

QUARTERLY PERFORMANCE REPORT

OKLAHOMA STATE PENSION COMMISSION



As of March 31, 2020

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

MARKET ENVIRONMENT UPDATE & OUTLOOK

NEPC, LLC

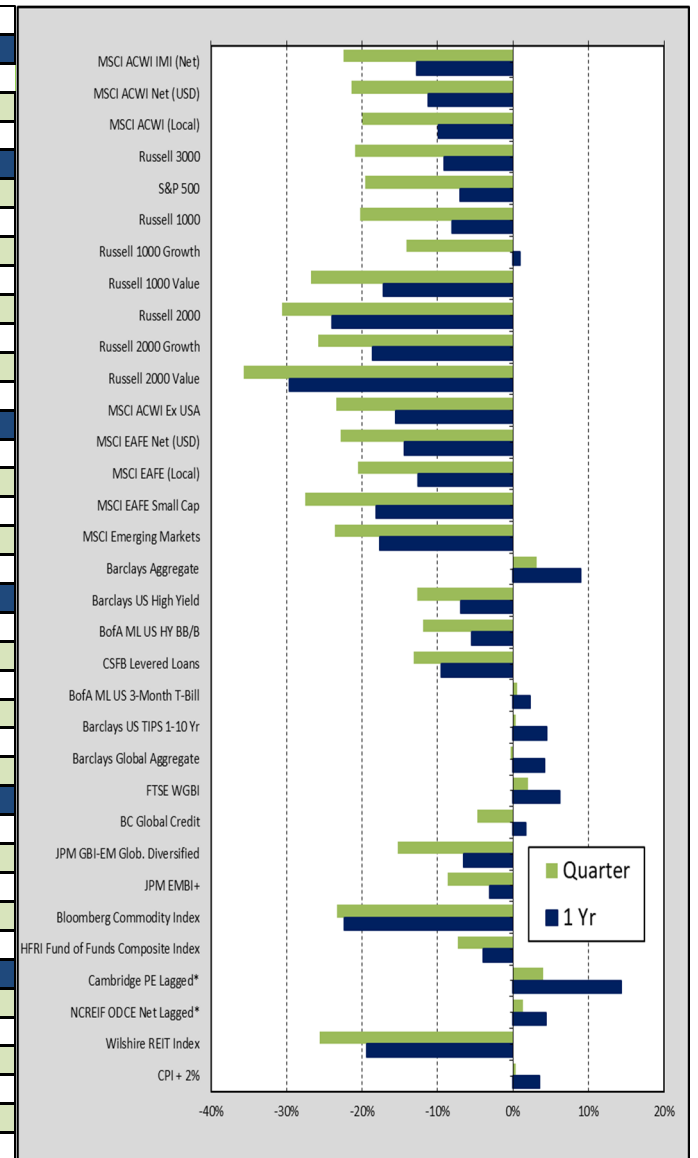
ECONOMIC ENVIRONMENT

- **Q1 Real GDP (advance estimate) decreased at an annual rate of 4.8%.**
 - Retail sales ended January at +4.5% on a YoY basis. In the same period last year the YoY growth rate was 1.9%.
 - Corporate profits (ended September) as a percent of GDP increased to 8.8% from 8.5% (in June) and remain elevated relative to historical levels.
 - The inventory-to-sales ratio ended January flat at 1.4 from December levels and has remained relatively constant since early 2010.
 - The U.S. trade deficit fell ended January (-6.7%) as imports fell and exports fell due to the coronavirus.
- **The unemployment rate ticked up to 4.4% ended March, up from 3.6% in Q4; U-6, a broader measure of unemployment, increased to 8.7% in Q1 from 6.7% in Q4.**
- **The Case-Shiller Home Price Index (ended February) increased to 213.2 from 212.4 (in December) and remains at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI saw a down-tick to 1.52% in Q1 from 2.29% ended Q4; Capacity Utilization decreased to 72.7% from 77.1% in Q1.**
- **Fed Funds rate was cut 1.50% to a targeted range of 0.00%-to-0.25%. The 10-year Treasury Yield (constant maturity) finished Q1 down to 0.9% from 1.9%.**
- **The Fed announced an unlimited expansion of the balance sheet to support the US economy. This move expanded on previous announcements for smaller QE denominations**
- **S&P valuations decreased in Q1 to 24.9x, and is lower than the 10-year average of 25.8x.**
 - Cyclically adjusted Shiller PE ratio remains above the long-term average of 16.7x



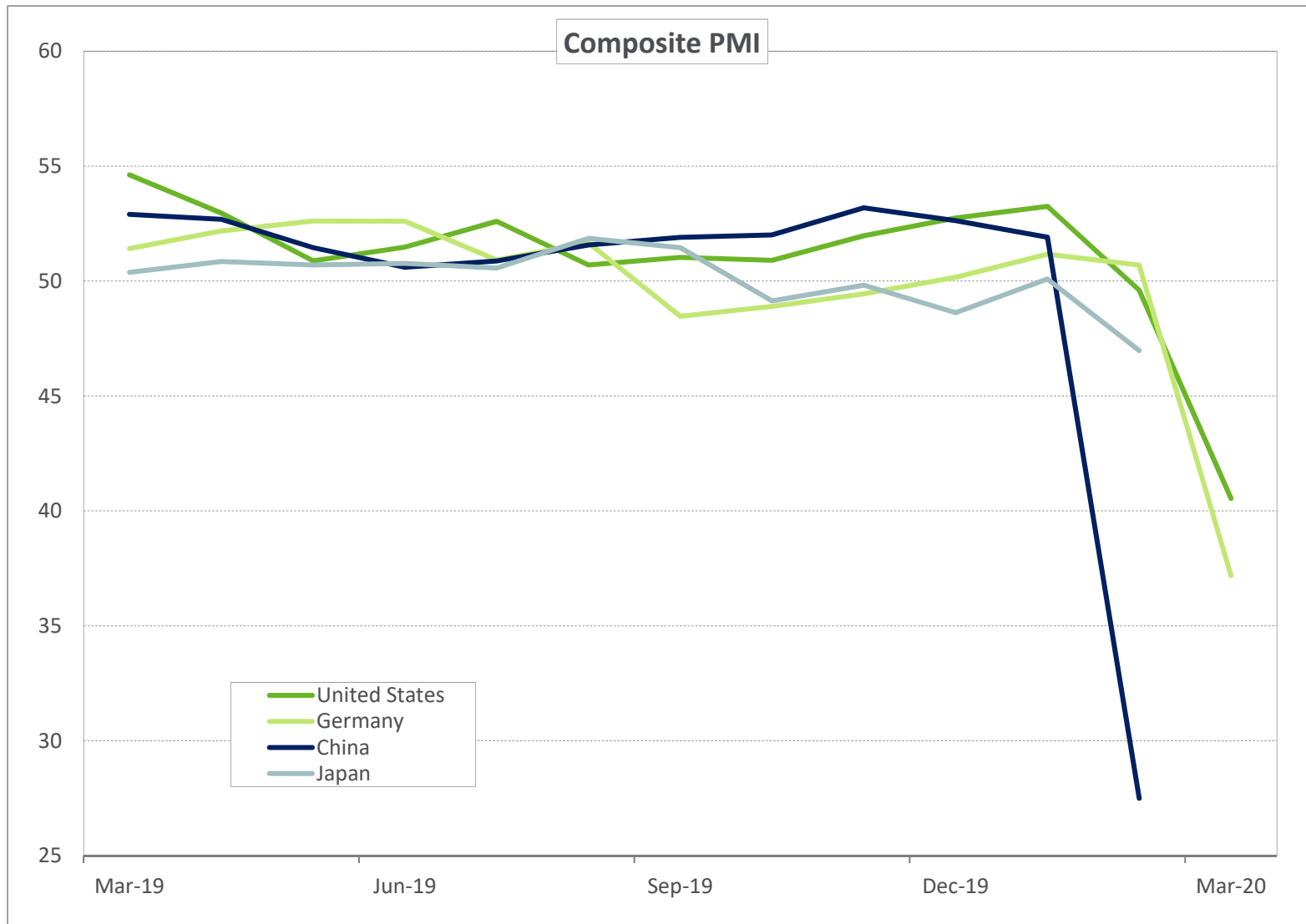
MARKET ENVIRONMENT – Q1 2020 OVERVIEW

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI IMI (Net)	World with Small Cap	-22.44%	-12.73%	0.76%	2.45%	5.80%
MSCI ACWI Net (USD)	World W/O Small Cap	-21.37%	-11.26%	1.50%	2.85%	5.88%
MSCI ACWI (Local)	World (Local Currency)	-19.97%	-9.87%	1.69%	3.14%	6.80%
Domestic Equity Benchmarks						
Russell 3000	Domestic All Cap	-20.90%	-9.13%	4.00%	5.77%	10.15%
S&P 500	Large Core	-19.60%	-6.98%	5.10%	6.73%	10.53%
Russell 1000	Large Core	-20.22%	-8.03%	4.64%	6.22%	10.39%
Russell 1000 Growth	Large Growth	-14.10%	0.91%	11.32%	10.36%	12.97%
Russell 1000 Value	Large Value	-26.73%	-17.17%	-2.18%	1.90%	7.67%
Russell 2000	Small Core	-30.61%	-23.99%	-4.64%	-0.25%	6.90%
Russell 2000 Growth	Small Growth	-25.77%	-18.58%	0.10%	1.70%	8.89%
Russell 2000 Value	Small Value	-35.66%	-29.64%	-9.51%	-2.42%	4.79%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	-23.36%	-15.57%	-1.96%	-0.64%	2.05%
MSCI EAFE Net (USD)	Int'l Developed	-22.83%	-14.38%	-1.82%	-0.62%	2.72%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	-20.55%	-12.58%	-1.80%	-0.15%	4.36%
MSCI EAFE Small Cap	Small Cap Int'l	-27.52%	-18.15%	-2.88%	0.97%	4.81%
MSCI Emerging Markets	Emerging Equity	-23.60%	-17.69%	-1.62%	-0.37%	0.68%
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	3.15%	8.93%	4.82%	3.36%	3.88%
Barclays US High Yield	High Yield	-12.69%	-6.94%	0.76%	2.78%	5.64%
BofA ML US HY BB/B	High Yield	-11.88%	-5.46%	1.31%	2.92%	5.63%
CSFB Levered Loans	Bank Loans	-13.19%	-9.51%	-0.73%	1.21%	3.26%
BofA ML US 3-Month T-Bill	Cash	0.57%	2.26%	1.83%	1.19%	0.64%
Barclays US TIPS 1-10 Yr	Inflation	0.31%	4.50%	2.54%	2.18%	2.52%
Global Fixed Income Benchmarks						
Barclays Global Aggregate	Global Core Bonds	-0.33%	4.20%	3.55%	2.64%	2.47%
FTSE WGBI	World Gov. Bonds	2.00%	6.17%	4.27%	2.96%	2.19%
BC Global Credit	Global Bonds	-4.68%	1.67%	3.09%	2.42%	3.39%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	-15.21%	-6.52%	-0.80%	0.25%	0.49%
JPM EMBI+	Em. Mkt. Bonds	-8.67%	-3.13%	0.53%	2.93%	4.77%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	-23.29%	-22.31%	-8.61%	-7.76%	-6.74%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	-7.30%	-3.94%	0.50%	0.33%	1.91%
Cambridge PE Lagged*	Private Equity	4.03%	14.33%	14.07%	12.14%	13.81%
NCREIF ODCE Net Lagged*	Real Estate	1.27%	4.39%	6.13%	7.99%	10.39%
Wilshire REIT Index	REIT	-25.63%	-19.39%	-2.50%	-0.19%	7.66%
CPI + 2%	Inflation/Real Assets	0.31%	3.55%	3.96%	3.84%	3.76%



* As of 12/31/2019

GLOBAL ECONOMY EXPECTED TO CONTRACT



Source: Markit, FactSet



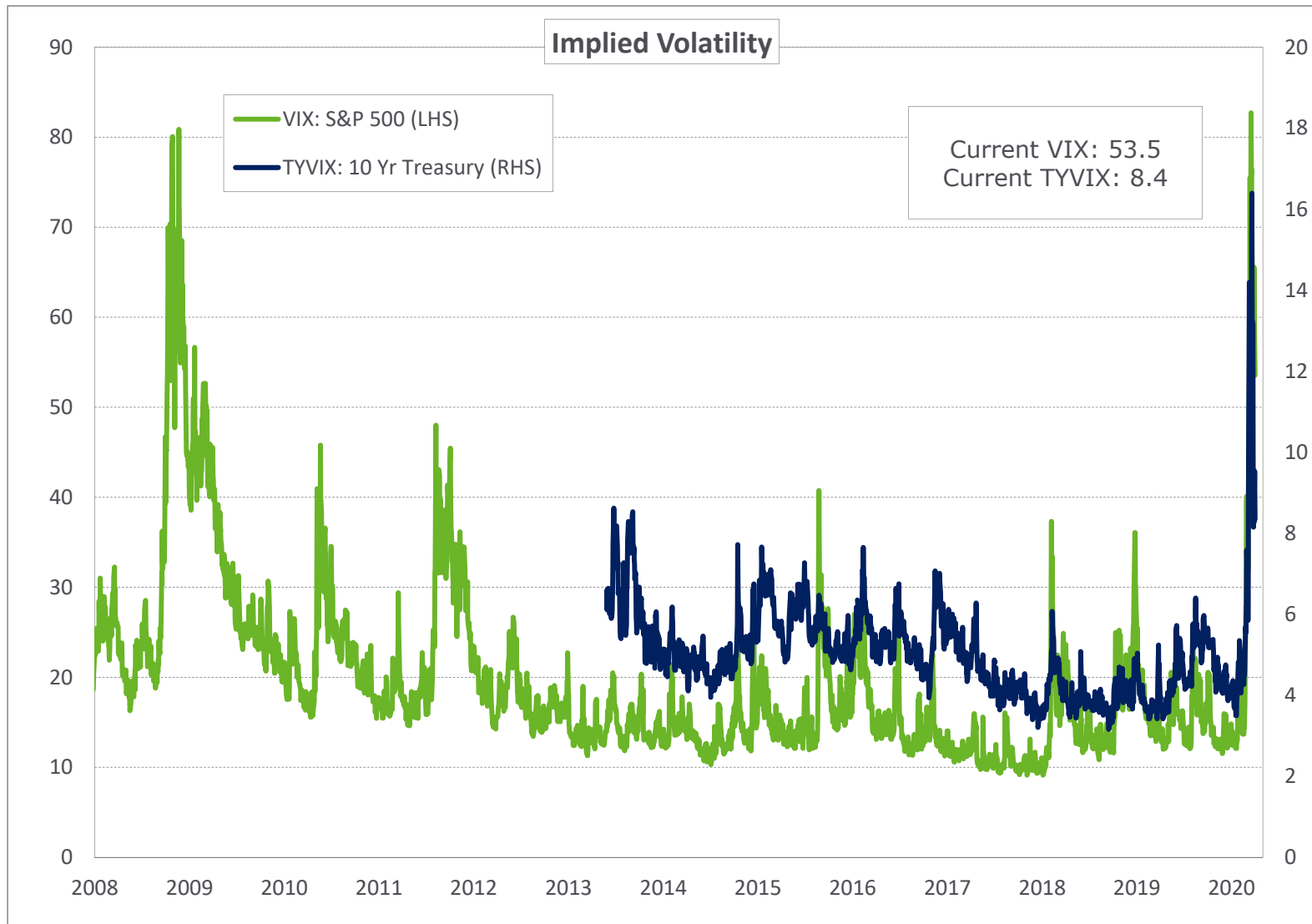
MONETARY AND FISCAL RESPONSES

Fed Action	Description
Fed Rate Cuts	The Fed cut rates in two emergency sessions by a total of 1.50% to a range of 0.00% - 0.25%.
Balance Sheet Expansion	The Fed announced an unlimited expansion of the balance sheet to support the US economy. This move expanded on previous announcements for smaller QE denominations
Liquidity Support Facilities	The Fed announced additional measures to ensure market liquidity, including facilities to support money market funds, commercial paper, and broad credit support systems
Credit Support Facilities	The Fed established programs aimed at supporting consumers and businesses, such as the Term Asset-Backed Securities Loan Facility (TALF) and a Main Street Business Lending Program. These programs provide preferential borrower agreements, such as deferred interest and principal payments, for consumers and small businesses.

US Government Action	Description
Families First Coronavirus Response Act	The bill was passed to provide sick leave, expand food assistance and unemployment benefits, and provide additional protection for health care employees
Fiscal Stimulus Package	Congress is finalizing a \$2 trillion economic stimulus package aimed at providing direct financial assistance, expanded benefits programs, and loans to individuals, small businesses, and industries impacted by COVID-19



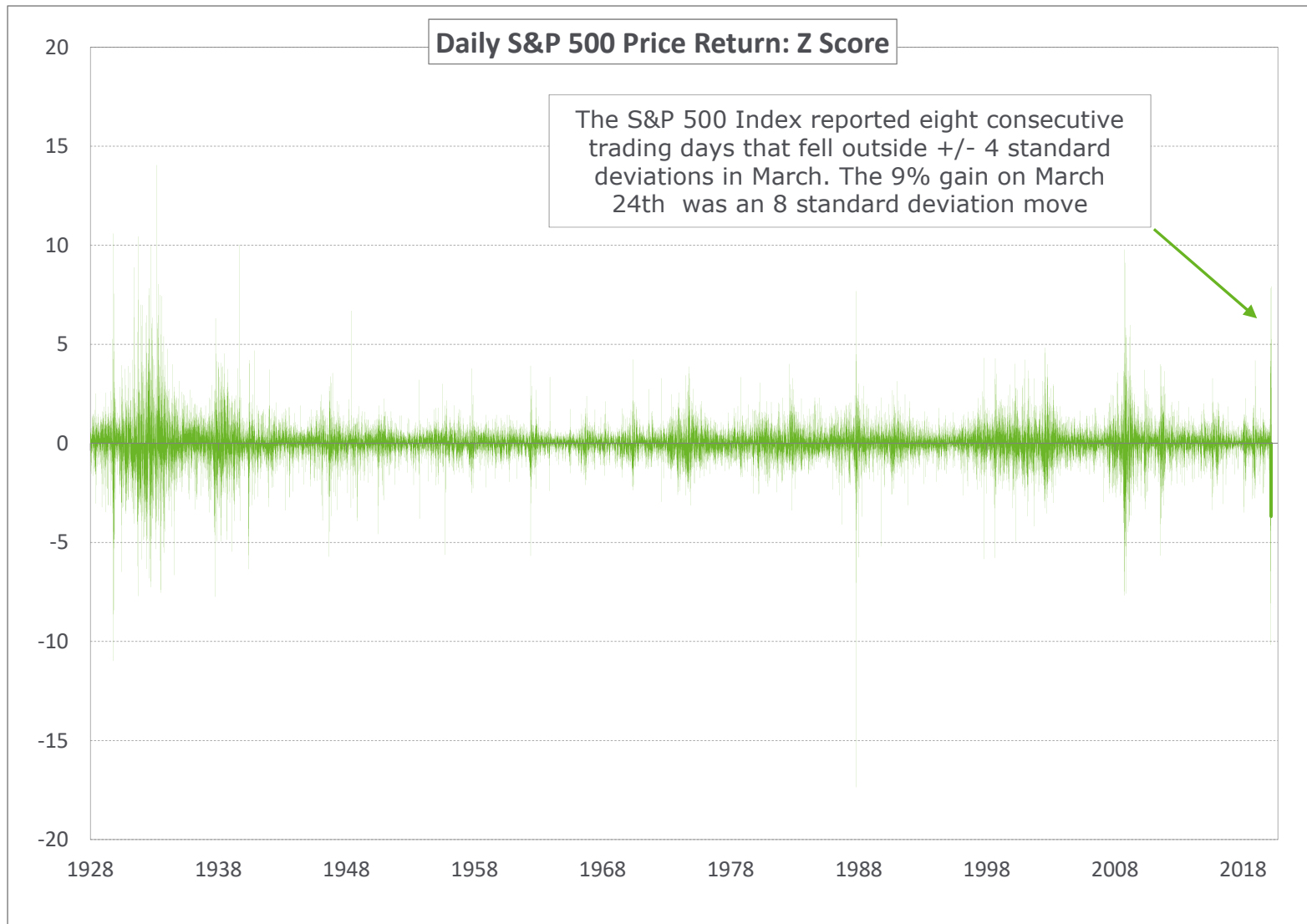
CORRELATIONS AND VOLATILITY ARE ELEVATED



Source: CBOE, FactSet
Data as of 3/31/2020



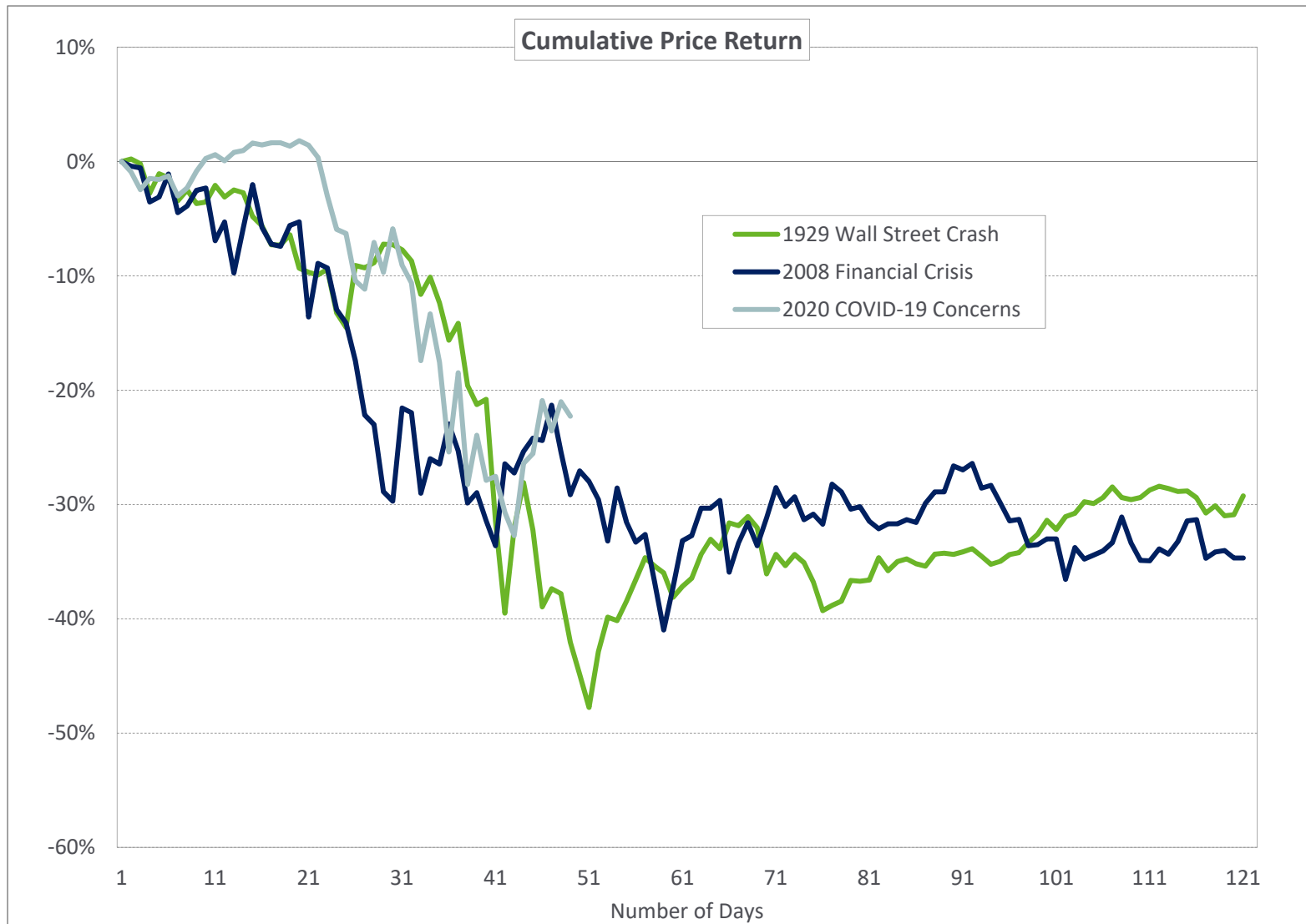
ABNORMALLY LARGE PRICE MOVEMENTS



Source: S&P, FactSet
Calculated of as 1/04/28 - 3/31/2020



US EQUITY DURING MARKET DELEVERAGING

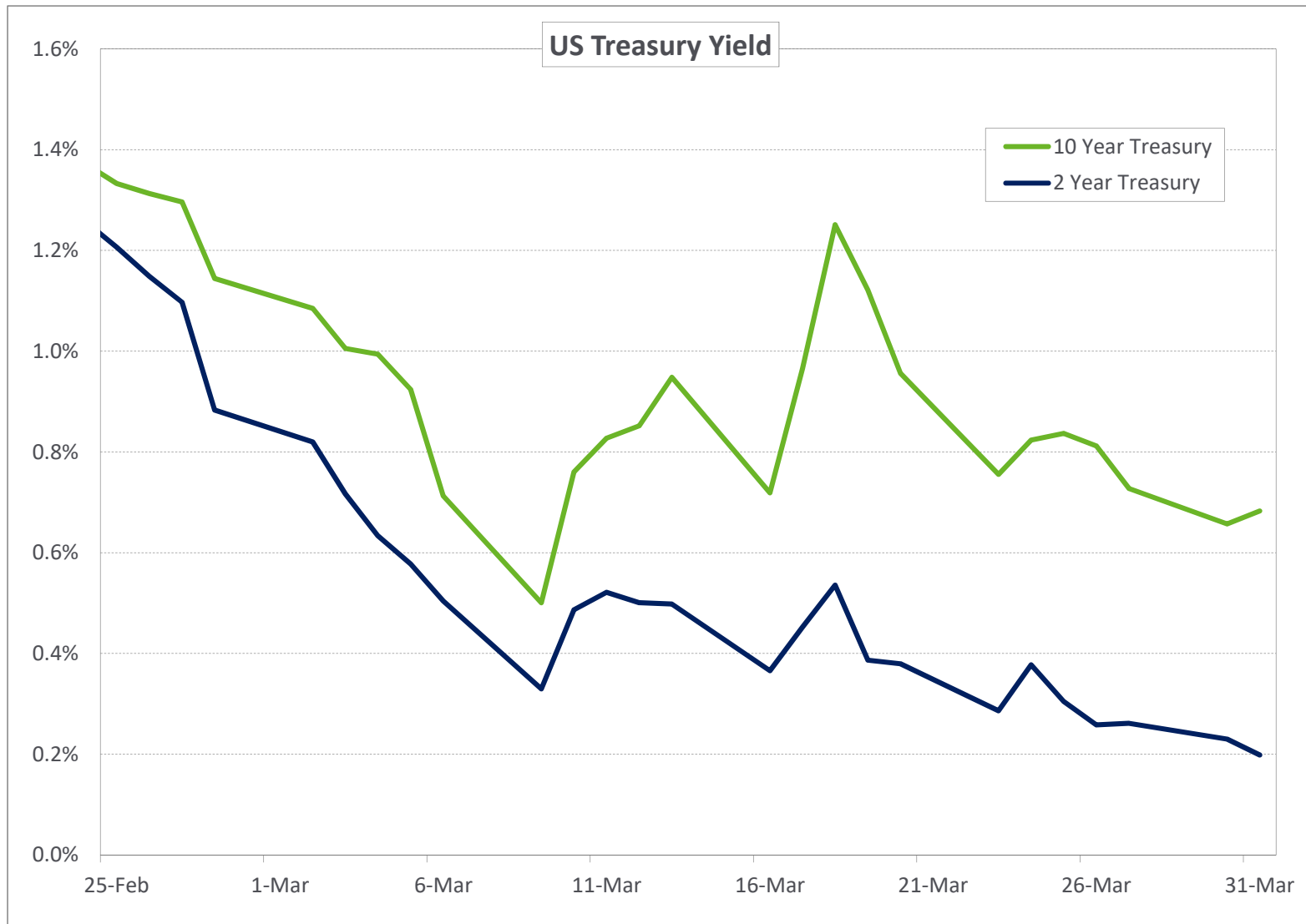


Source: S&P, Dow Jones, FactSet

Financial Crisis represents S&P returns from 9/1/2008 – 3/9/2009; Wall Street Crash represents Dow Jones returns from 8/30/1929 – 2/26/1930; COVID-19 represents S&P returns from 1/23/2020 (representing the start of the Wuhan, China lockdown) – 3/31/2020



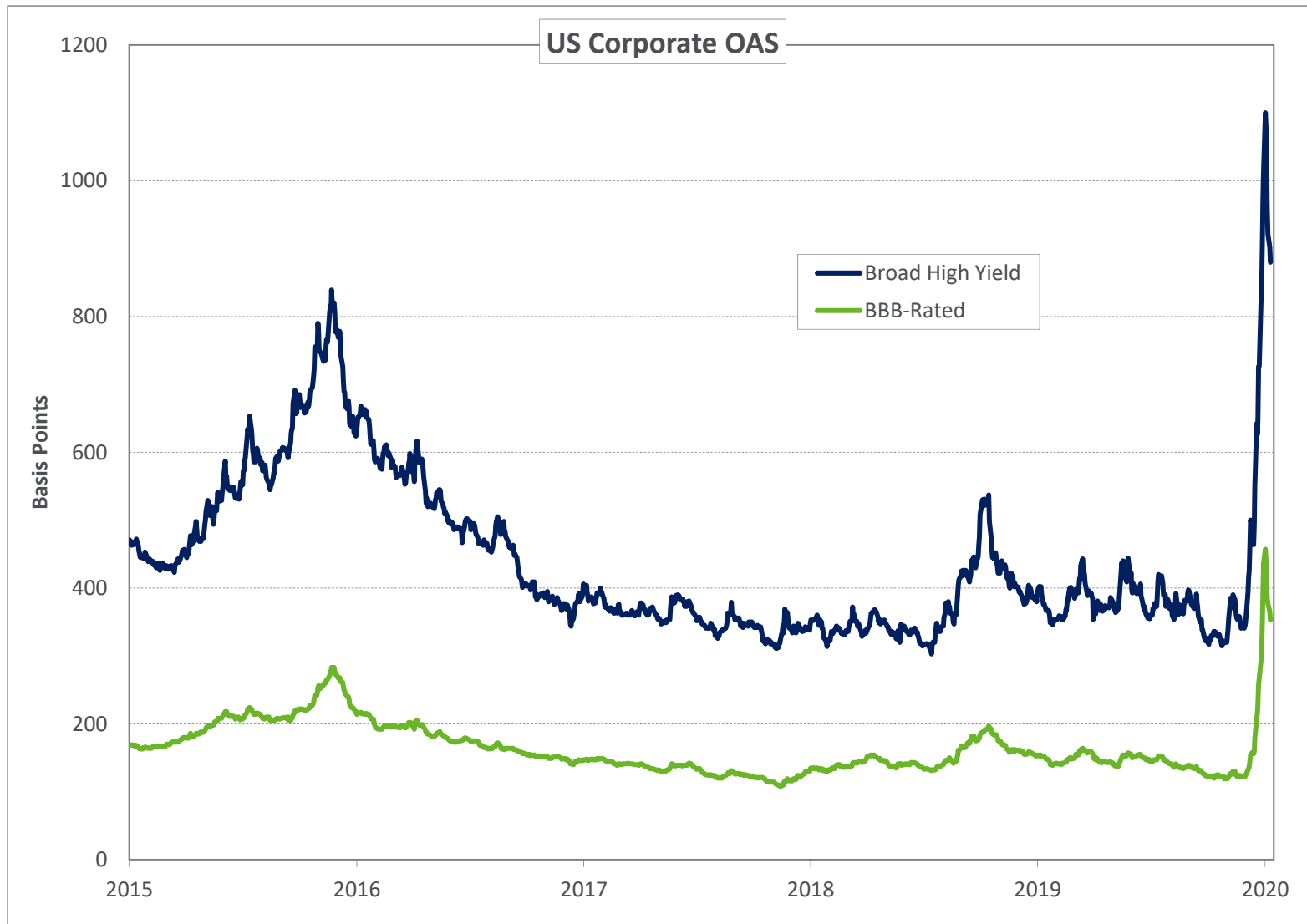
U.S. TREASURY YIELDS ARE STRESSED



Source: FactSet
Data as of 3/31/2020



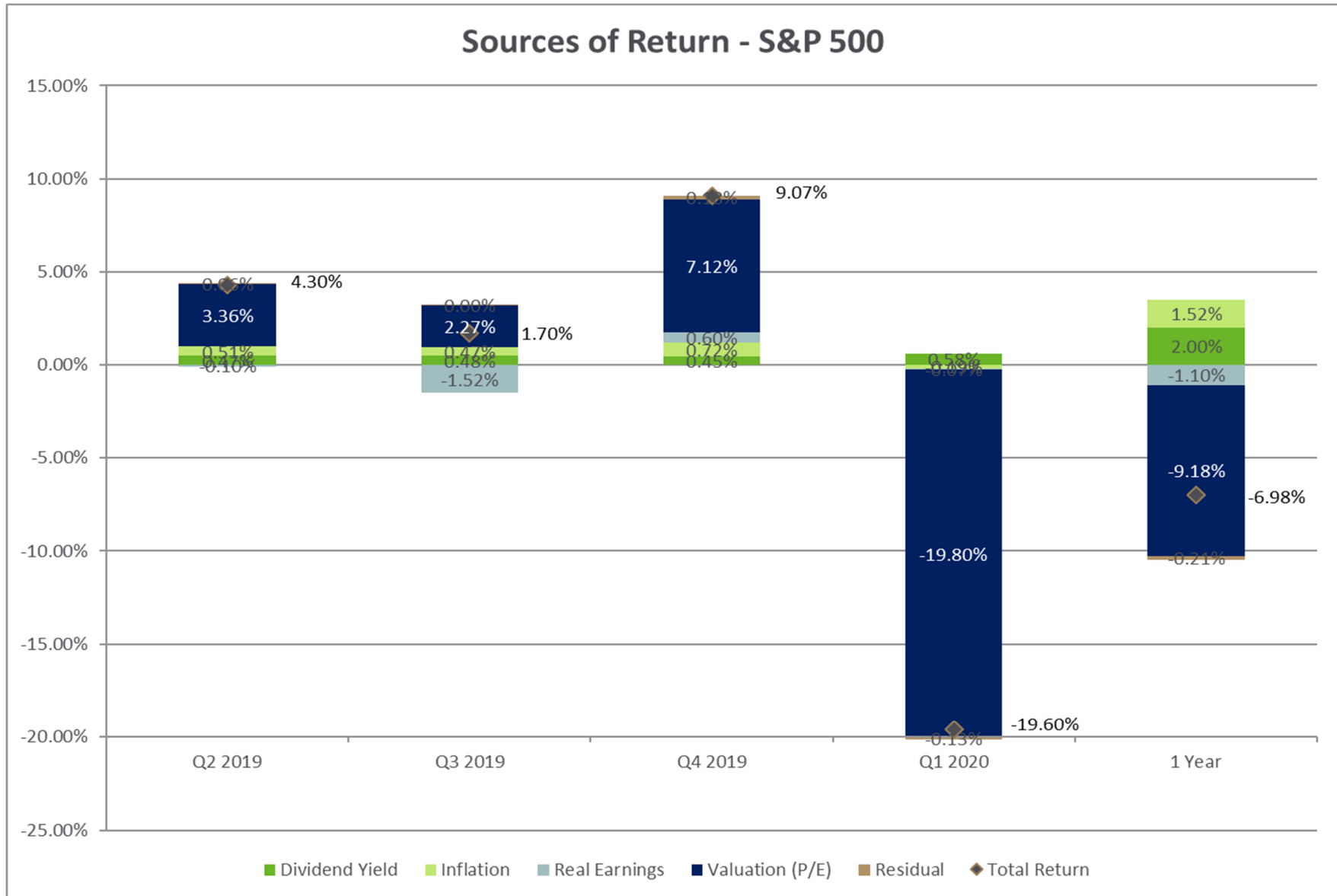
CREDIT SPREADS HAVE WIDENED



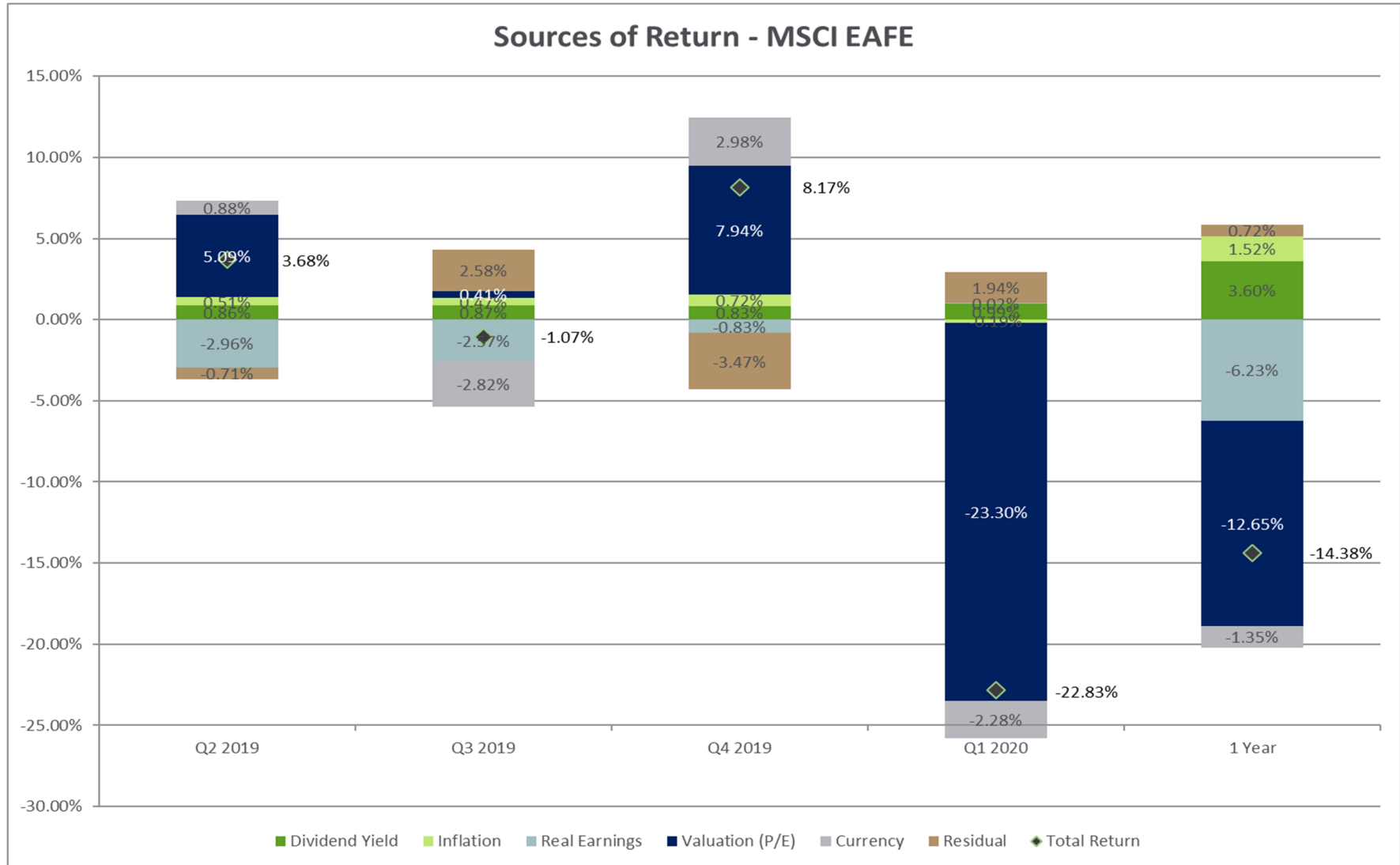
Source: Bloomberg, FactSet
Data as of 3/31/2020



1 YEAR ATTRIBUTION OF S&P 500 RETURNS



1 YEAR ATTRIBUTION OF MSCI EAFE RETURNS



Spot Rates

1 USD = 0.880 Euro

1 USD = 0.917 Euro

1 USD = 0.891 Euro

1 USD = 0.901 Euro



OK Pension Commission

NEPC, LLC

OKLAHOMA STATE PENSION COMMISSION

ASSET ALLOCATION SUMMARY

Key Policy Items		Teachers [^]	TRS 3/31/19	PERS*	PERS 3/31/19	Firefighters	FTRS 3/31/19	Police **	POLICE 3/31/19
TOTAL EQUITY	Target	57.5%	57.5%	68.0%	68.0%	57.0%	57.0%	50.0%	50.0%
	Actual	53.6%	56.9%	62.3%	68.5%	60.5%	64.5%	45.3%	53.30%
	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%	34.0%	29.4%	29.4%	15.0%	15.0%
	Actual	21.7%	18.6%	31.7%	34.3%	33.5%	35.1%	17.1%	17.5%
	Range	12-23	12-23	31.2-36.8	31.2-36.8	24.4-34.4	24.4-34.4	10-20	10-20
<i>MidCap</i>	Target	13.0%	13.0%	-	-	-	-	-	-
	Actual	9.1%	10.8%	-	-	-	-	-	-
	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	7.8%	9.5%	5.1%	6.7%	12.4%	13.6%	4.7%	7.0%
	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%	28.0%	15.0%	15.0%	15.0%	15.0%
	Actual	15.0%	18.0%	25.5%	27.5%	14.6%	15.8%	14.6%	14.4%
	Range	12.5-22.5	12.5-22.5	25-31	25-31	10-20	10-20	5-25	5-25
<i>Long/Short Equity</i>	Target	-	-	-	-	-	-	15.0%	15.0%
	Actual	-	-	-	-	-	-	8.9%	14.4%
	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	26.2%	21.8%	37.3%	31.3%	21.8%	17.1%	18.3%	15.8%
	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	26.2%	21.8%	37.3%	31.3%	14.6%	11.0%	-	-
	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%	7.5%	7.5%
	Actual	-	-	-	-	7.2%	6.1%	18.3%	15.8%
	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	18.7%	20.3%	0.1%	0.1%	16.5%	18.0%	31.6%	29.5%
	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	-	-	-	-	0.4%	3.0%	6.7%	7.6%
	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	10.7%	12.7%	-	-	3.5%	3.6%	12.3%	9.9%
	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	8.0%	7.6%	0.1%	0.1%	12.6%	11.4%	12.6%	12.0%
	Range	2-12	2-12	0-5	0-5	5-15	5-15	0-30	0-30
CASH	Actual	1.5%	0.9%	0.3%	0.2%	1.1%	0.5%	4.7%	1.4%
	Range								
Actuarial Assumed Rates		7.5%		7.0%		7.5%		7.5%	

[^]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



OKLAHOMA STATE PENSION COMMISSION ASSET ALLOCATION SUMMARY

Key Policy Items		Law	Law 3/31/19	Judges	Judges 3/31/19	Wildlife	Wildlife 3/31/19
TOTAL EQUITY	Target	55.0%	55.0%	68.0%	68.0%	50.0%	50.0%
	Actual	52.6%	58.9%	62.5%	68.9%	46.5%	56.5%
	Range	55-65	55-65	59.2-76.8	59.2-76.8	40-65	40-65
<i>Large Cap</i>	Target	20.0%	20.0%	34.0%	34.0%	50.0%	50.0%
	Actual	28.0%	28.7%	31.9%	34.7%	37.6%	36.4%
	Range	15-25	15-25	31.2-36.8	31.2-36.8	40-65	40-65
<i>MidCap</i>	Target	-	-	-	-	0.0%	0.0%
	Actual	-	-	-	-	0.0%	9.4%
	Range	-	-	-	-	0-10	0-10
<i>Small Cap</i>	Target	10.0%	10.0%	6.0%	6.0%	0.0%	0.0%
	Actual	5.3%	5.9%	5.3%	6.7%	3.5%	4.6%
	Range	5-15	5-15	3.2-8.8	3.2-8.8	0-10	0-10
<i>International I Equity</i>	Target	15.0%	15.0%	28.0%	28.0%	0.0%	0.0%
	Actual	13.8%	13.9%	25.3%	27.5%	5.4%	6.1%
	Range	5-15	5-15	25-31	25-31	0-15	0-15
<i>Long/Short Equity</i>	Target	10.0%	10.0%	-	-	-	-
	Actual	5.5%	10.4%	-	-	-	-
	Range	5-15	5-15	-	-	-	-
TOTAL FIXED INCOME	Target	30.0%	30.0%	32.0%	32.0%	40.0%	40.0%
	Actual	29.8%	27.3%	37.0%	30.8%	42.3%	37.6%
	Range	25-35	25-35	27.5-36.5	27.5-36.5	35-55	35-55
<i>Dom. Fixed Income/High Yield</i>	Target	20.0%	20.0%	32.0%	32.0%	40.0%	40.0%
	Actual	20.1%	19.2%	37.0%	30.8%	42.3%	37.6%
	Range	15-25	15-25	27.5-36.5	27.5-36.5	35-55	35-55
<i>Int'l & Global Fixed Income</i>	Target	10.0%	10.0%	-	-	-	-
	Actual	9.7%	8.1%	-	-	-	-
	Range	5-15	5-15	-	-	-	-
TOTAL ALTERNATIVES	Target	15.0%	15.0%	-	-	10.0%	10.0%
	Actual	16.5%	13.7%	-	-	9.8%	5.1%
	Range	5-15	5-15	-	-	0-10	0-10
<i>Low Volatility Hedge Funds</i>	Target	-	-	-	-	-	-
	Actual	-	-	-	-	-	-
	Range	-	-	-	-	-	-
<i>Private Equity/MLP's</i>	Target	5.0%	5.0%	-	-	-	-
	Actual	4.4%	3.1%	-	-	-	-
	Range	0-5	0-5	-	-	-	-
<i>Real Estate/Real Assets</i>	Target	10.0%	0.10	-	-	-	-
	Actual	12.1%	10.6%	-	-	-	-
	Range	2-12	2-12	-	-	-	-
CASH	Actual	1.1%	0.2%	0.5%	0.2%	1.5%	0.9%
Actuarial Assumed Rates		7.5%		7.0%		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

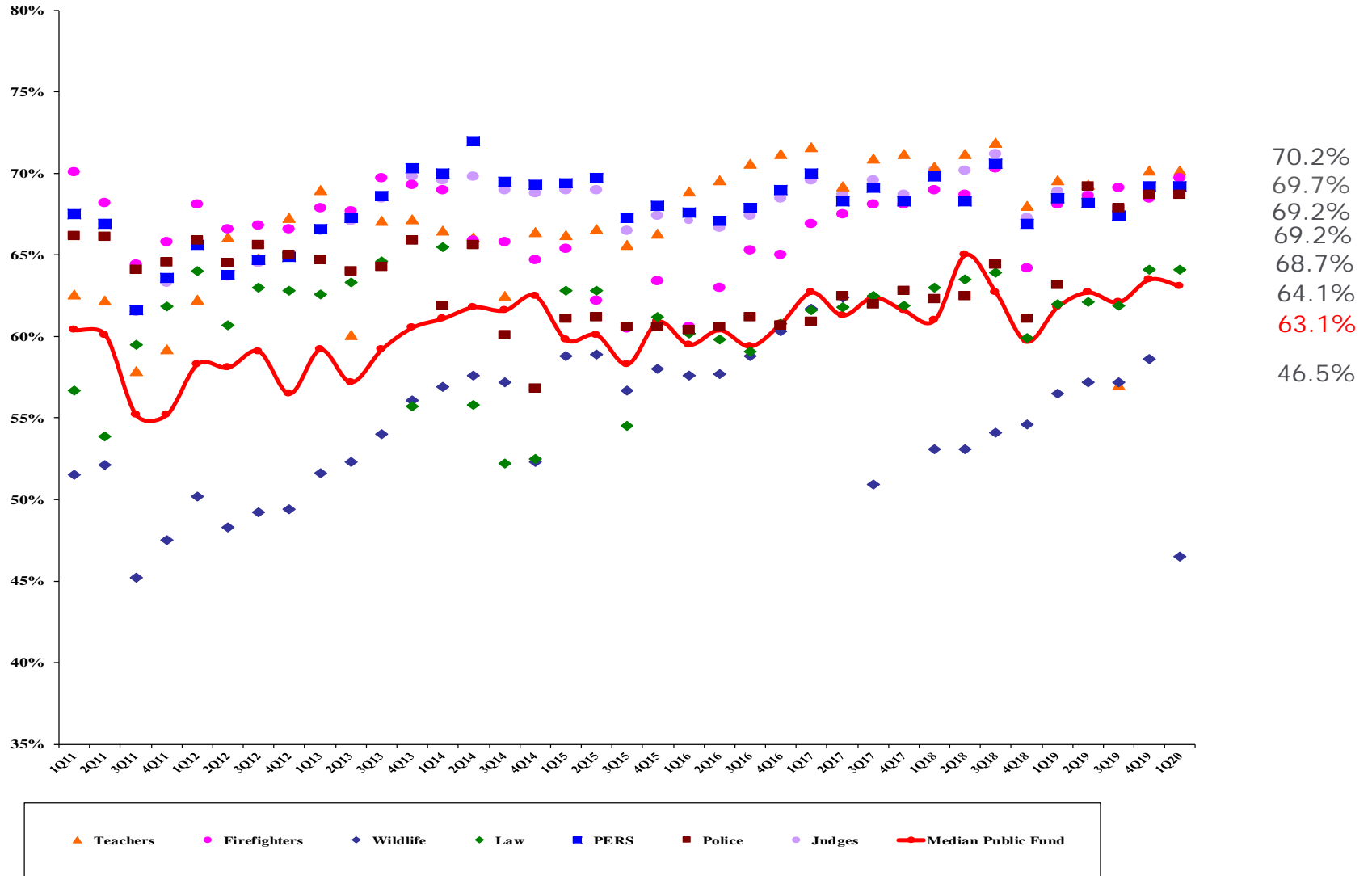
**Real Assets are included in Real Estate

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

Out of
Range



OKLAHOMA STATE PENSION COMMISSION EQUITY COMMITMENT (PUBLIC EQUITY + PRIVATE EQUITY)



*Cash allocations not broken out for individual managers.

*Before Q2 2012, the Median Public Fund assumes 4.6% allocation to private equity



Oklahoma State Pension Commission

Total Fund Attribution Analysis

Performance Attribution

Teachers Attribution Analysis	Last 3 Mo.	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	-15.4%	-6.8%	2.3%	3.4%
Wtd. Index Return *	-16.7%	-8.6%	1.8%	2.9%
Excess Return	1.3%	1.8%	0.5%	0.4%
Selection Effect	-1.6%	-1.3%	-0.5%	-0.2%
Allocation Effect	1.5%	2.3%	0.8%	0.4%
Interaction Effect	1.2%	0.6%	0.2%	0.1%

PERS Attribution Analysis	Last 3 Mo.	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	-14.1%	-4.9%	2.8%	3.5%
Wtd. Index Return *	-14.2%	-5.0%	2.9%	3.4%
Excess Return	0.1%	0.1%	0.0%	0.1%
Selection Effect	-0.1%	0.1%	0.1%	0.1%
Allocation Effect	0.2%	0.1%	-0.1%	0.0%
Interaction Effect	0.0%	0.0%	0.0%	0.0%

Firefighters Attribution Analysis	Last 3 Mo.	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	-13.0%	-4.2%	4.7%	5.3%
Wtd. Index Return *	-10.6%	-1.8%	4.6%	5.1%
Excess Return	-2.4%	-2.4%	0.1%	0.2%
Selection Effect	-0.3%	-0.6%	0.5%	0.3%
Allocation Effect	-1.4%	-1.4%	-0.3%	0.2%
Interaction Effect	0.7%	0.7%	0.3%	0.0%

Police Attribution Analysis	Last 3 Mo.	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	-11.0%	-3.6%	3.3%	4.0%
Wtd. Index Return *	-13.9%	-5.7%	2.4%	3.0%
Excess Return	2.9%	2.1%	0.9%	0.9%
Selection Effect	2.4%	1.2%	0.5%	0.5%
Allocation Effect	0.8%	1.0%	0.4%	0.4%
Interaction Effect	-0.3%	-0.1%	0.0%	0.0%

Total Fund Attribution Analysis

Law Attribution Analysis	Last 3 Mo.	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	-13.2%	-5.7%	2.2%	3.0%
Wtd. Index Return *	-14.3%	-5.7%	2.7%	3.6%
Excess Return	1.1%	0.0%	-0.5%	-0.6%
Selection Effect	1.3%	0.9%	0.3%	0.1%
Allocation Effect	1.1%	0.6%	0.0%	-0.3%
Interaction Effect	-1.7%	-1.7%	-0.7%	-0.3%

Judges Attribution Analysis	Last 3 Mo.	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	-14.2%	-5.0%	2.9%	3.6%
Wtd. Index Return *	-14.2%	-4.9%	3.0%	3.6%
Excess Return	0.0%	-0.1%	-0.1%	0.0%
Selection Effect	-0.1%	-0.1%	0.0%	0.0%
Allocation Effect	0.2%	0.0%	-0.1%	-0.1%
Interaction Effect	0.0%	0.0%	0.0%	0.0%

Wildlife Attribution Analysis	Last 3 Mo.	1 Yr	3 Yrs	5 Yrs
Wtd. Actual Return	-11.7%	-3.4%	4.1%	4.2%
Wtd. Index Return *	-13.1%	-5.6%	1.7%	2.7%
Excess Return	1.3%	2.2%	2.4%	1.5%
Selection Effect	2.2%	2.9%	2.2%	1.3%
Allocation Effect	-1.6%	-1.3%	-0.1%	0.1%
Interaction Effect	0.7%	0.6%	0.3%	0.0%

Returns are gross of manager fees.

Plan attribution calculations are returns based and the results shown reflect the composites shown. As a result, the total returns shown may vary from the calculated returns shown on the performance summary.



Oklahoma State Pension Commission

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Oklahoma State Pension Commission	30,272,515,902	100.0	-14.3	70	-9.1	71	-5.9	66	2.7	53	3.5	49	7.1	14
S&P 500			-19.6	99	-10.8	92	-7.0	82	5.1	2	6.7	1	10.5	1
BBgBarc US Aggregate TR			3.1	1	5.7	1	8.9	1	4.8	4	3.4	59	3.9	97
60% S&P 500 / 40% BBgBarc Aggregate			-10.9	14	-4.2	4	-0.4	3	5.3	2	5.6	2	8.1	2
MSCI EAFE			-22.8	99	-17.4	99	-14.4	99	-1.8	99	-0.6	99	2.7	99
Teachers	15,068,823,120	49.8	-15.3	80	-10.4	90	-7.1	83	2.2	70	3.3	60	7.6	7
TEACHERS Allocation Index			-13.0	44	-7.9	46	-5.1	50	2.7	53	3.7	42	7.1	13
TEACHERS Policy Index			-16.3	93	-10.7	92	-7.7	89	1.8	83	3.0	75	6.6	41
PERS	8,911,616,722	29.4	-14.1	64	-8.2	55	-4.9	47	2.8	47	3.5	52	6.7	35
PERS Allocation Index			-14.1	63	-8.2	55	-5.0	49	2.7	53	3.5	54	6.3	52
PERS Policy Index			-14.2	67	-8.3	56	-4.9	47	3.0	39	3.7	42	6.5	43
Firefighters	2,576,221,981	8.5	-13.0	44	-8.0	50	-4.2	31	4.7	5	5.2	3	7.7	6
FIREFIGHTERS Allocation Index			-15.3	83	-9.7	79	-6.8	80	2.8	48	4.0	25	7.1	13
FIREFIGHTERS Policy Index			-13.5	54	-7.3	34	-3.9	28	3.9	15	5.0	4	7.9	4
Police	2,396,967,305	7.9	-11.0	16	-6.1	15	-3.8	26	3.1	36	3.8	35	6.2	54
POLICE Allocation Index			-10.9	14	-6.5	20	-4.3	32	2.7	53	3.1	68	5.9	68
POLICE Policy Index			-12.8	41	-7.5	37	-4.7	42	2.7	53	3.1	69	6.2	55
Law	900,867,047	3.0	-13.3	50	-8.4	58	-5.8	65	2.3	68	3.1	71	6.5	44
LAW Allocation Index			-11.4	18	-5.9	13	-3.1	16	3.4	26	4.1	22	6.7	34
LAW Policy Index			-13.6	56	-7.9	47	-4.9	47	2.8	48	3.8	34	6.8	27
Judges	311,598,200	1.0	-14.2	65	-8.2	56	-5.0	49	2.9	45	3.6	49	6.5	42
JUDGES Allocation Index			-14.0	62	-8.1	51	-4.9	49	2.8	50	3.4	56	6.2	53
JUDGES Policy Index			-14.2	67	-8.2	56	-4.9	46	3.0	38	3.7	42	6.5	43
Wildlife	106,421,527	0.4	-11.7	23	-6.5	20	-3.4	20	3.7	20	3.9	29	6.3	51
WILDLIFE Allocation Index			-12.3	30	-6.4	18	-3.1	16	3.8	17	4.2	17	6.4	45
WILDLIFE Policy Index			-13.1	46	-8.5	60	-5.6	62	1.8	83	2.8	82	5.8	74
InvMetrics Public DB Gross Median			-13.4		-8.1		-5.1		2.8		3.5		6.3	

Returns are gross of manager fees.



Oklahoma State Pension Commission

TOTAL FUND PERFORMANCE DETAIL

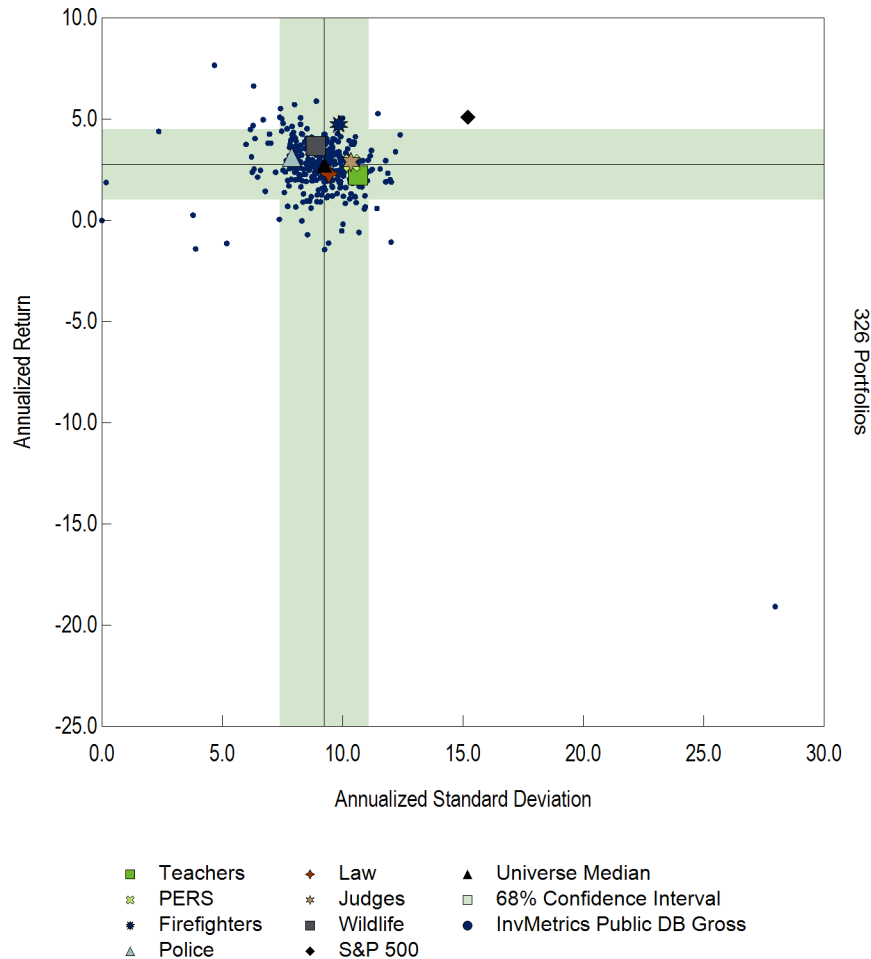
	Market Value (\$)	% of Portfolio	2019 (%)	Rank	2018 (%)	Rank	2017 (%)	Rank	2016 (%)	Rank	2015 (%)	Rank
Oklahoma State Pension Commission	30,272,515,902	100.0	19.8	29	-5.0	79	16.4	28	9.5	5	-1.5	83
S&P 500			31.5	1	-4.4	61	21.8	1	12.0	1	1.4	11
BBgBarc US Aggregate TR			8.7	99	0.0	2	3.5	99	2.6	99	0.5	35
60% S&P 500 / 40% BBgBarc Aggregate			22.2	5	-2.3	12	14.2	72	8.3	27	1.3	13
MSCI EAFE			22.0	5	-13.8	99	25.0	1	1.0	99	-0.8	75
Teachers	15,068,823,120	49.8	19.7	31	-5.0	78	16.1	34	11.4	1	-2.9	98
TEACHERS Allocation Index			19.0	42	-4.7	70	14.3	70	11.0	1	-2.0	89
TEACHERS Policy Index			21.1	13	-5.1	80	14.1	74	10.6	1	-2.5	95
PERS	8,911,616,722	29.4	21.3	10	-6.5	97	17.1	17	7.7	52	-0.8	74
PERS Allocation Index			20.9	16	-6.5	97	16.5	26	8.1	34	-0.9	77
PERS Policy Index			21.5	8	-6.1	94	16.9	21	8.1	34	-0.9	76
Firefighters	2,576,221,981	8.5	20.2	25	-2.4	13	18.7	4	7.3	61	2.1	6
FIREFIGHTERS Allocation Index			20.3	23	-3.9	49	15.6	44	9.4	5	0.5	35
FIREFIGHTERS Policy Index			21.8	6	-3.8	45	16.4	28	8.7	15	1.6	10
Police	2,396,967,305	7.9	15.7	85	-2.4	14	13.2	86	7.5	57	1.0	21
POLICE Allocation Index			15.0	91	-3.7	42	13.8	77	6.7	80	-0.4	63
POLICE Policy Index			18.6	47	-5.3	83	15.5	48	7.1	70	-1.9	89
Law	900,867,047	3.0	17.7	61	-4.6	66	14.6	63	7.2	66	-0.4	65
LAW Allocation Index			17.3	65	-3.5	35	14.6	63	8.3	29	0.3	42
LAW Policy Index			19.1	40	-3.7	40	13.4	86	8.6	18	1.0	22
Judges	311,598,200	1.0	21.4	10	-6.4	96	16.9	21	8.1	36	-1.1	79
JUDGES Allocation Index			21.0	15	-6.5	97	16.7	24	7.9	44	-1.2	81
JUDGES Policy Index			21.5	8	-6.1	94	16.9	21	8.1	34	-0.9	76
Wildlife	106,421,527	0.4	19.5	35	-3.5	36	14.3	71	6.6	82	0.1	49
WILDLIFE Allocation Index			20.5	19	-3.7	42	14.4	69	8.0	37	-0.3	61
WILDLIFE Policy Index			17.5	62	-4.9	76	13.0	88	7.4	60	-1.3	81
InvMetrics Public DB Gross Median			18.4		-4.0		15.3		7.7		0.1	

Returns are gross of manager fees.



TOTAL FUND RISK/RETURN - 3 YEARS

3 Years Ending March 31, 2020



3 Years Ending March 31, 2020

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Oklahoma State Pension Commission	2.68%	53	10.21%	81
Teachers	2.22%	70	10.65%	91
PERS	2.84%	47	10.38%	85
Firefighters	4.73%	5	9.84%	71
Police	3.13%	36	7.88%	14
Law	2.31%	68	9.43%	59
Judges	2.89%	45	10.35%	84
Wildlife	3.68%	20	8.90%	41

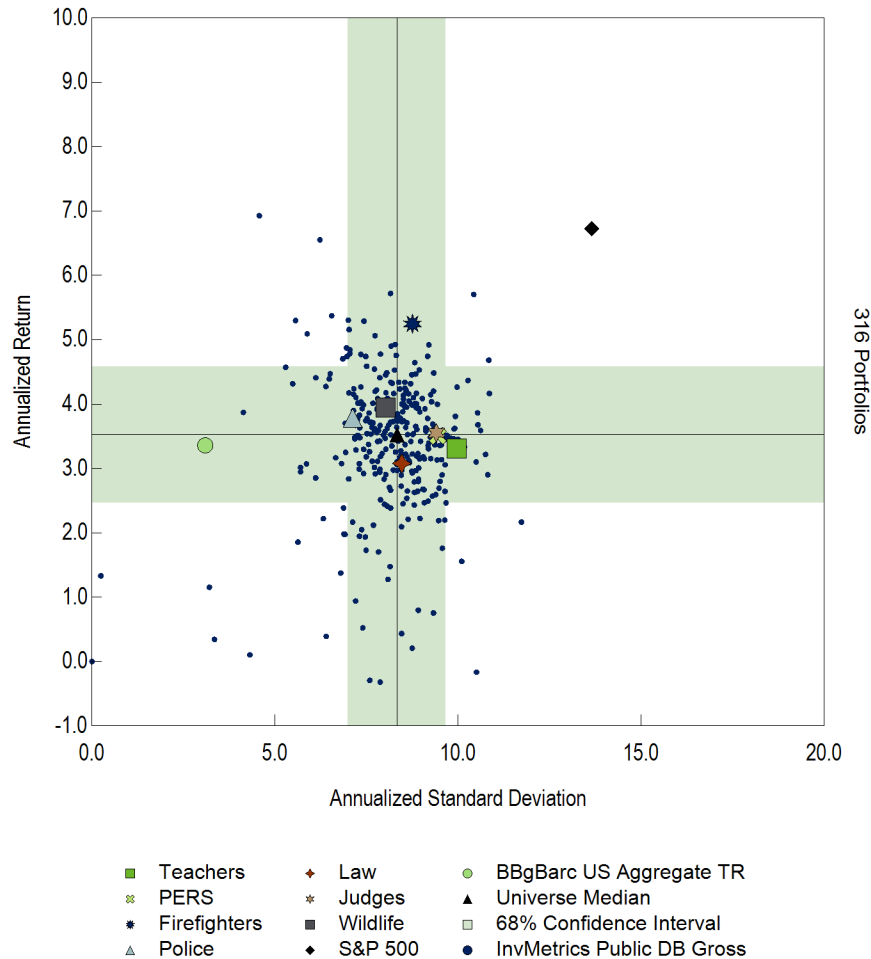
3 Years Ending March 31, 2020

	Sharpe Ratio	Rank	Sortino Ratio	Rank
Oklahoma State Pension Commission	0.09	59	0.25	59
Teachers	0.05	72	0.20	78
PERS	0.11	53	0.27	52
Firefighters	0.31	9	0.48	9
Police	0.18	28	0.37	23
Law	0.06	69	0.23	67
Judges	0.11	51	0.28	51
Wildlife	0.22	21	0.41	17



TOTAL FUND RISK/RETURN - 5 YEARS

5 Years Ending March 31, 2020



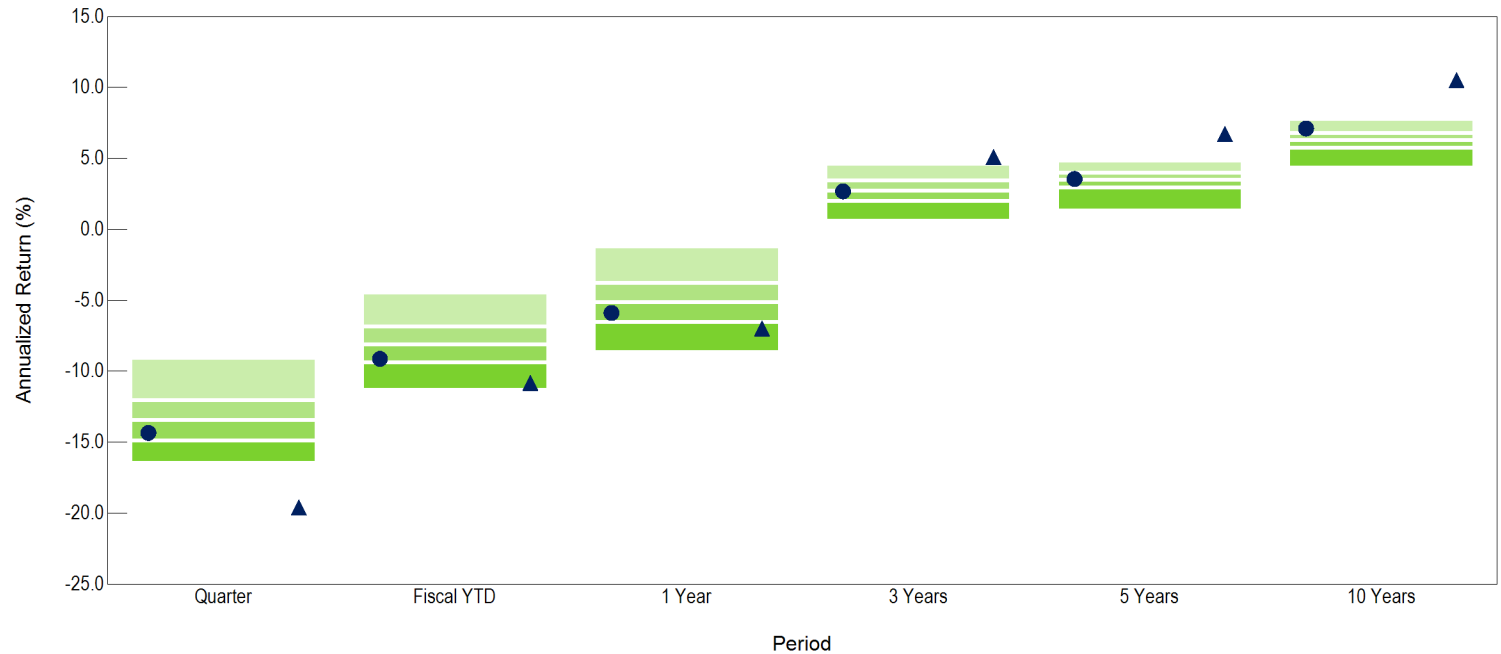
5 Years Ending March 31, 2020				
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Oklahoma State Pension Commission	3.55%	49	9.37%	88
Teachers	3.31%	60	9.96%	96
PERS	3.51%	52	9.45%	89
Firefighters	5.25%	3	8.76%	69
Police	3.78%	35	7.12%	14
Law	3.08%	71	8.46%	57
Judges	3.55%	49	9.41%	89
Wildlife	3.94%	29	8.03%	40

5 Years Ending March 31, 2020				
	Sharpe Ratio	Rank	Sortino Ratio	Rank
Oklahoma State Pension Commission	0.26	60	0.41	57
Teachers	0.22	76	0.36	72
PERS	0.25	62	0.41	57
Firefighters	0.47	8	0.64	9
Police	0.37	21	0.56	17
Law	0.23	73	0.38	66
Judges	0.26	60	0.41	57
Wildlife	0.35	27	0.53	22



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

Oklahoma State Pension Commission vs. InvMetrics Public DB Gross

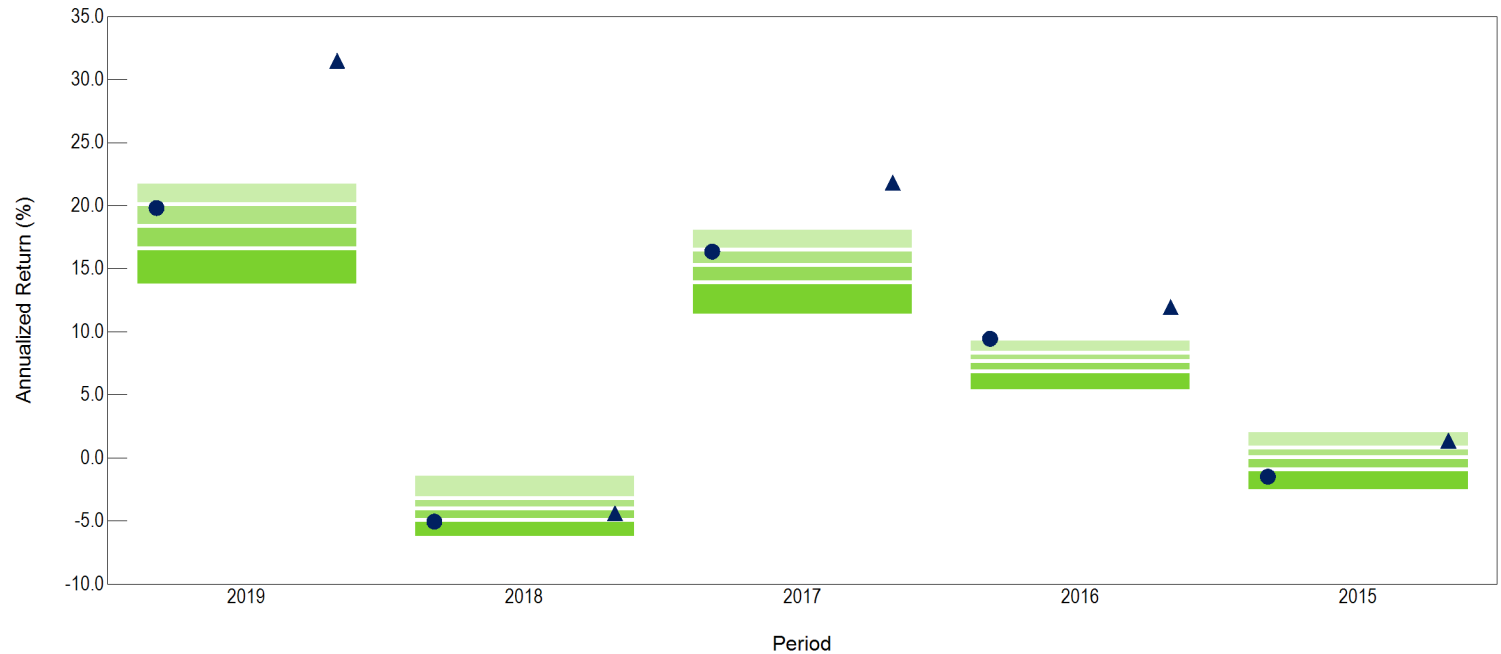


	Return (Rank)													
5th Percentile	-9.1		-4.5		-1.2		4.6		4.8		7.8			
25th Percentile	-12.0		-6.8		-3.7		3.5		4.0		6.8			
Median	-13.4		-8.1		-5.1		2.8		3.5		6.3			
75th Percentile	-14.9		-9.3		-6.5		2.0		3.0		5.8			
95th Percentile	-16.5		-11.3		-8.6		0.6		1.4		4.4			
# of Portfolios	338		337		336		326		316		277			
● Oklahoma State Pension Commission	-14.3	(70)	-9.1	(71)	-5.9	(66)	2.7	(53)	3.5	(49)	7.1	(14)		
▲ S&P 500	-19.6	(99)	-10.8	(92)	-7.0	(82)	5.1	(2)	6.7	(1)	10.5	(1)		



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

Oklahoma State Pension Commission vs. InvMetrics Public DB Gross



	Return (Rank)									
5th Percentile	21.9		-1.3		18.2		9.4		2.2	
25th Percentile	20.1		-3.1		16.5		8.4		0.9	
Median	18.4		-4.0		15.3		7.7		0.1	
75th Percentile	16.7		-4.9		14.0		6.9		-0.9	
95th Percentile	13.7		-6.3		11.3		5.3		-2.6	
# of Portfolios	330		319		304		305		316	
● Oklahoma State Pension Commission	19.8	(29)	-5.0	(79)	16.4	(28)	9.5	(5)	-1.5	(83)
▲ S&P 500	31.5	(1)	-4.4	(61)	21.8	(1)	12.0	(1)	1.4	(11)



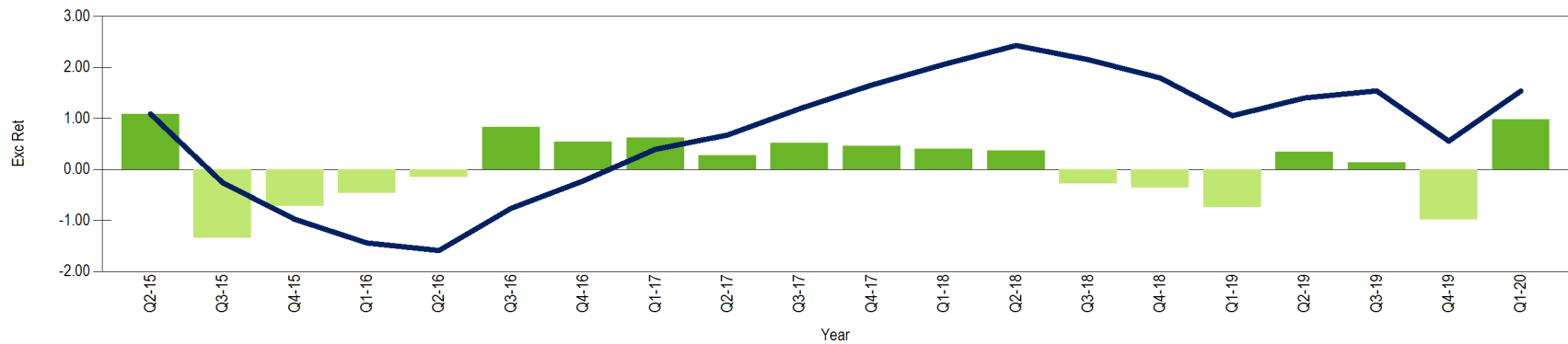
OKLAHOMA TEACHERS



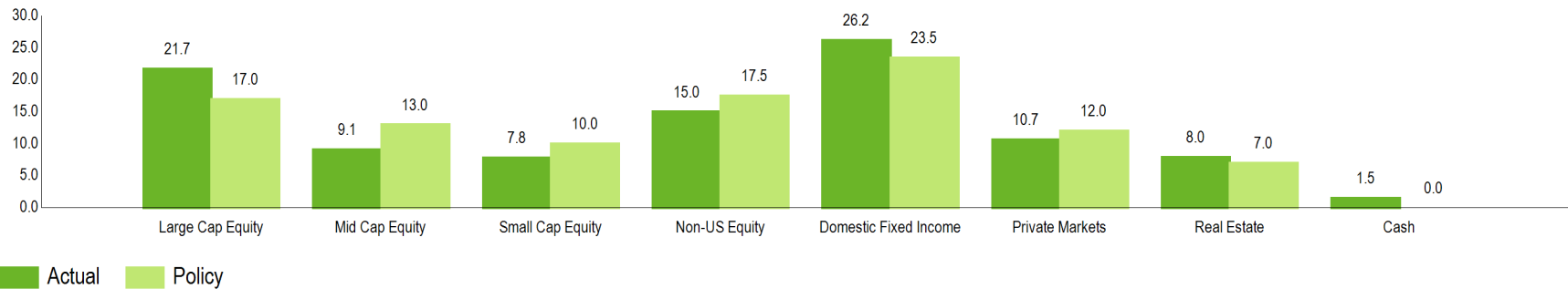
TOTAL FUND PERFORMANCE SUMMARY

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK TEACHERS	\$15,068,823,120	-15.3%	80	-10.4%	90	-7.1%	83	2.2%	70	3.3%	60	7.6%	7
<i>TEACHERS Allocation Index</i>		-13.0%	44	-7.9%	46	-5.1%	50	2.7%	53	3.7%	42	7.1%	13
<i>TEACHERS Policy Index</i>		-16.3%	93	-10.7%	92	-7.7%	89	1.8%	83	3.0%	75	6.6%	41
<i>InvMetrics Public DB Gross Median</i>		-13.4%		-8.1%		-5.1%		2.8%		3.5%		6.3%	

Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)

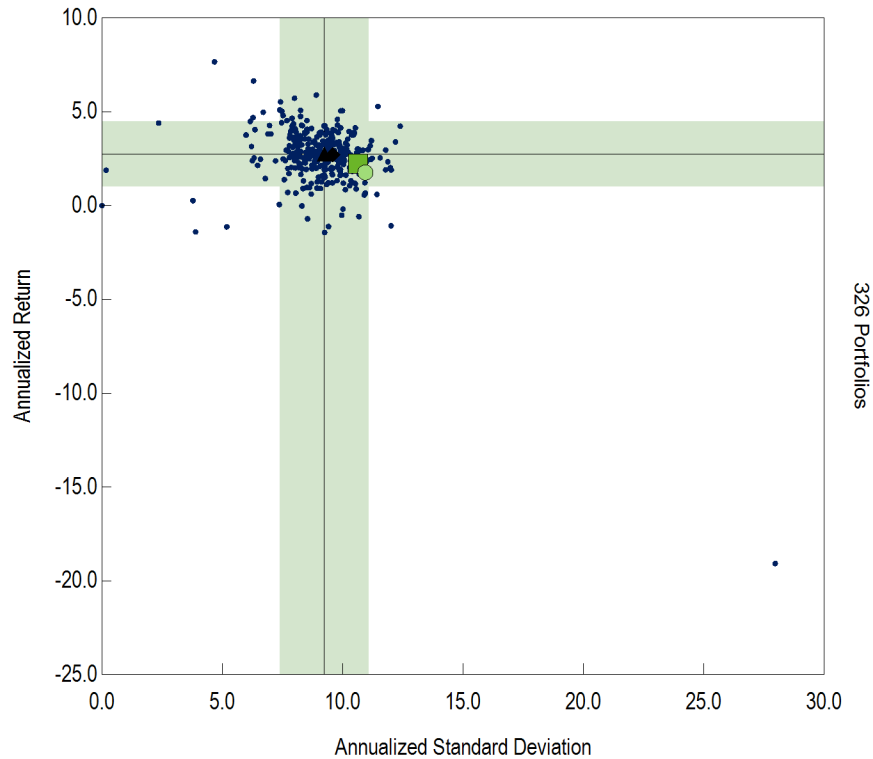


Returns are gross of manager fees.



TOTAL FUND RISK/RETURN - 3 YEARS

3 Years Ending March 31, 2020



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

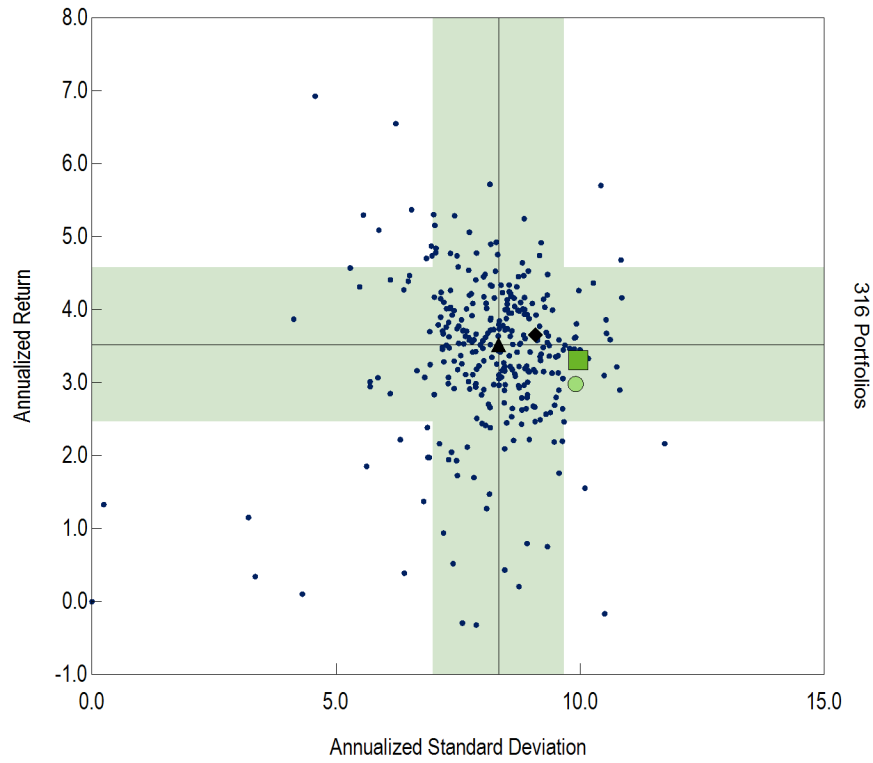
3 Years Ending March 31, 2020				
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK TEACHERS	2.22%	70	10.65%	91
TEACHERS Allocation Index	2.70%	53	9.60%	65
TEACHERS Policy Index	1.76%	83	10.95%	95

3 Years Ending March 31, 2020				
	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK TEACHERS	0.05	72	0.20	78
TEACHERS Allocation Index	0.10	56	0.29	49
TEACHERS Policy Index	0.00	83	0.15	86



TOTAL FUND RISK/RETURN - 5 YEARS

5 Years Ending March 31, 2020



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

5 Years Ending March 31, 2020

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK TEACHERS	3.31%	60	9.96%	96
TEACHERS Allocation Index	3.66%	42	9.08%	80
TEACHERS Policy Index	2.98%	75	9.91%	95

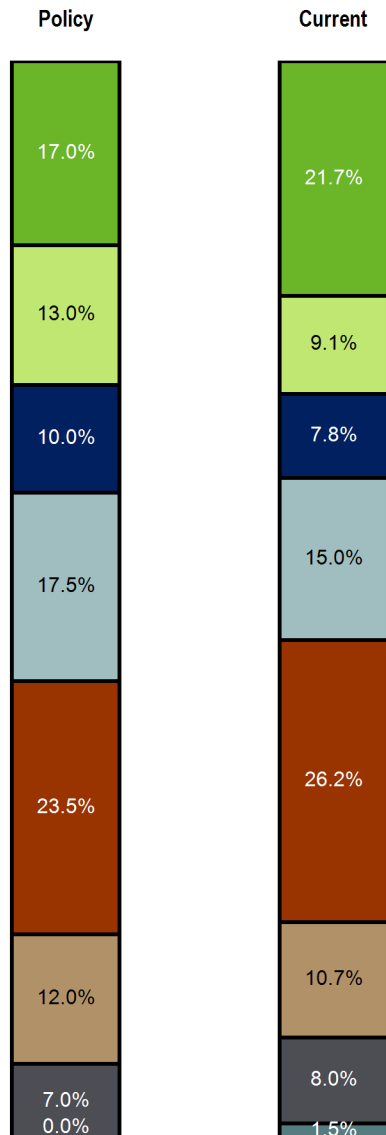
5 Years Ending March 31, 2020

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK TEACHERS	0.22	76	0.36	72
TEACHERS Allocation Index	0.28	52	0.46	41
TEACHERS Policy Index	0.19	82	0.32	83



Oklahoma Teachers

TOTAL FUND ASSET ALLOCATION VS. POLICY



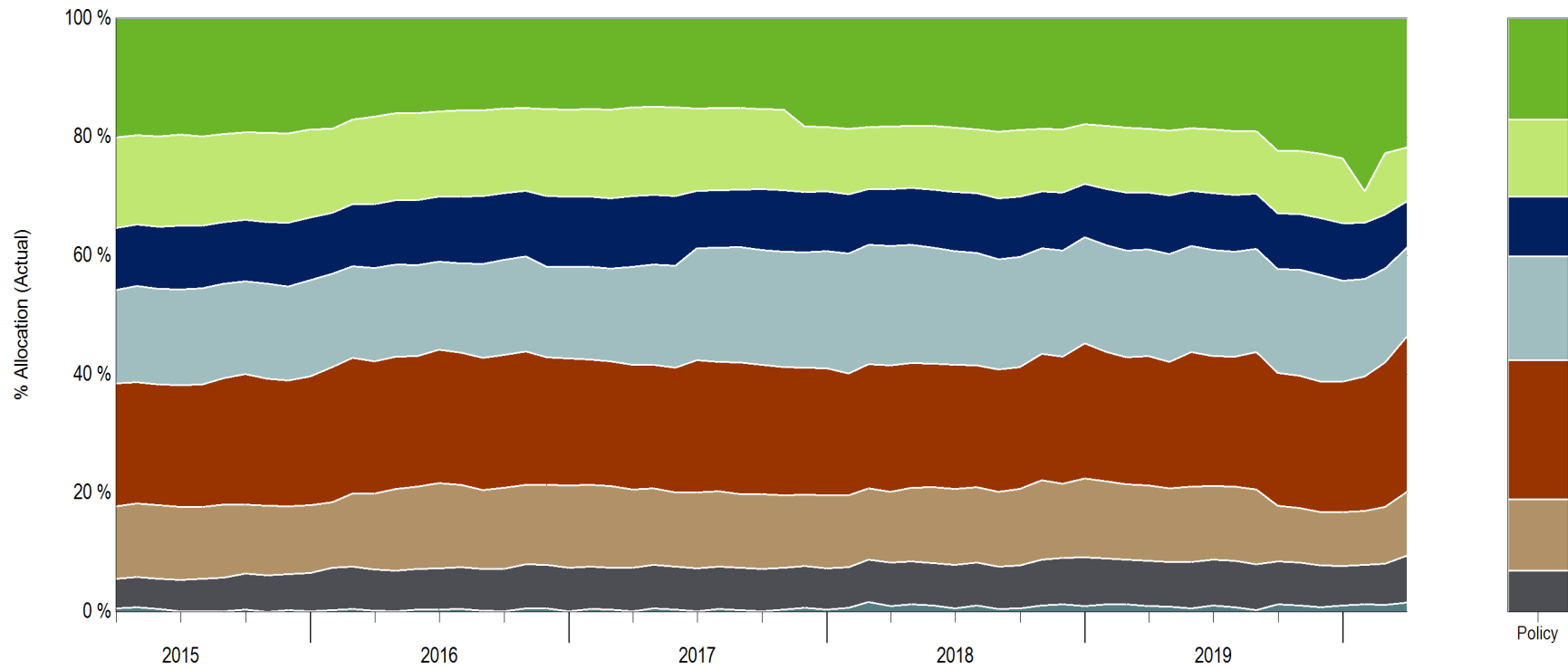
Asset Allocation vs. Target						
	Current	Policy	Current Difference*	Policy Range	Within Range	
Large Cap Equity	\$3,272,902,589	17.0%	21.7%	4.7%	12.0% - 23.0%	Yes
Mid Cap Equity	\$1,370,044,159	13.0%	9.1%	-3.9%	8.0% - 18.0%	Yes
Small Cap Equity	\$1,179,614,136	10.0%	7.8%	-2.2%	5.0% - 15.0%	Yes
Non-US Equity	\$2,261,732,331	17.5%	15.0%	-2.5%	12.5% - 22.5%	Yes
Domestic Fixed Income	\$3,949,963,579	23.5%	26.2%	2.7%	18.5% - 28.5%	Yes
Private Markets	\$1,611,729,672	12.0%	10.7%	-1.3%	7.0% - 17.0%	Yes
Real Estate	\$1,198,258,794	7.0%	8.0%	1.0%	2.0% - 12.0%	Yes
Cash	\$224,577,860	0.0%	1.5%	1.5%	0.0% - 5.0%	Yes
Total	\$15,068,823,120	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
- Real Estate
- Cash
- Mid Cap Equity
- Non-US Equity
- Private Markets



Oklahoma Teachers

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
OK TEACHERS	15,068,823,120	100.0	-15.3	80	-10.4	90	-7.1	83	2.2	70	3.3	60	7.6	7
TEACHERS Allocation Index			-13.0	44	-7.9	46	-5.1	50	2.7	53	3.7	42	7.1	13
Over/Under			-2.3		-2.5		-2.0		-0.5		-0.4		0.5	
TEACHERS Policy Index			-16.3	93	-10.7	92	-7.7	89	1.8	83	3.0	75	6.6	41
InvMetrics Public DB Gross Median			-13.4		-8.1		-5.1		2.8		3.5		6.3	
Total Equity Composite	8,084,293,215	53.6	-25.5	76	-20.5	79	-17.8	77	-0.9	71	1.7	66	7.2	43
Russell 3000			-20.9	46	-12.7	35	-9.1	36	4.0	29	5.8	21	10.1	11
Over/Under			-4.6		-7.8		-8.7		-4.9		-4.1		-2.9	
eV All Global Equity Gross Median			-21.4		-14.6		-11.4		1.5		2.9		6.9	
Transition Account	54,081	0.0												
91 Day T-Bills			0.4	--	1.3	--	1.9	--	1.7	--	1.1	--	0.6	--
Over/Under														
U.S. Equity Comp	5,822,506,803	38.6	-26.8	63	-20.6	62	-17.6	62	0.0	56	2.7	57	8.7	57
S&P 500			-19.6	28	-10.8	22	-7.0	25	5.1	28	6.7	23	10.5	32
Over/Under			-7.2		-9.8		-10.6		-5.1		-4.0		-1.8	
eV All US Equity Gross Median			-24.1		-17.7		-14.4		1.0		3.5		9.3	
Sawgrass Large Growth	1	0.0	0.7	1	3.9	1	8.7	1	13.6	21	10.9	25	13.3	24
Russell 1000 Growth			-14.1	48	-3.6	25	0.9	34	11.3	42	10.4	34	13.0	34
Over/Under			14.8		7.5		7.8		2.3		0.5		0.3	
eV US Large Cap Growth Equity Gross Median			-14.4		-5.8		-0.9		10.6		9.2		12.4	
Hotchkis & Wiley Large Cap Value	110,202	0.0	-1.6	1	-1.1	1	3.5	1	5.6	3	6.7	5	10.9	3
Russell 1000 Value			-26.7	58	-20.2	60	-17.2	60	-2.2	65	1.9	63	7.7	63
Over/Under			25.1		19.1		20.7		7.8		4.8		3.2	
eV US Large Cap Value Equity Gross Median			-26.0		-19.1		-16.1		-1.1		2.5		8.1	
Aronson Mid Cap	78	0.0	2.0	1	6.5	1	9.8	1	8.1	16	6.6	20	12.1	12
Russell MidCap			-27.1	56	-21.5	60	-18.3	54	-0.8	54	1.8	56	8.8	56
Over/Under			29.1		28.0		28.1		8.9		4.8		3.3	
eV US Mid Cap Equity Gross Median			-25.8		-19.8		-16.9		0.3		2.6		9.1	
Frontier	13	0.0	15.6	1	24.2	1	28.6	1	18.9	2	13.1	1	14.7	2
Russell MidCap Growth			-20.0	63	-14.1	53	-9.4	64	6.5	59	5.6	62	10.9	64
Over/Under			35.6		38.3		38.0		12.4		7.5		3.8	

Returns are gross of manager fees.



Oklahoma Teachers

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Wellington	436,338,151	2.9	-22.5	86	-14.8	62	-8.8	60	9.2	34	6.1	54	10.0	86
<i>Russell MidCap Growth</i>			<u>-20.0</u>	63	<u>-14.1</u>	53	<u>-9.4</u>	64	<u>6.5</u>	59	<u>5.6</u>	62	<u>10.9</u>	64
Over/Under			-2.5		-0.7		0.6		2.7		0.5		-0.9	
<i>eV US Mid Cap Growth Equity Gross Median</i>			-19.2		-13.7		-7.9		7.3		6.4		11.4	
Hotchkis & Wiley Mid Cap	211,738,977	1.4	-46.2	99	-45.4	99	-47.2	99	-18.3	99	-9.9	99	3.3	99
<i>Russell MidCap Value</i>			<u>-31.7</u>	51	<u>-26.5</u>	59	<u>-24.1</u>	58	<u>-6.0</u>	51	<u>-0.8</u>	60	<u>7.2</u>	50
Over/Under			-14.5		-18.9		-23.1		-12.3		-9.1		-3.9	
<i>eV US Mid Cap Value Equity Gross Median</i>			-31.7		-25.5		-23.0		-5.8		-0.4		7.2	
Shapiro Capital	491,525,876	3.3	-37.2	74	-33.3	76	-31.9	75	-8.8	52	-1.0	33	6.8	32
<i>Russell 2000 Value</i>			<u>-35.7</u>	58	<u>-30.6</u>	55	<u>-29.6</u>	61	<u>-9.5</u>	60	<u>-2.4</u>	62	<u>4.8</u>	84
Over/Under			-1.5		-2.7		-2.3		0.7		1.4		2.0	
Frontier Capital Management Small Cap Value	135,733,135	0.9	-39.4	88	-35.5	88	-32.9	82	-10.4	72	-2.0	51	--	--
<i>Russell 2000 Value</i>			<u>-35.7</u>	58	<u>-30.6</u>	55	<u>-29.6</u>	61	<u>-9.5</u>	60	<u>-2.4</u>	62	<u>4.8</u>	84
Over/Under			-3.7		-4.9		-3.3		-0.9		0.4		--	--
Neumeier Poma Investment Counsel Small Cap Value	192,202,411	1.3	-27.4	9	-22.0	8	-19.8	8	-0.9	3	3.6	3	--	--
<i>Russell 2000 Value</i>			<u>-35.7</u>	58	<u>-30.6</u>	55	<u>-29.6</u>	61	<u>-9.5</u>	60	<u>-2.4</u>	62	<u>4.8</u>	84
Over/Under			8.3		8.6		9.8		8.6		6.0		--	--
<i>eV US Small Cap Value Equity Gross Median</i>			-35.0		-29.8		-28.6		-8.6		-2.0		6.4	
Geneva Capital Management Small Cap Growth	180,199,642	1.2	-19.6	22	-15.5	22	-10.0	21	6.7	32	8.3	18	--	--
<i>Russell 2000 Growth</i>			<u>-25.8</u>	69	<u>-20.8</u>	60	<u>-18.6</u>	66	<u>0.1</u>	78	<u>1.7</u>	80	<u>8.9</u>	83
Over/Under			6.2		5.3		8.6		6.6		6.6		--	--

Returns are gross of manager fees.



Oklahoma Teachers

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Wasatch Advisors Small Cap Growth	179,953,072	1.2	-23.2	44	-16.3	25	-9.7	20	8.0	26	7.6	21	--	--
<i>Russell 2000 Growth</i>			<u>-25.8</u>	69	<u>-20.8</u>	60	<u>-18.6</u>	66	<u>0.1</u>	78	<u>1.7</u>	80	<u>8.9</u>	83
Over/Under			2.6		4.5		8.9		7.9		5.9			
<i>eV US Small Cap Growth Equity Gross Median</i>			-23.6		-19.9		-15.7		3.8		4.2		10.7	
Domestic Passive Equity	3,994,705,245	26.5	-24.5	--	-16.4	--	-13.0	--	2.0	--	4.3	--	--	--
<i>S&P 500</i>			<u>-19.6</u>	--	<u>-10.8</u>	--	<u>-7.0</u>	--	<u>5.1</u>	--	<u>6.7</u>	--	<u>10.5</u>	--
Over/Under			-4.9		-5.6		-6.0		-3.1		-2.4			
Northern Trust Russell 1000	1,341,234,227	8.9	-20.2	--	-10.8	--	-7.0	--	--	--	--	--	--	--
<i>Russell 1000</i>			<u>-20.2</u>	--	<u>-11.8</u>	--	<u>-8.0</u>	--	<u>4.6</u>	--	<u>6.2</u>	--	<u>10.4</u>	--
Over/Under			0.0		1.0		1.0							
Sci Beta US HFE MBMS	1,931,504,078	12.8	-23.2	--	-15.5	--	-12.2	--	--	--	--	--	--	--
<i>S&P 500</i>			<u>-19.6</u>	--	<u>-10.8</u>	--	<u>-7.0</u>	--	<u>5.1</u>	--	<u>6.7</u>	--	<u>10.5</u>	--
Over/Under			-3.6		-4.7		-5.2							
NT Russell Midcap	721,966,940	4.8	--	--	--	--	--	--	--	--	--	--	--	--
<i>Russell MidCap</i>			<u>-27.1</u>	--	<u>-21.5</u>	--	<u>-18.3</u>	--	<u>-0.8</u>	--	<u>1.8</u>	--	<u>8.8</u>	--
Over/Under														
International Equity Composite	2,261,732,331	15.0	-24.7	64	-19.2	66	-17.3	68	-2.3	66	-0.4	67	3.2	70
<i>MSCI ACWI ex USA</i>			<u>-23.4</u>	51	<u>-18.0</u>	57	<u>-15.6</u>	57	<u>-2.0</u>	62	<u>-0.6</u>	72	<u>2.1</u>	92
Over/Under			-1.3		-1.2		-1.7		-0.3		0.2		1.1	
<i>eV All ACWI ex-US Equity Gross Median</i>			-23.3		-17.0		-14.3		-0.8		0.7		4.3	
Causeway - Value	348,553,083	2.3	-30.1	71	-23.4	67	-22.1	68	-4.9	52	-2.6	70	2.5	65
<i>MSCI EAFE</i>			<u>-22.8</u>	17	<u>-17.4</u>	18	<u>-14.4</u>	17	<u>-1.8</u>	19	<u>-0.6</u>	33	<u>2.7</u>	57
Over/Under			-7.3		-6.0		-7.7		-3.1		-2.0		-0.2	
<i>eV EAFE Value Equity Gross Median</i>			-27.2		-21.1		-19.5		-4.8		-1.6		3.0	
Allianz Intl	801,529,062	5.3	-23.8	--	-18.6	--	-17.4	--	-2.5	--	--	--	--	--
<i>MSCI ACWI ex USA</i>			<u>-23.4</u>	--	<u>-18.0</u>	--	<u>-15.6</u>	--	<u>-2.0</u>	--	<u>-0.6</u>	--	<u>2.1</u>	--
Over/Under			-0.4		-0.6		-1.8		-0.5					
Wellington Intl	457,566,495	3.0	-17.5	--	-10.4	--	-6.2	--	5.9	--	--	--	--	--
<i>MSCI ACWI ex USA</i>			<u>-23.4</u>	--	<u>-18.0</u>	--	<u>-15.6</u>	--	<u>-2.0</u>	--	<u>-0.6</u>	--	<u>2.1</u>	--
Over/Under			5.9		7.6		9.4		7.9					
Northern Trust Intl - Liquidating	12,336	0.0												

Returns are gross of manager fees.



Oklahoma Teachers

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
International Small Cap Equity	654,071,355	4.3	-27.1	53	-22.8	74	-20.9	69	-4.9	73	-1.1	81	--	--
MSCI ACWI ex USA			<u>-23.4</u>	27	<u>-18.0</u>	38	<u>-15.6</u>	40	<u>-2.0</u>	54	<u>-0.6</u>	77	<u>2.1</u>	99
Over/Under			-3.7		-4.8		-5.3		-2.9		-0.5			
eV ACWI ex-US Small Cap Equity Gross Median			-26.4		-20.5		-17.5		-1.2		2.0		6.4	
Advisory Research Int'l Small Cap	869,130	0.0	-1.7	1	-2.4	1	-0.9	1	0.9	40	2.1	50	--	--
MSCI ACWI ex USA			<u>-23.4</u>	27	<u>-18.0</u>	38	<u>-15.6</u>	40	<u>-2.0</u>	54	<u>-0.6</u>	77	<u>2.1</u>	99
Over/Under			21.7		15.6		14.7		2.9		2.7			
EPOCH Int'l Small Cap	393,869	0.0	-1.1	1	-1.1	1	-0.1	1	2.6	26	3.3	29	--	--
MSCI ACWI ex USA			<u>-23.4</u>	27	<u>-18.0</u>	38	<u>-15.6</u>	40	<u>-2.0</u>	54	<u>-0.6</u>	77	<u>2.1</u>	99
Over/Under			22.3		16.9		15.5		4.6		3.9			
Wasatch Int'l Small Cap	262,938,111	1.7	-21.7	12	-14.8	22	-9.9	17	3.0	24	4.1	23	--	--
MSCI ACWI ex USA			<u>-23.4</u>	27	<u>-18.0</u>	38	<u>-15.6</u>	40	<u>-2.0</u>	54	<u>-0.6</u>	77	<u>2.1</u>	99
Over/Under			1.7		3.2		5.7		5.0		4.7			
Wellington Int'l Small Cap	195,203,071	1.3	-30.0	83	-23.0	76	-21.4	73	-7.3	82	-2.7	87	--	--
MSCI ACWI ex USA			<u>-23.4</u>	27	<u>-18.0</u>	38	<u>-15.6</u>	40	<u>-2.0</u>	54	<u>-0.6</u>	77	<u>2.1</u>	99
Over/Under			-6.6		-5.0		-5.8		-5.3		-2.1			
eV ACWI ex-US Small Cap Equity Gross Median			-26.4		-20.5		-17.5		-1.2		2.0		6.4	
SSGA Emerging Market Small Cap	194,667,174	1.3	-31.0	91	-27.8	94	-27.4	94	-8.1	86	--	--	--	--
MSCI Emerging Markets Small Cap Gross			<u>-31.3</u>	92	<u>-28.1</u>	95	<u>-28.7</u>	95	<u>-9.3</u>	92	<u>-4.9</u>	99	<u>-1.0</u>	99
Over/Under			0.3		0.3		1.3		1.2					
eV ACWI ex-US Small Cap Equity Gross Median			-26.4		-20.5		-17.5		-1.2		2.0		6.4	
Fixed Composite	3,949,963,579	26.2	1.0	31	4.2	20	8.2	16	5.4	12	4.3	12	5.9	16
BBgBarc US Aggregate TR			<u>3.1</u>	10	<u>5.7</u>	10	<u>8.9</u>	12	<u>4.8</u>	18	<u>3.4</u>	33	<u>3.9</u>	55
Over/Under			-2.1		-1.5		-0.7		0.6		0.9		2.0	
eV All US Fixed Inc Gross Median			-0.2		1.6		3.8		3.4		2.9		4.1	
Loomis Sayles Core Plus	1,015,583,887	6.7	-4.5	90	-1.9	92	1.1	93	2.4	94	2.5	92	4.8	39
BBgBarc US Aggregate TR			<u>3.1</u>	5	<u>5.7</u>	6	<u>8.9</u>	5	<u>4.8</u>	18	<u>3.4</u>	61	<u>3.9</u>	99
Over/Under			-7.6		-7.6		-7.8		-2.4		-0.9		0.9	

Returns are gross of manager fees.



Oklahoma Teachers

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Mackay Shields Core Plus	1,022,190,765	6.8	-4.8	91	-1.3	88	1.8	89	2.6	93	2.1	99	4.2	91
BBgBarc US Aggregate TR			<u>3.1</u>	5	<u>5.7</u>	6	<u>8.9</u>	5	<u>4.8</u>	18	<u>3.4</u>	61	<u>3.9</u>	99
Over/Under			-7.9		-7.0		-7.1		-2.2		-1.3		0.3	
Lord Abbett Core Plus	1,013,780,928	6.7	-4.6	91	-2.2	94	1.3	90	2.5	94	2.3	96	4.2	92
BBgBarc US Aggregate TR			<u>3.1</u>	5	<u>5.7</u>	6	<u>8.9</u>	5	<u>4.8</u>	18	<u>3.4</u>	61	<u>3.9</u>	99
Over/Under			-7.7		-7.9		-7.6		-2.3		-1.1		0.3	
eV US Core Plus Fixed Inc Gross Median			-0.4		2.5		5.8		4.2		3.4		4.6	
Hoisington Long Bonds	898,407,999	6.0	26.1	6	32.0	6	41.1	6	16.2	6	8.3	7	10.8	5
BBgBarc US Aggregate TR			<u>3.1</u>	45	<u>5.7</u>	57	<u>8.9</u>	89	<u>4.8</u>	99	<u>3.4</u>	99	<u>3.9</u>	99
Over/Under			23.0		26.3		32.2		11.4		4.9		6.9	
eV US Long Duration Fixed Inc Gross Median			1.2		7.3		14.4		8.3		5.8		8.3	
Total Private Equity	1,611,729,672	10.7	1.2	--	10.0	--	17.3	--	16.5	--	14.1	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			1.2		4.6		8.3		3.9		2.5			
Legacy LP - Aldus PE	13,360,591	0.1	0.0	--	-0.5	--	-3.6	--	-0.9	--	2.4	--	5.1	--
Pimco Bravo	1,222,833	0.0	-20.6	--	-39.4	--	-50.1	--	-14.0	--	-6.0	--	--	--
PIMCO Bravo 2	68,120,560	0.5	4.1	--	6.4	--	13.0	--	6.0	--	7.9	--	--	--
OK - OTRS/Franklin Park	1,272,599,273	8.4	1.6	--	11.6	--	19.9	--	19.2	--	15.9	--	--	--
Pimco COF II	105,064,077	0.7	4.4	--	8.2	--	13.8	--	9.8	--	--	--	--	--
PIMCO Bravo 3	151,362,338	1.0	-5.5	--	0.3	--	2.6	--	9.1	--	--	--	--	--
Master Limited Partnerships	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Alerian MLP Index			<u>-57.2</u>	--	<u>-61.0</u>	--	<u>-60.9</u>	--	<u>-28.9</u>	--	<u>-20.7</u>	--	<u>-5.0</u>	--
Over/Under														
Total Core Real Estate	1,211,378,794	8.0	0.8	--	0.8	--	6.0	--	5.6	--	8.3	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			0.1		-2.9		0.7		-0.8		0.7			

Returns are gross of manager fees.



Oklahoma Teachers

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
L & B Real Estate	106,500,783	0.7	8.3	--	-0.3	--	-0.3	--	4.2	--	7.5	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			7.3		-4.1		-5.2		-2.6		-1.0			
Heitman Real Estate	326,973,090	2.2	-0.8	--	1.2	--	2.2	--	5.5	--	8.3	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-1.8		-2.6		-2.7		-1.3		-0.2			
AEW Real Estate	331,417,062	2.2	1.0	--	3.9	--	6.4	--	6.5	--	8.3	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			0.0		0.1		1.5		-0.3		-0.2			
L & B Gold Driller	77,964,708	0.5	0.0	--	2.5	--	43.1	--	2.1	--	8.6	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-1.0		-1.3		38.2		-4.7		0.1			
Greenoak Real Estate II	33,578,265	0.2	-11.2	--	-11.6	--	-11.9	--	0.4	--	2.2	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-12.2		-15.4		-16.8		-6.4		-6.3			
Greenoak Real Estate III	17,288,002	0.1	7.7	--	-0.3	--	-0.6	--	--	--	--	--	--	--
Lyrical-OTRS Realty Partner IV	64,926,898	0.4	0.0	--	4.7	--	59.9	--	14.6	--	6.3	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-1.0		0.9		55.0		7.8		-2.2			
Dune Real Estate	53,119,231	0.4	-0.8	--	-4.4	--	-2.7	--	8.1	--	10.3	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-1.8		-8.2		-7.6		1.3		1.8			
Landmark Realty	15,688,588	0.1	0.0	--	-0.6	--	-1.4	--	3.6	--	14.9	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-1.0		-4.4		-6.3		-3.2		6.4			
American Realty	71,228,069	0.5	2.6	--	6.9	--	9.7	--	10.0	--	11.4	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			1.6		3.1		4.8		3.2		2.9			

Returns are gross of manager fees.



Oklahoma Teachers

TOTAL FUND PERFORMANCE DETAIL

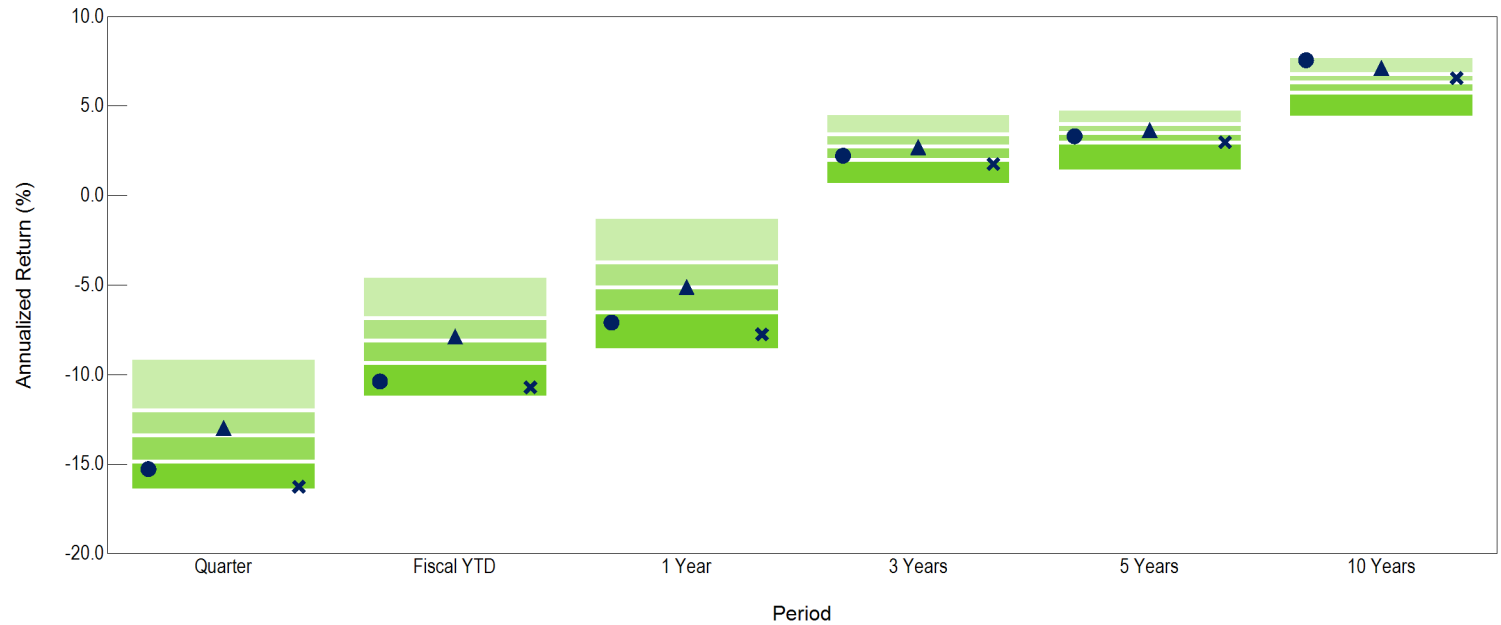
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Starwood Capital	21,290,875	0.1	0.0	--	4.4	--	5.2	--	11.6	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-1.0		0.6		0.3		4.8					
Starwood Opportunity XI	10,377,283	0.1	0.0	--	10.0	--	24.0	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-1.0		6.2		19.1							
FCP Realty Fund IV, L.P.	11,258,869	0.1	5.1	--	-7.1	--	-18.1	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			4.1		-10.9		-23.0							
Harbert European Real Estate V	14,860,485	0.1	3.9	--	8.0	--	-7.1	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			2.9		4.2		-12.0							
Artemis Real Estate III	8,784,862	0.1	6.7	--	6.8	--	6.2	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			5.7		3.0		1.3							
Angelo Gordon VAL FD X	11,936,910	0.1	5.2	--	-16.8	--	--	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			4.2		-20.6									

Returns are gross of manager fees.



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

OK TEACHERS vs. InvMetrics Public DB Gross

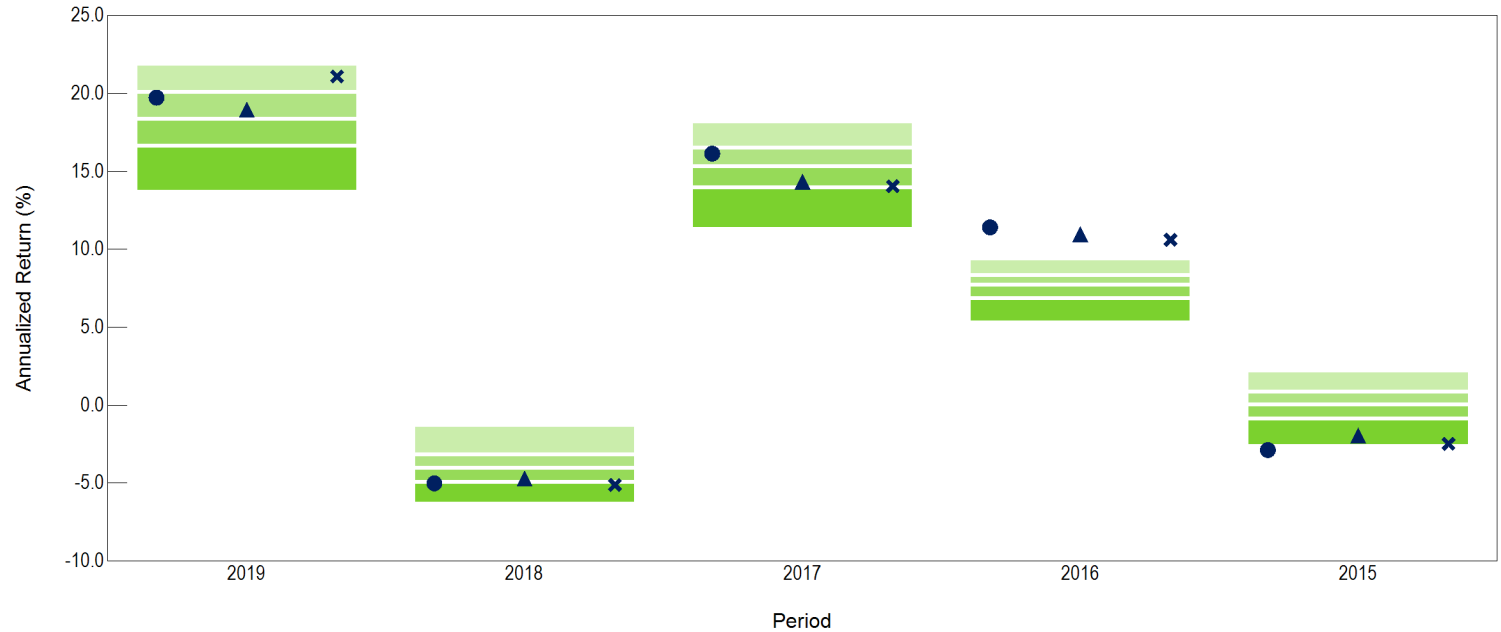


	Return (Rank)											
5th Percentile	-9.1		-4.5		-1.2		4.6		4.8		7.8	
25th Percentile	-12.0		-6.8		-3.7		3.5		4.0		6.8	
Median	-13.4		-8.1		-5.1		2.8		3.5		6.3	
75th Percentile	-14.9		-9.3		-6.5		2.0		3.0		5.8	
95th Percentile	-16.5		-11.3		-8.6		0.6		1.4		4.4	
# of Portfolios	338		337		336		326		316		277	
● OK TEACHERS	-15.3	(80)	-10.4	(90)	-7.1	(83)	2.2	(70)	3.3	(60)	7.6	(7)
▲ TEACHERS Allocation Index	-13.0	(44)	-7.9	(46)	-5.1	(50)	2.7	(53)	3.7	(42)	7.1	(13)
× TEACHERS Policy Index	-16.3	(93)	-10.7	(92)	-7.7	(89)	1.8	(83)	3.0	(75)	6.6	(41)



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

OK TEACHERS vs. InvMetrics Public DB Gross



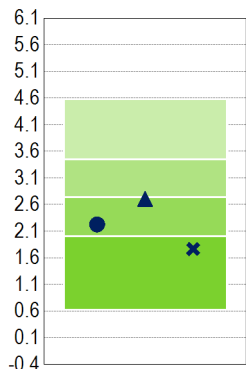
	Return (Rank)									
5th Percentile	21.9		-1.3		18.2		9.4		2.2	
25th Percentile	20.1		-3.1		16.5		8.4		0.9	
Median	18.4		-4.0		15.3		7.7		0.1	
75th Percentile	16.7		-4.9		14.0		6.9		-0.9	
95th Percentile	13.7		-6.3		11.3		5.3		-2.6	
# of Portfolios	330		319		304		305		316	
● OK TEACHERS	19.7	(31)	-5.0	(78)	16.1	(34)	11.4	(1)	-2.9	(97)
▲ TEACHERS Allocation Index	19.0	(42)	-4.7	(70)	14.3	(70)	11.0	(1)	-2.0	(89)
× TEACHERS Policy Index	21.1	(13)	-5.1	(80)	14.1	(74)	10.6	(1)	-2.5	(95)



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

OK TEACHERS vs. InvMetrics Public DB Gross 3 Years

Anlzd Return

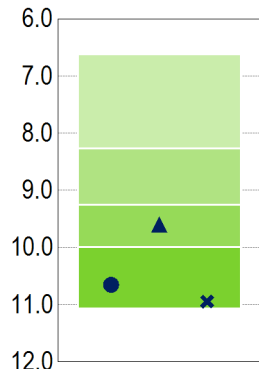


- OK TEACHERS
Value 2.22
Rank 70
- ▲ TEACHERS Allocation Index
Value 2.70
Rank 53
- × TEACHERS Policy Index
Value 1.76
Rank 83

Universe

5th %tile	4.58
25th %tile	3.45
Median	2.75
75th %tile	2.02
95th %tile	0.63

Anlzd Standard Deviation

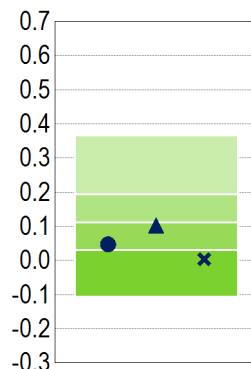


- OK TEACHERS
Value 10.65
Rank 91
- ▲ TEACHERS Allocation Index
Value 9.60
Rank 65
- × TEACHERS Policy Index
Value 10.95
Rank 95

Universe

5th %tile	6.62
25th %tile	8.25
Median	9.24
75th %tile	9.98
95th %tile	11.06

Sharpe Ratio

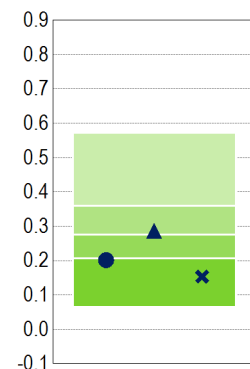


- OK TEACHERS
Value 0.05
Rank 72
- ▲ TEACHERS Allocation Index
Value 0.10
Rank 56
- × TEACHERS Policy Index
Value 0.00
Rank 83

Universe

5th %tile	0.37
25th %tile	0.19
Median	0.11
75th %tile	0.03
95th %tile	-0.10

Sortino Ratio



- OK TEACHERS
Value 0.20
Rank 78
- ▲ TEACHERS Allocation Index
Value 0.29
Rank 49
- × TEACHERS Policy Index
Value 0.15
Rank 86

Universe

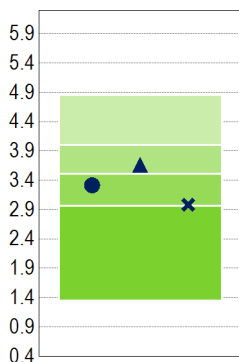
5th %tile	0.57
25th %tile	0.36
Median	0.28
75th %tile	0.21
95th %tile	0.07



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

OK TEACHERS vs. InvMetrics Public DB Gross 5 Years

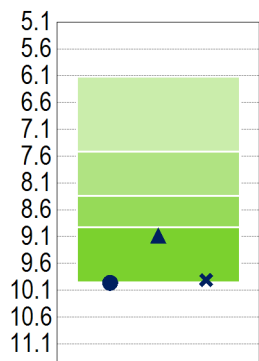
Anlzd Return



● OK TEACHERS	
Value	3.31
Rank	60
▲ TEACHERS Allocation Index	
Value	3.66
Rank	42
× TEACHERS Policy Index	
Value	2.98
Rank	75

Universe	
5th %tile	4.85
25th %tile	4.02
Median	3.52
75th %tile	2.97
95th %tile	1.36

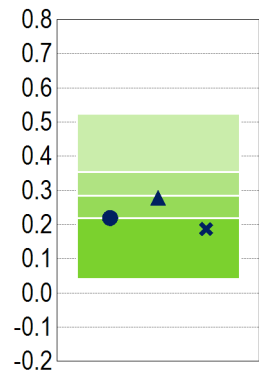
Anlzd Standard Deviation



● OK TEACHERS	
Value	9.96
Rank	96
▲ TEACHERS Allocation Index	
Value	9.08
Rank	80
× TEACHERS Policy Index	
Value	9.91
Rank	95

Universe	
5th %tile	6.11
25th %tile	7.51
Median	8.33
75th %tile	8.92
95th %tile	9.94

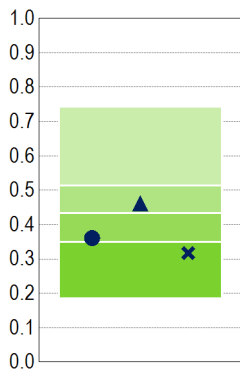
Sharpe Ratio



● OK TEACHERS	
Value	0.22
Rank	76
▲ TEACHERS Allocation Index	
Value	0.28
Rank	52
× TEACHERS Policy Index	
Value	0.19
Rank	82

Universe	
5th %tile	0.52
25th %tile	0.36
Median	0.29
75th %tile	0.22
95th %tile	0.04

Sortino Ratio



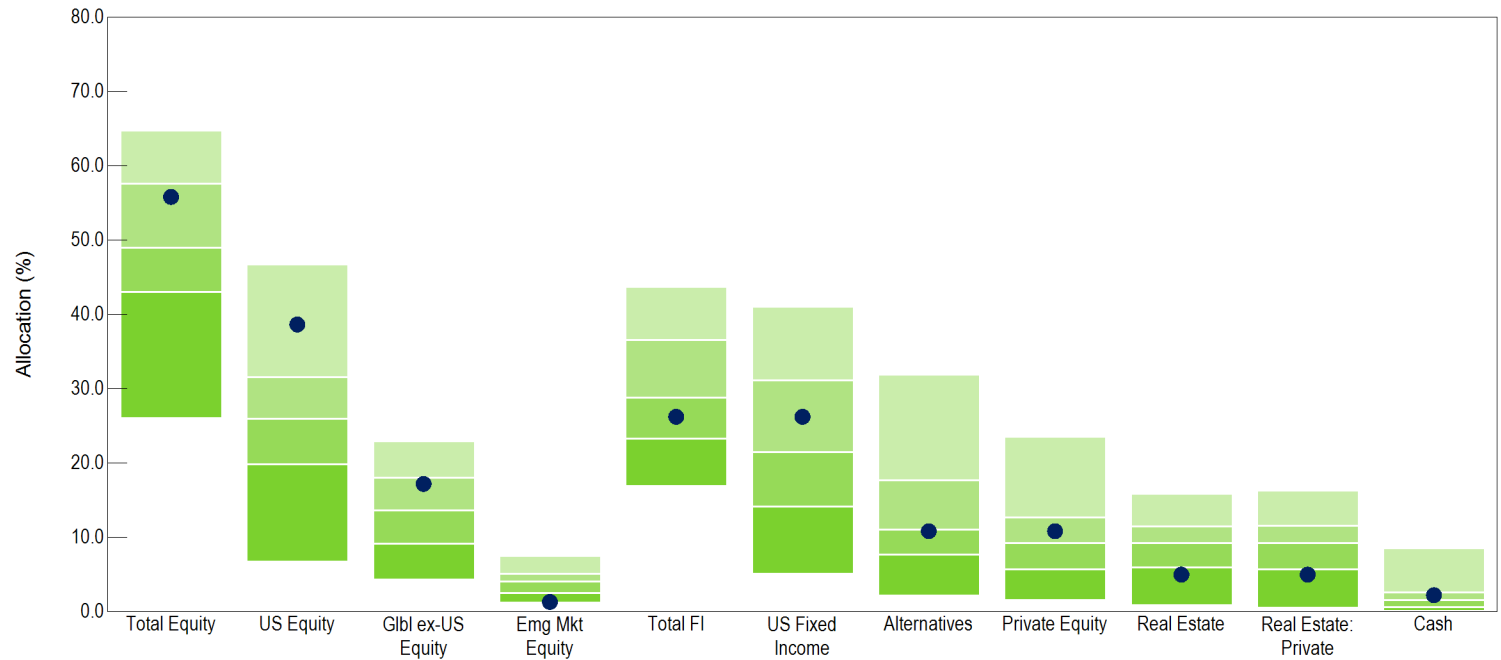
● OK TEACHERS	
Value	0.36
Rank	72
▲ TEACHERS Allocation Index	
Value	0.46
Rank	41
× TEACHERS Policy Index	
Value	0.32
Rank	83

Universe	
5th %tile	0.74
25th %tile	0.52
Median	0.44
75th %tile	0.35
95th %tile	0.19



TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

Total Plan Allocation vs. InvMetrics Public DB Gross



Allocation (Rank)

	Total Equity	US Equity	Gbl ex-US Equity	Emg Mkt Equity	Total FI	US Fixed Income	Alternatives	Private Equity	Real Estate	Real Estate: Private	Cash
5th Percentile	64.8	46.7	22.9	7.5	43.7	41.0	31.9	23.5	15.9	16.3	8.5
25th Percentile	57.7	31.7	18.1	5.1	36.6	31.2	17.8	12.8	11.5	11.6	2.7
Median	49.1	26.0	13.7	4.2	28.9	21.6	11.1	9.3	9.3	9.3	1.6
75th Percentile	43.1	19.9	9.2	2.5	23.4	14.3	7.8	5.8	6.1	5.8	0.7
95th Percentile	26.1	6.8	4.3	1.3	17.0	5.1	2.2	1.6	0.9	0.5	0.1
# of Portfolios	251	169	212	109	250	153	169	116	179	139	232
● OK TEACHERS	55.8 (31)	38.6 (10)	17.2 (29)	1.3 (96)	26.2 (64)	26.2 (36)	10.8 (54)	10.8 (39)	5.0 (81)	5.0 (81)	2.2 (33)



OK TEACHERS

Performance Attribution		
	Last 3 Mo.	1 Yr
Wtd. Actual Return	-15.4%	-6.8%
Wtd. Index Return *	-16.7%	-8.6%
Excess Return	1.2%	1.8%
Selection Effect	-1.6%	-1.3%
Allocation Effect	1.6%	2.4%
Interaction Effect	1.2%	0.6%
Returns by Asset Class		
OK TEACHERS	-15.3%	-7.1%
Total Equity Composite	-25.5%	-17.8%
U.S. Equity Comp	-26.8%	-17.6%
Domestic Passive Equity	-24.5%	-13.0%
International Equity Composite	-24.7%	-17.3%
International Small Cap Equity	-27.1%	-20.9%
Fixed Composite	1.0%	8.2%
Total Private Equity	1.2%	17.3%
Master Limited Partnerships		
Total Core Real Estate	0.8%	6.0%
Other	1.1%	2.8%

*Calculated from benchmark returns and weightings of each component.



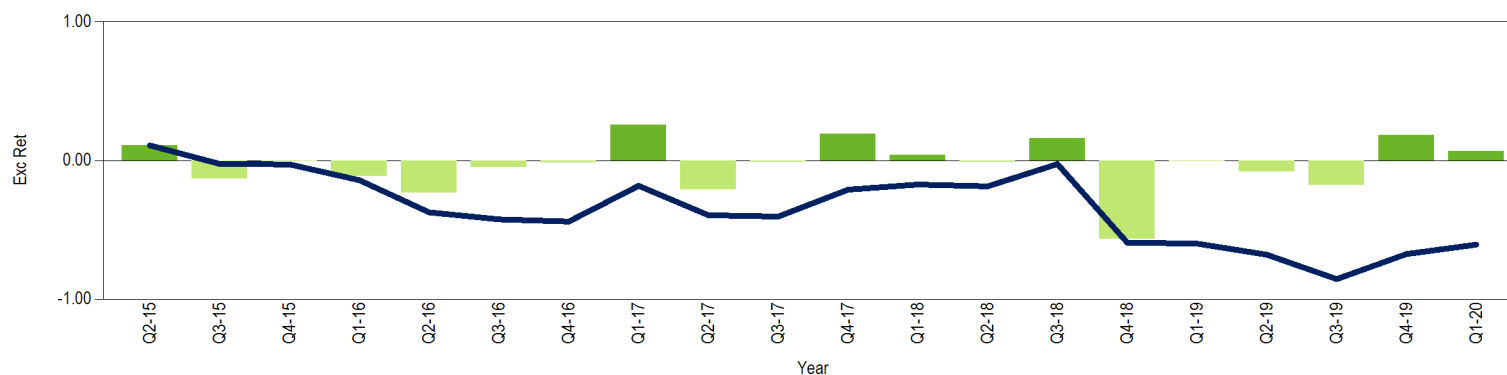
OKLAHOMA PERS



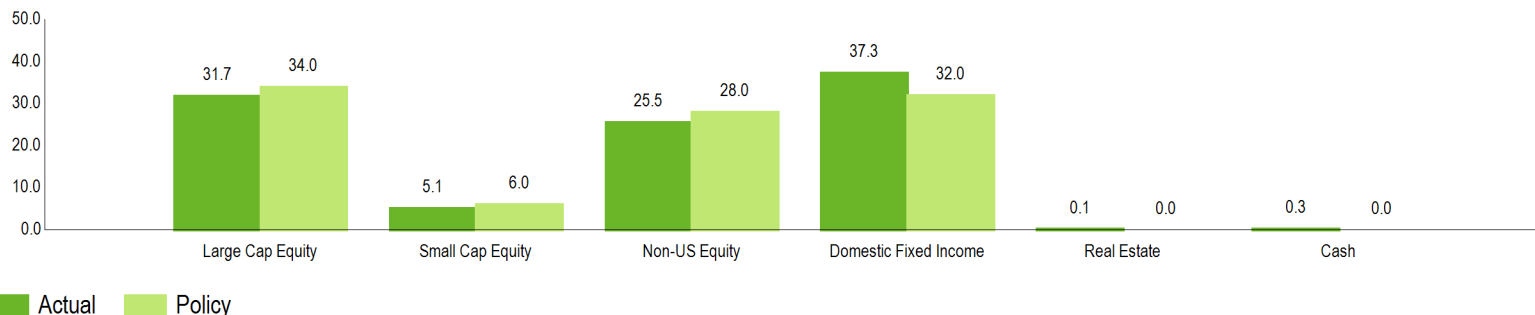
TOTAL FUND PERFORMANCE SUMMARY

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK PERS	\$8,911,616,722	-14.1%	64	-8.2%	55	-4.9%	47	2.8%	47	3.5%	52	6.7%	35
<i>PERS Allocation Index</i>		-14.1%	63	-8.2%	55	-5.0%	49	2.7%	53	3.5%	54	6.3%	52
<i>PERS Policy Index</i>		-14.2%	67	-8.3%	56	-4.9%	47	3.0%	39	3.7%	42	6.5%	43
<i>InvMetrics Public DB Gross Median</i>		-13.4%		-8.1%		-5.1%		2.8%		3.5%		6.3%	

Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)

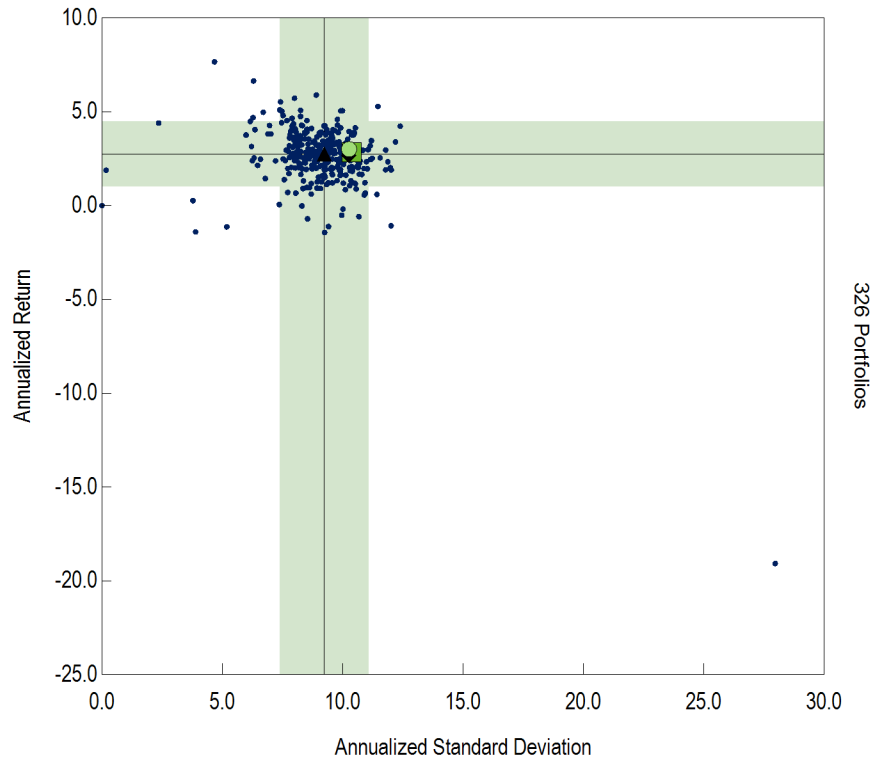


Returns are gross of manager fees.



TOTAL FUND RISK/RETURN - 3 YEARS

3 Years Ending March 31, 2020



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

3 Years Ending March 31, 2020

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK PERS	2.84%	47	10.38%	85
PERS Allocation Index	2.67%	53	10.26%	82
PERS Policy Index	3.01%	39	10.27%	82

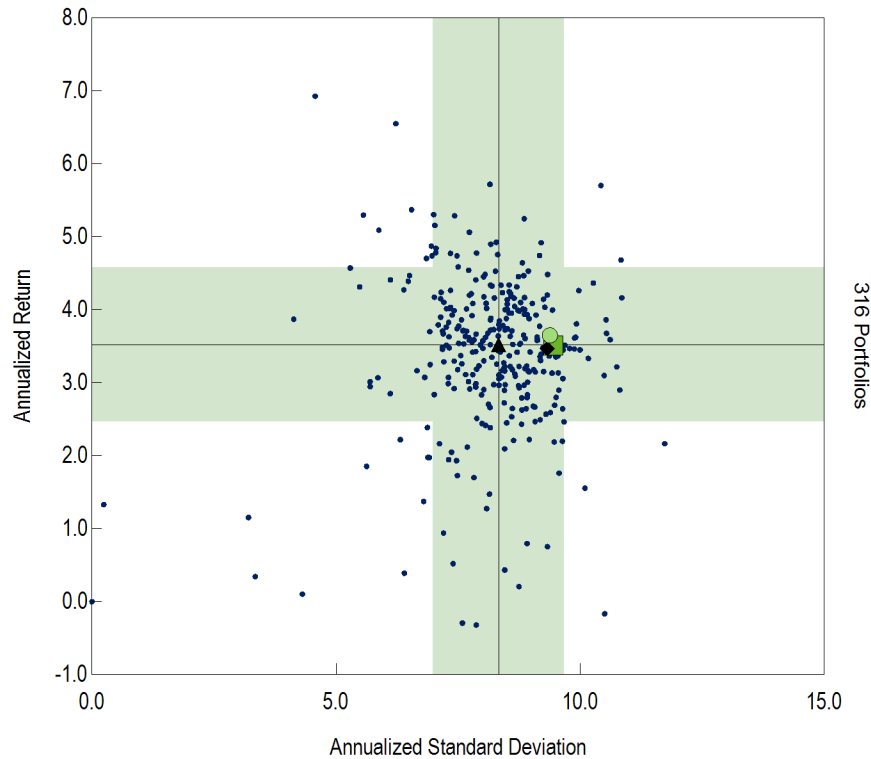
3 Years Ending March 31, 2020

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK PERS	0.11	53	0.27	52
PERS Allocation Index	0.09	59	0.26	58
PERS Policy Index	0.13	43	0.28	49



TOTAL FUND RISK/RETURN - 5 YEARS

5 Years Ending March 31, 2020



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

5 Years Ending March 31, 2020

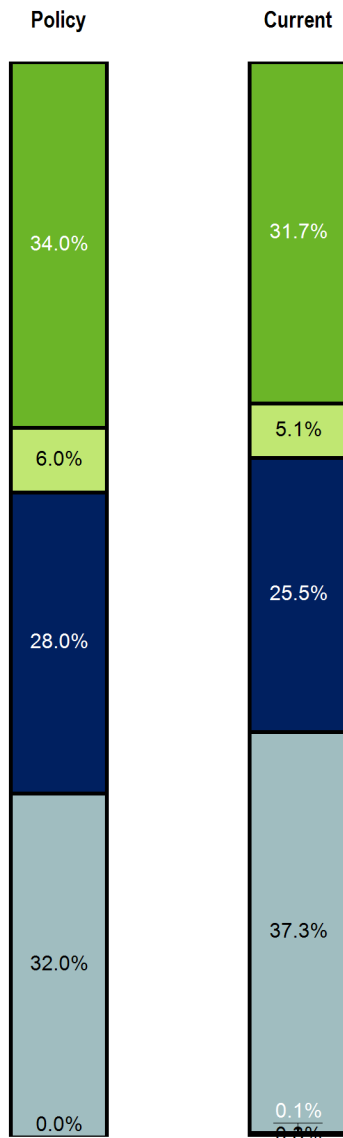
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK PERS	3.51%	52	9.45%	89
PERS Allocation Index	3.47%	54	9.32%	86
PERS Policy Index	3.65%	42	9.38%	88

5 Years Ending March 31, 2020

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK PERS	0.25	62	0.41	57
PERS Allocation Index	0.25	63	0.40	58
PERS Policy Index	0.27	57	0.42	53



TOTAL FUND ASSET ALLOCATION VS. POLICY



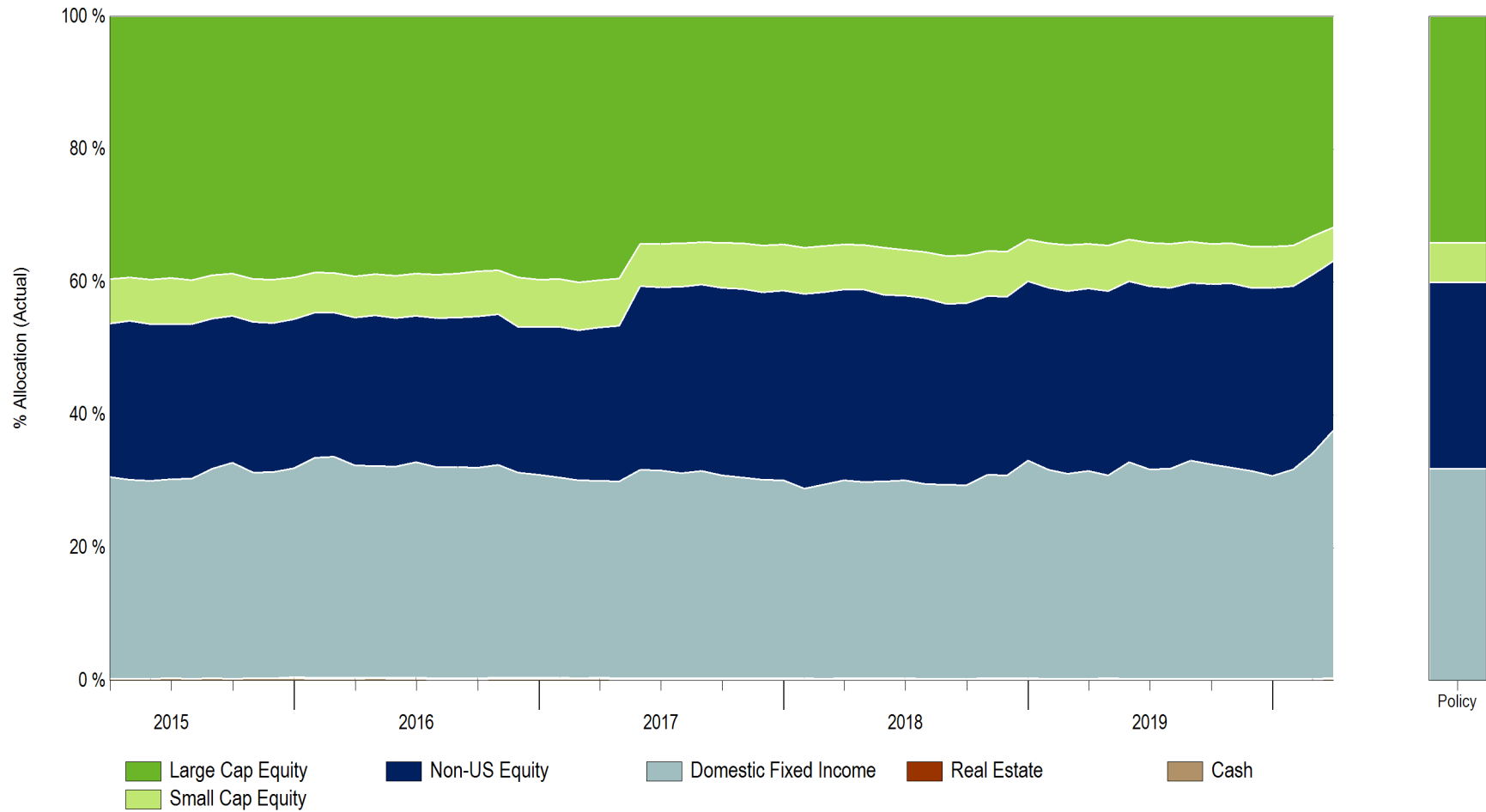
Asset Allocation vs. Target						
	Current	Policy	Current	Difference*	Policy Range	Within Range
Large Cap Equity	\$2,828,481,067	34.0%	31.7%	-2.3%	31.2% - 36.8%	Yes
Small Cap Equity	\$450,899,583	6.0%	5.1%	-0.9%	3.2% - 8.8%	Yes
Non-US Equity	\$2,272,875,933	28.0%	25.5%	-2.5%	25.0% - 31.0%	Yes
Domestic Fixed Income	\$3,325,282,449	32.0%	37.3%	5.3%	27.5% - 36.5%	No
Real Estate	\$11,750,000	0.0%	0.1%	0.1%	0.0% - 5.0%	Yes
Cash	\$22,327,691	0.0%	0.3%	0.3%	0.0% - 5.0%	Yes
Total	\$8,911,616,722	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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
OK PERS	8,911,616,722	100.0	-14.1	64	-8.2	55	-4.9	47	2.8	47	3.5	52	6.7	35
<i>PERS Allocation Index</i>			<u>-14.1</u>	63	<u>-8.2</u>	55	<u>-5.0</u>	49	<u>2.7</u>	53	<u>3.5</u>	54	<u>6.3</u>	52
Over/Under			0.0		0.0		0.1		0.1		0.0		0.4	
<i>PERS Policy Index</i>			-14.2	67	-8.3	56	-4.9	47	3.0	39	3.7	42	6.5	43
<i>InvMetrics Public DB Gross Median</i>			-13.4		-8.1		-5.1		2.8		3.5		6.3	
Domestic Equity Composite	3,279,380,650	36.8	-22.4	43	-15.0	40	-11.7	42	2.6	43	4.7	41	9.8	44
<i>Domestic Equity Benchmark</i>			<u>-21.6</u>	40	<u>-13.6</u>	35	<u>-10.1</u>	37	<u>3.5</u>	39	<u>5.4</u>	35	<u>10.0</u>	42
Over/Under			-0.8		-1.4		-1.6		-0.9		-0.7		-0.2	
<i>eV All US Equity Gross Median</i>			-24.1		-17.7		-14.4		1.0		3.5		9.3	
Aronson Johnson & Ortiz	230,431,394	2.6	-29.0	76	-24.5	86	-21.7	85	-4.4	85	-0.9	91	7.1	78
<i>Russell 1000 Value</i>			<u>-26.7</u>	58	<u>-20.2</u>	60	<u>-17.2</u>	60	<u>-2.2</u>	65	<u>1.9</u>	63	<u>7.7</u>	63
Over/Under			-2.3		-4.3		-4.5		-2.2		-2.8		-0.6	
<i>eV US Large Cap Value Equity Gross Median</i>			-26.0		-19.1		-16.1		-1.1		2.5		8.1	
Mellon	471,629,566	5.3	-21.1	67	-14.1	75	-13.1	86	1.5	81	3.6	88	9.6	75
<i>Russell 1000</i>			<u>-20.2</u>	56	<u>-11.8</u>	47	<u>-8.0</u>	50	<u>4.6</u>	43	<u>6.2</u>	42	<u>10.4</u>	43
Over/Under			-0.9		-2.3		-5.1		-3.1		-2.6		-0.8	
State Street Enhanced Index	468,914,946	5.3	-21.1	68	-12.4	55	-8.7	57	4.0	55	5.9	49	10.6	33
<i>Russell 1000</i>			<u>-20.2</u>	56	<u>-11.8</u>	47	<u>-8.0</u>	50	<u>4.6</u>	43	<u>6.2</u>	42	<u>10.4</u>	43
Over/Under			-0.9		-0.6		-0.7		-0.6		-0.3		0.2	
Blackrock Russell 1000	1,395,080,027	15.7	-20.2	56	-11.7	47	-8.0	50	4.7	43	6.3	41	--	--
<i>Russell 1000</i>			<u>-20.2</u>	56	<u>-11.8</u>	47	<u>-8.0</u>	50	<u>4.6</u>	43	<u>6.2</u>	42	<u>10.4</u>	43
Over/Under			0.0		0.1		0.0		0.1		0.1			
<i>eV US Large Cap Core Equity Gross Median</i>			-19.8		-12.1		-8.1		4.2		5.8		10.3	
UBS Global Asset Mgmt	163,377,869	1.8	-22.8	43	-21.4	64	-15.8	52	3.4	54	3.3	67	11.6	35
<i>Russell 2000 Growth</i>			<u>-25.8</u>	69	<u>-20.8</u>	60	<u>-18.6</u>	66	<u>0.1</u>	78	<u>1.7</u>	80	<u>8.9</u>	83
Over/Under			3.0		-0.6		2.8		3.3		1.6		2.7	
<i>eV US Small Cap Growth Equity Gross Median</i>			-23.6		-19.9		-15.7		3.8		4.2		10.7	

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

Returns are gross of manager fees.



Oklahoma PERS

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Barrow Hanley	148,545,546	1.7	-33.4	36	-27.2	28	-25.5	33	-8.1	44	-1.6	41	6.9	31
<i>Russell 2000 Value</i>			<u>-35.7</u>	58	<u>-30.6</u>	55	<u>-29.6</u>	61	<u>-9.5</u>	60	<u>-2.4</u>	62	<u>4.8</u>	84
Over/Under			2.3		3.4		4.1		1.4		0.8		2.1	
DePrince Race & Zollo	138,976,167	1.6	-36.5	67	-31.7	66	-28.8	51	-7.5	37	-0.5	26	--	--
<i>Russell 2000 Value</i>			<u>-35.7</u>	58	<u>-30.6</u>	55	<u>-29.6</u>	61	<u>-9.5</u>	60	<u>-2.4</u>	62	<u>4.8</u>	84
Over/Under			-0.8		-1.1		0.8		2.0		1.9			
<i>eV US Small Cap Value Equity Gross Median</i>			-35.0		-29.8		-28.6		-8.6		-2.0		6.4	
Westfield	262,425,133	2.9	-14.4	50	-4.4	33	0.6	36	11.6	39	--	--	--	--
<i>Russell 1000 Growth</i>			<u>-14.1</u>	48	<u>-3.6</u>	25	<u>0.9</u>	34	<u>11.3</u>	42	<u>10.4</u>	34	<u>13.0</u>	34
Over/Under			-0.3		-0.8		-0.3		0.3					
<i>eV US Large Cap Growth Equity Gross Median</i>			-14.4		-5.8		-0.9		10.6		9.2		12.4	
Domestic Fixed Income Composite	3,325,282,449	37.3	5.0	5	8.0	5	11.8	6	6.1	9	4.1	13	5.0	30
<i>BBgBarc US Aggregate TR</i>			<u>3.1</u>	10	<u>5.7</u>	10	<u>8.9</u>	12	<u>4.8</u>	18	<u>3.4</u>	33	<u>3.9</u>	55
Over/Under			1.9		2.3		2.9		1.3		0.7		1.1	
<i>eV All US Fixed Inc Gross Median</i>			-0.2		1.6		3.8		3.4		2.9		4.1	
Blackrock	1,599,111,945	17.9	2.5	31	5.2	29	8.4	34	4.8	39	3.5	47	4.2	60
<i>BBgBarc US Aggregate TR</i>			<u>3.1</u>	20	<u>5.7</u>	20	<u>8.9</u>	20	<u>4.8</u>	39	<u>3.4</u>	66	<u>3.9</u>	88
Over/Under			-0.6		-0.5		-0.5		0.0		0.1		0.3	
Met West	974,333,621	10.9	2.7	29	5.4	27	8.8	24	5.1	18	3.7	27	4.7	16
<i>BBgBarc US Aggregate TR</i>			<u>3.1</u>	20	<u>5.7</u>	20	<u>8.9</u>	20	<u>4.8</u>	39	<u>3.4</u>	66	<u>3.9</u>	88
Over/Under			-0.4		-0.3		-0.1		0.3		0.3		0.8	
<i>eV US Core Fixed Inc Gross Median</i>			1.9		4.4		7.7		4.7		3.5		4.2	
Hoisington	414,601,171	4.7	25.6	6	31.3	6	40.2	6	16.2	6	8.4	7	10.9	5
<i>BBgBarc US Treasury Long TR</i>			<u>20.9</u>	9	<u>25.1</u>	9	<u>32.6</u>	9	<u>13.4</u>	8	<u>7.3</u>	10	<u>9.0</u>	14
Over/Under			4.7		6.2		7.6		2.8		1.1		1.9	
<i>eV US Long Duration Fixed Inc Gross Median</i>			1.2		7.3		14.4		8.3		5.8		8.3	
Blackrock TIPS	337,235,712	3.8	1.6	43	3.8	35	6.8	23	3.6	55	2.8	52	3.6	29
<i>BBgBarc US TIPS TR</i>			<u>1.7</u>	42	<u>3.9</u>	34	<u>6.9</u>	22	<u>3.5</u>	68	<u>2.7</u>	81	<u>3.5</u>	39
Over/Under			-0.1		-0.1		-0.1		0.1		0.1		0.1	
<i>eV US Interm Duration Fixed Inc Gross Median</i>			1.3		3.2		5.8		3.7		2.8		3.4	

Returns are gross of manager fees.



Oklahoma PERS

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
International Equity Composite	2,272,875,933	25.5	-23.2	49	-17.1	51	-14.4	51	-1.3	54	0.0	61	2.8	77
MSCI ACWI ex USA			-23.4	51	-18.0	57	-15.6	57	-2.0	62	-0.6	72	2.1	92
Over/Under			0.2		0.9		1.2		0.7		0.6		0.7	
eV All ACWI ex-US Equity Gross Median			-23.3		-17.0		-14.3		-0.8		0.7		4.3	
Baillie Gifford	316,759,635	3.6	-19.5	57	-10.1	31	-4.7	24	2.7	62	3.0	54	--	--
MSCI ACWI ex USA Growth			-18.2	40	-11.2	46	-7.3	57	2.5	68	2.1	67	3.9	94
Over/Under			-1.3		1.1		2.6		0.2		0.9			
eV ACWI ex-US All Cap Growth Eq Gross Median			-19.2		-11.8		-6.6		3.1		3.2		5.9	
Blackrock ACWI Ex US	1,191,756,531	13.4	-23.3	50	-17.9	57	-15.3	56	-1.7	59	-0.4	65	2.3	87
MSCI ACWI ex USA			-23.4	51	-18.0	57	-15.6	57	-2.0	62	-0.6	72	2.1	92
Over/Under			0.1		0.1		0.3		0.3		0.2		0.2	
eV All ACWI ex-US Equity Gross Median			-23.3		-17.0		-14.3		-0.8		0.7		4.3	
Blackrock ACWI Ex US Growth	285,106,976	3.2	-19.9	66	-13.7	69	-9.9	77	1.4	81	1.7	78	3.6	97
MSCI ACWI ex USA Growth			-18.2	40	-11.2	46	-7.3	57	2.5	68	2.1	67	3.9	94
Over/Under			-1.7		-2.5		-2.6		-1.1		-0.4		-0.3	
eV ACWI ex-US All Cap Growth Eq Gross Median			-19.2		-11.8		-6.6		3.1		3.2		5.9	
Mondrian	479,252,791	5.4	-26.8	77	-21.2	78	-19.9	81	-4.2	81	-1.8	87	2.2	89
MSCI ACWI ex USA Value			-28.5	87	-24.9	95	-23.7	93	-6.5	92	-3.5	98	0.1	99
Over/Under			1.7		3.7		3.8		2.3		1.7		2.1	
eV All ACWI ex-US Equity Gross Median			-23.3		-17.0		-14.3		-0.8		0.7		4.3	
Real Estate	11,750,000	0.1	1.6	--	6.0	--	1.2	--	-0.3	--	--	--	--	--
NCREIF ODCE			1.0	--	3.8	--	4.9	--	6.8	--	8.5	--	11.4	--
Over/Under			0.6		2.2		-3.7		-7.1					
Grand Centre	11,750,000	0.1	1.6	--	6.0	--	1.2	--	-0.3	--	--	--	--	--
NCREIF ODCE			1.0	--	3.8	--	4.9	--	6.8	--	8.5	--	11.4	--
Over/Under			0.6		2.2		-3.7		-7.1					

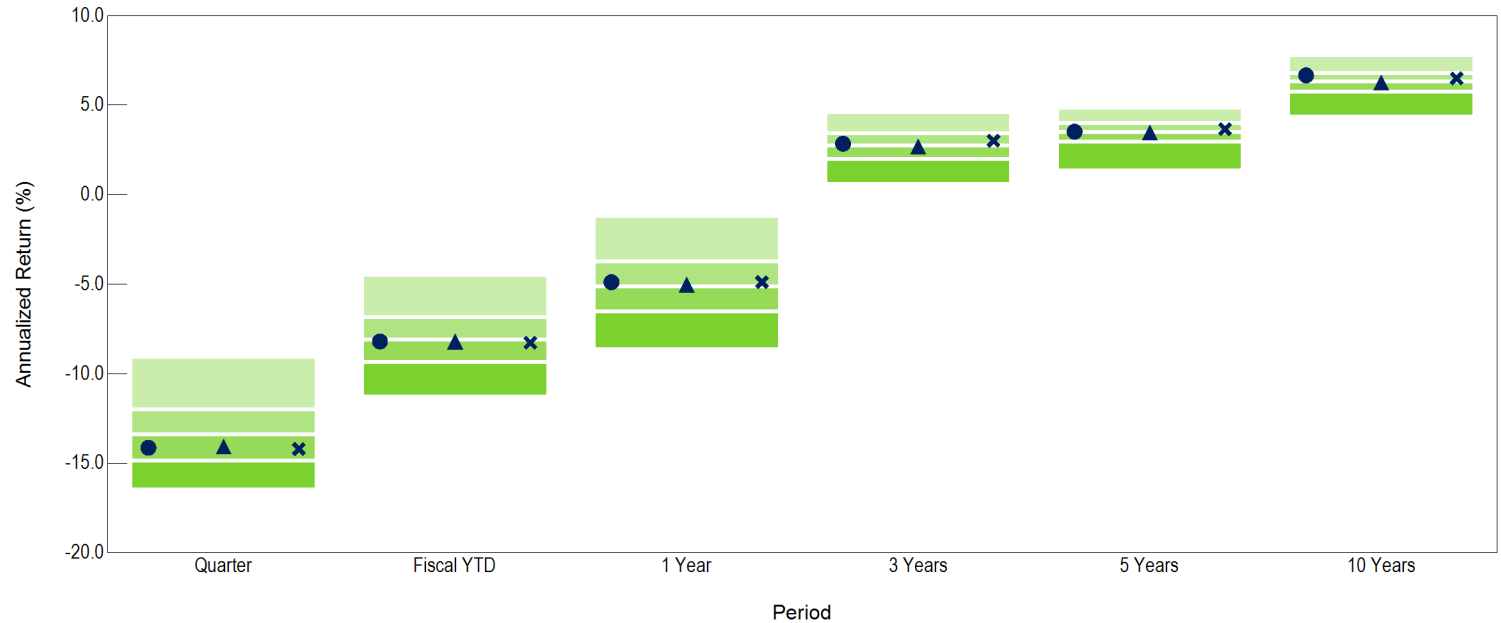
New Policy Index effective as of November 1, 2013 consist of 38% Large Cap Equity, 6% Small Cap Equity, 24% International Equity, and 32% Domestic Fixed Income.

Returns are gross of manager fees.



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

OK PERS vs. InvMetrics Public DB Gross

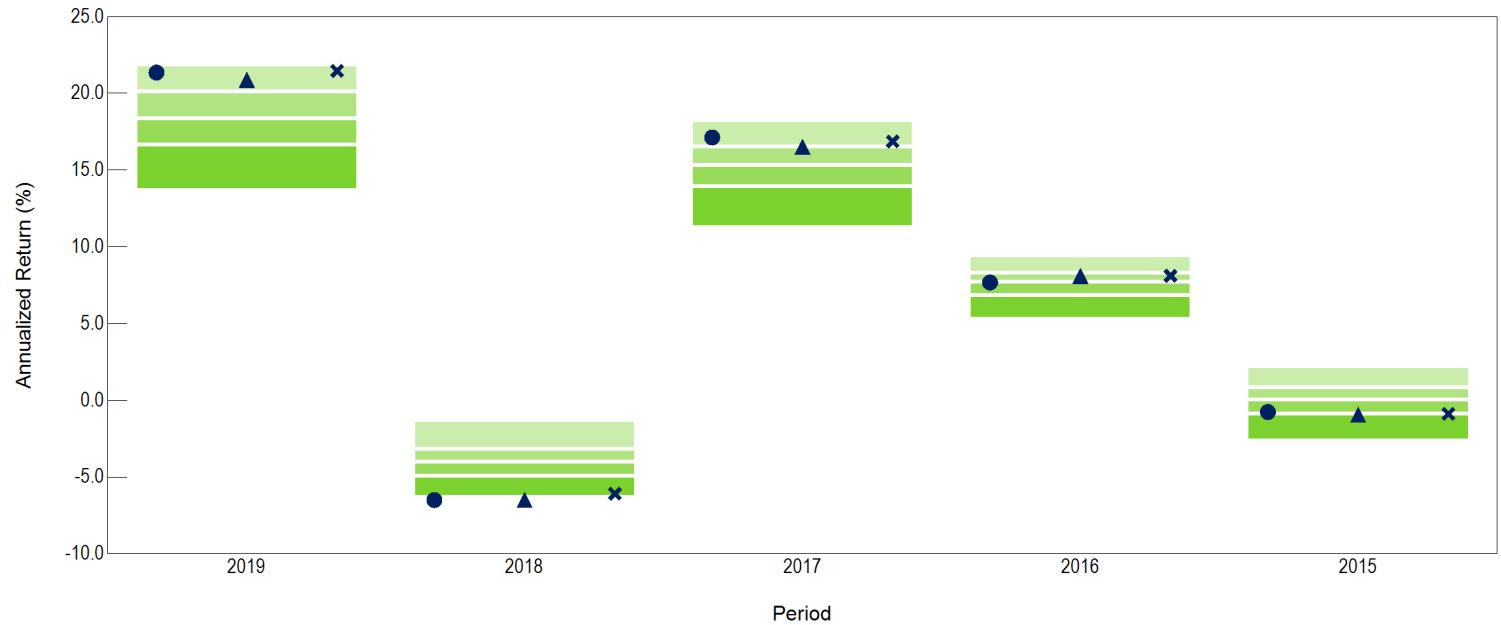


	Return (Rank)											
5th Percentile	-9.1		-4.5		-1.2		4.6		4.8		7.8	
25th Percentile	-12.0		-6.8		-3.7		3.5		4.0		6.8	
Median	-13.4		-8.1		-5.1		2.8		3.5		6.3	
75th Percentile	-14.9		-9.3		-6.5		2.0		3.0		5.8	
95th Percentile	-16.5		-11.3		-8.6		0.6		1.4		4.4	
# of Portfolios	338		337		336		326		316		277	
● OK PERS	-14.1	(64)	-8.2	(55)	-4.9	(47)	2.8	(47)	3.5	(52)	6.7	(35)
▲ PERS Allocation Index	-14.1	(63)	-8.2	(55)	-5.0	(49)	2.7	(53)	3.5	(54)	6.3	(52)
× PERS Policy Index	-14.2	(67)	-8.3	(56)	-4.9	(47)	3.0	(39)	3.7	(42)	6.5	(43)



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

OK PERS vs. InvMetrics Public DB Gross



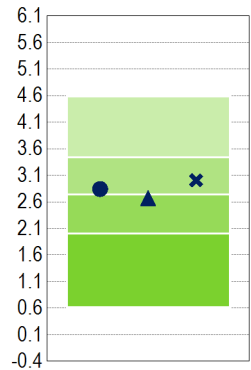
	Return (Rank)									
5th Percentile	21.9		-1.3		18.2		9.4		2.2	
25th Percentile	20.1		-3.1		16.5		8.4		0.9	
Median	18.4		-4.0		15.3		7.7		0.1	
75th Percentile	16.7		-4.9		14.0		6.9		-0.9	
95th Percentile	13.7		-6.3		11.3		5.3		-2.6	
# of Portfolios	330		319		304		305		316	
● OK PERS	21.3	(10)	-6.5	(97)	17.1	(17)	7.7	(52)	-0.8	(73)
▲ PERS Allocation Index	20.9	(16)	-6.5	(97)	16.5	(26)	8.1	(34)	-0.9	(77)
× PERS Policy Index	21.5	(8)	-6.1	(94)	16.9	(21)	8.1	(34)	-0.9	(76)



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

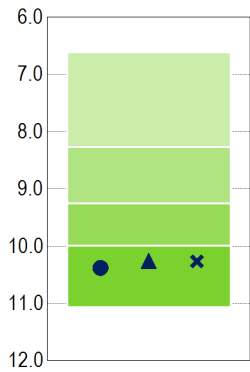
OK PERS vs. InvMetrics Public DB Gross 3 Years

Anlzd Return



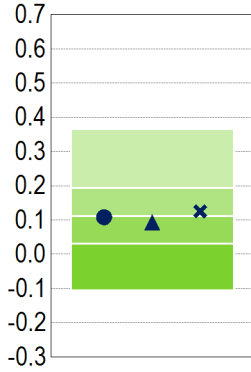
● OK PERS	
Value	2.84
Rank	47
▲ PERS Allocation Index	
Value	2.67
Rank	53
× PERS Policy Index	
Value	3.01
Rank	39
Universe	
5th %tile	4.58
25th %tile	3.45
Median	2.75
75th %tile	2.02
95th %tile	0.63

Anlzd Standard Deviation



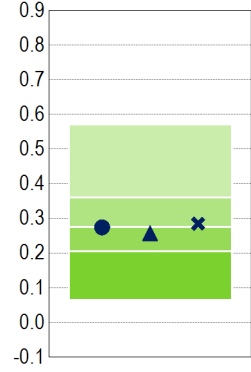
● OK PERS	
Value	10.38
Rank	85
▲ PERS Allocation Index	
Value	10.26
Rank	82
× PERS Policy Index	
Value	10.27
Rank	82
Universe	
5th %tile	6.62
25th %tile	8.25
Median	9.24
75th %tile	9.98
95th %tile	11.06

Sharpe Ratio



● OK PERS	
Value	0.11
Rank	53
▲ PERS Allocation Index	
Value	0.09
Rank	59
× PERS Policy Index	
Value	0.13
Rank	43
Universe	
5th %tile	0.37
25th %tile	0.19
Median	0.11
75th %tile	0.03
95th %tile	-0.10

Sortino Ratio



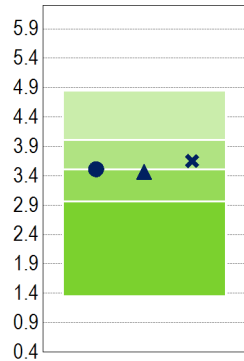
● OK PERS	
Value	0.27
Rank	52
▲ PERS Allocation Index	
Value	0.26
Rank	58
× PERS Policy Index	
Value	0.28
Rank	49
Universe	
5th %tile	0.57
25th %tile	0.36
Median	0.28
75th %tile	0.21
95th %tile	0.07



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

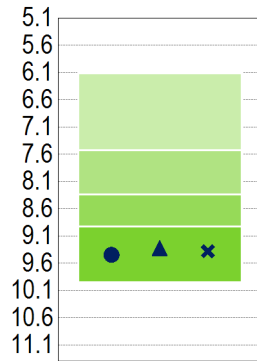
OK PERS vs. InvMetrics Public DB Gross 5 Years

Anlzd Return



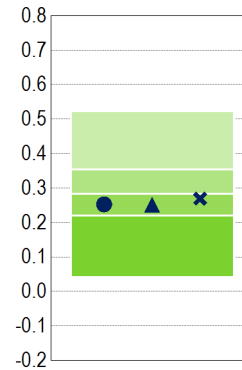
● OK PERS	
Value	3.51
Rank	52
▲ PERS Allocation Index	
Value	3.47
Rank	54
× PERS Policy Index	
Value	3.65
Rank	42
Universe	
5th %tile	4.85
25th %tile	4.02
Median	3.52
75th %tile	2.97
95th %tile	1.36

Anlzd Standard Deviation



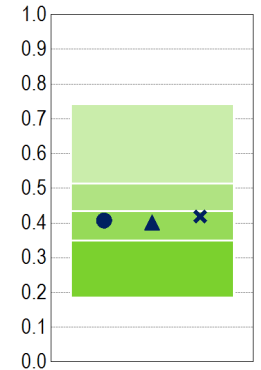
● OK PERS	
Value	9.45
Rank	89
▲ PERS Allocation Index	
Value	9.32
Rank	86
× PERS Policy Index	
Value	9.38
Rank	88
Universe	
5th %tile	6.11
25th %tile	7.51
Median	8.33
75th %tile	8.92
95th %tile	9.94

Sharpe Ratio



● OK PERS	
Value	0.25
Rank	62
▲ PERS Allocation Index	
Value	0.25
Rank	63
× PERS Policy Index	
Value	0.27
Rank	57
Universe	
5th %tile	0.52
25th %tile	0.36
Median	0.29
75th %tile	0.22
95th %tile	0.04

Sortino Ratio

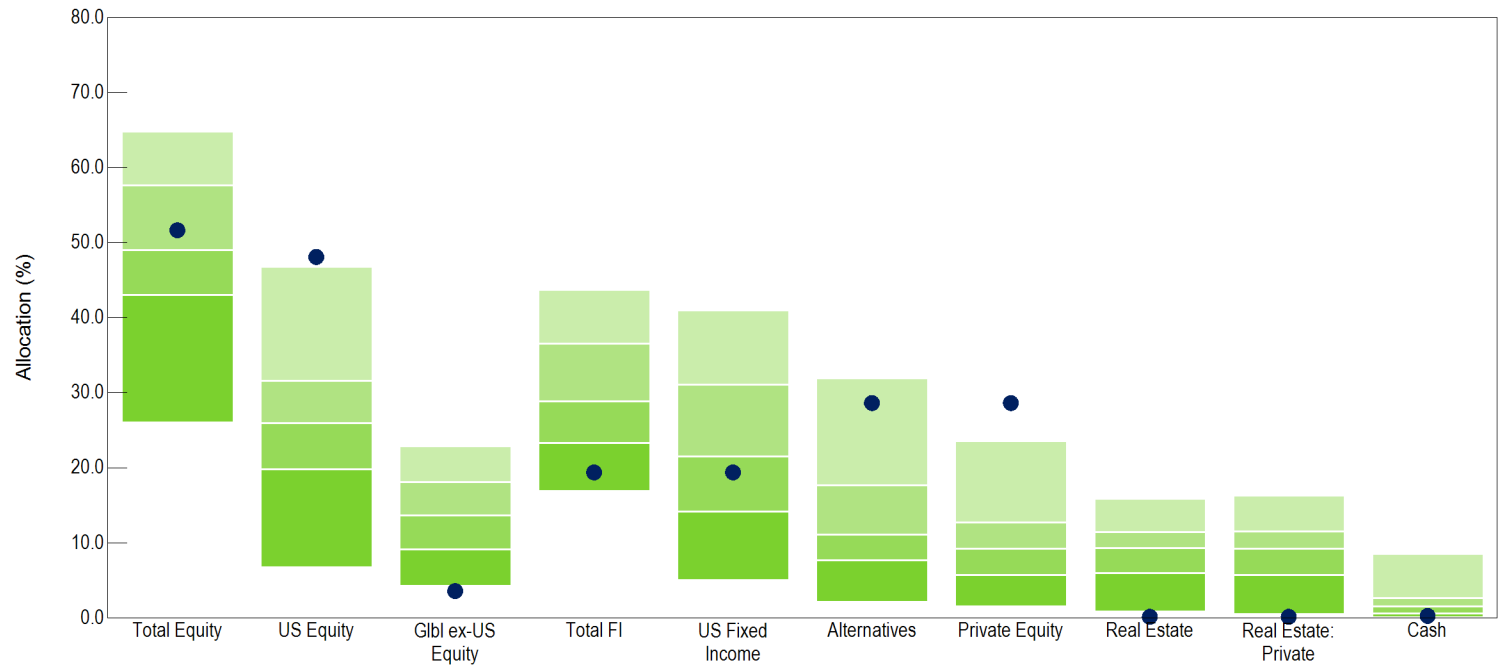


● OK PERS	
Value	0.41
Rank	57
▲ PERS Allocation Index	
Value	0.40
Rank	58
× PERS Policy Index	
Value	0.42
Rank	53
Universe	
5th %tile	0.74
25th %tile	0.52
Median	0.44
75th %tile	0.35
95th %tile	0.19



TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

Total Plan Allocation vs. InvMetrics Public DB Gross



	Allocation (Rank)																					
5th Percentile	64.8	46.7	22.9	43.7	41.0	31.9	23.5	15.9	16.3	8.5	-	64.8	46.7	22.9	43.7	41.0	31.9	23.5	15.9	16.3	8.5	-
25th Percentile	57.7	31.7	18.1	36.6	31.2	17.8	12.8	11.5	11.6	2.7	-	57.7	31.7	18.1	36.6	31.2	17.8	12.8	11.5	11.6	2.7	-
Median	49.1	26.0	13.7	28.9	21.6	11.1	9.3	9.3	9.3	1.6	-	49.1	26.0	13.7	28.9	21.6	11.1	9.3	9.3	9.3	1.6	-
75th Percentile	43.1	19.9	9.2	23.4	14.3	7.8	5.8	6.1	5.8	0.7	-	43.1	19.9	9.2	23.4	14.3	7.8	5.8	6.1	5.8	0.7	-
95th Percentile	26.1	6.8	4.3	17.0	5.1	2.2	1.6	0.9	0.5	0.1	-	26.1	6.8	4.3	17.0	5.1	2.2	1.6	0.9	0.5	0.1	-
# of Portfolios	251	169	212	250	153	169	116	179	139	232	-	251	169	212	250	153	169	116	179	139	232	-
● OK PERS	51.6	(41)	48.1	(5)	3.6	(99)	19.4	(90)	19.4	(58)	28.6	(9)	28.6	(4)	0.1	(99)	0.1	(99)	0.3	(90)	-	



TOTAL FUND ATTRIBUTION ANALYSIS

Performance Attribution		
	Last 3 Mo.	1 Yr
Wtd. Actual Return	-14.1%	-4.9%
Wtd. Index Return *	-14.2%	-5.0%
Excess Return	0.1%	0.1%
Selection Effect	-0.1%	0.1%
Allocation Effect	0.2%	0.1%
Interaction Effect	0.0%	0.0%
Asset Class Returns		
OK PERS	-14.1%	-4.9%
Domestic Equity Composite	-22.4%	-11.7%
Domestic Fixed Income Composite	5.0%	11.8%
International Equity Composite	-23.2%	-14.4%
Cash Composite	2.6%	5.9%
Z TERMINATED - R/E Composite		
Real Estate	1.6%	1.2%

*Calculated from benchmark returns and weightings of each component.

Z TERMINATED represents Composite that fully liquidated.



OKLAHOMA FIREFIGHTERS

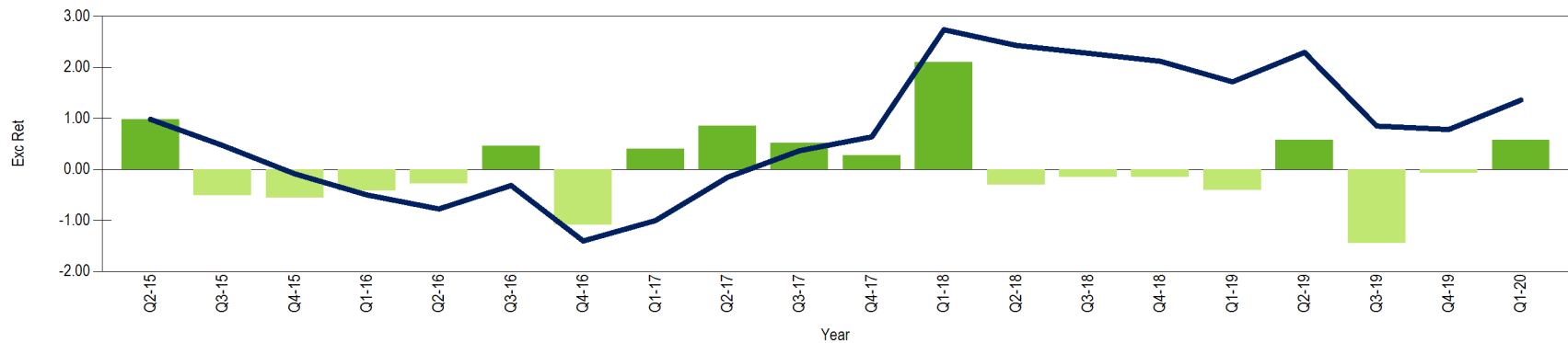


Oklahoma Firefighters

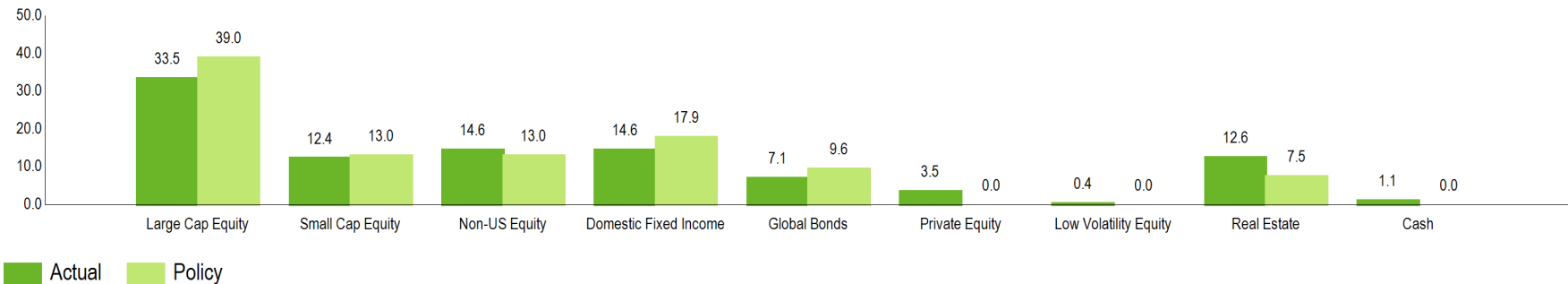
TOTAL FUND PERFORMANCE SUMMARY

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK FIREFIGHTERS	\$2,576,221,981	-13.0%	44	-8.0%	50	-4.2%	31	4.7%	5	5.2%	3	7.7%	6
<i>FIREFIGHTERS Allocation Index</i>		-15.3%	83	-9.7%	79	-6.8%	80	2.8%	48	4.0%	25	7.1%	13
<i>FIREFIGHTERS Policy Index</i>		-13.5%	54	-7.3%	34	-3.9%	28	3.9%	15	5.0%	4	7.9%	4
<i>InvMetrics Public DB Gross Median</i>		-13.4%		-8.1%		-5.1%		2.8%		3.5%		6.3%	

Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)



Actual Policy

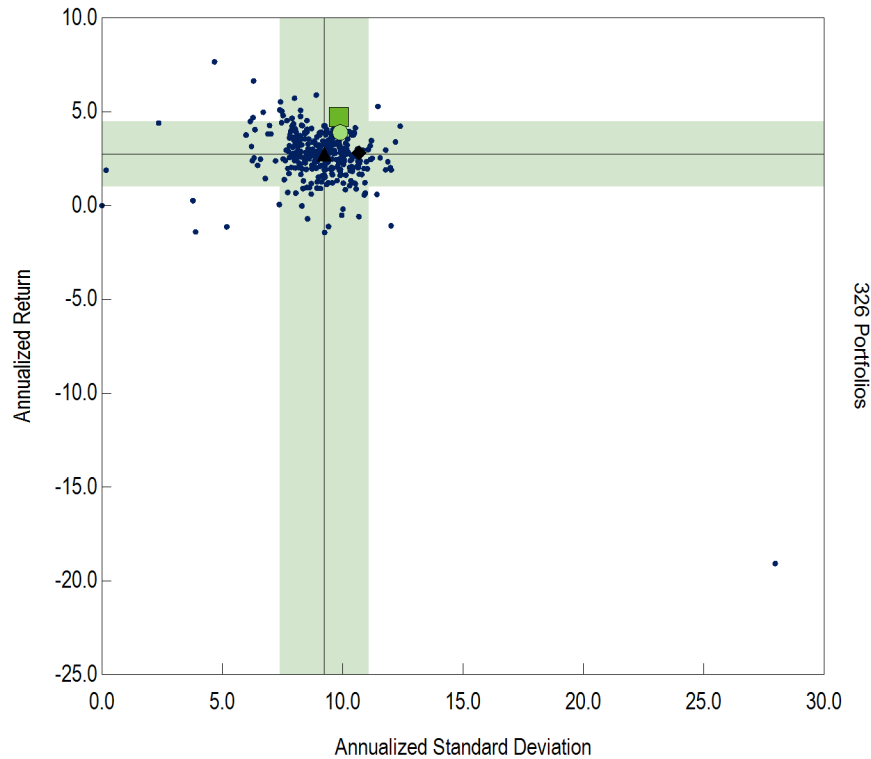
Returns are gross of manager fees.



Oklahoma Firefighters

TOTAL FUND RISK/RETURN - 3 YEARS

3 Years Ending March 31, 2020



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

3 Years Ending March 31, 2020				
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK FIREFIGHTERS	4.73%	5	9.84%	71
FIREFIGHTERS Allocation Index	2.81%	48	10.69%	92
FIREFIGHTERS Policy Index	3.90%	15	9.90%	72

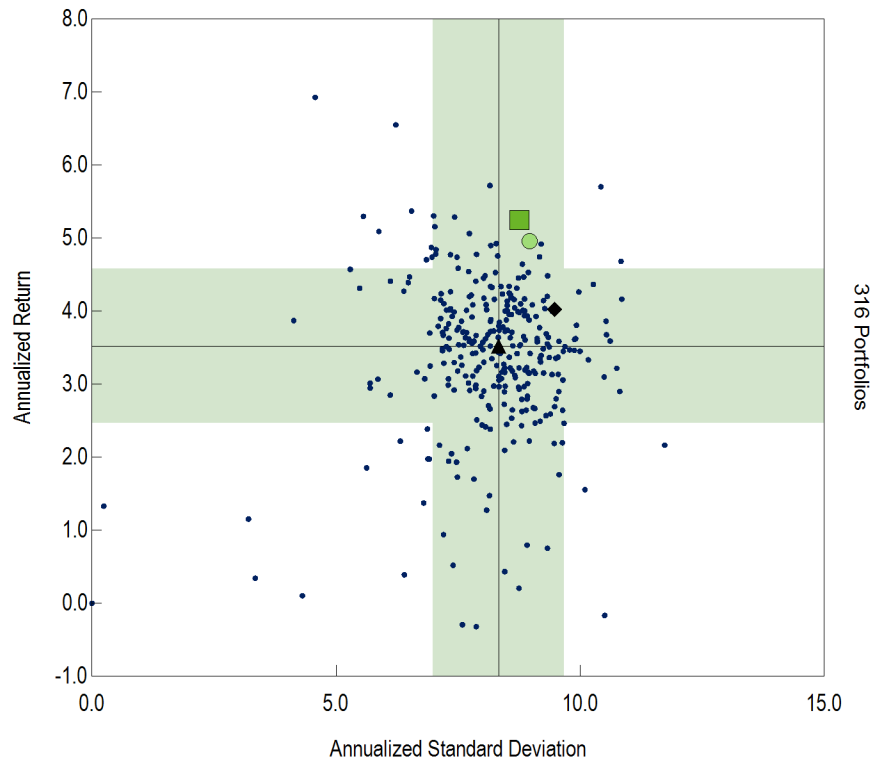
3 Years Ending March 31, 2020				
	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK FIREFIGHTERS	0.31	9	0.48	9
FIREFIGHTERS Allocation Index	0.10	56	0.26	56
FIREFIGHTERS Policy Index	0.22	21	0.40	17



Oklahoma Firefighters

TOTAL FUND RISK/RETURN - 5 YEARS

5 Years Ending March 31, 2020



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

5 Years Ending March 31, 2020

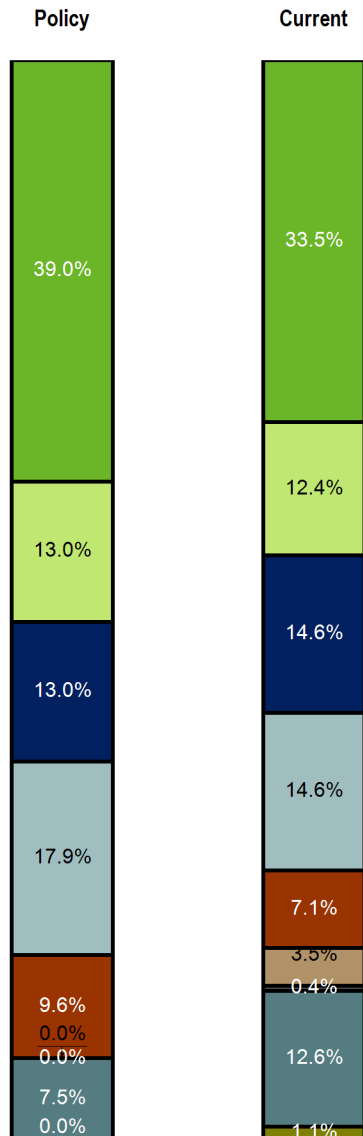
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK FIREFIGHTERS	5.25%	3	8.76%	69
FIREFIGHTERS Allocation Index	4.02%	25	9.48%	90
FIREFIGHTERS Policy Index	4.96%	4	8.97%	78

5 Years Ending March 31, 2020

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK FIREFIGHTERS	0.47	8	0.64	9
FIREFIGHTERS Allocation Index	0.31	46	0.44	50
FIREFIGHTERS Policy Index	0.43	12	0.60	13



TOTAL PLAN ASSET ALLOCATION VS. POLICY



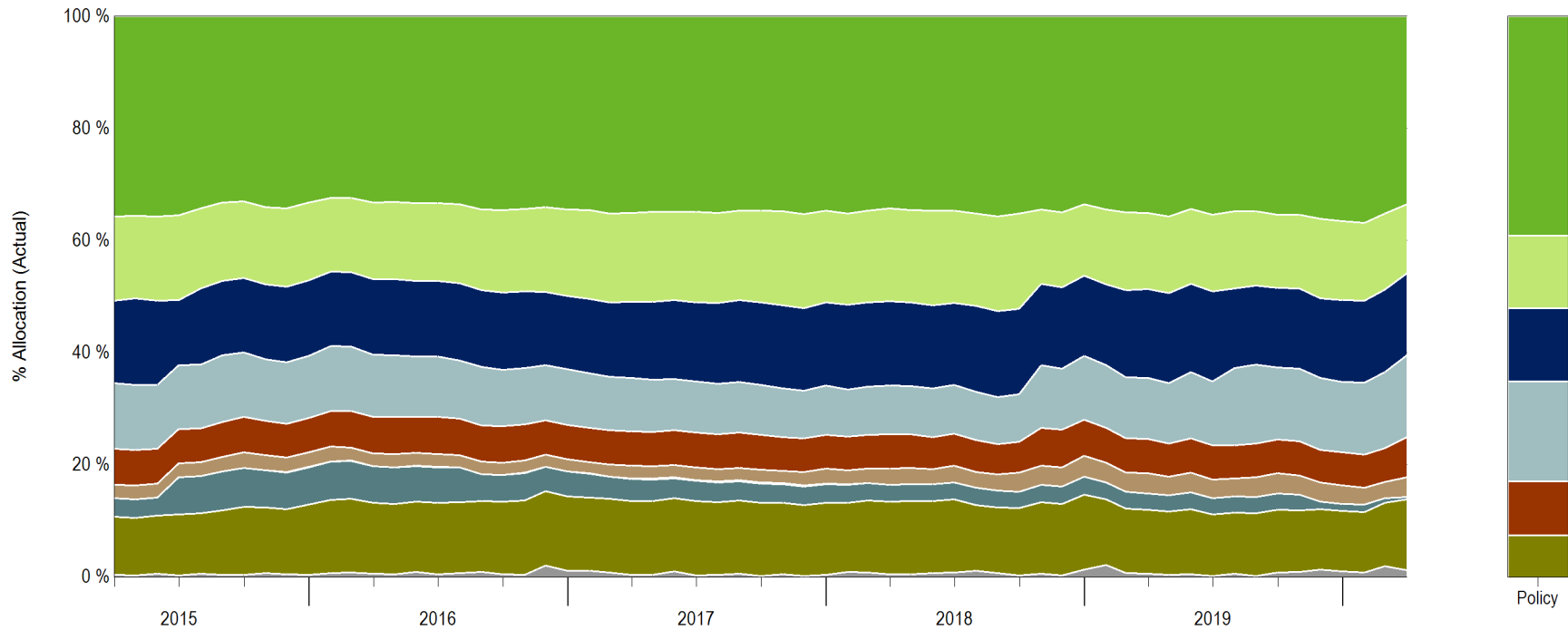
		Asset Allocation vs. Target					
		Current	Policy	Current Difference*	Policy Range	Within Range	
	Large Cap Equity	\$863,408,854	39.0%	33.5%	-5.5%	34.0% - 44.0%	No
	Small Cap Equity	\$318,495,778	13.0%	12.4%	-0.6%	8.0% - 18.0%	Yes
	Non-US Equity	\$376,106,480	13.0%	14.6%	1.6%	8.0% - 18.0%	Yes
	Domestic Fixed Income	\$376,704,017	17.9%	14.6%	-3.3%	12.9% - 22.9%	Yes
	Global Bonds	\$183,982,218	9.6%	7.1%	-2.5%	4.6% - 14.6%	Yes
	Private Equity	\$90,961,500	0.0%	3.5%	3.5%	0.0% - 10.0%	Yes
	Low Volatility Equity	\$11,481,281	0.0%	0.4%	0.4%	0.0% - 10.0%	Yes
	Real Estate	\$325,554,666	7.5%	12.6%	5.1%	2.5% - 12.5%	No
	Cash	\$29,527,187	0.0%	1.1%	1.1%	0.0% - 5.0%	Yes
Total		\$2,576,221,981	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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
OK FIREFIGHTERS	2,576,221,981	100.0	-13.0	44	-8.0	50	-4.2	31	4.7	5	5.2	3	7.7	6
<i>FIREFIGHTERS Allocation Index</i>			<u>-15.3</u>	83	<u>-9.7</u>	79	<u>-6.8</u>	80	<u>2.8</u>	48	<u>4.0</u>	25	<u>7.1</u>	13
Over/Under			2.3		1.7		2.6		1.9		1.2		0.6	
<i>FIREFIGHTERS Policy Index</i>			<u>-13.5</u>	54	<u>-7.3</u>	34	<u>-3.9</u>	28	<u>3.9</u>	15	<u>5.0</u>	4	<u>7.9</u>	4
<i>InvMetrics Public DB Gross Median</i>			<u>-13.4</u>		<u>-8.1</u>		<u>-5.1</u>		<u>2.8</u>		<u>3.5</u>		<u>6.3</u>	
Domestic Equity Composite	1,181,904,633	45.9	-21.1	38	-14.9	40	-10.5	38	4.2	34	5.4	35	9.9	44
<i>Russell 3000</i>			<u>-20.9</u>	36	<u>-12.7</u>	31	<u>-9.1</u>	33	<u>4.0</u>	36	<u>5.8</u>	32	<u>10.1</u>	40
Over/Under			<u>-0.2</u>		<u>-2.2</u>		<u>-1.4</u>		<u>0.2</u>		<u>-0.4</u>		<u>-0.2</u>	
<i>eV All US Equity Gross Median</i>			<u>-24.1</u>		<u>-17.7</u>		<u>-14.4</u>		<u>1.0</u>		<u>3.5</u>		<u>9.3</u>	
Large Cap Equity Composite	863,408,854	33.5	-20.5	34	-12.5	30	-8.4	30	4.3	34	5.6	34	10.2	39
<i>Russell 1000</i>			<u>-20.2</u>	33	<u>-11.8</u>	27	<u>-8.0</u>	28	<u>4.6</u>	32	<u>6.2</u>	27	<u>10.4</u>	35
Over/Under			<u>-0.3</u>		<u>-0.7</u>		<u>-0.4</u>		<u>-0.3</u>		<u>-0.6</u>		<u>-0.2</u>	
<i>eV All US Equity Gross Median</i>			<u>-24.1</u>		<u>-17.7</u>		<u>-14.4</u>		<u>1.0</u>		<u>3.5</u>		<u>9.3</u>	
Aronson	70,365,750	2.7	-28.9	76	-24.5	87	-21.8	86	-4.3	84	-0.9	91	7.1	78
<i>Russell 1000 Value</i>			<u>-26.7</u>	58	<u>-20.2</u>	60	<u>-17.2</u>	60	<u>-2.2</u>	65	<u>1.9</u>	63	<u>7.7</u>	63
Over/Under			<u>-2.2</u>		<u>-4.3</u>		<u>-4.6</u>		<u>-2.1</u>		<u>-2.8</u>		<u>-0.6</u>	
SSgA Equity Index	186,821,942	7.3	-19.6	47	-10.8	39	-7.0	42	5.1	35	6.8	28	10.6	34
<i>S&P 500</i>			<u>-19.6</u>	47	<u>-10.8</u>	39	<u>-7.0</u>	42	<u>5.1</u>	35	<u>6.7</u>	28	<u>10.5</u>	37
Over/Under			0.0		0.0		0.0		0.0		0.1		0.1	
SSgA EQ Wtd S&P	162,473,925	6.3	-27.3	98	-20.8	98	-17.7	98	-0.5	96	2.8	91	9.2	81
<i>S&P 500</i>			<u>-19.6</u>	47	<u>-10.8</u>	39	<u>-7.0</u>	42	<u>5.1</u>	35	<u>6.7</u>	28	<u>10.5</u>	37
Over/Under			<u>-7.7</u>		<u>-10.0</u>		<u>-10.7</u>		<u>-5.6</u>		<u>-3.9</u>		<u>-1.3</u>	
Intech	180,285,319	7.0	-19.5	45	-10.9	40	-6.3	32	4.9	37	5.9	48	10.7	30
<i>S&P 500</i>			<u>-19.6</u>	47	<u>-10.8</u>	39	<u>-7.0</u>	42	<u>5.1</u>	35	<u>6.7</u>	28	<u>10.5</u>	37
Over/Under			0.1		<u>-0.1</u>		0.7		<u>-0.2</u>		<u>-0.8</u>		0.2	
<i>eV US Large Cap Core Equity Gross Median</i>			<u>-19.8</u>		<u>-12.1</u>		<u>-8.1</u>		<u>4.2</u>		<u>5.8</u>		<u>10.3</u>	

Returns are gross of manager fees.



Oklahoma Firefighters

TOTAL PLAN PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Fred Alger Management	181,919,350	7.1	-11.1	15	-2.1	10	3.9	8	12.8	27	10.5	31	--	--
<i>Russell 1000 Growth</i>			<u>-14.1</u>	48	<u>-3.6</u>	25	<u>0.9</u>	34	<u>11.3</u>	42	<u>10.4</u>	34	<u>13.0</u>	34
Over/Under			3.0		1.5		3.0		1.5		0.1			
<i>eV US Large Cap Growth Equity Gross Median</i>			-14.4		-5.8		-0.9		10.6		9.2		12.4	
Beutel Goodman Company	81,542,569	3.2	-20.3	--	-10.3	--	-6.1	--	2.7	--	--	--	--	--
<i>Russell 1000 Value</i>			<u>-26.7</u>	--	<u>-20.2</u>	--	<u>-17.2</u>	--	<u>-2.2</u>	--	<u>1.9</u>	--	<u>7.7</u>	--
Over/Under			6.4		9.9		11.1		4.9					
Small Cap Equity Composite	298,879,319	11.6	-24.1	20	-21.8	31	-17.3	26	4.4	15	5.1	15	10.1	25
<i>Russell 2000</i>			<u>-30.6</u>	49	<u>-25.5</u>	47	<u>-24.0</u>	49	<u>-4.6</u>	50	<u>-0.2</u>	54	<u>6.9</u>	64
Over/Under			6.5		3.7		6.7		9.0		5.3		3.2	
<i>eV US Small Cap Equity Gross Median</i>			-31.0		-26.1		-24.3		-4.7		0.1		7.8	
Earnest Partner	72,263,901	2.8	-27.6	9	-22.5	9	-18.7	6	-1.5	5	2.4	7	8.6	8
<i>Russell 2000 Value</i>			<u>-35.7</u>	58	<u>-30.6</u>	55	<u>-29.6</u>	61	<u>-9.5</u>	60	<u>-2.4</u>	62	<u>4.8</u>	84
Over/Under			8.1		8.1		10.9		8.0		4.8		3.8	
River Road	64,347,567	2.5	-32.6	26	-27.3	30	-22.8	13	-2.5	8	3.4	4	7.5	18
<i>Russell 2000 Value</i>			<u>-35.7</u>	58	<u>-30.6</u>	55	<u>-29.6</u>	61	<u>-9.5</u>	60	<u>-2.4</u>	62	<u>4.8</u>	84
Over/Under			3.1		3.3		6.8		7.0		5.8		2.7	
<i>eV US Small Cap Value Equity Gross Median</i>			-35.0		-29.8		-28.6		-8.6		-2.0		6.4	
Lord Abbet	80,293,087	3.1	-16.7	9	-20.4	57	-13.0	34	12.5	10	5.5	36	--	--
<i>Russell 2000 Growth</i>			<u>-25.8</u>	69	<u>-20.8</u>	60	<u>-18.6</u>	66	<u>0.1</u>	78	<u>1.7</u>	80	<u>8.9</u>	83
Over/Under			9.1		0.4		5.6		12.4		3.8			
Delaware Small Growth	81,974,765	3.2	-19.6	22	-17.6	34	-15.3	48	9.0	22	8.5	17	--	--
<i>Russell 2500 Growth</i>			<u>-23.2</u>	45	<u>-17.8</u>	35	<u>-14.4</u>	40	<u>3.4</u>	55	<u>3.6</u>	61	<u>10.1</u>	62
Over/Under			3.6		0.2		-0.9		5.6		4.9			
<i>eV US Small Cap Growth Equity Gross Median</i>			-23.6		-19.9		-15.7		3.8		4.2		10.7	

Returns are gross of manager fees.



Oklahoma Firefighters

TOTAL PLAN PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Tortoise Direct Opportunities	19,616,459	0.8	1.5	--	-0.9	--	10.5	--	-0.8	--	--	--	--	--
Alerian MLP Index			<u>-57.2</u>	--	<u>-61.0</u>	--	<u>-60.9</u>	--	<u>-28.9</u>	--	<u>-20.7</u>	--	<u>-5.0</u>	--
Over/Under			58.7		60.1		71.4		28.1					
International Equity Composite	376,106,480	14.6	-13.5	1	-7.9	4	-1.8	4	5.3	12	5.0	11	4.4	50
MSCI ACWI ex USA			<u>-23.4</u>	51	<u>-18.0</u>	57	<u>-15.6</u>	57	<u>-2.0</u>	62	<u>-0.6</u>	72	<u>2.1</u>	92
Over/Under			9.9		10.1		13.8		7.3		5.6		2.3	
eV All ACWI ex-US Equity Gross Median			-23.3		-17.0		-14.3		-0.8		0.7		4.3	
Chautauqua	140,519,347	5.5	-1.0	1	1.9	1	7.8	1	8.1	4	7.0	5	--	--
MSCI EAFE			<u>-22.8</u>	46	<u>-17.4</u>	52	<u>-14.4</u>	51	<u>-1.8</u>	60	<u>-0.6</u>	71	<u>2.7</u>	79
Over/Under			21.8		19.3		22.2		9.9		7.6			
eV All ACWI ex-US Equity Gross Median			-23.3		-17.0		-14.3		-0.8		0.7		4.3	
WCM	152,010,323	5.9	-16.5	7	-8.4	6	1.2	2	8.9	3	8.1	3	--	--
MSCI EAFE			<u>-22.8</u>	46	<u>-17.4</u>	52	<u>-14.4</u>	51	<u>-1.8</u>	60	<u>-0.6</u>	71	<u>2.7</u>	79
Over/Under			6.3		9.0		15.6		10.7		8.7			
eV All ACWI ex-US Equity Gross Median			-23.3		-17.0		-14.3		-0.8		0.7		4.3	
Emerging Markets Equity Composite	83,547,330	3.2	-24.5	47	-20.2	54	-18.3	48	-4.0	71	-2.7	88	--	--
MSCI Emerging Markets			<u>-23.6</u>	35	<u>-18.2</u>	39	<u>-17.7</u>	44	<u>-1.6</u>	44	<u>-0.4</u>	56	<u>0.7</u>	83
Over/Under			-0.9		-2.0		-0.6		-2.4		-2.3			
eV Emg Mkts Equity Gross Median			-24.8		-19.6		-18.5		-2.0		0.1		2.1	
RBC GAM EMERGING MARKETS	42,014,800	1.6	-23.2	29	-19.8	52	-17.1	40	--	--	--	--	--	--
MSCI Emerging Markets			<u>-23.6</u>	35	<u>-18.2</u>	39	<u>-17.7</u>	44	<u>-1.6</u>	44	<u>-0.4</u>	56	<u>0.7</u>	83
Over/Under			0.4		-1.6		0.6							
eV Emg Mkts Equity Gross Median			-24.8		-19.6		-18.5		-2.0		0.1		2.1	
Wellington Emerging Markets	41,532,530	1.6	-25.8	62	-20.7	60	-19.5	59	--	--	--	--	--	--
MSCI Emerging Markets			<u>-23.6</u>	35	<u>-18.2</u>	39	<u>-17.7</u>	44	<u>-1.6</u>	44	<u>-0.4</u>	56	<u>0.7</u>	83
Over/Under			-2.2		-2.5		-1.8							
eV Emg Mkts Equity Gross Median			-24.8		-19.6		-18.5		-2.0		0.1		2.1	
Fixed Income Composite	560,686,235	21.8	-3.0	68	-0.8	72	1.7	71	2.2	72	2.1	77	3.8	57
BBgBarc US Aggregate TR			<u>3.1</u>	10	<u>5.7</u>	10	<u>8.9</u>	12	<u>4.8</u>	18	<u>3.4</u>	33	<u>3.9</u>	55
Over/Under			-6.1		-6.5		-7.2		-2.6		-1.3		-0.1	
eV All US Fixed Inc Gross Median			-0.2		1.6		3.8		3.4		2.9		4.1	

Returns are gross of manager fees.



Oklahoma Firefighters

TOTAL PLAN PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Core Bonds Composite	223,769,087	8.7	0.8	73	3.4	76	5.9	86	3.9	90	2.9	94	--	--
<i>BBgBarc US Aggregate TR</i>			<u>3.1</u>	20	<u>5.7</u>	20	<u>8.9</u>	20	<u>4.8</u>	39	<u>3.4</u>	66	<u>3.9</u>	88
Over/Under			-2.3		-2.3		-3.0		-0.9		-0.5			
<i>eV US Core Fixed Inc Gross Median</i>			1.9		4.4		7.7		4.7		3.5		4.2	
Orleans Capital Management	77,491,555	3.0	-0.3	88	2.6	86	5.7	89	4.1	85	3.0	89	--	--
<i>BBgBarc US Aggregate TR</i>			<u>3.1</u>	20	<u>5.7</u>	20	<u>8.9</u>	20	<u>4.8</u>	39	<u>3.4</u>	66	<u>3.9</u>	88
Over/Under			-3.4		-3.1		-3.2		-0.7		-0.4			
<i>eV US Core Fixed Inc Gross Median</i>			1.9		4.4		7.7		4.7		3.5		4.2	
Garcia Hamilton Associates	146,277,532	5.7	1.4	61	3.8	70	6.1	85	4.2	84	3.1	86	--	--
<i>BBgBarc US Aggregate TR</i>			<u>3.1</u>	20	<u>5.7</u>	20	<u>8.9</u>	20	<u>4.8</u>	39	<u>3.4</u>	66	<u>3.9</u>	88
Over/Under			-1.7		-1.9		-2.8		-0.6		-0.3			
<i>eV US Core Fixed Inc Gross Median</i>			1.9		4.4		7.7		4.7		3.5		4.2	
Intermediate Bonds Composite	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<i>BBgBarc US Govt/Credit Int TR</i>			<u>2.4</u>	21	<u>4.2</u>	22	<u>6.9</u>	19	<u>3.8</u>	41	<u>2.8</u>	67	<u>3.1</u>	82
Over/Under														
<i>eV US Interm Duration Fixed Inc Gross Median</i>			1.3		3.2		5.8		3.7		2.8		3.4	
Garrison Middle Market Funding	3,287,295	0.1	0.7	32	-14.0	99	-14.4	99	-3.7	99	-1.3	99	--	--
<i>Credit Suisse Leveraged Loans</i>			<u>-13.2</u>	99	<u>-10.9</u>	99	<u>-9.5</u>	99	<u>-0.7</u>	99	<u>1.2</u>	99	<u>3.3</u>	99
Over/Under			13.9		-3.1		-4.9		-3.0		-2.5			
<i>eV US Core Plus Fixed Inc Gross Median</i>			-0.4		2.5		5.8		4.2		3.4		4.6	
Medley Opportunity Fund II	13,798,038	0.5	0.0	1	-11.1	79	-14.5	98	-9.3	99	-3.4	99	--	--
<i>Credit Suisse Leveraged Loans</i>			<u>-13.2</u>	78	<u>-10.9</u>	77	<u>-9.5</u>	75	<u>-0.7</u>	76	<u>1.2</u>	80	<u>3.3</u>	87
Over/Under			13.2		-0.2		-5.0		-8.6		-4.6			
<i>eV US Float-Rate Bank Loan Fixed Inc Gross Median</i>			-11.8		-9.2		-7.7		0.0		1.7		3.7	
PIMCO Corporate Opp Fund II	37,371,126	1.5	4.4	1	8.1	1	13.6	1	10.1	1	--	--	--	--
<i>BBgBarc US High Yield TR</i>			<u>-12.7</u>	99	<u>-9.2</u>	99	<u>-6.9</u>	99	<u>0.8</u>	99	<u>2.8</u>	93	<u>5.6</u>	26
Over/Under			17.1		17.3		20.5		9.3					
<i>eV US Corporate Fixed Inc Gross Median</i>			-3.8		0.1		4.2		4.2		3.6		5.4	

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Oklahoma Firefighters

TOTAL PLAN PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
PIMCO Bravo III	45,813,465	1.8	0.9	1	7.0	1	9.5	1	--	--	--	--	--	--
CJA US All PE			<u>0.0</u>	1	<u>5.4</u>	1	<u>9.0</u>	1	<u>12.6</u>	1	<u>11.6</u>	1	<u>13.3</u>	1
Over/Under			0.9		1.6		0.5							
eV US Corporate Fixed Inc Net Median			-4.1		-0.6		3.7		3.8		3.2		5.1	
PIMCO Private Income Fund	52,665,006	2.0	1.6	1	4.7	1	--	--	--	--	--	--	--	--
BBgBarc US High Yield TR			<u>-12.7</u>	99	<u>-9.2</u>	99	<u>-6.9</u>	99	<u>0.8</u>	99	<u>2.8</u>	93	<u>5.6</u>	26
Over/Under			14.3		13.9									
eV US Corporate Fixed Inc Gross Median			-3.8		0.1		4.2		4.2		3.6		5.4	
Global Fixed Composite	183,982,218	7.1	-11.2	71	-9.1	76	-6.1	75	-0.4	86	0.3	91	--	--
FTSE WGBI TR			<u>2.0</u>	5	<u>2.5</u>	9	<u>6.2</u>	8	<u>4.3</u>	11	<u>3.0</u>	31	<u>2.2</u>	80
Over/Under			-13.2		-11.6		-12.3		-4.7		-2.7			
eV All Global Fixed Inc Gross Median			-6.4		-3.4		-0.7		2.1		2.5		3.3	
Brandywine	183,982,218	7.1	-11.2	71	-9.1	76	-6.1	75	-0.4	86	0.3	91	3.8	41
FTSE WGBI TR			<u>2.0</u>	5	<u>2.5</u>	9	<u>6.2</u>	8	<u>4.3</u>	11	<u>3.0</u>	31	<u>2.2</u>	80
Over/Under			-13.2		-11.6		-12.3		-4.7		-2.7		1.6	
eV All Global Fixed Inc Gross Median			-6.4		-3.4		-0.7		2.1		2.5		3.3	
Real Estate Composite	325,554,666	12.6	1.7	--	3.9	--	5.5	--	7.4	--	8.9	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			1.0		0.2		0.2		1.0		1.3			
JP Morgan RE	113,287,775	4.4	1.6	--	4.4	--	5.6	--	6.4	--	8.1	--	11.3	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			0.9		0.7		0.3		0.0		0.5		1.1	
Portfolio Advisors RE III	2,912,151	0.1	-0.4	--	-9.6	--	-9.7	--	-2.6	--	5.2	--	5.0	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			-1.1		-13.3		-15.0		-9.0		-2.4		-5.2	
Portfolio Advisors RE IV	1,632,587	0.1	-5.2	--	-4.5	--	-9.9	--	4.6	--	9.2	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			-5.9		-8.2		-15.2		-1.8		1.6			
Angelo Gordon Net Lease Realty III LP	23,575,973	0.9	2.2	--	5.9	--	7.3	--	7.8	--	7.0	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			1.5		2.2		2.0		1.4		-0.6			

Returns are gross of manager fees.



Oklahoma Firefighters

TOTAL PLAN PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Mesirow	27,080,744	1.1	8.8	--	11.1	--	20.8	--	13.6	--	10.6	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			8.1		7.4		15.5		7.2		3.0			
Dune Real Estate Fund III	24,706,595	1.0	-0.8	--	-4.6	--	-2.8	--	8.1	--	10.1	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			-1.5		-8.3		-8.1		1.7		2.5			
OK FF Portfolio Advisors	6,181,011	0.2	-3.0	--	-4.9	--	-5.2	--	0.1	--	3.0	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			-3.7		-8.6		-10.5		-6.3		-4.6			
Landmark RE VII	11,154,733	0.4	-0.4	--	-1.1	--	-2.4	--	3.4	--	16.1	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			-1.1		-4.8		-7.7		-3.0		8.5			
JP Morgan Special Situation Property	73,119,436	2.8	1.4	--	5.7	--	6.1	--	8.9	--	11.0	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			0.7		2.0		0.8		2.5		3.4			
Hall Capital III	11,222,670	0.4	3.3	--	5.1	--	10.8	--	10.4	--	1.2	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			2.6		1.4		5.5		4.0		-6.4			
Portfolio Advisors RE VI	16,985,498	0.7	1.0	--	8.5	--	8.0	--	12.1	--	--	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			0.3		4.8		2.7		5.7					
Hall Capital Real Estate Fund	3,070,978	0.1	1.5	--	5.0	--	5.9	--	--	--	--	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			0.8		1.3		0.6							
Dune Real Estate IV LP	10,624,515	0.4	-1.0	--	--	--	--	--	--	--	--	--	--	--
NCREIF Property Index			<u>0.7</u>	--	<u>3.7</u>	--	<u>5.3</u>	--	<u>6.4</u>	--	<u>7.6</u>	--	<u>10.2</u>	--
Over/Under			-1.7											

Returns are gross of manager fees.



Oklahoma Firefighters

TOTAL PLAN PERFORMANCE DETAIL

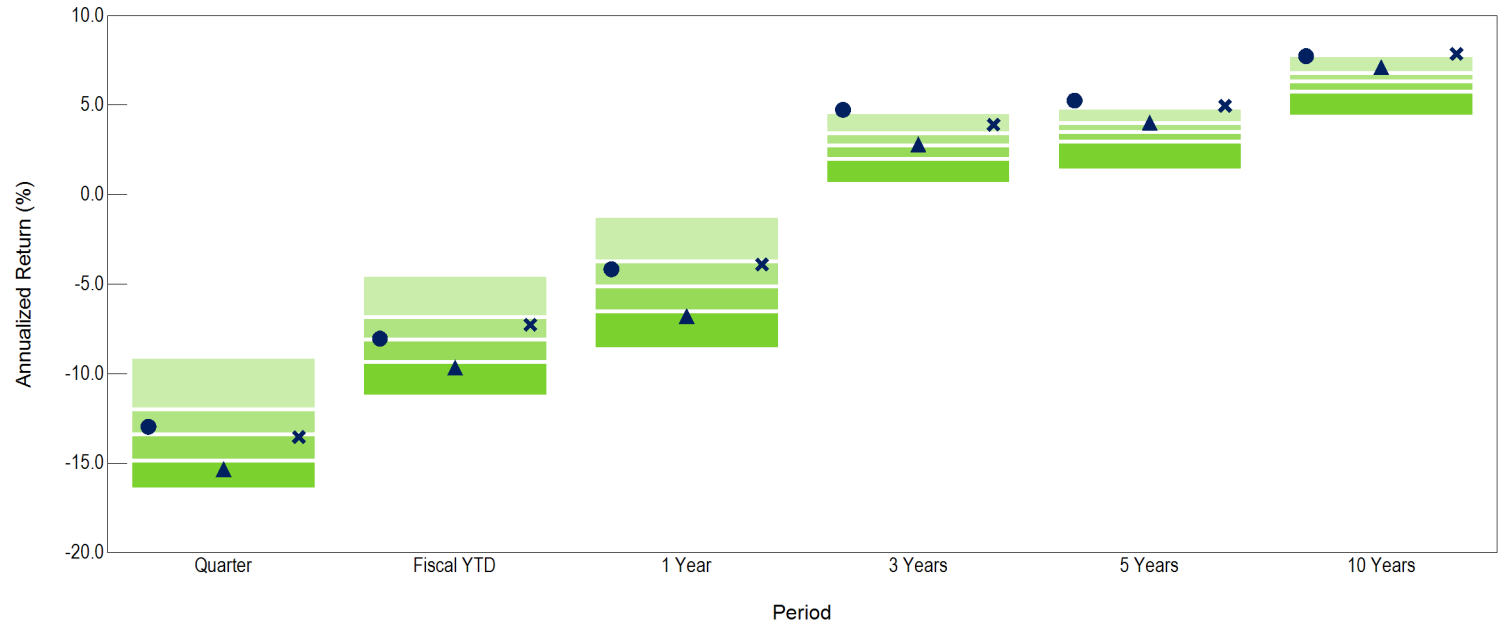
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Hedge Fund Composite	11,481,281	0.4	-0.7	--	-2.3	--	-0.4	--	1.9	--	1.7	--	3.1	--
HFRI FOF: Conservative Index			<u>-7.5</u>	--	<u>-6.0</u>	--	<u>-4.6</u>	--	<u>0.1</u>	--	<u>0.4</u>	--	<u>1.8</u>	--
Over/Under			6.8		3.7		4.2		1.8		1.3		1.3	
Permal	11,481,281	0.4	-0.7	--	-2.2	--	-1.1	--	1.8	--	--	--	--	--
HFRI Fund of Funds Composite Index			<u>-8.8</u>	--	<u>-6.9</u>	--	<u>-5.5</u>	--	<u>0.0</u>	--	<u>0.0</u>	--	<u>1.7</u>	--
Over/Under			8.1		4.7		4.4		1.8					
Private Equity Composite	90,961,500	3.5	3.3	--	8.8	--	11.7	--	14.7	--	12.7	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			3.3		3.4		2.7		2.1		1.1			
Pomona Capital Fund VIII	3,760,944	0.1	0.0	--	-2.2	--	-4.5	--	12.1	--	11.9	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			0.0		-7.6		-13.5		-0.5		0.3			
Ardian	11,014,254	0.4	0.8	--	4.4	--	9.0	--	10.9	--	10.3	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			0.8		-1.0		0.0		-1.7		-1.3			
Dynamics Global Secondaries IV	29,751,514	1.2	5.9	--	9.3	--	9.5	--	17.1	--	12.3	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			5.9		3.9		0.5		4.5		0.7			
AESF VI	24,883,327	1.0	5.4	--	15.2	--	18.3	--	11.4	--	--	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			5.4		9.8		9.3		-1.2					
Pomona Capital Fund IX	15,991,053	0.6	0.0	--	6.5	--	18.9	--	--	--	--	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			0.0		1.1		9.9							
Argonaut Private Equity Fund IV	5,560,408	0.2	0.0	--	8.9	--	7.7	--	--	--	--	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			0.0		3.5		-1.3							

Returns are gross of manager fees.



TOTAL PLAN RETURN SUMMARY VS. PEER UNIVERSE

OK FIREFIGHTERS vs. InvMetrics Public DB Gross

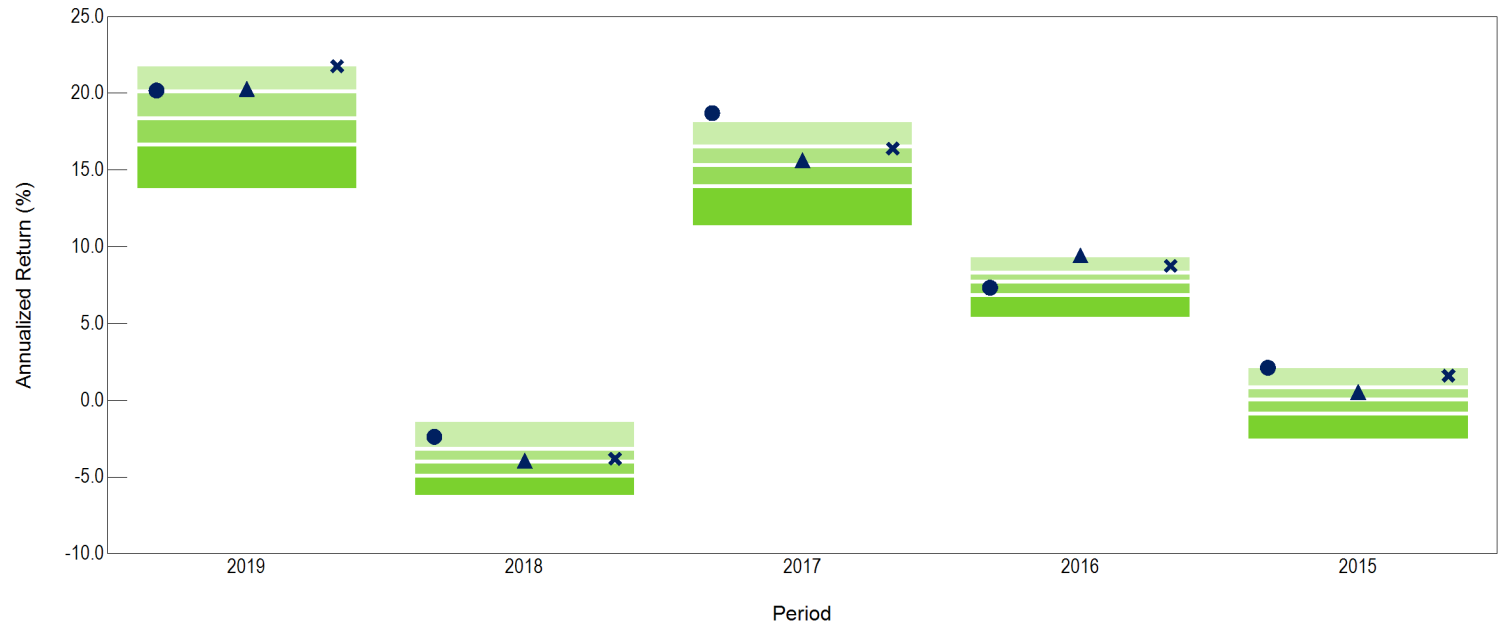


	Return (Rank)											
5th Percentile	-9.1	-4.5	-1.2	4.6	4.8	7.8						
25th Percentile	-12.0	-6.8	-3.7	3.5	4.0	6.8						
Median	-13.4	-8.1	-5.1	2.8	3.5	6.3						
75th Percentile	-14.9	-9.3	-6.5	2.0	3.0	5.8						
95th Percentile	-16.5	-11.3	-8.6	0.6	1.4	4.4						
# of Portfolios	338	337	336	326	316	277						
● OK FIREFIGHTERS	-13.0	(44)	-8.0	(50)	-4.2	(31)	4.7	(5)	5.2	(3)	7.7	(6)
▲ FIREFIGHTERS Allocation Index	-15.3	(83)	-9.7	(79)	-6.8	(80)	2.8	(48)	4.0	(25)	7.1	(13)
× FIREFIGHTERS Policy Index	-13.5	(54)	-7.3	(34)	-3.9	(28)	3.9	(15)	5.0	(4)	7.9	(4)



TOTAL PLAN RETURN SUMMARY VS. PEER UNIVERSE

OK FIREFIGHTERS vs. InvMetrics Public DB Gross



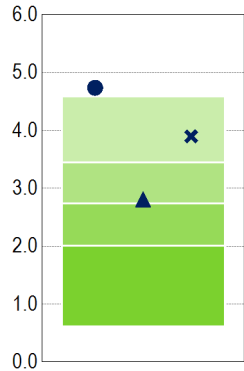
	Return (Rank)									
5th Percentile	21.9		-1.3		18.2		9.4		2.2	
25th Percentile	20.1		-3.1		16.5		8.4		0.9	
Median	18.4		-4.0		15.3		7.7		0.1	
75th Percentile	16.7		-4.9		14.0		6.9		-0.9	
95th Percentile	13.7		-6.3		11.3		5.3		-2.6	
# of Portfolios	330		319		304		305		316	
● OK FIREFIGHTERS	20.2	(25)	-2.4	(13)	18.7	(4)	7.3	(61)	2.1	(6)
▲ FIREFIGHTERS Allocation Index	20.3	(23)	-3.9	(49)	15.6	(44)	9.4	(5)	0.5	(35)
× FIREFIGHTERS Policy Index	21.8	(6)	-3.8	(45)	16.4	(28)	8.7	(15)	1.6	(10)



TOTAL PLAN RISK STATISTICS VS. PEER UNIVERSE

OK FIREFIGHTERS vs. InvMetrics Public DB Gross 3 Years

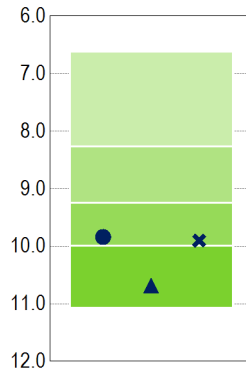
Anlzd Return



● OK FIREFIGHTERS	
Value	4.73
Rank	5
▲ FIREFIGHTERS Allocation Index	
Value	2.81
Rank	48
× FIREFIGHTERS Policy Index	
Value	3.90
Rank	15

Universe	
5th %tile	4.58
25th %tile	3.45
Median	2.75
75th %tile	2.02
95th %tile	0.63

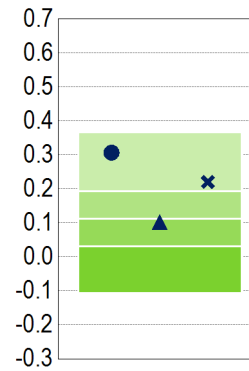
Anlzd Standard Deviation



● OK FIREFIGHTERS	
Value	9.84
Rank	71
▲ FIREFIGHTERS Allocation Index	
Value	10.69
Rank	92
× FIREFIGHTERS Policy Index	
Value	9.90
Rank	72

Universe	
5th %tile	6.62
25th %tile	8.25
Median	9.24
75th %tile	9.98
95th %tile	11.06

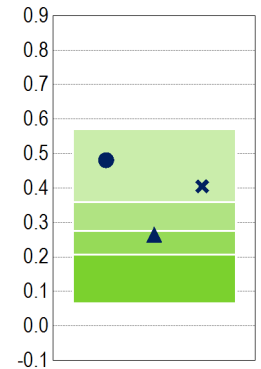
Sharpe Ratio



● OK FIREFIGHTERS	
Value	0.31
Rank	9
▲ FIREFIGHTERS Allocation Index	
Value	0.10
Rank	56
× FIREFIGHTERS Policy Index	
Value	0.22
Rank	21

Universe	
5th %tile	0.37
25th %tile	0.19
Median	0.11
75th %tile	0.03
95th %tile	-0.10

Sortino Ratio



● OK FIREFIGHTERS	
Value	0.48
Rank	9
▲ FIREFIGHTERS Allocation Index	
Value	0.26
Rank	56
× FIREFIGHTERS Policy Index	
Value	0.40
Rank	17

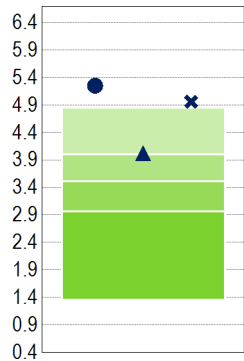
Universe	
5th %tile	0.57
25th %tile	0.36
Median	0.28
75th %tile	0.21
95th %tile	0.07



TOTAL PLAN RISK STATISTICS VS. PEER UNIVERSE

OK FIREFIGHTERS vs. InvMetrics Public DB Gross 5 Years

Anlzd Return

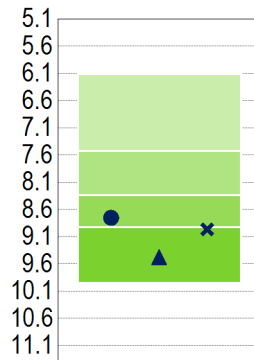


- OK FIREFIGHTERS
Value 5.25
Rank 3
- ▲ FIREFIGHTERS Allocation Index
Value 4.02
Rank 25
- × FIREFIGHTERS Policy Index
Value 4.96
Rank 4

Universe

5th %tile	4.85
25th %tile	4.02
Median	3.52
75th %tile	2.97
95th %tile	1.36

Anlzd Standard Deviation

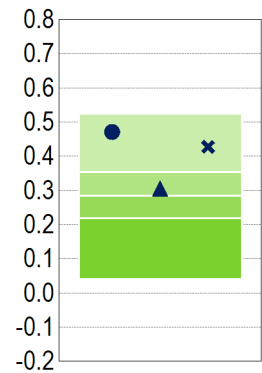


- OK FIREFIGHTERS
Value 8.76
Rank 69
- ▲ FIREFIGHTERS Allocation Index
Value 9.48
Rank 90
- × FIREFIGHTERS Policy Index
Value 8.97
Rank 78

Universe

5th %tile	6.11
25th %tile	7.51
Median	8.33
75th %tile	8.92
95th %tile	9.94

Sharpe Ratio

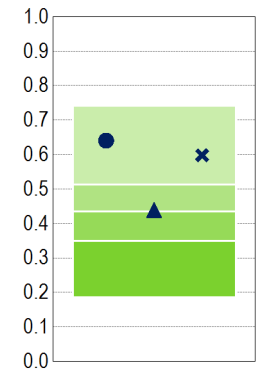


- OK FIREFIGHTERS
Value 0.47
Rank 8
- ▲ FIREFIGHTERS Allocation Index
Value 0.31
Rank 46
- × FIREFIGHTERS Policy Index
Value 0.43
Rank 12

Universe

5th %tile	0.52
25th %tile	0.36
Median	0.29
75th %tile	0.22
95th %tile	0.04

Sortino Ratio



- OK FIREFIGHTERS
Value 0.64
Rank 9
- ▲ FIREFIGHTERS Allocation Index
Value 0.44
Rank 50
- × FIREFIGHTERS Policy Index
Value 0.60
Rank 13

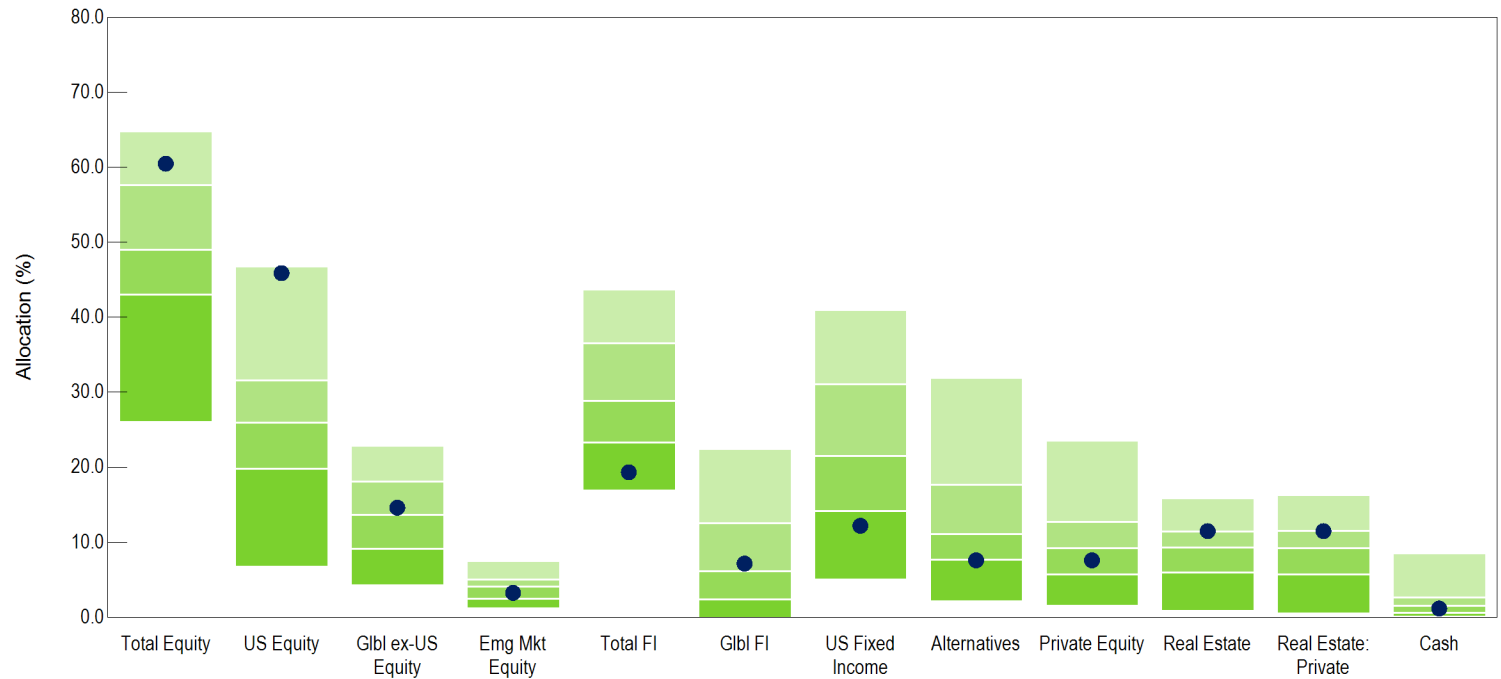
Universe

5th %tile	0.74
25th %tile	0.52
Median	0.44
75th %tile	0.35
95th %tile	0.19



TOTAL PLAN ALLOCATIONS VS. PEER UNIVERSE

Total Plan Allocation vs. InvMetrics Public DB Gross



	Allocation (Rank)												
5th Percentile	64.8	46.7	22.9	7.5	43.7	22.5	41.0	31.9	23.5	15.9	16.3	8.5	--
25th Percentile	57.7	31.7	18.1	5.1	36.6	12.6	31.2	17.8	12.8	11.5	11.6	2.7	--
Median	49.1	26.0	13.7	4.2	28.9	6.2	21.6	11.1	9.3	9.3	9.3	1.6	--
75th Percentile	43.1	19.9	9.2	2.5	23.4	2.5	14.3	7.8	5.8	6.1	5.8	0.7	--
95th Percentile	26.1	6.8	4.3	1.3	17.0	0.0	5.1	2.2	1.6	0.9	0.5	0.1	--
# of Portfolios	251	169	212	109	250	37	153	169	116	179	139	232	--
● OK FIREFIGHTERS	60.5 (18)	45.9 (6)	14.6 (45)	3.2 (62)	19.3 (90)	7.1 (47)	12.2 (79)	7.6 (77)	7.6 (63)	11.5 (26)	11.5 (27)	1.1 (61)	--



TOTAL PLAN ATTRIBUTION ANALYSIS

Performance Attribution		
	Last 3 Mo.	1 Yr
Wtd. Actual Return	-13.0%	-4.2%
Wtd. Index Return *	-13.3%	-4.5%
Excess Return	0.4%	0.3%
Selection Effect	0.4%	0.3%
Allocation Effect	0.0%	0.0%
Interaction Effect	0.0%	0.0%
Asset Class Returns		
OK FIREFIGHTERS	-13.0%	-4.2%
Domestic Equity Composite	-21.1%	-10.5%
Large Cap Equity Composite	-20.5%	-8.4%
Small Cap Equity Composite	-24.1%	-17.3%
Z TERMINATED - Long/Short Equity Composite		
International Equity Composite	-13.5%	-1.8%
Emerging Markets Equity Composite	-24.5%	-18.3%
Fixed Income Composite	-3.0%	1.7%
Domestic Fixed Income	1.2%	5.7%
Core Bonds Composite	0.8%	5.9%
Intermediate Bonds Composite		
Global Fixed Composite	-11.2%	-6.1%
OTHER	1.8%	5.9%
Real Estate Composite	1.7%	5.5%
Hedge Fund Composite	-0.7%	-0.4%
Private Equity Composite	3.3%	11.7%

*Calculated from benchmark returns and weightings of each component.

Z TERMINATED represents Composite that fully liquidated.



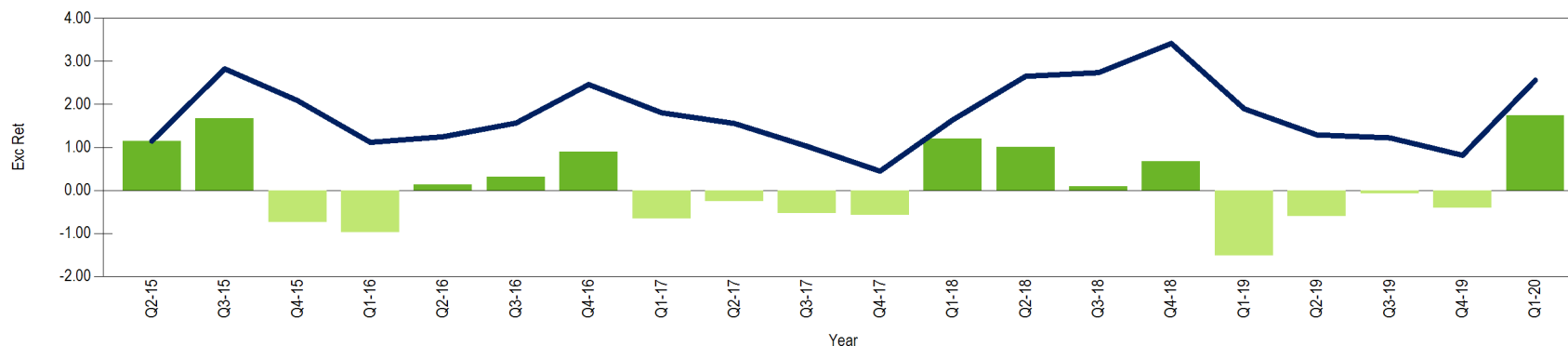
OKLAHOMA POLICE



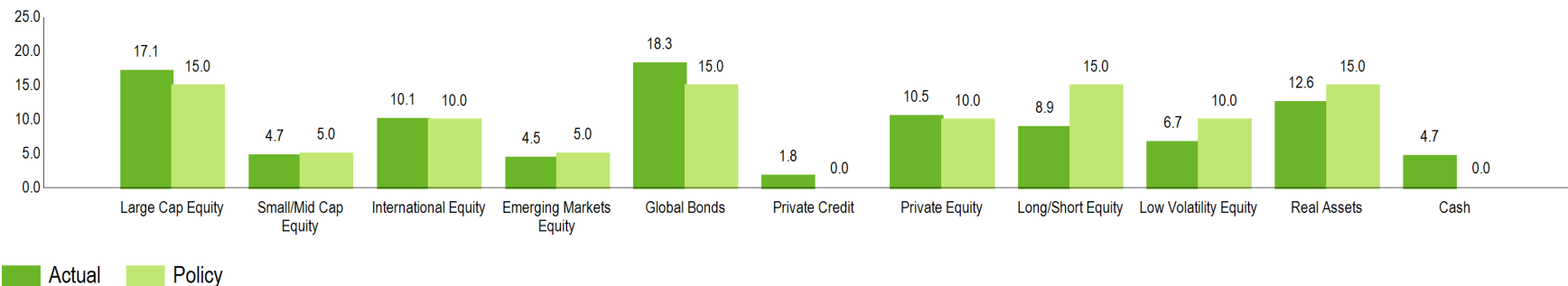
TOTAL FUND PERFORMANCE SUMMARY

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK POLICE	\$2,396,967,305	-11.0%	16	-6.1%	15	-3.8%	26	3.1%	36	3.8%	35	6.2%	54
<i>POLICE Allocation Index</i>		-10.9%	14	-6.5%	20	-4.3%	32	2.7%	53	3.1%	68	5.9%	68
<i>POLICE Policy Index</i>		-12.8%	41	-7.5%	37	-4.7%	42	2.7%	53	3.1%	69	6.2%	55
<i>InvMetrics Public DB Gross Median</i>		-13.4%		-8.1%		-5.1%		2.8%		3.5%		6.3%	

Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)

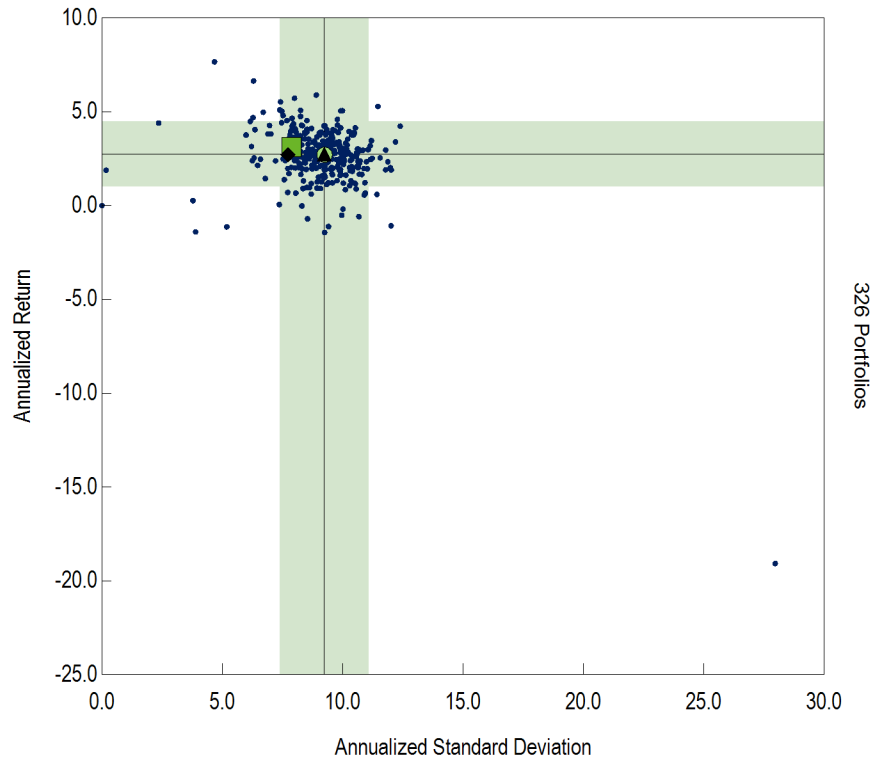


Returns are gross of manager fees.



TOTAL FUND RISK/RETURN - 3 YEARS

3 Years Ending March 31, 2020



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

3 Years Ending March 31, 2020

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK POLICE	3.13%	36	7.88%	14
POLICE Allocation Index	2.70%	53	7.74%	11
POLICE Policy Index	2.70%	53	9.25%	51

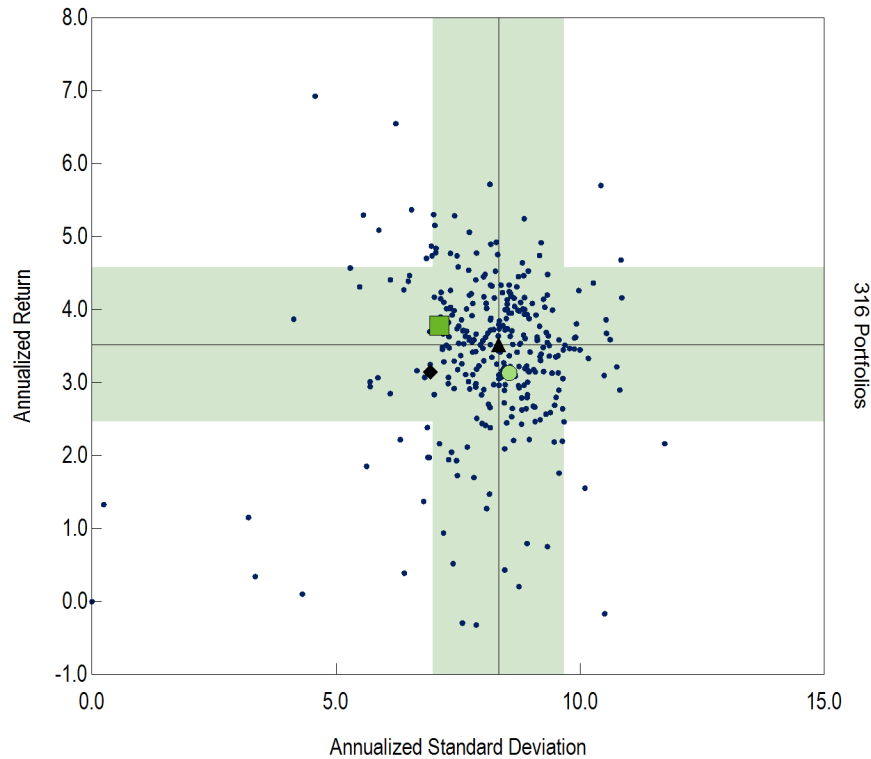
3 Years Ending March 31, 2020

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK POLICE	0.18	28	0.37	23
POLICE Allocation Index	0.13	43	0.34	33
POLICE Policy Index	0.11	54	0.30	45



TOTAL FUND RISK/RETURN - 5 YEARS

5 Years Ending March 31, 2020



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

5 Years Ending March 31, 2020

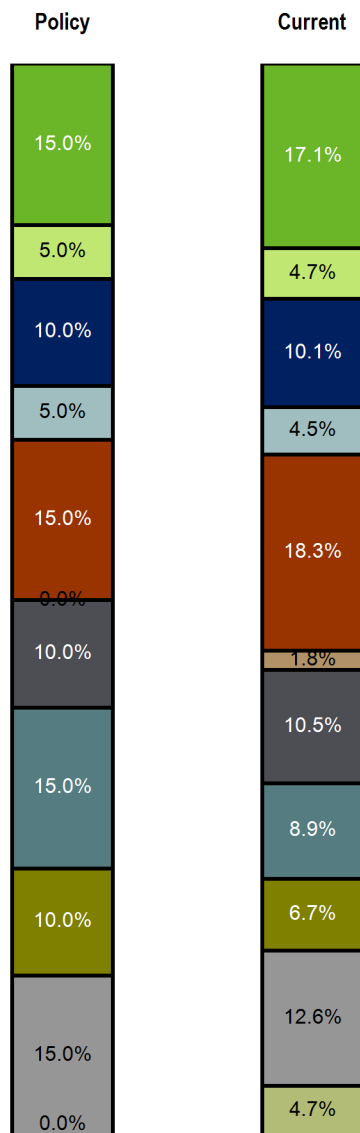
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
OK POLICE	3.78%	35	7.12%	14
POLICE Allocation Index	3.15%	68	6.94%	11
POLICE Policy Index	3.13%	69	8.55%	61

5 Years Ending March 31, 2020

	Sharpe Ratio	Rank	Sortino Ratio	Rank
OK POLICE	0.37	21	0.56	17
POLICE Allocation Index	0.29	50	0.47	38
POLICE Policy Index	0.23	70	0.42	54



TOTAL FUND ASSET ALLOCATION VS. POLICY



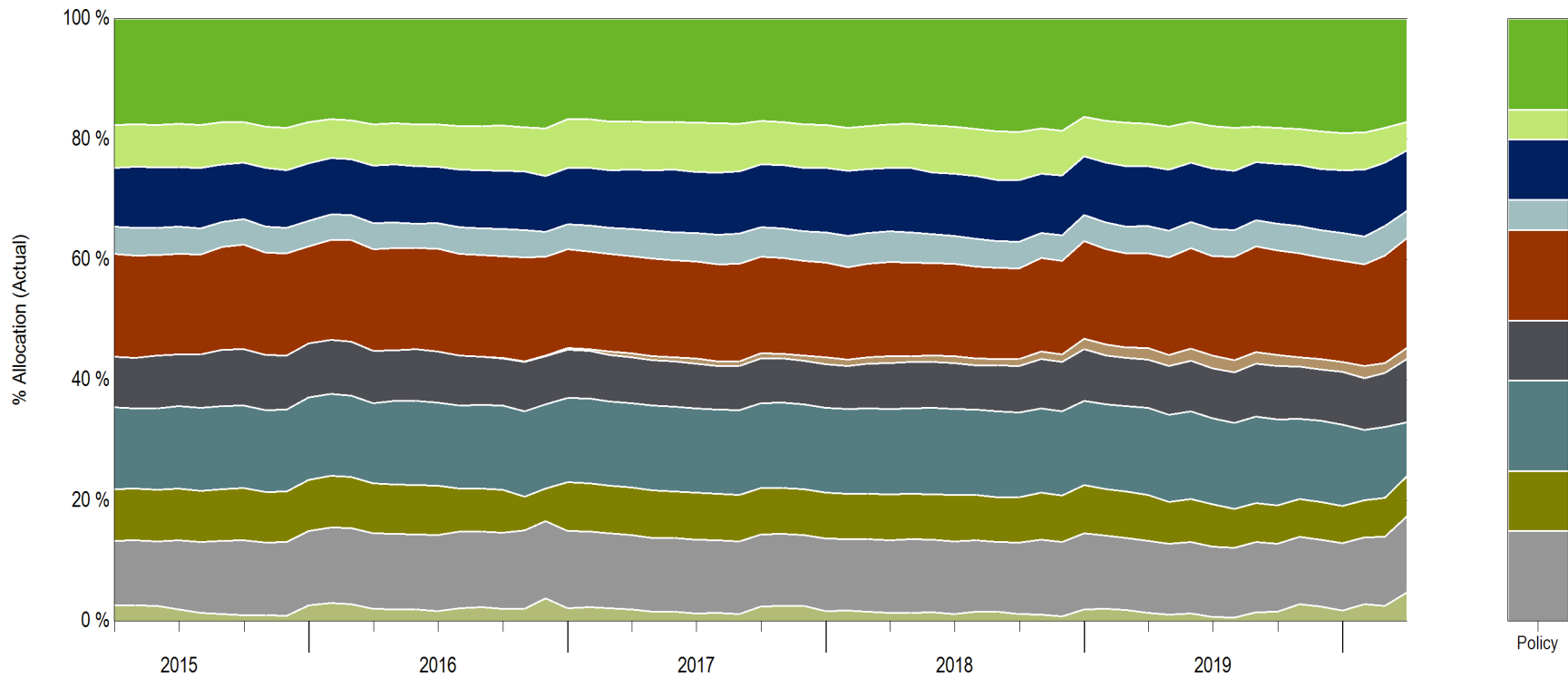
Asset Allocation vs. Target							
	Current	Policy	Current	Difference*	Policy Range	Within Range	
Large Cap Equity	\$410,630,745	15.0%	17.1%	2.1%	10.0% - 20.0%	Yes	
Small/Mid Cap Equity	\$113,746,532	5.0%	4.7%	-0.3%	0.0% - 15.0%	Yes	
International Equity	\$241,803,068	10.0%	10.1%	0.1%	5.0% - 15.0%	Yes	
Emerging Markets Equity	\$106,942,152	5.0%	4.5%	-0.5%	0.0% - 10.0%	Yes	
Global Bonds	\$438,262,635	15.0%	18.3%	3.3%	10.0% - 20.0%	Yes	
Private Credit	\$42,935,623	0.0%	1.8%	1.8%	0.0% - 5.0%	Yes	
Private Equity	\$252,669,592	10.0%	10.5%	0.5%	5.0% - 15.0%	Yes	
Long/Short Equity	\$213,871,024	15.0%	8.9%	-6.1%	10.0% - 20.0%	No	
Low Volatility Equity	\$160,709,540	10.0%	6.7%	-3.3%	5.0% - 15.0%	Yes	
Real Assets	\$302,333,269	15.0%	12.6%	-2.4%	0.0% - 30.0%	Yes	
Cash	\$113,063,125	0.0%	4.7%	4.7%	0.0% - 5.0%	Yes	
Total	\$2,396,967,305	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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
OK POLICE	2,396,967,305	100.0	-11.0	16	-6.1	15	-3.8	26	3.1	36	3.8	35	6.2	54
<i>POLICE Allocation Index</i>			<u>-10.9</u>	14	<u>-6.5</u>	20	<u>-4.3</u>	32	<u>2.7</u>	53	<u>3.1</u>	68	<u>5.9</u>	68
Over/Under			-0.1		0.4		0.5		0.4		0.7		0.3	
<i>POLICE Policy Index</i>			<u>-12.8</u>	41	<u>-7.5</u>	37	<u>-4.7</u>	42	<u>2.7</u>	53	<u>3.1</u>	69	<u>6.2</u>	55
<i>InvMetrics Public DB Gross Median</i>			<u>-13.4</u>		<u>-8.1</u>		<u>-5.1</u>		<u>2.8</u>		<u>3.5</u>		<u>6.3</u>	
Equity Composite	873,122,497	36.4	-22.9	63	-15.8	59	-12.9	59	0.8	59	3.2	48	6.8	52
<i>Russell 3000</i>			<u>-20.9</u>	46	<u>-12.7</u>	35	<u>-9.1</u>	36	<u>4.0</u>	29	<u>5.8</u>	21	<u>10.1</u>	11
Over/Under			-2.0		-3.1		-3.8		-3.2		-2.6		-3.3	
<i>eV All Global Equity Gross Median</i>			<u>-21.4</u>		<u>-14.6</u>		<u>-11.4</u>		<u>1.5</u>		<u>2.9</u>		<u>6.9</u>	
Domestic Equity Composite	524,377,277	21.9	-23.4	47	-15.8	43	-12.6	45	2.2	45	4.8	40	9.7	46
<i>S&P 500</i>			<u>-19.6</u>	28	<u>-10.8</u>	22	<u>-7.0</u>	25	<u>5.1</u>	28	<u>6.7</u>	23	<u>10.5</u>	32
Over/Under			-3.8		-5.0		-5.6		-2.9		-1.9		-0.8	
<i>eV All US Equity Gross Median</i>			<u>-24.1</u>		<u>-17.7</u>		<u>-14.4</u>		<u>1.0</u>		<u>3.5</u>		<u>9.3</u>	
<i>Northern Trust Russell 1000 Index Fund</i>	410,630,745	17.1	<u>-20.2</u>	56	<u>-11.8</u>	47	<u>-8.0</u>	50	<u>4.6</u>	43	<u>6.2</u>	42	<u>10.4</u>	42
<i>Russell 1000</i>			<u>-20.2</u>	56	<u>-11.8</u>	47	<u>-8.0</u>	50	<u>4.6</u>	43	<u>6.2</u>	42	<u>10.4</u>	43
Over/Under			0.0		0.0		0.0		0.0		0.0		0.0	
<i>eV US Large Cap Core Equity Gross Median</i>			<u>-19.8</u>		<u>-12.1</u>		<u>-8.1</u>		<u>4.2</u>		<u>5.8</u>		<u>10.3</u>	
<i>Boston Partners</i>	51,028,927	2.1	<u>-38.8</u>	90	<u>-32.4</u>	77	<u>-29.0</u>	65	<u>-10.2</u>	81	<u>-3.1</u>	75	<u>5.2</u>	84
<i>Russell 2500 Value</i>			<u>-34.6</u>	54	<u>-29.9</u>	56	<u>-28.6</u>	62	<u>-8.4</u>	64	<u>-2.1</u>	60	<u>5.6</u>	76
Over/Under			-4.2		-2.5		-0.4		-1.8		-1.0		-0.4	
<i>eV US Small-Mid Cap Value Equity Gross Median</i>			<u>-33.9</u>		<u>-29.7</u>		<u>-26.7</u>		<u>-7.6</u>		<u>-1.4</u>		<u>6.7</u>	
<i>Silvercrest - Cortina Small Cap Growth</i>	62,717,605	2.6	<u>-27.2</u>	78	<u>-22.9</u>	75	<u>-22.1</u>	80	<u>1.3</u>	71	<u>4.8</u>	45	<u>--</u>	--
<i>Russell 2000 Growth</i>			<u>-25.8</u>	69	<u>-20.8</u>	60	<u>-18.6</u>	66	<u>0.1</u>	78	<u>1.7</u>	80	<u>8.9</u>	83
Over/Under			-1.4		-2.1		-3.5		1.2		3.1			
<i>eV US Small Cap Growth Equity Gross Median</i>			<u>-23.6</u>		<u>-19.9</u>		<u>-15.7</u>		<u>3.8</u>		<u>4.2</u>		<u>10.7</u>	

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

Returns are gross of manager fees.



Oklahoma Police

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
International Equity Composite	348,745,220	14.5	-22.3	42	-16.0	43	-13.8	49	-1.6	56	0.3	58	2.2	89
MSCI ACWI ex USA			-23.4	51	-18.0	57	-15.6	57	-2.0	62	-0.6	72	2.1	92
Over/Under			1.1		2.0		1.8		0.4		0.9		0.1	
eV All ACWI ex-US Equity Gross Median			-23.3		-17.0		-14.3		-0.8		0.7		4.3	
Mondrian Int'l Value	112,200,723	4.7	-26.4	37	-20.3	34	-19.2	38	-3.8	32	-1.7	43	2.7	44
MSCI ACWI ex USA			-23.4	13	-18.0	15	-15.6	10	-2.0	12	-0.6	18	2.1	59
Over/Under			-3.0		-2.3		-3.6		-1.8		-1.1		0.6	
eV ACWI ex-US Value Equity Gross Median			-27.9		-21.8		-20.6		-5.4		-2.2		2.6	
Baring Focused Intl Equity	129,602,345	5.4	-19.3	20	-13.1	25	-9.7	28	0.9	38	2.7	26	--	--
MSCI ACWI ex USA			-23.4	51	-18.0	57	-15.6	57	-2.0	62	-0.6	72	2.1	92
Over/Under			4.1		4.9		5.9		2.9		3.3			
eV All ACWI ex-US Equity Gross Median			-23.3		-17.0		-14.3		-0.8		0.7		4.3	
Wasatch EM Small Cap	31,775,068	1.3	-22.1	8	-11.2	3	-7.8	3	2.2	6	0.7	11	--	--
MSCI Emerging Markets Small Cap			-31.4	83	-28.3	78	-29.0	84	-9.6	93	-5.2	99	-1.3	99
Over/Under			9.3		17.1		21.2		11.8		5.9			
eV Emg Mkts Small Cap Equity Gross Median			-29.3		-25.5		-24.8		-6.2		-2.4		2.5	
AB EM Strategic Core Equity	75,167,084	3.1	-20.9	--	-16.2	--	-14.5	--	-3.4	--	--	--	--	--
MSCI Emerging Markets			-23.6	--	-18.2	--	-17.7	--	-1.6	--	-0.4	--	0.7	--
Over/Under			2.7		2.0		3.2		-1.8					
Total Long/Short	213,871,024	8.9	-8.5	38	-3.5	33	-2.0	33	3.3	40	2.6	46	--	--
HFRI FOF: Strategic Index			-11.9	49	-9.5	54	-8.4	58	-0.9	60	-0.4	69	1.6	79
Over/Under			3.4		6.0		6.4		4.2		3.0			
eV Alt Fundamental - Long/Short Equity Median			-12.8		-8.3		-7.0		1.2		2.0		4.9	
Grosvenor	213,871,024	8.9	-8.5	38	-3.5	33	-2.0	33	3.3	40	2.6	46	5.1	47
HFRI FOF: Strategic Index			-11.9	49	-9.5	54	-8.4	58	-0.9	60	-0.4	69	1.6	79
Over/Under			3.4		6.0		6.4		4.2		3.0		3.5	
eV Alt Fundamental - Long/Short Equity Median			-12.8		-8.3		-7.0		1.2		2.0		4.9	

Returns are gross of manager fees.



Oklahoma Police

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Private Equity	252,669,592	10.5	2.1	--	8.3	--	12.7	--	12.1	--	11.1	--	11.8	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			2.1		2.9		3.7		-0.5		-0.5		-1.5	
Apollo Accord III	18,757,227	0.8	3.4	--	--	--	--	--	--	--	--	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			3.4											
TA XIII	1,420,549	0.1	-5.3	--	--	--	--	--	--	--	--	--	--	--
ArcLight Energy Partners Fund VII, L.P	471,111	0.0	--	--	--	--	--	--	--	--	--	--	--	--
Fixed Income Composite	438,262,635	18.3	-3.6	34	-1.5	37	1.5	37	2.9	39	2.8	40	4.2	34
BBgBarc US Aggregate TR			<u>3.1</u>	2	<u>5.7</u>	1	<u>8.9</u>	1	<u>4.8</u>	6	<u>3.4</u>	19	<u>3.9</u>	39
Over/Under			-6.7		-7.2		-7.4		-1.9		-0.6		0.3	
eV All Global Fixed Inc Gross Median			-6.4		-3.4		-0.7		2.1		2.5		3.3	
Oaktree	111,014,631	4.6	-15.2	98	-13.6	99	-11.5	99	-1.7	99	0.9	99	4.3	43
BBgBarc US Aggregate TR			<u>3.1</u>	10	<u>5.7</u>	10	<u>8.9</u>	12	<u>4.8</u>	18	<u>3.4</u>	33	<u>3.9</u>	55
Over/Under			-18.3		-19.3		-20.4		-6.5		-2.5		0.4	
Agincourt	247,236,911	10.3	2.4	15	5.1	12	8.5	14	5.1	15	3.7	21	4.4	42
BBgBarc US Aggregate TR			<u>3.1</u>	10	<u>5.7</u>	10	<u>8.9</u>	12	<u>4.8</u>	18	<u>3.4</u>	33	<u>3.9</u>	55
Over/Under			-0.7		-0.6		-0.4		0.3		0.3		0.5	
eV All US Fixed Inc Gross Median			-0.2		1.6		3.8		3.4		2.9		4.1	
Loomis Sayles	80,011,093	3.3	-2.7	28	-1.6	38	2.0	33	3.4	28	2.8	39	3.0	61
FTSE WGBI TR			<u>2.0</u>	5	<u>2.5</u>	9	<u>6.2</u>	8	<u>4.3</u>	11	<u>3.0</u>	31	<u>2.2</u>	80
Over/Under			-4.7		-4.1		-4.2		-0.9		-0.2		0.8	
eV All Global Fixed Inc Gross Median			-6.4		-3.4		-0.7		2.1		2.5		3.3	

*The Private Real Estate returns are time weighted.

Returns are gross of manager fees.



Oklahoma Police

TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Low Volatility Strategies	160,709,540	6.7	-4.2	--	-2.8	--	-2.2	--	1.5	--	0.5	--	--	--
HFRI FOF: Conservative Index			<u>-7.5</u>	--	<u>-6.0</u>	--	<u>-4.6</u>	--	<u>0.1</u>	--	<u>0.4</u>	--	<u>1.8</u>	--
Over/Under			3.3		3.2		2.4		1.4		0.1			
PAAMCO	83,369,054	3.5	-8.1	40	-6.5	48	-6.5	59	-0.6	57	-0.5	60	2.4	58
HFRI FOF: Conservative Index			<u>-7.5</u>	35	<u>-6.0</u>	47	<u>-4.6</u>	51	<u>0.1</u>	51	<u>0.4</u>	49	<u>1.8</u>	75
Over/Under			-0.6		-0.5		-1.9		-0.7		-0.9		0.6	
eV Alt Fund of Funds - All Single Strategy Median			-10.2		-7.1		-4.5		0.3		0.1		2.9	
Wellington Global Total Return	77,340,486	3.2	0.5	6	1.4	13	3.2	14	4.5	14	--	--	--	--
HFRI FOF Conservative (1 Mo Lag)			<u>0.5</u>	6	<u>1.7</u>	7	<u>2.9</u>	14	<u>2.6</u>	18	<u>2.0</u>	18	<u>2.7</u>	54
Over/Under			0.0		-0.3		0.3		1.9					
eV Alt Fund of Funds - All Single Strategy Median			-10.2		-7.1		-4.5		0.3		0.1		2.9	
Private Credit	42,935,623	1.8	2.0	--	6.1	--	8.6	--	9.9	--	--	--	--	--
CJA US All PE			<u>0.0</u>	--	<u>5.4</u>	--	<u>9.0</u>	--	<u>12.6</u>	--	<u>11.6</u>	--	<u>13.3</u>	--
Over/Under			2.0		0.7		-0.4		-2.7					
Real Estate	279,739,584	11.7	2.3	--	5.6	--	7.1	--	8.0	--	9.1	--	--	--
NCREIF ODCE Net			<u>0.8</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>5.9</u>	--	<u>7.5</u>	--	<u>10.4</u>	--
Over/Under			1.5		2.5		3.2		2.1		1.6			
Total Core Real Estate	225,924,791	9.4	2.1	--	4.8	--	6.2	--	7.2	--	8.9	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			1.1		1.0		1.3		0.4		0.4			
Columbus Square	4,874,430	0.2	0.5	--	2.1	--	3.3	--	6.5	--	10.4	--	15.0	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-0.5		-1.7		-1.6		-0.3		1.9		3.6	
JP Morgan	134,171,132	5.6	1.6	--	4.4	--	5.6	--	6.4	--	8.1	--	11.3	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			0.6		0.6		0.7		-0.4		-0.4		-0.1	
Blackstone Property Partners	86,879,229	3.6	3.0	--	5.9	--	8.0	--	9.5	--	11.0	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			2.0		2.1		3.1		2.7		2.5			

*Returns are gross of manager fees.



Oklahoma Police

TOTAL FUND PERFORMANCE DETAIL

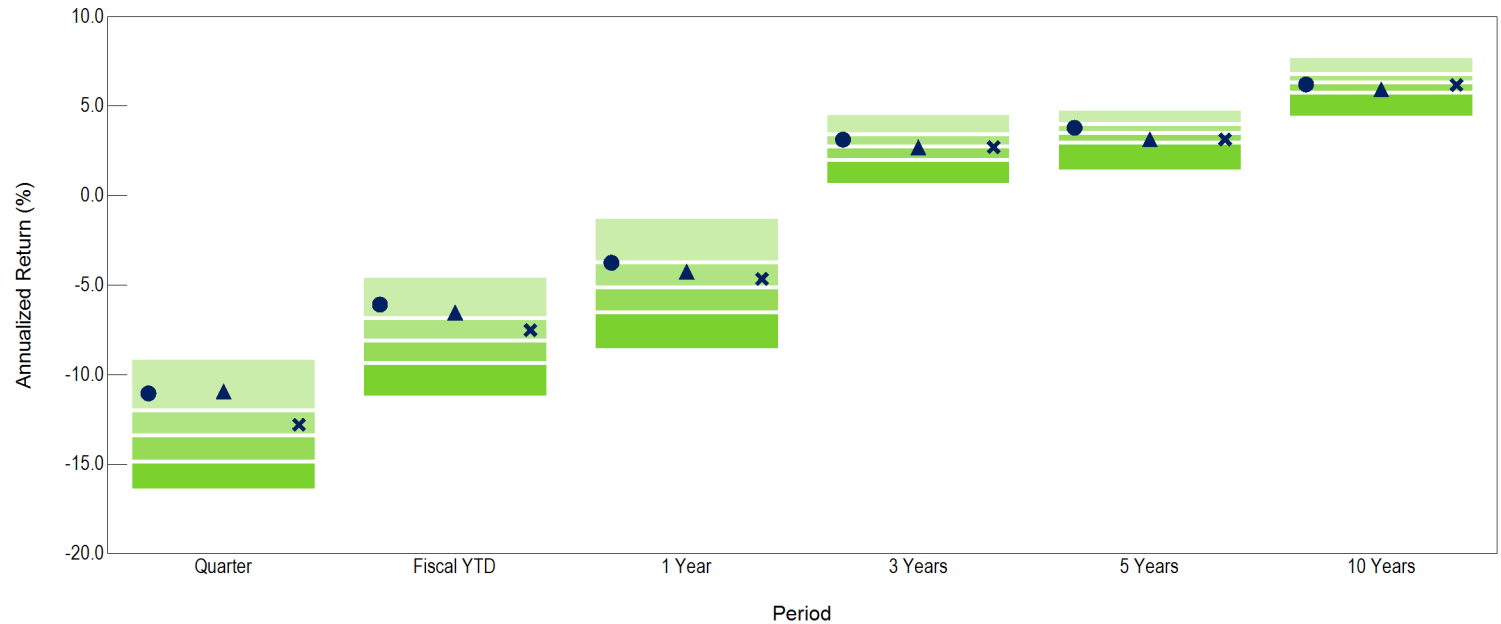
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Private Real Estate	53,814,793	2.2	3.0	--	8.8	--	10.3	--	10.8	--	10.0	--	--	--
Siguler Guff Distressed RE	4,088,203	0.2	4.5	--	7.0	--	6.4	--	14.8	--	11.9	--	--	--
TA Associates Realty X	2,411,917	0.1	2.7	--	17.9	--	24.9	--	17.7	--	13.2	--	--	--
Cerberus Real Estate Fund III	9,986,415	0.4	4.8	--	8.8	--	9.9	--	7.3	--	9.9	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			3.8		5.0		5.0		0.5		1.4			
Hall Capital Fund III	5,611,338	0.2	3.3	--	6.0	--	11.4	--	11.5	--	1.6	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			2.3		2.2		6.5		4.7		-6.9			
Siguler Guff Distressed RE II	6,797,031	0.3	3.7	--	5.6	--	3.7	--	12.8	--	8.8	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			2.7		1.8		-1.2		6.0		0.3			
Cerberus Real Estate Partners IV	11,722,900	0.5	2.0	--	10.5	--	14.4	--	-20.4	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			1.0		6.7		9.5		-27.2					
Siguler Guff Dist. Real Estate Opp. II B	6,091,380	0.3	2.5	--	7.8	--	-0.1	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			1.5		4.0		-5.0							
Angelo Gordon Realty Value Fund X	3,978,970	0.2	2.6	--	-15.0	--	--	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			1.6		-18.8									
Blackstone Real Estate Partners Fund IX	3,126,639	0.1	-0.6	--	--	--	--	--	--	--	--	--	--	--
NCREIF ODCE			<u>1.0</u>	--	<u>3.8</u>	--	<u>4.9</u>	--	<u>6.8</u>	--	<u>8.5</u>	--	<u>11.4</u>	--
Over/Under			-1.6											
Mt Lucas Peak	22,593,685	0.9	-14.9	--	-14.9	--	-19.8	--	-8.0	--	-6.5	--	-1.8	--

*Returns are gross of manager fees.



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

OK POLICE vs. InvMetrics Public DB Gross

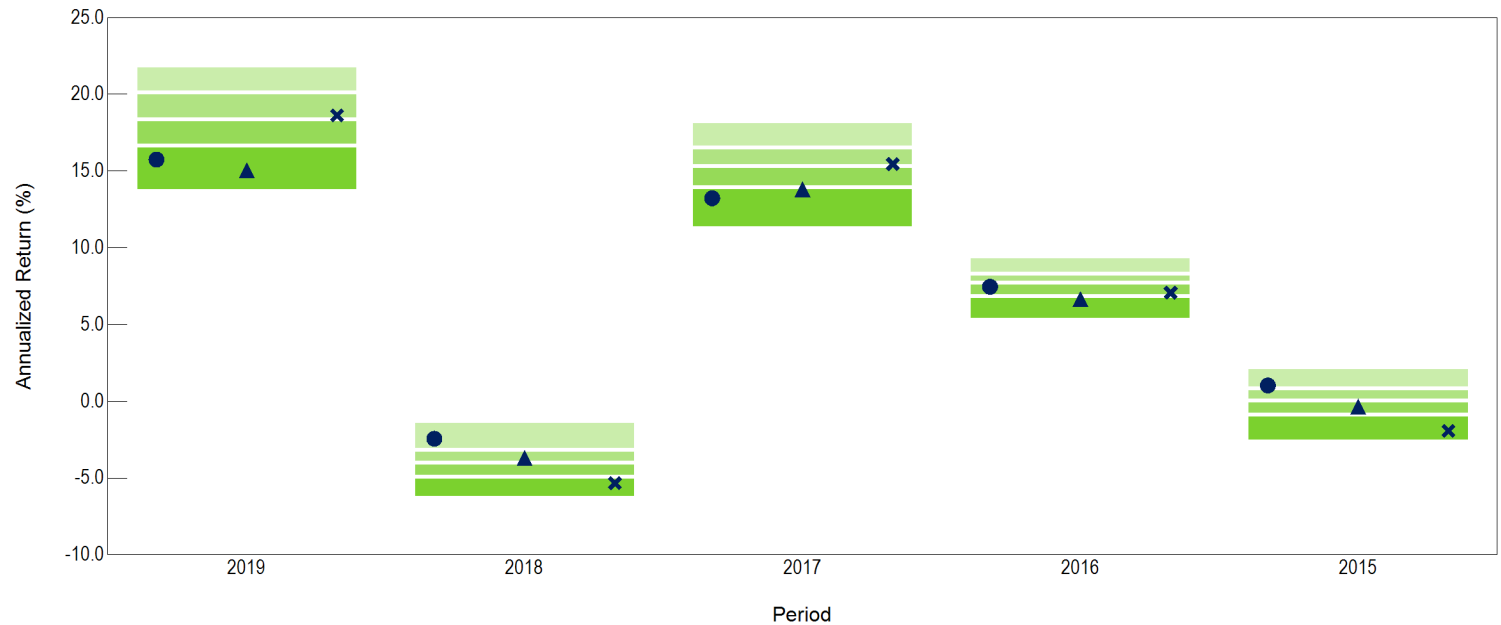


	Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)	
5th Percentile	-9.1	(16)	-4.5	(15)	-1.2	(26)	4.6	(36)	4.8	(35)	7.8	(54)
25th Percentile	-12.0	(14)	-6.8	(20)	-3.7	(32)	3.5	(53)	4.0	(68)	6.8	(68)
Median	-13.4	(41)	-8.1	(37)	-5.1	(42)	2.8	(53)	3.5	(69)	6.3	(55)
75th Percentile	-14.9		-9.3		-6.5		2.0		3.0		5.8	
95th Percentile	-16.5		-11.3		-8.6		0.6		1.4		4.4	
# of Portfolios	338		337		336		326		316		277	
● OK POLICE	-11.0	(16)	-6.1	(15)	-3.8	(26)	3.1	(36)	3.8	(35)	6.2	(54)
▲ POLICE Allocation Index	-10.9	(14)	-6.5	(20)	-4.3	(32)	2.7	(53)	3.1	(68)	5.9	(68)
× POLICE Policy Index	-12.8	(41)	-7.5	(37)	-4.7	(42)	2.7	(53)	3.1	(69)	6.2	(55)



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

OK POLICE vs. InvMetrics Public DB Gross



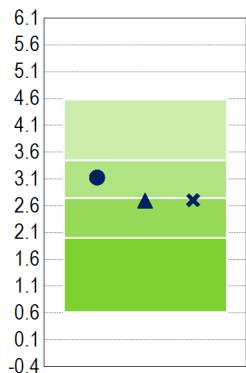
	Return (Rank)									
5th Percentile	21.9		-1.3		18.2		9.4		2.2	
25th Percentile	20.1		-3.1		16.5		8.4		0.9	
Median	18.4		-4.0		15.3		7.7		0.1	
75th Percentile	16.7		-4.9		14.0		6.9		-0.9	
95th Percentile	13.7		-6.3		11.3		5.3		-2.6	
# of Portfolios	330		319		304		305		316	
● OK POLICE	15.7	(85)	-2.4	(14)	13.2	(86)	7.5	(57)	1.0	(21)
▲ POLICE Allocation Index	15.0	(91)	-3.7	(42)	13.8	(77)	6.7	(80)	-0.4	(63)
× POLICE Policy Index	18.6	(47)	-5.3	(83)	15.5	(48)	7.1	(70)	-1.9	(89)



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

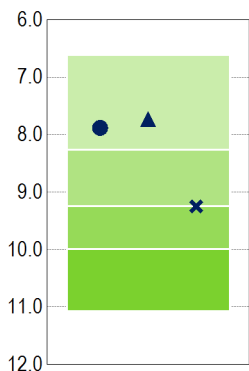
OK POLICE vs. InvMetrics Public DB Gross 3 Years

Anlzd Return



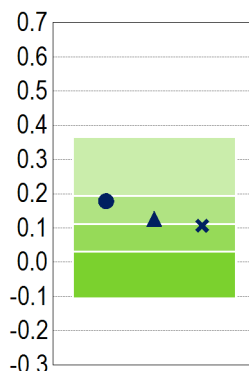
● OK POLICE	
Value	3.13
Rank	36
▲ POLICE Allocation Index	
Value	2.70
Rank	53
× POLICE Policy Index	
Value	2.70
Rank	53
Universe	
5th %tile	4.58
25th %tile	3.45
Median	2.75
75th %tile	2.02
95th %tile	0.63

Anlzd Standard Deviation



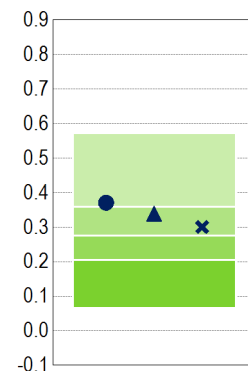
● OK POLICE	
Value	7.88
Rank	14
▲ POLICE Allocation Index	
Value	7.74
Rank	11
× POLICE Policy Index	
Value	9.25
Rank	51
Universe	
5th %tile	6.62
25th %tile	8.25
Median	9.24
75th %tile	9.98
95th %tile	11.06

Sharpe Ratio



● OK POLICE	
Value	0.18
Rank	28
▲ POLICE Allocation Index	
Value	0.13
Rank	43
× POLICE Policy Index	
Value	0.11
Rank	54
Universe	
5th %tile	0.37
25th %tile	0.19
Median	0.11
75th %tile	0.03
95th %tile	-0.10

Sortino Ratio



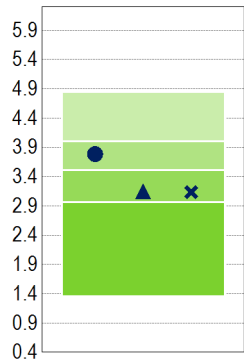
● OK POLICE	
Value	0.37
Rank	23
▲ POLICE Allocation Index	
Value	0.34
Rank	33
× POLICE Policy Index	
Value	0.30
Rank	45
Universe	
5th %tile	0.57
25th %tile	0.36
Median	0.28
75th %tile	0.21
95th %tile	0.07



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

OK POLICE vs. InvMetrics Public DB Gross 5 Years

Anlzd Return



- OK POLICE

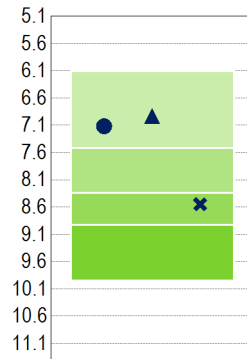
Value	3.78
Rank	35
- ▲ POLICE Allocation Index

Value	3.15
Rank	68
- × POLICE Policy Index

Value	3.13
Rank	69

Universe	
5th %tile	4.85
25th %tile	4.02
Median	3.52
75th %tile	2.97
95th %tile	1.36

Anlzd Standard Deviation



- OK POLICE

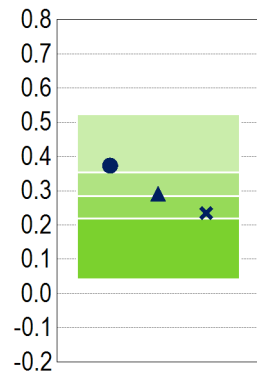
Value	7.12
Rank	14
- ▲ POLICE Allocation Index

Value	6.94
Rank	11
- × POLICE Policy Index

Value	8.55
Rank	61

Universe	
5th %tile	6.11
25th %tile	7.51
Median	8.33
75th %tile	8.92
95th %tile	9.94

Sharpe Ratio



- OK POLICE

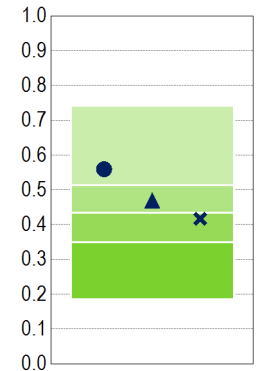
Value	0.37
Rank	21
- ▲ POLICE Allocation Index

Value	0.29
Rank	50
- × POLICE Policy Index

Value	0.23
Rank	70

Universe	
5th %tile	0.52
25th %tile	0.36
Median	0.29
75th %tile	0.22
95th %tile	0.04

Sortino Ratio



- OK POLICE

Value	0.56
Rank	17
- ▲ POLICE Allocation Index

Value	0.47
Rank	38
- × POLICE Policy Index

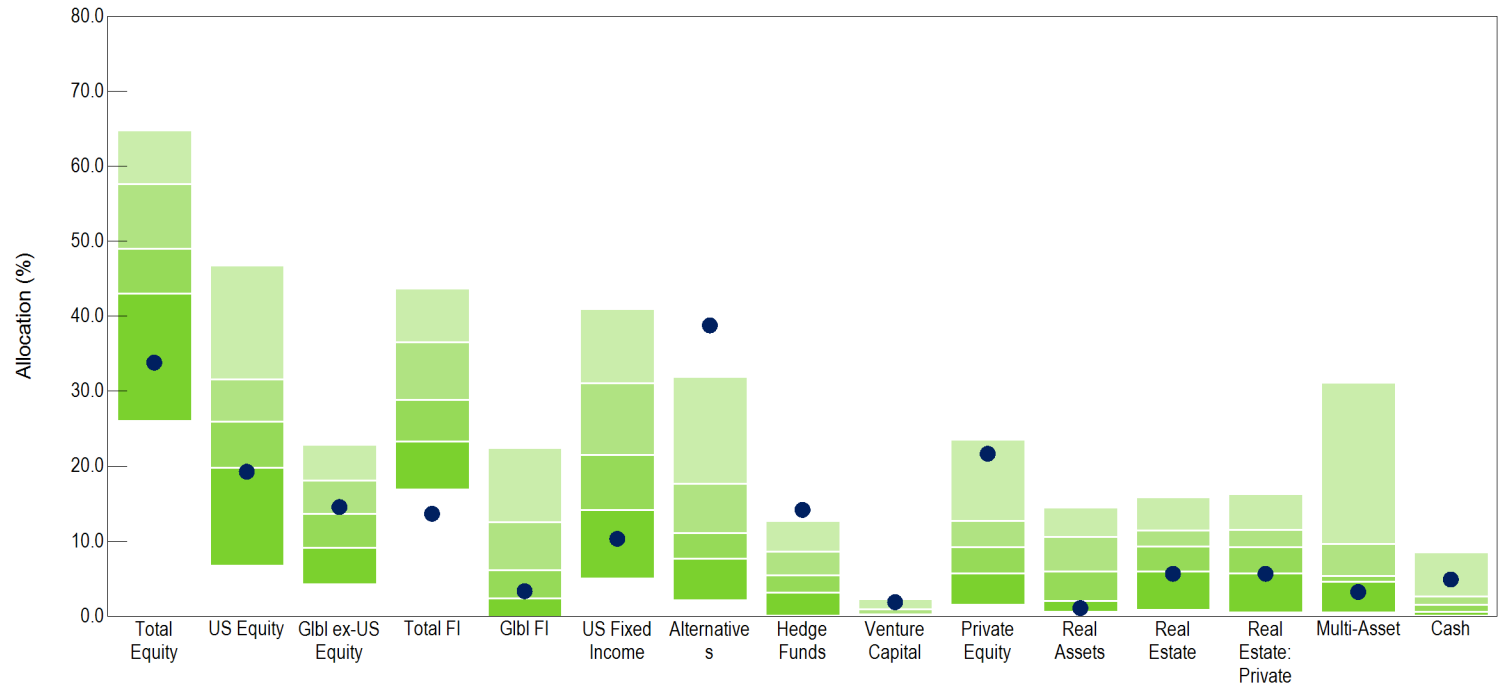
Value	0.42
Rank	54

Universe	
5th %tile	0.74
25th %tile	0.52
Median	0.44
75th %tile	0.35
95th %tile	0.19



TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

Total Plan Allocation vs. InvMetrics Public DB Gross



	Allocation (Rank)															
5th Percentile	64.8	46.7	22.9	43.7	22.5	41.0	31.9	12.7	2.3	23.5	14.5	15.9	16.3	31.1	8.5	--
25th Percentile	57.7	31.7	18.1	36.6	12.6	31.2	17.8	8.7	1.0	12.8	10.7	11.5	11.6	9.7	2.7	--
Median	49.1	26.0	13.7	28.9	6.2	21.6	11.1	5.5	0.4	9.3	6.0	9.3	9.3	5.5	1.6	--
75th Percentile	43.1	19.9	9.2	23.4	2.5	14.3	7.8	3.2	0.2	5.8	2.1	6.1	5.8	4.7	0.7	--
95th Percentile	26.1	6.8	4.3	17.0	0.0	5.1	2.2	0.2	0.0	1.6	0.6	0.9	0.5	0.6	0.1	--
# of Portfolios	251	169	212	250	37	153	169	86	25	116	76	179	139	72	232	--
● OK POLICE	33.8 (92)	19.3 (78)	14.5 (45)	13.7 (99)	3.3 (67)	10.3 (87)	38.8 (4)	14.2 (4)	1.9 (7)	21.7 (6)	1.1 (93)	5.6 (80)	5.6 (77)	3.2 (87)	4.9 (11)	--



TOTAL FUND ATTRIBUTION ANALYSIS

Performance Attribution		
	Last 3 Mo.	1 Yr
Wtd. Actual Return	-11.0%	-3.6%
Wtd. Index Return *	-13.9%	-5.7%
Excess Return	2.9%	2.1%
Selection Effect	2.4%	1.2%
Allocation Effect	0.8%	1.0%
Interaction Effect	-0.3%	-0.1%
Asset Class Returns		
OK POLICE	-11.0%	-3.8%
Equity	-16.7%	-7.3%
Equity Composite	-22.9%	-12.9%
Domestic Equity Composite	-23.4%	-12.6%
International Equity Composite	-22.3%	-13.8%
Total Long/Short	-8.5%	-2.0%
Private Equity	2.1%	12.7%
Fixed Income	-3.4%	0.9%
Fixed Income Composite	-3.6%	1.5%
Total Low Volatility Strategies	-4.2%	-2.2%
Private Credit	2.0%	8.6%
Total Real Assets	0.8%	3.0%
Real Estate	2.3%	7.1%
Total Core Real Estate	2.1%	6.2%
Private Real Estate	3.0%	10.3%
Commodity	-14.9%	-19.8%



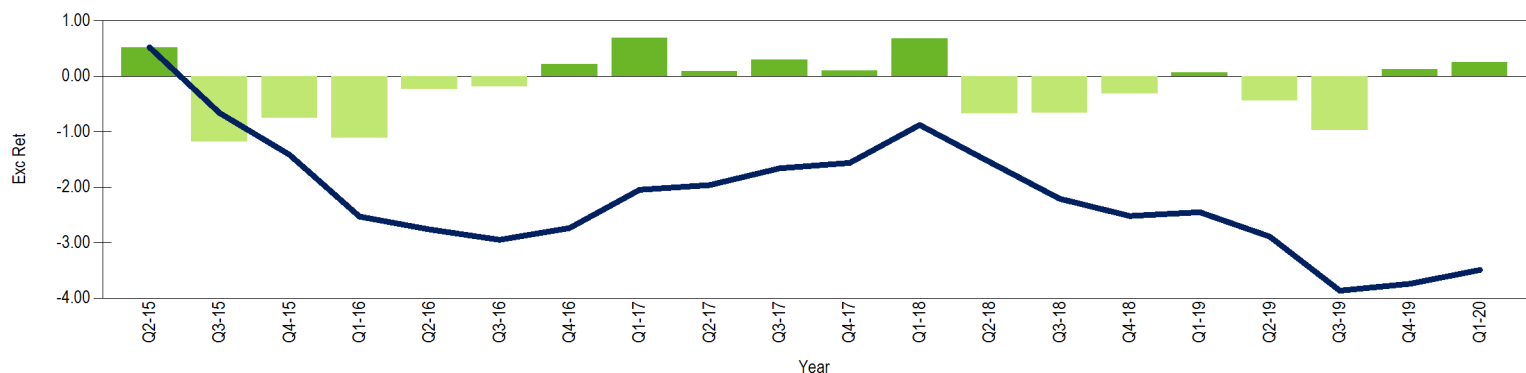
OKLAHOMA LAW



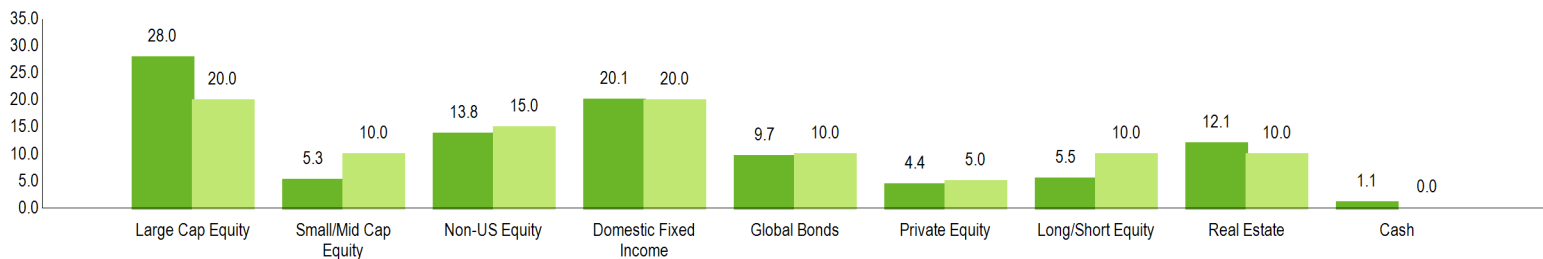
TOTAL FUND PERFORMANCE SUMMARY

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK LAW	\$900,867,047	-13.3%	50	-8.4%	58	-5.8%	65	2.3%	68	3.1%	71	6.5%	44
<i>LAW Policy Index</i>		-13.6%	56	-7.9%	47	-4.9%	47	2.8%	48	3.8%	34	6.8%	27
<i>InvMetrics Public DB Gross Median</i>		-13.4%		-8.1%		-5.1%		2.8%		3.5%		6.3%	

Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)

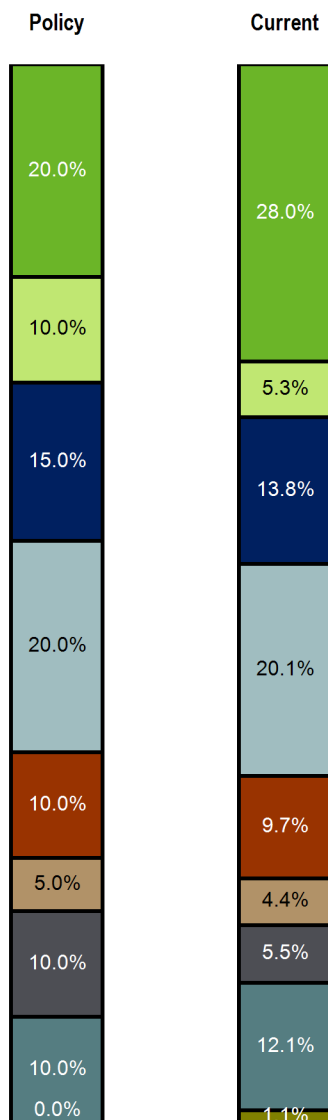


Actual Policy

Returns are gross of manager fees.



TOTAL FUND ASSET ALLOCATION VS. POLICY



Asset Allocation vs. Target							
	Current	Policy	Current	Difference*	Policy Range	Within Range	
Large Cap Equity	\$252,205,539	20.0%	28.0%	8.0%	15.0% - 25.0%	No	
Small/Mid Cap Equity	\$47,934,064	10.0%	5.3%	-4.7%	5.0% - 15.0%	Yes	
Non-US Equity	\$124,736,344	15.0%	13.8%	-1.2%	5.0% - 15.0%	Yes	
Domestic Fixed Income	\$180,711,684	20.0%	20.1%	0.1%	15.0% - 25.0%	Yes	
Global Bonds	\$87,272,783	10.0%	9.7%	-0.3%	5.0% - 15.0%	Yes	
Private Equity	\$39,677,942	5.0%	4.4%	-0.6%	0.0% - 5.0%	Yes	
Long/Short Equity	\$49,315,344	10.0%	5.5%	-4.5%	5.0% - 15.0%	Yes	
Real Estate	\$108,736,341	10.0%	12.1%	2.1%	2.0% - 12.0%	No	
Cash	\$10,277,006	0.0%	1.1%	1.1%	0.0% - 5.0%	Yes	
Total	\$900,867,047	100.0%	100.0%				



OKLAHOMA JUDGES

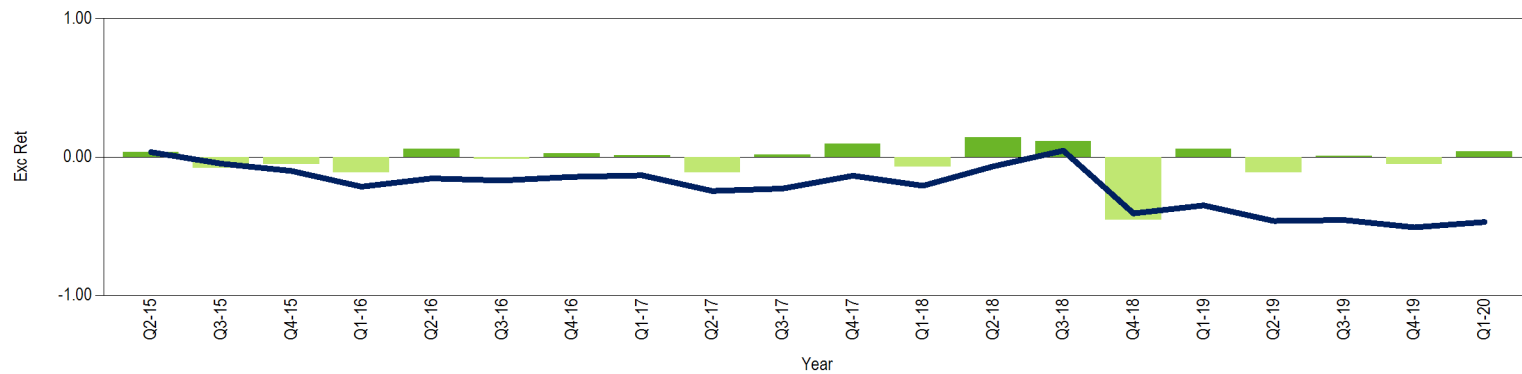


Oklahoma Judges

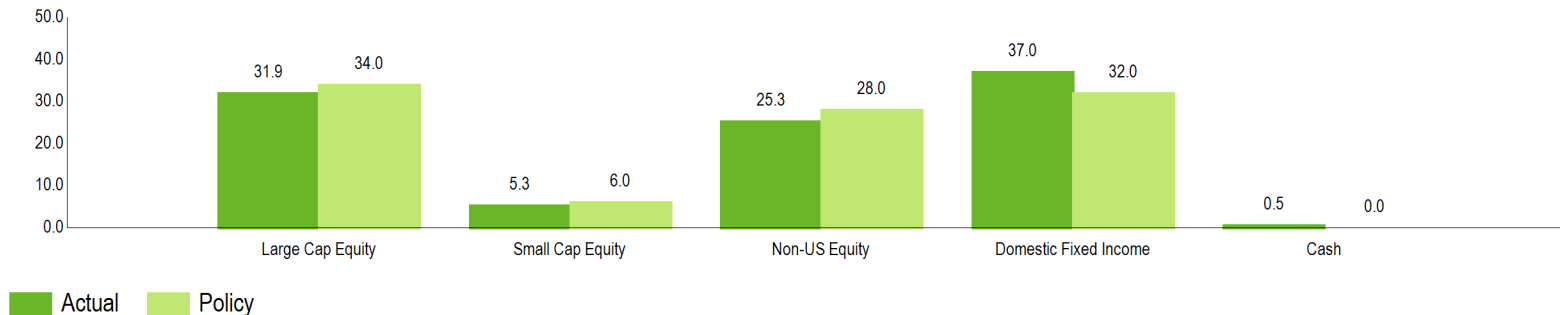
TOTAL FUND PERFORMANCE SUMMARY

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK JUDGES	\$311,598,200	-14.2%	65	-8.2%	56	-5.0%	49	2.9%	45	3.6%	49	6.5%	42
<i>JUDGES Allocation Index</i>		-14.0%	62	-8.1%	51	-4.9%	49	2.8%	50	3.4%	56	6.2%	53
<i>JUDGES Policy Index</i>		-14.2%	67	-8.2%	56	-4.9%	46	3.0%	38	3.7%	42	6.5%	43
<i>InvMetrics Public DB Gross Median</i>		-13.4%		-8.1%		-5.1%		2.8%		3.5%		6.3%	

Quarterly and Cumulative Excess Performance



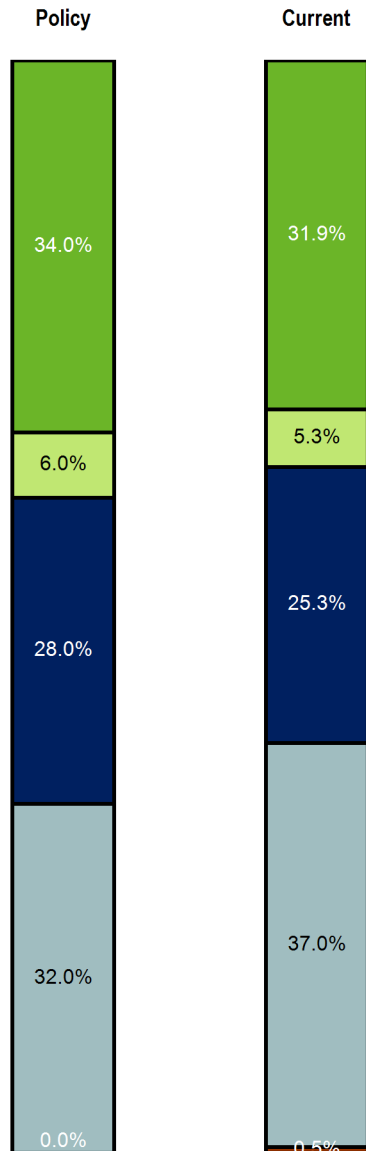
Actual vs Target Allocation (%)



Returns are gross of manager fees.



TOTAL FUND ASSET ALLOCATION VS. POLICY



Asset Allocation vs. Target						
	Current	Policy	Current Difference*	Policy Range	Within Range	
Large Cap Equity	\$99,365,437	34.0%	31.9%	-2.1%	31.2% - 36.8%	Yes
Small Cap Equity	\$16,472,960	6.0%	5.3%	-0.7%	3.2% - 8.8%	Yes
Non-US Equity	\$78,713,289	28.0%	25.3%	-2.7%	25.0% - 31.0%	Yes
Domestic Fixed Income	\$115,362,282	32.0%	37.0%	5.0%	27.5% - 36.5%	No
Cash	\$1,684,232	0.0%	0.5%	0.5%	0.0% - 5.0%	Yes
Total	\$311,598,200	100.0%	100.0%			

*Difference between Policy and Current Allocation



OKLAHOMA WILDLIFE

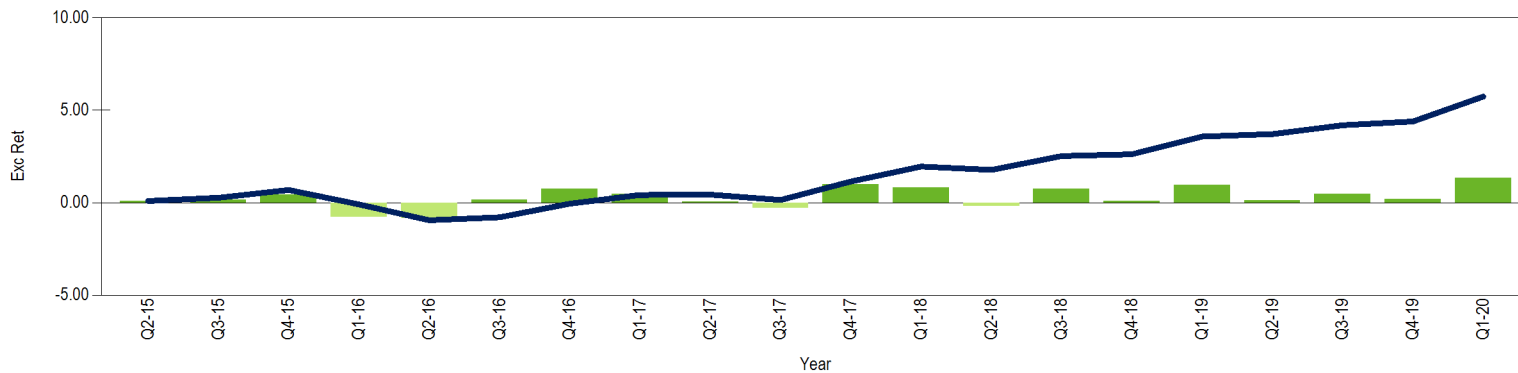


OKLAHOMA WILDLIFE

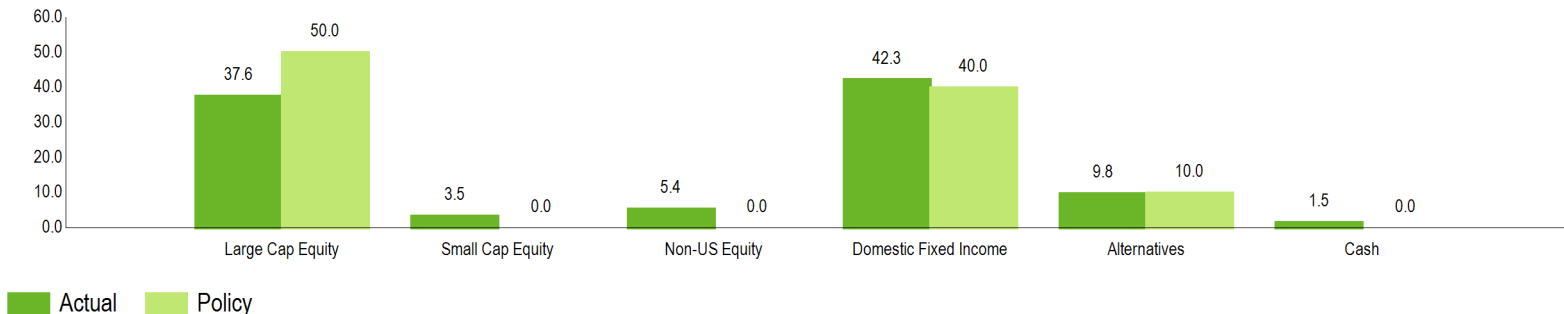
TOTAL FUND PERFORMANCE SUMMARY

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
OK WILDLIFE	\$106,421,527	-11.7%	23	-6.5%	20	-3.4%	20	3.7%	20	4.0%	29	6.3%	50
<i>WILDLIFE Allocation Index</i>		-12.3%	30	-6.4%	18	-3.1%	16	3.8%	17	4.2%	17	6.4%	45
<i>WILDLIFE Policy Index</i>		-13.1%	46	-8.5%	60	-5.6%	62	1.8%	83	2.8%	82	5.8%	74
<i>InvMetrics Public DB Gross Median</i>		-13.4%		-8.1%		-5.1%		2.8%		3.5%		6.3%	

Quarterly and Cumulative Excess Performance



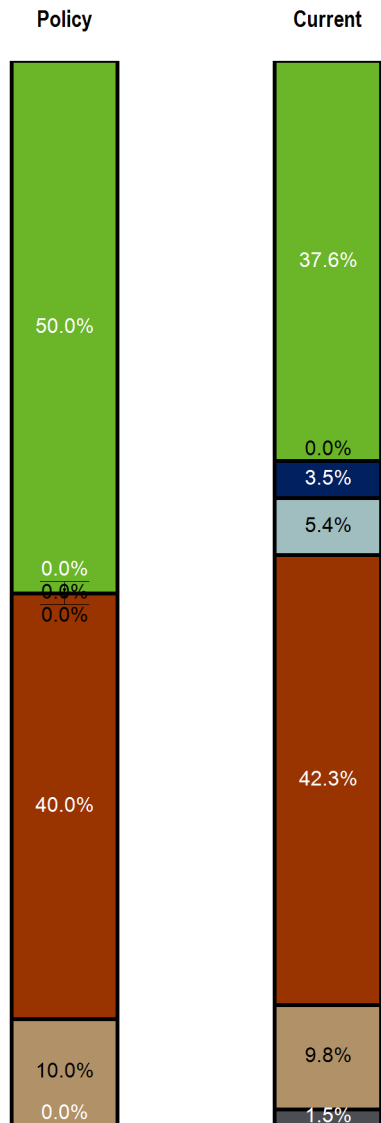
Actual vs Target Allocation (%)



Returns are gross of manager fees.



TOTAL FUND ASSET ALLOCATION VS. POLICY



Asset Allocation vs. Target						
	Current	Policy	Current	Difference*	Policy Range	Within Range
Large Cap Equity	\$39,977,533	50.0%	37.6%	-12.4%	40.0% - 65.0%	No
Mid Cap Equity	\$0	0.0%	0.0%	0.0%	0.0% - 10.0%	Yes
Small Cap Equity	\$3,678,206	0.0%	3.5%	3.5%	0.0% - 10.0%	Yes
Non-US Equity	\$5,728,647	0.0%	5.4%	5.4%	0.0% - 15.0%	Yes
Domestic Fixed Income	\$44,993,203	40.0%	42.3%	2.3%	35.0% - 55.0%	Yes
Alternatives	\$10,428,659	10.0%	9.8%	-0.2%	0.0% - 10.0%	Yes
Cash	\$1,615,279	0.0%	1.5%	1.5%	0.0% - 5.0%	Yes
Total	\$106,421,527	100.0%	100.0%			

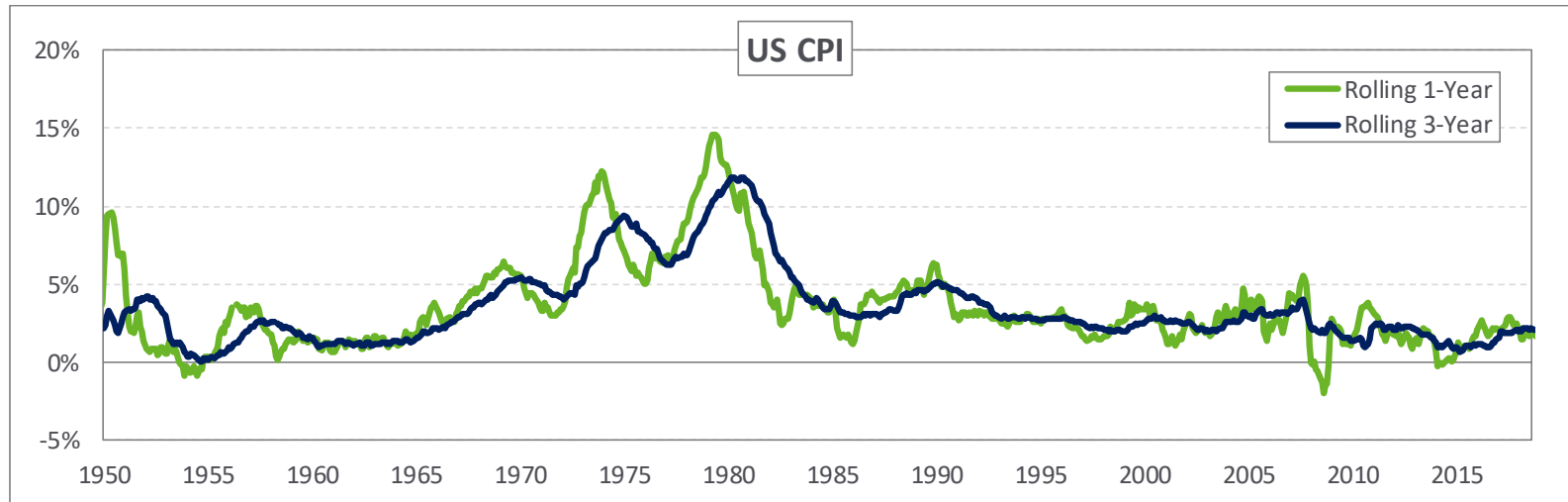
*Difference between Policy and Current Allocation



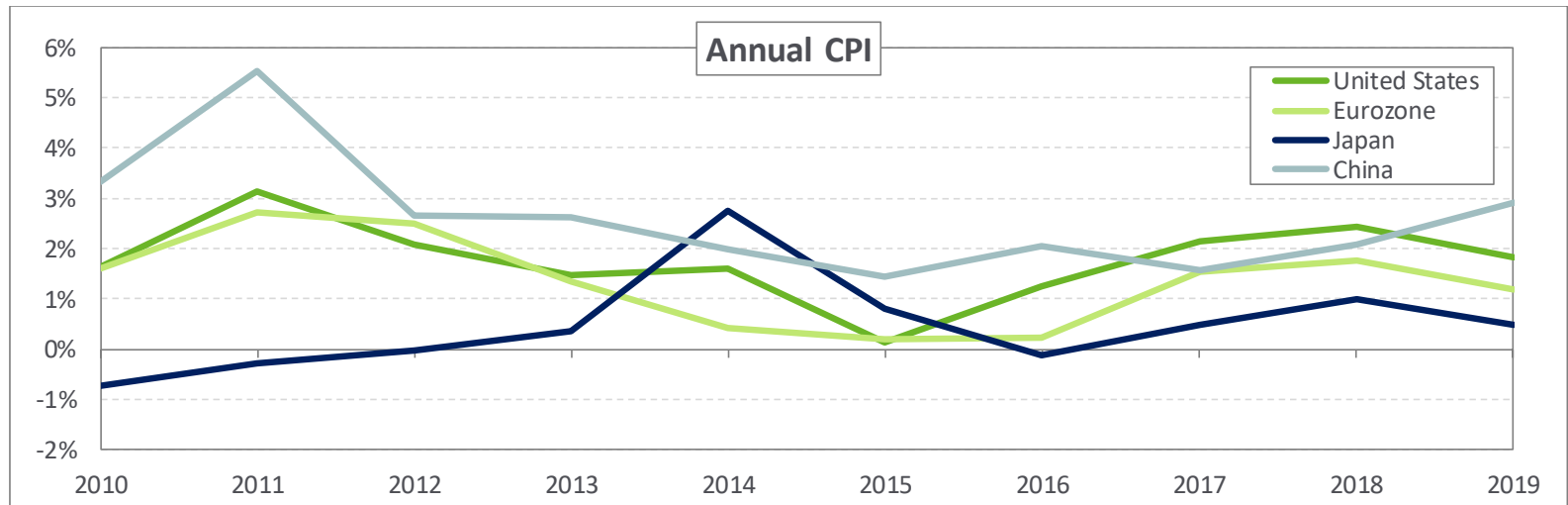
MACRO

NEPC, LLC

INFLATION



Source: Bureau of Labor Statistics, FactSet



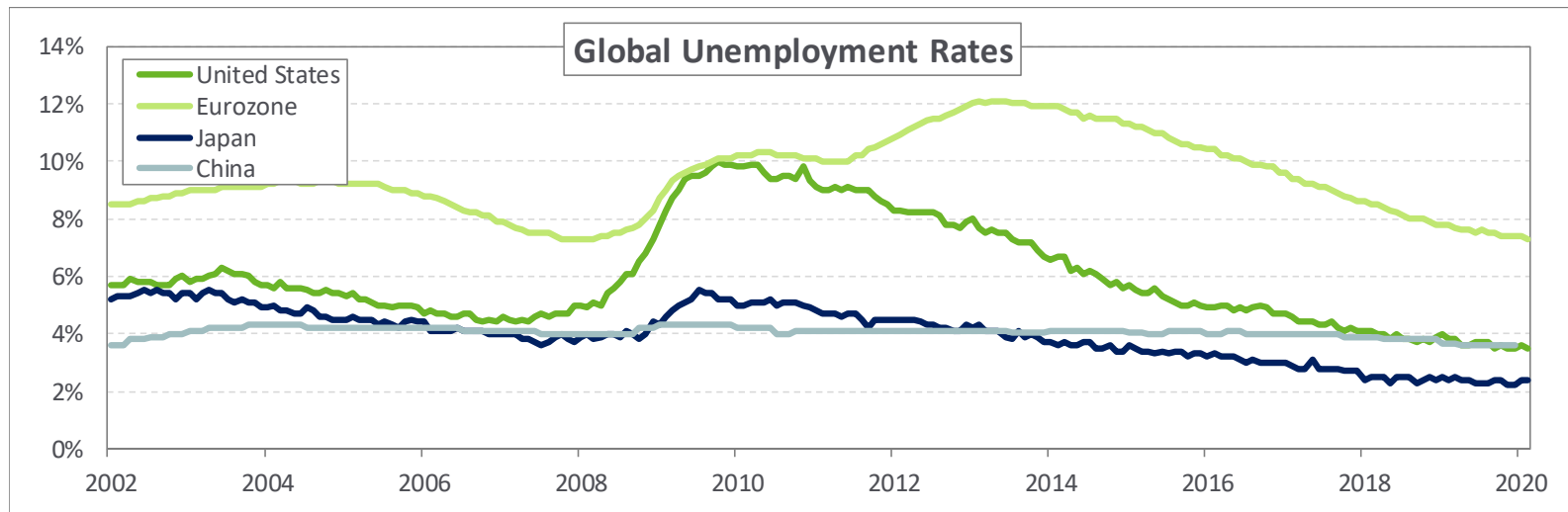
Source: FactSet



UNEMPLOYMENT



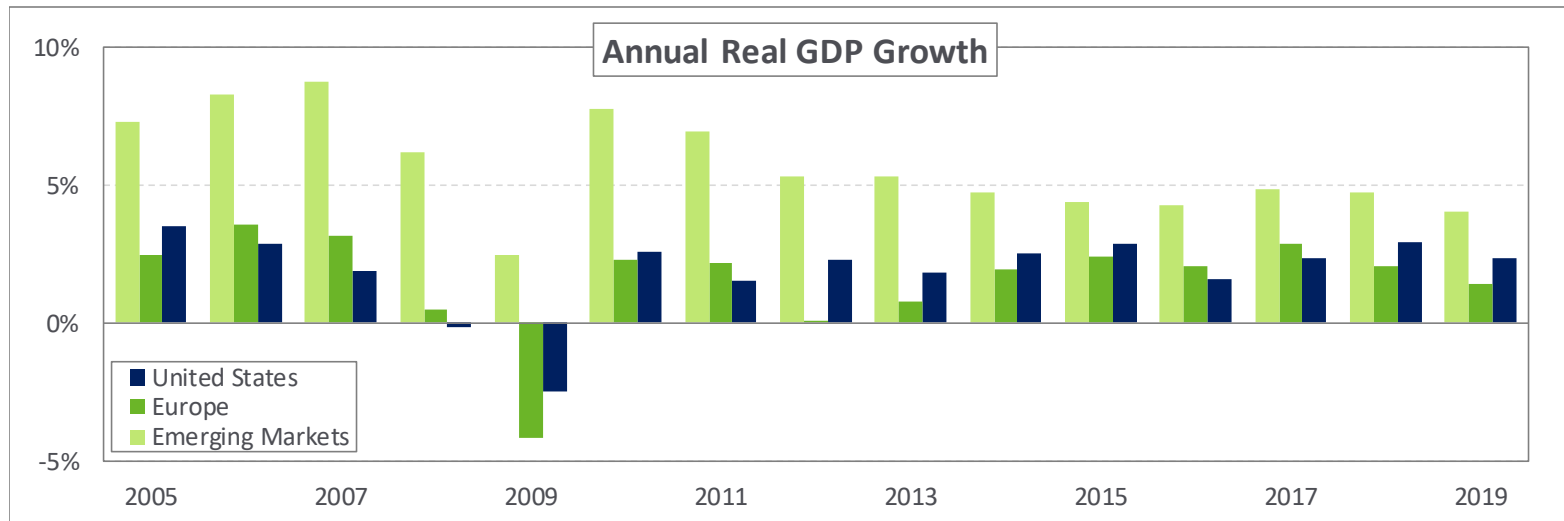
Source: FactSet



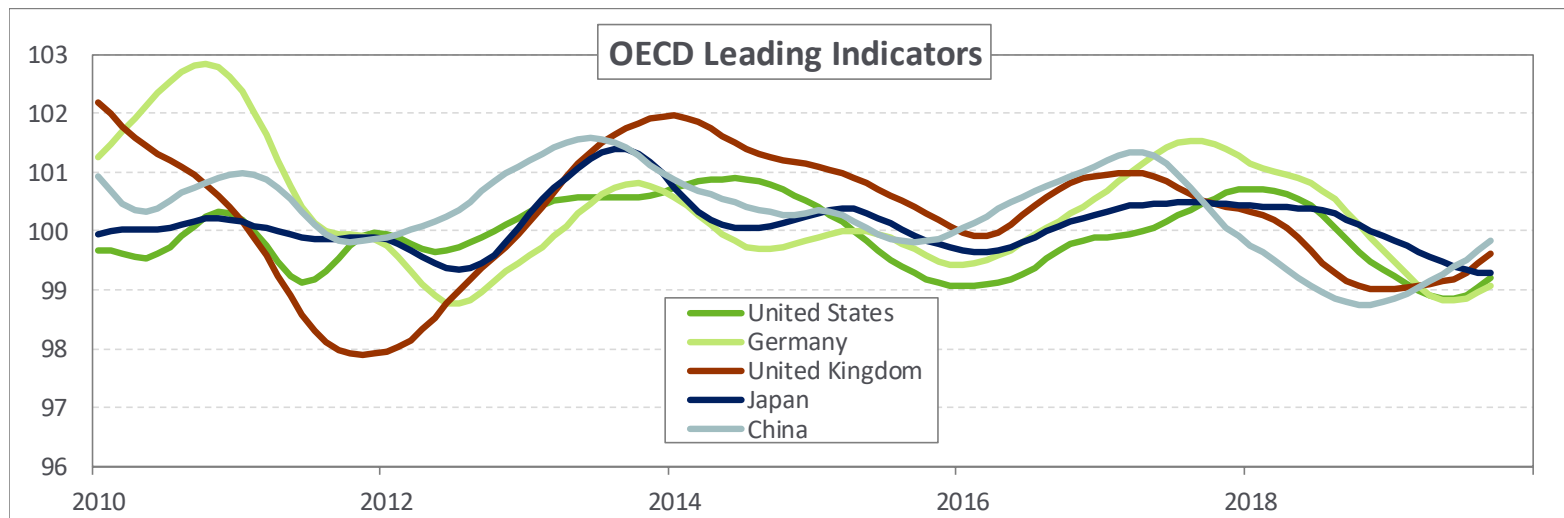
Source: FactSet



ECONOMIC INDICATORS



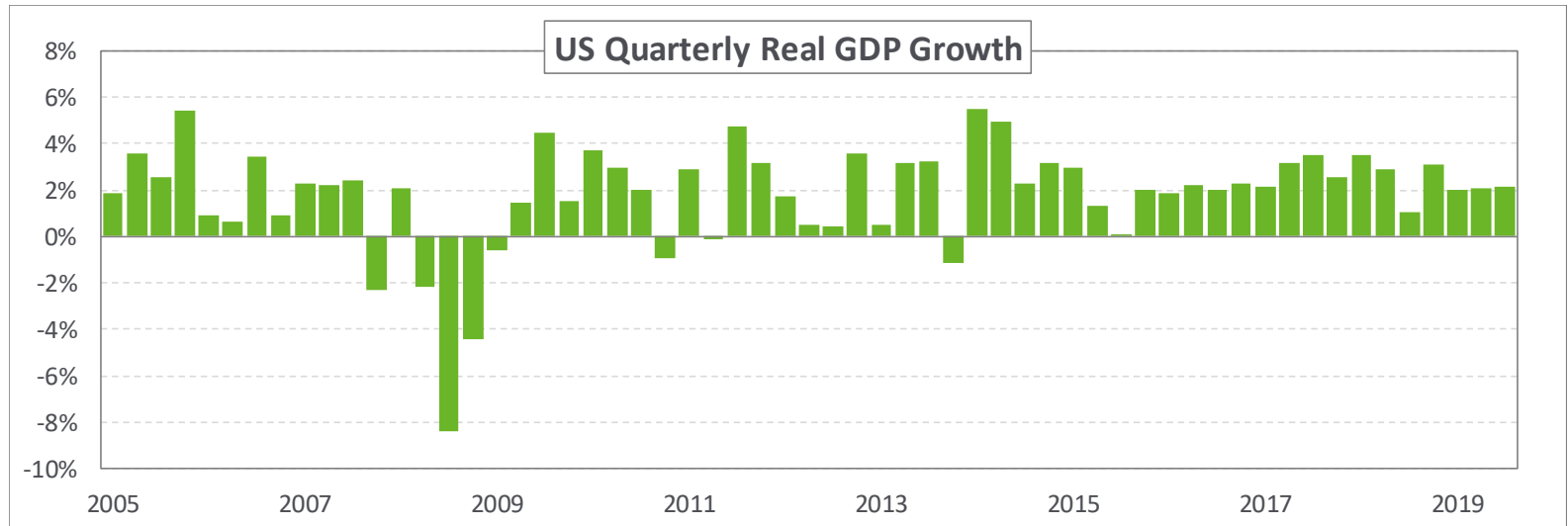
Source: Bureau of Economic Analysis, Oxford Economics, FactSet



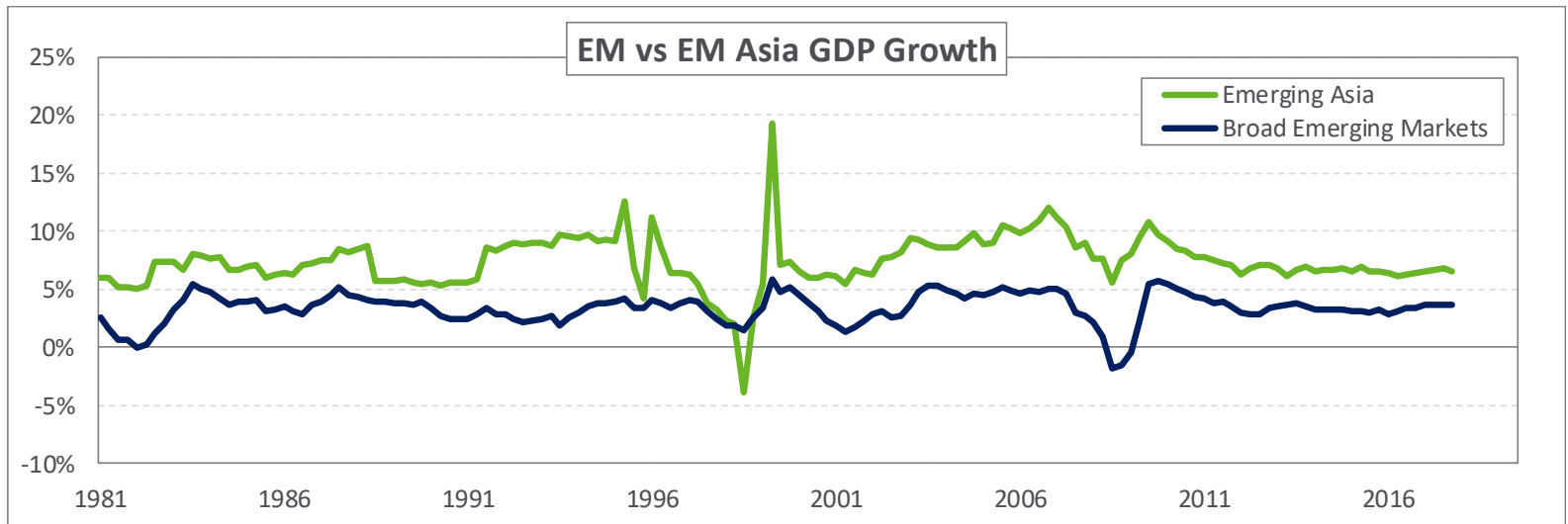
Source: OECD, FactSet



GROSS DOMESTIC PRODUCT



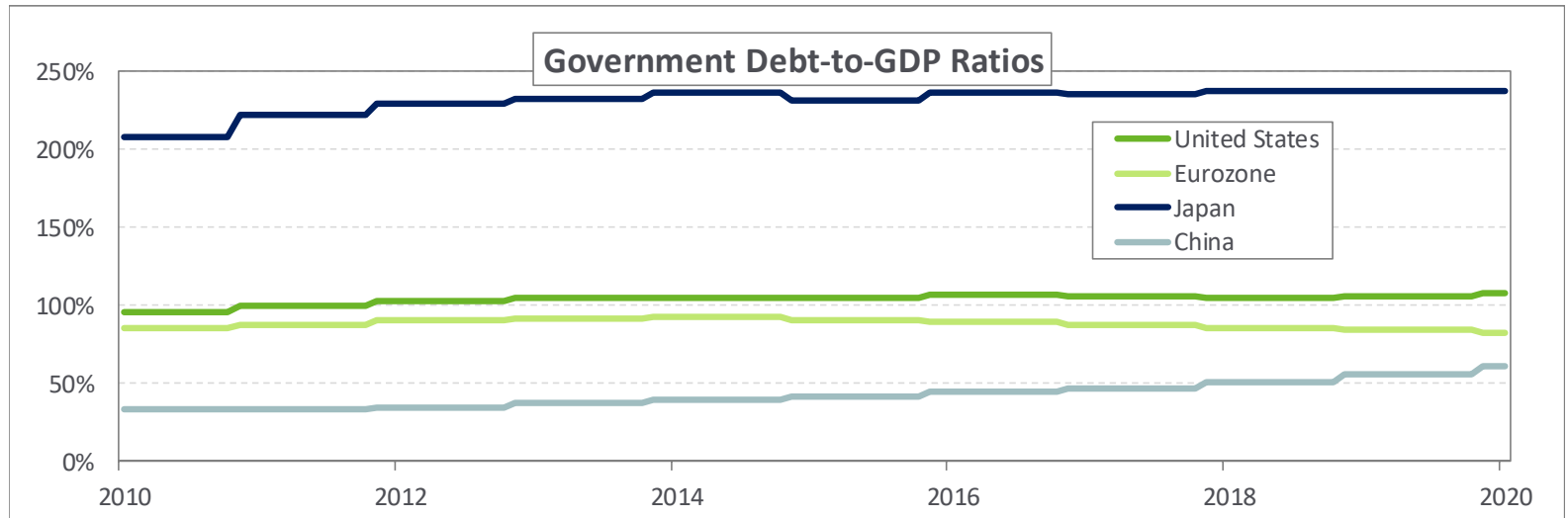
Source: Bureau of Economic Analysis, FactSet



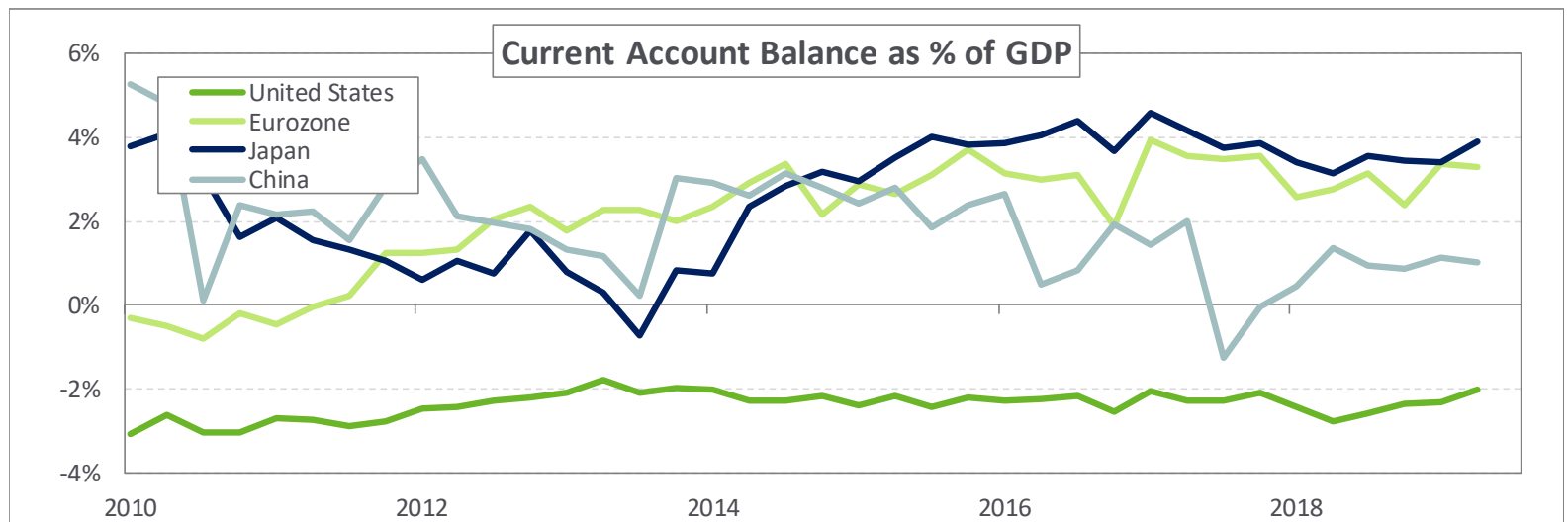
Source: IMF, FactSet



GROSS DOMESTIC PRODUCT METRICS



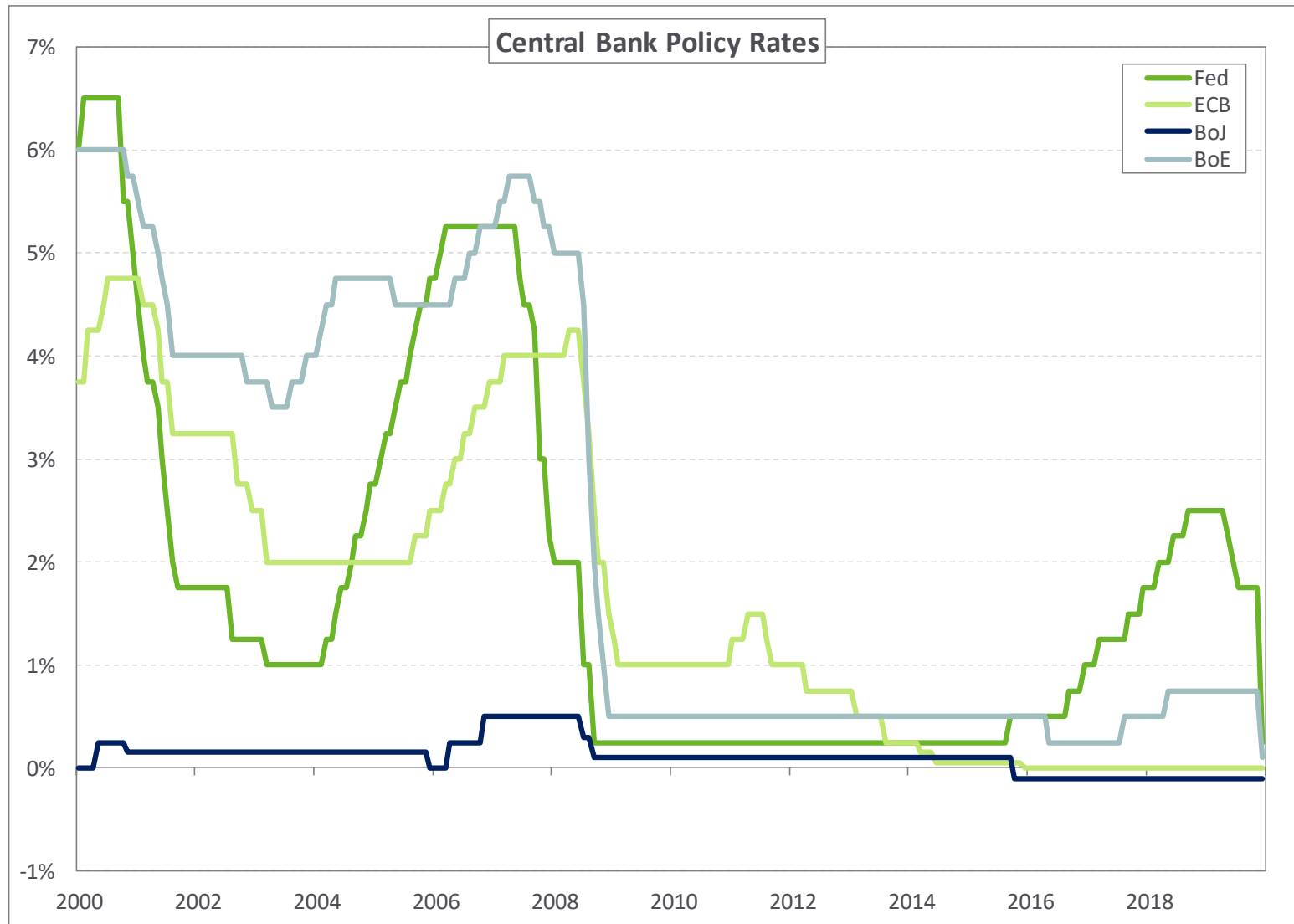
Source: IMF, FactSet



Source: FactSet



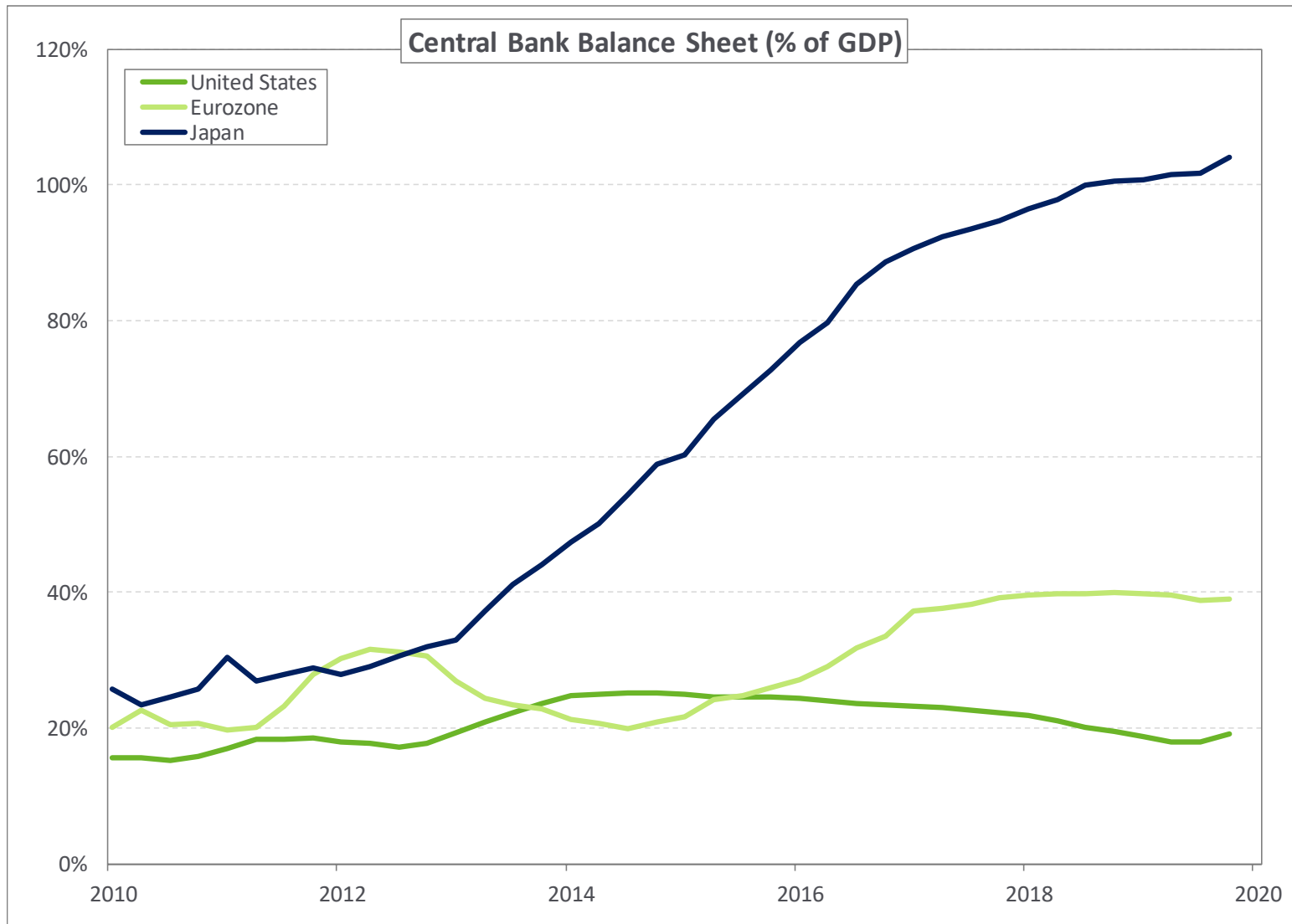
CENTRAL BANK RATES



Source: Federal Reserve, ECB, Bank of Japan, Bank of England, FactSet



CENTRAL BANK BALANCE SHEETS



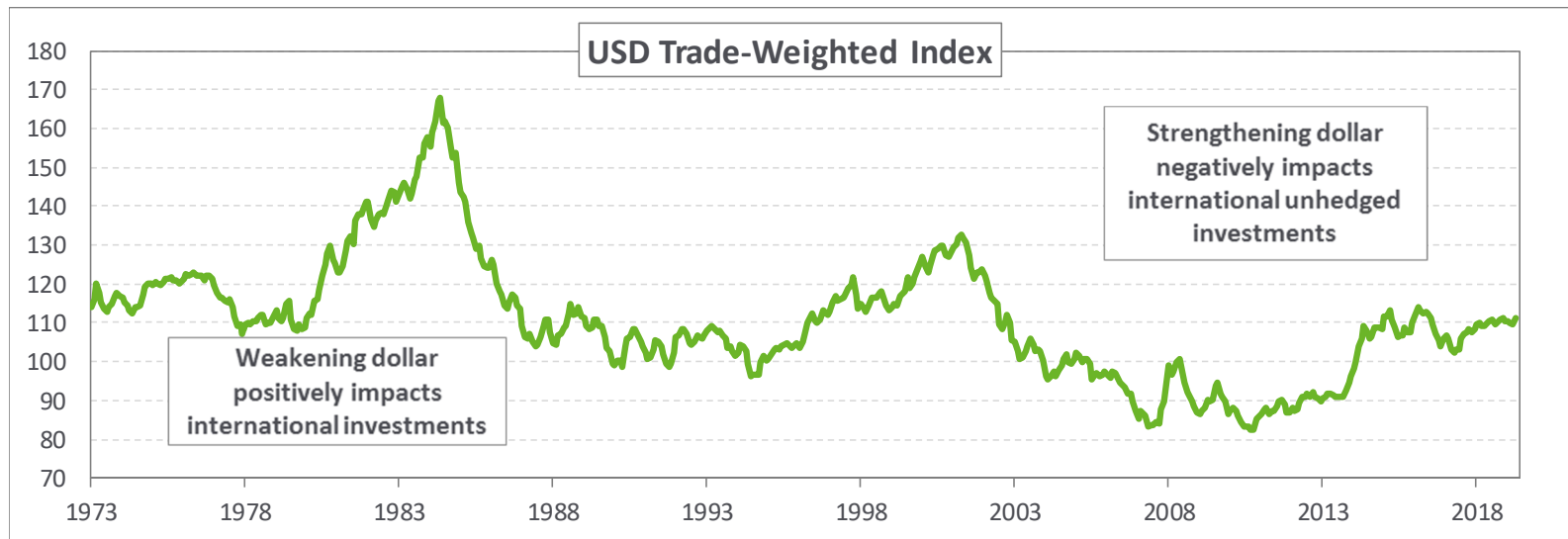
Source: FactSet



CURRENCIES

% Change Relative to USD				
Currencies	Spot	1 Month	YTD	1 Year
Euro	1.10	-0.11%	-2.25%	-2.28%
British Pound	1.24	-2.92%	-6.40%	-4.84%
Japanese Yen	107.96	0.08%	-0.66%	-2.47%
Swiss Franc	0.97	-0.04%	-0.08%	-2.85%
Australian Dollar	0.61	-5.07%	-12.93%	-13.84%
Chinese Yuan	7.09	1.47%	1.83%	5.55%
Brazilian Real	5.19	14.96%	28.93%	33.27%
Russian Ruble	78.13	16.27%	25.80%	18.93%
Indian Rupee	75.65	4.83%	5.99%	9.20%
Mexican Peso	23.46	18.50%	24.23%	20.94%
South African Rand	17.86	13.53%	27.72%	23.85%

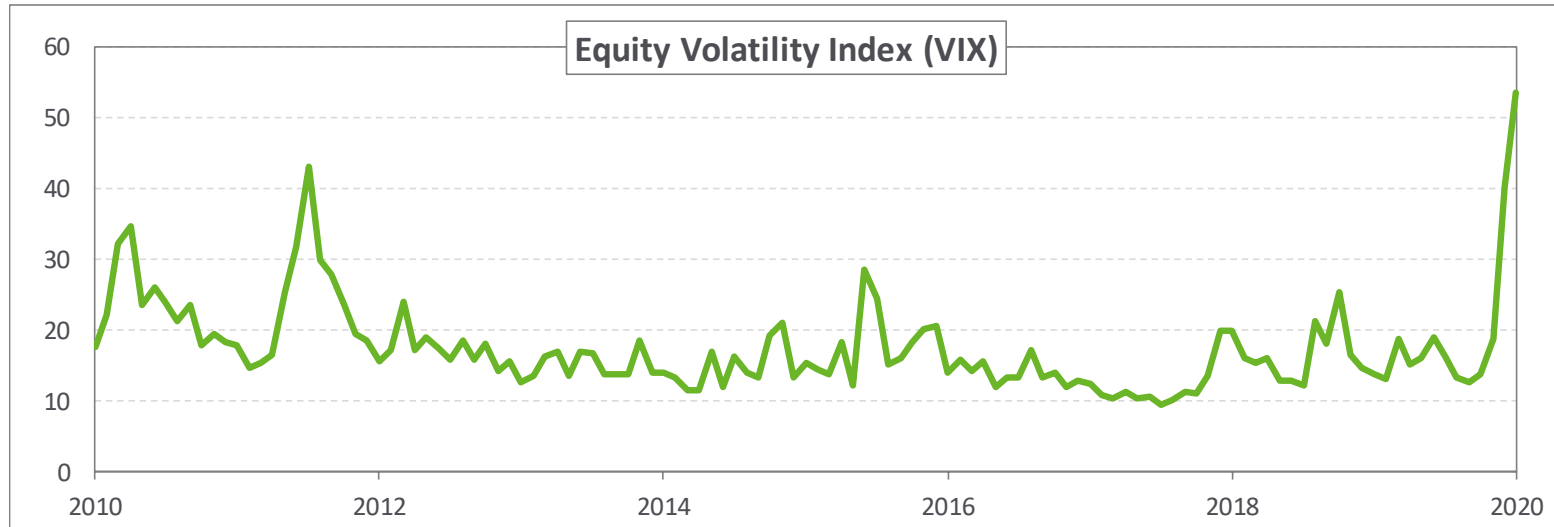
Source: FactSet



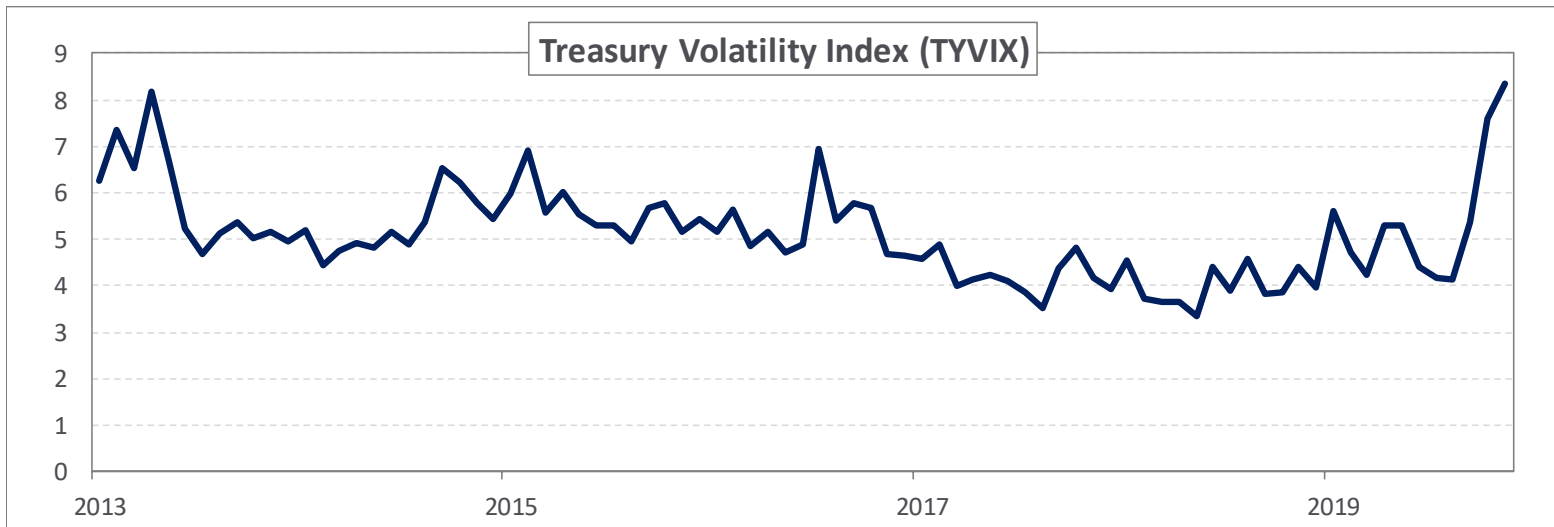
Source: FactSet



VOLATILITY



Source: CBOE, FactSet



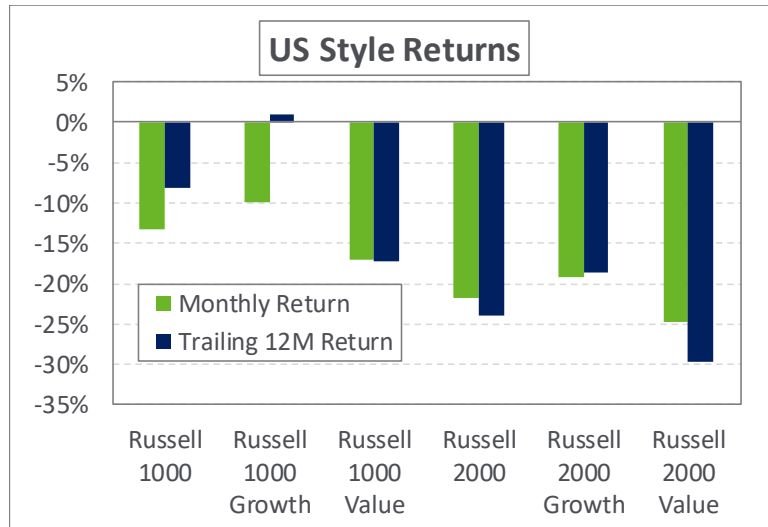
Source: CBOE, FactSet



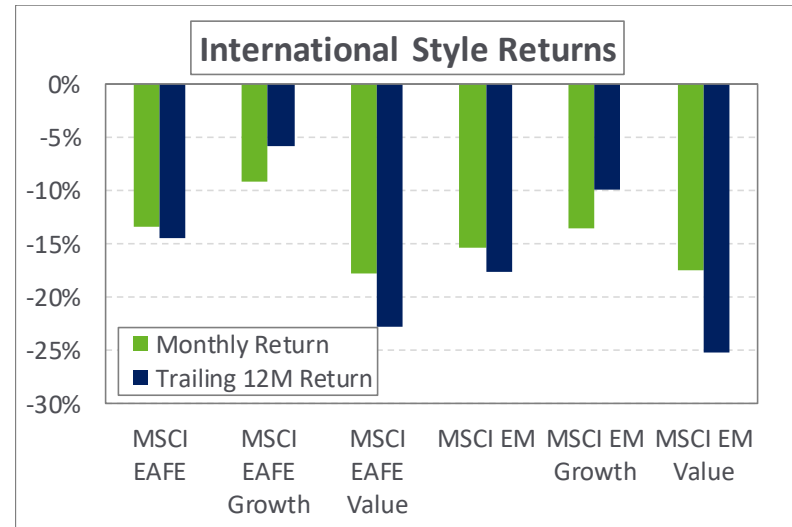
EQUITY

NEPC, LLC

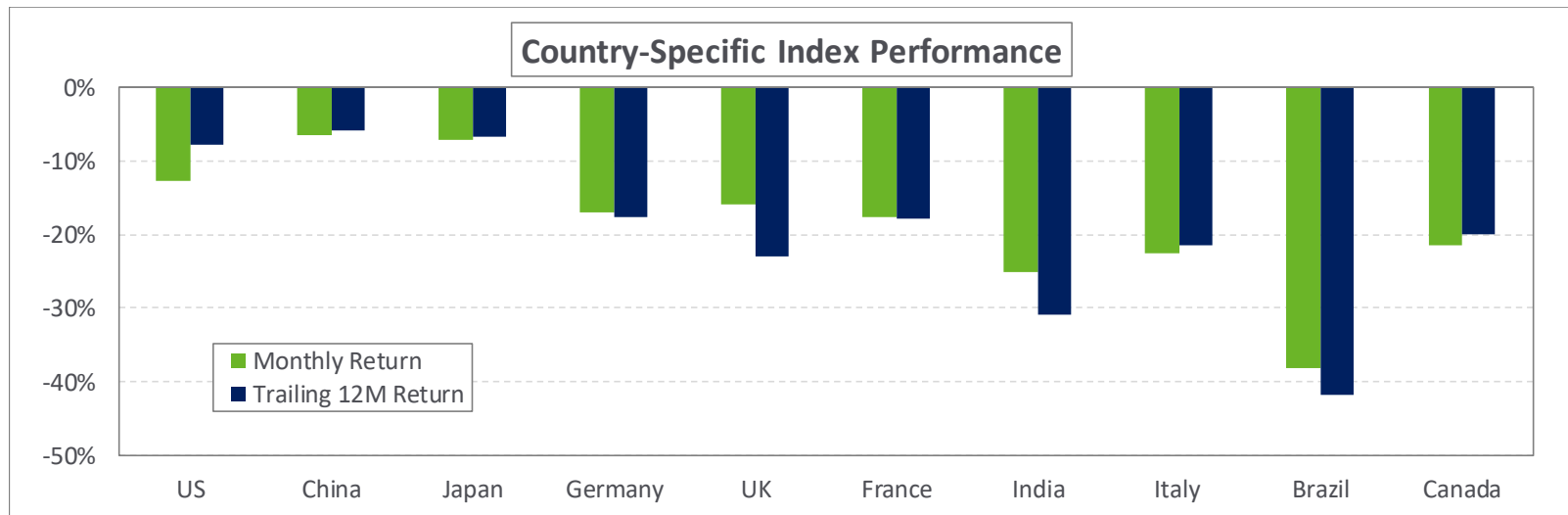
EQUITY INDEX PERFORMANCE



Source: Russell, FactSet



Source: MSCI, FactSet



Source: MSCI, FactSet
Represents returns in USD



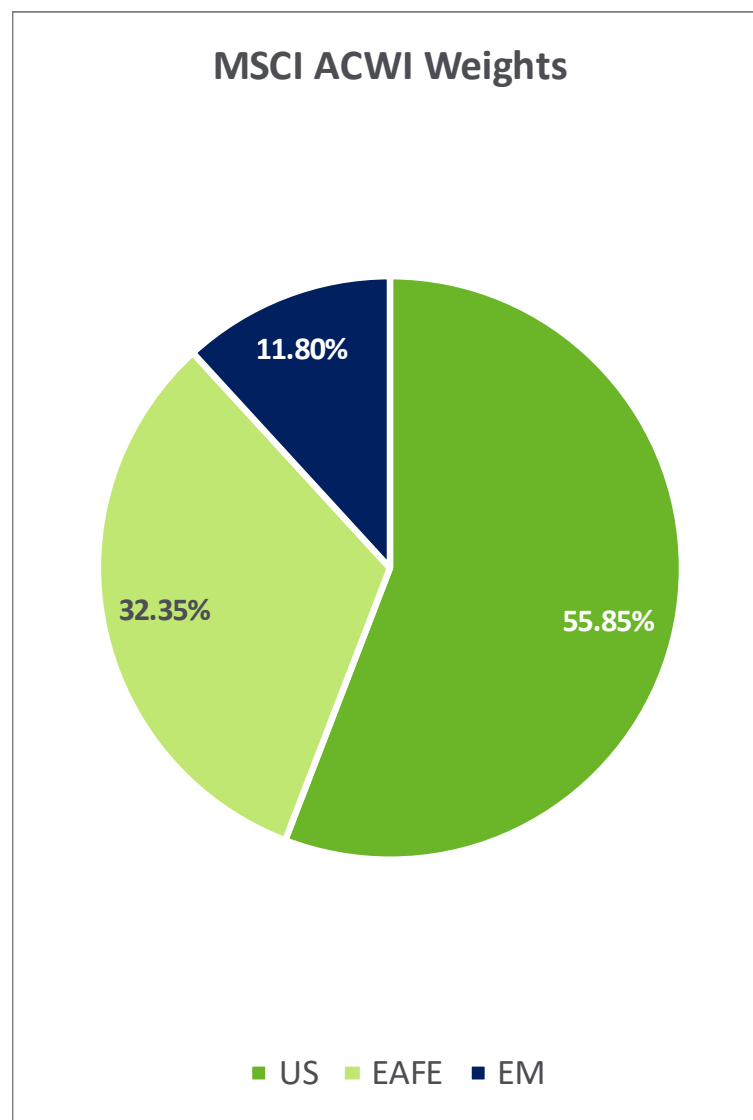
INDEX COMPOSITION

	MTD	QTD	YTD	Index Weight
S&P 500	-12.4%	-19.6%	-19.6%	100.0%
Communication Services	-1.3%	-1.8%	-1.8%	10.7%
Consumer Discretionary	-1.2%	-1.8%	-1.8%	9.8%
Consumer Staples	-0.6%	-1.1%	-1.1%	7.8%
Energy	-1.2%	-2.0%	-2.0%	2.6%
Financials	-2.5%	-4.0%	-4.0%	10.9%
Health Care	-0.8%	-1.9%	-1.9%	15.4%
Industrials	-1.7%	-2.4%	-2.4%	8.2%
Information Technology	-1.9%	-2.7%	-2.7%	25.5%
Materials	-0.3%	-0.7%	-0.7%	2.4%
Real Estate	-0.6%	-0.7%	-0.7%	3.0%
Utilities	-0.4%	-0.6%	-0.6%	3.6%

Source: S&P, FactSet

	MTD	QTD	YTD	Index Weight
MSCI ACWI	-13.5%	-21.4%	-21.4%	100.0%
Communication Services	-1.0%	-1.4%	-1.4%	9.3%
Consumer Discretionary	-1.4%	-2.2%	-2.2%	10.8%
Consumer Staples	-0.6%	-1.2%	-1.2%	8.8%
Energy	-1.2%	-2.1%	-2.1%	3.7%
Financials	-3.6%	-5.3%	-5.3%	14.4%
Health Care	-0.5%	-1.4%	-1.4%	13.3%
Industrials	-1.8%	-2.7%	-2.7%	9.6%
Information Technology	-1.6%	-2.3%	-2.3%	18.8%
Materials	-0.6%	-1.2%	-1.2%	4.4%
Real Estate	-0.7%	-0.9%	-0.9%	3.1%
Utilities	-0.5%	-0.6%	-0.6%	3.6%

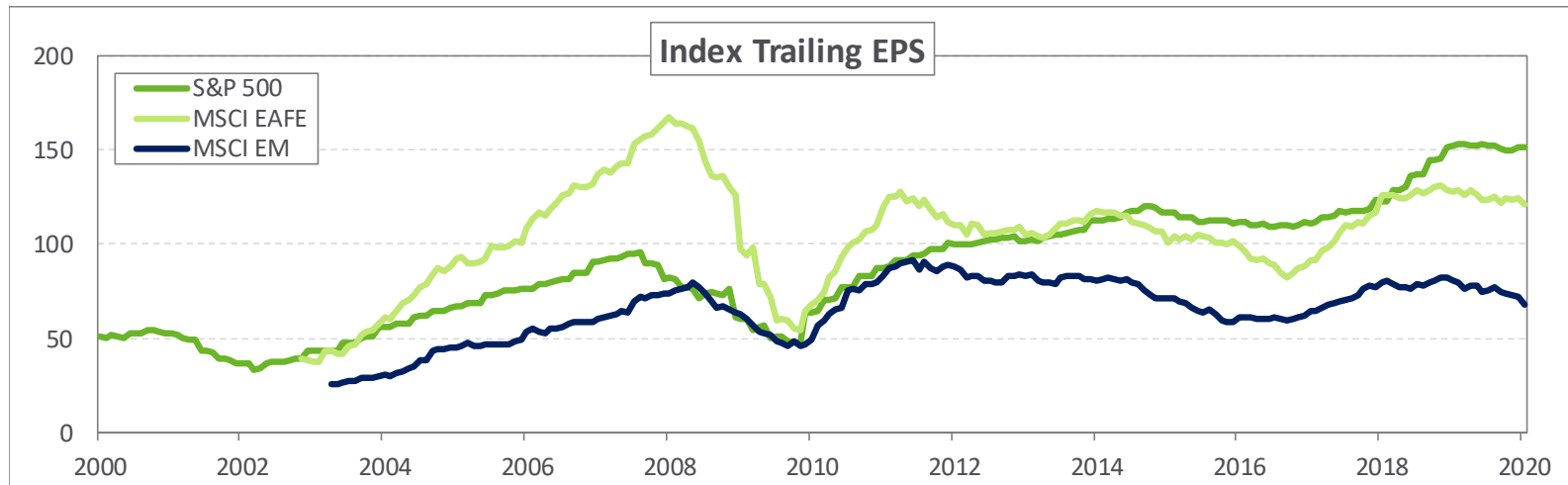
Source: MSCI, FactSet



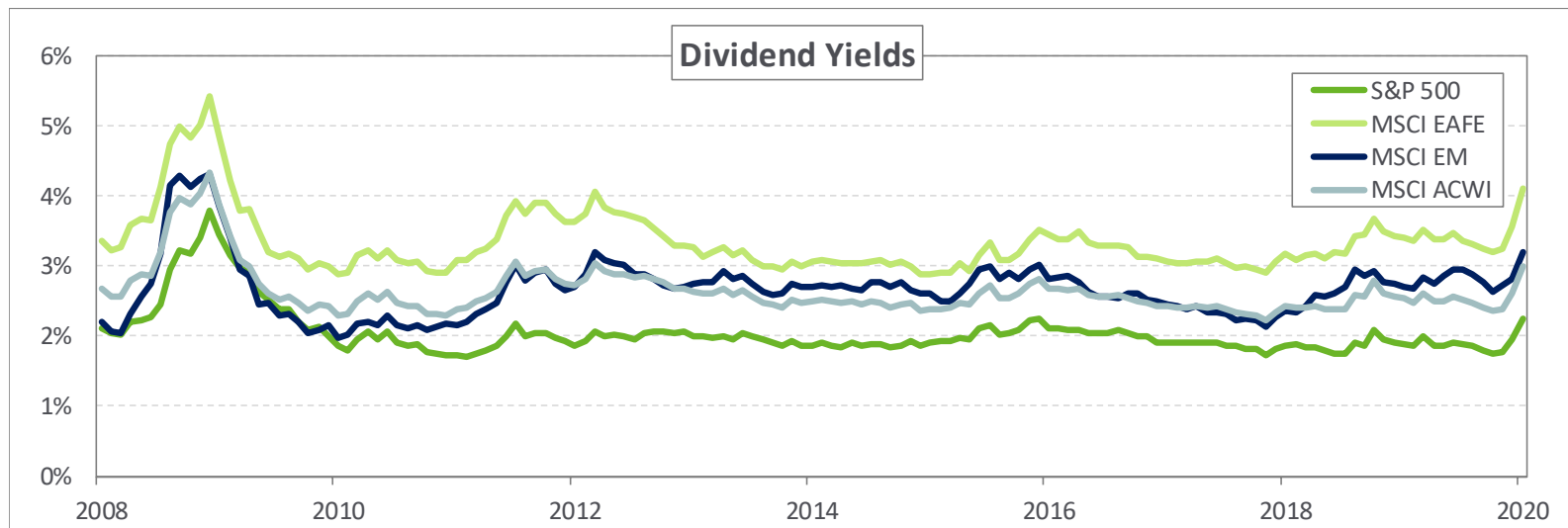
Source: MSCI, FactSet



EARNINGS & YIELDS



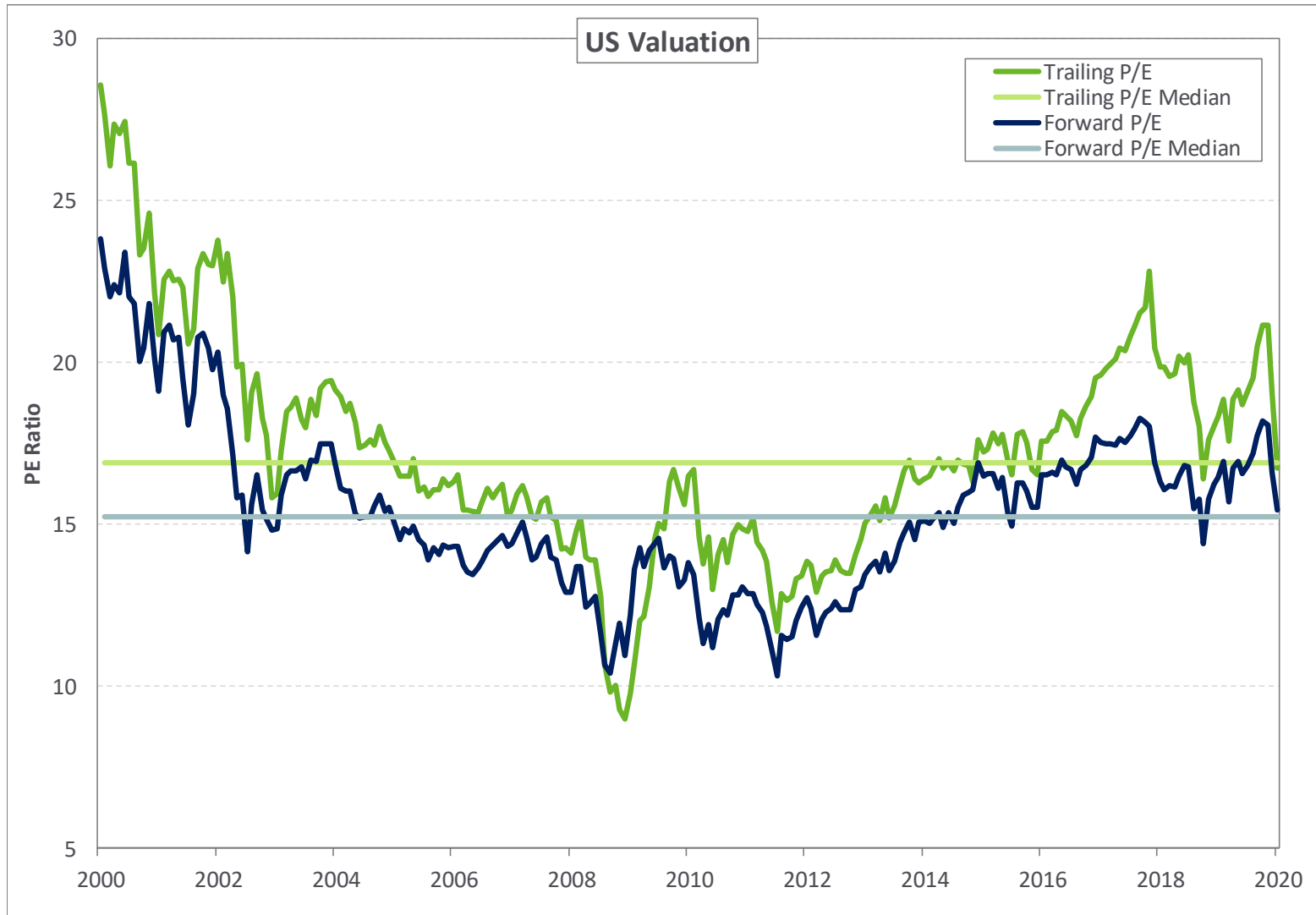
Source: FactSet



Source: FactSet



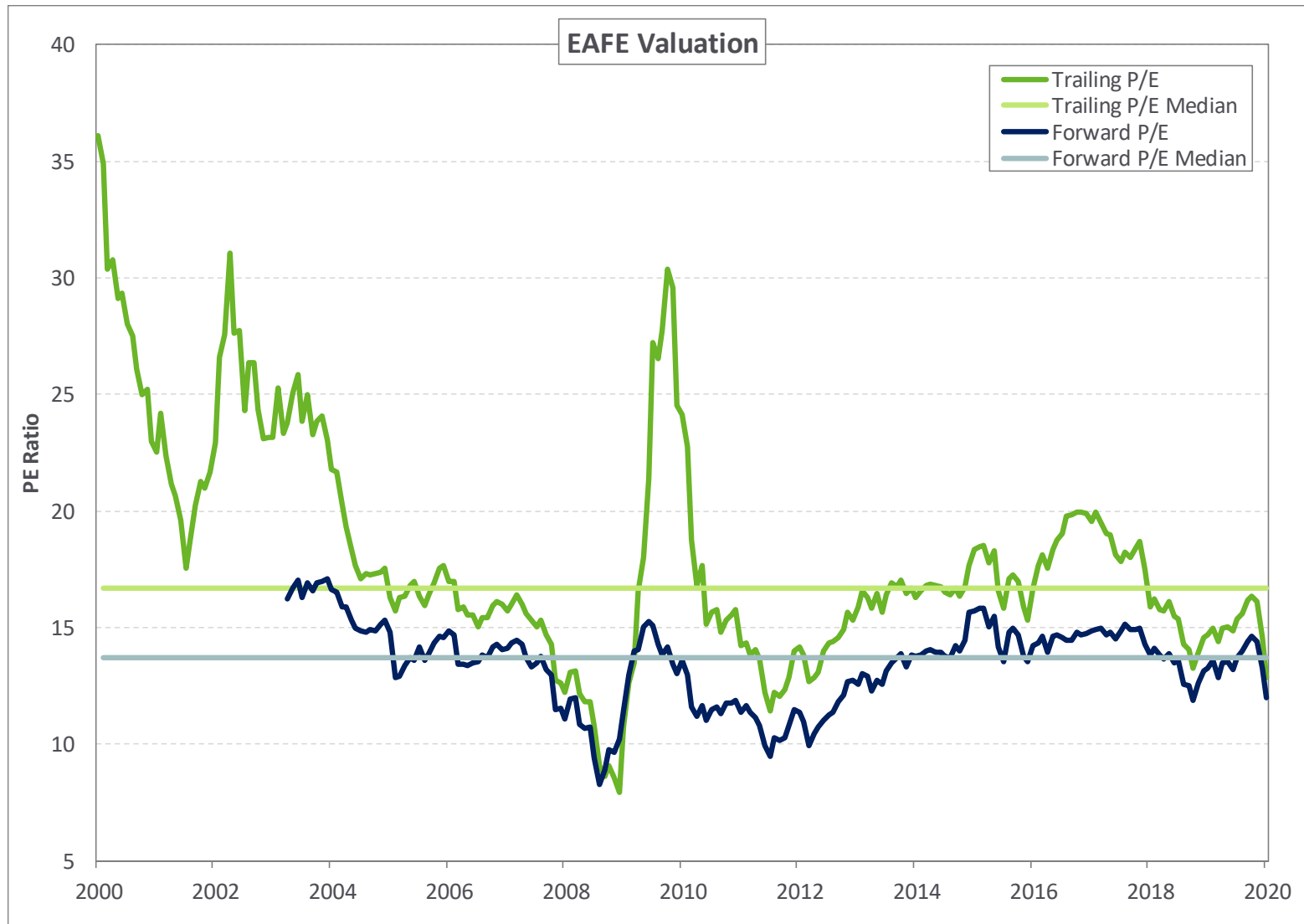
US EQUITY VALUATIONS



Source: S&P, FactSet



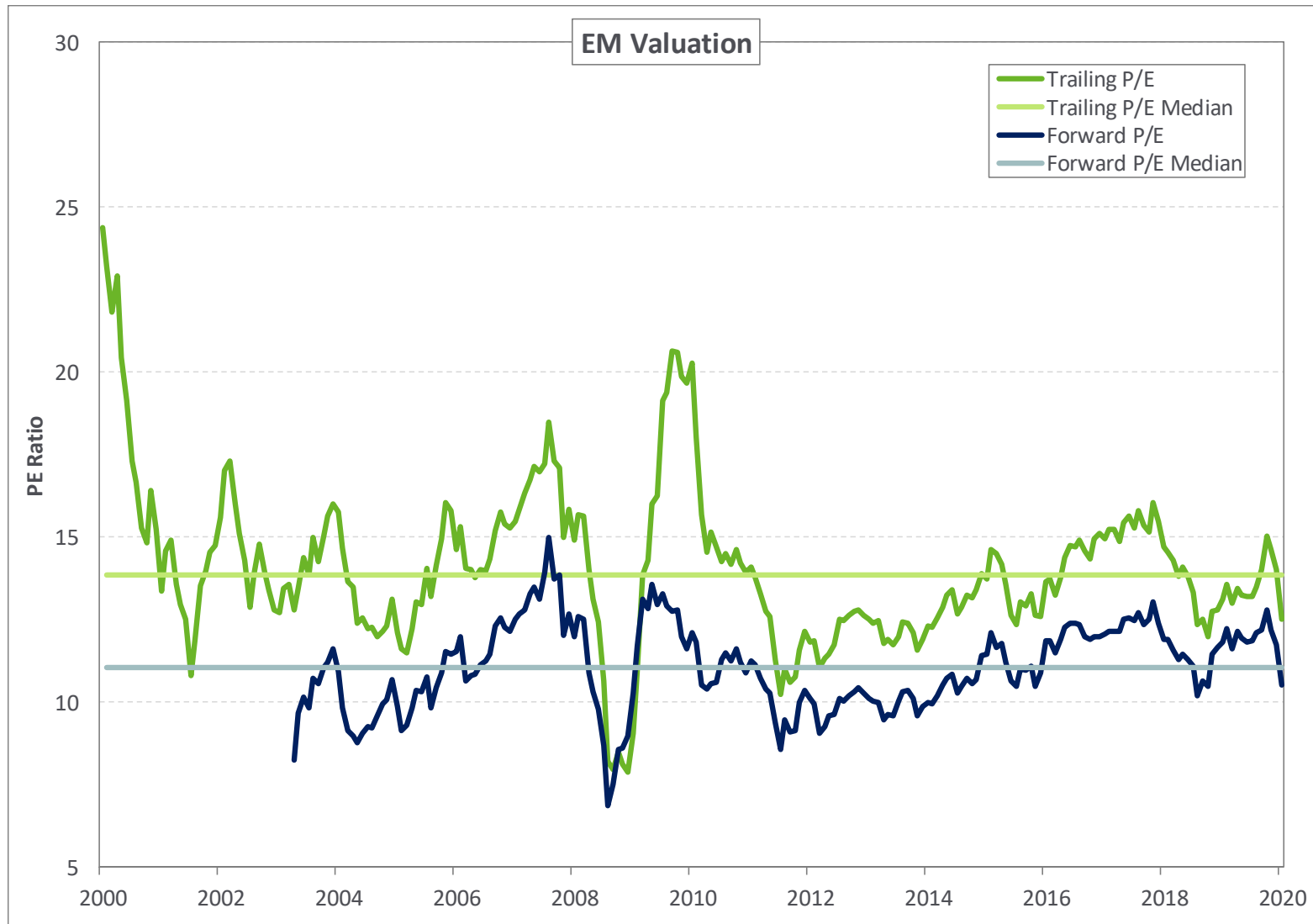
EAFE EQUITY VALUATIONS



Source: MSCI, FactSet



EM EQUITY VALUATIONS



Source: MSCI, FactSet



CREDIT

NEPC, LLC

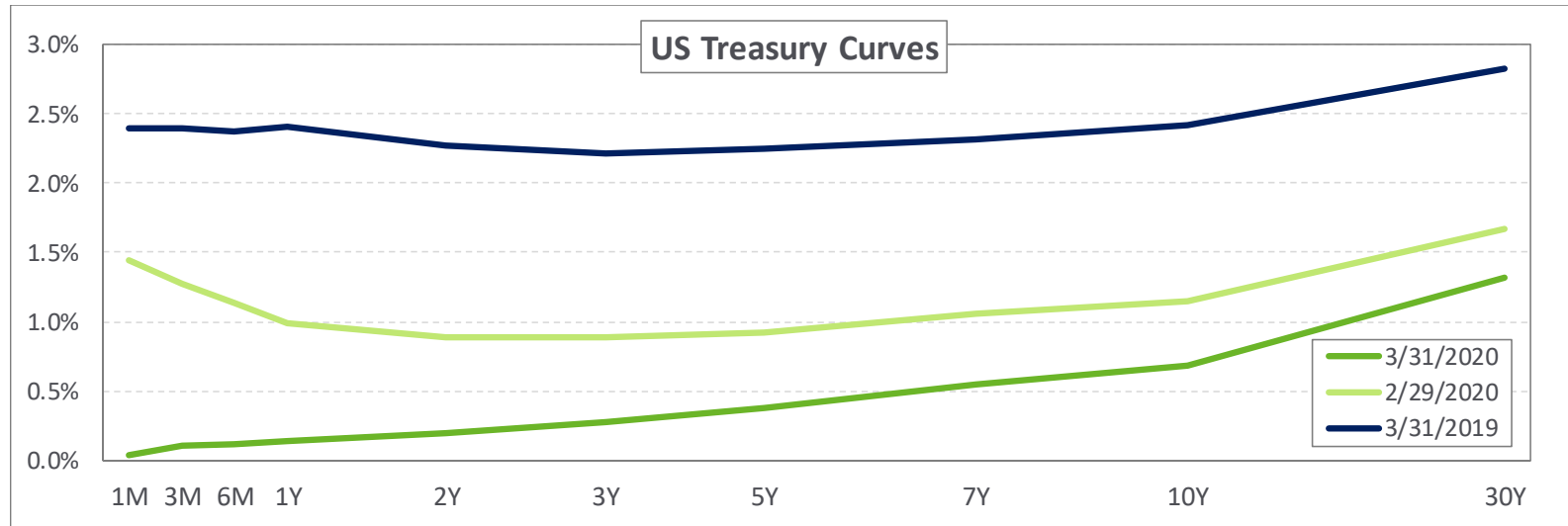
FIXED INCOME CHARACTERISTICS

	Averages			Total Returns (%)		
	Yield to Worst	Spread (bps)	Duration (Years)	1-Month	YTD	1-Year
Barclays Aggregate	1.59%	95	5.7	-0.6%	3.1%	8.9%
Barclays Treasury	0.58%	-	7.0	2.9%	8.2%	13.1%
Barclays Agency	0.94%	49	3.9	1.0%	4.1%	8.2%
Barclays MBS	1.34%	60	1.7	1.1%	2.8%	7.0%
Barclays ABS	2.40%	213	2.1	-2.1%	-0.2%	2.8%
Barclays CMBS	1.80%	130	5.6	-1.3%	3.6%	8.2%
Barclays Corp IG	3.43%	272	8.0	-7.1%	-3.6%	4.9%
Barclays Muni	2.01%	-	5.4	-3.6%	-0.6%	3.8%
Barclays HY Muni	5.24%	-	10.0	-11.0%	-6.9%	-0.7%
Barclays TIPS	0.93%	-	6.7	-1.8%	1.7%	6.8%
Barclays HY	9.44%	880	4.1	-11.5%	-12.7%	-6.9%
Barclays Global Agg	1.22%	82	7.0	-2.2%	-0.3%	4.2%
JPM EMBI Glob Div	-	627	7.1	-13.8%	-13.4%	-6.8%
JPM GBI - EM	4.61%	-	5.3	-11.1%	-15.2%	-6.5%

Source: Barclays, JP Morgan, FactSet



TREASURIES



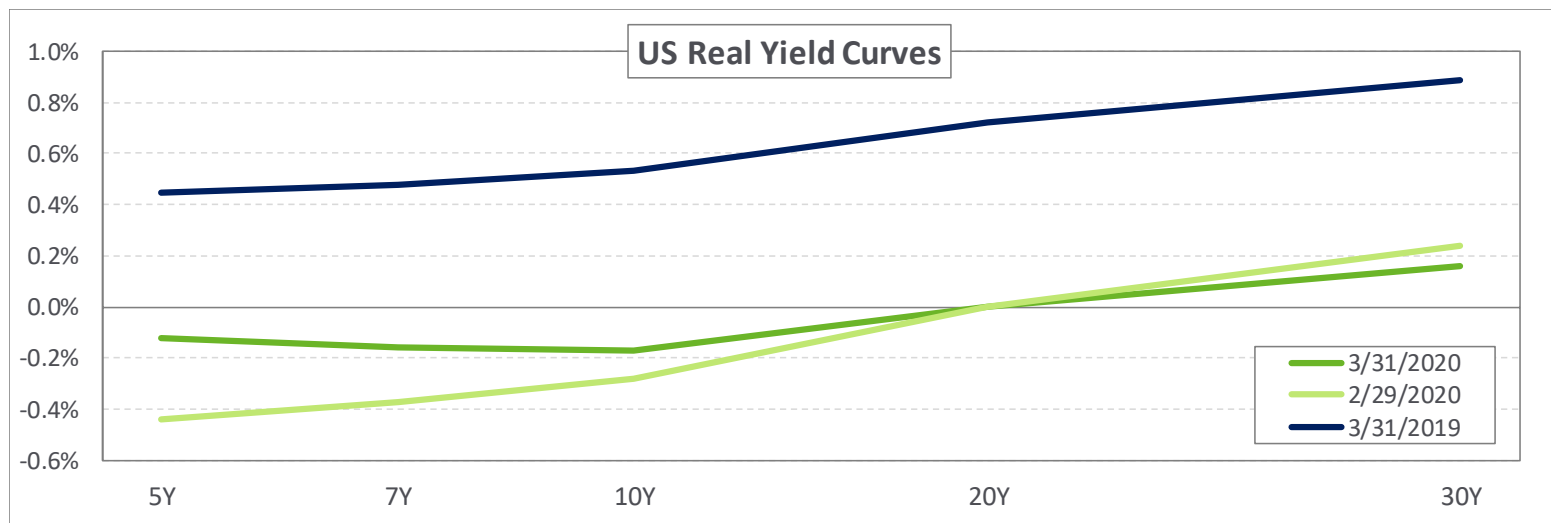
Source: FactSet

	Yield (%)			Total Return (%)	
	Current	1 Month Ago	12 Months Ago	1 Month	12 Months
3M Treasury	0.10%	1.27%	2.39%	0.29%	2.25%
6M Treasury	0.11%	1.14%	2.37%	0.52%	2.85%
2Y Treasury	0.20%	0.88%	2.27%	1.32%	5.38%
5Y Treasury	0.37%	0.92%	2.24%	2.62%	10.88%
10Y Treasury	0.68%	1.14%	2.42%	4.16%	18.25%
30Y Treasury	1.32%	1.67%	2.82%	7.57%	39.50%

Source: FactSet



REAL YIELDS



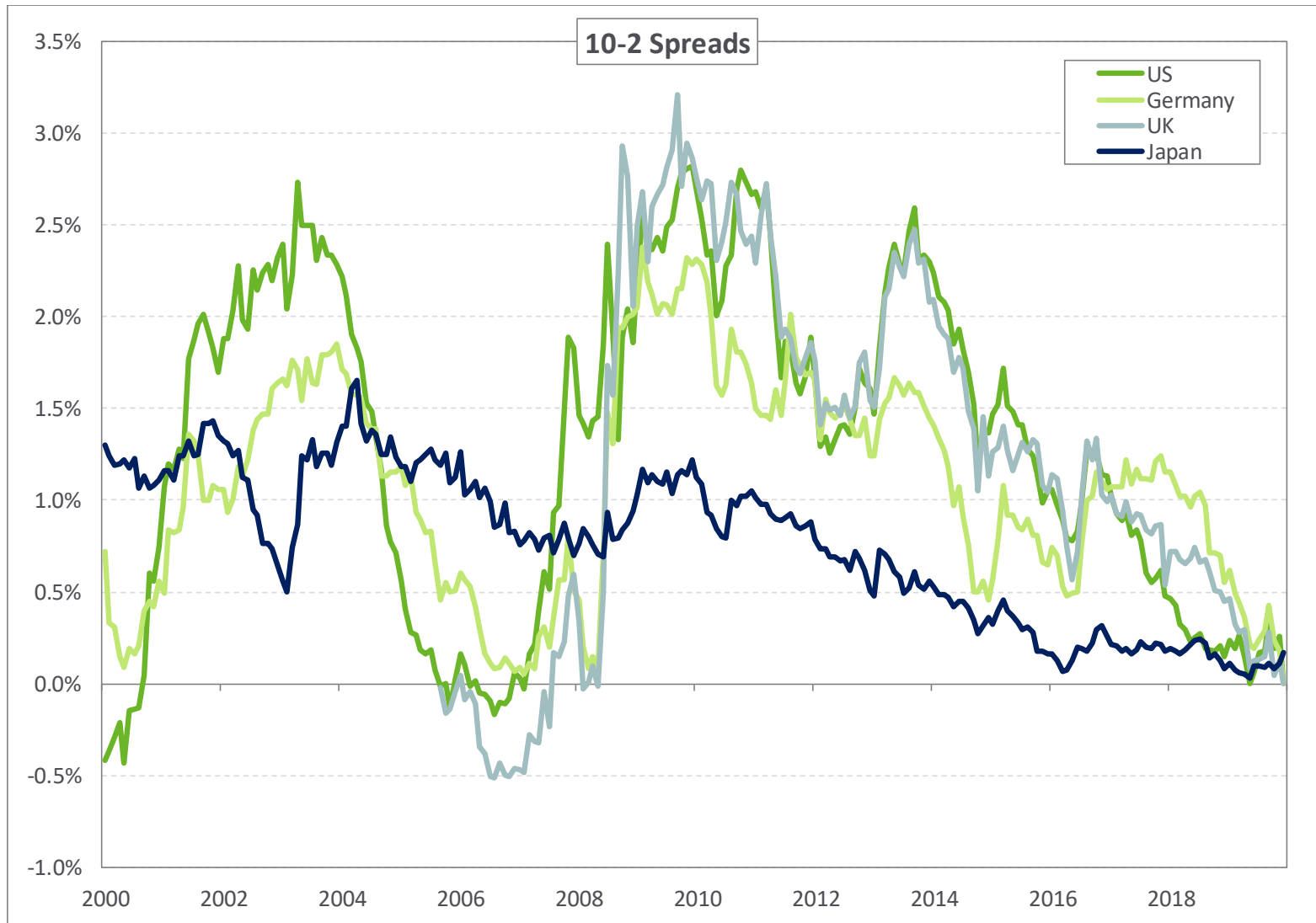
Source: FactSet

	Real Rates			Breakeven Rates	
	Current	1 Month Ago	12 Months Ago	Current	12 Months
5-Year	-0.12%	-0.44%	0.45%	0.49%	1.79%
7-Year	-0.16%	-0.37%	0.48%	0.71%	1.84%
10-Year	-0.17%	-0.28%	0.53%	0.85%	1.89%
30-Year	0.16%	0.24%	0.89%	1.16%	1.93%

Source: FactSet



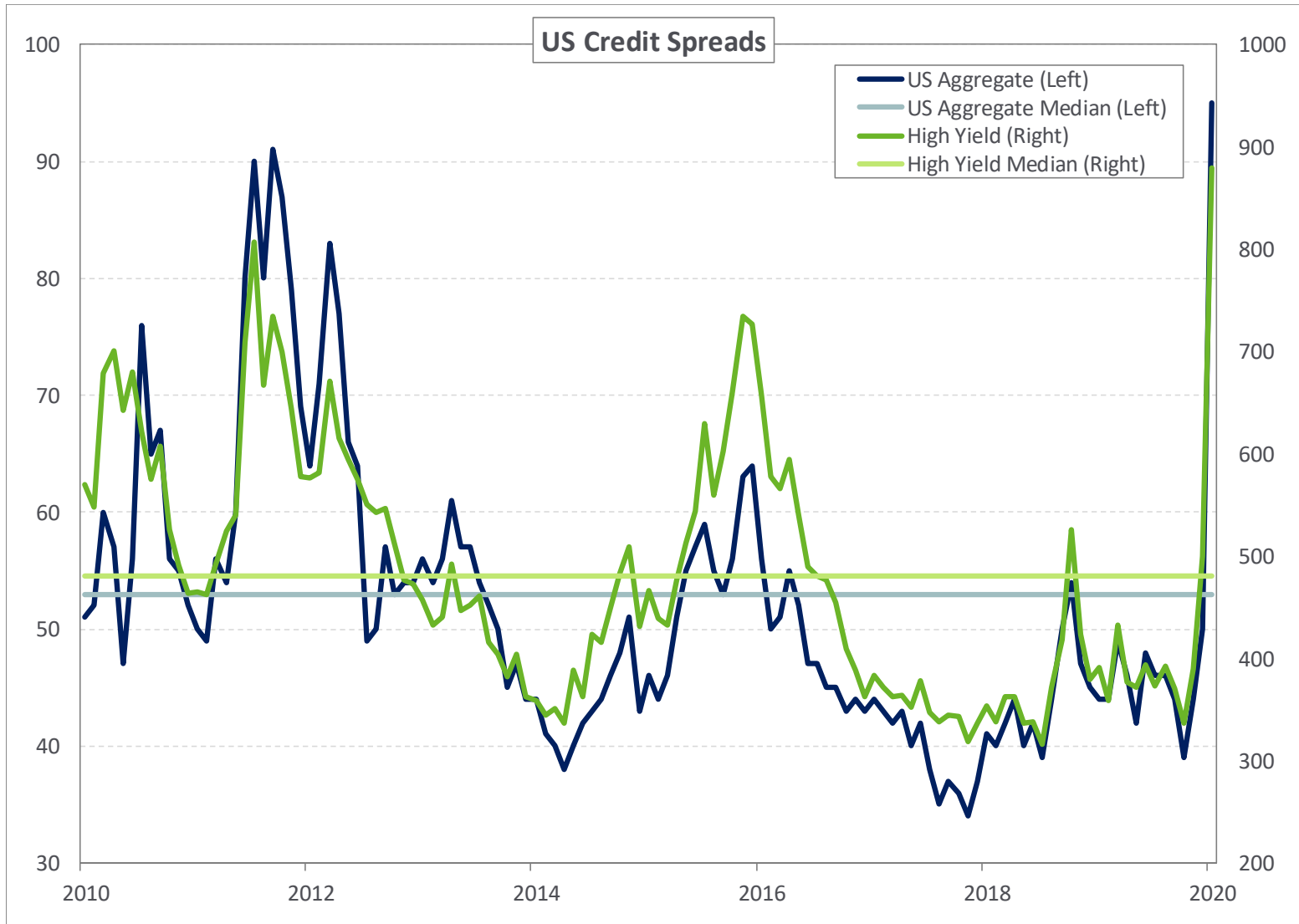
NOMINAL YIELDS



Source: FactSet



CREDIT SPREADS



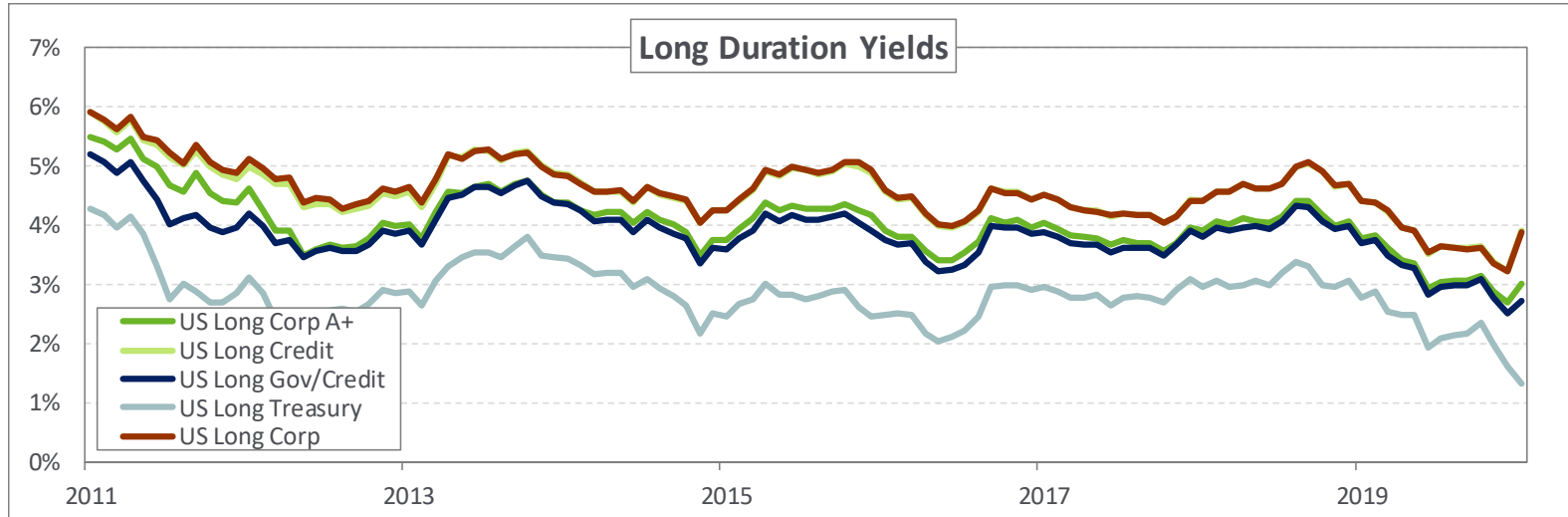
Source: Barclays, FactSet



LONG DURATION

Index	Current	1 Month Ago	12 Months Ago	Duration
Barclays Long Treasury	1.3%	1.6%	2.8%	19.0
Barclays 20+ STRIPS	1.4%	1.7%	2.8%	26.8
Barclays Long Credit	3.9%	3.2%	4.4%	14.1
Barclays Long Gov/Credit	2.7%	2.5%	3.7%	16.4
Barclays Long Corp A+	3.3%	2.8%	4.0%	15.2

Source: Barclays, FactSet



Source: Barclays, FactSet



REAL ASSETS

NEPC, LLC

REAL ASSETS INDEX PERFORMANCE

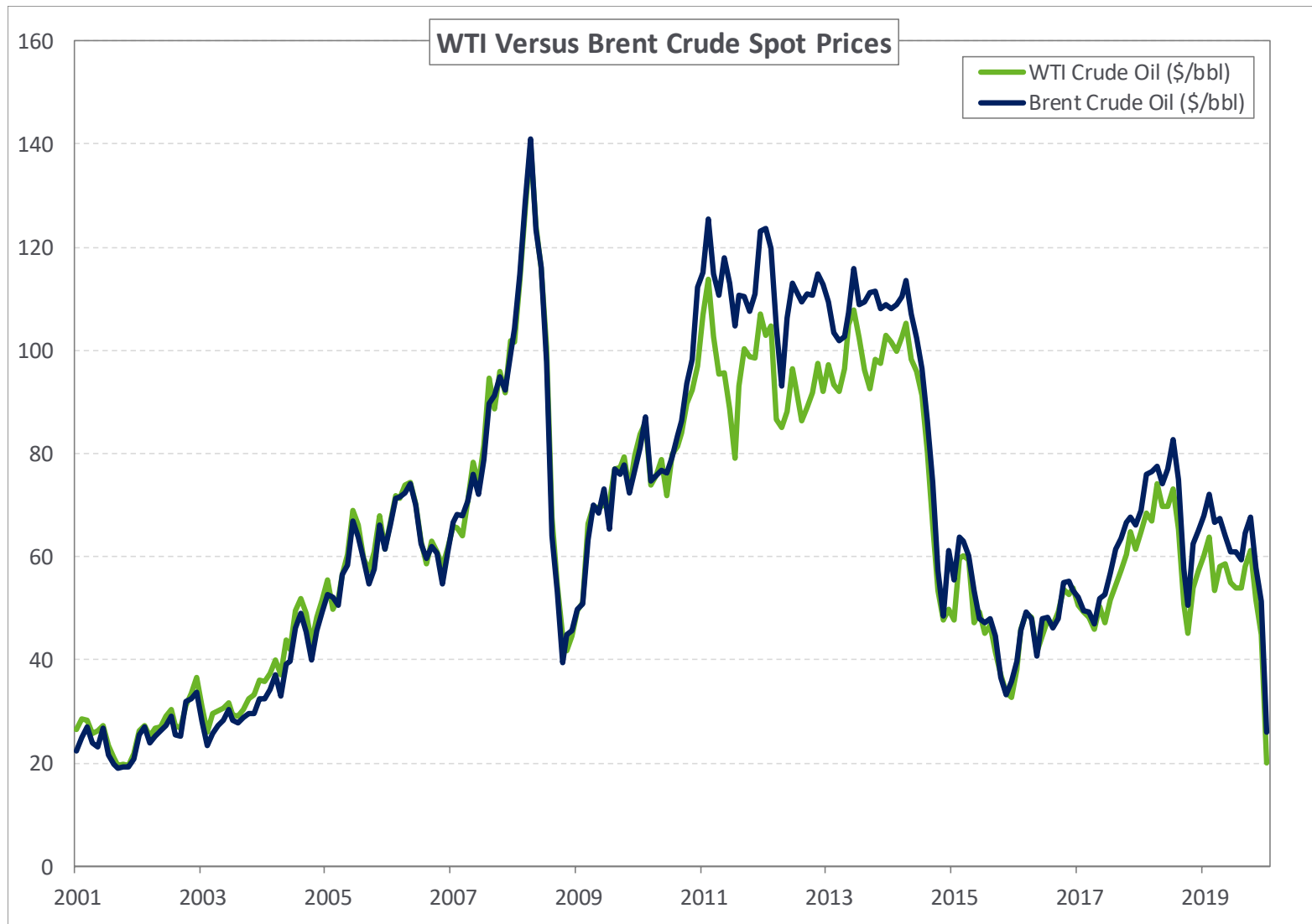
Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	-12.8%	-23.3%	-23.3%	-22.2%	-8.6%	-7.7%
Bloomberg Sub Agriculture Index	-3.3%	-9.9%	-9.9%	-5.3%	-9.1%	-7.2%
Coffee	7.4%	-9.4%	-9.4%	12.1%	-14.4%	-11.5%
Corn	-7.4%	-12.9%	-12.9%	-11.8%	-12.0%	-11.4%
Cotton	-16.8%	-26.4%	-26.4%	-35.0%	-12.6%	-4.7%
Soybean	-0.7%	-8.2%	-8.2%	-6.7%	-7.4%	-5.2%
Soybean Oil	-5.8%	-23.0%	-23.0%	-8.8%	-8.7%	-6.0%
Sugar	-26.3%	-20.0%	-20.0%	-22.8%	-19.4%	-8.5%
Wheat	8.4%	2.1%	2.1%	22.4%	-0.2%	-7.2%
Bloomberg Sub Energy	-35.1%	-51.1%	-51.1%	-52.6%	-19.8%	-18.7%
Brent Crude	-43.2%	-56.3%	-56.3%	-52.4%	-14.5%	-15.3%
Heating Oil	-32.0%	-50.0%	-50.0%	-47.6%	-12.4%	-13.6%
Natural Gas	-5.3%	-27.5%	-27.5%	-50.3%	-29.6%	-26.4%
Unleaded Gas	-59.9%	-68.1%	-68.1%	-63.3%	-27.1%	-20.7%
WTI Crude Oil	-54.4%	-66.5%	-66.5%	-65.1%	-25.5%	-23.3%
Bloomberg Sub Industrial Metals	-9.7%	-18.5%	-18.5%	-22.5%	-5.5%	-3.4%
Aluminum	-10.6%	-16.8%	-16.8%	-22.3%	-8.9%	-5.1%
Copper	-12.2%	-20.3%	-20.3%	-23.5%	-6.2%	-4.9%
Nickel	-6.4%	-18.4%	-18.4%	-10.8%	4.5%	-2.2%
Zinc	-5.9%	-16.2%	-16.2%	-31.2%	-7.7%	0.1%
Bloomberg Sub Precious Metals	-1.4%	-1.1%	-1.1%	15.6%	3.7%	3.2%
Gold	1.8%	4.5%	4.5%	22.1%	7.7%	5.4%
Silver	-13.9%	-21.1%	-21.1%	-7.6%	-9.2%	-4.4%
Bloomberg Sub Livestock	-13.5%	-28.1%	-28.1%	-35.3%	-11.0%	-9.7%
Lean Hogs	-19.9%	-36.8%	-36.8%	-51.9%	-20.4%	-15.1%
Live Cattle	-9.1%	-22.6%	-22.6%	-23.3%	-5.9%	-6.8%

Source: Bloomberg, FactSet

Bloomberg subindex total return indices reflects the return of the underlying one month commodity futures price movements



OIL MARKETS



Source: FactSet



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- 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.

