OK FIREFIGHTERS
- ◆ FIREFIGHTERS Allocation Index
- FIREFIGHTERS Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

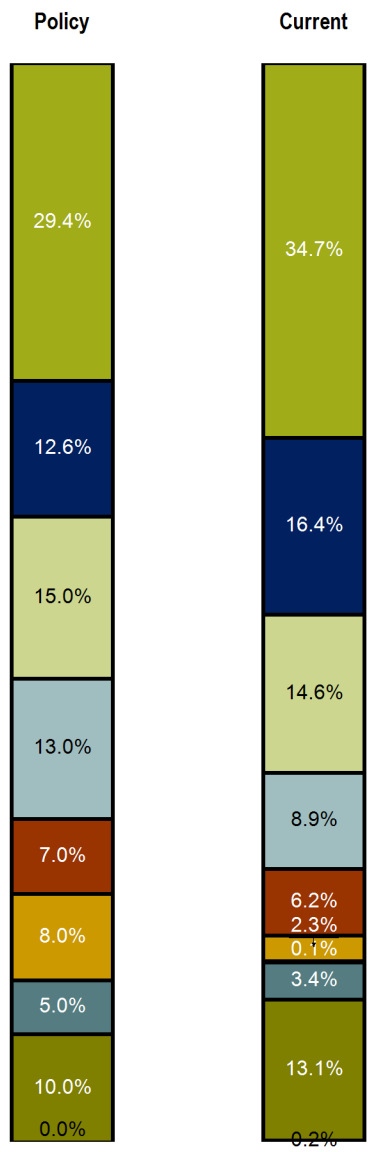
5 Years Ending September 30, 2017

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK FIREFIGHTERS	10.37%	3	6.38%	77
FIREFIGHTERS Allocation Index	9.71%	12	6.63%	85
FIREFIGHTERS Policy Index	10.20%	4	6.29%	72

5 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK FIREFIGHTERS	1.59	16	2.74	20
FIREFIGHTERS Allocation Index	1.43	45	2.31	58
FIREFIGHTERS Policy Index	1.59	17	2.74	20

Total Plan Asset Allocation vs. Policy Targets



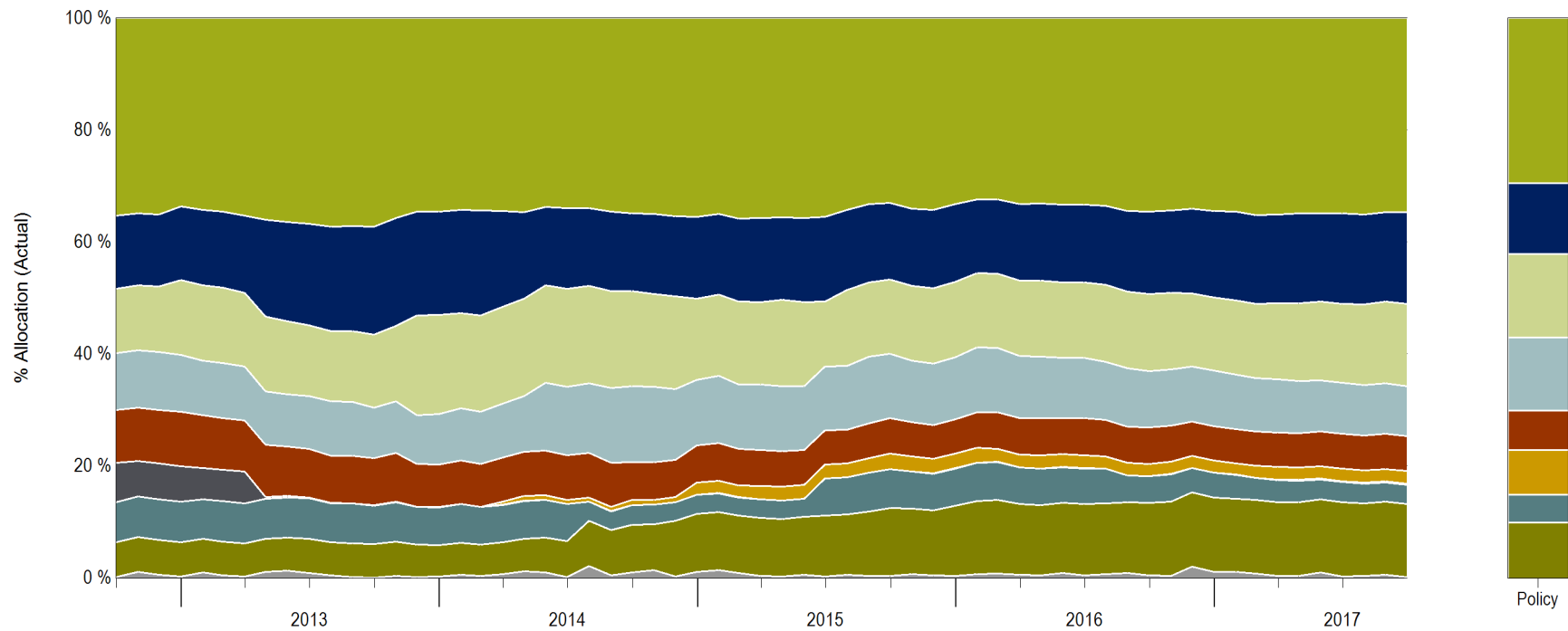
Asset Allocation vs. Target

	Current	Policy	Current	Difference*	Policy Range	Within Range
Large Cap Equity	\$889,237,198	29.4%	34.7%	5.3%	24.4% - 34.4%	No
Small Cap Equity	\$421,816,511	12.6%	16.4%	3.8%	7.6% - 17.6%	Yes
Non-US Equity	\$375,726,433	15.0%	14.6%	-0.4%	10.0% - 20.0%	Yes
Domestic Fixed Income	\$228,215,239	13.0%	8.9%	-4.1%	0.0% - 28.0%	Yes
Global Bonds	\$159,618,539	7.0%	6.2%	-0.8%	2.0% - 12.0%	Yes
Private Equity	\$59,866,585	8.0%	2.3%	-5.7%	0.0% - 13.0%	Yes
Long/Short Equity	\$3,834,765	--	0.1%	0.1%	--	No
Low Volatility Equity	\$87,699,607	5.0%	3.4%	-1.6%	0.0% - 10.0%	Yes
Real Estate	\$335,475,334	10.0%	13.1%	3.1%	5.0% - 15.0%	Yes
Cash	\$4,369,837	0.0%	0.2%	0.2%	0.0% - 5.0%	Yes
Total	\$2,565,860,049	100.0%	100.0%			

*Difference between Policy and Current Allocation

Total Plan Asset Allocation History

Asset Allocation History



- Large Cap Equity
- Non-US Equity
- Global Bonds
- Long/Short Equity
- Real Estate
- Small Cap Equity
- Domestic Fixed Income
- Private Equity
- Low Volatility Equity
- Cash

OKLAHOMA FIREFIGHTERS

Total Plan Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
OK FIREFIGHTERS	2,565,860,049	100.0	4.0	12	13.7	4	14.5	7	8.7	3	10.4	3	6.0	25
<i>FIREFIGHTERS Allocation Index</i>			3.7	27	11.0	54	13.3	23	7.8	13	9.7	12	5.8	34
Over/Under			0.3		2.7		1.2		0.9		0.7		0.2	
<i>FIREFIGHTERS Policy Index</i>			3.4	47	11.8	35	13.8	14	8.4	4	10.2	4	6.6	8
<i>InvestorForce Public DB Gross Median</i>			3.4		11.1		12.2		6.9		8.5		5.6	
Domestic Equity Composite	1,314,888,474	51.2	4.5	55	15.6	31	19.5	47	10.8	48	14.2	53	7.7	64
<i>Russell 3000</i>			4.6	53	13.9	43	18.7	55	10.7	49	14.2	53	7.6	67
Over/Under			-0.1		1.7		0.8		0.1		0.0		0.1	
<i>eA All US Equity Gross Median</i>			4.6		12.8		19.1		10.7		14.3		8.2	
Large Cap Equity Composite	889,237,198	34.7	4.7	48	15.9	30	19.5	47	10.4	54	14.5	45	7.4	71
<i>Russell 1000</i>			4.5	56	14.2	40	18.5	57	10.6	51	14.3	51	7.5	68
Over/Under			0.2		1.7		1.0		-0.2		0.2		-0.1	
<i>eA All US Equity Gross Median</i>			4.6		12.8		19.1		10.7		14.3		8.2	
Aronson	88,942,470	3.5	4.7	29	8.7	73	18.6	38	7.3	78	13.1	61	6.4	72
<i>Russell 1000 Value</i>			3.1	81	7.9	85	15.1	77	8.5	61	13.2	58	5.9	83
Over/Under			1.6		0.8		3.5		-1.2		-0.1		0.5	
SSgA Equity Index	173,430,944	6.8	4.5	54	14.2	48	18.6	50	10.9	34	14.3	40	7.5	66
<i>S&P 500</i>			4.5	54	14.2	48	18.6	50	10.8	36	14.2	41	7.4	68
Over/Under			0.0		0.0		0.0		0.1		0.1		0.1	
SSgA EQ Wtd S&P	175,253,716	6.8	3.6	79	11.8	81	16.0	79	10.1	56	15.1	20	8.9	13
<i>S&P 500</i>			4.5	54	14.2	48	18.6	50	10.8	36	14.2	41	7.4	68
Over/Under			-0.9		-2.4		-2.6		-0.7		0.9		1.5	
Intech	175,870,831	6.9	5.6	20	17.7	11	20.3	29	11.6	19	14.8	28	8.2	35
<i>S&P 500</i>			4.5	54	14.2	48	18.6	50	10.8	36	14.2	41	7.4	68
Over/Under			1.1		3.5		1.7		0.8		0.6		0.8	
<i>eA US Large Cap Core Equity Gross Median</i>			4.6		14.1		18.6		10.3		13.9		7.9	

OKLAHOMA FIREFIGHTERS

Total Plan Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Fred Alger Management	178,581,390	7.0	5.6	47	23.7	25	21.6	44	12.0	44	16.0	22	--	--
<i>Russell 1000 Growth</i>			<u>5.9</u>	38	<u>20.7</u>	46	<u>21.9</u>	41	<u>12.7</u>	32	<u>15.3</u>	41	<u>9.1</u>	42
Over/Under			-0.3		3.0		-0.3		-0.7		0.7			
<i>eA US Large Cap Growth Equity Gross Median</i>			5.4		20.2		21.2		11.7		14.9		8.8	
Beutel Goodman Company	97,083,073	3.8	3.8	--	16.0	--	22.9	--	--	--	--	--	--	--
<i>Russell 1000 Value</i>			<u>3.1</u>	--	<u>7.9</u>	--	<u>15.1</u>	--	<u>8.5</u>	--	<u>13.2</u>	--	<u>5.9</u>	--
Over/Under			0.7		8.1		7.8							
Herndon Capital - Liquidating	74,774	0.0												
Small Cap Equity Composite	384,096,142	15.0	5.4	52	15.0	28	20.1	59	11.8	61	14.1	65	8.6	59
<i>Russell 2000</i>			<u>5.7</u>	46	<u>10.9</u>	47	<u>20.7</u>	52	<u>12.2</u>	54	<u>13.8</u>	68	<u>7.8</u>	75
Over/Under			-0.3		4.1		-0.6		-0.4		0.3		0.8	
<i>eA US Small Cap Equity Gross Median</i>			5.5		10.3		20.9		12.4		14.9		8.9	
Earnest Partner	83,075,769	3.2	7.0	14	16.8	3	25.1	12	13.1	34	16.0	23	8.8	55
<i>Russell 2000 Value</i>			<u>5.1</u>	54	<u>5.7</u>	66	<u>20.5</u>	49	<u>12.1</u>	48	<u>13.3</u>	75	<u>7.1</u>	85
Over/Under			1.9		11.1		4.6		1.0		2.7		1.7	
River Road	78,154,997	3.0	1.8	95	9.3	25	23.0	24	14.1	19	14.0	64	7.6	81
<i>Russell 2000 Value</i>			<u>5.1</u>	54	<u>5.7</u>	66	<u>20.5</u>	49	<u>12.1</u>	48	<u>13.3</u>	75	<u>7.1</u>	85
Over/Under			-3.3		3.6		2.5		2.0		0.7		0.5	
<i>eA US Small Cap Value Equity Gross Median</i>			5.2		7.0		20.4		11.9		14.8		9.0	
Lord Abbet	67,247,438	2.6	7.3	23	21.5	28	16.5	84	5.9	94	11.8	87	--	--
<i>Russell 2000 Growth</i>			<u>6.2</u>	49	<u>16.8</u>	62	<u>21.0</u>	60	<u>12.2</u>	55	<u>14.3</u>	58	<u>8.5</u>	59
Over/Under			1.1		4.7		-4.5		-6.3		-2.5			
Delaware Small Growth	82,404,388	3.2	6.5	42	16.1	66	16.3	84	14.4	31	14.5	54	--	--
<i>Russell 2500 Growth</i>			<u>5.8</u>	55	<u>17.0</u>	61	<u>20.1</u>	69	<u>11.3</u>	63	<u>14.5</u>	54	<u>8.7</u>	53
Over/Under			0.7		-0.9		-3.8		3.1		0.0			
<i>eA US Small Cap Growth Equity Gross Median</i>			6.1		18.5		21.8		12.7		14.7		8.8	
SSgA Russell Small Cap	73,213,549	2.9	5.0	62	12.7	37	19.2	67	10.5	73	--	--	--	--
<i>Russell 2000</i>			<u>5.7</u>	46	<u>10.9</u>	47	<u>20.7</u>	52	<u>12.2</u>	54	<u>13.8</u>	68	<u>7.8</u>	75
Over/Under			-0.7		1.8		-1.5		-1.7					
<i>eA US Small Cap Equity Gross Median</i>			5.5		10.3		20.9		12.4		14.9		8.9	
Tortoise Direct Opportunities	37,720,369	1.5	-11.1	--	4.0	--	4.0	--	--	--	--	--	--	--
<i>Alerian MLP Index</i>			<u>-3.0</u>	--	<u>-5.6</u>	--	<u>-3.7</u>	--	<u>-12.9</u>	--	<u>-0.6</u>	--	<u>6.5</u>	--
Over/Under			-8.1		9.6		7.7							

OKLAHOMA FIREFIGHTERS

Total Plan Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Long/Short Equity Composite	3,834,765	0.1												
Azul Holdco - Liquidating	3,834,765	0.1												
International Equity Composite	321,233,083	12.5	7.8	32	28.5	24	20.0	57	8.6	34	8.3	73	0.7	97
MSCI ACWI ex USA			<u>6.2</u>	62	<u>21.1</u>	76	<u>19.6</u>	61	<u>4.7</u>	85	<u>7.0</u>	91	<u>1.3</u>	95
Over/Under			1.6		7.4		0.4		3.9		1.3		-0.6	
eA All ACWI ex-US Equity Gross Median			6.7		24.6		20.9		7.1		9.5		3.5	
Chautauqua	118,427,516	4.6	10.5	8	29.4	19	21.0	49	9.9	21	10.3	32	--	--
MSCI EAFE			<u>5.4</u>	77	<u>20.0</u>	85	<u>19.1</u>	68	<u>5.0</u>	82	<u>8.4</u>	71	<u>1.3</u>	94
Over/Under			5.1		9.4		1.9		4.9		1.9			
eA All ACWI ex-US Equity Gross Median			6.7		24.6		20.9		7.1		9.5		3.5	
WCM	122,966,290	4.8	5.2	79	26.7	32	18.3	73	11.2	11	12.4	15	--	--
MSCI EAFE			<u>5.4</u>	77	<u>20.0</u>	85	<u>19.1</u>	68	<u>5.0</u>	82	<u>8.4</u>	71	<u>1.3</u>	94
Over/Under			-0.2		6.7		-0.8		6.2		4.0			
eA All ACWI ex-US Equity Gross Median			6.7		24.6		20.9		7.1		9.5		3.5	
Emerging Markets Equity Composite	79,744,267	3.1	7.8	50	29.8	43	21.2	65	3.8	85	4.3	81	--	--
MSCI Emerging Markets			<u>7.9</u>	49	<u>27.8</u>	58	<u>22.5</u>	58	<u>4.9</u>	72	<u>4.0</u>	87	<u>1.3</u>	87
Over/Under			-0.1		2.0		-1.3		-1.1		0.3			
eA Emg Mkts Equity Gross Median			7.8		28.5		23.1		6.3		5.8		2.8	
Wasatch	23,111,094	0.9	6.9	64	27.7	59	12.8	95	3.3	87	4.2	83	--	--
MSCI Emerging Markets			<u>7.9</u>	49	<u>27.8</u>	58	<u>22.5</u>	58	<u>4.9</u>	72	<u>4.0</u>	87	<u>1.3</u>	87
Over/Under			-1.0		-0.1		-9.7		-1.6		0.2			
eA Emg Mkts Equity Gross Median			7.8		28.5		23.1		6.3		5.8		2.8	
ClariVest Emerging Market Equity	56,633,173	2.2	8.2	43	30.7	37	25.2	34	4.0	82	--	--	--	--
MSCI Emerging Markets			<u>7.9</u>	49	<u>27.8</u>	58	<u>22.5</u>	58	<u>4.9</u>	72	<u>4.0</u>	87	<u>1.3</u>	87
Over/Under			0.3		2.9		2.7		-0.9					
eA Emg Mkts Equity Gross Median			7.8		28.5		23.1		6.3		5.8		2.8	
Thornburg - Liquidating	63,284	0.0												
Fixed Income Composite	387,833,779	15.1	1.9	12	7.1	15	3.8	22	3.6	39	2.9	45	5.2	36
BBgBarc US Aggregate TR			<u>0.8</u>	59	<u>3.1</u>	58	<u>0.1</u>	90	<u>2.7</u>	59	<u>2.1</u>	65	<u>4.3</u>	60
Over/Under			1.1		4.0		3.7		0.9		0.8		0.9	
eA All US Fixed Inc Gross Median			0.9		3.5		1.2		3.1		2.6		4.6	

OKLAHOMA FIREFIGHTERS

Total Plan Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Core Bonds Composite	127,591,988	5.0	0.8	85	3.1	81	0.4	67	3.0	59	2.3	71	--	--
BBgBarc US Aggregate TR			0.8	69	3.1	79	0.1	86	2.7	82	2.1	87	4.3	91
Over/Under			0.0		0.0		0.3		0.3		0.2			
eA US Core Fixed Inc Gross Median			0.9		3.5		0.6		3.1		2.5		4.9	
SSgA NL Fixed Income	44,924,695	1.8	0.9	69	3.2	78	0.1	84	2.7	83	2.1	87	--	--
BBgBarc US Aggregate TR			0.8	69	3.1	79	0.1	86	2.7	82	2.1	87	4.3	91
Over/Under			0.1		0.1		0.0		0.0		0.0			
eA US Core Fixed Inc Gross Median			0.9		3.5		0.6		3.1		2.5		4.9	
Orleans Capital Management	27,197,697	1.1	1.1	17	3.5	47	0.9	33	3.0	57	--	--	--	--
BBgBarc US Aggregate TR			0.8	69	3.1	79	0.1	86	2.7	82	2.1	87	4.3	91
Over/Under			0.3		0.4		0.8		0.3					
eA US Core Fixed Inc Gross Median			0.9		3.5		0.6		3.1		2.5		4.9	
Garcia Hamilton Associates	55,469,596	2.2	0.5	98	2.9	89	0.4	67	3.2	34	--	--	--	--
BBgBarc US Aggregate TR			0.8	69	3.1	79	0.1	86	2.7	82	2.1	87	4.3	91
Over/Under			-0.3		-0.2		0.3		0.5					
eA US Core Fixed Inc Gross Median			0.9		3.5		0.6		3.1		2.5		4.9	
Intermediate Bonds Composite	44,260,192	1.7	0.7	47	2.3	75	0.3	85	2.3	68	1.8	70	--	--
BBgBarc US Govt/Credit Int TR			0.6	86	2.3	76	0.2	86	2.1	82	1.6	84	3.6	92
Over/Under			0.1		0.0		0.1		0.2		0.2			
eA US Interm Duration Fixed Inc Gross Median			0.7		2.5		0.6		2.4		1.9		4.1	
SSgA Barclays Intermediate	44,260,192	1.7	0.7	47	2.3	75	0.3	85	2.3	68	1.8	70	3.9	77
BBgBarc US Govt/Credit Int TR			0.6	86	2.3	76	0.2	86	2.1	82	1.6	84	3.6	92
Over/Under			0.1		0.0		0.1		0.2		0.2		0.3	
eA US Interm Duration Fixed Inc Gross Median			0.7		2.5		0.6		2.4		1.9		4.1	
Garrison Middle Market Funding	17,488,199	0.7	0.5	99	-2.2	99	0.3	99	2.7	93	--	--	--	--
Credit Suisse Leveraged Loans			1.1	71	3.0	99	5.4	1	4.0	19	4.4	7	4.4	98
Over/Under			-0.6		-5.2		-5.1		-1.3					
eA US Core Plus Fixed Inc Gross Median			1.2		4.3		2.0		3.6		3.2		5.5	
Medley Opportunity Fund II	31,022,672	1.2	1.9	3	5.6	2	8.8	2	6.9	1	--	--	--	--
Credit Suisse Leveraged Loans			1.1	74	3.0	66	5.4	41	4.0	84	4.4	65	4.4	87
Over/Under			0.8		2.6		3.4		2.9					
eA Float-Rate Bank Loan Gross Median			1.2		3.1		5.2		4.2		4.6		5.1	

OKLAHOMA FIREFIGHTERS

Total Plan Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
PIMCO Corporate Opp Fund II	7,852,188	0.3	2.1	1	12.1	1	--	--	--	--	--	--	--	--
BBgBarc US High Yield TR			2.0	2	7.0	5	8.9	1	5.8	3	6.4	1	7.8	2
Over/Under			0.1		5.1									
eA US Corporate Fixed Inc Gross Median			1.5		5.6		2.7		4.4		4.0		6.5	
Global Fixed Composite	159,618,539	6.2	3.4	14	13.7	7	6.8	29	3.4	43	3.3	45	--	--
Citi WGBI			1.8	54	6.4	55	-2.7	98	0.9	84	-0.4	95	3.0	89
Over/Under			1.6		7.3		9.5		2.5		3.7			
eA All Global Fixed Inc Gross Median			1.9		6.8		4.1		3.0		3.1		4.4	
Brandywine	159,618,539	6.2	3.4	14	13.7	7	6.8	29	3.4	43	3.3	45	--	--
Citi WGBI			1.8	54	6.4	55	-2.7	98	0.9	84	-0.4	95	3.0	89
Over/Under			1.6		7.3		9.5		2.5		3.7			
eA All Global Fixed Inc Gross Median			1.9		6.8		4.1		3.0		3.1		4.4	
Real Estate Composite	335,475,334	13.1	1.5	--	5.7	--	7.7	--	11.5	--	11.2	--	--	--
NCREIF Property Index			1.7	--	5.1	--	6.9	--	9.8	--	10.3	--	6.2	--
Over/Under			-0.2		0.6		0.8		1.7		0.9			
JP Morgan RE	147,982,238	5.8	1.7	--	5.3	--	7.6	--	10.6	--	11.7	--	5.7	--
NCREIF Property Index			1.7	--	5.1	--	6.9	--	9.8	--	10.3	--	6.2	--
Over/Under			0.0		0.2		0.7		0.8		1.4		-0.5	
Portfolio Advisors RE III	5,716,954	0.2	1.1	--	0.1	--	3.5	--	14.1	--	12.6	--	--	--
NCREIF Property Index			1.7	--	5.1	--	6.9	--	9.8	--	10.3	--	6.2	--
Over/Under			-0.6		-5.0		-3.4		4.3		2.3			
Realty Associates IX Corp	1,465,825	0.1	-0.1	--	-0.2	--	1.6	--	9.1	--	10.4	--	--	--
NCREIF Property Index			1.7	--	5.1	--	6.9	--	9.8	--	10.3	--	6.2	--
Over/Under			-1.8		-5.3		-5.3		-0.7		0.1			
Portfolio Advisors RE IV	4,628,162	0.2	3.8	--	6.0	--	6.9	--	14.0	--	15.5	--	--	--
NCREIF Property Index			1.7	--	5.1	--	6.9	--	9.8	--	10.3	--	6.2	--
Over/Under			2.1		0.9		0.0		4.2		5.2			
Angelo Gordon Net Lease Realty III LP	18,336,031	0.7	2.1	--	6.7	--	10.0	--	6.1	--	--	--	--	--
NCREIF Property Index			1.7	--	5.1	--	6.9	--	9.8	--	10.3	--	6.2	--
Over/Under			0.4		1.6		3.1		-3.7					

OKLAHOMA FIREFIGHTERS

Total Plan Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Mesirow	25,035,761	1.0	1.1	--	8.1	--	9.0	--	6.2	--	--	--	--	--
NCREIF Property Index			<u>1.7</u>	--	<u>5.1</u>	--	<u>6.9</u>	--	<u>9.8</u>	--	<u>10.3</u>	--	<u>6.2</u>	--
Over/Under			-0.6		3.0		2.1		-3.6					
Dune Real Estate Fund III	22,312,915	0.9	4.2	--	12.4	--	13.9	--	13.7	--	--	--	--	--
NCREIF Property Index			<u>1.7</u>	--	<u>5.1</u>	--	<u>6.9</u>	--	<u>9.8</u>	--	<u>10.3</u>	--	<u>6.2</u>	--
Over/Under			2.5		7.3		7.0		3.9					
OK FF Portfolio Advisors	15,816,154	0.6	-0.6	--	0.1	--	-0.7	--	14.8	--	--	--	--	--
NCREIF Property Index			<u>1.7</u>	--	<u>5.1</u>	--	<u>6.9</u>	--	<u>9.8</u>	--	<u>10.3</u>	--	<u>6.2</u>	--
Over/Under			-2.3		-5.0		-7.6		5.0					
Landmark RE VII	16,939,087	0.7	0.3	--	5.2	--	6.5	--	25.6	--	--	--	--	--
NCREIF Property Index			<u>1.7</u>	--	<u>5.1</u>	--	<u>6.9</u>	--	<u>9.8</u>	--	<u>10.3</u>	--	<u>6.2</u>	--
Over/Under			-1.4		0.1		-0.4		15.8					
JP Morgan Special Situation Property	59,546,594	2.3	3.1	--	7.5	--	9.9	--	--	--	--	--	--	--
NCREIF Property Index			<u>1.7</u>	--	<u>5.1</u>	--	<u>6.9</u>	--	<u>9.8</u>	--	<u>10.3</u>	--	<u>6.2</u>	--
Over/Under			1.4		2.4		3.0							
Hall Capital III	11,675,434	0.5	1.1	--	15.0	--	16.6	--	--	--	--	--	--	--
NCREIF Property Index			<u>1.7</u>	--	<u>5.1</u>	--	<u>6.9</u>	--	<u>9.8</u>	--	<u>10.3</u>	--	<u>6.2</u>	--
Over/Under			-0.6		9.9		9.7							
Portfolio Advisors RE VI	6,020,180	0.2	-17.5	--	--	--	--	--	--	--	--	--	--	--
NCREIF Property Index			<u>1.7</u>	--	<u>5.1</u>	--	<u>6.9</u>	--	<u>9.8</u>	--	<u>10.3</u>	--	<u>6.2</u>	--
Over/Under			-19.2											

OKLAHOMA FIREFIGHTERS

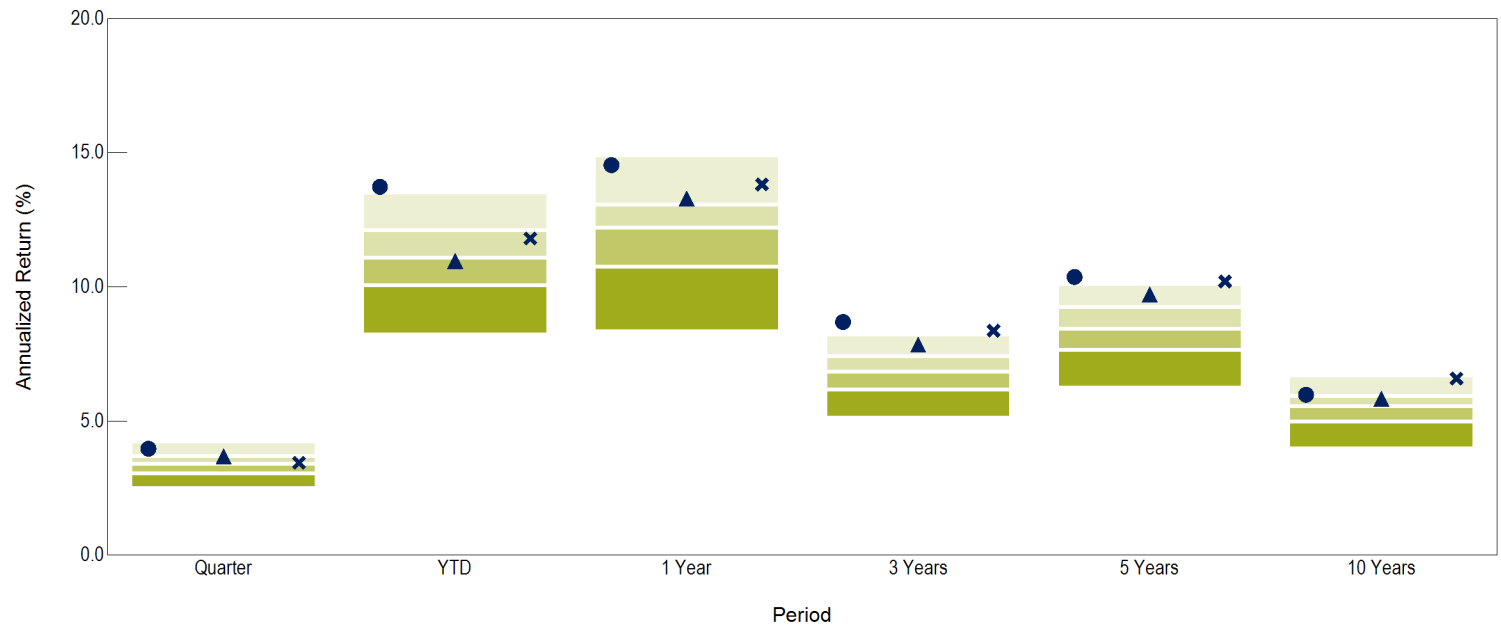
Total Plan Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Hedge Fund Composite	142,192,957	5.5	2.3	--	8.7	--	9.7	--	2.0	--	4.0	--	2.9	--
HFRI FOF: Conservative Index			<u>1.3</u>	--	<u>2.9</u>	--	<u>4.6</u>	--	<u>1.8</u>	--	<u>3.5</u>	--	<u>1.0</u>	--
Over/Under			1.0		5.8		5.1		0.2		0.5		1.9	
Private Advisors	9,187,357	0.4	1.3	--	5.2	--	7.3	--	1.7	--	3.8	--	2.8	--
HFRI Fund of Funds Composite Index			<u>2.3</u>	--	<u>5.6</u>	--	<u>6.5</u>	--	<u>2.2</u>	--	<u>3.8</u>	--	<u>1.1</u>	--
Over/Under			-1.0		-0.4		0.8		-0.5		0.0		1.7	
Permal	78,512,250	3.1	1.6	--	6.5	--	8.3	--	--	--	--	--	--	--
HFRI Fund of Funds Composite Index			<u>2.3</u>	--	<u>5.6</u>	--	<u>6.5</u>	--	<u>2.2</u>	--	<u>3.8</u>	--	<u>1.1</u>	--
Over/Under			-0.7		0.9		1.8							
Allianz Global Investors DMAP	54,493,350	2.1	3.5	--	13.0	--	12.0	--	--	--	--	--	--	--
Russell 2500 Growth			<u>5.8</u>	--	<u>17.0</u>	--	<u>20.1</u>	--	<u>11.3</u>	--	<u>14.5</u>	--	<u>8.7</u>	--
Over/Under			-2.3		-4.0		-8.1							
Private Equity Composite	59,866,585	2.3	4.9	--	14.1	--	16.4	--	14.5	--	--	--	--	--
Cambridge Associates US All PE			<u>0.0</u>	--	<u>8.0</u>	--	<u>12.9</u>	--	<u>9.2</u>	--	<u>12.5</u>	--	<u>9.2</u>	--
Over/Under			4.9		6.1		3.5		5.3					
Pomona Captial Fund VIII	13,608,826	0.5	5.7	--	13.0	--	20.3	--	14.5	--	--	--	--	--
Cambridge Associates US All PE			<u>0.0</u>	--	<u>8.0</u>	--	<u>12.9</u>	--	<u>9.2</u>	--	<u>12.5</u>	--	<u>9.2</u>	--
Over/Under			5.7		5.0		7.4		5.3					
Ardian	25,791,677	1.0	4.5	--	12.0	--	14.7	--	16.2	--	--	--	--	--
Cambridge Associates US All PE			<u>0.0</u>	--	<u>8.0</u>	--	<u>12.9</u>	--	<u>9.2</u>	--	<u>12.5</u>	--	<u>9.2</u>	--
Over/Under			4.5		4.0		1.8		7.0					
Dynamics Global Secondaries IV	15,474,442	0.6	7.1	--	28.5	--	20.5	--	--	--	--	--	--	--
Cambridge Associates US All PE			<u>0.0</u>	--	<u>8.0</u>	--	<u>12.9</u>	--	<u>9.2</u>	--	<u>12.5</u>	--	<u>9.2</u>	--
Over/Under			7.1		20.5		7.6							
AESF VI	4,991,640	0.2	0.0	--	--	--	--	--	--	--	--	--	--	--
Cambridge Associates US All PE			<u>0.0</u>	--	<u>8.0</u>	--	<u>12.9</u>	--	<u>9.2</u>	--	<u>12.5</u>	--	<u>9.2</u>	--
Over/Under			0.0											

Performance Numbers are shown gross of fees.

Total Plan Return Summary vs. Peer Universe

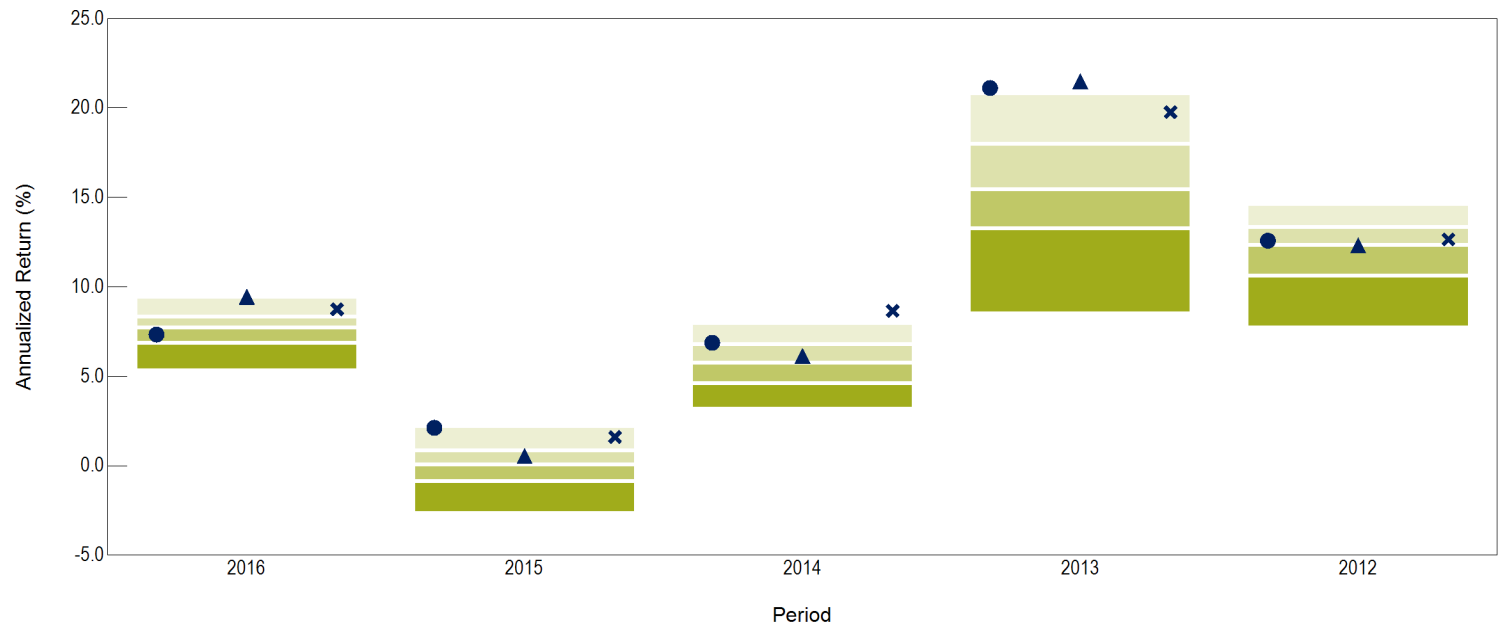
OK FIREFIGHTERS vs. InvestorForce Public DB Gross



	Return (Rank)					
5th Percentile	4.2	13.5	14.9	8.2	10.1	6.7
25th Percentile	3.7	12.1	13.1	7.4	9.3	5.9
Median	3.4	11.1	12.2	6.9	8.5	5.6
75th Percentile	3.1	10.1	10.8	6.2	7.7	5.0
95th Percentile	2.5	8.2	8.4	5.1	6.3	4.0
# of Portfolios	311	311	309	283	257	208
● OK FIREFIGHTERS	4.0 (12)	13.7 (4)	14.5 (7)	8.7 (3)	10.4 (3)	6.0 (25)
▲ FIREFIGHTERS Allocation Index	3.7 (27)	11.0 (54)	13.3 (23)	7.8 (13)	9.7 (12)	5.8 (34)
× FIREFIGHTERS Policy Index	3.4 (47)	11.8 (35)	13.8 (14)	8.4 (4)	10.2 (4)	6.6 (8)

Total Plan Return Summary vs. Peer Universe

OK FIREFIGHTERS vs. InvestorForce Public DB Gross

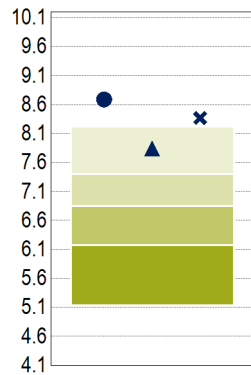


	Return (Rank)		2016		2015		2014		2013		2012	
5th Percentile	9.4		2.2		8.0		20.8		14.6			
25th Percentile	8.4		0.9		6.8		18.0		13.4			
Median	7.7		0.1		5.8		15.5		12.4			
75th Percentile	6.9		-0.9		4.6		13.3		10.7			
95th Percentile	5.3		-2.6		3.2		8.5		7.8			
# of Portfolios	305		316		248		231		236			
● OK FIREFIGHTERS	7.3	(61)	2.1	(6)	6.9	(24)	21.1	(3)	12.6	(46)		
▲ FIREFIGHTERS Allocation Index	9.4	(5)	0.5	(35)	6.1	(40)	21.5	(3)	12.3	(52)		
× FIREFIGHTERS Policy Index	8.7	(15)	1.6	(10)	8.7	(3)	19.8	(12)	12.6	(45)		

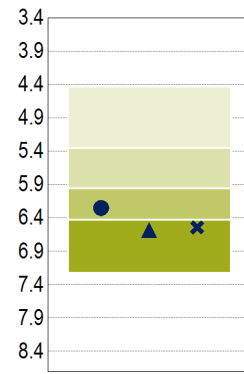
Total Plan Risk Statistics vs. Peer Universe

OK FIREFIGHTERS vs. InvestorForce Public DB Gross
3 Years

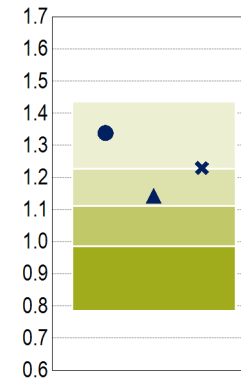
Anlzd Return



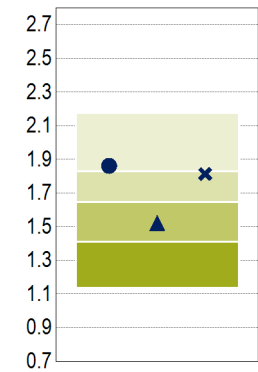
Anlzd Standard Deviation



Sharpe Ratio



Sortino Ratio



● OK FIREFIGHTERS	Value	8.69
	Rank	3
▲ FIREFIGHTERS Allocation Index	Value	7.84
	Rank	13
× FIREFIGHTERS Policy Index	Value	8.37
	Rank	4

Universe	
5th %tile	8.22
25th %tile	7.41
Median	6.86
75th %tile	6.18
95th %tile	5.15

● OK FIREFIGHTERS	Value	6.25
	Rank	70
▲ FIREFIGHTERS Allocation Index	Value	6.58
	Rank	80
× FIREFIGHTERS Policy Index	Value	6.54
	Rank	78

Universe	
5th %tile	4.43
25th %tile	5.34
Median	5.94
75th %tile	6.42
95th %tile	7.22

● OK FIREFIGHTERS	Value	1.34
	Rank	11
▲ FIREFIGHTERS Allocation Index	Value	1.14
	Rank	44
× FIREFIGHTERS Policy Index	Value	1.23
	Rank	25

Universe	
5th %tile	1.44
25th %tile	1.23
Median	1.11
75th %tile	0.99
95th %tile	0.79

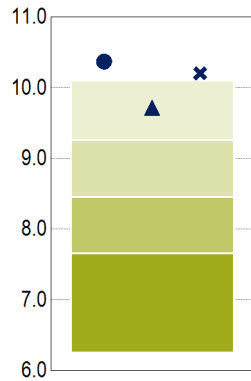
● OK FIREFIGHTERS	Value	1.86
	Rank	24
▲ FIREFIGHTERS Allocation Index	Value	1.52
	Rank	64
× FIREFIGHTERS Policy Index	Value	1.81
	Rank	28

Universe	
5th %tile	2.18
25th %tile	1.83
Median	1.65
75th %tile	1.41
95th %tile	1.14

Total Plan Risk Statistics vs. Peer Universe

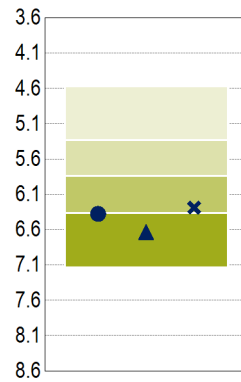
OK FIREFIGHTERS vs. InvestorForce Public DB Gross
5 Years

Anlzd Return



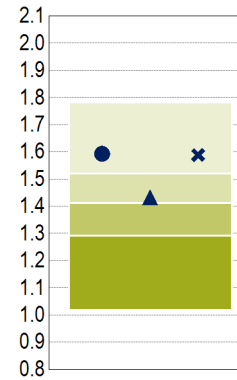
● OK FIREFIGHTERS	Value	10.37
	Rank	3
▲ FIREFIGHTERS Allocation Index	Value	9.71
	Rank	12
× FIREFIGHTERS Policy Index	Value	10.20
	Rank	4
Universe		
	5th %tile	10.10
	25th %tile	9.27
	Median	8.46
	75th %tile	7.67
	95th %tile	6.26

Anlzd Standard Deviation



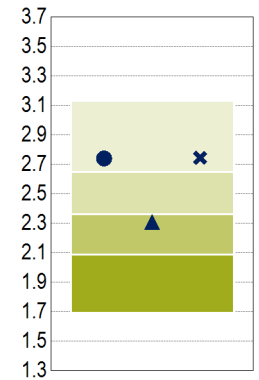
● OK FIREFIGHTERS	Value	6.38
	Rank	77
▲ FIREFIGHTERS Allocation Index	Value	6.63
	Rank	85
× FIREFIGHTERS Policy Index	Value	6.29
	Rank	72
Universe		
	5th %tile	4.57
	25th %tile	5.33
	Median	5.83
	75th %tile	6.36
	95th %tile	7.12

Sharpe Ratio



● OK FIREFIGHTERS	Value	1.59
	Rank	16
▲ FIREFIGHTERS Allocation Index	Value	1.43
	Rank	45
× FIREFIGHTERS Policy Index	Value	1.59
	Rank	17
Universe		
	5th %tile	1.78
	25th %tile	1.52
	Median	1.41
	75th %tile	1.29
	95th %tile	1.02

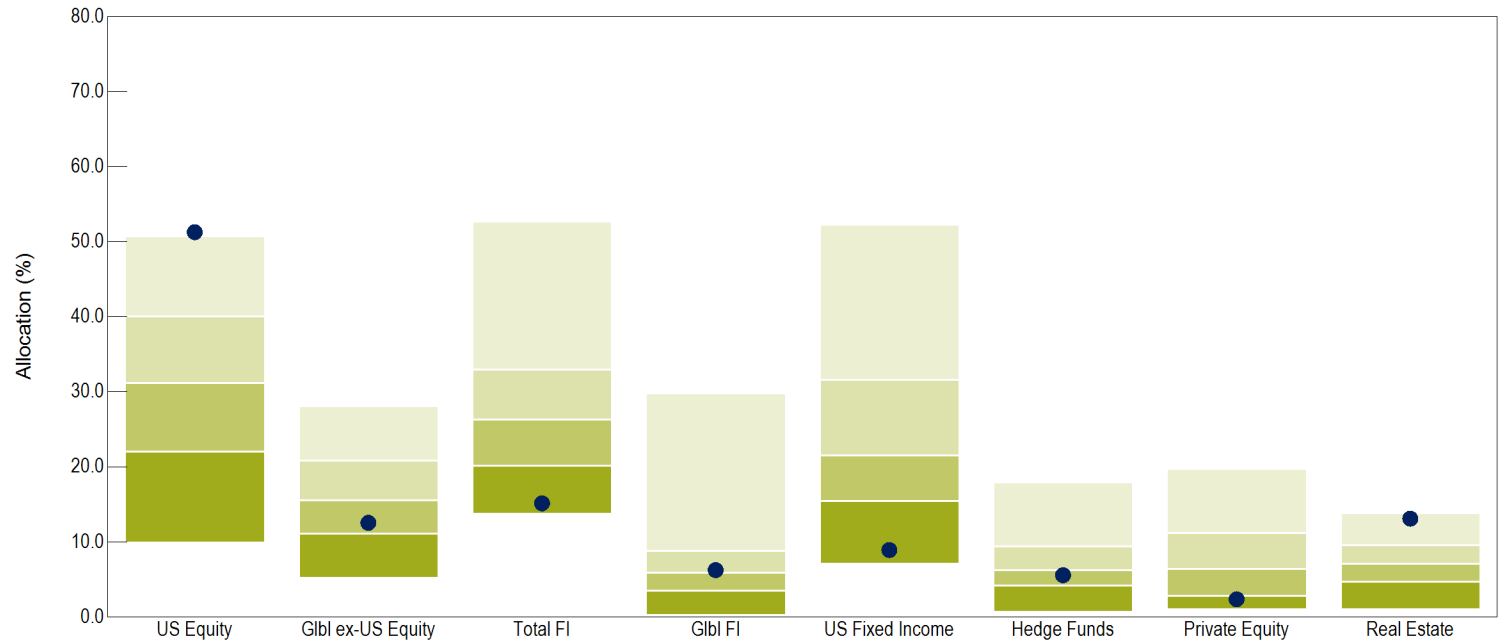
Sortino Ratio



● OK FIREFIGHTERS	Value	2.74
	Rank	20
▲ FIREFIGHTERS Allocation Index	Value	2.31
	Rank	58
× FIREFIGHTERS Policy Index	Value	2.74
	Rank	20
Universe		
	5th %tile	3.13
	25th %tile	2.65
	Median	2.36
	75th %tile	2.09
	95th %tile	1.69

Total Plan Allocations vs. Peer Universe

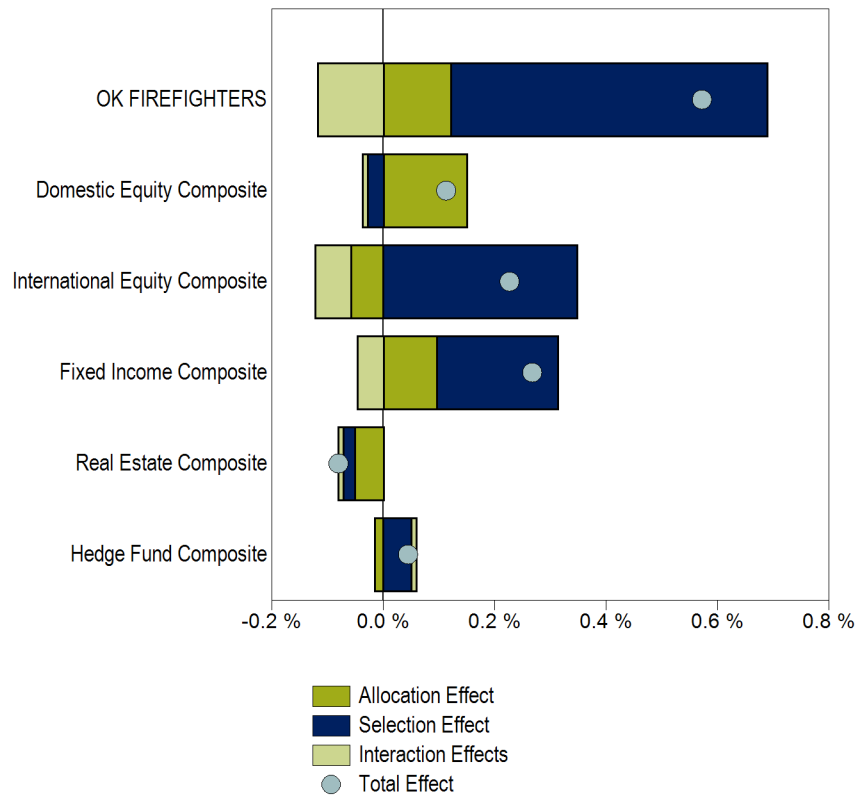
Total Plan Allocation vs. InvestorForce Public DB Gross



	US Equity		Gbl ex-US Equity		Total FI		Gbl FI		US Fixed Income		Hedge Funds		Private Equity		Real Estate	
5th Percentile	50.7	28.1	52.6	29.7	52.3	17.9	19.7	13.9								
25th Percentile	40.1	20.9	33.0	8.9	31.6	9.4	11.3	9.6								
Median	31.3	15.6	26.4	5.9	21.6	6.3	6.5	7.1								
75th Percentile	22.1	11.2	20.2	3.5	15.5	4.3	2.9	4.8								
95th Percentile	10.0	5.3	13.8	0.3	7.1	0.7	1.1	1.1								
# of Portfolios	231	254	296	38	228	87	106	194								
● OK FIREFIGHTERS	51.2	(5)	12.5	(70)	15.1	(93)	6.2	(44)	8.9	(94)	5.5	(58)	2.3	(79)	13.1	(7)

Total Plan Attribution Analysis

Attribution Effects Relative to FIREFIGHTERS Policy Index
3 Months Ending September 30, 2017



Attribution Summary
3 Months Ending September 30, 2017

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Domestic Equity Composite	4.5%	4.6%	-0.1%	0.0%	0.1%	0.0%	0.1%
International Equity Composite	7.8%	5.4%	2.4%	0.3%	-0.1%	-0.1%	0.2%
Fixed Income Composite	1.9%	0.8%	1.1%	0.2%	0.1%	0.0%	0.3%
Real Estate Composite	1.5%	1.7%	-0.2%	0.0%	-0.1%	0.0%	-0.1%
Hedge Fund Composite	2.3%	1.3%	1.0%	0.1%	0.0%	0.0%	0.0%
Total	4.0%	3.1%	0.8%	0.6%	0.1%	-0.1%	0.6%

*Total returns shown are weighted averages of the returns of the composites shown and their respective benchmarks and may differ from returns shown throughout the report.

Performance Attribution

	Last 3 Mo.	YTD	1 Yr
Wtd. Actual Return	4.0%	13.8%	14.6%
Wtd. Index Return *	3.5%	10.9%	13.0%
Excess Return	0.5%	2.9%	1.6%
Selection Effect	0.5%	2.9%	1.6%
Allocation Effect	0.0%	0.0%	0.0%
Interaction Effect	0.0%	0.0%	0.0%
Asset Class Returns			
OK FIREFIGHTERS	4.0%	13.7%	14.5%
Domestic Equity Composite	4.5%	15.6%	19.5%
Large Cap Equity Composite	4.7%	15.9%	19.5%
Small Cap Equity Composite	5.4%	15.0%	20.1%
Long/Short Equity Composite	30.2%	355.9%	355.9%
International Equity Composite	7.8%	28.5%	20.0%
Emerging Markets Equity Composite	7.8%	29.8%	21.2%
Fixed Income Composite	1.9%	7.1%	3.8%
Domestic Fixed Income	0.9%	3.0%	1.8%
Core Bonds Composite	0.8%	3.1%	0.4%
Intermediate Bonds Composite	0.7%	2.3%	0.3%
Global Fixed Composite	3.4%	13.7%	6.8%
Real Estate Composite	1.5%	5.7%	7.7%
Hedge Fund Composite	2.3%	8.7%	9.7%
Private Equity Composite	4.9%	14.1%	16.4%

*Calculated from benchmark returns and weightings of each component.

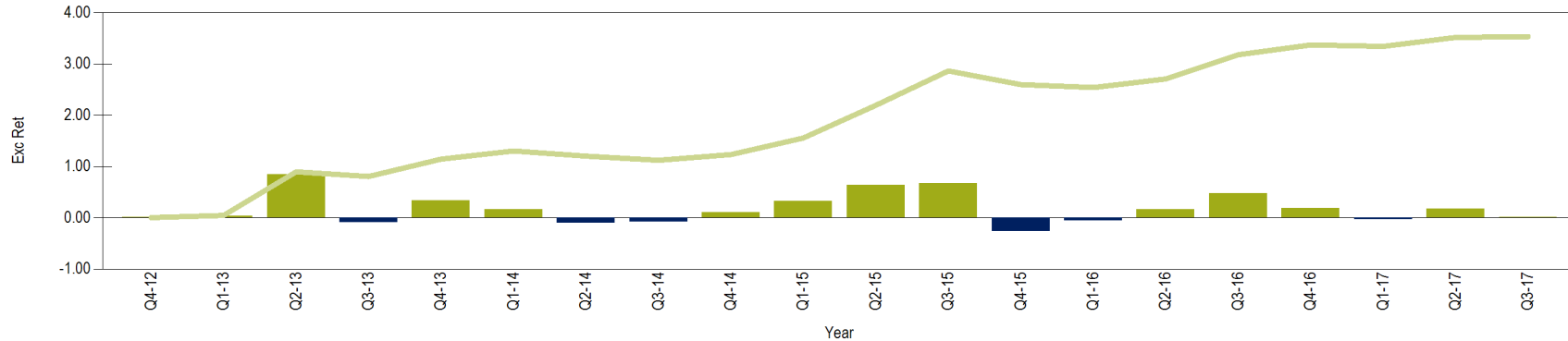
Oklahoma Police



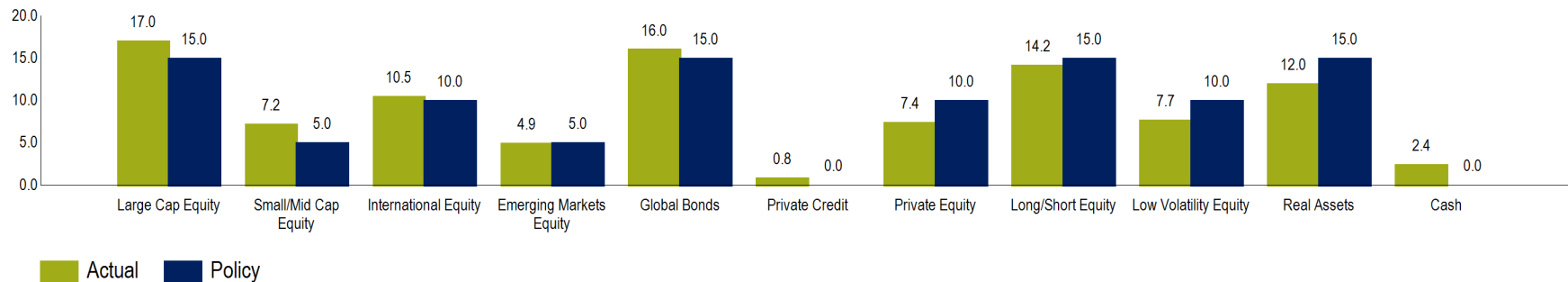
Total Fund Performance Summary

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK POLICE	\$2,443,294,424	3.0%	77	9.7%	85	10.9%	73	6.4%	69	8.1%	61	5.1%	70
<i>POLICE Allocation Index</i>		3.0%	79	9.5%	88	10.5%	81	5.5%	92	7.4%	82	4.8%	79
<i>POLICE Policy Index</i>		3.6%	35	11.2%	49	11.5%	63	5.3%	93	7.4%	81	5.0%	75
<i>InvestorForce Public DB Gross Median</i>		3.4%		11.1%		12.2%		6.9%		8.5%		5.6%	

Quarterly and Cumulative Excess Performance

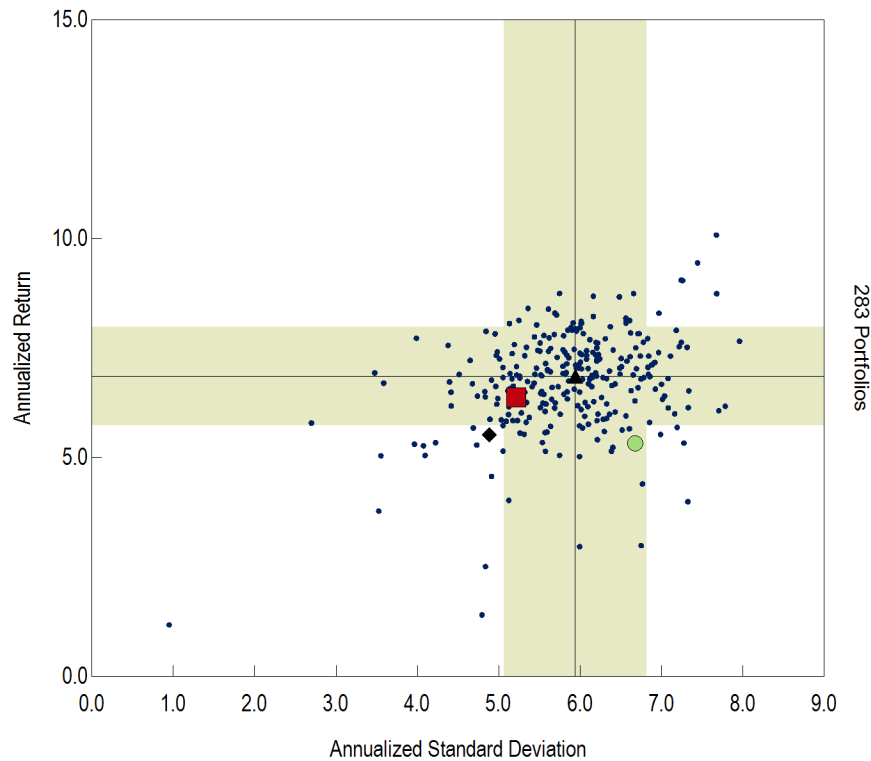


Actual vs Target Allocation (%)



Total Fund Risk/Return - 3 Years

3 Years Ending September 30, 2017



- OK POLICE
- ◆ POLICE Allocation Index
- POLICE Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

3 Years Ending September 30, 2017

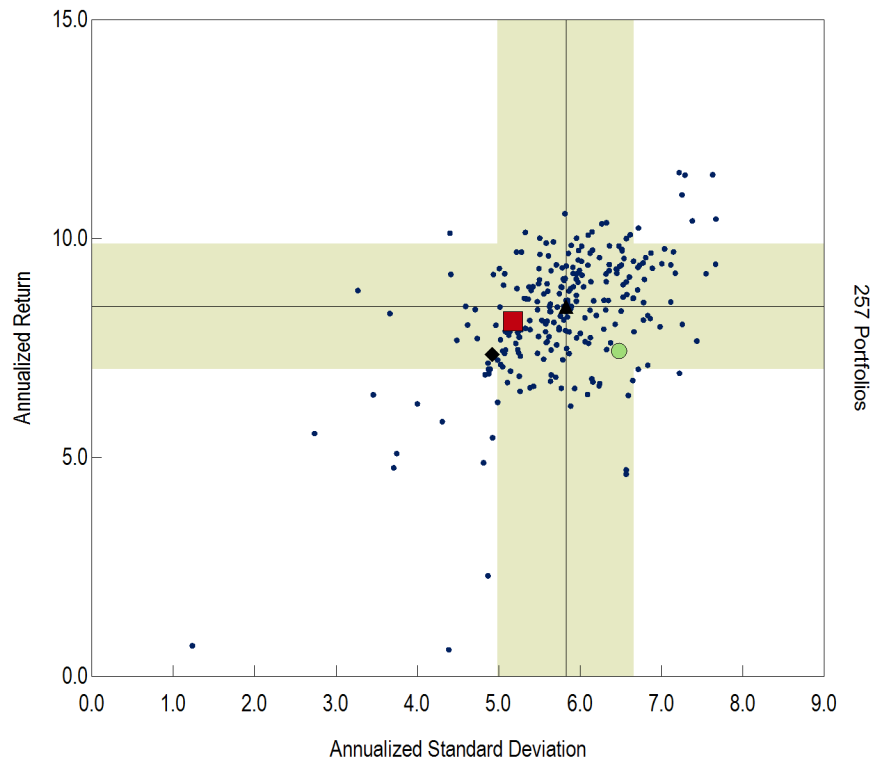
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK POLICE	6.38%	69	5.22%	20
POLICE Allocation Index	5.53%	92	4.89%	10
POLICE Policy Index	5.33%	93	6.68%	83

3 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK POLICE	1.16	40	1.78	33
POLICE Allocation Index	1.07	60	1.42	75
POLICE Policy Index	0.75	97	1.25	90

Total Fund Risk/Return - 5 Years

5 Years Ending September 30, 2017



- OK POLICE
- ◆ POLICE Allocation Index
- POLICE Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

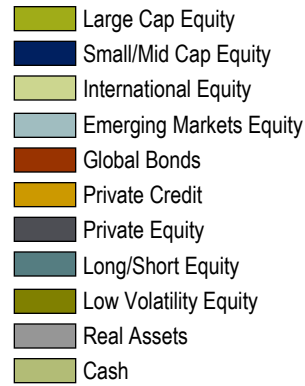
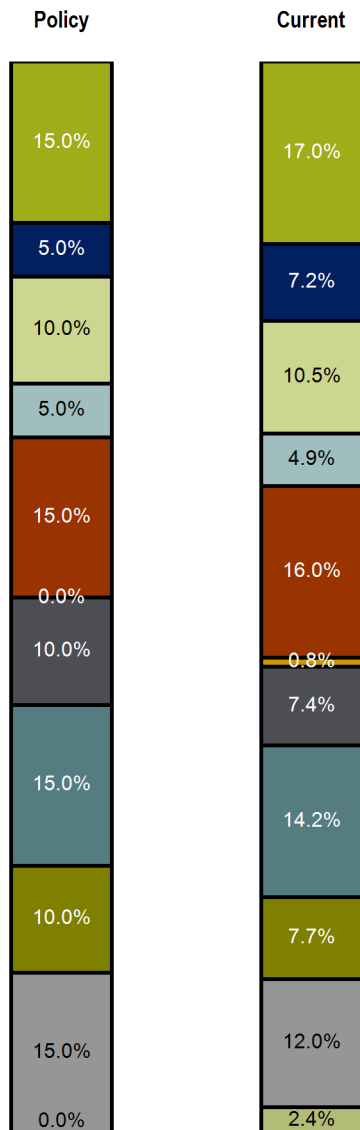
5 Years Ending September 30, 2017

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK POLICE	8.12%	61	5.18%	20
POLICE Allocation Index	7.36%	82	4.92%	10
POLICE Policy Index	7.44%	81	6.48%	79

5 Years Ending September 30, 2017

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK POLICE	1.53	25	2.68	24
POLICE Allocation Index	1.45	41	2.29	59
POLICE Policy Index	1.12	92	1.99	83

Total Fund Asset Allocation vs. Policy Targets



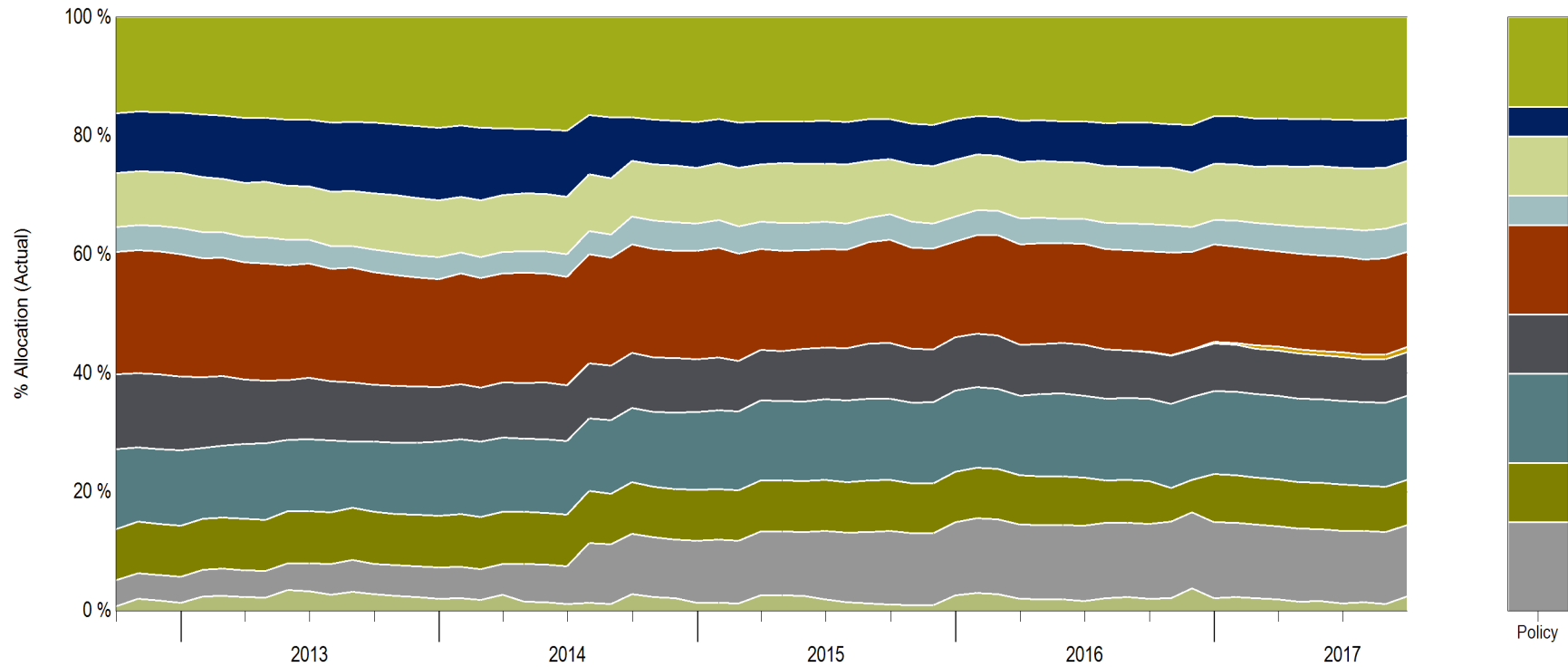
Asset Allocation vs. Target

	Current	Policy	Current	Difference*	Policy Range	Within Range
Large Cap Equity	\$415,134,347	15.0%	17.0%	2.0%	10.0% - 20.0%	Yes
Small/Mid Cap Equity	\$175,229,542	5.0%	7.2%	2.2%	0.0% - 15.0%	Yes
International Equity	\$256,120,341	10.0%	10.5%	0.5%	5.0% - 15.0%	Yes
Emerging Markets Equity	\$120,210,545	5.0%	4.9%	-0.1%	0.0% - 10.0%	Yes
Global Bonds	\$391,514,310	15.0%	16.0%	1.0%	10.0% - 20.0%	Yes
Private Credit	\$20,590,974	0.0%	0.8%	0.8%	0.0% - 5.0%	Yes
Private Equity	\$180,096,917	10.0%	7.4%	-2.6%	5.0% - 15.0%	Yes
Long/Short Equity	\$345,810,156	15.0%	14.2%	-0.8%	10.0% - 20.0%	Yes
Low Volatility Equity	\$186,972,917	10.0%	7.7%	-2.3%	5.0% - 15.0%	Yes
Real Assets	\$292,200,994	15.0%	12.0%	-3.0%	0.0% - 30.0%	Yes
Cash	\$59,413,381	0.0%	2.4%	2.4%	0.0% - 5.0%	Yes
Total	\$2,443,294,424	100.0%	100.0%			

*Difference between Policy and Current Allocation

Total Fund Asset Allocation History

Asset Allocation History



- Large Cap Equity
- Emerging Markets Equity
- Private Credit
- Long/Short Equity
- Real Assets
- Small/Mid Cap Equity
- Global Bonds
- Private Equity
- Low Volatility Equity
- Cash
- International Equity

OKLAHOMA POLICE

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
OK POLICE	2,443,294,424	100.0	3.0	77	9.7	85	10.9	73	6.4	69	8.1	61	5.1	70
<i>POLICE Allocation Index</i>			<u>3.0</u>	79	<u>9.5</u>	88	<u>10.5</u>	81	<u>5.5</u>	92	<u>7.4</u>	82	<u>4.8</u>	79
Over/Under			0.0		0.2		0.4		0.9		0.7		0.3	
<i>POLICE Policy Index</i>			3.6	35	11.2	49	11.5	63	5.3	93	7.4	81	5.0	75
<i>InvestorForce Public DB Gross Median</i>			3.4		11.1		12.2		6.9		8.5		5.6	
Equity Composite	966,694,775	39.6	4.6	65	16.3	60	18.8	52	9.3	39	11.7	47	4.7	62
<i>Russell 3000</i>			<u>4.6</u>	65	<u>13.9</u>	76	<u>18.7</u>	53	<u>10.7</u>	21	<u>14.2</u>	15	<u>7.6</u>	13
Over/Under			0.0		2.4		0.1		-1.4		-2.5		-2.9	
<i>eA All Global Equity Gross Median</i>			5.2		17.1		18.9		8.6		11.5		5.2	
Domestic Equity Composite	590,363,889	24.2	3.9	70	12.7	51	18.8	53	10.9	45	14.0	57	7.7	63
<i>S&P 500</i>			<u>4.5</u>	56	<u>14.2</u>	39	<u>18.6</u>	56	<u>10.8</u>	47	<u>14.2</u>	53	<u>7.4</u>	71
Over/Under			-0.6		-1.5		0.2		0.1		-0.2		0.3	
<i>eA All US Equity Gross Median</i>			4.6		12.8		19.1		10.7		14.3		8.2	
Northern Trust Russell 1000 Index Fund	415,134,347	17.0	4.4	56	14.1	51	18.5	51	10.6	41	14.3	40	7.6	64
<i>Russell 1000</i>			<u>4.5</u>	54	<u>14.2</u>	49	<u>18.5</u>	51	<u>10.6</u>	41	<u>14.3</u>	40	<u>7.5</u>	65
Over/Under			-0.1		-0.1		0.0		0.0		0.0		0.1	
<i>eA US Large Cap Core Equity Gross Median</i>			4.6		14.1		18.6		10.3		13.9		7.9	
Boston Partners	87,899,119	3.6	2.4	83	6.9	68	18.3	55	10.9	43	14.0	54	9.6	24
<i>Russell 2500 Value</i>			<u>3.8</u>	58	<u>5.9</u>	75	<u>15.7</u>	72	<u>9.9</u>	59	<u>13.3</u>	73	<u>7.6</u>	73
Over/Under			-1.4		1.0		2.6		1.0		0.7		2.0	
<i>eA US Small-Mid Cap Value Equity Gross Median</i>			4.0		8.1		18.6		10.2		14.2		8.7	
Cortina Small Cap Growth	87,330,423	3.6	3.1	91	14.2	76	21.7	51	12.7	49	--	--	--	--
<i>Russell 2000 Growth</i>			<u>6.2</u>	49	<u>16.8</u>	62	<u>21.0</u>	60	<u>12.2</u>	55	<u>14.3</u>	58	<u>8.5</u>	59
Over/Under			-3.1		-2.6		0.7		0.5					
<i>eA US Small Cap Growth Equity Gross Median</i>			6.1		18.5		21.8		12.7		14.7		8.8	

Northern Trust Russell 1000 Index fund was Mellon Capital Passive Index fund before 10/30/2014.

OKLAHOMA POLICE

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
International Equity Composite	376,330,886	15.4	5.9	68	22.7	63	18.2	73	6.3	66	7.3	88	0.8	97
MSCI ACWI ex USA			6.2	62	21.1	76	19.6	61	4.7	85	7.0	91	1.3	95
Over/Under			-0.3		1.6		-1.4		1.6		0.3		-0.5	
eA All ACWI ex-US Equity Gross Median			6.7		24.6		20.9		7.1		9.5		3.5	
Mondrian Int'l Value	138,904,874	5.7	5.6	50	18.3	71	17.8	68	4.5	72	8.5	72	2.1	50
MSCI ACWI ex USA			6.2	37	21.1	48	19.6	62	4.7	70	7.0	91	1.3	90
Over/Under			-0.6		-2.8		-1.8		-0.2		1.5		0.8	
eA ACWI ex-US Value Equity Gross Median			5.6		21.0		21.6		6.5		9.4		2.1	
Baring Focused Intl Equity	117,215,467	4.8	5.3	79	22.8	62	18.1	73	8.9	32	7.5	84	--	--
MSCI ACWI ex USA			6.2	62	21.1	76	19.6	61	4.7	85	7.0	91	1.3	95
Over/Under			-0.9		1.7		-1.5		4.2		0.5			
eA All ACWI ex-US Equity Gross Median			6.7		24.6		20.9		7.1		9.5		3.5	
Wasatch EM Small Cap	36,108,031	1.5	7.3	35	29.2	33	13.2	88	4.1	81	4.1	99	--	--
MSCI Emerging Markets Small Cap			5.6	51	22.5	82	14.9	79	3.1	83	4.6	93	1.7	99
Over/Under			1.7		6.7		-1.7		1.0		-0.5			
eA Emg Mkts Small Cap Equity Gross Median			5.8		27.0		19.3		6.4		7.8		4.7	
AB EM Strategic Core Equity	84,102,514	3.4	6.6	--	27.6	--	--	--	--	--	--	--	--	--
MSCI Emerging Markets			7.9	--	27.8	--	22.5	--	4.9	--	4.0	--	1.3	--
Over/Under			-1.3		-0.2									
Fixed Income Composite	391,514,310	16.0	1.6	63	5.7	66	2.9	62	3.6	40	3.2	47	5.2	36
BBgBarc US Aggregate TR			0.8	89	3.1	88	0.1	84	2.7	53	2.1	64	4.3	53
Over/Under			0.8		2.6		2.8		0.9		1.1		0.9	
eA All Global Fixed Inc Gross Median			1.9		6.8		4.1		3.0		3.1		4.4	
Oaktree	122,632,208	5.0	1.9	13	6.4	20	8.6	8	5.6	15	6.2	9	6.9	17
BBgBarc US Aggregate TR			0.8	59	3.1	58	0.1	90	2.7	59	2.1	65	4.3	60
Over/Under			1.1		3.3		8.5		2.9		4.1		2.6	
Agincourt	171,628,722	7.0	1.0	48	3.5	49	0.7	72	3.1	49	2.5	53	4.7	49
BBgBarc US Aggregate TR			0.8	59	3.1	58	0.1	90	2.7	59	2.1	65	4.3	60
Over/Under			0.2		0.4		0.6		0.4		0.4		0.4	
eA All US Fixed Inc Gross Median			0.9		3.5		1.2		3.1		2.6		4.6	
Loomis Sayles	97,253,380	4.0	2.6	27	8.8	26	0.0	85	2.0	63	0.8	80	--	--
Citi WGBI			1.8	54	6.4	55	-2.7	98	0.9	84	-0.4	95	3.0	89
Over/Under			0.8		2.4		2.7		1.1		1.2			
eA All Global Fixed Inc Gross Median			1.9		6.8		4.1		3.0		3.1		4.4	

OKLAHOMA POLICE

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Long/Short	345,810,156	14.2	3.2	51	9.5	50	10.3	56	5.7	49	7.5	55	--	--
HFRI FOF: Strategic Index			<u>2.8</u>	54	<u>8.6</u>	55	<u>8.9</u>	63	<u>2.9</u>	70	<u>4.5</u>	81	<u>1.0</u>	91
Over/Under			0.4		0.9		1.4		2.8		3.0			
eV Alt Fundamental - Long/Short Equity Median			3.2		9.3		12.0		5.5		8.2		5.7	
Grosvenor	345,810,156	14.2	3.2	51	9.5	50	10.3	56	5.7	49	7.6	55	3.5	78
HFRI FOF: Strategic Index			<u>2.8</u>	54	<u>8.6</u>	55	<u>8.9</u>	63	<u>2.9</u>	70	<u>4.5</u>	81	<u>1.0</u>	91
Over/Under			0.4		0.9		1.4		2.8		3.1		2.5	
eV Alt Fundamental - Long/Short Equity Median			3.2		9.3		12.0		5.5		8.2		5.7	
Total Real Assets	292,200,994	12.0	1.5	--	3.2	--	6.8	--	4.6	--	7.0	--	--	--
Total Core Real Estate	160,938,262	6.6	1.8	--	5.9	--	8.6	--	11.2	--	12.2	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-0.1		0.5		0.9		0.4		0.6			
Columbus Square	4,608,070	0.2	1.9	--	9.1	--	11.2	--	16.0	--	16.5	--	15.9	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			0.0		3.7		3.5		5.2		4.9		10.9	
JP Morgan	117,636,621	4.8	1.7	--	5.3	--	7.6	--	10.5	--	11.7	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-0.2		-0.1		-0.1		-0.3		0.1			
Blackstone Property Partners	38,693,571	1.6	2.2	--	7.4	--	11.4	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			0.3		2.0		3.7		--		--		--	
Private Real Estate	52,883,862	2.2	-0.2	--	5.0	--	7.0	--	10.3	--	10.9	--	--	--
Siguler Guff Distressed RE	6,855,553	0.3	16.6	--	19.7	--	19.7	--	17.6	--	18.8	--	--	--
TA Associates Realty X	14,896,201	0.6	4.0	--	8.5	--	11.4	--	9.5	--	--	--	--	--
Cerberus Real Estate Fund III	15,794,219	0.6	-5.3	--	-0.9	--	-0.7	--	10.6	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-7.2		-6.3		-8.4		-0.2		--		--	
Hall Capital Fund III	5,837,719	0.2	-17.7	--	19.8	--	19.8	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.9</u>	--	<u>5.4</u>	--	<u>7.7</u>	--	<u>10.8</u>	--	<u>11.6</u>	--	<u>5.0</u>	--
Over/Under			-19.6		14.4		12.1		--		--		--	

*The Private Real Estate returns are time weighted.

OKLAHOMA POLICE

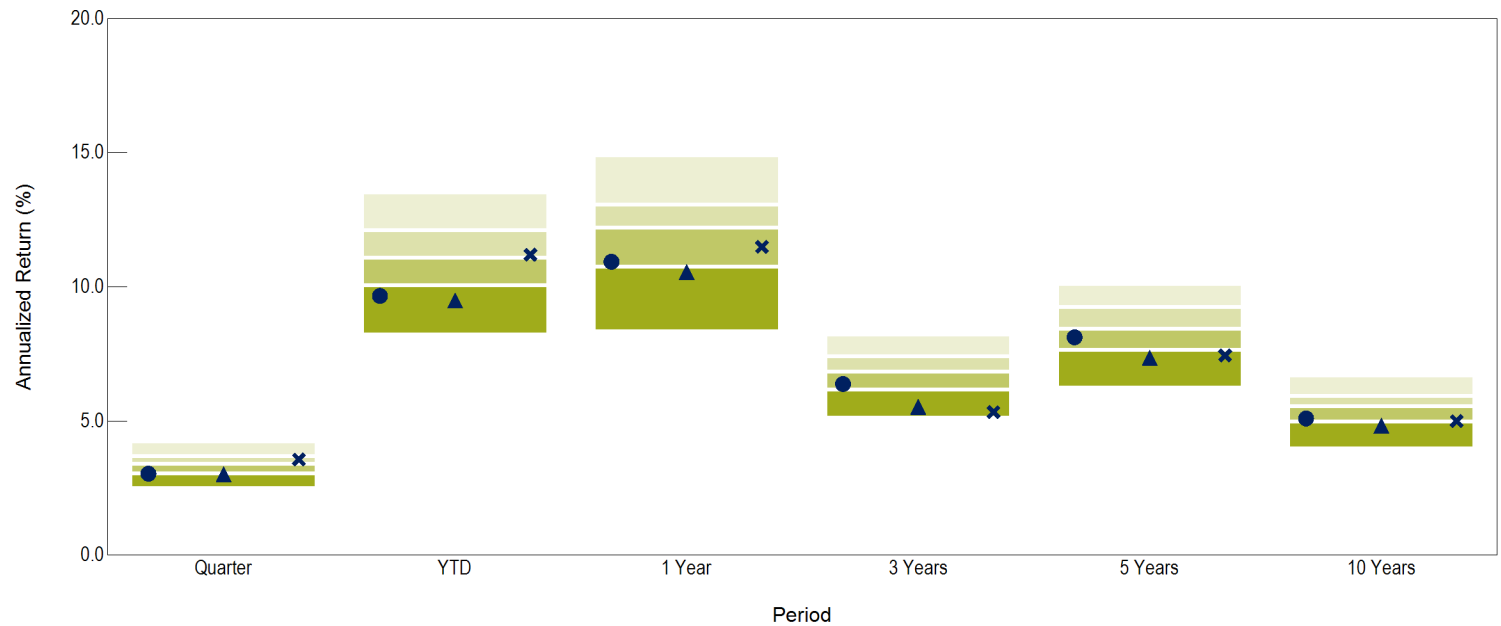
Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Siguler Guff Distressed RE II	7,733,635	0.3	6.3	--	4.9	--	12.9	--	--	--	--	--	--	--
NCREIF ODCE			1.9	--	5.4	--	7.7	--	10.8	--	11.6	--	5.0	--
Over/Under			4.4		-0.5		5.2							
Cerberus Real Estate Partners IV	1,766,535	0.1	-6.0	--	-62.0	--	-61.0	--	--	--	--	--	--	--
NCREIF ODCE			1.9	--	5.4	--	7.7	--	10.8	--	11.6	--	5.0	--
Over/Under			-7.9		-67.4		-68.7							
Mt Lucas Peak	29,214,867	1.2	-0.9	--	-5.8	--	4.4	--	1.9	--	5.5	--	4.3	--
Gresham Tap Fund	49,164,003	2.0	3.9	--	-1.4	--	2.6	--	-11.0	--	--	--	--	--
Total Low Volatility Strategies	186,972,917	7.7	0.3	--	2.4	--	3.6	--	0.5	--	4.1	--	--	--
HFRI FOF: Conservative Index			1.3	--	2.9	--	4.6	--	1.8	--	3.5	--	1.0	--
Over/Under			-1.0		-0.5		-1.0		-1.3		0.6			
PAAMCO	127,060,093	5.2	0.4	89	3.4	68	4.8	71	0.9	80	4.3	69	2.6	63
HFRI FOF: Conservative Index			1.3	70	2.9	74	4.6	72	1.8	71	3.5	76	1.0	90
Over/Under			-0.9		0.5		0.2		-0.9		0.8		1.6	
eV Alt Fund of Funds - All Single Strategy Median			2.2		5.3		7.1		3.1		5.2		2.8	
Wellington Global Total Return	59,912,824	2.5	0.1	90	0.2	88	--	--	--	--	--	--	--	--
HFRI FOF Conservative (1 Mo Lag)			0.8	84	3.4	69	4.6	72	1.7	72	3.5	76	1.1	89
Over/Under			-0.7		-3.2									
eV Alt Fund of Funds - All Single Strategy Median			2.2		5.3		7.1		3.1		5.2		2.8	
Private Credit	20,590,974	0.8	3.9	--	9.0	--	7.9	--	--	--	--	--	--	--
Cambridge Associates US All PE			0.0	--	8.0	--	12.9	--	9.2	--	12.5	--	9.2	--
Over/Under			3.9		1.0		-5.0							
LBC IV	11,650,137	0.5	3.9	--	8.6	--	7.5	--	--	--	--	--	--	--
Cambridge Associates US All PE			0.0	--	8.0	--	12.9	--	9.2	--	12.5	--	9.2	--
Over/Under			3.9		0.6		-5.4							
Private Equity	180,096,917	7.4	3.0	--	6.0	--	8.1	--	8.3	--	9.7	--	8.1	--
Cambridge Associates US All PE			0.0	--	8.0	--	12.9	--	9.2	--	12.5	--	9.2	--
Over/Under			3.0		-2.0		-4.8		-0.9		-2.8		-1.1	

*Returns are gross of manager fees.

Total Fund Return Summary vs. Peer Universe

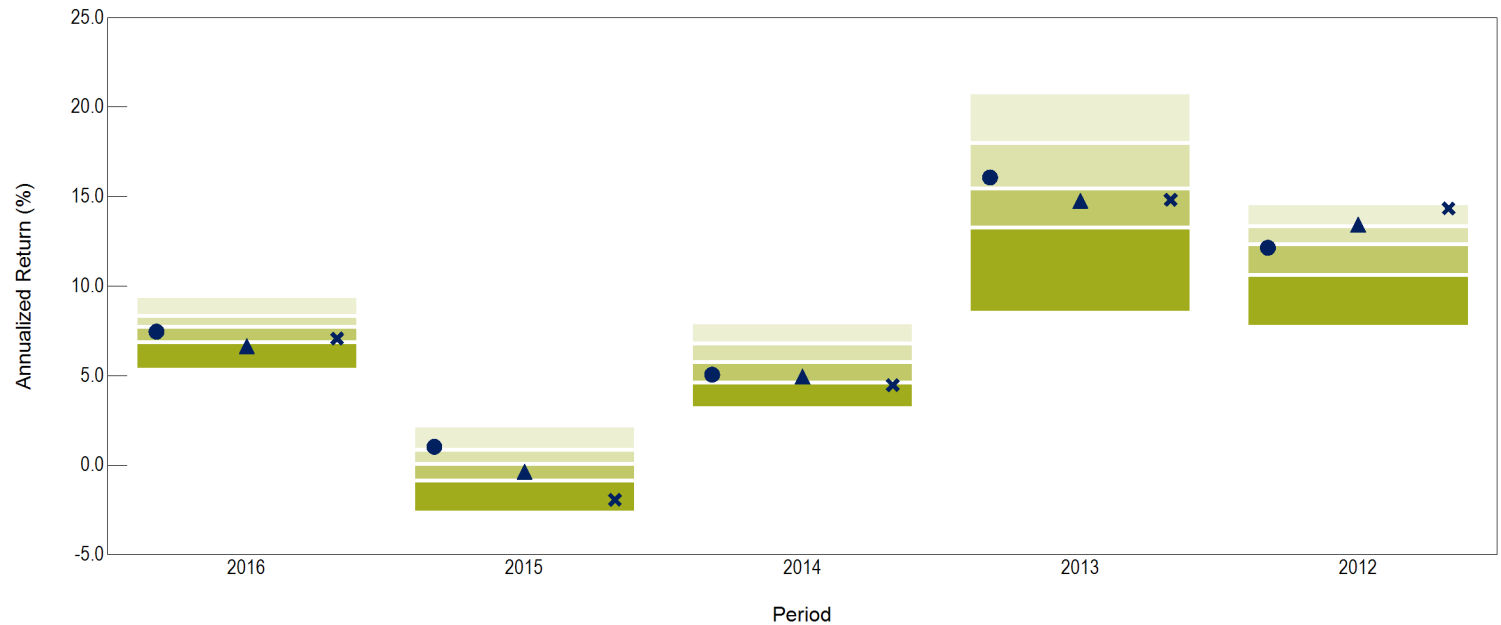
OK POLICE vs. InvestorForce Public DB Gross



	Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)			
5th Percentile	4.2		13.5		14.9		8.2		10.1	6.7		
25th Percentile	3.7		12.1		13.1		7.4		9.3	5.9		
Median	3.4		11.1		12.2		6.9		8.5	5.6		
75th Percentile	3.1		10.1		10.8		6.2		7.7	5.0		
95th Percentile	2.5		8.2		8.4		5.1		6.3	4.0		
# of Portfolios	311		311		309		283		257	208		
● OK POLICE	3.0	(77)	9.7	(85)	10.9	(73)	6.4	(69)	8.1	(61)	5.1	(70)
▲ POLICE Allocation Index	3.0	(79)	9.5	(88)	10.5	(81)	5.5	(92)	7.4	(82)	4.8	(79)
× POLICE Policy Index	3.6	(35)	11.2	(49)	11.5	(63)	5.3	(93)	7.4	(81)	5.0	(75)

Total Fund Return Summary vs. Peer Universe

OK POLICE vs. InvestorForce Public DB Gross

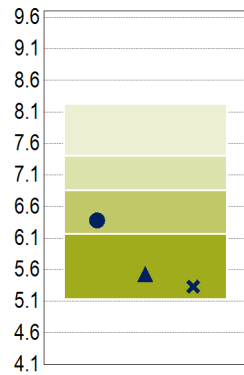


	Return (Rank)									
5th Percentile	9.4	2.2	8.0	20.8	14.6					
25th Percentile	8.4	0.9	6.8	18.0	13.4					
Median	7.7	0.1	5.8	15.5	12.4					
75th Percentile	6.9	-0.9	4.6	13.3	10.7					
95th Percentile	5.3	-2.6	3.2	8.5	7.8					
# of Portfolios	305	316	248	231	236					
● OK POLICE	7.5	(57)	1.0	(21)	5.1	(68)	16.1	(46)	12.1	(54)
▲ POLICE Allocation Index	6.7	(80)	-0.4	(63)	5.0	(70)	14.8	(59)	13.5	(25)
× POLICE Policy Index	7.1	(70)	-1.9	(89)	4.5	(79)	14.8	(59)	14.3	(8)

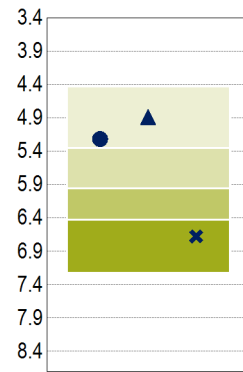
Total Fund Risk Statistics vs. Peer Universe

OK POLICE vs. InvestorForce Public DB Gross
3 Years

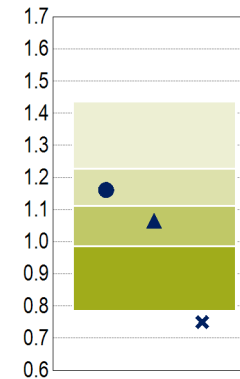
Anlzd Return



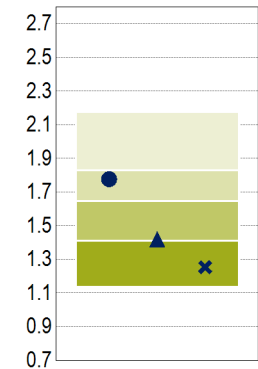
Anlzd Standard Deviation



Sharpe Ratio



Sortino Ratio



- OK POLICE
Value 6.38
Rank 69
- ▲ POLICE Allocation Index
Value 5.53
Rank 92
- × POLICE Policy Index
Value 5.33
Rank 93

Universe

5th %tile	8.22
25th %tile	7.41
Median	6.86
75th %tile	6.18
95th %tile	5.15

- OK POLICE
Value 5.22
Rank 20
- ▲ POLICE Allocation Index
Value 4.89
Rank 10
- × POLICE Policy Index
Value 6.68
Rank 83

Universe

5th %tile	4.43
25th %tile	5.34
Median	5.94
75th %tile	6.42
95th %tile	7.22

- OK POLICE
Value 1.16
Rank 40
- ▲ POLICE Allocation Index
Value 1.07
Rank 60
- × POLICE Policy Index
Value 0.75
Rank 97

Universe

5th %tile	1.44
25th %tile	1.23
Median	1.11
75th %tile	0.99
95th %tile	0.79

- OK POLICE
Value 1.78
Rank 33
- ▲ POLICE Allocation Index
Value 1.42
Rank 75
- × POLICE Policy Index
Value 1.25
Rank 90

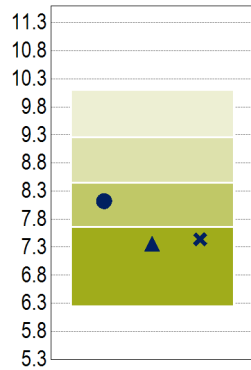
Universe

5th %tile	2.18
25th %tile	1.83
Median	1.65
75th %tile	1.41
95th %tile	1.14

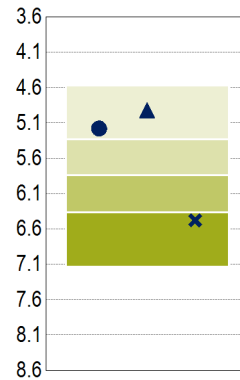
Total Fund Risk Statistics vs. Peer Universe

OK POLICE vs. InvestorForce Public DB Gross
5 Years

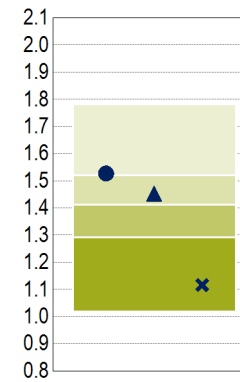
Anlzd Return



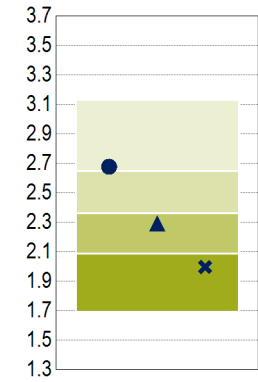
Anlzd Standard Deviation



Sharpe Ratio



Sortino Ratio



● OK POLICE	
Value	8.12
Rank	61
▲ POLICE Allocation Index	
Value	7.36
Rank	82
✘ POLICE Policy Index	
Value	7.44
Rank	81
Universe	
5th %tile	10.10
25th %tile	9.27
Median	8.46
75th %tile	7.67
95th %tile	6.26

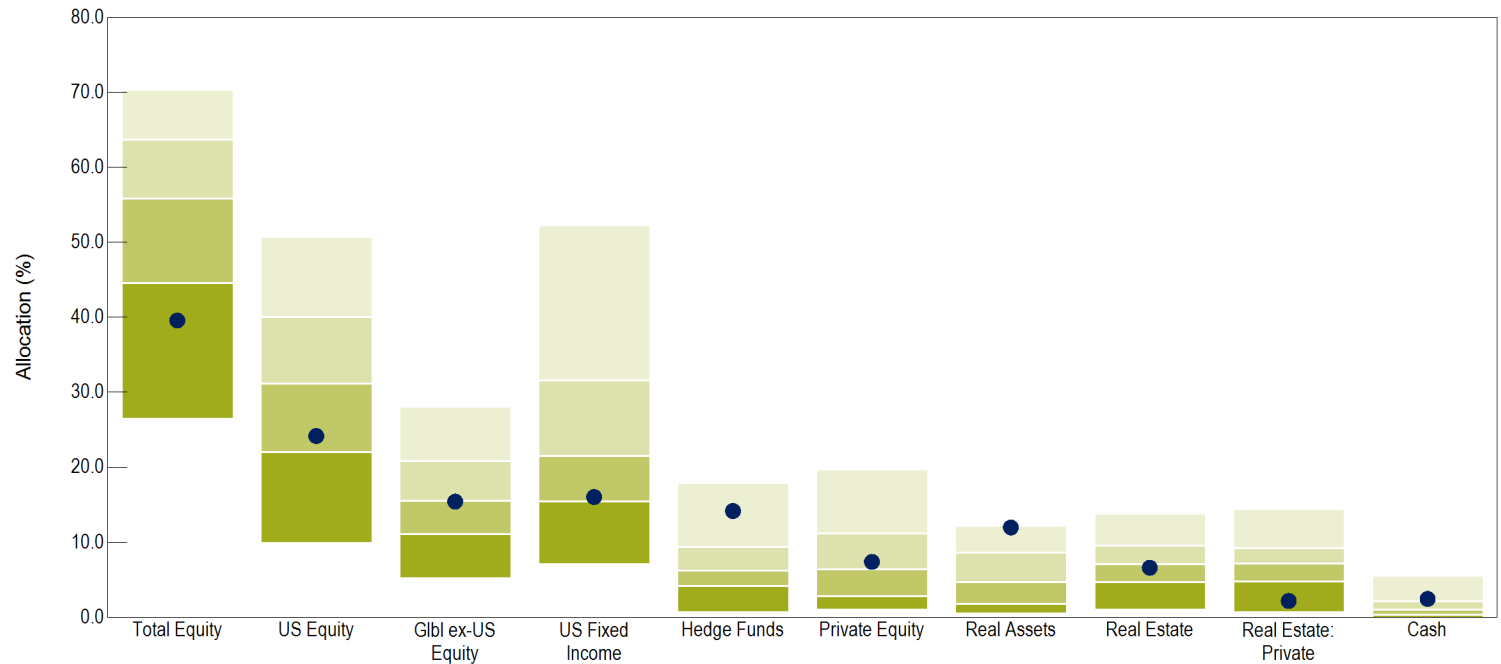
● OK POLICE	
Value	5.18
Rank	20
▲ POLICE Allocation Index	
Value	4.92
Rank	10
✘ POLICE Policy Index	
Value	6.48
Rank	79
Universe	
5th %tile	4.57
25th %tile	5.33
Median	5.83
75th %tile	6.36
95th %tile	7.12

● OK POLICE	
Value	1.53
Rank	25
▲ POLICE Allocation Index	
Value	1.45
Rank	41
✘ POLICE Policy Index	
Value	1.12
Rank	92
Universe	
5th %tile	1.78
25th %tile	1.52
Median	1.41
75th %tile	1.29
95th %tile	1.02

● OK POLICE	
Value	2.68
Rank	24
▲ POLICE Allocation Index	
Value	2.29
Rank	59
✘ POLICE Policy Index	
Value	1.99
Rank	83
Universe	
5th %tile	3.13
25th %tile	2.65
Median	2.36
75th %tile	2.09
95th %tile	1.69

Total Fund Allocations vs. Peer Universe

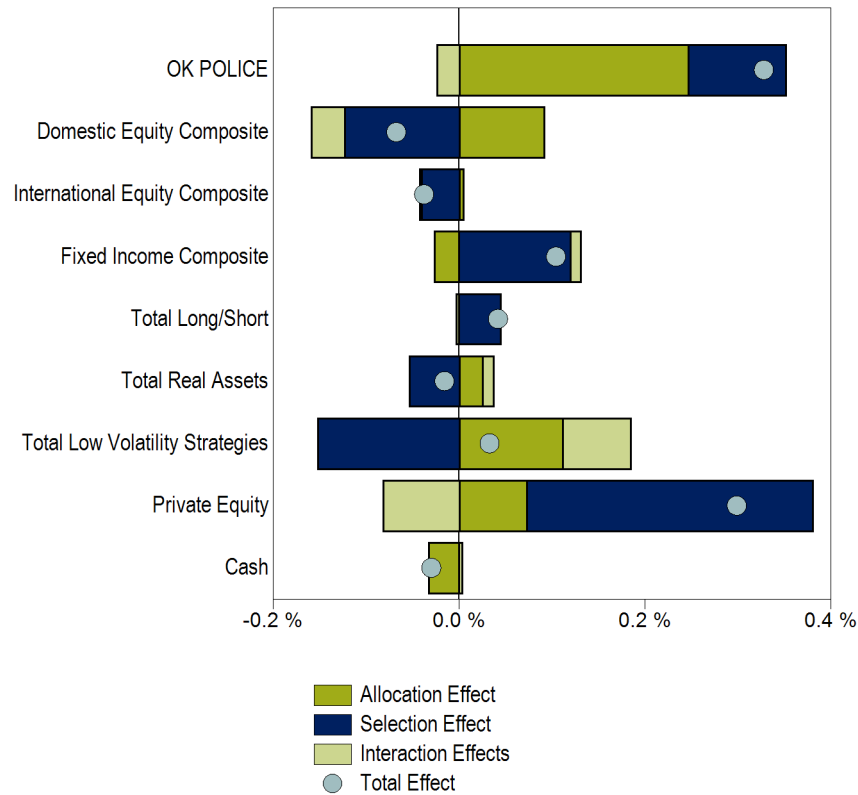
Total Plan Allocation vs. InvestorForce Public DB Gross



	Allocation (Rank)																					
5th Percentile	70.3	50.7	28.1	52.3	17.9	19.7	12.2	13.9	14.4	5.5	-	70.3	50.7	28.1	52.3	17.9	19.7	12.2	13.9	14.4	5.5	-
25th Percentile	63.7	40.1	20.9	31.6	9.4	11.3	8.7	9.6	9.3	2.2	-	63.7	40.1	20.9	31.6	9.4	11.3	8.7	9.6	9.3	2.2	-
Median	55.9	31.3	15.6	21.6	6.3	6.5	4.7	7.1	7.2	1.1	-	55.9	31.3	15.6	21.6	6.3	6.5	4.7	7.1	7.2	1.1	-
75th Percentile	44.6	22.1	11.2	15.5	4.3	2.9	1.9	4.8	4.9	0.4	-	44.6	22.1	11.2	15.5	4.3	2.9	1.9	4.8	4.9	0.4	-
95th Percentile	26.6	10.0	5.3	7.1	0.7	1.1	0.6	1.1	0.8	0.0	-	26.6	10.0	5.3	7.1	0.7	1.1	0.6	1.1	0.8	0.0	-
# of Portfolios	297	231	254	228	87	106	74	194	116	262	-	297	231	254	228	87	106	74	194	116	262	-
● OK POLICE	39.6	(85)	24.2	(71)	15.4	(52)	16.0	(74)	14.2	(11)	7.4	(47)	12.0	(8)	6.6	(55)	2.2	(93)	2.4	(23)	-	

Total Fund Attribution Analysis

**Attribution Effects Relative to POLICE Policy Index
3 Months Ending September 30, 2017**



**Attribution Summary
3 Months Ending September 30, 2017**

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Domestic Equity Composite	3.9%	4.5%	-0.6%	-0.1%	0.1%	0.0%	-0.1%
International Equity Composite	5.9%	6.2%	-0.3%	0.0%	0.0%	0.0%	0.0%
Fixed Income Composite	1.6%	0.8%	0.8%	0.1%	0.0%	0.0%	0.1%
Total Long/Short	3.2%	2.8%	0.3%	0.0%	0.0%	0.0%	0.0%
Total Real Assets	1.5%	1.9%	-0.3%	-0.1%	0.0%	0.0%	0.0%
Total Low Volatility Strategies	0.3%	1.3%	-1.0%	-0.2%	0.1%	0.1%	0.0%
Private Equity	3.0%	0.0%	3.0%	0.3%	0.1%	-0.1%	0.3%
Cash	0.5%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%
Total	3.0%	2.8%	0.2%	0.1%	0.2%	0.0%	0.3%

*Total returns shown are weighted averages of the composites shown and their respective benchmarks and may differ from returns shown throughout the report.

Total Fund Attribution Analysis

Performance Attribution

	Last 3 Mo.	YTD	1 Yr
Wtd. Actual Return	3.0%	9.7%	11.0%
Wtd. Index Return *	2.8%	9.7%	11.0%
Excess Return	0.2%	-0.1%	0.0%
Selection Effect	0.1%	-0.2%	-0.3%
Allocation Effect	0.2%	0.5%	0.5%
Interaction Effect	0.0%	0.1%	0.3%
Asset Class Returns			
OK POLICE	3.0%	9.7%	10.9%
Equity Composite	4.6%	16.3%	18.8%
Domestic Equity Composite	3.9%	12.7%	18.8%
International Equity Composite	5.9%	22.7%	18.2%
Fixed Income Composite	1.6%	5.7%	2.9%
Total Long/Short	3.2%	9.5%	10.3%
Total Real Assets	1.5%	3.2%	6.8%
Total Core Real Estate	1.8%	5.9%	8.6%
Private Real Estate	-0.2%	5.0%	7.0%
Total Low Volatility Strategies	0.3%	2.4%	3.6%
Private Credit	3.9%	9.0%	7.9%
Private Equity	3.0%	6.0%	8.1%
Cash	0.5%	1.2%	2.3%

*Calculated from benchmark returns and weightings of each component.

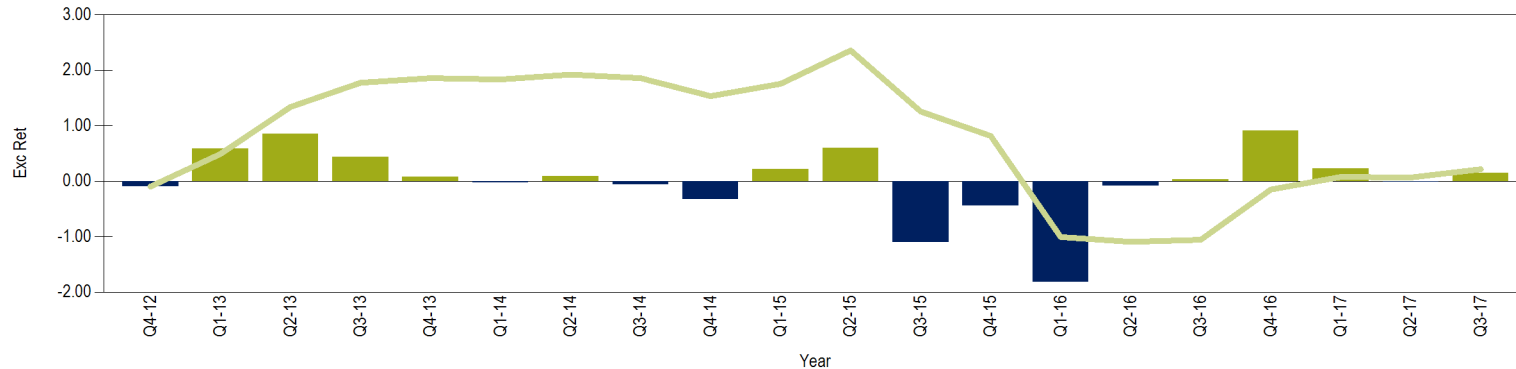
Oklahoma Law



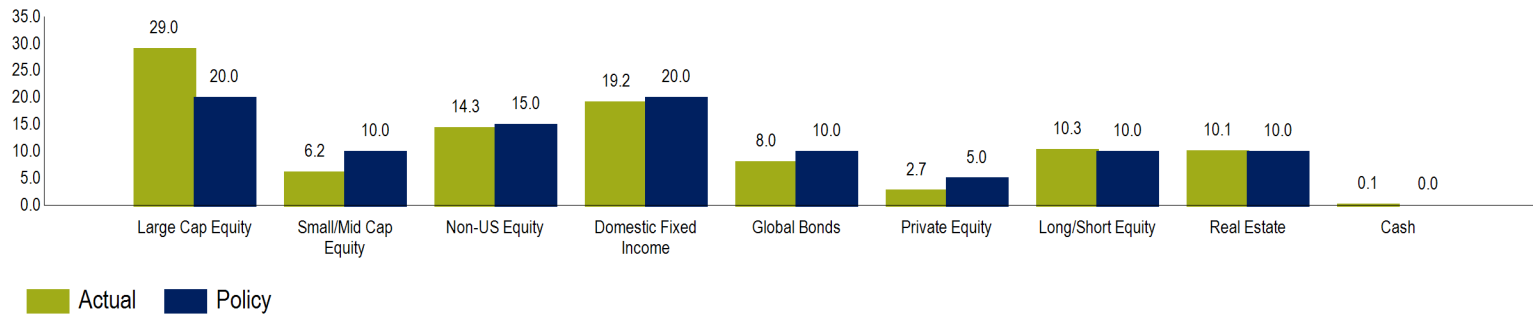
Total Fund Performance Summary

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK LAW	\$962,691,977	3.7%	29	10.9%	55	13.1%	26	6.5%	65	8.4%	53	5.4%	58
<i>LAW Allocation Index</i>		3.5%	41	10.5%	65	11.7%	59	7.1%	38	8.4%	54	5.6%	50
<i>LAW Policy Index</i>		3.4%	54	9.8%	83	11.7%	59	7.5%	23	9.0%	35	5.8%	34
<i>InvestorForce Public DB Gross Median</i>		3.4%		11.1%		12.2%		6.9%		8.5%		5.6%	

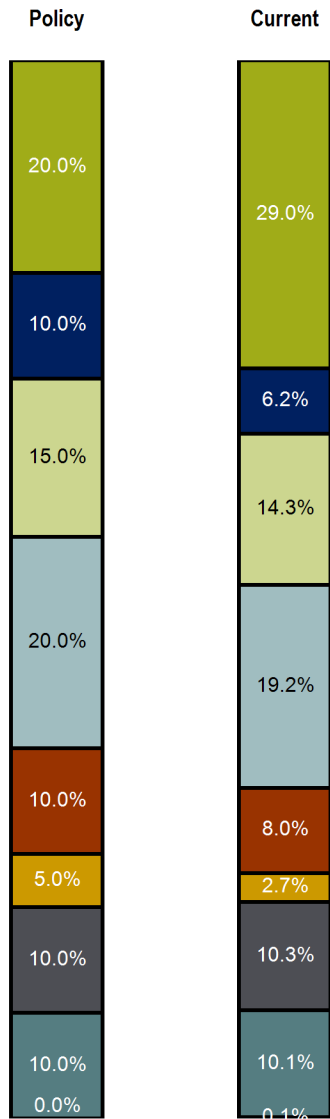
Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)



Total Fund Asset Allocation vs. Policy Targets



Asset Allocation vs. Target

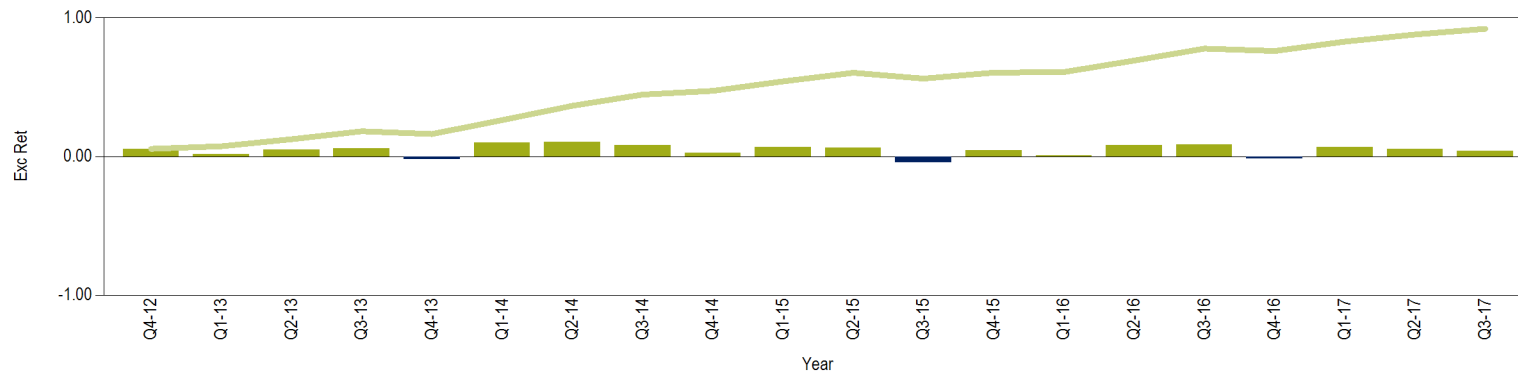
	Current	Policy	Current	Difference*	Policy Range	Within Range
Large Cap Equity	\$279,438,184	20.0%	29.0%	9.0%	15.0% - 25.0%	No
Small/Mid Cap Equity	\$59,528,475	10.0%	6.2%	-3.8%	5.0% - 15.0%	Yes
Non-US Equity	\$138,055,692	15.0%	14.3%	-0.7%	5.0% - 15.0%	Yes
Domestic Fixed Income	\$184,657,066	20.0%	19.2%	-0.8%	15.0% - 25.0%	Yes
Global Bonds	\$77,411,186	10.0%	8.0%	-2.0%	5.0% - 15.0%	Yes
Private Equity	\$26,255,535	5.0%	2.7%	-2.3%	0.0% - 5.0%	Yes
Long/Short Equity	\$98,889,786	10.0%	10.3%	0.3%	5.0% - 15.0%	Yes
Real Estate	\$97,317,344	10.0%	10.1%	0.1%	2.0% - 12.0%	Yes
Cash	\$1,138,709	0.0%	0.1%	0.1%	0.0% - 5.0%	Yes
Total	\$962,691,977	100.0%	100.0%			

Oklahoma Judge

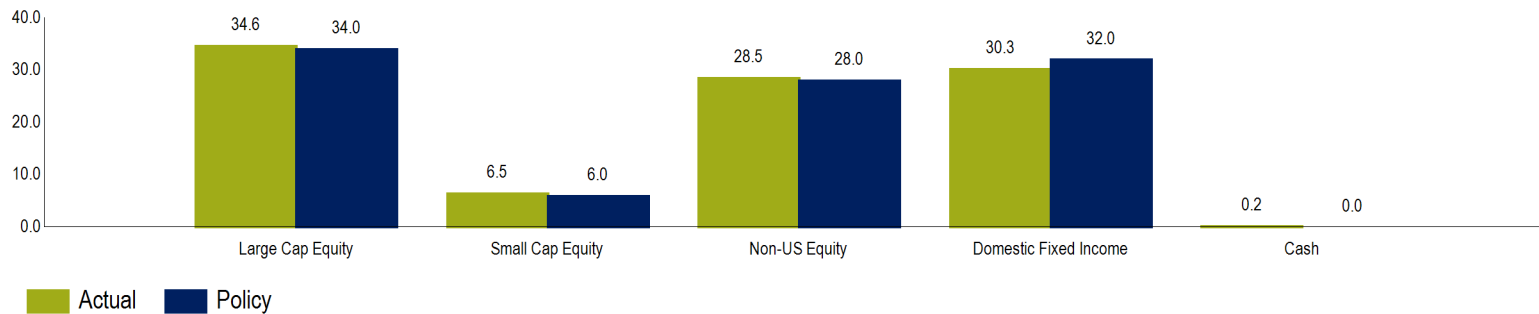
Total Fund Performance Summary

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK JUDGES	\$330,583,448	3.9%	15	12.2%	22	12.8%	36	7.1%	41	8.6%	43	5.9%	28
<i>JUDGES Allocation Index</i>		3.9%	18	12.0%	29	12.6%	38	6.9%	48	8.4%	52	5.6%	45
<i>JUDGES Policy Index</i>		3.9%	17	12.3%	21	12.8%	34	7.2%	36	8.6%	48	5.7%	44
<i>InvestorForce Public DB Gross Median</i>		3.4%		11.1%		12.2%		6.9%		8.5%		5.6%	

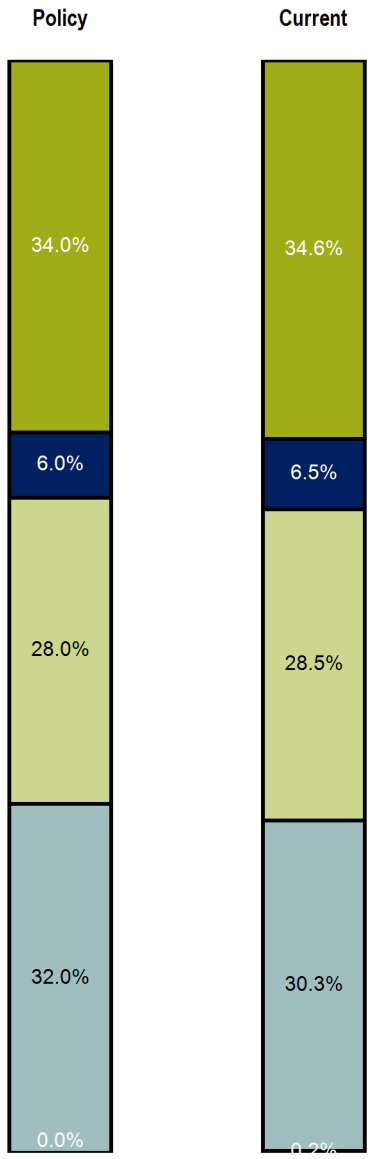
Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)




Total Fund Asset Allocation vs. Policy Targets



Asset Allocation vs. Target

	Current	Policy	Current Difference*	Policy Range	Within Range	
Large Cap Equity	\$114,382,765	34.0%	34.6%	0.6%	31.2% - 36.8%	Yes
Small Cap Equity	\$21,379,913	6.0%	6.5%	0.5%	3.2% - 8.8%	Yes
Non-US Equity	\$94,076,362	28.0%	28.5%	0.5%	25.0% - 31.0%	Yes
Domestic Fixed Income	\$100,093,301	32.0%	30.3%	-1.7%	27.5% - 36.5%	Yes
Cash	\$651,107	0.0%	0.2%	0.2%	0.0% - 5.0%	Yes
Total	\$330,583,448	100.0%	100.0%			

*Difference between Policy and Current Allocation



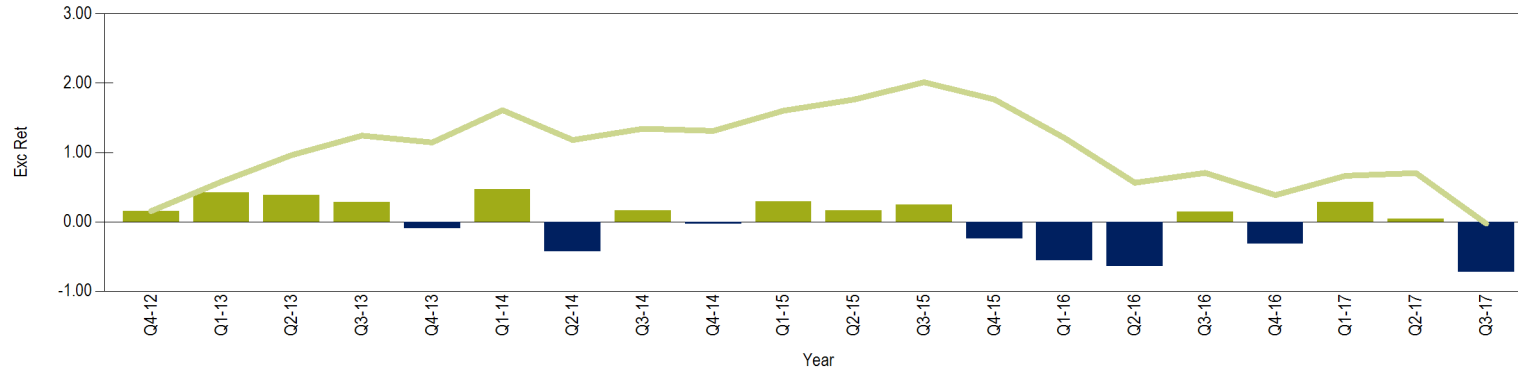
Oklahoma Wildlife



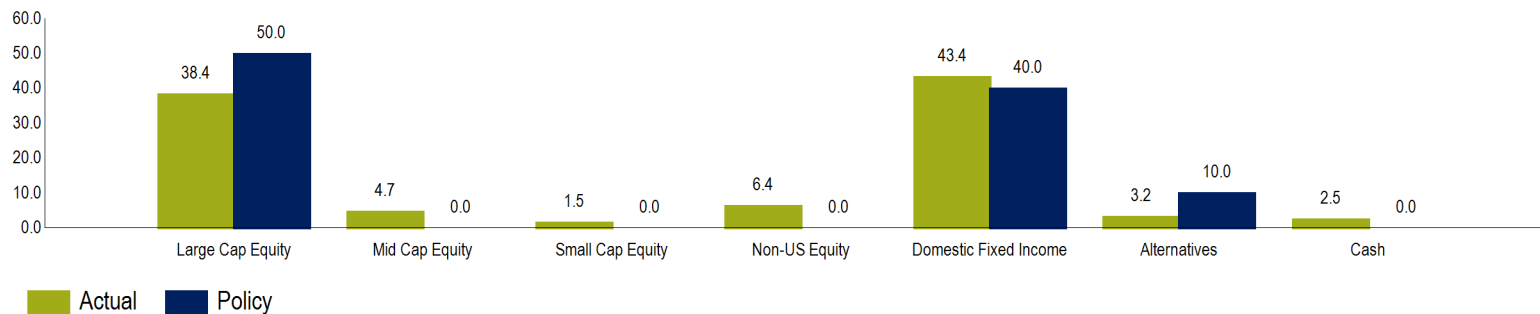
Total Fund Performance Summary

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK WILDLIFE	\$110,975,467	2.6%	94	10.0%	77	10.6%	79	6.6%	60	8.1%	62	5.0%	75
<i>WILDLIFE Allocation Index</i>		3.4%	53	10.4%	69	11.4%	64	7.1%	38	8.1%	62	5.6%	48
<i>WILDLIFE Policy Index</i>		2.8%	91	8.8%	93	9.7%	93	6.7%	56	8.3%	56	6.2%	17
<i>InvestorForce Public DB Gross Median</i>		3.4%		11.1%		12.2%		6.9%		8.5%		5.6%	

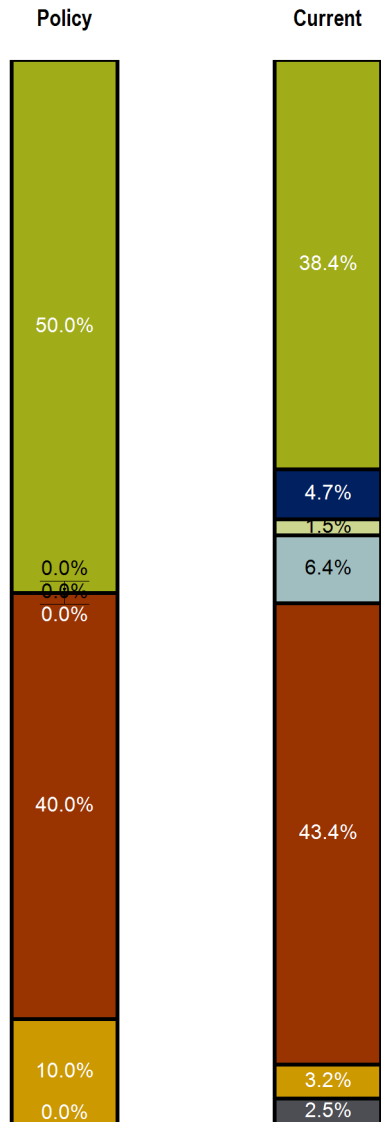
Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)



Total Fund Asset Allocation vs. Policy Targets



Asset Allocation vs. Target

	Current	Policy	Current	Difference*	Policy Range	Within Range
Large Cap Equity	\$42,270,330	50.0%	38.4%	-11.6%	40.0% - 65.0%	No
Mid Cap Equity	\$5,158,539	0.0%	4.7%	4.7%	0.0% - 10.0%	Yes
Small Cap Equity	\$1,669,804	0.0%	1.5%	1.5%	0.0% - 10.0%	Yes
Non-US Equity	\$7,007,941	0.0%	6.4%	6.4%	0.0% - 15.0%	Yes
Domestic Fixed Income	\$47,749,803	40.0%	43.4%	3.4%	35.0% - 55.0%	Yes
Alternatives	\$3,476,932	10.0%	3.2%	-6.8%	0.0% - 10.0%	Yes
Cash	\$2,789,480	0.0%	2.5%	2.5%	0.0% - 5.0%	Yes
Total	\$110,122,829	100.0%	100.0%			

*Difference between Policy and Current Allocation

Appendix: Market Environment



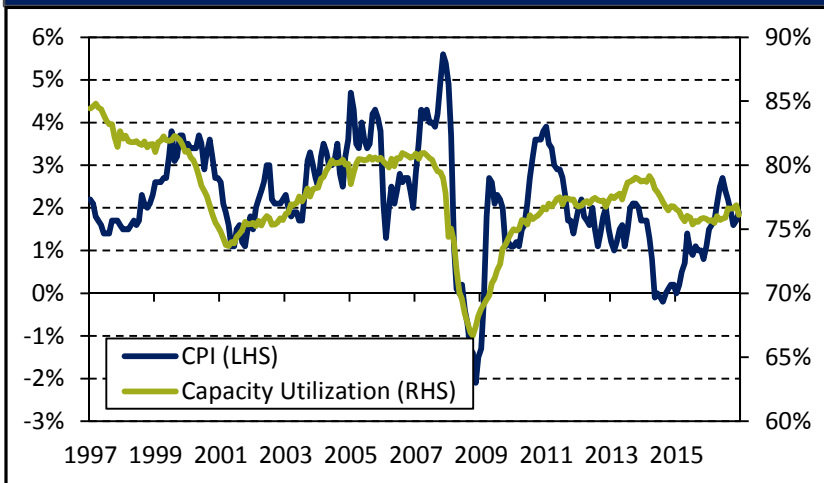
Long Term Broad Market Performance Summary as of 09/30/2017



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

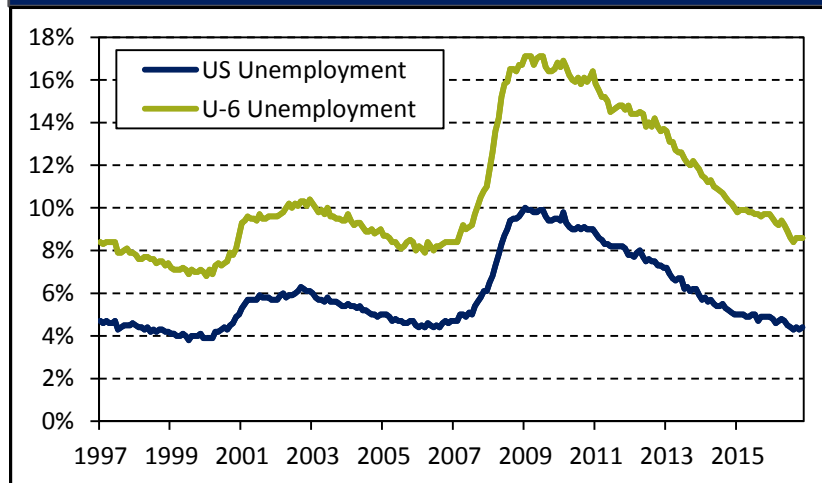
US Economic Indicators

Inflation has ticked modestly higher



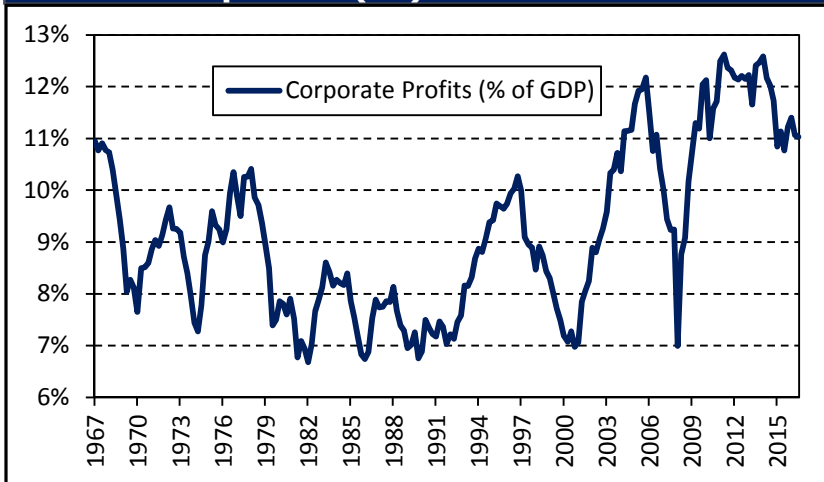
Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics

Unemployment remains near historic lows



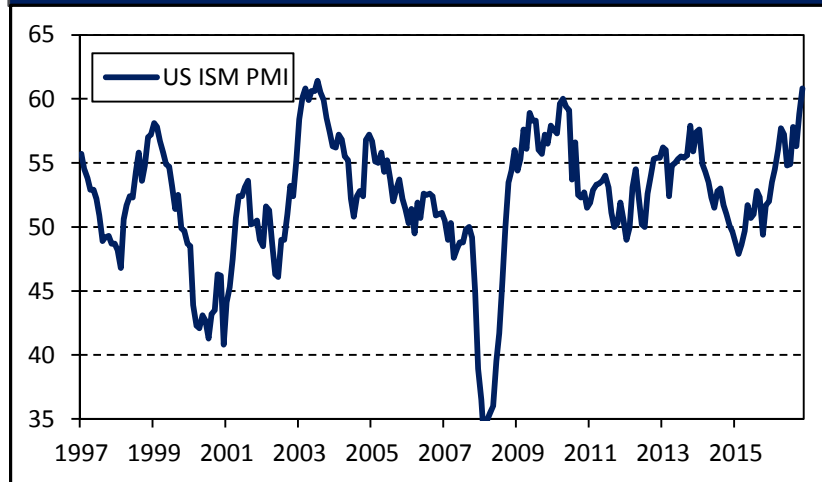
Source: Bloomberg, Bureau of Labor Statistics

With recent increases in GDP, corporate profits (%) have declined



Source: Bloomberg, Bureau of Economic Analysis

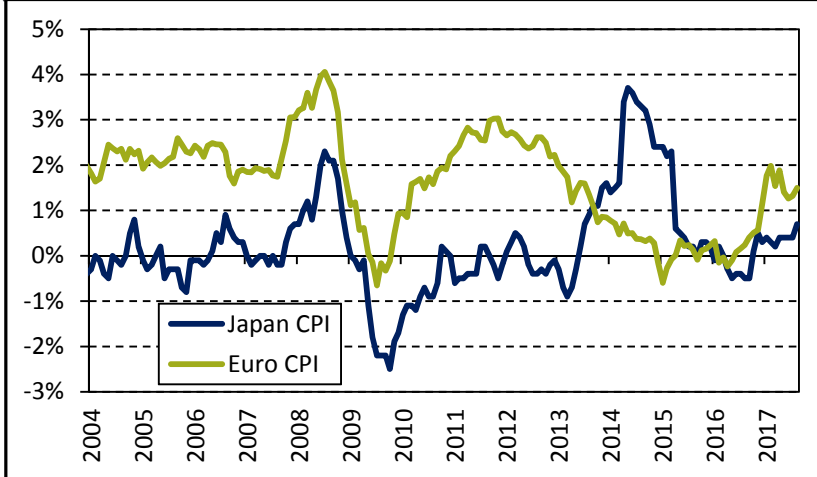
Manufacturing shows continued strength



Source: Bloomberg, Institute for Supply Management

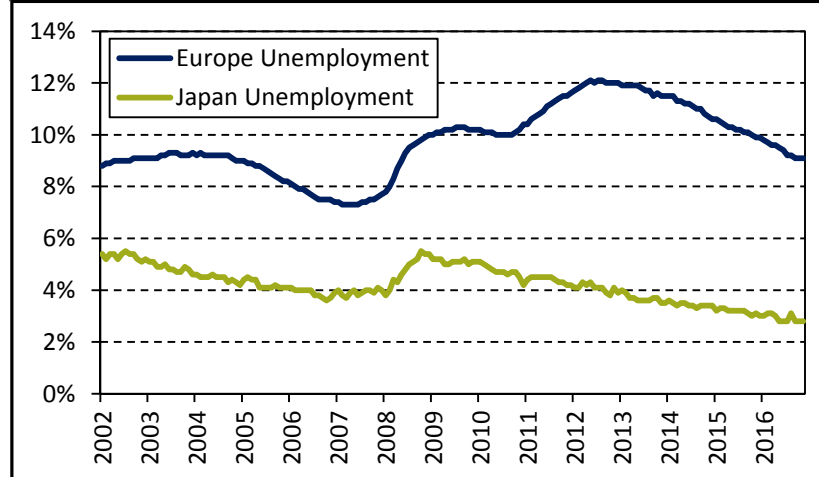
International Economic Indicators

Eurozone and Japan inflation are on an upswing



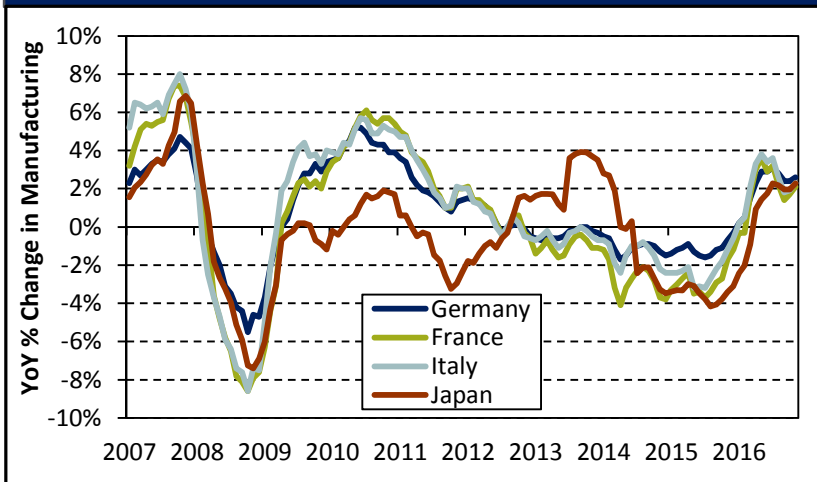
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

Unemployment has steadied



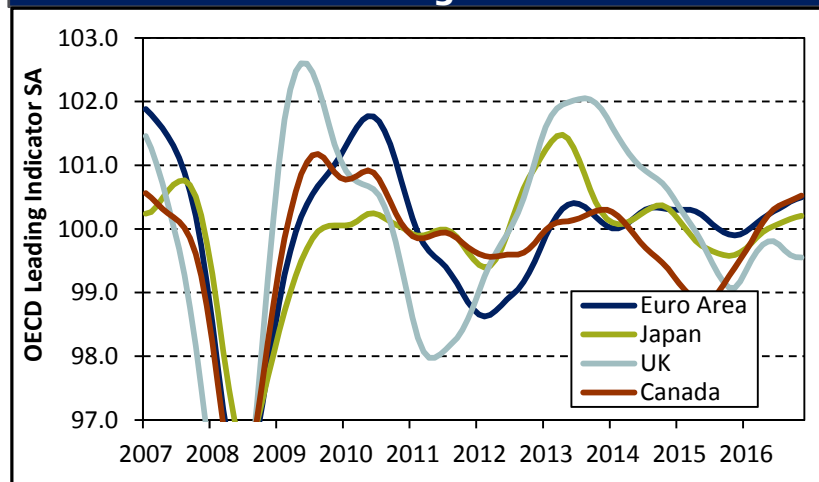
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

Manufacturing shows continued strength



Source: Bloomberg, OECD, Eurostat

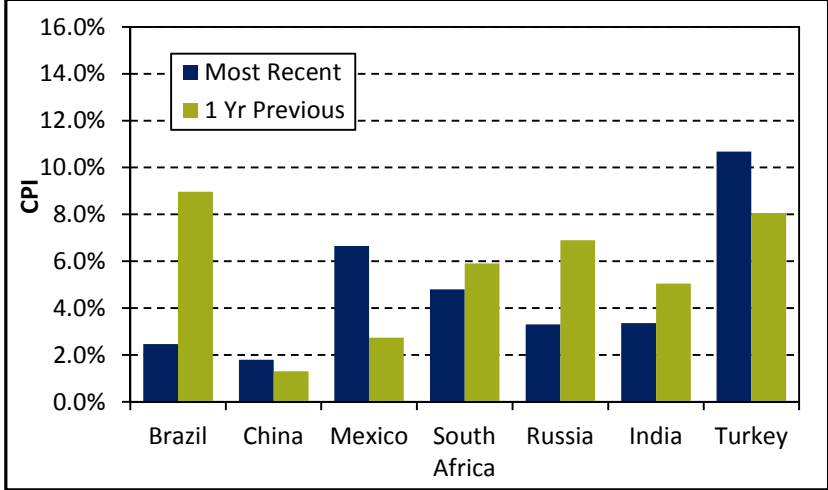
Ex-UK, leading indicators are trending higher



Source: Bloomberg, OECD

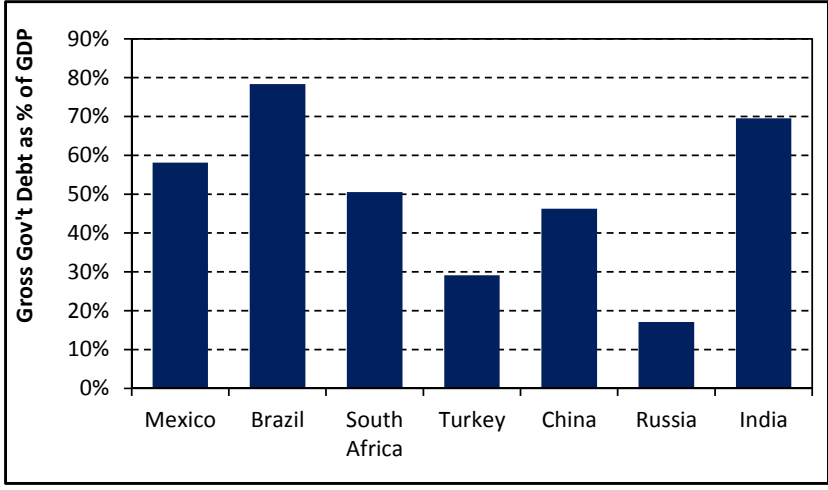
Emerging Market Economic Indicators

EM inflation varies by country



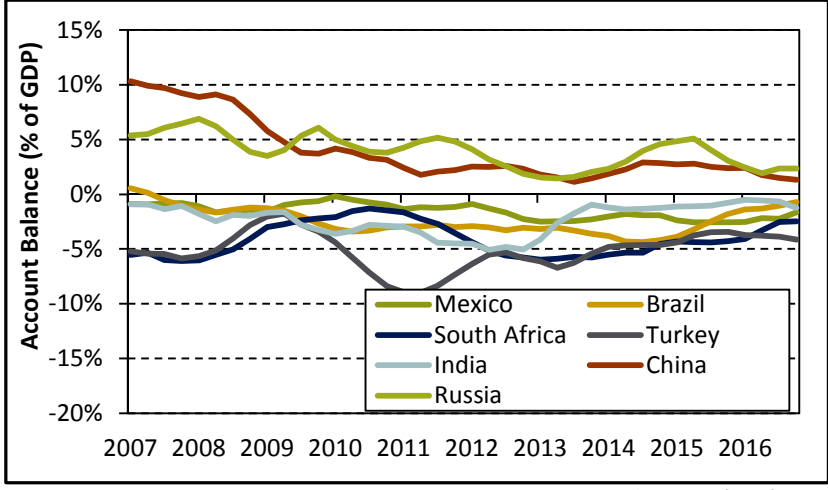
Source: Bloomberg

Relatively healthy debt/GDP ratios



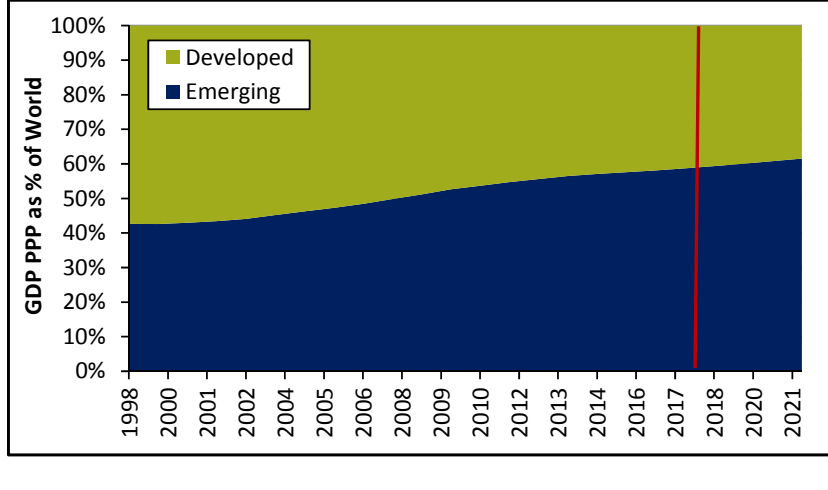
Source: Bloomberg, IMF

Account balances remain steady



Source: Bloomberg

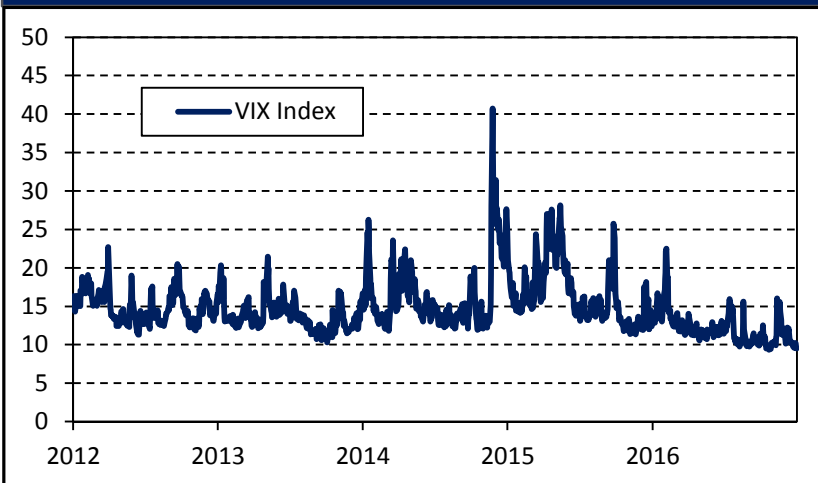
EM continues trending higher as a percent of global output



Source: Bloomberg, IMF

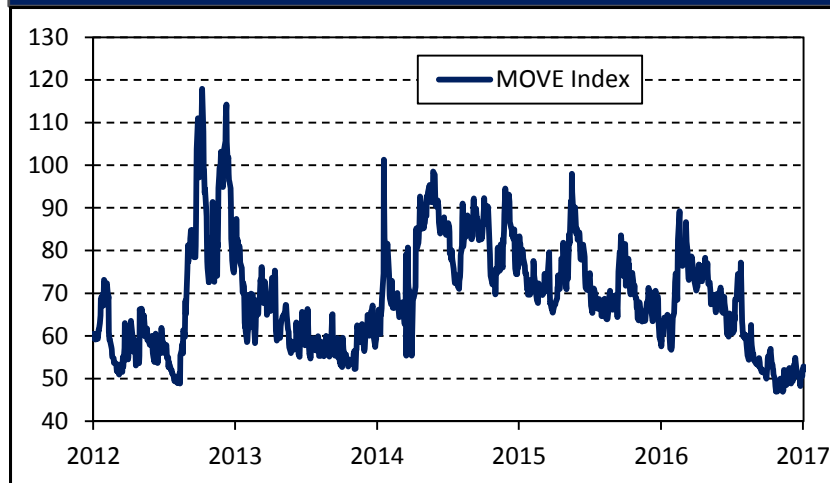
Volatility

Equity volatility remains near historic lows



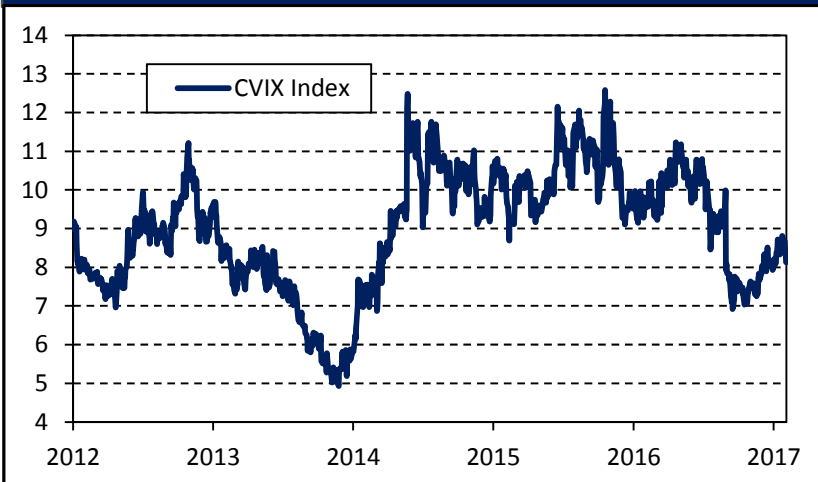
Source: Bloomberg, CBOE

Treasury volatility has increased slightly off recent lows



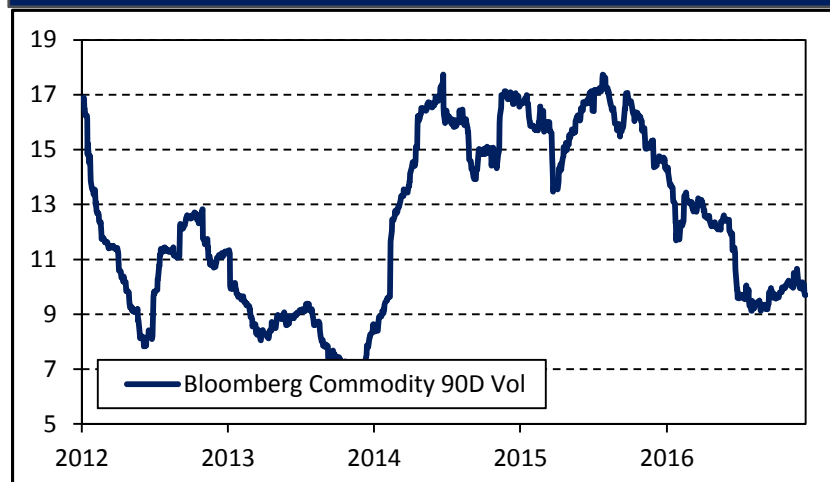
Source: Bloomberg, Merrill Lynch

Currency volatility has modestly declined



Source: Bloomberg, Deutsche Bank

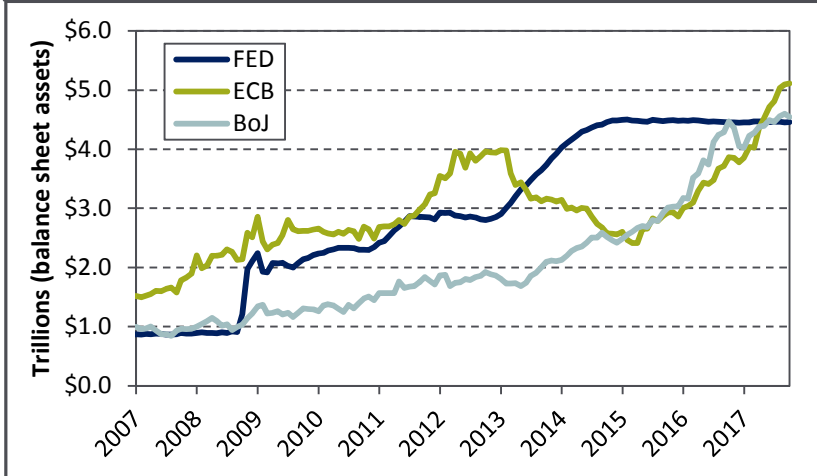
Commodity volatility is trending downward



Source: Bloomberg, Merrill Lynch

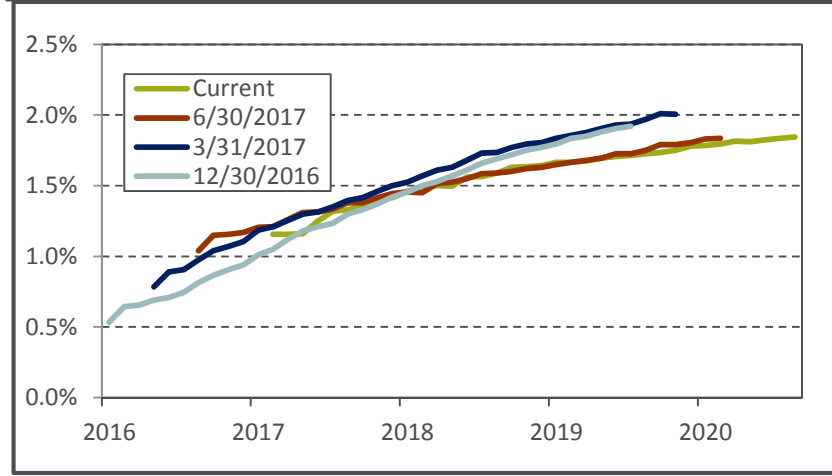
Central Banks

ECB and BOJ balance sheets continue to grow



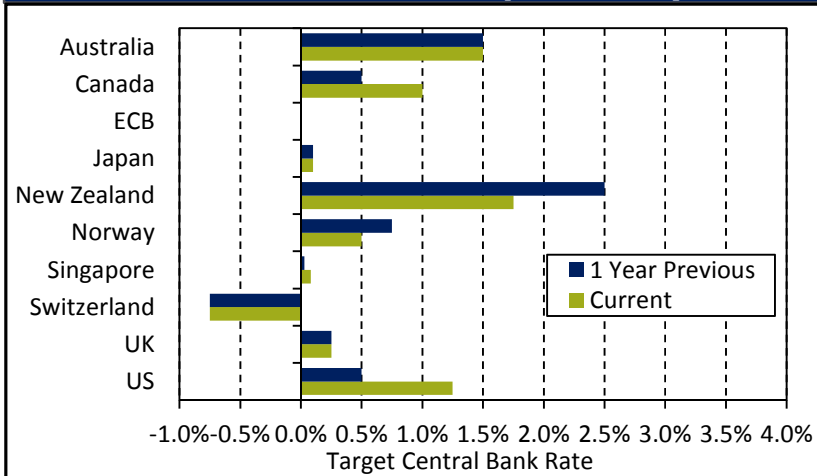
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC

Short-term interest rates have increased, causing a relatively flatter yield curve



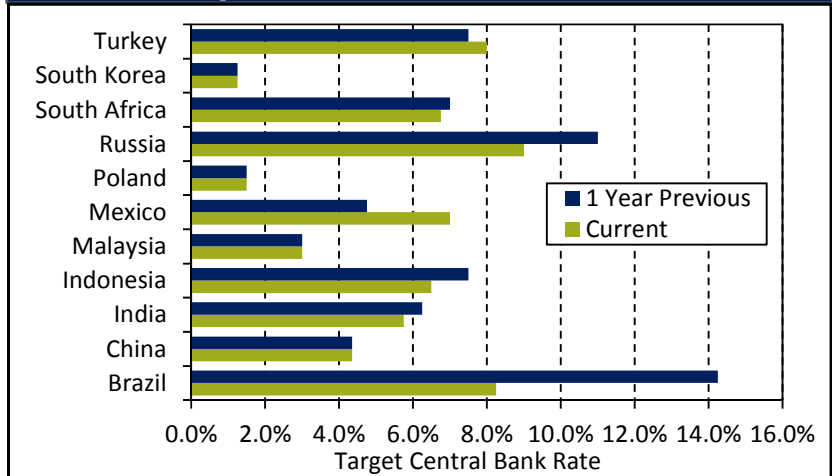
Source: Bloomberg, Federal Reserve

Ex-US and Canada, developed market rates are lower than the previous year



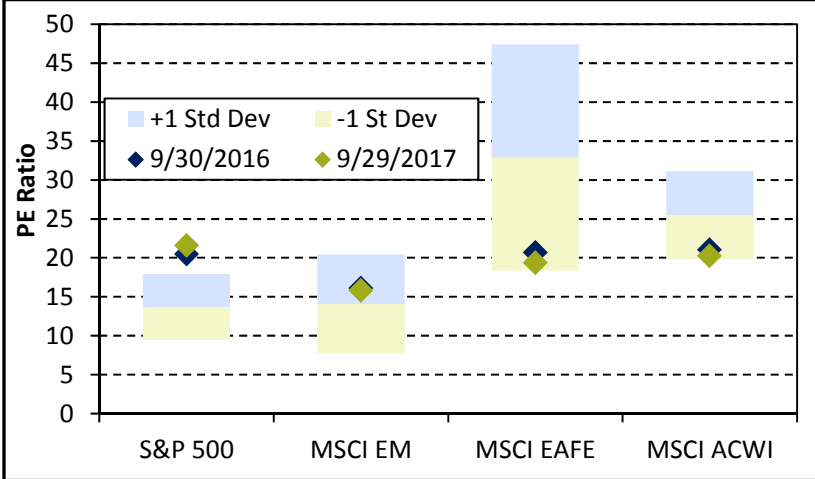
Source: Bloomberg

EM central bank policies vary by country-specific economic conditions



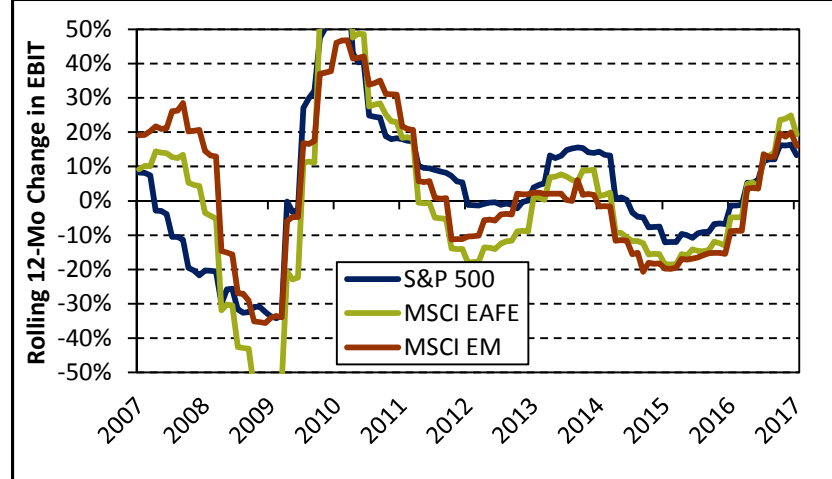
Source: Bloomberg

Ex-US valuations remain lower than the previous year



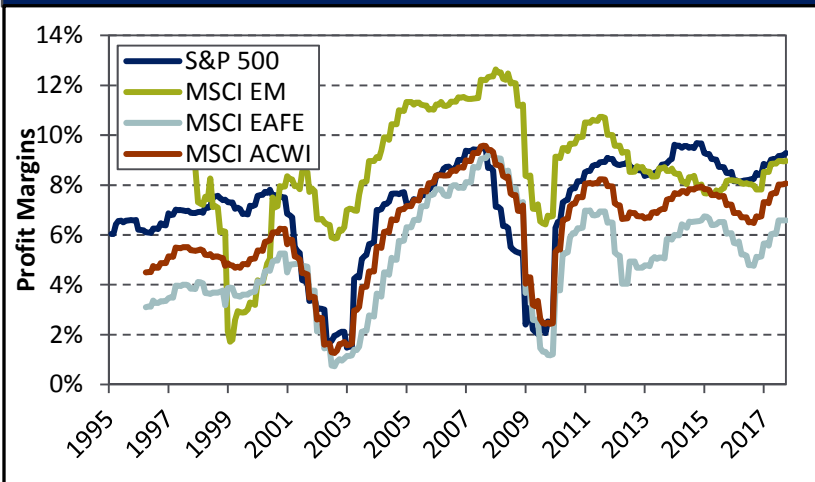
Source: Bloomberg, Standard and Poors, MSCI *MSCI EAFE is ex UK Telecom
*Standard deviation calculations on 20 years of data except S&P 500 (30 years)

Rolling annual earnings growth remains elevated relative to recent lows



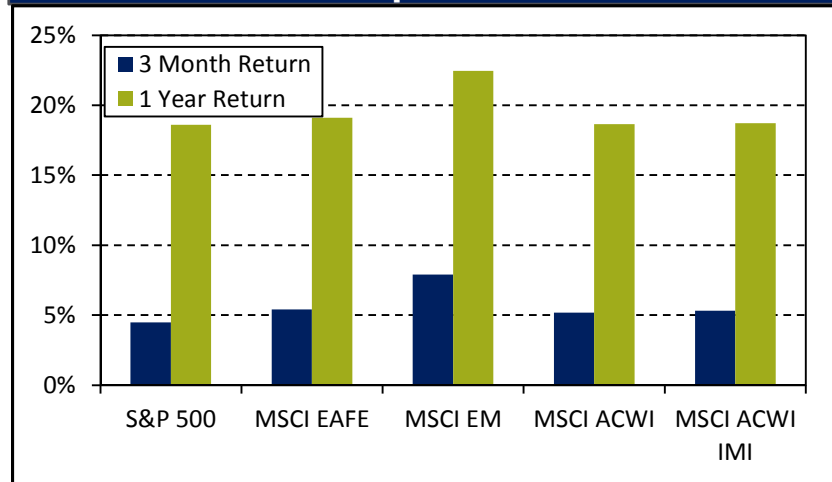
Source: Bloomberg, Standard and Poors, MSCI

Profit margins continue to improve



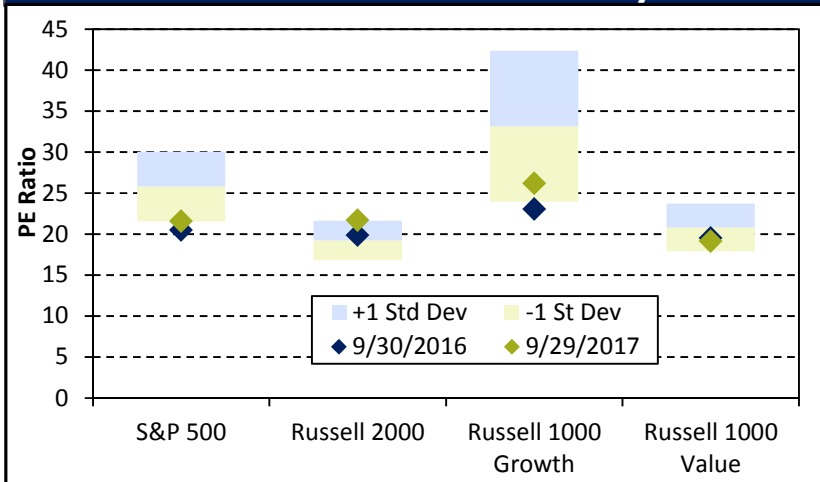
Source: Bloomberg, MSCI

Equities have experienced strong short-term performance



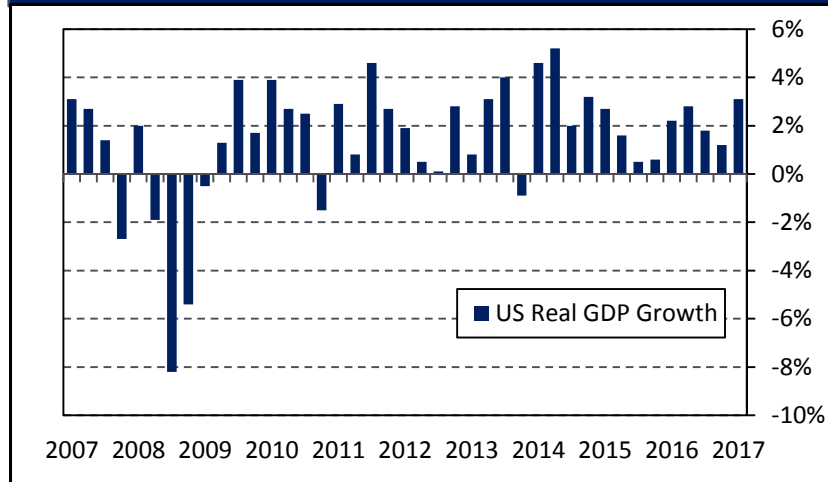
Source: Bloomberg, MSCI

Ex-Value, equity valuations remain elevated relative to last year



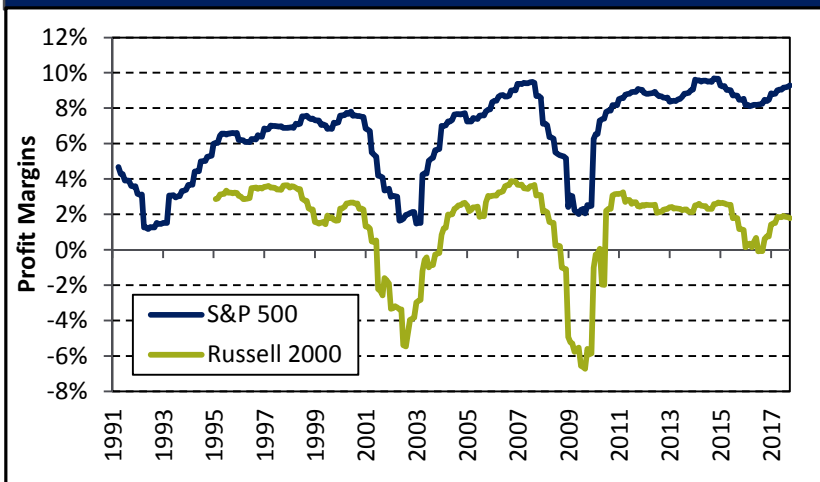
Source: Bloomberg, Standard and Poors, Russell *Russell 2000 PE is index adjusted positive* Standard deviation calculations based on 20 years of data

Real GDP growth strengthened in Q2



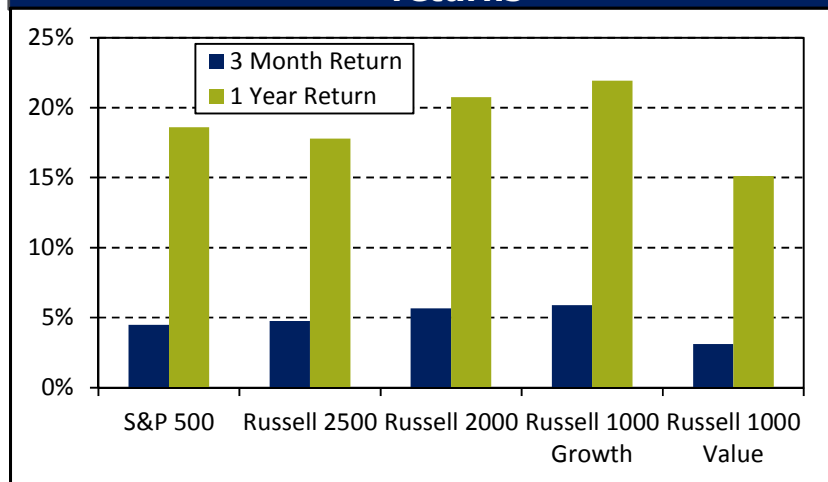
Source: Bloomberg, Bureau of Economic Analysis

S&P profit margins experience an uptick



Source: Bloomberg, Standard and Poors, Russell

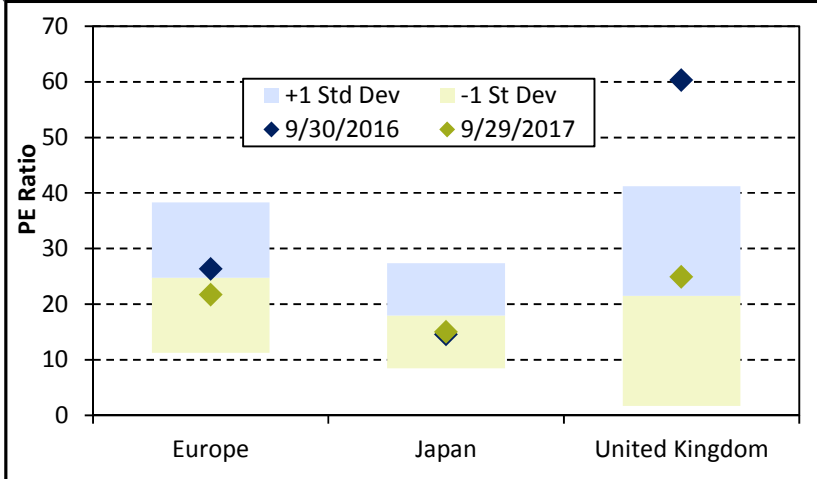
US equities continue to post positive returns



Source: Bloomberg, Standard and Poors, Russell

International Equity

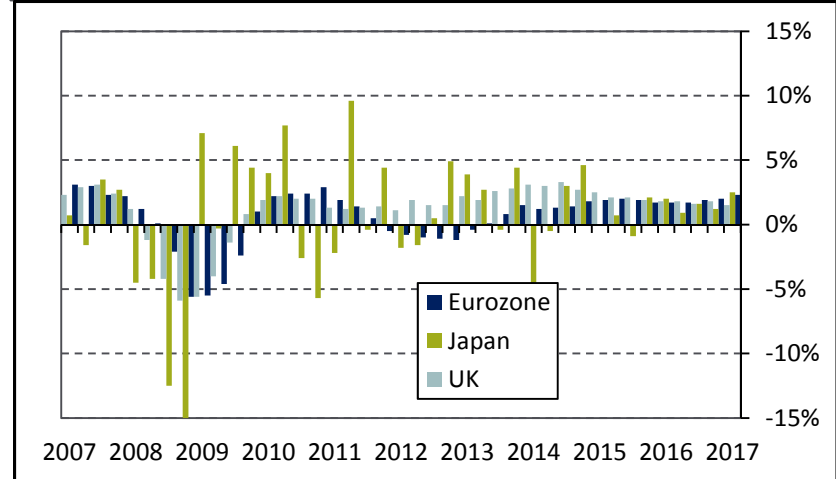
UK and Europe PEs remain below previous year levels



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

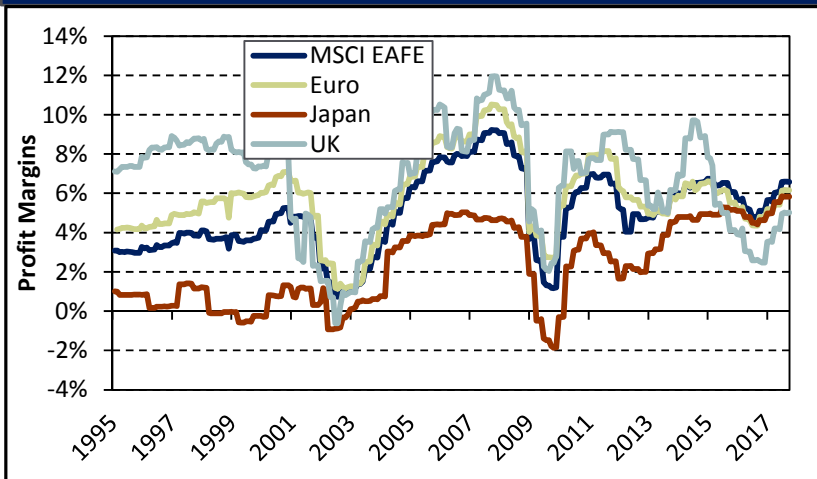
*Standard deviation calculations based on 20 years of data, with Europe since 12/1998

Eurozone and Japan growth increased, while UK growth slowed



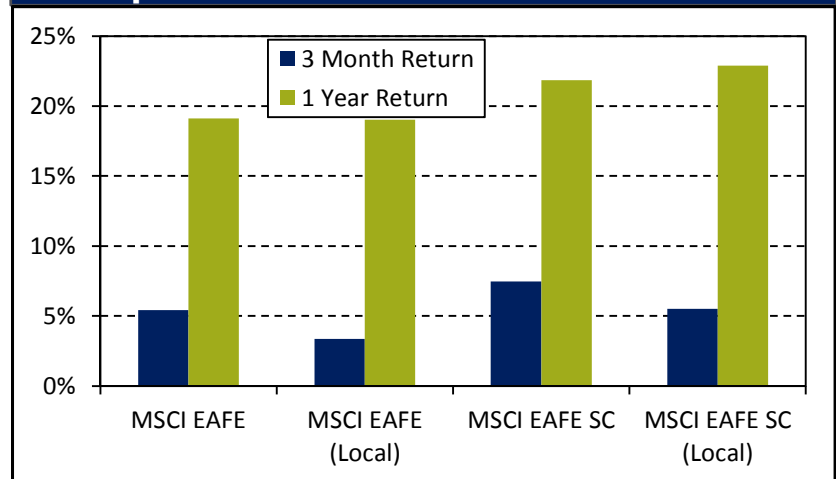
Source: Bloomberg

Profit margins continue trending higher



Source: Bloomberg, MSCI

Dollar weakness boosted short-term performance relative to local indices

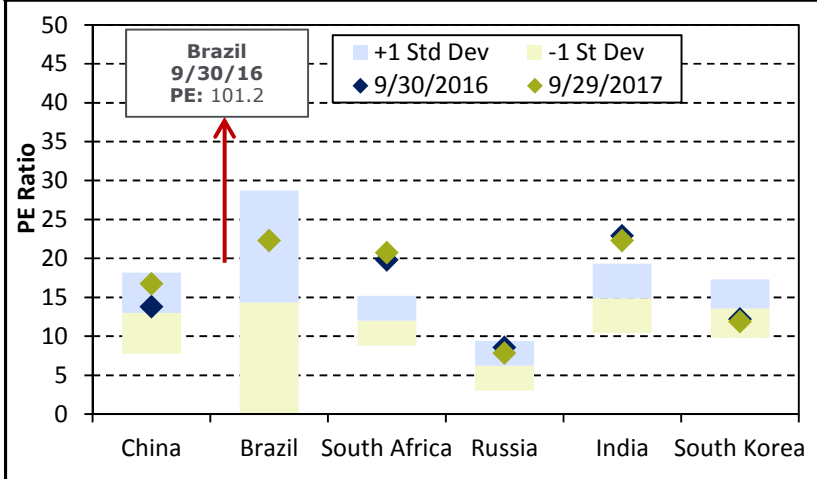


Source: Bloomberg, MSCI



Emerging Markets Equity

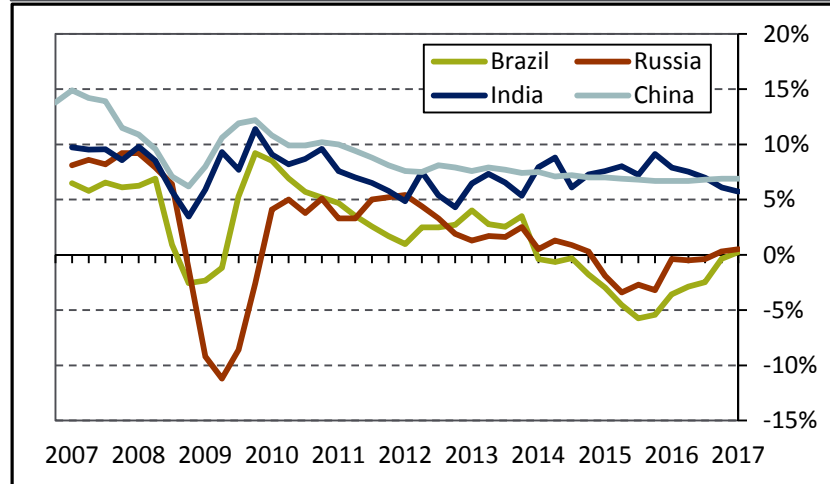
Ex-India, EM valuations remain elevated relative to the previous year



Source: Bloomberg, MSCI

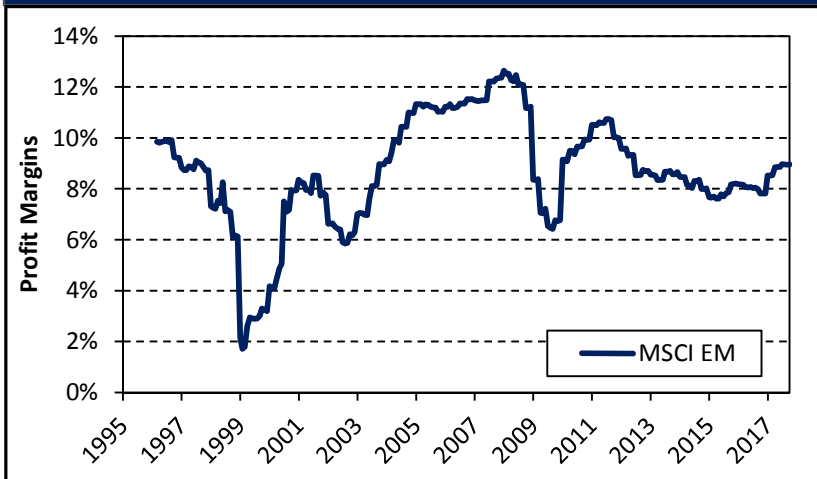
*Standard deviation calculations based on 20 years of data, with Russia since 01/1998

Brazil and Russia continue rebounding off earnings contractions



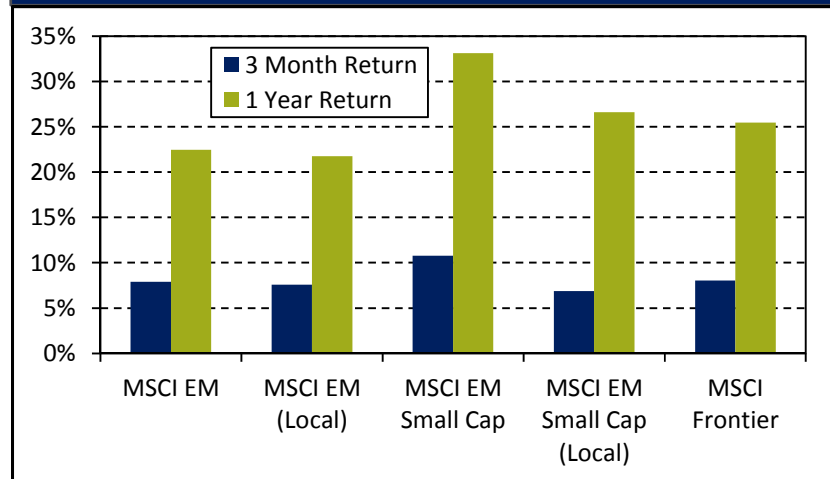
Source: Bloomberg

Profit margins continue trending upward



Source: Bloomberg, MSCI

EM posts strong short-term returns

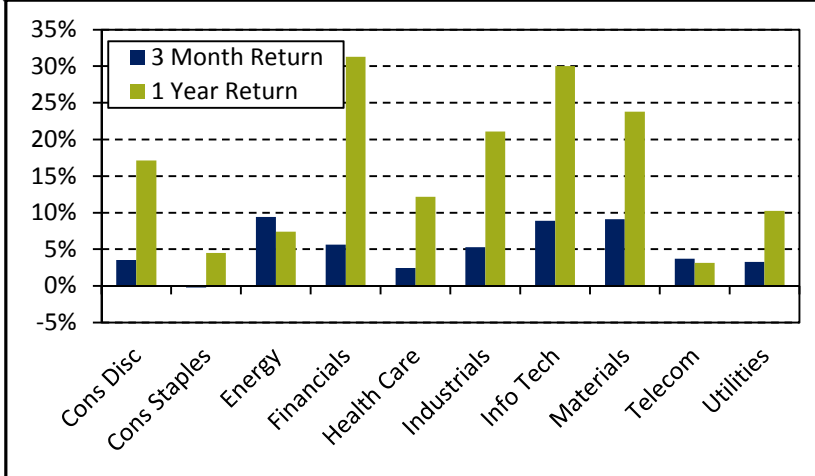


Source: Bloomberg, MSCI



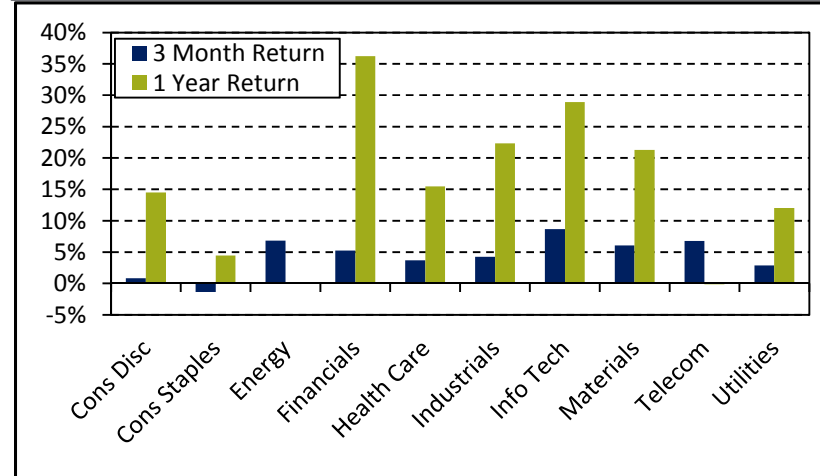
Global Equity by Sector

Consumer Staples drags MSCI ACWI short-term returns



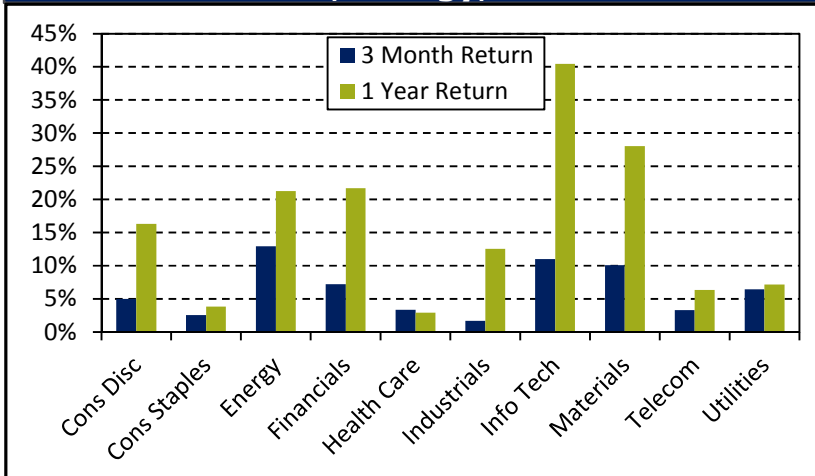
Source: Bloomberg, MSCI

Info Tech and Telecom lead S&P short-term performance



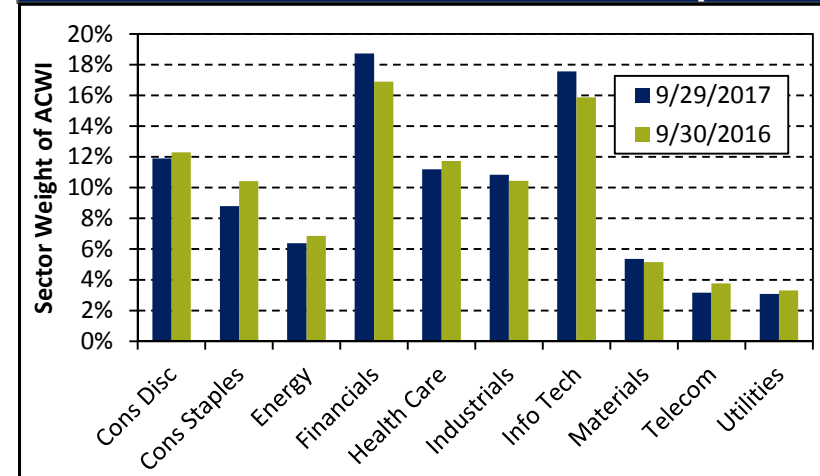
Source: Bloomberg, Standard and Poors

EM short-term returns have been driven by Info Tech, Energy, and Materials



Source: Bloomberg, MSCI

Financials and Info Tech weights have increased with recent run-ups

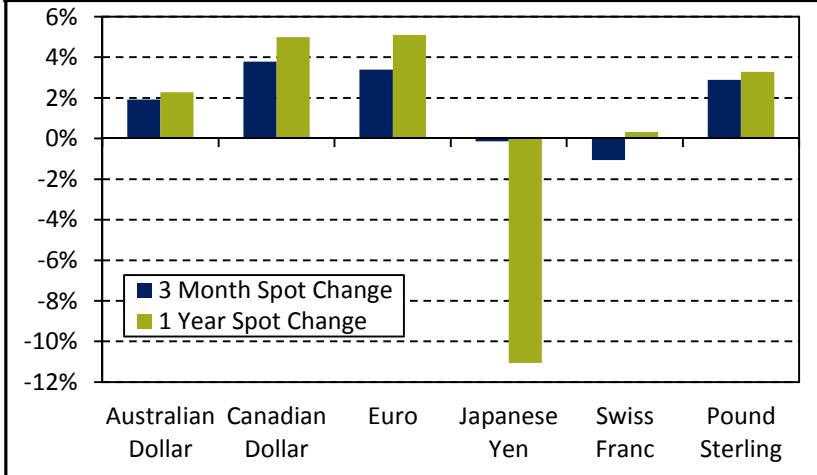


Source: Bloomberg, MSCI



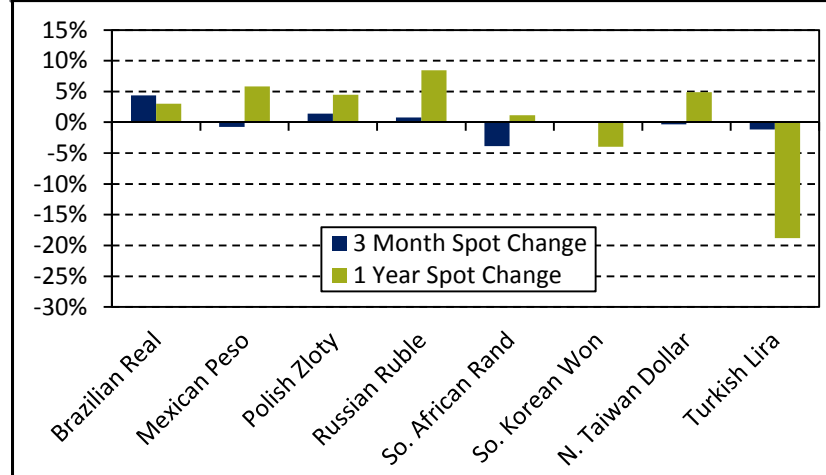
Currencies

Currencies have appreciated against the dollar with recent USD weakness



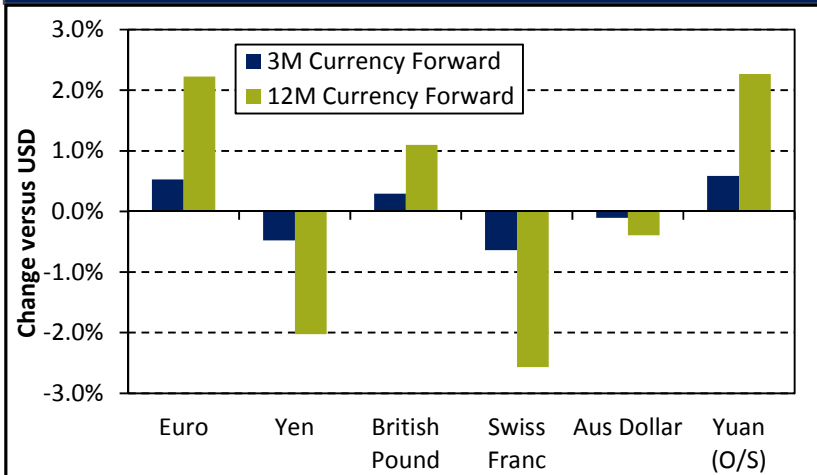
Source: Bloomberg

EM currencies remain mixed relative to the dollar



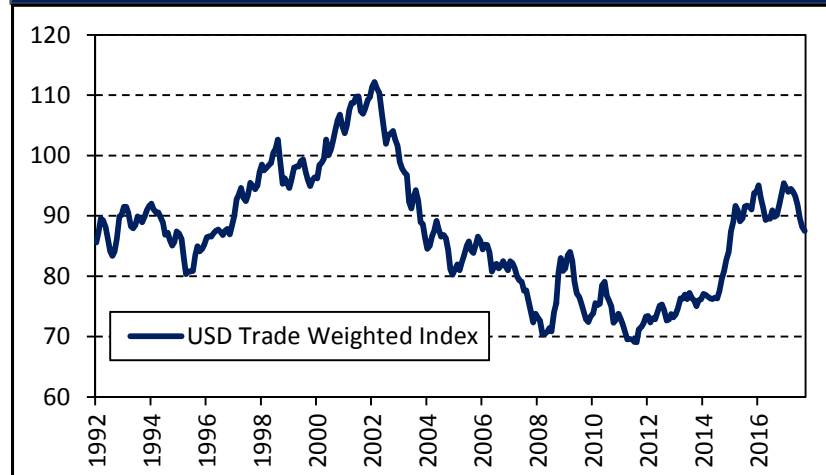
Source: Bloomberg

USD expectations vary across developed markets



Source: Bloomberg

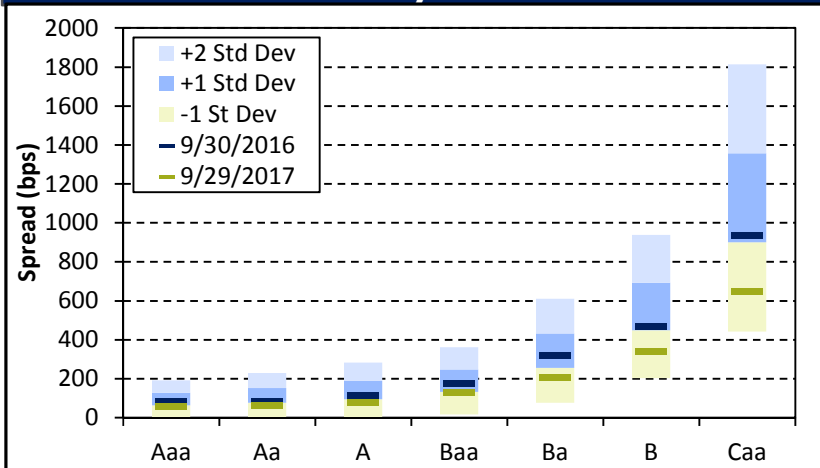
The dollar continues trending downward



Source: Bloomberg, Federal Reserve

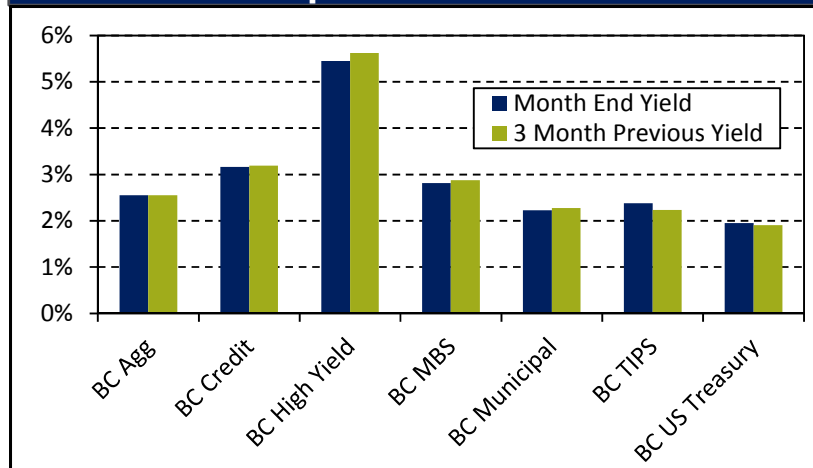


Spreads remain lower than the previous year



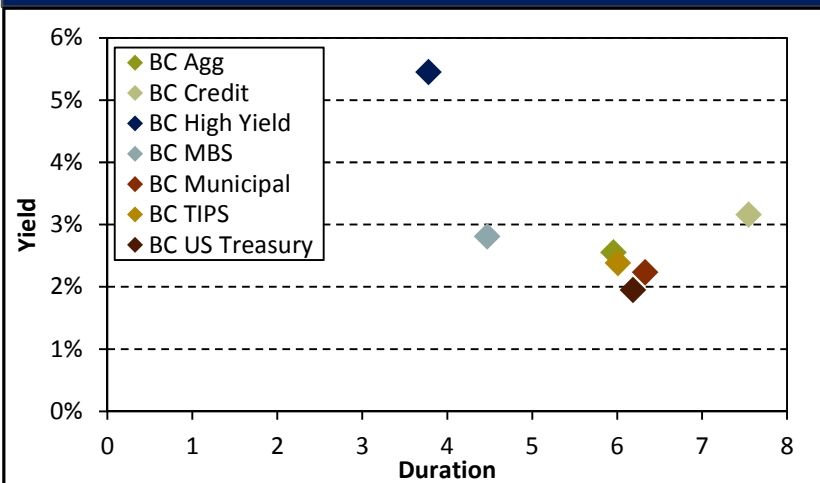
Source: Bloomberg, Barclays
*Standard deviation calculations based on 20 years of data

TIPS yield has increased relative to previous months



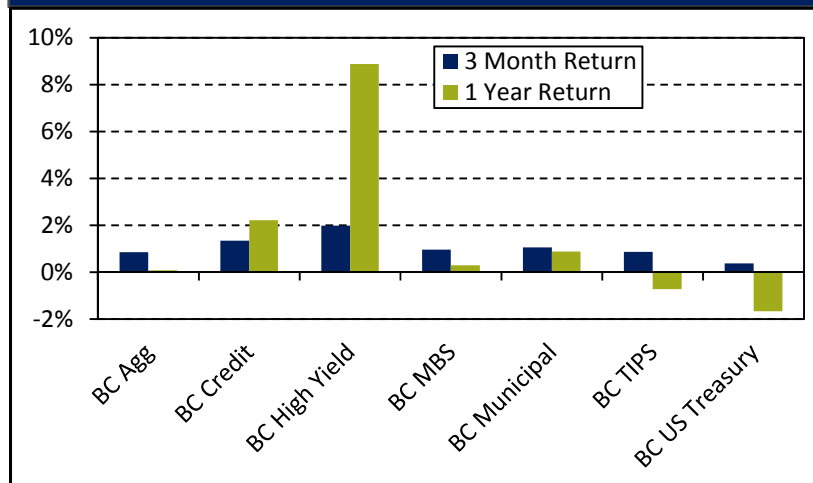
Source: Bloomberg, Barclays

Similar duration/yield profiles among core indices



Source: Bloomberg, Barclays

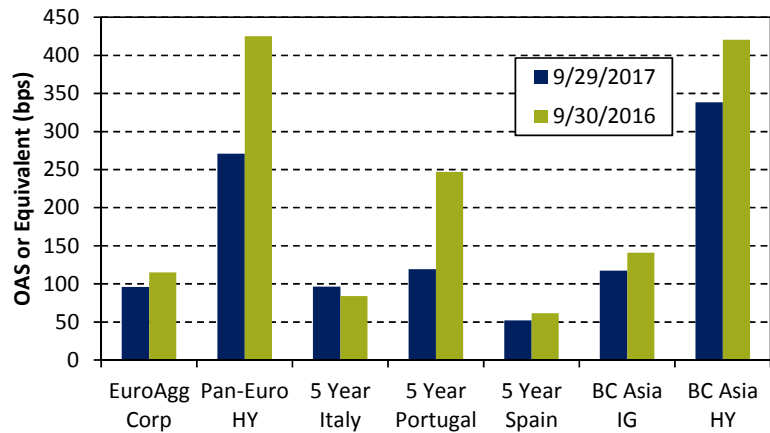
Fixed income indices post positive short-term returns



Source: Bloomberg, Barclays

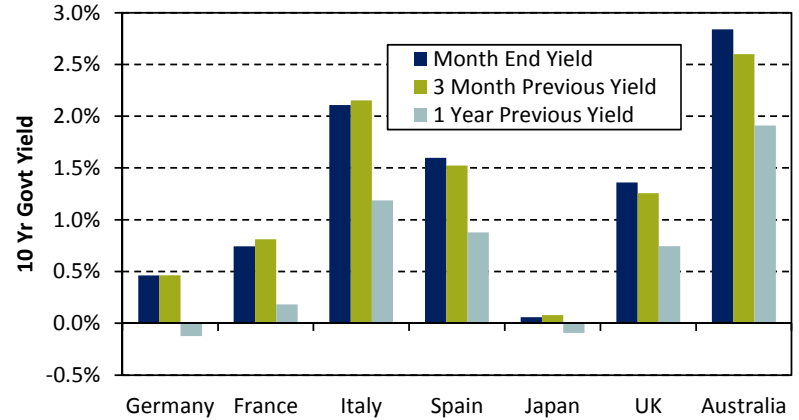
International Developed Fixed Income

Periphery yields have broadly declined over the year relative to Germany



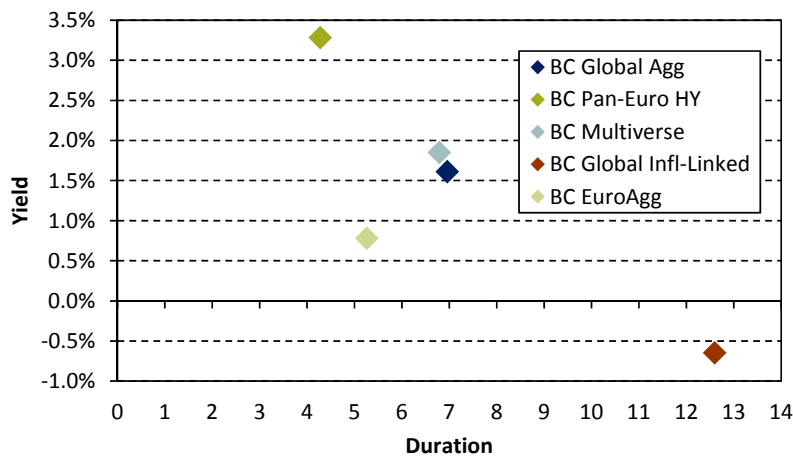
Source: Barclays, Bloomberg, *European periphery spreads are over equivalent German Bund

Yields are significantly higher relative to last year



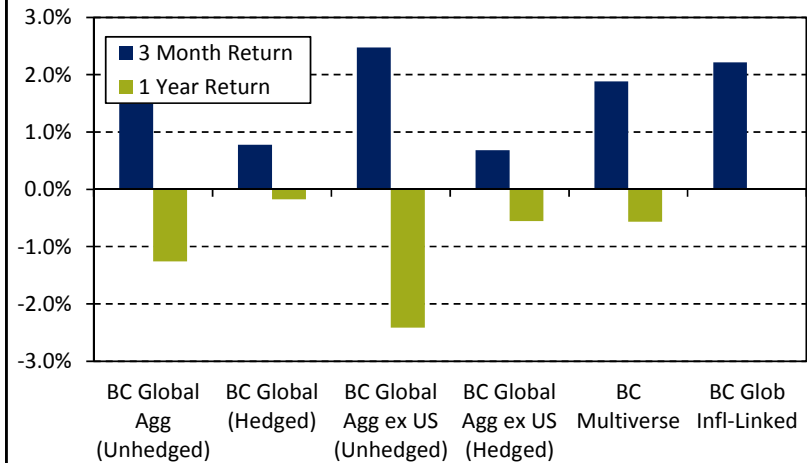
Source: Bloomberg

Low yields persist in global bond universe



Source: Bloomberg, Citigroup, Barclays

Global bonds post strong short-term returns

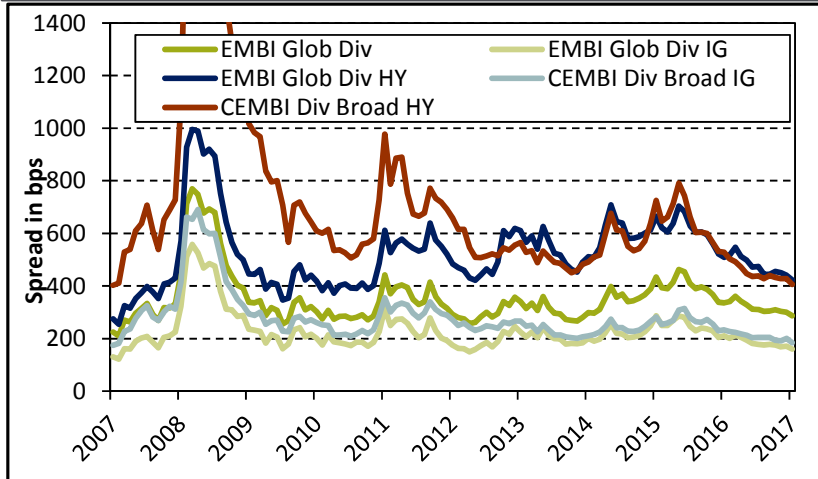


Source: Bloomberg, Citigroup, Barclays



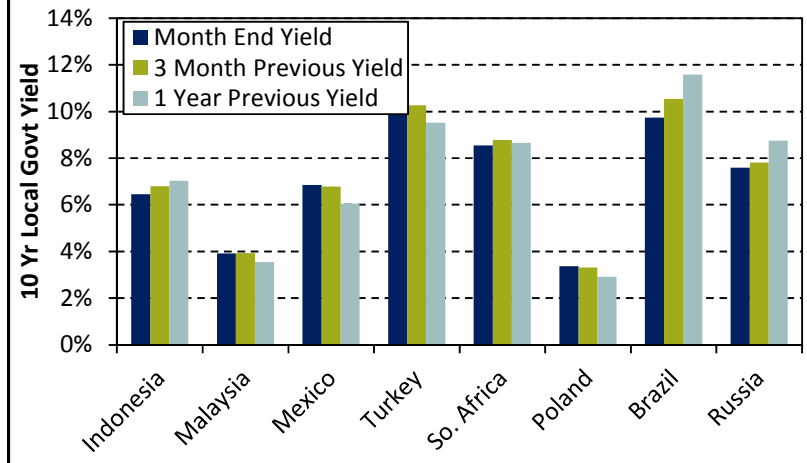
Emerging Markets Fixed Income

EM spreads continue to compress



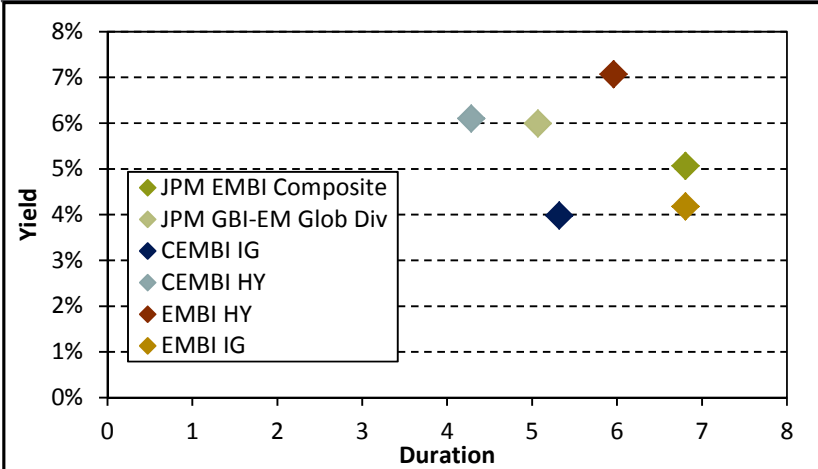
Source: Bloomberg, JP Morgan

Yields have broadly declined relative to previous months



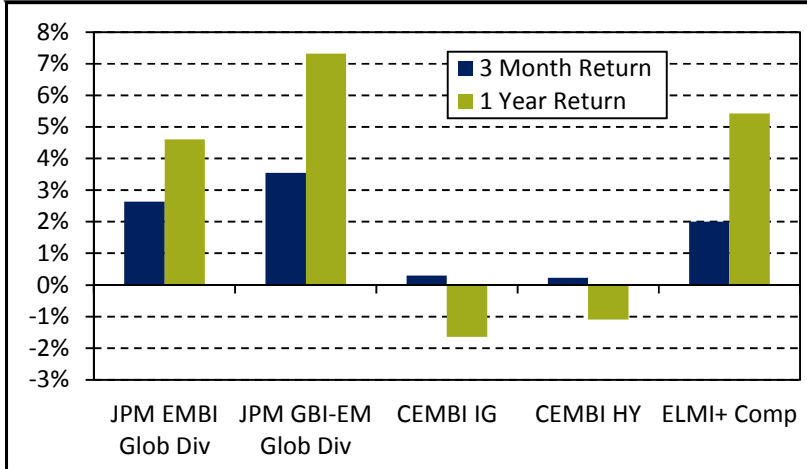
Source: Bloomberg

EM yields appear attractive relative to global counterparts



Source: Bloomberg, JP Morgan

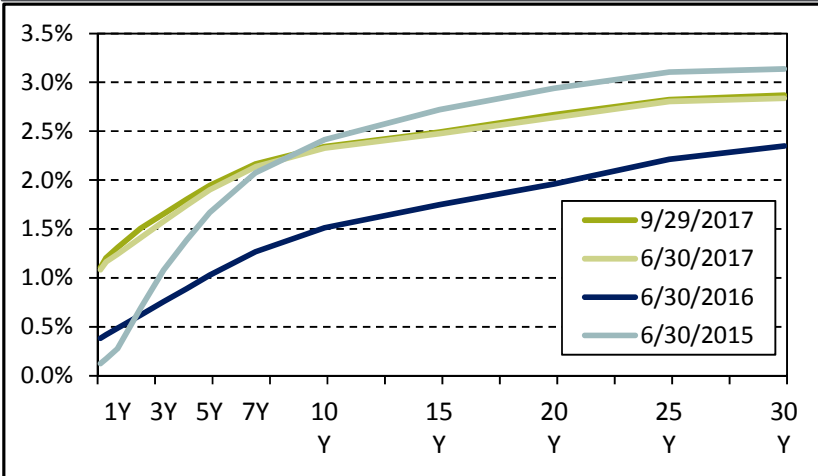
EM debt posts strong positive short-term returns



Source: Bloomberg, JP Morgan

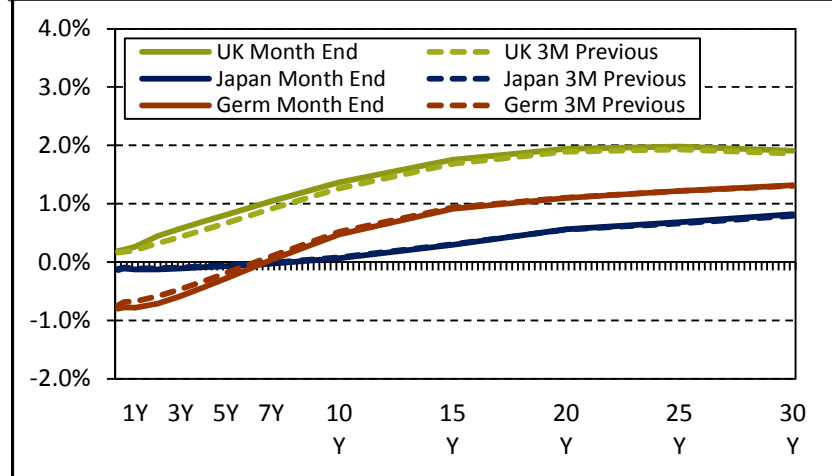


The curve remains mostly unchanged from three months prior



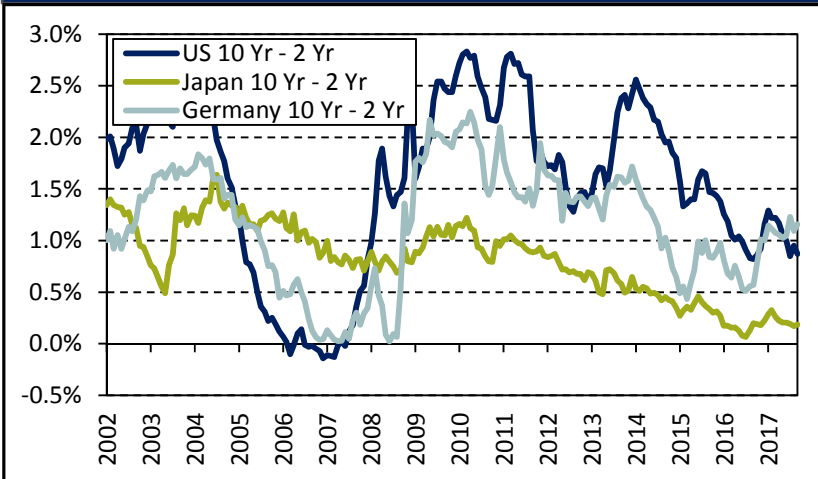
Source: Bloomberg

Interest rate expectations remain similar to previous months



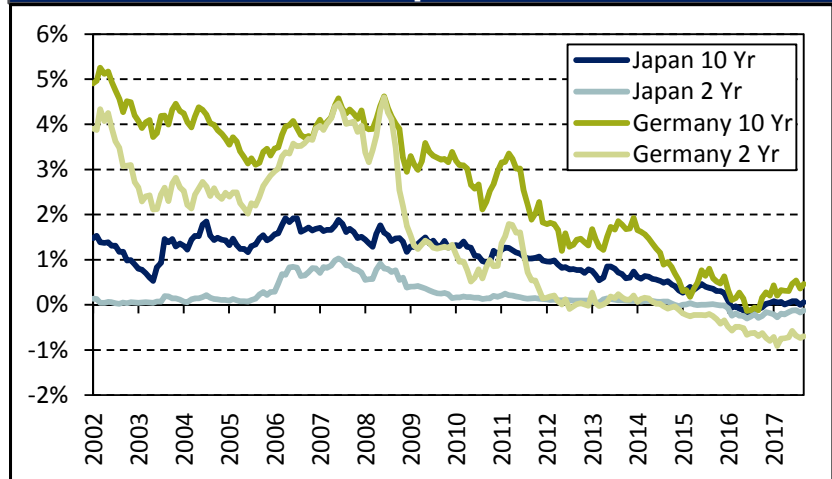
Source: Bloomberg

US and German 10-2 spreads have spiked in the near term



Source: Bloomberg

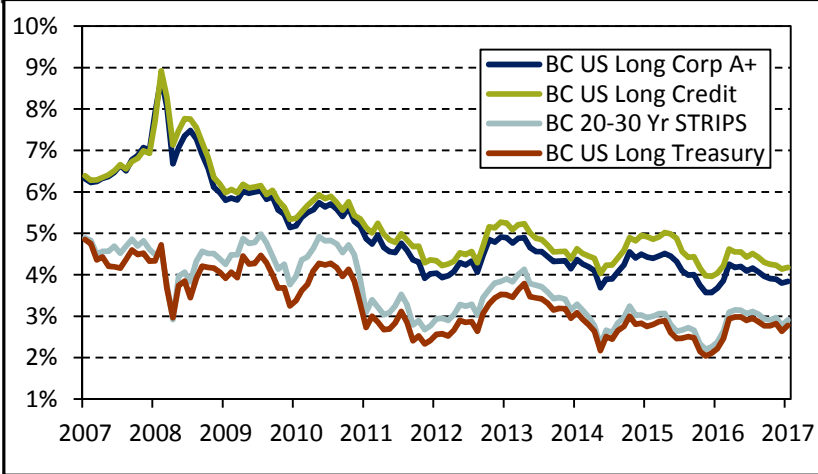
Sovereign bond yields continue to trend upward



Source: Bloomberg

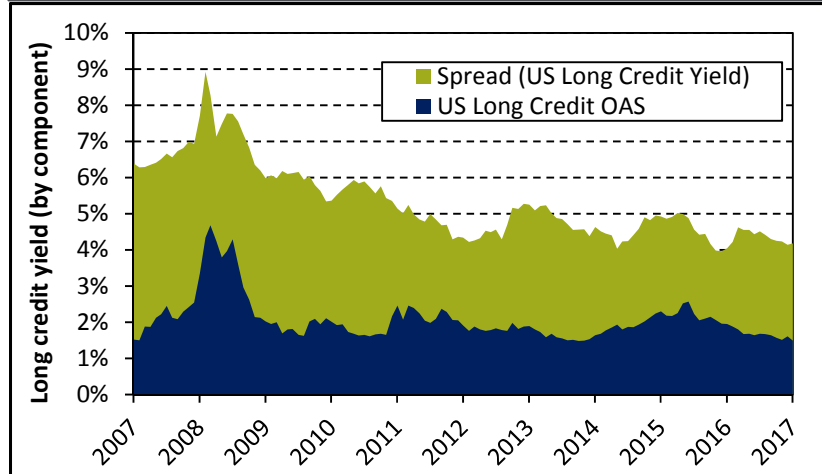
Long Rates and Liability

Long duration yields have slightly increased



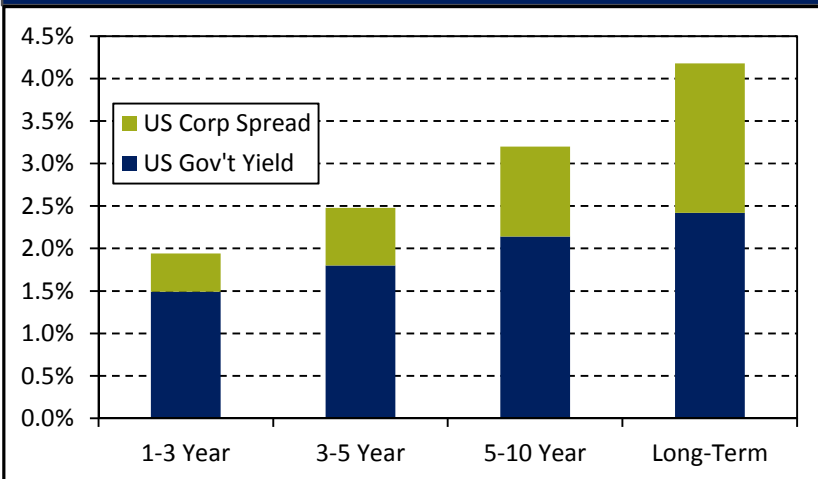
Source: Bloomberg, Citigroup, Barclays

Long credit yield is in line with the long-term historical average



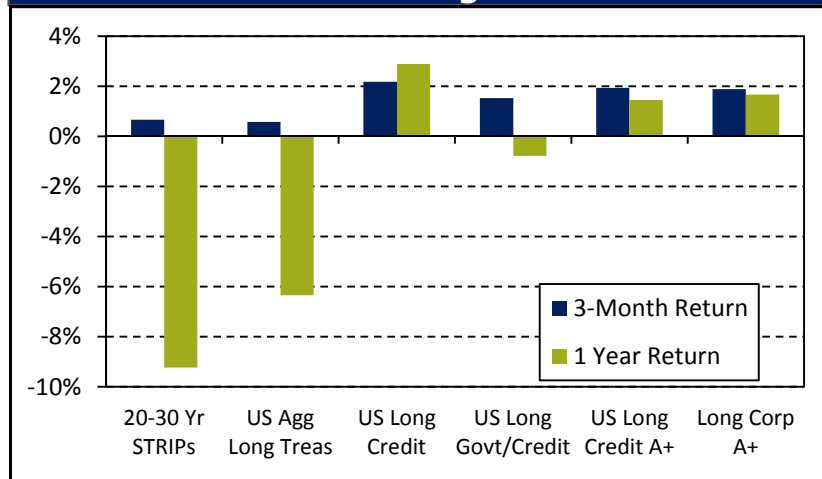
Source: Bloomberg, US Treasury, Barclays, NEPC

Yield and spread components continue to offer modest returns



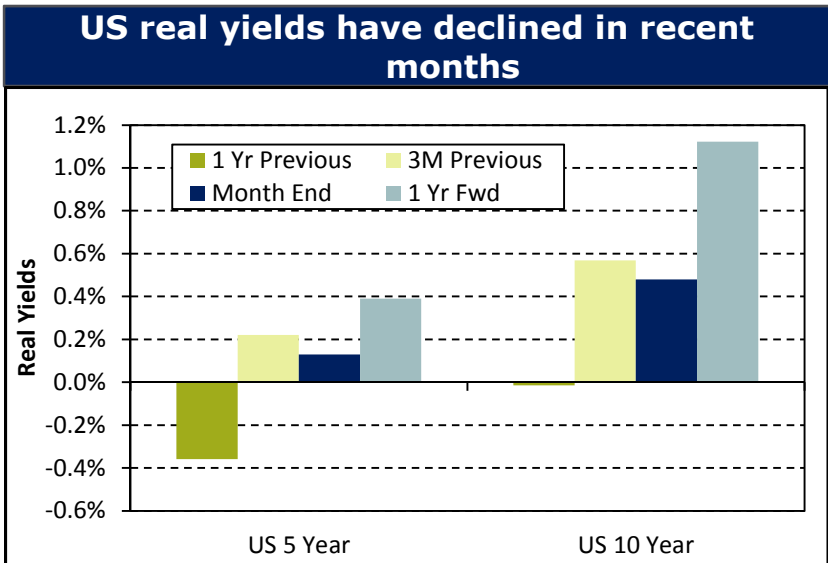
Source: Bloomberg, Barclays

Long duration fixed income posts short-term gains

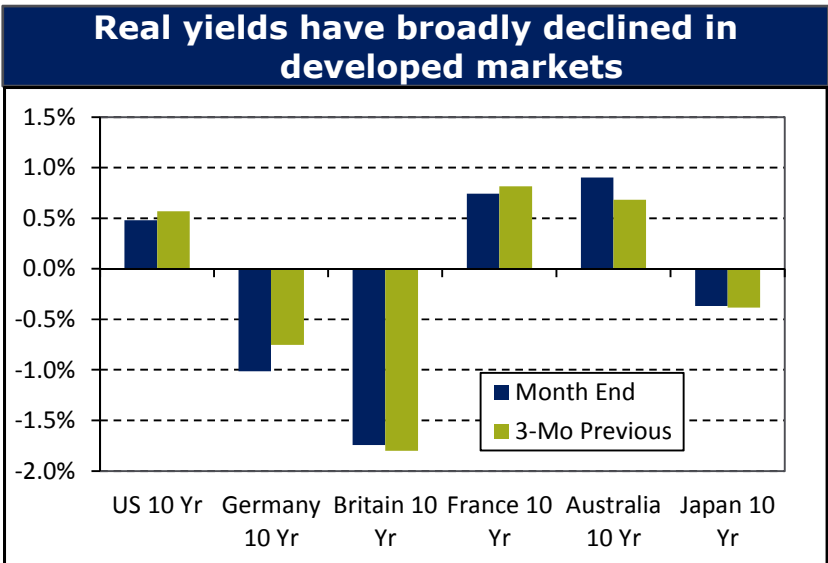


Source: Bloomberg, Barclays

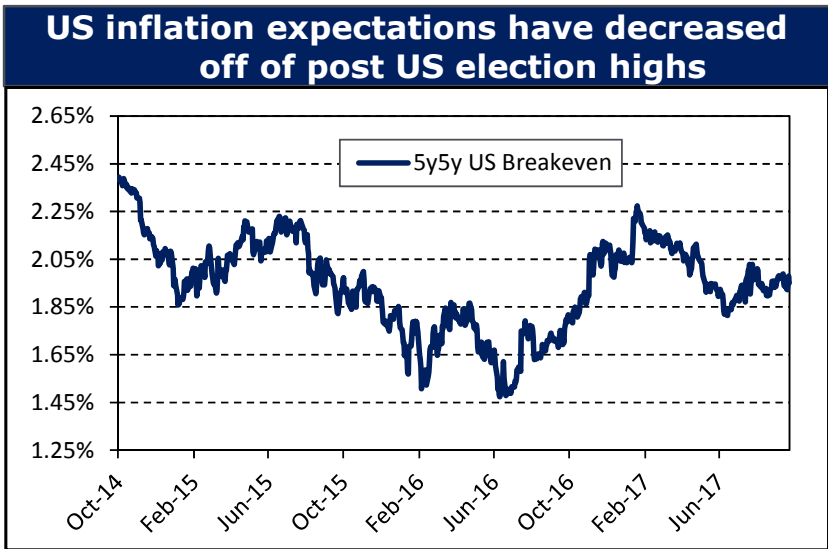
Inflation and Real Rates



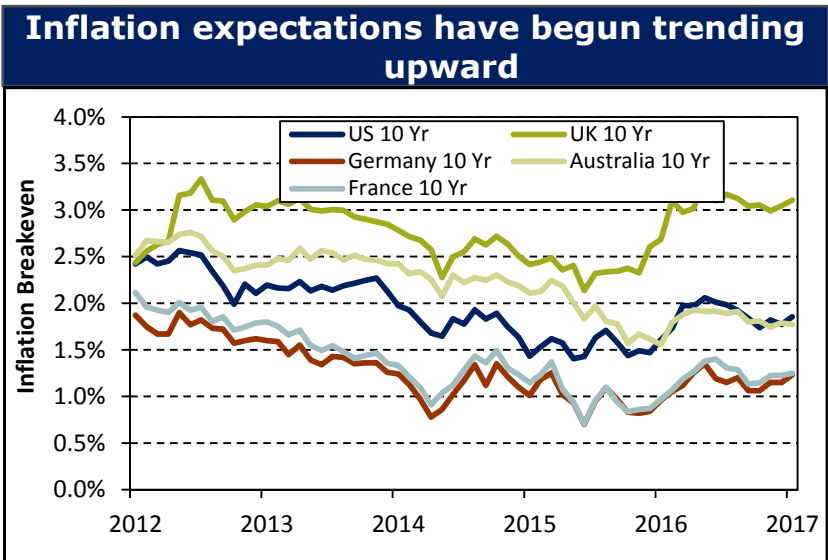
Source: Bloomberg



Source: Bloomberg



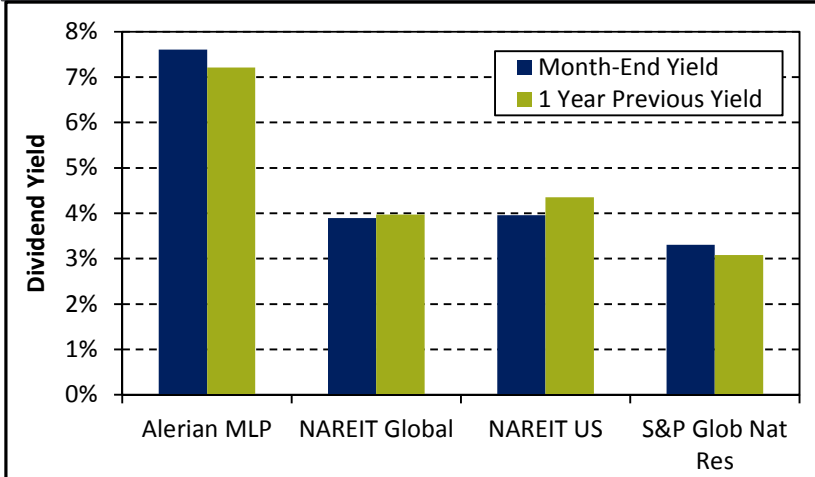
Source: Bloomberg



Source: Bloomberg

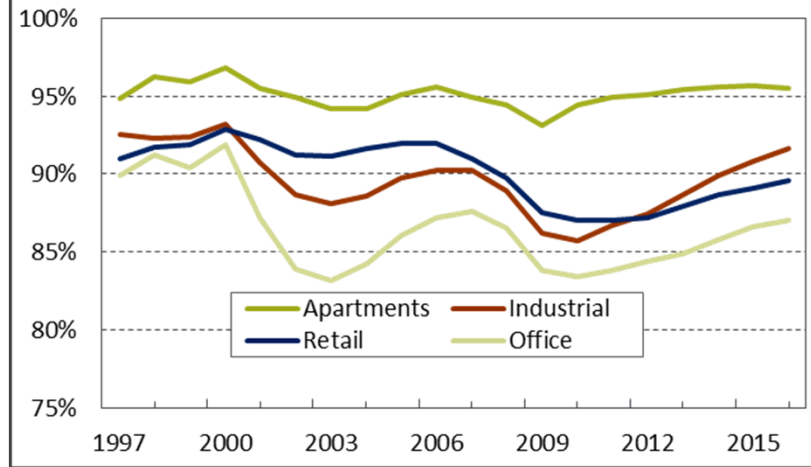
Inflation-Sensitive Growth Assets

Yields remain in line with the previous year



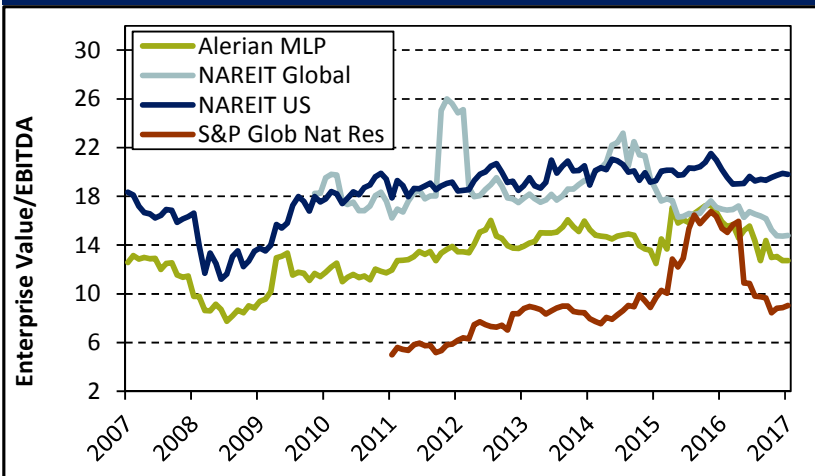
Source: Bloomberg, Alerian, Nareit, Standard and Poors

Sustained recovery in commercial real estate occupancy rates



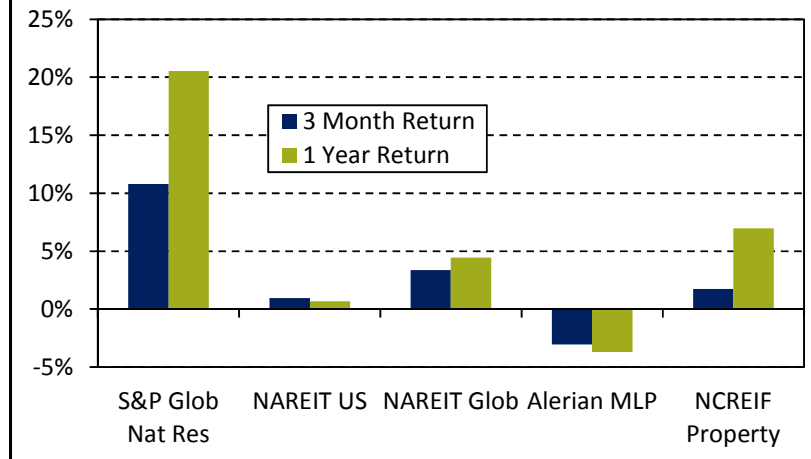
Source: CBRE

US REIT valuations have steadied



Source: Bloomberg, US Census Bureau

Mixed short-term performance for inflation-sensitive growth assets

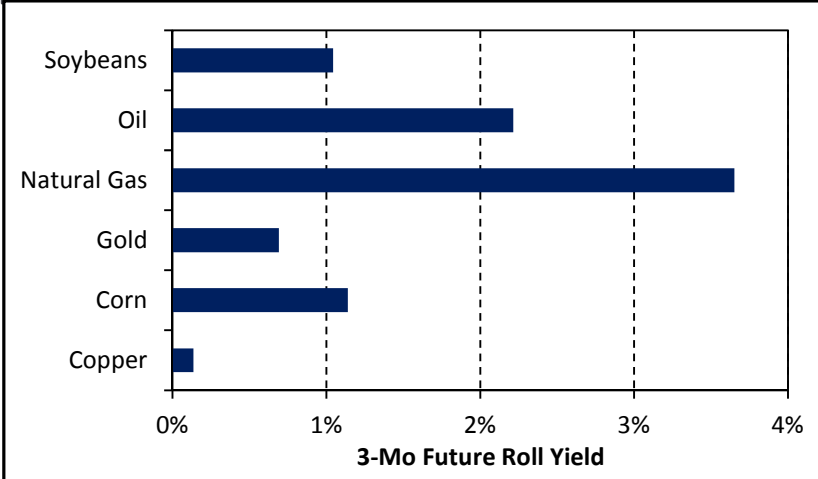


Source: Bloomberg, Alerian, Nareit, Standard and Poors



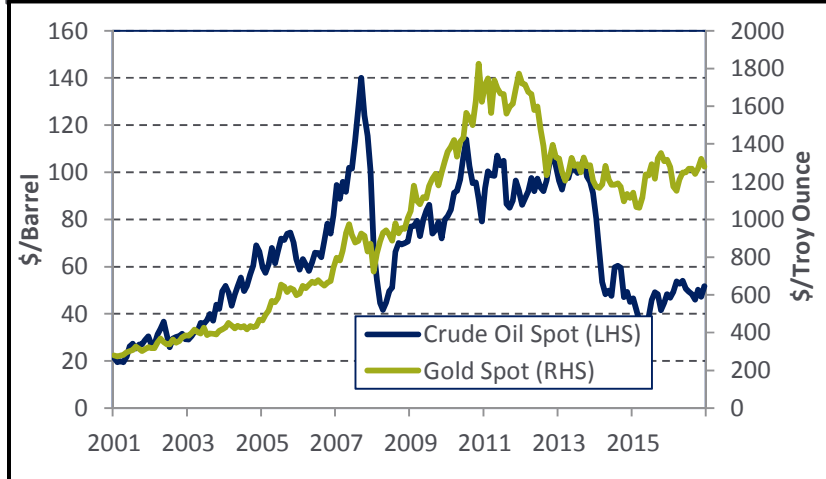
Commodities

Commodities now broadly have positive roll yields



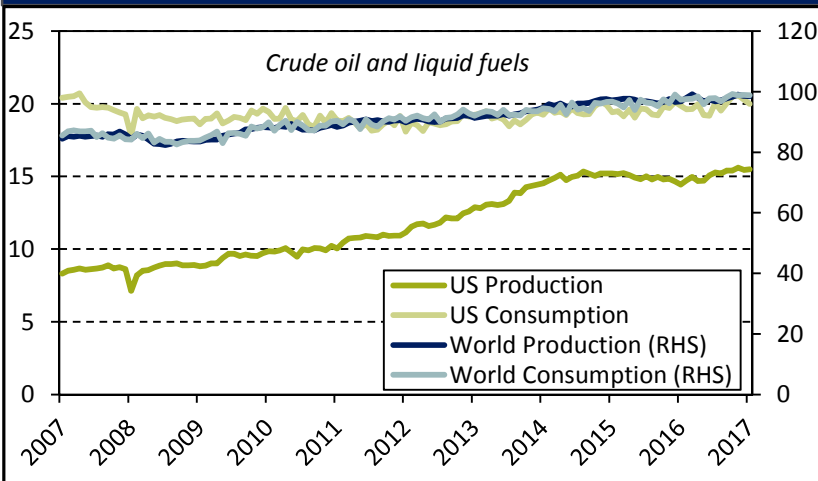
Source: Bloomberg

Gold and oil edge slightly higher



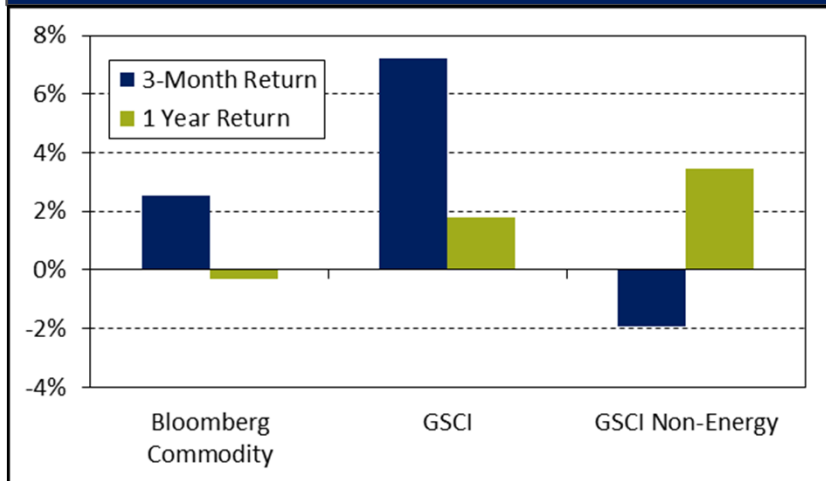
Source: Bloomberg

Oil production and consumption has steadied



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

GSCI Non-Energy underperformed in the near term



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.**
- **Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
- **All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.**
- **This report is provided as a management aid for the client's internal use only. This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.**

Information Disclaimer and Reporting Methodology

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.