MEMORANDUM

To:

Joint Committee on Pensions, Investments, and Benefits

From:

Alan D. Conroy, Executive Director

Date:

November 4, 2015

Subject:

Alternative Investments

The KPERS Board of Trustees requested the introduction of legislation in the 2012 Legislative Session in order to provide the System with more flexibility with respect to the alternative investment portfolio. Specifically, the System requested a change in the statutory language that would allow annual net new investments (contributions minus distributions) in the alternative investment portfolio of up to 5% of the total market value of the System's assets, as measured from the end of the preceding calendar year. (The previous limitation on new alternative investments was 1% per year.) The change in the limit on annual net new alternative investments was introduced in 2012 HB 2461. The other statutory restrictions on alternative investments were left in place (e.g. there are at least two other qualified institutional buyers; the System's share in any individual alternative investment cannot exceed 20% of the individual alternative investment; the system must receive a favorable and appropriate recommendation from a qualified independent expert; etc.), except that the Legislature also added an overall cap of 15% on total alternative investments as a percentage of the System's total investment assets. In addition, the definition of alternative investments was updated and clarified, and the new legislation required the Board of Trustees to file a report on the System's alternative investments with the Joint Committee on Pensions, Investments, and Benefits before January 1, 2016.

This new report will include a review of the alternative investments of the System with an emphasis on the effects of the changes in the law pursuant to 2012 HB 2461 (now K.S.A. 74-4921). The Retirement System's Investment Division staff are in the process of preparing the report, and it will be delivered to the Joint Committee prior to the January 1, 2016 deadline.

As a point of reference, attached is the System's June 30, 2015 investment performance report, which contains the current, interim and long term target asset allocations (page 4) and the performance of each asset class and investment portfolio. As the report indicates, as of June 30, 2015, the System's private equity portfolio made up approximately 3.7% of total assets. The private equity portfolio is the largest component of the System's allocation to alternative investments. In addition to private equity, the System has made investments in bank loans and infrastructure, which also fall under the definition of alternative investments. As of June 30, 2015, the System's total allocation to alternative investments was approximately 4.3% of the total investment portfolio.

Attachment: June 30, 2015 Investment Performance Report



KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM INVESTMENT PERFORMANCE REPORT

Capital Markets Overview June 30, 2015

Overview

The year ending June 30, 2015 was a difficult time period for so-called "risk assets." Following two fiscal years of robust, double-digit investment performance returns, the System's investment portfolio struggled to produce a single digit positive total return in fiscal year 2015. The year was characterized by global financial market volatility, with global equity and fixed income markets largely moving sideways, and US dollar strength reducing non-US return streams for US dollar based investors. Financial market volatility resulted from a variety of sources, including expectations of Federal Reserve "liftoff" in the US, concerns about slowing economic growth in China, dramatic declines in energy and other commodity prices, geopolitical strife (Russia; Ukraine; Islamic State terrorism), ECB monetary easing, and the Greek debt crisis.

Domestic Equity

US stocks were one of the better performing asset classes during the year, as the broad-based Russell 3000 Index produced a 7.3% total return. Large cap stocks outperformed their smaller peers, as the Russell 1000 Index gained 7.4%, while the Russell 2000 Index produced a 6.5% return for the year. Across the market cap spectrum, style differentiation was also key to performance, as growth stocks widely outperformed value stocks during the year. After a strong result in fiscal year 2014 (25.2% total return for the Russell 3000 Index), most of the major domestic equity indexes reach new highs in late fiscal year 2015. Domestic equity performance continues to be supported by expansionary monetary policy and strong corporate earnings, although the rate of earnings growth is slowing. Domestic economic data also provided a generally positive backdrop for US stocks, as housing continued its uneven recovery, the employment situation continued to improve, and inflation remained very muted.

International Equity

Following a robust double digit return in fiscal year 2014, returns from international equities suffered from US dollar strength in fiscal year 2015. The MSCI ACWI ex US Index produced a total return of -5.3% for the year. When measured in local currencies, however, this Index produced a +9.6% total return for the same time period. US dollar strength reduced returns from the MSCI ACWI ex US Index by 14.9% during fiscal year 2015. (The performance of the System's international equity portfolio was aided by strong relative performance from all active managers, as well as the currency hedging program.) The impact of US dollar strength was felt across all of the regions tracked by MSCI, both developed and emerging markets. In the European region, returns for the year were +10.8% in local currency terms, and -9.8% for a US dollar based investor. Emerging markets also struggled, producing a -5.1% total return when translated to US dollars. Japan represented an area of moderate strength, producing a 30.8% return in local currency, and an 8.3% total return for US dollar based investors.

Fixed Income

Volatility and US dollar strength were also themes for fixed income investments in fiscal year 2015. It was an unsettled year for the global bond markets, as bond investors contemplated the beginning of the Federal Reserve's "interest rate normalization" efforts. Fixed income investors continually adjusted their expectations of the timing of the Fed's first interest rate increase, which is now pegged for September or December of 2015, or perhaps the first quarter of 2016. The ten year US Treasury Note yield began the fiscal year at 2.11%, and ended the fiscal year at 2.35%. The Barclays US Universal Index produced a small positive total return of 1.6% for the fiscal year, while the high yield sector suffered from widening credit spreads, and the Barclays US Corporate High Yield Index produced a total return of -0.4% for the year.

Yield Driven

The strategic fixed income portfolios were also affected by concern about the liftoff date and the path of the Federal Funds rate. Exposures to non US dollar denominated fixed income securities suffered, as the US dollar continued to appreciate. Although REITs performed very well during the first half of the fiscal year, the MSCI US REIT Index lost much of this momentum in the latter half of the year. REIT performance was heavily affected by expectations regarding the Federal Reserve's pending action. For the year, the MSCI US REIT Index produced a total return of 3.9%. In a reversal of last year's results, the MLP portfolio was the weakest strategy in the yield driven portfolio during fiscal year 2015. MLPs were severely impacted by both concerns of rising interest rates and rapidly declining oil prices. The Alerian MLP Index produced a stunning -19.8% return for the fiscal year.

Real Return

The Barclays US TIPS Index produced a total return of -1.7% for the fiscal year. Global inflation linked bonds provided valuable diversification, and outperformed TIPS, providing a 3.3% total return. Low levels of global inflation continued to impact breakeven yields for TIPS and GILBs.

Real Estate

The NCREIF ODCE and NCREIF Property Index (NPI) generated total returns of 14.4% and 12.7%, respectively, for fiscal year 2015. These returns reflect both improving real estate fundamentals and continued strong demand from investors.

Private Equity

Private equity fundraising continued at a rapid pace throughout the fiscal year. There is \$682 billion of "dry powder" available for US focused investments, which is the highest level of private equity capital available in the past five years.

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM INDEX SUMMARY BY ASSET CLASS

June 30, 2015

	Latest	Fiscal	Calendar	Latest	Latest	Latest	Latest
Total Portfolio	Quarter	YTD	YTD	1 Year	3 Years	5 Years	10 Years
Policy Index	0.0%	2.7%	2.4%	2.7%	10.8%	11.2%	7.0%
Consumer Price Index	0.9%	0.2%	0.6%	0.2%	1.3%	1.8%	2.1%
Domestic Equity							
S&P 500 Index	0.3%	7.4%	1.2%	7.4%	17.3%	17.3%	7.9%
Russell 3000	0.1%	7.3%	1.9%	7.3%	17.7%	17.5%	8.2%
Russell 1000	0.1%	7.4%	1.7%	7.4%	17.7%	17.6%	8.1%
Russell 2000	0.4%	6.5%	4.8%	6.5%	17.8%	17.1%	8.4%
Russell 2500	-0.3%	5.9%	4.8%	5.9%	18.7%	17.9%	9.1%
Russell 2500 Value Index	-1.3%	1.0%	1.7%	1.0%	17.0%	16.2%	7.8%
Russell Midcap Value Index	-2.0%	3.7%	0.4%	3.7%	19.1%	17.7%	8.9%
International Equity							
MSCI All Country World Ex U.S. Index	0.7%	-4.8%	4.3%	-4.8%	9.9%	8.2%	6.0%
MSCI All Country World Ex United States Net Index	0.5%	-5.3%	4.0%	-5.3%	9.4%	7.8%	5.5%
MSCI EAFE Index	0.8%	-3.8%	5.9%	-3.8%	12.5%	10.0%	5.6%
MSCI Emerging Markets Index	0.8%	-4.8%	3.1%	-4.8%	4.1%	4.0%	8.5%
MSCI All Country World Index	0.5%	1.2%	3.0%	1.2%	13.6%	12.5%	7.0%
Fixed Income							
Barclays U.S. Universal Index	-1.4%	1.6%	0.3%	1.6%	2.3%	3.8%	4.7%
Barclays Aggregate Bond Index	-1.7%	1.9%	-0.1%	1.9%	1.8%	3.3%	4.4%
Barclays U.S. Corporate High Yield Index	0.0%	-0.4%	2.5%	-0.4%	6.8%	8.6%	7.9%
BofA Merrill Lynch 3 Month U.S. Treasury Bill	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	1.4%
Real Return							
Barclays U.S. TIPS Index	-1.1%	-1.7%	0.3%	-1.7%	-0.8%	3.3%	4.1%
Alerian MLP Index	-6.1%	-19.8%	-11.0%	-19.8%	7.8%	11.5%	11.4%
Real Estate							
NCREIF Property Index	3.6%	12.7%	6.7%	12.7%	11.5%	12.8%	8.4%
NCREIF ODCE Index	3.8%	14.4%	7.3%	14.4%	13.1%	14.4%	6.8%
MSCI U.S. REIT Index	-10.4%	3.9%	-6.2%	3.9%	8.7%	14.3%	7.0%
FTSE EPRA/NAREIT Developed Ex U.S. Index	-2.4%	-2.9%	1.1%	-2.9%	9.9%	10.7%	
Alternative Investments							
Russell 3000 + 3% Index	0.6%	10.3%	3.2%	10.3%	20.7%	20.5%	11.2%
Cash Equivalents							
BofA Merrill Lynch 0-1 Yr. Treasury Index	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	1.7%

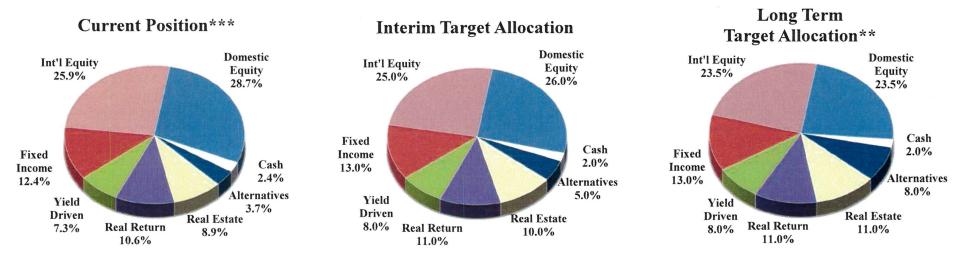
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM INVESTMENT PERFORMANCE REPORT June 30, 2015

Time Weighted Total Return	Latest Quarter*	Fiscal Year to Date*		Latest 1 Year	Latest 3 Years	Latest 5 Years	Latest 10 Years
Total Portfolio	0.4%	3.7%	3.3%	3.7%	11.9%	11.7%	7.4%
Domestic Equity	-0.1%	6.5%	2.0%	6.5%	17.6%	17.4%	8.0%
International Equity	1.3%	-2.4%	5.3%	-2.4%	11.4%	9.9%	6.4%
Fixed Income	-1.2%	1.4%	0.7%	1.4%	3.3%	5.2%	5.8%
Yield Driven	-3.1%	-1.8%	-1.4%	-1.8%	NA	NA	NA
Real Return	-1.8%	0.9%	0.5%	0.9%	1.7%	5.0%	4.6%
Real Estate	8.6%	18.1%	12.8%	18.1%	15.3%	15.3%	7.6%
Alternative Investments	6.1%	11.0%	6.0%	11.0%	15.4%	14.8%	13.0%
Cash Equivalents	0.1%	0.3%	0.2%	0.3%	0.3%	0.3%	1.8%

^{*} Returns for time periods less than one year are not annualized.

ASSET ALLOCATION

Total Portfolio Net Asset Value: \$ 16,503.7 Million



^{***} All allocations reflect the impact of the Russell Overlay Program.

^{**} Target Allocation adopted November 16, 2012

KANSAS PUBLIC EMPLOYELS RETIREMENT SYSTEM ASSET CLASS RELATIVE RETURN COMPARISON GROSS OF FEES

une 30, 2015 <u>Time Weighted Total Return</u> <u>Annualized Time Weighted Total Return</u>

	Net Asset Value*							
	(Millions)	Latest Quarter	Fiscal YTD	Calendar YTD	Latest 1 Year	Latest 3 Years	Latest 5 Years	Latest 10 Years
otal Portfolio	\$16,503.7	0.4%	3.7%	3.3%	3.7%	11.9%	11.7%	7.4%
olicy Index		0.0%	2.7%	2.4%	2.7%	10.8%	11.2%	7.0%
onsumer Price Index		0.9%	0.2%	0.6%	0.2%	1.3%	1.8%	2.1%
omestic Equity Portfolio	4,738.0	-0.1%	6.5%	2.0%	6.5%	17.6%	17.4%	8.0%
ussell 3000 Index		0.1%	7.3%	1.9%	7.3%	17.7%	17.5%	8.2%
iternational Equity Portfolio	4,280.7	1.3%	-2.4%	5.3%	-2.4%	11.4%	9.9%	6.4%
PERS Int'l Equity Benchmark		0.5%	-5.3%	4.0%	-5.3%	9.4%	7.8%	5.7%
ixed Income Portfolio	2,052.2	-1.2%	1.4%	0.7%	1.4%	3.3%	5.2%	5.8%
PERS Fixed Income Benchmark		-1.4%	1.6%	0.3%	1.6%	2.3%	3.8%	4.7%
ield Driven Portfolio	1,206.4	-3.1%	-1.8%	-1.4%	-1.8%	NA	NA	NA
PERS Yield Driven Benchmark		-3.3%	-3.4%	-1.9%	-3.4%	NA	NA	NA
eal Return Portfolio	1,745.7	-1.8%	0.9%	0.5%	0.9%	1.7%	5.0%	4.6%
PERS Real Return Benchmark		-1.1%	-1.7%	0.3%	-1.7%	-0.8%	3.3%	3.6%
eal Estate Portfolio	1,477.5	8.6%	18.1%	12.8%	18.1%	15.3%	15.3%	7.6%
PERS Real Estate Benchmark		3.6%	15.5%	7.6%	15.5%	14.0%	15.8%	10.5%
Iternative Investments	607.5	6.1%	11.0%	6.0%	11.0%	15.4%	14.8%	13.0%
PERS Alt Inv Benchmark		0.6%	10.3%	3.2%	10.3%	20.7%	20.5%	11.2%
ash Equivalents Portfolio	395.7	0.1%	0.3%	0.2%	0.3%	0.3%	0.3%	1.8%
of A Merrill Lynch 0-1 Yr. Treasur	y Index	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	1.7%

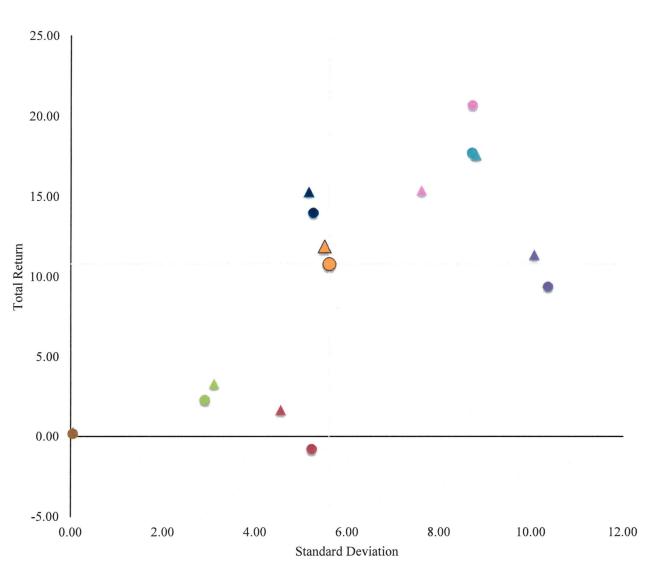
Manager Active Reserves, which are managed by Payden & Rygel, are included in the manager's asset class Net Asset Values. *2e Appendix A for KPERS custom benchmark definitions and additional footnotes.*

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM ASSET CLASS RELATIVE RETURN COMPARISON NET OF FEES

Time Weighted Total Return une 30, 2015 Annualized Time Weighted Total Return **Net Asset** Value* **Latest Quarter** Fiscal YTD Calendar YTD Latest 1 Year Latest 3 Years Latest 5 Years Latest 10 Years (Millions) \$16,503.7 0.2% 3.4% 3.1% 3.4% 11.7% otal Portfolio 11.4% 7.1% 0.0% 2.7% 2.4% 2.7% 10.8% 11.2% 7.0% olicy Index onsumer Price Index 0.9% 0.2% 0.6% 0.2% 1.3% 1.8% 2.1% 6.4% 1.9% 6.4% 7.9% omestic Equity Portfolio 4,738.0 -0.1% 17.5% 17.2% 1.9% 8.2% ussell 3000 Index 0.1% 7.3% 7.3% 17.7% 17.5% 1.2% -2.7% 5.1% -2.7% 11.1% 9.5% 6.0% iternational Equity Portfolio 4,280.7 0.5% 4.0% -5.3% 9.4% 7.8% 5.7% PERS Int'l Equity Benchmark -5.3% 1.2% 0.5% 1.2% 5.0% ixed Income Portfolio 2.052.2 -1.3% 3.1% 5.6% 1.6% 0.3% 1.6% PERS Fixed Income Benchmark -1.4% 2.3% 3.8% 4.7% 1,206.4 -3.3% NA ield Driven Portfolio -2.1% -1.6% -2.1% NA NA -3.3% -3.4% -3.4% PERS Yield Driven Benchmark -1.9% NA NA NA 1,745.7 -1.9% 0.8%0.4% 0.8% 1.6% 5.0% 4.6% eal Return Portfolio -1.7% 0.3% -0.8% 3.3% 3.6% PERS Real Return Benchmark -1.1% -1.7% 1.477.5 7.9% 17.2% 17.2% 7.2% eal Estate Portfolio 12.0% 14.9% 14.9% 3.6% 15.5% 7.6% 15.5% 14.0% 15.8% 10.5% PERS Real Estate Benchmark 607.5 5.4% 10.2% 5.2% 10.2% 15.2% 14.3% 12.8% **Iternative Investments** 0.6% 10.3% 3.2% 10.3% 20.7% 20.5% 11.2% PERS Alt Inv Benchmark 0.1% 0.2% 0.2% 0.3% 1.7% ash Equivalents Portfolio 395.7 0.1% 0.2% 0.1% 0.1% 0.2% 0.2% 1.7% of A Merrill Lynch 0-1 Yr. Treasury Index 0.1% 0.1%

Manager Active Reserves, which are managed by Payden & Rygel, are included in the manager's asset class Net Asset Values. 2e Appendix A for KPERS custom benchmark definitions and additional footnotes.

Kansas Public Employees Retirement System Return vs. Risk Total Fund/Asset Class*

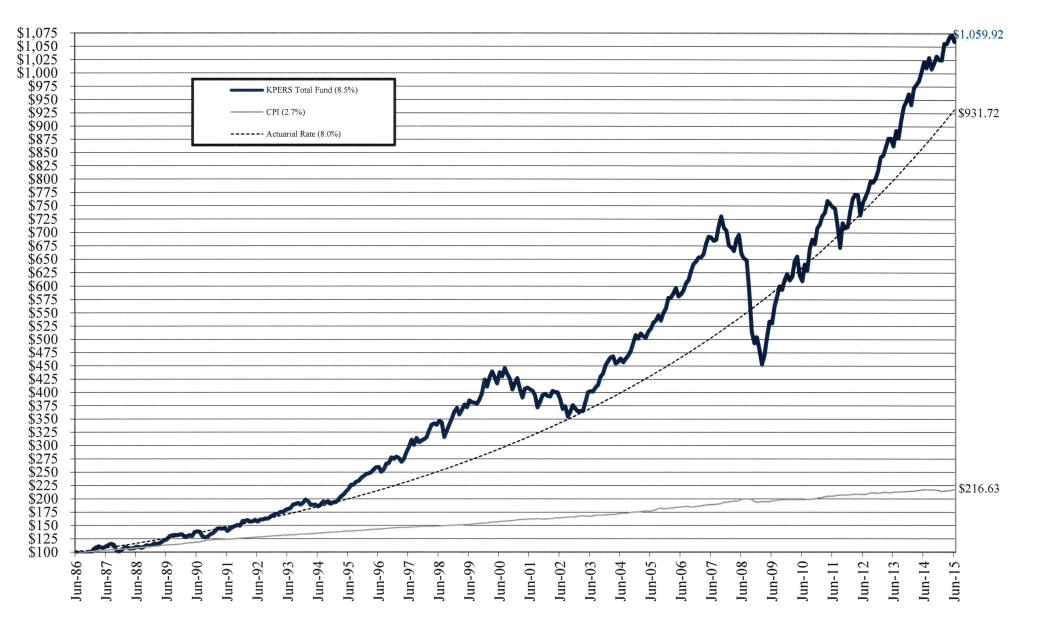


* Three years, annualized gross total return and standard deviation of return

- △ Total Fund
- Policy Index
- ▲ Domestic Equity
- Russell 3000 Index
- ▲ International Equity
- MSCI ACWI ex US (Net) Index
- ▲ Fixed Income
- Barclays U.S. Universal Index
- ▲ Real Return
- Barclays U.S. TIPS Index
- ▲ Real Estate
- KPERS Real Estate Benchmark
- ▲ Alternatives
- KPERS Alternatives Benchmark
- ▲ Cash
- BofA ML 0-1 Yr Treasury Index

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

Growth of \$100 As of June 30, 2015

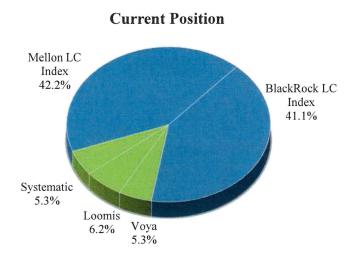


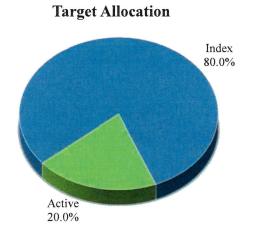
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

Domestic Equity Diversification by Manager/Style

Total Domestic Equity Net Asset Value: \$4,738.0 Million June 30, 2015

- Voya has outperformed its benchmark for all time periods shown.
- Loomis has outperformed its benchmark for all time periods shown, except the latest quarter.



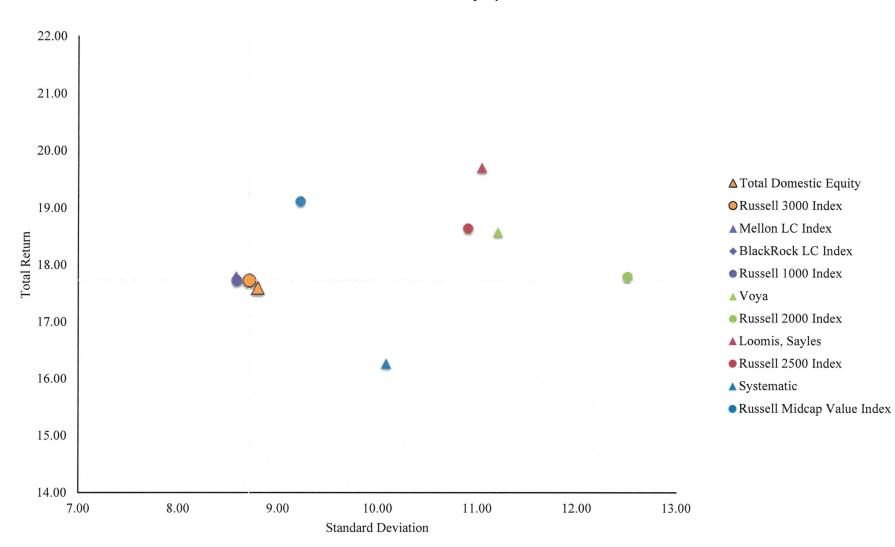


Manager	Style
Mellon Capital Management	Large Cap Index
BlackRock LC Index	Large Cap Index
Voya Small Cap Core	Active
Loomis Sayles SMID	Active
Systematic Mid Value	Active

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DOMESTIC EQUITY PERFORMANCE REPORT

une 30, 2015	Net Asset Value	% of Asset	% of Total	Latest	Fiscal C	Calendar	Latest 1	Latest 3	Latest 5	Latest 10
ivestment Manager	(Millions)	Class	NAV	<u>Quarter</u>	YTD	YTD	Year	Years	Years	Years
fellon LC Index (Passive) lackRock LC Index (Passive) Russell 1000 Index	\$1,997.3 1,948.5	42.2% 41.1%	12.1% 11.8%	0.1% 0.1% 0.1%	7.5% 7.5% 7.4%	1.8% 1.7% 1.7%	7.5% 7.5% 7.4%	17.8% 17.8% 17.7%	17.7% NA 17.6%	NA NA NA
oya (Small Cap Core) Russell 2000 Index	250.7	5.3%	1.5%	1.5% 0.4%	9.2% 6.5%	5.9% 4.8%	9.2% 6.5%	18.6% 17.8%	17.7% 17.1%	NA NA
oomis, Sayles (SMID Cap) Russell 2500 Index	292.1	6.2%	1.8%	-0.9% -0.3%	6.2% 5.9%	5.2% 4.8%	6.2% 5.9%	19.7% 18.7%	19.5% 17.9%	NA NA
ystematic (Mid Cap Value) Russell Midcap Value Index Russell 3000 Index	249.4	5.3%	1.5%	-2.0% -2.0% 0.1%	-0.4% 3.7% 7.3%	1.2% 0.4% 1.9%	-0.4% 3.7% 7.3%	16.3% 19.1% 17.7%	15.7% 17.7% 17.5%	NA NA 8.2%
omestic Equity Portfolio	\$4,738.0	100.0%	28.7%	-0.1%	6.5%	2.0%	6.5%	17.6%	17.4%	8.0%

Kansas Public Employees Retirement System Return vs. Risk Domestic Equity*



^{*} Three years, annualized gross total return and standard deviation of return

Kansas Public Employees Retirement System US Large Cap Equity Portfolios (USD) As of June 30, 2015

40.00												
30.00												
20.00						<u> </u>	+	•	<u> </u>		-	
10.00		1	<u> </u>	+								
0.00												
-10.00												
-20.00	Quarter			1 Year			3 Years			5 Years		
Maximum 25th Percentile Median Percentile 75th Percentile Minimum # of Portfolios	Return 6.95 1.21 0.41 -0.39 -6.96 503	%Tile	<u>Rank</u>	Return 21.89 10.86 8.03 5.26 -18.69 503	%Tile	<u>Rank</u>	Return 35.28 19.99 18.36 16.90 3.32 488	%Tile	Rank	Return 31.64 18.95 17.82 16.47 6.07 456	%Tile	<u>Rank</u>
Mellon CM LC IndexBlackRock LC Index	0.15 0.15	56 56	281 280	7.51 7.46	54 54	269 271	17.81 17.77	56 56	272 274	17.71	52	235
Russell 1000 Index	0.13	57	284	7.37	55	274	17.73	57	277	17.58	53	243

Kansas Public Employees Retirement System US Small Cap Equity Portfolios (USD) As of June 30, 2015

30.00												
25.00												
20.00						_						
15.00											•	
10.00												
5.00												
0.00	-											
-5.00												
-10.00												
-15.00												
-20.00												
	Quarter			1 Year			3 Years			5 Years		
Maximum 25th Percentile Median Percentile 75th Percentile Minimum # of Portfolios	Return 11.42 2.35 0.66 -0.53 -3.93 294	%Tile	Rank	Return 25.77 10.68 6.76 3.02 -18.92 293	%Tile	Rank	Return 26.40 21.18 19.06 16.70 3.83 282	<u>%Tile</u>	Rank	Return 24.35 20.39 18.63 16.95 10.69 259	%Tile	Rank
▲ Voya Small Cap Core ♣ Russell 2000 Index	1.48 0.42	41 54	119 158	9.25 6.49	37 52	108 151	18.60 17.82	55 61	155 171	17.66 17.08	61 69	159 178

Kansas Public Employees Retirement System US SMID Cap Equity Portfolios (USD) As of June 30, 2015

30.00												
25.00					_							
20.00								+	A			
15.00												
10.00												
5.00				•								
0.00	_											
-5.00												
-10.00												
-15.00												
-20.00	Quarter			1 Year			3 Years			5 Years		
Maximum 25th Percentile Median Percentile 75th Percentile Minimum # of Portfolios	Return 5.28 1.86 0.48 -0.74 -2.78 115	%Tile	<u>Rank</u>	Return 23.49 10.61 7.54 3.67 -14.57 114	%Tile	<u>Rank</u>	Return 26.95 21.09 19.15 17.05 9.91 106	%Tile	Rank	Return 25.83 20.32 18.23 16.41 11.39 95	%Tile	<u>Rank</u>
Loomis S-Mid Core Russell 2500 Index	-0.92 -0.34	77 63	89 72	6.19 5.92	58 59	66 67	19.71 18.66	45 55	47 59	19.48 17.86	41 54	39 52

Kansas Public Employees Retirement System US Midcap Value Equity Portfolios (USD) As of June 30, 2015

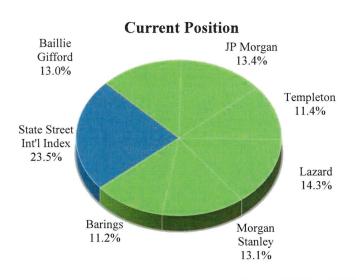
30.00													
25.00									1				
20.00								•					
15.00										A			
10.00													
5.00					+								
0.00				A									
-5.00													
-10.00													
-15.00	Quarte	er		1 7	/ear		3	Years			5 Years		
Maximum 25th Percentile Median Percentile 75th Percentile Minimum # of Portfolios]	2.98 -0.23 -1.14 -1.64 -2.66 38	%Tile	<u>Rank</u>	Return 11.89 7.92 5.42 2.73 -10.71 38	%Tile	Rank	Return 24.70 21.73 20.45 18.63 13.80 38	%Tile	Rank	Return 21.39 19.80 18.44 17.08 12.66 36	%Tile	Rank
Systematic Mid VRussell Midcap V		-1.96 -1.97	82 82	31 31	-0.43 3.67	86 67	33 25	16.28 19.13	86 63	33 24	15.71 17.73	86 56	31 20

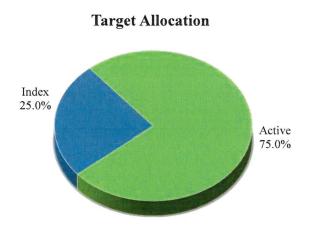
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

International Equity Diversification by Manager/Style

Total Intl Equity Net Asset Value: \$4,280.7 Million June 30, 2015

- The international equity portfolio has outperformed its benchmark for all time periods reported.
- All of the System's international equity managers have added value relative to the benchmark for the calendar YTD, one, and three year time periods.





Manager	Style
State Street Int'l Index	Index
Baillie Gifford	Active
JP Morgan	Active
Templeton	Active
Lazard	Active
Morgan Stanley	Active
Barings	Active

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM INTERNATIONAL EQUITY PERFORMANCE REPORT

une 30, 2015

ıvestment Manager	Net Asset Value (<u>Millions</u>)	% of Asset <u>Class</u>	% of Total <u>NAV</u>	Latest Quarter	Fiscal C <u>YTD</u>	alendar <u>YTD</u>	Latest 1 <u>Year</u>	Latest 3 <u>Years</u>	Latest 5 <u>Years</u>	Latest 10 <u>Years</u>
tate Street Int'l Index (Index)	\$1,007.1	23.5%	6.1%	0.6%	-5.1%	4.1%	-5.1%	9.7%	NA	NA
Iorgan Stanley (Active)	560.2	13.1%	3.4%	-0.4%	-2.5%	4.7%	-2.5%	10.1%	7.6%	6.5%
arings Int'l (Active)	481.4	11.2%	2.9%	1.3%	-2.7%	5.8%	-2.7%	9.5%	8.5%	NA
aillie Gifford Int'l (Active)	556.2	13.0%	3.4%	2.4%	0.7%	6.1%	0.7%	12.2%	11.6%	NA
P Morgan (Active)	575.4	13.4%	3.5%	2.5%	-1.8%	5.0%	-1.8%	11.8%	9.8%	NA
ranklin Templeton (Active)	487.7	11.4%	3.0%	0.8%	-3.4%	6.1%	-3.4%	14.2%	10.6%	NA
azard (Active)	612.7	14.3%	3.7%	2.5%	0.3%	6.9%	0.3%	14.6%	12.9%	NA
KPERS International Equity Be	nchmark			0.5%	-5.3%	4.0%	-5.3%	9.4%	7.8%	5.7%
otal International Equity	\$4,280.7	100.0%	25.9%	1.3%	-2.4%	5.3%	-2.4%	11.4%	9.9%	6.4%

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM CURRENCY PERFORMANCE REPORT

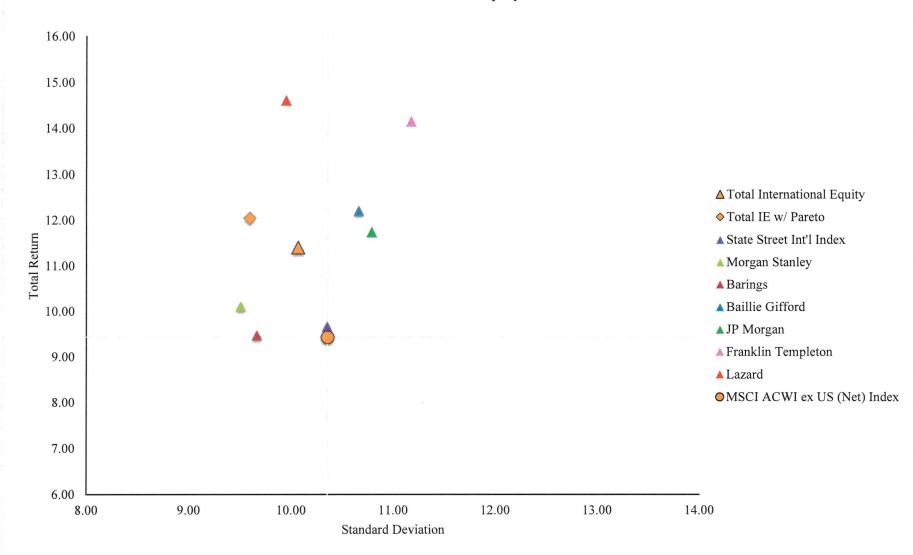
une 30, 2015

westment Manager	Net Asset Value (Millions)	% of Asset <u>Class</u>	% of Total <u>NAV</u>	Latest <u>Quarter</u>	Fiscal C <u>YTD</u>	alendar <u>YTD</u>	Latest 1 <u>Year</u>	Latest 3 <u>Years</u>	Latest 5 <u>Years</u>	Latest 10 <u>Years</u>
urrency Overlay Program with Pareto urrency Overlay Program Assets	\$2,135.4 2140.3	NA NA	NA NA	-0.7% 1.3%	1.2% -1.6%	5.5% 5.4%	1.2% -1.6%	13.2% 12.4%	10.3% 10.7%	6.0% 5.9%
areto's Currency Overlay Activity*	-\$4.9	NA	NA	-2.0%	2.8%	0.1%	2.8%	0.8%	-0.3%	0.1%
50% Hedged / 50% Unhedged Bench	mark**			-1.2%	7.8%	1.6%	7.8%	2.2%	0.6%	0.3%

The currency overlay performance is the Currency Overlay Program Assets with Pareto return, less the return of the Currency Overlay Assets portfolio. The Net Asset Value represents the unrealized gain/loss as of the reporting date. Since inception, Pareto has realized gains of \$55.4 million.

^{*} The benchmark performance numbers are calculated by Insight Pareto (formerly Pareto Partners).

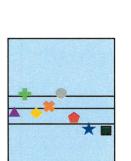
Kansas Public Employees Retirement System Return vs. Risk International Equity*

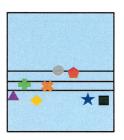


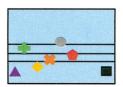
^{*} Three years, annualized gross total return and standard deviation of return

Kansas Public Employees Retirement System Broad Global x-US Large Cap Equity Portfolios (USD) As of June 30, 2015

30.00
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
Quarter







	Quarter		1 Y	ear		3	Years			5 Years		
	<u>Return</u>	%Tile	Rank	Return	%Tile	Rank	Return	%Tile	Rank	Return	%Tile	Rank
Maximum	7.51			9.87			24.30			18.13		
25th Percentile	2.45			0.27			14.59			12.23		
Median Percentile	1.57			-1.75			12.86			10.69		
75th Percentile	0.56			-4.33			11.37			9.37		
Minimum	-1.86			-14.91			4.52			5.69		
# of Portfolios	193			190			185			171		
Morgan Stanley	-0.39	89	172	-2.50	56	106	10.12	81	151	7.65	87	148
Baillie Gifford IE	2.43	29	57	0.71	21	40	12.22	59	109	11.60	38	65
Barings IE	1.35	54	103	-2.66	57	108	9.48	85	156	8.55	81	139
🗱 JP Morgan IE	2.50	27	53	-1.81	51	96	11.76	64	119	9.84	62	107
Lazard IE	2.49	28	54	0.26	29	55	14.61	28	52	12.88	19	32
Templeton IE	0.77	64	123	-3.35	63	120	14.16	34	63	10.65	51	87
★ State Street Int'l Eqty Index	0.61	69	134	-5.13	80	151	9.67	84	155			
KPERS Int'l Equity Benchm	ark 0.53	72	140	-5.26	80	152	9.44	85	157	7.76	86	147

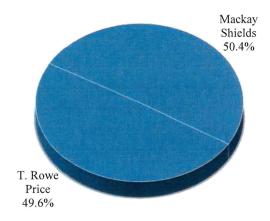
Universe Source: Russell Investment Group

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM Fixed Income Diversification by Manager/Style

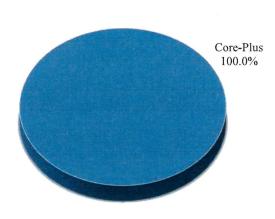
Total Fixed Income Net Asset Value: \$2,052.2 Million June 30, 2015

- The fixed income portfolio has outperformed its benchmark for the quarter, calendar YTD, three, five, and ten year time periods.
- Both of the System's fixed income managers have added value over the calendar YTD and three and five year time periods.





Target Allocation



Manager	Style
T. Rowe Price	Core-Plus
Mackay Shields	Core-Plus

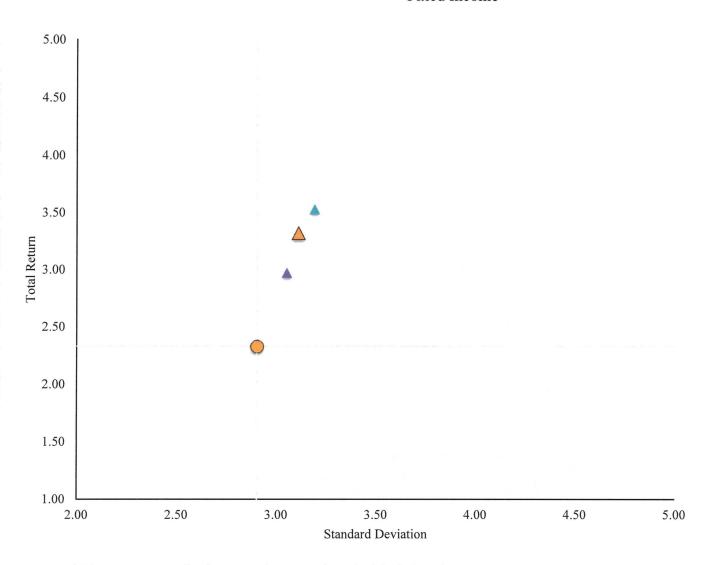
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM FIXED INCOME PERFORMANCE REPORT

une 30, 2015

<u>ivestment Manager</u>	Net Asset Value (<u>Millions)</u>	% of Asset <u>Class</u>	% of Total <u>NAV</u>	Latest Quarter	Fiscal <u>YTD</u>	Calendar <u>YTD</u>	Latest 1 <u>Year</u>	Latest 3 <u>Years</u>	Latest 5 <u>Years</u>	Latest 10 <u>Years</u>
1ackay Shields (Core-Plus)	\$1,034.2	50.4%	6.3%	-1.4%	1.2%	0.7%	1.2%	3.5%	5.2%	NA
. Rowe Price (Core-Plus)	1,018.0	49.6%	6.2%	-1.0%	1.2%	0.6%	1.2%	3.0%	4.5%	NA
Barclays Capital Universal Index				-1.4%	1.6%	0.3%	1.6%	2.3%	3.8%	4.7%
KPERS Fixed Income Benchmark				-1.4%	1.6%	0.3%	1.6%	2.3%	3.8%	4.7%
ixed Income Portfolio	\$2,052.2	100.0%	12.4%	-1.2%	1.4%	0.7%	1.4%	3.3%	5.2%	5.8%
ixed Income w/ High Yield*	NA	NA	NA	-1.1%	1.1%	0.7%	1.1%	3.5%	5.5%	5.9%

Returns include strategic fixed income portfolios that were transitioned to the Yield Driven asset class on 01/01/2013, as well as a Loomis High Yield portfolio that was transitioned back to Domestic Equity at 06/30/2011.

Kansas Public Employees Retirement System Return vs. Risk Fixed Income*



 $\ensuremath{^{*}}$ Three years, annualized gross total return and standard deviation of return

- △ Total Fixed Income
- ▲ MacKay Shields
- ▲ T. Rowe Price
- OBarclays U.S. Universal Index

Kansas Public Employees Retirement System US Core Plus Fixed Income Portfolios (USD) As of June 30, 2015

9.00						,						
7.00								1				
5.00									A			
3.00						A						
1.00				•								
-1.00	<u> </u>											
-3.00 Quan	rter		1 Y	/ear		3	Years			5 Years		
Maximum 25th Percentile Median Percentile 75th Percentile Minimum # of Portfolios	Return -0.69 -1.24 -1.50 -1.69 -2.29 54	%Tile	<u>Rank</u>	Return 4.70 2.27 1.96 1.45 -0.59 54	%Tile	<u>Rank</u>	Return 6.58 4.03 3.16 2.84 2.17 51	%Tile	Rank	Return 7.74 5.65 5.00 4.47 3.85 51	%Tile	Rank
▲ MacKay Shields (Core Plus)	-1.37	39	21	1.17	80	43	3.54	42	21	5.20	42	21
♣ T Rowe Price (Core Plus)♦ Barclays U.S. Universal Index	-1.04 -1.40	15 41	8 22	1.25 1.61	78 63	42 34	2.98 2.33	57 94	29 48	4.49 3.81	68 94	35 48

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

Yield Driven Diversification by Manager/Style

Total Yield Driven Net Asset Value: \$1,206.4 Million

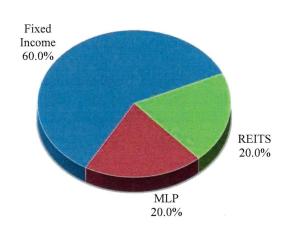
June 30, 2015

- The yield driven portfolio has outperformed its benchmark for all time periods reported.
- Western and Loomis strategic fixed income portfolios have added value relative to their benchmarks for the trailing three, five, and ten year time periods.
- CenterSquare's REIT portfolio has outperformed its benchmark for all time periods reported, while Brookfield's REIT portfolio has outperformed over the three and five year time periods.
- The MLP portfolio has outperformed its benchmark for all time periods reported, despite the recent negative return environment for MLPs.

Current Position

Western Loomis Asset Mgmt 28.1% 24.0% Brookfield Inv Mgmt Templeton 9.6% SDHY BL 8.2% Advisory CenterSquare Research REIT MLP 9.8% 20.3%

Target Allocation



Manager	Style
Brookfield Investment Mgmt	REIT
CenterSquare	REIT
Western Asset Mgmt	Strategic FI
Loomis Sayles	Strategic FI
Templeton SDHY BL	Strategic FI
Advisory Research MLP	MLP

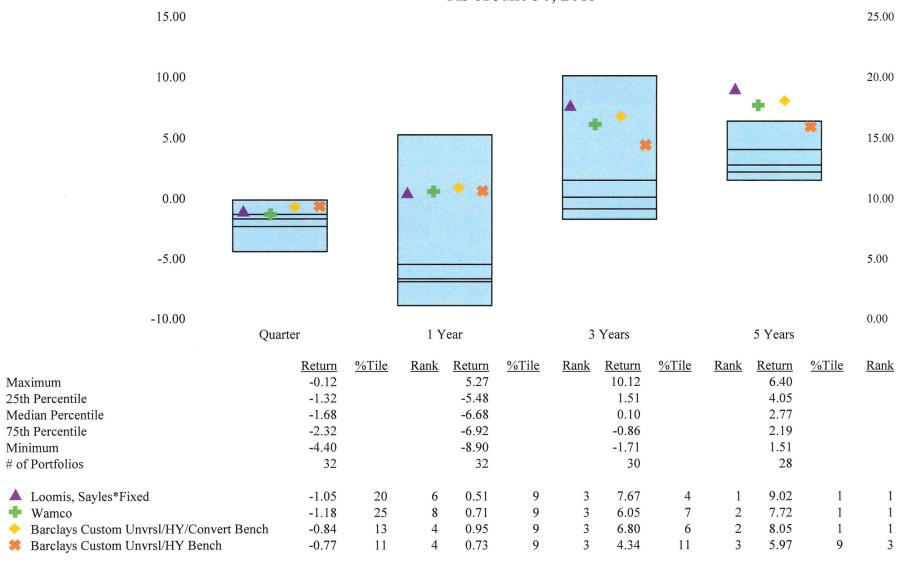
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM YIELD DRIVEN PERFORMANCE REPORT

une 30, 2015

ivestment Manager	Net Asset Value (Millions)	% of Asset Class	% of Total <u>NAV</u>	Latest Quarter	Fiscal <u>YTD</u>	Calendar <u>YTD</u>	Latest 1 <u>Year</u>	Latest 3 <u>Years</u>	Latest 5 <u>Years</u>	Latest 10 <u>Years</u>
rookfield Investment Mgmt REIT	\$115.9	9.6%	0.7%	-11.0%	1.9%	-7.2%	1.9%	11.2%	16.7%	NA
enterSquare REIT	117.9	9.8%	0.7%	-9.7%	6.0%	-5.2%	6.0%	NA	NA	NA
MSCI U.S. REIT Index				-10.4%	3.9%	-6.2%	3.9%	8.7%	14.3%	NA
/estern Asset Mgmt Co. (Strategic)	289.6	24.0%	1.8%	-1.2%	0.7%	0.3%	0.7%	6.0%	7.7%	7.6%
Custom Universal / High Yield Index				-0.8%	0.7%	1.3%	0.7%	4.3%	6.0%	6.2%
oomis, Sayles (Strategic)	339.1	28.1%	2.1%	-1.1%	0.5%	0.7%	0.5%	7.7%	9.0%	8.3%
Custom High Yield / Credit / Convertibl	les Index			-0.8%	0.9%	1.7%	0.9%	6.8%	8.0%	7.1%
empleton Short Duration HY / Bank Loans	99.0	8.2%	0.6%	0.9%	0.0%	2.7%	0.0%	NA	NA	NA
Custom Short Duration HY / Bank Loan	Index			0.7%	0.8%	2.6%	0.8%	NA	NA	NA
dvisory Research MLP Investment	244.9	20.3%	1.5%	-2.4%	-12.2%	-3.7%	-12.2%	16.2%	NA	NA
Alerian MLP Index				-6.1%	-19.8%	-11.0%	-19.8%	7.8%	NA	NA
PERS Yield Driven Benchmark				-3.3%	-3.4%	-1.9%	-3.4%	NA	NA	NA
ield Driven Portfolio*	\$1,206.4	100.0%	7.3%	-3.1%	-1.8%	-1.4%	-1.8%	NA	NA	NA

The Yield Driven asset class was implemented on 01/01/2013.

Kansas Public Employees Retirement System Global Aggregate Fixed Income Portfolios - Unhedged (USD) As of June 30, 2015

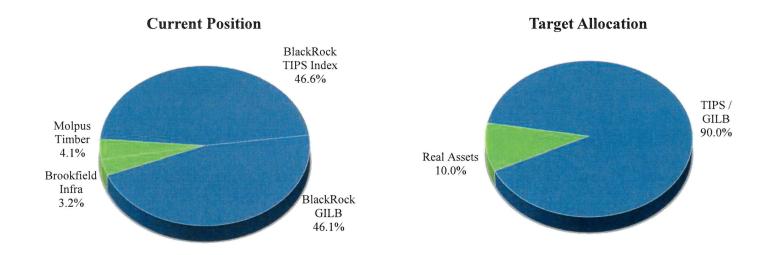


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

Real Return Diversification by Manager/Style

Total Real Return Net Asset Value: \$1,745.7 Million June 30, 2015

- The real return portfolio has outperformed its benchmark for all time periods reported, except the latest quarter.
- The System's infrastructure and timber investments have produced robust double-digit returns in the trailing one year time period.

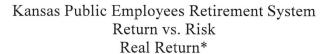


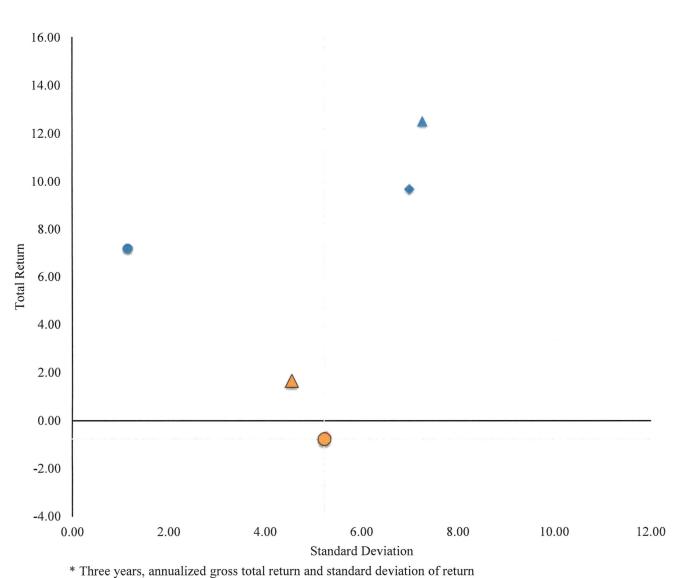
Manager	Style
BlackRock	TIPS Index
BlackRock	Inflation-Linked
Brookfield Infrastructure	Real Assets
Molpus Timber Investment	Real Assets

KANSAS PUBLIC EMPLOYELS RETIREMENT SYSTEM REAL RETURN PERFORMANCE REPORT

une 30, 2015

ivestment Manager	Net Asset Value (Millions)	% of Asset <u>Class</u>	% of Total <u>NAV</u>	Latest <u>Quarter</u>	Fiscal <u>YTD</u>	Calendar <u>YTD</u>	Latest 1 <u>Year</u>	Latest 3 <u>Years</u>	Latest 5 <u>Years</u>	Latest 10 <u>Years</u>
lackRock TIPS Index	\$813.0	46.6%	4.9%	-1.1%	-1.6%	0.6%	-1.6%	-0.6%	3.4%	NA
Barclays U.S. TIPS Index				-1.1%	-1.7%	0.3%	-1.7%	-0.8%	3.3%	4.1%
lackRock Global ILB	805.2	46.1%	4.9%	-3.6%	2.9%	-0.6%	2.9%	NA	NA	NA
Barclays World ILB Index (USD Hed	dged)			-2.5%	3.3%	-0.2%	3.3%	NA	NA	NA
rookfield Am Infrastructure	56.1	3.2%	0.3%	-0.6%	12.7%	1.4%	12.7%	12.5%	20.9%	NA
Iolpus Timber Investment	71.5	4.1%	0.4%	8.3%	13.6%	11.2%	13.6%	9.7%	NA	NA
Custom CPI + 6% Index				NA	NA	NA	5.8%	7.2%	NA	NA
KPERS Real Return Benchmark				-1.1%	-1.7%	0.3%	-1.7%	-0.8%	3.3%	3.6%
eal Return Portfolio	\$1,745.7	100.0%	10.6%	-1.8%	0.9%	0.5%	0.9%	1.7%	5.0%	4.6%





- △ Total Real Return
- ♦ BlackRock TIPS
- Barclays U.S. TIPS Index
- ▲ Brookfield AM Infrastructure
- ◆ Molpus Timber Investment
- Custom CPI + 6% Index

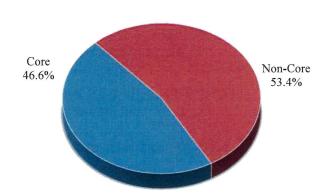
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

Real Estate Diversification by Manager/Style

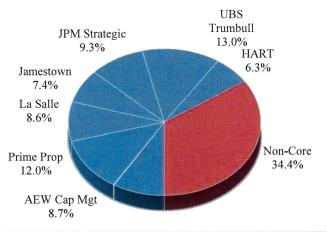
Total Real Estate Net Asset Value: \$1,477.5 Million June 30, 2015

- The real estate portfolio has outperformed its benchmark for all time periods of three years and shorter.
- The core real estate portfolio has beaten the benchmark for the trailing quarter, calendar YTD, one and three year time periods.
- The noncore real estate portfolio has outperformed its benchmark for all time periods of three years and shorter.

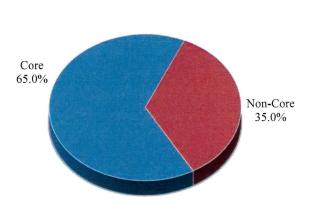
Current Committed



Current Invested



Target Allocation



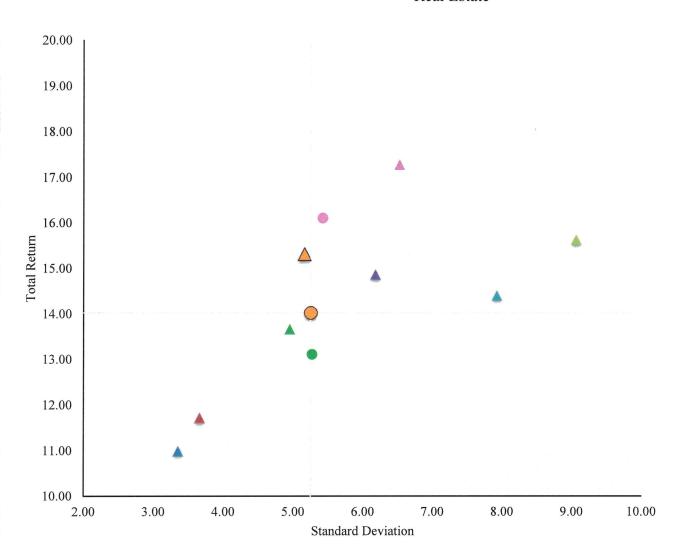
Manager	Style
AEW Capital Mgmt.	Core
Prime Property Fund	Core
La Salle Property Fund	Core
Jamestown Premier Fund	Core
JPM Strategic Property Fund	Core
UBS Trumbull Fund	Core
HART	Core
KPERS Non-Core	Non-Core

KANSAS PUBLIC EMPLOYEES RÉTIREMENT SYSTEM REAL ESTATE PERFORMANCE REPORT

une 30, 2015

ıvestment Manager	Net Asset Value (<u>Millions</u>)	% of Asset <u>Class</u>	% of Total <u>NAV</u>	Latest <u>Quarter</u>	Fiscal <u>YTD</u>	Calendar <u>YTD</u>	Latest 1 <u>Year</u>	Latest 3 <u>Years</u>	Latest 5 <u>Years</u>	Latest 10 <u>Years</u>
EW Capital Management (Core)	\$129.1	8.7%	0.8%	10.1%	14.1%	11.2%	14.1%	14.4%	14.1%	9.9%
rime Property Fund (Core)	177.6	12.0%	1.1%	7.1%	17.0%	11.7%	17.0%	14.9%	15.4%	7.6%
amestown Premier Property Fund (Core)	109.5	7.4%	0.7%	9.0%	15.8%	13.0%	15.8%	15.6%	NA	NA
a Salle Property Fund (Core)	127.4	8.6%	0.8%	7.8%	15.9%	10.8%	15.9%	11.7%	11.9%	NA
BS Trumbull Fund (Core)	192.0	13.0%	1.2%	5.0%	12.7%	8.2%	12.7%	11.0%	NA	NA
ART Property Fund (Core)	93.1	6.3%	0.6%	7.8%	14.6%	9.7%	14.6%	NA	NA	NA
P Morgan Strategic Property Fund (Core)	137.9	9.3%	0.8%	7.8%	12.0%	9.4%	12.0%	NA	NA	NA
otal Core Real Estate	969.8	65.6%	5.9%	7.6%	14.7%	10.5%	14.7%	13.7%	14.3%	8.8%
Custom NCREIF Real Estate Index				3.8%	14.4%	7.3%	14.4%	13.1%	14.4%	9.4%
PERS Non-Core Real Estate	507.7	34.4%	3.1%	10.5%	24.1%	16.9%	24.1%	17.3%	15.4%	6.4%
Non-Core Real Estate Benchmark				3.3%	17.4%	7.9%	17.4%	16.1%	16.6%	11.8%
KPERS Real Estate Benchmark				3.6%	15.5%	7.6%	15.5%	14.0%	15.8%	10.5%
eal Estate Portfolio	\$1,477.5	100.0%	8.9%	8.6%	18.1%	12.8%	18.1%	15.3%	15.3%	7.6%

Kansas Public Employees Retirement System Return vs. Risk Real Estate*



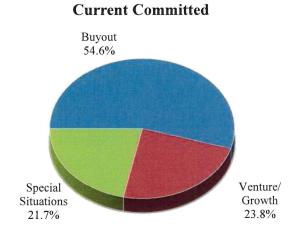
- ▲ Real Estate
- KPERS Real Estate Benchmark
- ▲ AEW Capital Management
- ▲ Prime Property Fund
- ▲ Jamestown Property Fund
- ▲ La Salle Property Fund
- ▲ UBS Trumbull Fund
- ▲ Total Core Real Estate
- Custom NCREIF Real Estate Index
- ▲ KPERS Non-Core Real Estate
- Non-Core Real Estate Benchmark

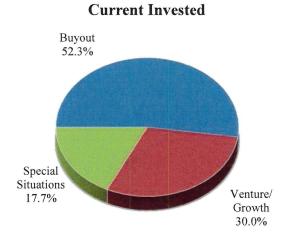
^{*} Three years, annualized gross total return and standard deviation of return

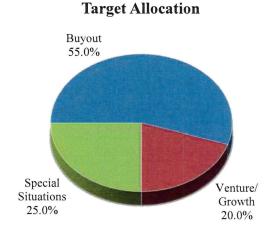
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM Private Equity Program (PEP) Diversification by Style

Total Commitments: \$1,431.0 Million Total Net Asset Value: \$607.5 Million June 30, 2015

• The return of the total private equity portfolio has beaten the benchmark return over the trailing ten year time period, adding value over and above the Russell 3000 plus 3%.







Style	Target
Buyout	55%
Special Situations	25%
Venture / Growth	20%



KANSAS PUBLIC EMPLOYE RETIREMENT SYSTEM ALTERNATIVE INVESTMENTS AND CASH EQUIVALENTS PERFORMANCE REPORT

une 30, 2015

ivestment Manager	Net Asset Value (<u>Millions</u>)	% of Asset <u>Class</u>	% of Total <u>NAV</u>	Latest <u>Quarter</u>	Fiscal <u>YTD</u>	Calendar <u>YTD</u>	Latest 1 <u>Year</u>	Latest 3 <u>Years</u>	Latest 5 <u>Years</u>	Latest 10 <u>Years</u>
<u>Iternative Investments</u>										
.IP Portfolio*	\$35.8	5.9%	0.2%	-1.0%	-3.3%	-2.3%	-3.3%	8.4%	9.1%	10.2%
rivate Equity Program (PEP)	571.7	94.1%	3.5%	6.6%	12.2%	6.6%	12.2%	16.2%	16.5%	NA
KPERS Alternative Investment Bench	hmark			0.6%	10.3%	3.2%	10.3%	20.7%	20.5%	11.2%
Iternative Investment Portfolio**	\$607.5	100.0%	3.7%	6.1%	11.0%	6.0%	11.0%	15.4%	14.8%	13.0%
ash Equivalents ayden & Rygel (STIF) BofA Merrill Lynch 0-1 Yr. Trea	395.7 sury Index	100.0%	2.4%	0.1% 0.1%	0.3% 0.1%	0.2% 0.1%	0.3% 0.1%	0.3% 0.2%	0.3% 0.2%	1.8% 1.7%
ash Equivalents Portfolio	\$395.7	100.0%	2.4%	0.1%	0.3%	0.2%	0.3%	0.3%	0.3%	1.8%

Total Net Asset Value includes \$0.3 million in the Venture Capital portfolio.

^k Valuations for AIP and PEP investments are adjusted at each calendar quarter end; the values shown are as of 6/30/2015. Stated asset values and performance figures are calculated on a cash flow adjusted basis to account for contributions and distributions which occur between valuation updates.

Note that performance will lag the KPERS Alternative Investment Benchmark due to the difference in valuation frequency.

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM APPENDIX A

enchmark Definitions

<u>olicy Index</u> - The current Policy Index was implemented January 1, 2015. This asset allocation mix is 26% Domestic Equity; 25% International Equity; 13% Fixed Icome; 8% Yield Driven, 11% Real Return; 10% Real Estate; 5% Alternative Investments; and 2% Cash. Prior indexes varied by composition and are reflected in the Inger term returns. Prior allocations are available upon request.

<u>PERS International Equity Benchmark</u> - As of September, 2005 the current International Equity Benchmark is the MSCI All Country World ex U.S. Net Index. he prior benchmark was the MSCI EAFE Custom Index and is reflected in the longer term returns. These benchmarks are available upon request.

<u>PERS Fixed Income Benchmark</u> - As of March, 2005 the current Fixed Income Benchmark is the Barclays Capital Universal Index. Prior benchmarks varied by omposition and are reflected in the longer term returns. These benchmarks are available upon request.

<u>PERS Yield Driven Benchmark</u> - This benchmark is 60% Barclays High Yield 2% Issuer Cap Index, 20% MSCI U.S. REIT Index and 20% Alerian MLP Index. he Yield Driven asset class was implemented on 01/01/2013.

ustom Universal / High Yield Index - This benchmark is 55% Barclays Capital Universal Index and 45% Barclays High Yield 2% Issuer Cap Index.

<u>ustom High Yield / Credit / Convertibles Index</u> - This benchmark is 50% Barclays US Corporate High Yield Index, 35% Barclays US Credit Index and 15% BofA lerrill Lynch All Convertibles Index.

ustom Agg / High Yield / Emerging Mkt Index - This benchmark is an equally weighted average of the following three indexes; Barclays Global Agg Credit Index, of A Merrill Lynch Global High Yield B-BB Index and the JP Morgan EMBI Global Index.

<u>ustom Short Duration HY / Bank Loan Index</u> - This benchmark is 50% Credit Suisse Leveraged Loan Index and 50% BofA Merrill Lynch 1 to 5 CPHY onstrained Index.

<u>PERS Real Return Benchmark</u> - As of April, 2008 the current Real Return Benchmark is the Barclays Capital U.S. TIPS Index. Prior benchmarks varied by imposition and are reflected in the longer term returns. These benchmarks are available upon request.

ustom NCREIF Real Estate Index - As of April 2009 the current Custom NCREIF Real Estate Index is the NCREIF Open End Diversified Core Index (ODCE). he index is updated quarterly. Prior benchmarks varied by composition and are reflected in the longer term returns. These benchmarks are available upon request.

<u>PERS Real Estate Benchmark</u> - As of January 1, 2013 the current Real Estate Benchmark is a weighted average of the following indexes: NCREIF ODCE -65%; CREIF ODCE + 3% -35%. Prior benchmarks varied by composition and are reflected in the longer term returns. These benchmarks are available upon request.

PERS Alternative Investment Benchmark - As of January, 2009 the current Alternative Investments Benchmark is the Russell 3000 + 3%. The benchmark is not ported on a lagged basis. Prior benchmarks varied by composition and are reflected in the longer term returns. These benchmarks are available upon request.

<u>on-Core Real Estate Benchmark</u> - As of March, 2012 the current Non-Core Real Estate Benchmark is the NCREIF ODCE Index + 3%. Prior benchmarks varied by omposition and are reflected in the longer term returns. These benchmarks are available upon request.

dditional notes

Time weighted total return includes income and changes in market value. Returns for time periods less than one year are not annualized.

Net Asset Value is the market value of investments plus accrued receivables less accrued payables. The cash portion of the portfolio is managed by Payden & Rygel. The Net Asset Value for the total portfolio includes the unrealized gain/loss amount for the Insight Pareto Currency Overlay account detailed on page 8.