



Kentucky Retirement Systems

Investment Performance Analysis

Period Ended: December 31, 2016

General Market Commentary

- Oil prices responded to an agreement among non-OPEC member nations, including Russia, to join OPEC members in scaling back oil production. The price of WTI Crude Oil ended the year at \$54 per barrel, up from \$49 at the end of the previous month.
- In a move widely anticipated by investors, the Fed announced that it would increase the federal funds rate to between 0.50% and 0.75%, sending bond yields higher.
- Fueled by higher bond yields and investor expectations for stronger US economic growth, the US Dollar continued its rally, with the US Dollar Total Weighted Index ending the month at 95.76.
- Equity markets posted positive returns in December as the S&P 500 (Cap Wtd) Index returned 1.98% and the MSCI EAFE (Net) Index returned 3.42%. Emerging markets returned 0.22% as measured by the MSCI EM (Net) Index.
- The Bloomberg US Aggregate Bond Index returned 0.14% in December, outperforming the -0.03% return by the Bloomberg US Treasury Intermediate Term Index. International fixed income markets returned -0.97%, as measured by the Citi Non-US World Gov't Bond Index.
- Public real estate, as measured by the Wilshire US REIT Index, returned 4.86% in December and 12.02% over the trailing five-year period.
- The Cambridge US Private Equity Index returned 8.66% for the trailing one-year period and 13.14% for the trailing five-year period ending September 2016.
- Absolute return strategies, as measured by the HFRI FOF Comp Index, returned 1.08% for the month and 0.71% over the trailing one-year period.
- Crude oil's price increased by 8.66% during the month, and has increased by 45.03% YoY.

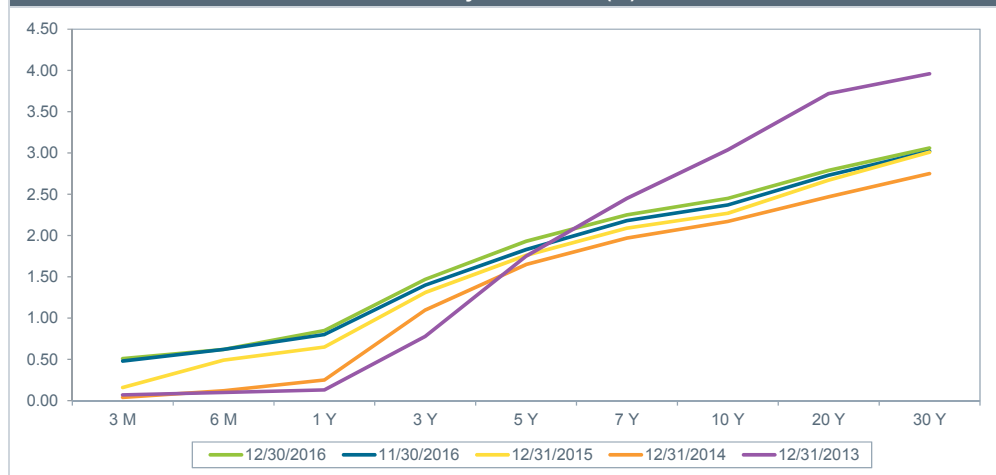
Economic Indicators	Dec-16	Nov-16	Dec-15	10 Yr	20 Yr
Federal Funds Rate (%)	0.55	▲	0.31	0.20	0.83
Breakeven Inflation - 1 Year (%)	1.27	▲	0.56	0.85	0.89
Breakeven Inflation - 5 Year (%)	1.86	▲	1.80	1.28	1.69
Breakeven Inflation - 10 Year (%)	1.97	▼	1.98	1.58	2.01
Breakeven Inflation - 30 Year (%)	2.10	▼	2.14	1.76	2.23
Bloomberg US Agg Bond Index - Yield (%)	2.61	▲	2.57	2.59	3.07
Bloomberg US Agg Bond Index - OAS (%)	0.43	▼	0.45	0.56	0.73
Bloomberg US Agg Credit Index - OAS (%)	1.18	▼	1.23	1.55	1.72
Bloomberg US Corp: HY Index - OAS (%)	4.09	▼	4.55	6.60	6.06
Capacity Utilization (%)	75.46	▲	74.89	75.37	76.08
Unemployment Rate (%)	4.7	▲	4.6	5.0	7.0
PMI - Manufacturing (%)	54.5	▲	53.5	47.9	52.0
Baltic Dry Index - Shipping	961	▼	1,204	475	2,504
Consumer Conf (Conf Board)	113.30	▲	109.40	96.30	74.70
CPI YoY (Headline) (%)	2.1	▲	1.7	0.7	1.8
CPI YoY (Core) (%)	2.2	▲	2.1	2.1	1.9
PPI YoY (%)	1.9	▲	0.5	-2.7	1.9
M2 YoY (%)	7.1	▼	7.3	5.7	6.5
US Dollar Total Weighted Index	95.76	▲	95.26	94.25	78.65
WTI Crude Oil per Barrel (\$)	54	▲	49	37	79
Gold Spot per Oz (\$)	1,152	▼	1,173	1,061	1,209

NCREIF performance is reported quarterly; MTD and QTD returns are shown as "N/A" on interim-quarter months and until available. Data shown is as of most recent quarter-end.

Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service.

Breakeven Inflation does not have 20 years of history; therefore, its 20-year average is shown as "N/A."

Treasury Yield Curve (%)



Treasury Yield Curve (%)	Dec-16	Nov-16	Dec-15	Dec-14	Dec-13
3 Month	0.51	0.48	0.16	0.04	0.07
6 Month	0.62	0.62	0.49	0.12	0.10
1 Year	0.85	0.80	0.65	0.25	0.13
3 Year	1.47	1.40	1.31	1.10	0.78
5 Year	1.93	1.83	1.76	1.65	1.75
7 Year	2.25	2.18	2.09	1.97	2.45
10 Year	2.45	2.37	2.27	2.17	3.04
20 Year	2.79	2.73	2.67	2.47	3.72
30 Year	3.06	3.02	3.01	2.75	3.96

Market Performance (%)	MTD	QTD	CYTD	1 Yr	3 Yr	5 Yr	7 Yr	10 Yr
S&P 500 (Cap Wtd)	1.98	3.82	11.96	11.96	8.87	14.66	12.83	6.95
Russell 2000	2.80	8.83	21.31	21.31	6.74	14.46	13.24	7.07
MSCI EAFE (Net)	3.42	-0.71	1.00	1.00	-1.60	6.53	3.81	0.75
MSCI EAFE SC (Net)	2.87	-2.86	2.18	2.18	2.10	10.56	7.82	2.95
MSCI EM (Net)	0.22	-4.16	11.19	11.19	-2.55	1.28	0.47	1.84
Bloomberg US Agg Bond	0.14	-2.98	2.65	2.65	3.03	2.23	3.63	4.34
BofA ML 3 Mo US T-Bill	0.04	0.08	0.33	0.33	0.14	0.12	0.12	0.80
NCREIF ODCE (Gross)	2.07	2.07	8.72	8.72	12.05	12.20	13.32	5.81
Wilshire US REIT	4.86	-2.28	7.24	7.24	13.78	12.02	13.84	4.80
HFRI FOF Comp Index	1.08	1.06	0.71	0.71	1.26	3.46	2.41	1.33
Bloomberg Cmtty Index (TR)	1.80	2.66	11.74	11.74	-11.26	-8.96	-6.31	-5.58

**Kentucky Retirement Systems - Pension Plan
Manager Comparative Performance**

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
U.S. Equity Composite	1.98	5.06	9.49	14.10	14.10	7.78	14.15	-0.95	10.78	33.73	11.20	04/01/1984
R 3000 Index (P)*	1.95	4.21	8.79	12.74	12.74	8.43	14.67	0.48	12.56	33.55	11.17	
Difference	0.03	0.85	0.70	1.36	1.36	-0.65	-0.52	-1.43	-1.78	0.18	0.03	
River Road Asset Management (SA)	2.20	6.79	10.54	20.99	20.99	8.51	13.16	-3.83	9.82	32.55	11.96	07/01/2011
Russell 3000 Val Index	2.63	7.24	11.40	18.40	18.40	8.55	14.81	-4.13	12.70	32.69	12.22	
Difference	-0.43	-0.45	-0.86	2.59	2.59	-0.04	-1.65	0.30	-2.88	-0.14	-0.26	
River Road FAV (SA)	0.74	9.15	18.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.47	07/01/2016
Russell 3000 Val Index	2.63	7.24	11.40	18.40	18.40	8.55	14.81	-4.13	12.70	32.69	11.40	
Difference	-1.89	1.91	7.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.07	
Westfield Capital (SA)	0.30	-0.37	6.16	1.17	1.17	3.88	13.70	-1.37	12.34	38.88	10.11	07/01/2011
Russell 3000 Grth Index	1.25	1.20	6.18	7.39	7.39	8.27	14.44	5.09	12.44	34.23	12.10	
Difference	-0.95	-1.57	-0.02	-6.22	-6.22	-4.39	-0.74	-6.46	-0.10	4.65	-1.99	
Scientific Beta (SA)	1.75	2.75	5.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.33	07/01/2016
S&P 500 Index (Cap Wtd)	1.98	3.82	7.82	11.96	11.96	8.87	14.66	1.38	13.69	32.39	7.82	
Difference	-0.23	-1.07	-2.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.49	
Internal S&P 500 Index (SA)	1.95	3.77	7.75	11.71	11.71	8.76	14.55	1.37	13.61	32.34	6.51	07/01/2001
S&P 500 Index (Cap Wtd)*	1.98	3.82	7.82	11.96	11.96	8.87	14.66	1.38	13.69	32.39	6.47	
Difference	-0.03	-0.05	-0.07	-0.25	-0.25	-0.11	-0.11	-0.01	-0.08	-0.05	0.04	
Internal US Mid Cap (SA)	2.22	7.44	11.75	20.60	20.60	N/A	N/A	-2.37	N/A	N/A	9.87	08/01/2014
S&P Mid Cap 400 Index (Cap Wtd)	2.19	7.42	11.87	20.74	20.74	9.04	15.33	-2.18	9.77	33.50	10.03	
Difference	0.03	0.02	-0.12	-0.14	-0.14	N/A	N/A	-0.19	N/A	N/A	-0.16	
Systematic Financial Management (SA)	2.43	10.40	16.86	20.12	20.12	6.24	N/A	-5.24	5.34	34.69	13.38	07/01/2012
Russell Mid Cap Val Index	1.78	5.52	10.22	20.00	20.00	9.45	15.70	-4.78	14.75	33.46	15.65	
Difference	0.65	4.88	6.64	0.12	0.12	-3.21	N/A	-0.46	-9.41	1.23	-2.27	
NT Structured Small Cap (SA)	2.76	8.97	16.85	21.09	21.09	7.70	15.56	-3.18	6.55	39.27	10.15	10/01/1999
Russell 2000 Index	2.80	8.83	18.68	21.31	21.31	6.74	14.46	-4.41	4.89	38.82	8.36	
Difference	-0.04	0.14	-1.83	-0.22	-0.22	0.96	1.10	1.23	1.66	0.45	1.79	

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**Kentucky Retirement Systems - Pension Plan
Manager Comparative Performance**

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Non-U.S. Equity Composite	2.45	-2.11	4.77	3.93	3.93	-1.25	5.77	-3.34	-4.12	18.34	2.07	07/01/2000
MSCI ACW Ex US Investable Mkt Index (Gross) (P)*	2.53	-1.52	5.51	4.91	4.91	-1.36	5.46	-5.25	-3.44	15.78	2.54	
Difference	-0.08	-0.59	-0.74	-0.98	-0.98	0.11	0.31	1.91	-0.68	2.56	-0.47	
Lazard Int'l Strategic Equity (SA)	2.06	-3.69	0.77	0.36	0.36	N/A	N/A	-0.62	N/A	N/A	-2.79	07/01/2014
MSCI ACW Ex US Index (USD) (Gross)	2.59	-1.20	5.72	5.01	5.01	-1.32	5.48	-5.25	-3.44	15.78	-3.82	
Difference	-0.53	-2.49	-4.95	-4.65	-4.65	N/A	N/A	4.63	N/A	N/A	1.03	
LSV Int'l Concentrated Value Equity (SA)	3.42	1.90	11.12	7.07	7.07	N/A	N/A	-5.96	N/A	N/A	-2.96	07/01/2014
MSCI ACW Ex US Index (USD) (Gross)	2.59	-1.20	5.72	5.01	5.01	-1.32	5.48	-5.25	-3.44	15.78	-3.82	
Difference	0.83	3.10	5.40	2.06	2.06	N/A	N/A	-0.71	N/A	N/A	0.86	
BTC ACWI Ex US Fund (CF)	2.57	-1.24	5.63	4.83	4.83	-1.58	5.23	-5.42	-3.85	15.55	5.95	07/01/2009
MSCI ACW Ex US Index (USD) (Net)	2.56	-1.25	5.57	4.50	4.50	-1.78	5.00	-5.66	-3.87	15.29	5.74	
Difference	0.01	0.01	0.06	0.33	0.33	0.20	0.23	0.24	0.02	0.26	0.21	
American Century Non-US Growth Equity (SA)	1.45	-5.42	1.72	-4.26	-4.26	N/A	N/A	-0.88	N/A	N/A	-4.50	07/01/2014
MSCI ACW Ex US Index (USD) (Gross)	2.59	-1.20	5.72	5.01	5.01	-1.32	5.48	-5.25	-3.44	15.78	-3.82	
Difference	-1.14	-4.22	-4.00	-9.27	-9.27	N/A	N/A	4.37	N/A	N/A	-0.68	
Franklin Templeton Non-US Equity (SA)	2.50	-4.28	3.04	1.31	1.31	N/A	N/A	1.00	N/A	N/A	-2.11	07/01/2014
MSCI ACW Ex US Index (USD) (Gross)	2.59	-1.20	5.72	5.01	5.01	-1.32	5.48	-5.25	-3.44	15.78	-3.82	
Difference	-0.09	-3.08	-2.68	-3.70	-3.70	N/A	N/A	6.25	N/A	N/A	1.71	
NT Int'l Sm Cap Eq Index (SA)	2.20	-3.40	4.25	4.13	4.13	1.02	7.98	2.87	-3.76	20.73	12.15	12/01/2008
MSCI ACW Ex US Sm Cap Index (USD) (Net)	2.12	-3.52	4.11	3.91	3.91	0.77	7.74	2.60	-4.03	19.73	12.56	
Difference	0.08	0.12	0.14	0.22	0.22	0.25	0.24	0.27	0.27	1.00	-0.41	

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**Kentucky Retirement Systems - Pension Plan
Manager Comparative Performance**

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Fixed Income Composite	0.84	0.65	3.15	8.45	8.45	4.73	4.77	0.48	5.42	-0.04	7.70	04/01/1984
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index (P)*	1.07	-0.44	2.78	10.38	10.38	5.38	4.03	0.43	5.56	-1.35	7.51	
Difference	-0.23	1.09	0.37	-1.93	-1.93	-0.65	0.74	0.05	-0.14	1.31	0.19	
Bloomberg Gbl Agg Bond Index	-0.46	-7.07	-6.31	2.09	2.09	-0.19	0.21	-3.15	0.59	-2.60	N/A	
Difference	1.30	7.72	9.46	6.36	6.36	4.92	4.56	3.63	4.83	2.56	N/A	
NISA Core Agg Fixed Income (SA)	0.26	-2.92	-2.44	3.08	3.08	3.38	2.43	0.87	6.27	-2.19	4.29	02/01/2009
Bloomberg US Agg Bond Index	0.14	-2.98	-2.53	2.65	2.65	3.03	2.23	0.55	5.97	-2.02	4.07	
Difference	0.12	0.06	0.09	0.43	0.43	0.35	0.20	0.32	0.30	-0.17	0.22	
Cerberus KRS Levered Loan Opps, L.P.	0.85	2.28	3.87	8.63	8.63	N/A	N/A	9.29	N/A	N/A	8.17	09/01/2014
S&P-LSTA Lvg'd Loan Index	1.16	2.26	5.41	10.16	10.16	3.58	5.11	-0.69	1.60	5.29	3.43	
Difference	-0.31	0.02	-1.54	-1.53	-1.53	N/A	N/A	9.98	N/A	N/A	4.74	
Columbia HY Fixed Income (SA)	1.60	0.81	5.54	11.65	11.65	5.15	7.50	-0.25	4.38	6.45	7.44	11/01/2011
Bloomberg US Corp: Hi Yld Index	1.85	1.75	7.40	17.13	17.13	4.66	7.36	-4.47	2.45	7.44	7.21	
Difference	-0.25	-0.94	-1.86	-5.48	-5.48	0.49	0.14	4.22	1.93	-0.99	0.23	
Marathon Bluegrass Credit Fund	0.73	6.32	11.77	16.38	16.38	N/A	N/A	N/A	N/A	N/A	16.38	01/01/2016
Bloomberg US Corp: Hi Yld Index	1.85	1.75	7.40	17.13	17.13	4.66	7.36	-4.47	2.45	7.44	17.13	
Difference	-1.12	4.57	4.37	-0.75	-0.75	N/A	N/A	N/A	N/A	N/A	-0.75	
Shenkman Capital (SA)	1.03	1.88	5.07	8.95	8.95	3.25	5.07	-0.61	1.64	5.67	5.00	10/01/2010
Shenkman Blended Index	1.16	2.26	5.41	10.16	10.16	4.05	6.26	-0.69	2.98	6.42	6.03	
Difference	-0.13	-0.38	-0.34	-1.21	-1.21	-0.80	-1.19	0.08	-1.34	-0.75	-1.03	
Waterfall (SA)	1.74	4.09	8.32	9.84	9.84	7.86	9.92	3.17	10.71	12.84	11.90	02/01/2010
Opportunistic FI Blended Index	1.24	1.78	5.50	11.22	11.22	3.39	4.99	-2.73	2.16	5.06	5.37	
Difference	0.50	2.31	2.82	-1.38	-1.38	4.47	4.93	5.90	8.55	7.78	6.53	
Manulife Asset Mgmt (SA)	0.50	-1.25	-0.24	4.46	4.46	2.99	4.41	0.59	3.95	1.57	4.38	12/01/2011
Bloomberg US Unv Bond Index*	0.30	-2.61	-1.68	3.91	3.91	0.32	0.70	-3.29	0.48	-2.19	0.83	
Difference	0.20	1.36	1.44	0.55	0.55	2.67	3.71	3.88	3.47	3.76	3.55	

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As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Real Return Composite	0.90	-1.32	1.84	10.46	10.46	2.35	2.34	-5.96	3.20	-4.37	3.35	07/01/2011
Real Return Actual Allocation Index (P)*	1.16	-0.91	0.61	7.22	7.22	1.92	2.57	-4.07	2.95	2.33	2.63	
Difference	-0.26	-0.41	1.23	3.24	3.24	0.43	-0.23	-1.89	0.25	-6.70	0.72	
Internal TIPS (SA)	0.10	-1.40	-0.47	4.56	4.56	2.59	1.16	0.22	3.03	-8.45	5.22	05/01/2002
Internal US TIPS Blend	0.11	-1.47	-0.91	4.01	4.01	2.02	0.75	-0.52	2.63	-8.61	5.08	
Difference	-0.01	0.07	0.44	0.55	0.55	0.57	0.41	0.74	0.40	0.16	0.14	
Nuveen Real Asset Income (SA)	1.90	-3.47	-0.16	10.19	10.19	N/A	N/A	N/A	N/A	N/A	2.59	02/01/2015
Nuveen Real Asset Custom Index	1.97	-3.22	-1.36	8.74	8.74	N/A	N/A	N/A	N/A	N/A	2.47	
Difference	-0.07	-0.25	1.20	1.45	1.45	N/A	N/A	N/A	N/A	N/A	0.12	
PIMCO:All Asset;Inst (PAAIX)	-0.54	-2.62	1.13	12.87	12.87	1.49	4.27	-7.87	0.52	-1.66	3.52	12/01/2011
Bloomberg US Trsy Infl Notes: 1-10 Yr Index	0.11	-1.47	-0.91	4.01	4.01	1.45	0.70	-0.52	0.91	-5.58	0.65	
Difference	-0.65	-1.15	2.04	8.86	8.86	0.04	3.57	-7.35	-0.39	3.92	2.87	
Tortoise Capital (CF)	4.41	2.89	5.38	16.10	16.10	-0.71	7.52	-27.04	15.54	36.72	14.40	08/01/2009
Alerian MLP Index	4.39	2.04	3.13	18.31	18.31	-5.80	2.25	-32.59	4.80	27.58	10.12	
Difference	0.02	0.85	2.25	-2.21	-2.21	5.09	5.27	5.55	10.74	9.14	4.28	
Amerra Ag Fund II (CF)	-0.29	-0.29	1.41	3.50	3.50	8.73	N/A	14.34	8.63	0.06	6.36	12/01/2012
Amerra-AGRI Holding (CF)	-0.45	-0.45	-0.19	0.72	0.72	N/A	N/A	N/A	N/A	N/A	0.26	08/01/2015
BTG Pactual Brazil Timberland Fund I, L.P.	0.56	0.56	9.81	-16.19	-16.19	N/A	N/A	-17.41	N/A	N/A	-16.19	12/01/2014
Magnetar MTP Energy Fund, L.P.	1.81	3.42	8.53	13.68	13.68	-0.41	N/A	-15.63	2.98	N/A	0.51	07/01/2013
Magnetar MTP EOF II, L.P.	1.66	1.66	15.19	-3.75	-3.75	N/A	N/A	N/A	N/A	N/A	-2.66	08/01/2015
Oberland Capital Healthcare, L.P.	-10.88	-10.88	-9.16	53.70	53.70	N/A	N/A	-27.53	N/A	N/A	3.41	10/01/2014
Taurus Mining Finance Fund	10.04	10.04	13.19	31.15	31.15	N/A	N/A	N/A	N/A	N/A	17.09	04/01/2015
Tenaska Power Fund II (CF)	1.96	1.96	13.12	-23.28	-23.28	-3.86	-5.37	16.85	-0.88	-16.55	-4.56	10/01/2008

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Kentucky Retirement Systems - Pension Plan
Manager Comparative Performance

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Real Estate Composite	2.08	2.13	4.35	9.44	9.44	9.06	9.31	8.89	8.85	9.17	5.88	07/01/1984
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)	1.83	1.83	3.77	9.08	9.08	11.42	11.34	13.86	11.36	11.97	6.43	
Difference	0.25	0.30	0.58	0.36	0.36	-2.36	-2.03	-4.97	-2.51	-2.80	-0.55	
H/2 Credit Partners (CF)	5.08	5.08	7.32	9.29	9.29	5.95	6.95	2.11	6.57	4.52	6.22	07/01/2011
Harrison Street Core (CF)	1.42	1.42	4.09	10.18	10.18	9.94	N/A	9.53	10.12	9.69	8.52	05/01/2012
Mesa West Core Lending, L.P.	3.16	3.16	4.72	8.22	8.22	6.86	N/A	7.56	4.84	N/A	6.37	05/01/2013
Prologis Targeted U.S. Logistics Fund (CF)	1.95	2.90	5.13	13.39	13.39	N/A	N/A	14.74	N/A	N/A	12.41	10/01/2014
Stockbridge SmtMkts, L.P.	2.71	2.71	4.33	9.82	9.82	N/A	N/A	12.00	N/A	N/A	9.93	05/01/2014
DivcoWest Fund IV, L.P.	7.13	7.13	19.27	38.32	38.32	N/A	N/A	28.79	N/A	N/A	24.04	03/01/2014
Greenfield Acquisition Partners VI, L.P.	0.76	0.76	-3.46	0.93	0.93	11.81	N/A	18.77	16.59	11.34	11.44	12/01/2012
Greenfield Acquisition Partners VII, L.P.	0.51	0.51	4.44	12.78	12.78	N/A	N/A	15.29	N/A	N/A	10.09	07/01/2014
Lubert Adler Real Estate Fund VII, L.P.	0.00	0.00	3.86	4.19	4.19	N/A	N/A	-0.33	N/A	N/A	-8.74	07/01/2014
Patron Capital V, L.P.	-25.94	-30.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-30.34	08/01/2016
Rubenstein Properties Fund II, L.P.	1.11	1.11	1.23	1.34	1.34	17.64	N/A	11.17	44.51	N/A	13.78	07/01/2013
Walton Street Real Estate Fund VI, L.P.	-6.51	-6.51	-6.27	-3.80	-3.80	8.16	9.50	12.99	16.41	15.24	-22.52	05/01/2009
Walton Street Real Estate Fund VII, L.P.	3.42	3.42	5.82	12.32	12.32	14.73	N/A	16.78	15.13	N/A	14.29	07/01/2013

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Kentucky Retirement Systems - Pension Plan
Manager Comparative Performance

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Absolute Return Composite	0.57	0.96	3.36	-0.25	-0.25	2.07	5.00	1.70	4.84	12.08	3.96	04/01/2010
HFRI FOF: Dvfd Index (1 Mo Lag)	0.36	0.11	1.36	-1.35	-1.35	1.36	3.13	0.79	4.72	8.61	2.41	
Difference	0.21	0.85	2.00	1.10	1.10	0.71	1.87	0.91	0.12	3.47	1.55	
BAAM (SA)	0.40	0.69	3.76	0.71	0.71	4.88	6.78	6.10	7.97	11.54	6.39	09/01/2011
Davidson-Kemper, L.P.	0.38	1.43	4.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.98	02/01/2016
PAAMCO (SA)	0.00	0.00	-0.01	-1.85	-1.85	-0.05	4.03	-2.01	3.83	15.09	3.63	09/01/2011
Prisma Capital Partners (SA)	0.74	1.10	3.54	-0.87	-0.87	1.63	4.43	2.52	3.30	9.78	3.59	09/01/2011
Senator Investment Group, L.P.	1.10	-0.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.47	09/01/2016
Tourbillon Global Master Fund, Ltd	-1.82	-1.87	7.28	-9.76	-9.76	N/A	N/A	N/A	N/A	N/A	-7.87	11/01/2015
Anchorage Capital	0.61	1.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.99	08/01/2016
Blackrock GAO Fund, Ltd (CF)	-0.98	-5.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-5.63	08/01/2016
Coatue Qualified Partners, L.P.	1.86	-0.79	4.01	4.26	4.26	N/A	N/A	N/A	N/A	N/A	6.79	07/01/2015
DSAM Fund, L.P.	2.03	-2.00	-1.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.84	05/01/2016
Finisterre Global Op	-0.52	1.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.41	08/01/2016
Glenview Capital (CF)	0.61	2.99	9.37	-3.28	-3.28	N/A	N/A	N/A	N/A	N/A	-5.63	11/01/2015
HBK II (CF)	0.10	2.40	3.86	5.39	5.39	2.58	N/A	-1.46	3.93	N/A	2.83	12/01/2013
Jana Partners (CF)	0.00	0.00	5.71	-0.01	-0.01	N/A	N/A	-5.99	N/A	N/A	-2.89	09/01/2014
Knighthead Capital (CF)	2.40	7.99	10.11	8.51	8.51	0.95	N/A	-10.22	5.59	N/A	0.95	01/01/2014
LibreMax Capital (CF)	0.69	1.55	4.83	2.53	2.53	N/A	N/A	-0.16	N/A	N/A	2.25	08/01/2014
Liquidalts H2O Force (CF)	2.38	6.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.16	08/01/2016

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Kentucky Retirement Systems - Pension Plan
Manager Comparative Performance

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Luxor Capital (CF)	1.83	12.83	17.36	0.85	0.85	N/A	N/A	-16.70	N/A	N/A	-8.16	04/01/2014
Myriad Opportunities	1.17	1.57	3.80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.33	05/01/2016
Pine River (CF)	1.05	1.42	4.78	0.63	0.63	N/A	N/A	0.09	N/A	N/A	0.46	05/01/2014
QMS Diversified Global Macro (CF)	-2.04	-9.73	-11.25	-10.36	-10.36	N/A	N/A	N/A	N/A	N/A	-8.34	11/01/2015
Scopia PX, LLC	0.17	4.08	6.15	-4.46	-4.46	N/A	N/A	0.92	N/A	N/A	0.30	11/01/2014

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**Kentucky Retirement Systems - Pension Plan
Manager Comparative Performance**

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Private Equity Composite	2.14	1.93	3.97	5.74	5.74	10.95	12.33	11.15	16.20	15.11	10.73	07/01/2002
Private Equity Benchmark (P) [Short Term]	2.14	1.93	3.97	5.74	5.74	10.95	12.33	11.15	16.20	15.11	10.73	
Difference	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (P)* [Long Term]	0.46	5.16	8.93	17.96	17.96	14.13	20.17	3.51	21.76	25.61	10.54	
Difference	1.68	-3.23	-4.96	-12.22	-12.22	-3.18	-7.84	7.64	-5.56	-10.50	0.19	
Cash Equivalents (SA)	0.05	0.46	0.58	0.94	0.94	0.44	0.45	0.21	0.17	0.64	3.70	01/01/1988
Citi 3 Mo T-Bill Index	0.03	0.08	0.15	0.27	0.27	0.11	0.09	0.03	0.02	0.06	3.25	
Difference	0.02	0.38	0.43	0.67	0.67	0.33	0.36	0.18	0.15	0.58	0.45	

Performance for Absolute Return managers and the HFRI FOF Diversified Index is lagged by one month.

Performance for the NCREIF ODCE Index (AWA) (Net) is lagged by one quarter and available quarterly; interim months assume a 0.00% return.

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**Kentucky Retirement Systems - Insurance Plan
Manager Comparative Performance**

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
U.S. Equity Composite	1.98	5.11	9.50	14.66	14.66	8.06	14.29	-0.48	10.58	33.56	9.43	07/01/1992
R 3000 Index (I)*	1.95	4.21	8.79	12.74	12.74	8.43	14.67	0.48	12.56	33.55	N/A	
Difference	0.03	0.90	0.71	1.92	1.92	-0.37	-0.38	-0.96	-1.98	0.01	N/A	
River Road Asset Management (SA)	2.20	6.78	10.53	20.81	20.81	8.42	13.15	-3.97	9.86	32.64	11.95	07/01/2011
Russell 3000 Val Index	2.63	7.24	11.40	18.40	18.40	8.55	14.81	-4.13	12.70	32.69	12.22	
Difference	-0.43	-0.46	-0.87	2.41	2.41	-0.13	-1.66	0.16	-2.84	-0.05	-0.27	
River Road FAV (SA)	0.74	9.10	18.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.42	07/01/2016
Russell 3000 Val Index	2.63	7.24	11.40	18.40	18.40	8.55	14.81	-4.13	12.70	32.69	11.40	
Difference	-1.89	1.86	7.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.02	
Westfield Capital (SA)	0.31	-0.32	6.25	1.23	1.23	4.03	13.85	-1.42	12.82	39.06	10.24	07/01/2011
Russell 3000 Grth Index	1.25	1.20	6.18	7.39	7.39	8.27	14.44	5.09	12.44	34.23	12.10	
Difference	-0.94	-1.52	0.07	-6.16	-6.16	-4.24	-0.59	-6.51	0.38	4.83	-1.86	
Scientific Beta (SA)	1.75	2.75	3.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.86	07/01/2016
S&P 500 Index (Cap Wtd)	1.98	3.82	7.82	11.96	11.96	8.87	14.66	1.38	13.69	32.39	7.82	
Difference	-0.23	-1.07	-3.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3.96	
Internal S&P 500 Index (SA)	1.97	3.74	7.70	11.65	11.65	8.78	14.57	1.46	13.63	32.27	6.56	07/01/2001
S&P 500 Index (Cap Wtd)*	1.98	3.82	7.82	11.96	11.96	8.87	14.66	1.38	13.69	32.39	6.47	
Difference	-0.01	-0.08	-0.12	-0.31	-0.31	-0.09	-0.09	0.08	-0.06	-0.12	0.09	
Internal US Mid Cap (SA)	2.22	7.29	11.62	21.10	21.10	N/A	N/A	-2.39	N/A	N/A	10.06	08/01/2014
S&P Mid Cap 400 Index (Cap Wtd)	2.19	7.42	11.87	20.74	20.74	9.04	15.33	-2.18	9.77	33.50	10.03	
Difference	0.03	-0.13	-0.25	0.36	0.36	N/A	N/A	-0.21	N/A	N/A	0.03	
Systematic Financial Management (SA)	2.42	10.45	16.90	20.13	20.13	6.19	N/A	-5.14	5.09	34.70	13.35	07/01/2012
Russell Mid Cap Val Index	1.78	5.52	10.22	20.00	20.00	9.45	15.70	-4.78	14.75	33.46	15.65	
Difference	0.64	4.93	6.68	0.13	0.13	-3.26	N/A	-0.36	-9.66	1.24	-2.30	
NT Structured Small Cap (SA)	2.84	9.06	16.80	21.10	21.10	7.41	15.35	-3.27	5.80	39.24	12.03	07/01/2011
Russell 2000 Index	2.80	8.83	18.68	21.31	21.31	6.74	14.46	-4.41	4.89	38.82	10.97	
Difference	0.04	0.23	-1.88	-0.21	-0.21	0.67	0.89	1.14	0.91	0.42	1.06	

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**Kentucky Retirement Systems - Insurance Plan
Manager Comparative Performance**

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Non-U.S. Equity Composite	2.48	-1.94	5.00	3.97	3.97	-1.32	5.57	-3.46	-4.28	17.94	2.08	04/01/2000
MSCI ACW Ex US Investable Mkt Index (I)*	2.53	-1.52	5.51	4.91	4.91	-1.36	5.46	-5.25	-3.44	15.78	1.64	
Difference	-0.05	-0.42	-0.51	-0.94	-0.94	0.04	0.11	1.79	-0.84	2.16	0.44	
Lazard Int'l Strategic Equity (SA)	2.07	-3.71	0.76	0.20	0.20	N/A	N/A	-0.61	N/A	N/A	-2.88	07/01/2014
MSCI ACW Ex US Index (USD) (Gross)	2.59	-1.20	5.72	5.01	5.01	-1.32	5.48	-5.25	-3.44	15.78	-3.82	
Difference	-0.52	-2.51	-4.96	-4.81	-4.81	N/A	N/A	4.64	N/A	N/A	0.94	
LSV Int'l Concentrated Value Equity (SA)	3.45	2.31	11.44	6.77	6.77	N/A	N/A	-5.97	N/A	N/A	-3.23	07/01/2014
MSCI ACW Ex US Index (USD) (Gross)	2.59	-1.20	5.72	5.01	5.01	-1.32	5.48	-5.25	-3.44	15.78	-3.82	
Difference	0.86	3.51	5.72	1.76	1.76	N/A	N/A	-0.72	N/A	N/A	0.59	
BTC ACWI Ex US Fund (CF)	2.56	-1.28	5.53	5.44	5.44	-1.47	N/A	-5.62	-3.88	14.68	6.26	06/01/2012
MSCI ACW Ex US Index (USD) (Net)	2.56	-1.25	5.57	4.50	4.50	-1.78	5.00	-5.66	-3.87	15.29	6.16	
Difference	0.00	-0.03	-0.04	0.94	0.94	0.31	N/A	0.04	-0.01	-0.61	0.10	
American Century Non-US Growth Equity (SA)	1.45	-5.42	1.73	-4.42	-4.42	N/A	N/A	-0.89	N/A	N/A	-4.57	07/01/2014
MSCI ACW Ex US Index (USD) (Gross)	2.59	-1.20	5.72	5.01	5.01	-1.32	5.48	-5.25	-3.44	15.78	-3.82	
Difference	-1.14	-4.22	-3.99	-9.43	-9.43	N/A	N/A	4.36	N/A	N/A	-0.75	
Franklin Templeton Non-US Equity (SA)	2.52	-4.42	3.10	1.12	1.12	N/A	N/A	0.60	N/A	N/A	-2.29	07/01/2014
MSCI ACW Ex US Index (USD) (Gross)	2.59	-1.20	5.72	5.01	5.01	-1.32	5.48	-5.25	-3.44	15.78	-3.82	
Difference	-0.07	-3.22	-2.62	-3.89	-3.89	N/A	N/A	5.85	N/A	N/A	1.53	
BTC ACWI Ex US Small Cap Fund (CF)	2.14	-3.58	4.18	3.75	3.75	0.84	N/A	2.85	-3.90	N/A	6.15	07/01/2013
MSCI ACW Ex US Sm Cap Index (USD) (Net)	2.12	-3.52	4.11	3.91	3.91	0.77	7.74	2.60	-4.03	19.73	5.42	
Difference	0.02	-0.06	0.07	-0.16	-0.16	0.07	N/A	0.25	0.13	N/A	0.73	

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**Kentucky Retirement Systems - Insurance Plan
Manager Comparative Performance**

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Fixed Income Composite	0.65	0.65	2.69	8.22	8.22	4.14	4.31	0.53	3.79	-0.33	6.53	07/01/1992
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index (I)*	1.07	-0.44	2.78	10.38	10.38	5.38	4.03	0.43	5.56	-1.35	6.48	
Difference	-0.42	1.09	-0.09	-2.16	-2.16	-1.24	0.28	0.10	-1.77	1.02	0.05	
Bloomberg Gbl Agg Bond Index	-0.46	-7.07	-6.31	2.09	2.09	-0.19	0.21	-3.15	0.59	-2.60	5.10	
Difference	1.11	7.72	9.00	6.13	6.13	4.33	4.10	3.68	3.20	2.27	1.43	
NISA Core Agg Fixed Income (SA)	0.11	-3.06	-2.57	2.96	2.96	3.27	2.35	0.77	6.16	-2.12	3.09	07/01/2011
Bloomberg US Agg Bond Index	0.14	-2.98	-2.53	2.65	2.65	3.03	2.23	0.55	5.97	-2.02	2.93	
Difference	-0.03	-0.08	-0.04	0.31	0.31	0.24	0.12	0.22	0.19	-0.10	0.16	
Cerberus KRS Levered Loan Opps, L.P.	0.85	2.28	3.87	8.63	8.63	N/A	N/A	9.29	N/A	N/A	8.17	09/01/2014
S&P-LSTA Lvg'd Loan Index	1.16	2.26	5.41	10.16	10.16	3.58	5.11	-0.69	1.60	5.29	3.43	
Difference	-0.31	0.02	-1.54	-1.53	-1.53	N/A	N/A	9.98	N/A	N/A	4.74	
Columbia HY Fixed Income (SA)	1.59	0.80	5.44	12.19	12.19	5.36	7.54	-0.17	4.45	6.04	7.48	11/01/2011
Bloomberg US Corp: Hi Yld Index	1.85	1.75	7.40	17.13	17.13	4.66	7.36	-4.47	2.45	7.44	7.21	
Difference	-0.26	-0.95	-1.96	-4.94	-4.94	0.70	0.18	4.30	2.00	-1.40	0.27	
Marathon Bluegrass Credit Fund	0.75	6.40	11.87	16.88	16.88	N/A	N/A	N/A	N/A	N/A	16.88	01/01/2016
Bloomberg US Corp: Hi Yld Index	1.85	1.75	7.40	17.13	17.13	4.66	7.36	-4.47	2.45	7.44	17.13	
Difference	-1.10	4.65	4.47	-0.25	-0.25	N/A	N/A	N/A	N/A	N/A	-0.25	
Shenkman Capital (SA)	0.88	1.70	4.74	8.46	8.46	2.16	4.42	-0.38	-1.32	5.61	4.10	07/01/2011
Shenkman Blended Index	1.16	2.26	5.41	10.16	10.16	4.05	6.26	-0.69	2.98	6.42	5.54	
Difference	-0.28	-0.56	-0.67	-1.70	-1.70	-1.89	-1.84	0.31	-4.30	-0.81	-1.44	
Waterfall (SA)	0.73	2.85	3.53	7.52	7.52	6.38	9.63	2.82	8.91	12.30	9.84	07/01/2011
Opportunistic FI Blended Index	1.24	1.78	5.50	11.22	11.22	3.39	4.99	-2.73	2.16	5.06	4.51	
Difference	-0.51	1.07	-1.97	-3.70	-3.70	2.99	4.64	5.55	6.75	7.24	5.33	
Manulife Asset Mgmt (SA)	0.50	-1.26	-0.28	4.38	4.38	2.67	4.39	0.47	3.19	2.78	4.36	12/01/2011
Bloomberg US Unv Bond Index*	0.30	-2.61	-1.68	3.91	3.91	0.32	0.70	-3.29	0.48	-2.19	0.83	
Difference	0.20	1.35	1.40	0.47	0.47	2.35	3.69	3.76	2.71	4.97	3.53	

Performance shown is net of fees. All data reported for Kentucky Retirement Systems, including manager performance, is provided by BNY Mellon. Fiscal year ends June 30th. An index marked with an asterisk (*) represents the current benchmark. Manager inception dates shown represent the first full month following initial funding.

**Kentucky Retirement Systems - Insurance Plan
Manager Comparative Performance**

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Real Return Composite	0.84	-1.44	1.41	9.69	9.69	2.24	2.06	-6.13	3.78	-4.92	3.08	07/01/2011
Real Return Actual Allocation Index (I)*	1.04	-1.08	0.37	6.87	6.87	2.06	2.64	-3.56	3.15	2.29	2.70	
Difference	-0.20	-0.36	1.04	2.82	2.82	0.18	-0.58	-2.57	0.63	-7.21	0.38	
Internal TIPS (SA)	0.11	-1.44	-0.77	4.14	4.14	2.46	1.20	0.26	3.02	-7.78	4.57	10/01/2003
Internal US TIPS Blend	0.11	-1.47	-0.91	4.01	4.01	2.02	0.75	-0.52	2.63	-8.61	4.24	
Difference	0.00	0.03	0.14	0.13	0.13	0.44	0.45	0.78	0.39	0.83	0.33	
Nuveen Real Asset Income (SA)	1.93	-3.48	-0.25	10.16	10.16	N/A	N/A	N/A	N/A	N/A	2.59	02/01/2015
Nuveen Real Asset Custom Index	1.97	-3.22	-1.36	8.74	8.74	N/A	N/A	N/A	N/A	N/A	2.47	
Difference	-0.04	-0.26	1.11	1.42	1.42	N/A	N/A	N/A	N/A	N/A	0.12	
PIMCO:All Asset;Inst (PAAIX)	-0.54	-2.62	1.13	12.87	12.87	1.47	4.26	-10.43	3.34	-1.66	3.51	12/01/2011
Bloomberg US Trsy Infl Notes: 1-10 Yr Index	0.11	-1.47	-0.91	4.01	4.01	1.45	0.70	-0.52	0.91	-5.58	0.65	
Difference	-0.65	-1.15	2.04	8.86	8.86	0.02	3.56	-9.91	2.43	3.92	2.86	
Tortoise Capital (CF)	4.41	2.88	5.37	15.95	15.95	-0.90	7.78	-26.95	14.90	36.32	14.59	08/01/2009
Alerian MLP Index	4.39	2.04	3.13	18.31	18.31	-5.80	2.25	-32.59	4.80	27.58	10.12	
Difference	0.02	0.84	2.24	-2.36	-2.36	4.90	5.53	5.64	10.10	8.74	4.47	
Amerra Ag Fund II (CF)	-0.29	-0.29	1.41	3.50	3.50	8.73	N/A	14.34	8.63	0.06	6.36	12/01/2012
Amerra-AGRI Holding (CF)	-0.45	-0.45	-0.19	0.72	0.72	N/A	N/A	N/A	N/A	N/A	0.26	08/01/2015
BTG Pactual Brazil Timberland Fund I, L.P.	0.56	0.56	9.81	-16.19	-16.19	N/A	N/A	-17.41	N/A	N/A	-16.19	12/01/2014
Magnetar MTP Energy Fund, L.P.	1.81	3.42	8.53	13.68	13.68	-0.41	N/A	-15.63	2.98	N/A	0.51	07/01/2013
Magnetar MTP EOF II, L.P.	1.66	1.66	15.19	-3.75	-3.75	N/A	N/A	N/A	N/A	N/A	-2.66	08/01/2015
Oberland Capital Healthcare, L.P.	-10.88	-10.88	-9.16	53.70	53.70	N/A	N/A	-27.53	N/A	N/A	3.41	10/01/2014
Taurus Mining Finance Fund	10.04	10.04	13.19	31.15	31.15	N/A	N/A	N/A	N/A	N/A	17.09	04/01/2015
Tenaska Power Fund II (CF)	1.96	1.96	13.12	-23.28	-23.28	-3.86	-5.37	16.85	-0.88	-16.55	-4.56	10/01/2008

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Kentucky Retirement Systems - Insurance Plan
Manager Comparative Performance

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Real Estate Composite	2.43	2.38	4.76	9.76	9.76	8.73	9.05	8.99	7.46	8.85	8.85	05/01/2009
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)	1.83	1.83	3.77	9.08	9.08	11.42	11.34	13.86	11.36	11.97	5.76	
Difference	0.60	0.55	0.99	0.68	0.68	-2.69	-2.29	-4.87	-3.90	-3.12	3.09	
H/2 Credit Partners (CF)	5.08	5.08	7.32	9.16	9.16	5.91	6.90	2.11	6.57	4.51	6.18	07/01/2011
Harrison Street Core (CF)	1.42	1.42	4.11	10.09	10.09	9.69	N/A	7.00	12.03	6.81	7.74	05/01/2012
Mesa West Core Lending, L.P.	3.02	3.02	4.53	7.91	7.91	6.62	N/A	7.29	4.68	N/A	6.17	05/01/2013
Prologis Targeted U.S. Logistics Fund (CF)	2.92	2.93	6.27	13.34	13.34	N/A	N/A	13.54	N/A	N/A	11.86	10/01/2014
Stockbridge SmtMkts, L.P.	2.69	2.69	4.29	9.73	9.73	N/A	N/A	11.30	N/A	N/A	9.92	05/01/2014
DivcoWest Fund IV, L.P.	7.13	7.13	19.27	38.32	38.32	N/A	N/A	28.79	N/A	N/A	24.03	03/01/2014
Greenfield Acquisition Partners VI, L.P.	0.76	0.76	-3.46	0.93	0.93	11.81	N/A	18.77	16.59	11.34	11.44	12/01/2012
Greenfield Acquisition Partners VII, L.P.	0.51	0.51	4.44	12.78	12.78	N/A	N/A	15.29	N/A	N/A	10.09	07/01/2014
Lubert Adler Real Estate Fund VII, L.P.	0.00	0.00	3.86	4.19	4.19	N/A	N/A	-0.33	N/A	N/A	-8.74	07/01/2014
Patron Capital V, L.P.	-24.98	-29.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-30.65	08/01/2016
Rubenstein Properties Fund II, L.P.	1.11	1.11	1.23	1.34	1.34	17.64	N/A	11.17	44.51	N/A	13.78	07/01/2013
Walton Street Real Estate Fund VI, L.P.	-6.51	-6.51	-6.27	-3.80	-3.80	8.16	9.50	12.99	16.41	15.24	-22.52	05/01/2009
Walton Street Real Estate Fund VII, L.P.	3.42	3.42	5.82	12.32	12.32	14.73	N/A	16.78	15.13	N/A	14.29	07/01/2013

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Kentucky Retirement Systems - Insurance Plan
Manager Comparative Performance

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Absolute Return Composite	0.57	0.96	3.32	-0.26	-0.26	2.09	5.01	1.80	4.80	11.99	3.88	04/01/2010
HFRI FOF: Dv'd Index (1 Mo Lag)	0.36	0.11	1.36	-1.35	-1.35	1.36	3.13	0.79	4.72	8.61	2.41	
Difference	0.21	0.85	1.96	1.09	1.09	0.73	1.88	1.01	0.08	3.38	1.47	
BAAM (SA)	0.40	0.69	3.76	0.72	0.72	4.86	6.80	6.11	7.91	11.51	6.41	09/01/2011
Davidson-Kemper, L.P.	0.38	1.42	4.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.05	02/01/2016
PAAMCO (SA)	0.00	0.00	-0.01	-1.84	-1.84	-0.06	4.03	-2.05	3.81	14.91	3.64	09/01/2011
Prisma Capital Partners (SA)	0.74	1.10	3.59	-0.82	-0.82	1.62	4.45	2.54	3.18	9.75	3.61	09/01/2011
Senator Investment Group, L.P.	1.11	-0.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.47	09/01/2016
Tourbillon Global Master Fund, Ltd	-1.82	-1.87	7.28	-9.75	-9.75	N/A	N/A	N/A	N/A	N/A	-7.87	11/01/2015
Anchorage Capital	0.61	1.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.13	08/01/2016
Blackrock GAO Fund, Ltd (CF)	-0.98	-5.51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-5.67	08/01/2016
Coatue Qualified Partners, L.P.	1.86	-0.79	4.01	4.18	4.18	N/A	N/A	N/A	N/A	N/A	6.79	07/01/2015
DSAM Fund, L.P.	2.03	-2.00	-1.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.84	05/01/2016
Finisterre Global Op	-0.52	1.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.41	08/01/2016
Glenview Capital (CF)	0.61	2.99	9.37	-3.28	-3.28	N/A	N/A	N/A	N/A	N/A	-5.63	11/01/2015
HBK II (CF)	0.10	2.40	3.82	5.35	5.35	2.56	N/A	-1.46	3.93	N/A	2.81	12/01/2013
Jana Partners (CF)	0.00	0.00	5.71	-0.01	-0.01	N/A	N/A	-5.99	N/A	N/A	-2.89	09/01/2014
Knighthead Capital (CF)	2.40	7.99	10.11	8.51	8.51	0.95	N/A	-10.22	5.59	N/A	0.95	01/01/2014
Liquidalts H2O Force (CF)	2.38	6.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.22	08/01/2016
LibreMax Capital (CF)	0.69	1.55	4.86	2.56	2.56	N/A	N/A	-0.16	N/A	N/A	2.27	08/01/2014

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Kentucky Retirement Systems - Insurance Plan
Manager Comparative Performance

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Luxor Capital (CF)	1.83	12.83	17.36	0.85	0.85	N/A	N/A	-16.70	N/A	N/A	-8.16	04/01/2014
Myriad Opportunities	1.17	1.51	3.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.11	05/01/2016
Pine River (CF)	1.05	1.42	4.78	0.63	0.63	N/A	N/A	0.09	N/A	N/A	0.46	05/01/2014
QMS Diversified Global Macro (CF)	-2.04	-9.74	-11.58	-10.69	-10.69	N/A	N/A	N/A	N/A	N/A	-8.63	11/01/2015
Scopia PX, LLC	0.17	4.08	6.10	-4.56	-4.56	N/A	N/A	0.92	N/A	N/A	0.26	11/01/2014

Performance shown is net of fees. All data reported for Kentucky Retirement Systems, including manager performance, is provided by BNY Mellon. Fiscal year ends June 30th. An index marked with an asterisk (*) represents the current benchmark. Manager inception dates shown represent the first full month following initial funding.

**Kentucky Retirement Systems - Insurance Plan
Manager Comparative Performance**

As of December 31, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
Private Equity Composite	2.33	2.11	3.59	8.73	8.73	13.99	14.13	15.93	17.50	16.32	9.45	07/01/2002
Private Equity Benchmark (I) [Short Term]	2.33	2.11	3.59	8.73	8.73	13.99	14.13	15.93	17.50	16.32	9.45	
Difference	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (I)* [Long Term]	0.46	5.16	8.93	17.96	17.96	14.13	20.17	3.51	21.76	25.61	9.91	
Difference	1.87	-3.05	-5.34	-9.23	-9.23	-0.14	-6.04	12.42	-4.26	-9.29	-0.46	
Cash Equivalents (SA)	0.06	0.13	0.22	0.44	0.44	0.28	0.31	0.21	0.19	0.27	2.72	07/01/1992
Citi 3 Mo T-Bill Index	0.03	0.08	0.15	0.27	0.27	0.11	0.09	0.03	0.02	0.06	2.59	
Difference	0.03	0.05	0.07	0.17	0.17	0.17	0.22	0.18	0.17	0.21	0.13	

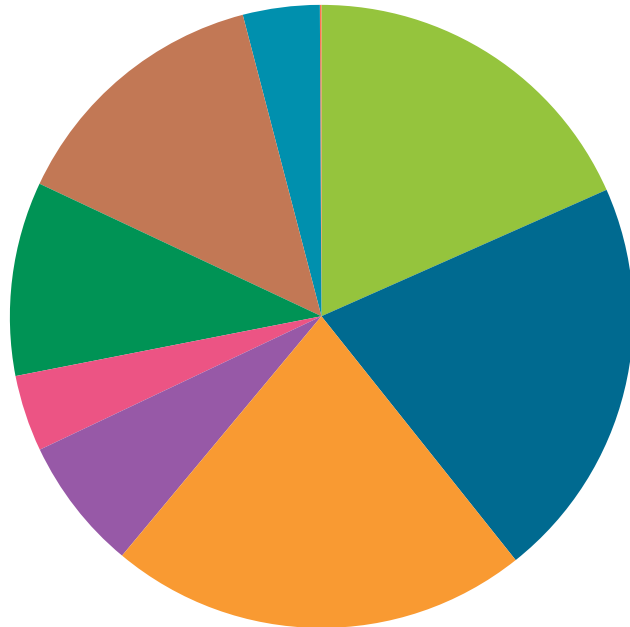
Performance for Absolute Return managers and the HFRI FOF Diversified Index is lagged by one month.

Performance for the NCREIF ODCE Index (AWA) (Net) is lagged by one quarter and available quarterly; interim months assume a 0.00% return.

Performance shown is net of fees. All data reported for Kentucky Retirement Systems, including manager performance, is provided by BNY Mellon. Fiscal year ends June 30th. An index marked with an asterisk (*) represents the current benchmark. Manager inception dates shown represent the first full month following initial funding.

Asset Allocation by Asset Class - Pension

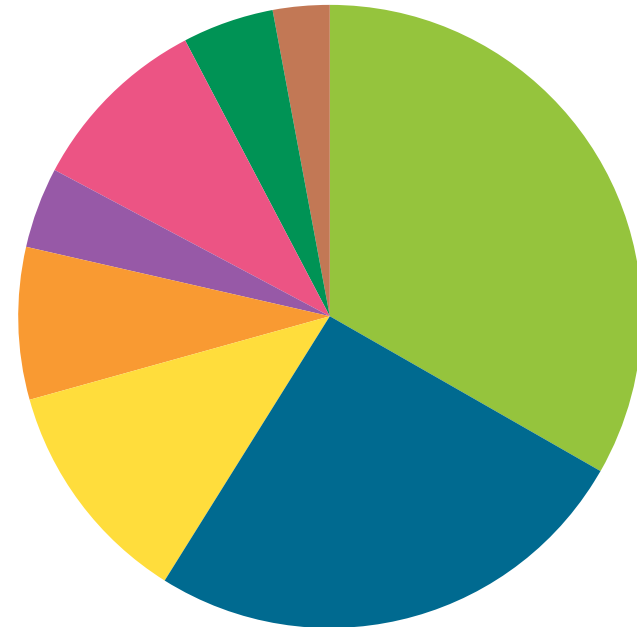
December 31, 2016 : \$1,916,028,732



	Market Value (\$)	Allocation (%)
U.S. Equity Composite	351,548,329	18.35
Non-U.S. Equity Composite	401,623,846	20.96
Fixed Income Composite	416,630,930	21.74
Real Return Composite	132,339,073	6.91
Real Estate Composite	76,078,131	3.97
Absolute Return Composite	192,962,225	10.07
Private Equity Composite	266,973,949	13.93
Cash Equivalents Composite	76,041,984	3.97
Other Composite	1,830,264	0.10

Asset Allocation by Asset Class - Insurance

December 31, 2016 : \$695,278,938

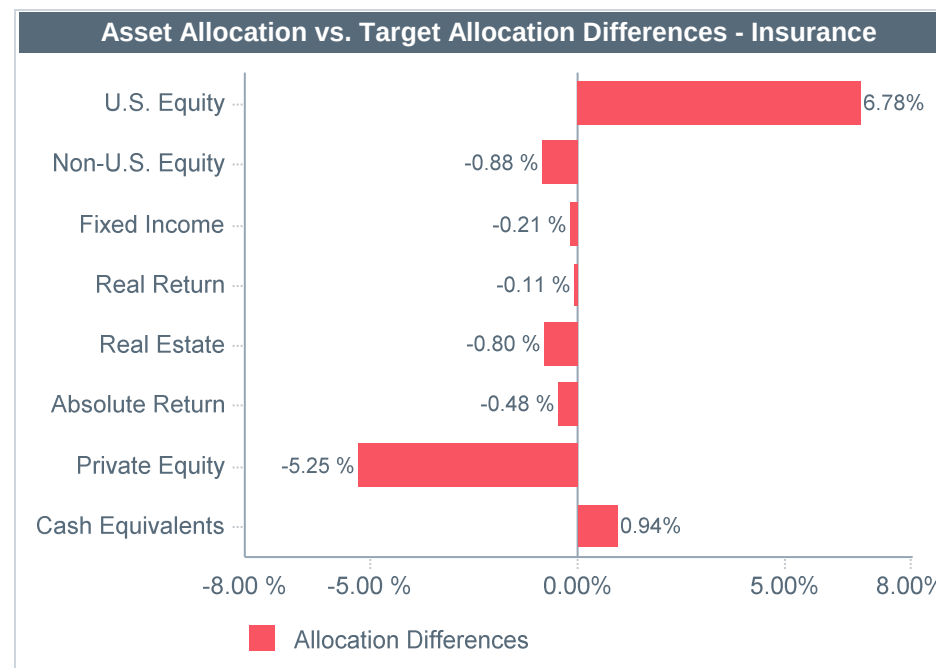
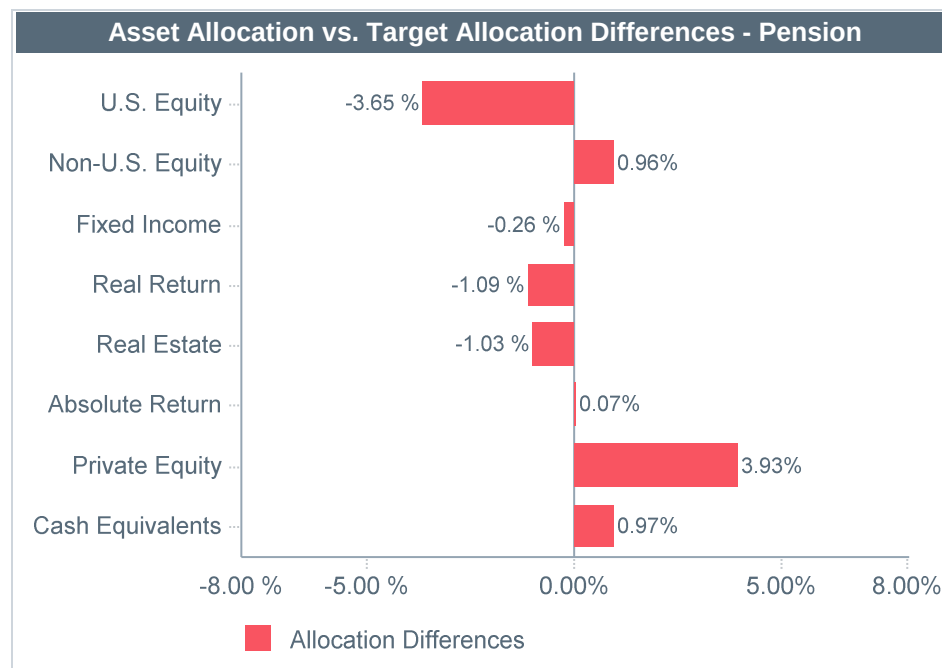


	Market Value (\$)	Allocation (%)
U.S. Equity Composite	231,420,112	33.28
Non-U.S. Equity Composite	178,140,611	25.62
Fixed Income Composite	81,982,853	11.79
Real Return Composite	54,876,424	7.89
Real Estate Composite	29,176,638	4.20
Absolute Return Composite	66,224,089	9.52
Private Equity Composite	33,027,864	4.75
Cash Equivalents Composite	20,458,629	2.94
Other Composite	-28,282	0.00

Asset Allocation vs. Target Allocation

Asset Allocation vs. Target Allocation - Pension					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
KERS (P)	1,916,028,732	100.00	-	-	100.00
U.S. Equity	351,548,329	18.35	17.00	27.00	22.00
Non-U.S. Equity	401,623,846	20.96	15.00	25.00	20.00
Fixed Income	416,630,930	21.74	18.00	26.00	22.00
Real Return	132,339,073	6.91	6.00	10.00	8.00
Real Estate	76,078,131	3.97	3.00	7.00	5.00
Absolute Return	192,962,225	10.07	8.00	12.00	10.00
Private Equity	266,973,949	13.93	7.00	13.00	10.00
Cash Equivalents	76,041,984	3.97	1.00	5.00	3.00

Asset Allocation vs. Target Allocation - Insurance					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
KERS (I)	695,278,938	100.00	-	-	100.00
U.S. Equity	231,420,112	33.28	21.50	31.50	26.50
Non-U.S. Equity	178,140,611	25.62	21.50	31.50	26.50
Fixed Income	81,982,853	11.79	8.00	16.00	12.00
Real Return	54,876,424	7.89	6.00	10.00	8.00
Real Estate	29,176,638	4.20	3.00	7.00	5.00
Absolute Return	66,224,089	9.52	8.00	12.00	10.00
Private Equity	33,027,864	4.75	7.00	13.00	10.00
Cash Equivalents	20,458,629	2.94	0.00	4.00	2.00



Allocations shown may not sum up to 100% due to rounding and the exclusion of the Other Composite from this page.

KERS (P) Private Equity Composite is over the maximum allocation. KERS (I) Private Equity Composite is under the minimum allocation. This is an illiquid asset class and may take additional time to bring back into target range.

KERS (I) U.S. Equity Composite is over the maximum allocation.

Kentucky Retirement Systems
Asset Allocation & Performance
KERS - Pension

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
KERS (P)	1,916,028,732	100.00	1.57	0.97	4.71	6.49	6.49	4.32	0.61	5.98	9.04	04/01/1984
Target Allocation Index (KERS P)			1.70	0.89	4.74	8.18	8.18	4.73	0.58	5.57	9.21	
Difference			-0.13	0.08	-0.03	-1.69	-1.69	-0.41	0.03	0.41	-0.17	
U.S. Equity Composite	351,548,329	18.35	2.09	5.07	9.77	13.74	13.74	8.63	0.25	12.43	12.59	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.14	0.86	0.98	1.00	1.00	0.20	-0.23	-0.13	0.46	
Non-U.S. Equity Composite	401,623,846	20.96	2.44	-2.12	4.76	2.79	2.79	-1.58	-3.35	-4.03	2.78	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.09	-0.60	-0.75	-2.12	-2.12	-0.22	1.90	-0.59	-0.20	
Fixed Income Composite	416,630,930	21.74	0.85	0.71	3.29	8.66	8.66	4.40	0.47	4.24	4.34	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.22	1.15	0.51	-1.72	-1.72	-0.98	0.04	-1.32	-0.54	
Real Return Composite	132,339,073	6.91	0.98	-1.43	1.92	10.63	10.63	1.99	-6.80	2.91	1.82	07/01/2013
Real Return Actual Allocation Index (P)*			1.16	-0.91	0.61	7.22	7.22	1.92	-4.07	2.95	1.55	
Difference			-0.18	-0.52	1.31	3.41	3.41	0.07	-2.73	-0.04	0.27	
Real Estate Composite	76,078,131	3.97	2.38	2.52	4.49	9.04	9.04	7.76	6.35	7.90	7.30	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.55	0.69	0.72	-0.04	-0.04	-3.66	-7.51	-3.46	-4.57	
Absolute Return Composite	192,962,225	10.07	0.57	0.96	3.36	-0.24	-0.24	2.03	1.71	4.68	2.93	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	2.00	1.11	1.11	0.67	0.92	-0.04	1.06	
Private Equity Composite	266,973,949	13.93	1.99	1.88	4.03	4.09	4.09	9.81	9.62	16.05	10.75	07/01/2013
Private Equity Benchmark (KERS P) [Short Term]			1.99	1.88	4.03	4.09	4.09	9.81	9.62	16.05	10.75	
Difference			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (P)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			1.53	-3.28	-4.90	-13.87	-13.87	-4.32	6.11	-5.71	-4.58	

Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Pension Fund's Cash Equivalents can be found in the manager performance section of this report.

Kentucky Retirement Systems
Asset Allocation & Performance
KERS - Insurance

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
KERS (I)	695,278,938	100.00	1.68	1.38	5.55	8.41	8.41	3.93	-0.68	4.27	7.23	04/01/1987
Target Allocation Index (KERS I)			1.78	0.93	4.99	8.15	8.15	4.88	0.96	5.67	7.68	
Difference			-0.10	0.45	0.56	0.26	0.26	-0.95	-1.64	-1.40	-0.45	
U.S. Equity Composite	231,420,112	33.28	1.98	5.16	9.68	14.69	14.69	8.12	-0.43	10.67	11.92	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.03	0.95	0.89	1.95	1.95	-0.31	-0.91	-1.89	-0.21	
Non-U.S. Equity Composite	178,140,611	25.62	2.48	-1.94	5.01	3.69	3.69	-1.47	-3.48	-4.42	2.94	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.05	-0.42	-0.50	-1.22	-1.22	-0.11	1.77	-0.98	-0.04	
Fixed Income Composite	81,982,853	11.79	0.65	0.66	2.69	8.18	8.18	4.09	0.51	3.74	4.11	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.42	1.10	-0.09	-2.20	-2.20	-1.29	0.08	-1.82	-0.77	
Real Return Composite	54,876,424	7.89	0.73	-1.67	1.17	9.43	9.43	2.13	-6.25	3.85	1.97	07/01/2013
Real Return Actual Allocation Index (KERS I)*			1.04	-1.08	0.37	6.87	6.87	2.06	-3.56	3.15	1.61	
Difference			-0.31	-0.59	0.80	2.56	2.56	0.07	-2.69	0.70	0.36	
Real Estate Composite	29,176,638	4.20	2.38	2.33	4.71	9.72	9.72	8.70	8.88	7.50	8.35	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.55	0.50	0.94	0.64	0.64	-2.72	-4.98	-3.86	-3.52	
Absolute Return Composite	66,224,089	9.52	0.57	0.96	3.32	-0.26	-0.26	2.09	1.79	4.82	3.00	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	1.96	1.09	1.09	0.73	1.00	0.10	1.13	
Private Equity Composite	33,027,864	4.75	2.81	2.80	4.32	6.35	6.35	11.29	10.54	17.25	12.38	07/01/2013
Private Equity Benchmark (KERS I) [Short Term]			2.81	2.80	4.32	6.35	6.35	10.36	10.54	14.32	11.58	
Difference			0.00	0.00	0.00	0.00	0.00	0.93	0.00	2.93	0.80	
R 3000 Index+3% (Qtr Lag) (I)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			2.35	-2.36	-4.61	-11.61	-11.61	-2.84	7.03	-4.51	-2.95	

Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Insurance Fund's Cash Equivalents can be found in the manager performance section of this report.

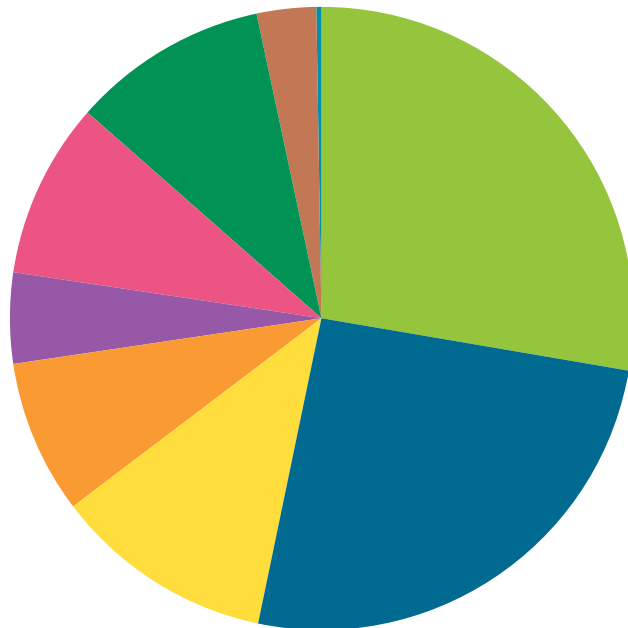
**Kentucky Retirement Systems
KERS - Manager Structure**

As of December 31, 2016

Pension		Insurance	
U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA) Pension Transition (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Patron Capital V, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. Walton Street Real Estate Fund VI, L.P.	U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA) Insurance Transition (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Patron Capital V, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. DivCoWest Fund IV, L.P. Greenfield Acquisition Partners VI, L.P. Greenfield Acquisition Partners VII, L.P. Lubert Adler Real Estate Fund VII, L.P. Rubenstein Properties Fund II, L.P. Walton Street Real Estate Fund VI, L.P. Walton Street Real Estate Fund VII, L.P.
Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) NT Int'l Sm Cap Eq Index (SA)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthead Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC	Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) BTC ACWI Ex US Small Cap Fund (CF)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthead Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC
Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents (SA)	Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents (SA)
Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Tenaska Power Fund II (CF)	Other Composite Perimeter Park (SA) Custody Fee Accrual (SA)	Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Amerra-AGRI Holding (CF) BTG Pactual Brazil Timberland Fund I, L.P. Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Oberland Capital Healthcare, L.P. Tenaska Power Fund II (CF)	Other Composite Custody Fee Accrual (SA)

Asset Allocation by Asset Class - Pension

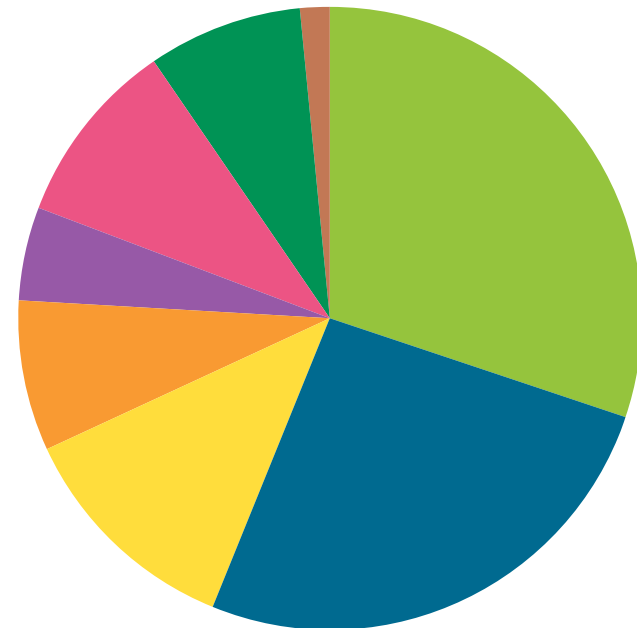
December 31, 2016 : \$553,434,161



	Market Value (\$)	Allocation (%)
U.S. Equity Composite	153,194,625	27.68
Non-U.S. Equity Composite	141,547,760	25.58
Fixed Income Composite	63,211,898	11.42
Real Return Composite	44,172,729	7.98
Real Estate Composite	26,030,141	4.70
Absolute Return Composite	50,458,266	9.12
Private Equity Composite	56,244,767	10.16
Cash Equivalents Composite	17,047,437	3.08
Other Composite	1,526,538	0.28

Asset Allocation by Asset Class - Insurance

December 31, 2016 : \$453,809,722



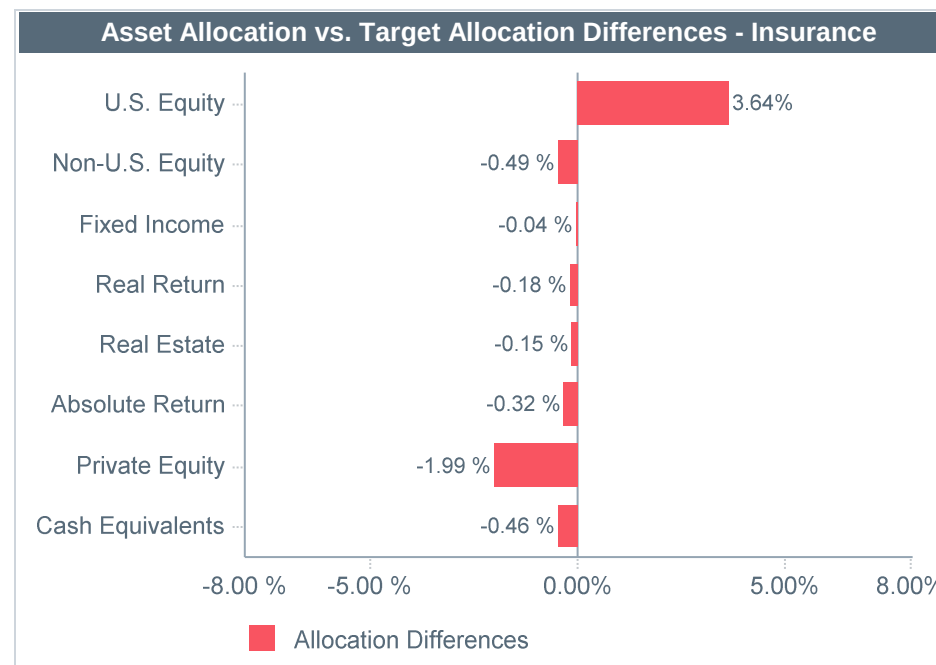
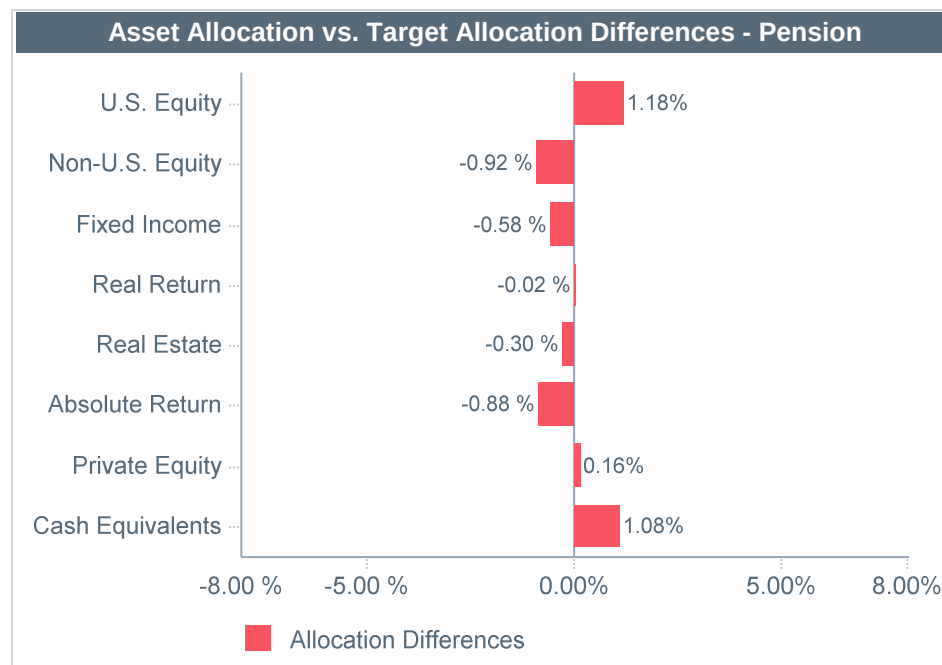
	Market Value (\$)	Allocation (%)
U.S. Equity Composite	136,757,430	30.14
Non-U.S. Equity Composite	118,042,185	26.01
Fixed Income Composite	54,285,130	11.96
Real Return Composite	35,477,965	7.82
Real Estate Composite	21,998,807	4.85
Absolute Return Composite	43,946,364	9.68
Private Equity Composite	36,340,782	8.01
Cash Equivalents Composite	6,979,559	1.54
Other Composite	-18,501	0.00

Kentucky Retirement Systems
KERS Haz
Asset Allocation vs. Target Allocation

As of December 31, 2016

Asset Allocation vs. Target Allocation - Pension					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
KERS Haz (P)	553,434,161	100.00	-	-	100.00
U.S. Equity	153,194,625	27.68	21.50	31.50	26.50
Non-U.S. Equity	141,547,760	25.58	21.50	31.50	26.50
Fixed Income	63,211,898	11.42	8.00	16.00	12.00
Real Return	44,172,729	7.98	6.00	10.00	8.00
Real Estate	26,030,141	4.70	3.00	7.00	5.00
Absolute Return	50,458,266	9.12	8.00	12.00	10.00
Private Equity	56,244,767	10.16	7.00	13.00	10.00
Cash Equivalents	17,047,437	3.08	0.00	4.00	2.00

Asset Allocation vs. Target Allocation - Insurance					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
KERS Haz (I)	453,809,722	100.00	-	-	100.00
U.S. Equity	136,757,430	30.14	21.50	31.50	26.50
Non-U.S. Equity	118,042,185	26.01	21.50	31.50	26.50
Fixed Income	54,285,130	11.96	8.00	16.00	12.00
Real Return	35,477,965	7.82	6.00	10.00	8.00
Real Estate	21,998,807	4.85	3.00	7.00	5.00
Absolute Return	43,946,364	9.68	8.00	12.00	10.00
Private Equity	36,340,782	8.01	7.00	13.00	10.00
Cash Equivalents	6,979,559	1.54	0.00	4.00	2.00



Allocations shown may not sum up to 100% due to rounding and the exclusion of the Other Composite from this page.

Kentucky Retirement Systems
Asset Allocation & Performance
KERS Haz - Pension

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
KERS Haz (P)	553,434,161	100.00	1.70	1.17	5.06	8.01	8.01	4.26	0.03	4.90	9.05	04/01/1984
Target Allocation Index (KERS Haz P)			1.83	0.98	5.13	7.92	7.92	4.47	0.22	5.43	9.18	
Difference			-0.13	0.19	-0.07	0.09	0.09	-0.21	-0.19	-0.53	-0.13	
U.S. Equity Composite	153,194,625	27.68	1.96	5.12	8.76	13.84	13.84	7.60	-1.08	10.63	11.45	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.01	0.91	-0.03	1.10	1.10	-0.83	-1.56	-1.93	-0.68	
Non-U.S. Equity Composite	141,547,760	25.58	2.45	-2.10	4.78	4.32	4.32	-1.12	-3.33	-4.13	3.28	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.08	-0.58	-0.73	-0.59	-0.59	0.24	1.92	-0.69	0.30	
Fixed Income Composite	63,211,898	11.42	0.84	0.70	3.19	8.42	8.42	4.34	0.52	4.23	4.33	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.23	1.14	0.41	-1.96	-1.96	-1.04	0.09	-1.33	-0.55	
Real Return Composite	44,172,729	7.98	0.89	-1.27	1.83	10.30	10.30	2.40	-5.71	3.24	2.40	07/01/2013
Real Return Actual Allocation Index (P)*			1.16	-0.91	0.61	7.22	7.22	1.92	-4.07	2.95	1.55	
Difference			-0.27	-0.36	1.22	3.08	3.08	0.48	-1.64	0.29	0.85	
Real Estate Composite	26,030,141	4.70	2.25	2.36	4.61	9.79	9.79	9.47	9.45	9.16	8.72	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.42	0.53	0.84	0.71	0.71	-1.95	-4.41	-2.20	-3.15	
Absolute Return Composite	50,458,266	9.12	0.57	0.96	3.36	-0.25	-0.25	2.08	1.68	4.87	2.99	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	2.00	1.10	1.10	0.72	0.89	0.15	1.12	
Private Equity Composite	56,244,767	10.16	2.19	1.95	3.98	5.90	5.90	10.98	11.17	16.11	11.79	07/01/2013
Private Equity Benchmark (KERS Haz P) [Short Term]			2.19	1.95	3.98	5.90	5.90	10.98	11.17	16.11	11.79	
Difference			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (P)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			1.73	-3.21	-4.95	-12.06	-12.06	-3.15	7.66	-5.65	-3.54	

Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Pension Fund's Cash Equivalents can be found in the manager performance section of this report.

Kentucky Retirement Systems
Asset Allocation & Performance
KERS Haz - Insurance

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
KERS Haz (I)	453,809,722	100.00	1.74	1.32	5.35	8.31	8.31	4.13	-0.24	4.51	7.27	04/01/1987
Target Allocation Index (KERS Haz I)			1.78	0.93	4.99	8.15	8.15	4.88	0.96	5.67	7.68	
Difference			-0.04	0.39	0.36	0.16	0.16	-0.75	-1.20	-1.16	-0.41	
U.S. Equity Composite	136,757,430	30.14	1.98	5.13	9.46	14.15	14.15	7.96	-0.46	10.75	11.77	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.03	0.92	0.67	1.41	1.41	-0.47	-0.94	-1.81	-0.36	
Non-U.S. Equity Composite	118,042,185	26.01	2.48	-1.94	5.01	3.96	3.96	-1.31	-3.42	-4.26	3.11	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.05	-0.42	-0.50	-0.95	-0.95	0.05	1.83	-0.82	0.13	
Fixed Income Composite	54,285,130	11.96	0.65	0.65	2.68	8.19	8.19	4.10	0.53	3.73	4.12	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.42	1.09	-0.10	-2.19	-2.19	-1.28	0.10	-1.83	-0.76	
Real Return Composite	35,477,965	7.82	0.81	-1.45	1.38	9.55	9.55	2.15	-6.20	3.74	1.99	07/01/2013
Real Return Actual Allocation Index (I)*			1.04	-1.08	0.37	6.87	6.87	2.06	-3.56	3.15	1.66	
Difference			-0.23	-0.37	1.01	2.68	2.68	0.09	-2.64	0.59	0.33	
Real Estate Composite	21,998,807	4.85	2.69	2.69	5.09	10.09	10.09	8.83	8.96	7.44	8.51	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.86	0.86	1.32	1.01	1.01	-2.59	-4.90	-3.92	-3.36	
Absolute Return Composite	43,946,364	9.68	0.57	0.96	3.32	-0.26	-0.26	2.09	1.79	4.80	2.99	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	1.96	1.09	1.09	0.73	1.00	0.08	1.12	
Private Equity Composite	36,340,782	8.01	2.63	2.42	3.91	8.96	8.96	13.93	15.38	17.62	14.42	07/01/2013
Private Equity Benchmark (KERS Haz I) [Short Term]			2.63	2.42	3.91	8.96	8.96	13.93	15.38	17.62	14.42	
Difference			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (I)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			2.17	-2.74	-5.02	-9.00	-9.00	-0.20	11.87	-4.14	-0.91	

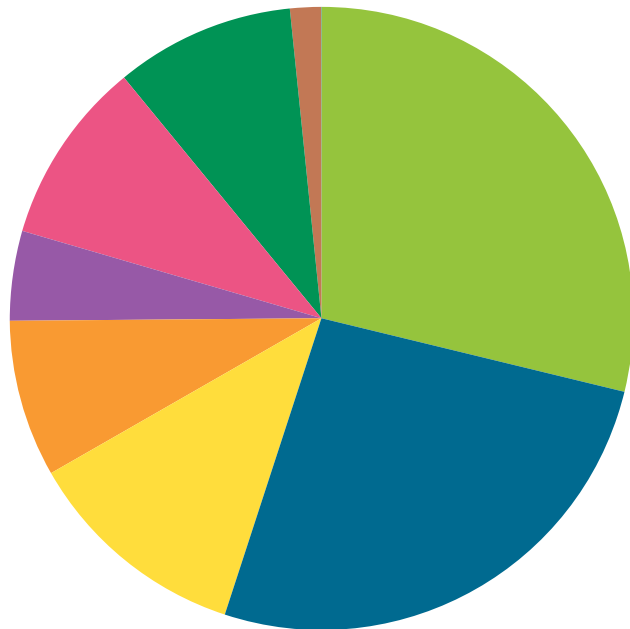
Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Insurance Fund's Cash Equivalents can be found in the manager performance section of this report.

Pension	
U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA) Pension Transition (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Patron Capital V, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. DivCoWest Fund IV, L.P. Greenfield Acquisition Partners VI, L.P. Greenfield Acquisition Partners VII, L.P. Lubert Adler Real Estate Fund VII, L.P. Rubenstein Properties Fund II, L.P. Walton Street Real Estate Fund VI, L.P. Walton Street Real Estate Fund VII, L.P.
Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) NT Int'l Sm Cap Eq Index (SA)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthood Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC
Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents Composite Cash Equivalents (SA)
Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Amerra-AGRI Holding (CF) BTG Pactual Brazil Timberland Fund I, L.P. Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Oberland Capital Healthcare, L.P. Taurus Mining Finance Fund Tenaska Power Fund II (CF)	Other Composite Perimeter Park (SA) Custody Fee Accrual (SA)

Insurance	
U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. DivCoWest Fund IV, L.P. Greenfield Acquisition Partners VI, L.P. Greenfield Acquisition Partners VII, L.P. Patron Capital V, L.P. Lubert Adler Real Estate Fund VII, L.P. Rubenstein Properties Fund II, L.P. Walton Street Real Estate Fund VI, L.P. Walton Street Real Estate Fund VII, L.P.
Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) BTC ACWI Ex US Small Cap Fund (CF)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthood Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC
Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents Composite Cash Equivalents (SA)
Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Amerra-AGRI Holding (CF) BTG Pactual Brazil Timberland Fund I, L.P. Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Oberland Capital Healthcare, L.P. Taurus Mining Finance Fund Tenaska Power Fund II (CF)	Other Composite Custody Fee Accrual (SA)

Asset Allocation by Asset Class - Pension

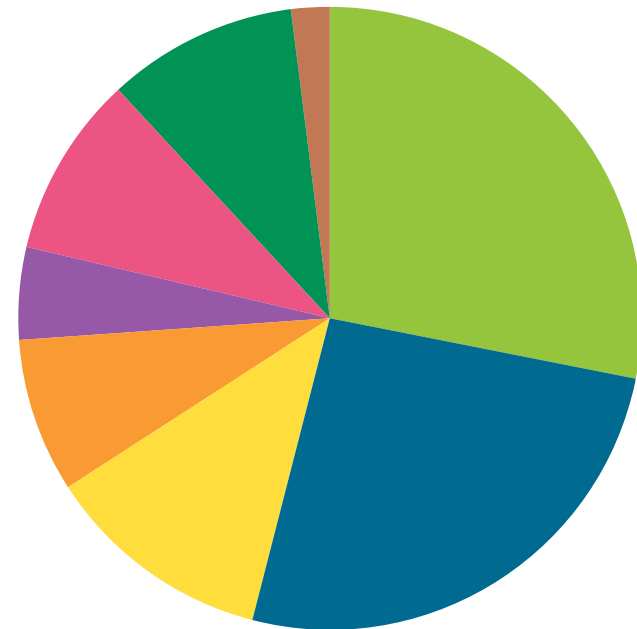
December 31, 2016 : \$6,301,258,722



	Market Value (\$)	Allocation (%)
U.S. Equity Composite	1,814,116,840	28.79
Non-U.S. Equity Composite	1,653,102,082	26.23
Fixed Income Composite	736,737,021	11.69
Real Return Composite	514,270,591	8.16
Real Estate Composite	292,607,406	4.64
Absolute Return Composite	601,410,285	9.54
Private Equity Composite	586,114,520	9.30
Cash Equivalents Composite	101,379,358	1.61
Other Composite	1,520,620	0.02

Asset Allocation by Asset Class - Insurance

December 31, 2016 : \$1,993,356,699

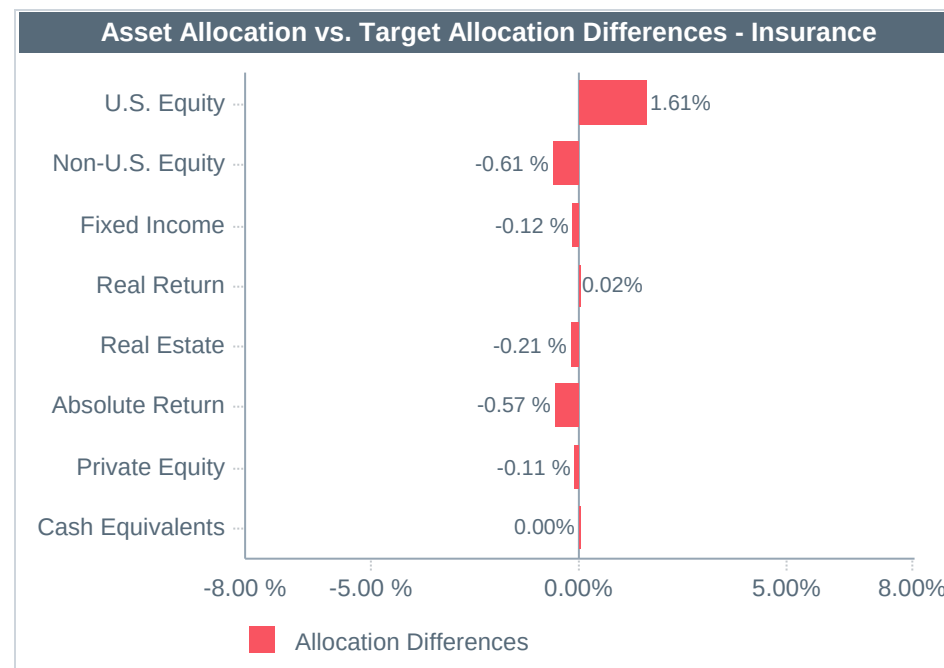
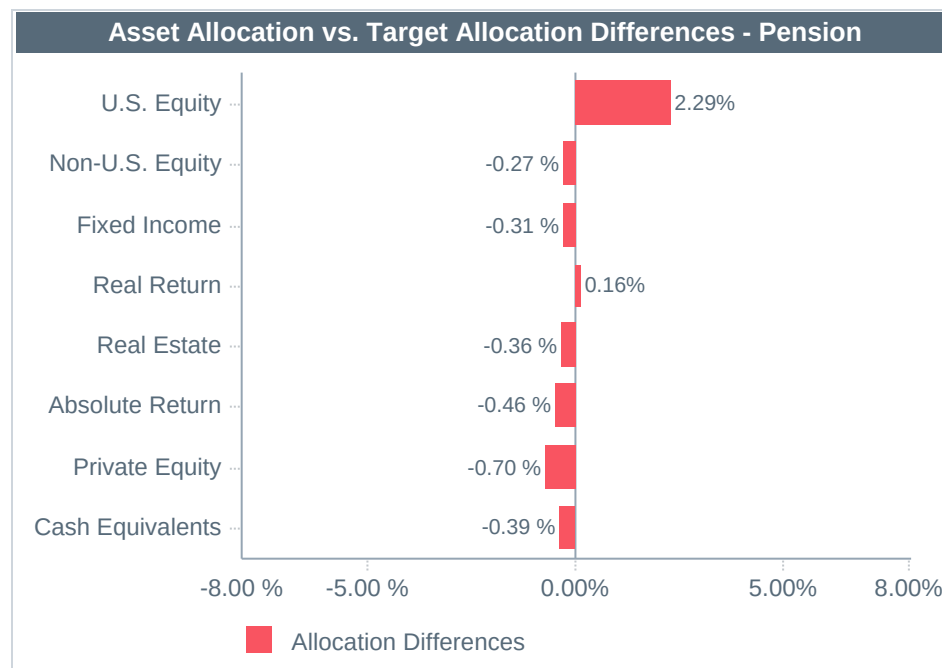


	Market Value (\$)	Allocation (%)
U.S. Equity Composite	560,401,438	28.11
Non-U.S. Equity Composite	516,059,307	25.89
Fixed Income Composite	236,782,345	11.88
Real Return Composite	159,891,874	8.02
Real Estate Composite	95,407,016	4.79
Absolute Return Composite	187,965,716	9.43
Private Equity Composite	197,118,121	9.89
Cash Equivalents Composite	39,812,008	2.00
Other Composite	-81,125	0.00

Asset Allocation vs. Target Allocation

Asset Allocation vs. Target Allocation - Pension					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
CERS (P)	6,301,258,722	100.00	-	-	100.00
U.S. Equity	1,814,116,840	28.79	21.50	31.50	26.50
Non-U.S. Equity	1,653,102,082	26.23	21.50	31.50	26.50
Fixed Income	736,737,021	11.69	8.00	16.00	12.00
Real Return	514,270,591	8.16	6.00	10.00	8.00
Real Estate	292,607,406	4.64	3.00	7.00	5.00
Absolute Return	601,410,285	9.54	8.00	12.00	10.00
Private Equity	586,114,520	9.30	7.00	13.00	10.00
Cash Equivalents	101,379,358	1.61	0.00	4.00	2.00

Asset Allocation vs. Target Allocation - Insurance					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
CERS (I)	1,993,356,699	100.00	-	-	100.00
U.S. Equity	560,401,438	28.11	21.50	31.50	26.50
Non-U.S. Equity	516,059,307	25.89	21.50	31.50	26.50
Fixed Income	236,782,345	11.88	8.00	16.00	12.00
Real Return	159,891,874	8.02	6.00	10.00	8.00
Real Estate	95,407,016	4.79	3.00	7.00	5.00
Absolute Return	187,965,716	9.43	8.00	12.00	10.00
Private Equity	197,118,121	9.89	7.00	13.00	10.00
Cash Equivalents	39,812,008	2.00	0.00	4.00	2.00



Kentucky Retirement Systems
Asset Allocation & Performance
CERS - Pension

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
CERS (P)	6,301,258,722	100.00	1.73	1.17	5.33	8.16	8.16	4.23	-0.20	4.91	9.05	04/01/1984
Target Allocation Index (CERS P)			1.83	0.98	5.13	7.92	7.92	4.47	0.22	5.43	9.18	
Difference			-0.10	0.19	0.20	0.24	0.24	-0.24	-0.42	-0.52	-0.13	
U.S. Equity Composite	1,814,116,840	28.79	1.96	5.04	9.49	14.15	14.15	7.60	-1.18	10.44	11.45	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.01	0.83	0.70	1.41	1.41	-0.83	-1.66	-2.12	-0.68	
Non-U.S. Equity Composite	1,653,102,082	26.23	2.45	-2.11	4.78	4.24	4.24	-1.15	-3.32	-4.14	3.26	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.08	-0.59	-0.73	-0.67	-0.67	0.21	1.93	-0.70	0.28	
Fixed Income Composite	736,737,021	11.69	0.84	0.63	3.11	8.37	8.37	4.35	0.51	4.31	4.35	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.23	1.07	0.33	-2.01	-2.01	-1.03	0.08	-1.25	-0.53	
Real Return Composite	514,270,591	8.16	0.89	-1.30	1.79	10.36	10.36	2.38	-5.79	3.22	2.17	07/01/2013
Real Return Actual Allocation Index (P)*			1.16	-0.91	0.61	7.22	7.22	1.92	-4.07	2.95	1.55	
Difference			-0.27	-0.39	1.18	3.14	3.14	0.46	-1.72	0.27	0.62	
Real Estate Composite	292,607,406	4.64	2.36	2.47	4.76	9.98	9.98	9.48	9.42	9.05	8.81	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.53	0.64	0.99	0.90	0.90	-1.94	-4.44	-2.31	-3.06	
Absolute Return Composite	601,410,285	9.54	0.57	0.96	3.36	-0.25	-0.25	2.09	1.69	4.89	3.01	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	2.00	1.10	1.10	0.73	0.90	0.17	1.14	
Private Equity Composite	586,114,520	9.30	2.28	2.04	4.05	6.43	6.43	11.31	11.58	16.12	12.03	07/01/2013
Private Equity Benchmark (CERS P) [Short Term]			2.28	2.04	4.05	6.43	6.43	11.31	11.58	16.12	12.03	
Difference			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (P)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			1.82	-3.12	-4.88	-11.53	-11.53	-2.82	8.07	-5.64	-3.30	

Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Pension Fund's Cash Equivalents can be found in the manager performance section of this report.

Kentucky Retirement Systems
Asset Allocation & Performance
CERS - Insurance

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
CERS (I)	1,993,356,699	100.00	1.74	1.24	5.24	8.31	8.31	4.21	-0.01	4.51	7.27	04/01/1987
Target Allocation Index (CERS I)			1.78	0.93	4.99	8.15	8.15	4.88	0.96	5.67	7.68	
Difference			-0.04	0.31	0.25	0.16	0.16	-0.67	-0.97	-1.16	-0.41	
U.S. Equity Composite	560,401,438	28.11	1.98	5.10	9.46	14.65	14.65	8.05	-0.48	10.55	11.89	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.03	0.89	0.67	1.91	1.91	-0.38	-0.96	-2.01	-0.24	
Non-U.S. Equity Composite	516,059,307	25.89	2.48	-1.94	5.01	4.02	4.02	-1.28	-3.43	-4.22	3.14	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.05	-0.42	-0.50	-0.89	-0.89	0.08	1.82	-0.78	0.16	
Fixed Income Composite	236,782,345	11.88	0.65	0.65	2.68	8.20	8.20	4.14	0.54	3.81	4.15	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.42	1.09	-0.10	-2.18	-2.18	-1.24	0.11	-1.75	-0.73	
Real Return Composite	159,891,874	8.02	0.86	-1.41	1.44	9.69	9.69	2.20	-6.18	3.74	2.03	07/01/2013
Real Return Actual Allocation Index (I)*			1.04	-1.08	0.37	6.87	6.87	2.06	-3.56	3.15	1.66	
Difference			-0.18	-0.33	1.07	2.82	2.82	0.14	-2.62	0.59	0.37	
Real Estate Composite	95,407,016	4.79	2.69	2.70	5.10	10.12	10.12	8.86	9.02	7.46	8.54	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.86	0.87	1.33	1.04	1.04	-2.56	-4.84	-3.90	-3.33	
Absolute Return Composite	187,965,716	9.43	0.57	0.96	3.32	-0.26	-0.26	2.09	1.80	4.80	3.00	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	1.96	1.09	1.09	0.73	1.01	0.08	1.13	
Private Equity Composite	197,118,121	9.89	2.52	2.25	3.77	9.23	9.23	14.29	16.43	17.38	14.59	07/01/2013
Private Equity Benchmark (CERS I) [Short Term]			2.52	2.25	3.77	9.23	9.23	13.12	16.43	13.83	13.59	
Difference			0.00	0.00	0.00	0.00	0.00	1.17	0.00	3.55	1.00	
R 3000 Index+3% (Qtr Lag) (I)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			2.06	-2.91	-5.16	-8.73	-8.73	0.16	12.92	-4.38	-0.74	

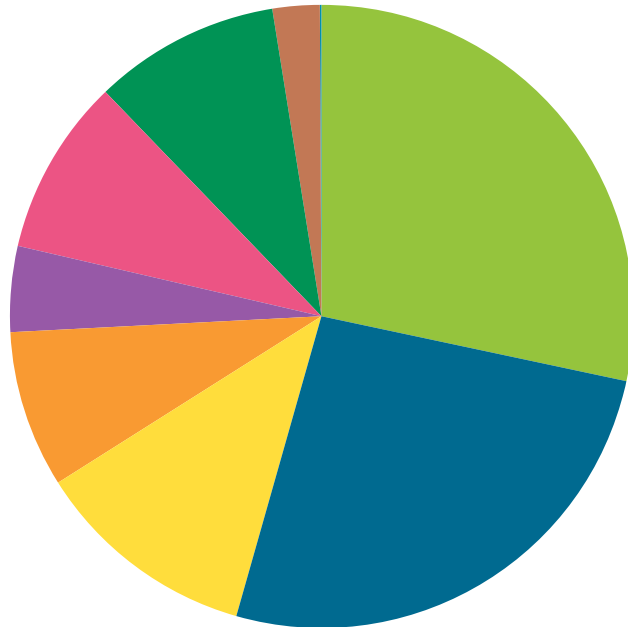
Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Insurance Fund's Cash Equivalents can be found in the manager performance section of this report.

Pension	
U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA) Pension Transition (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Patron Capital V, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. DivCoWest Fund IV, L.P. Greenfield Acquisition Partners VI, L.P. Greenfield Acquisition Partners VII, L.P. Lubert Adler Real Estate Fund VII, L.P. Rubenstein Properties Fund II, L.P. Walton Street Real Estate Fund VI, L.P. Walton Street Real Estate Fund VII, L.P.
Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) NT Int'l Sm Cap Eq Index (SA)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthead Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC
Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents Composite Cash Equivalents (SA)
Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Amerra-AGRI Holding (CF) BTG Pactual Brazil Timberland Fund I, L.P. Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Oberland Capital Healthcare, L.P. Taurus Mining Finance Fund Tenaska Power Fund II (CF)	Other Composite Perimeter Park (SA) Custody Fee Accrual (SA)

Insurance	
U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. DivCoWest Fund IV, L.P. Greenfield Acquisition Partners VI, L.P. Greenfield Acquisition Partners VII, L.P. Patron Capital V, L.P. Lubert Adler Real Estate Fund VII, L.P. Rubenstein Properties Fund II, L.P. Walton Street Real Estate Fund VI, L.P. Walton Street Real Estate Fund VII, L.P.
Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) BTC ACWI Ex US Small Cap Fund (CF)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthead Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC
Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents Composite Cash Equivalents (SA)
Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Amerra-AGRI Holding (CF) BTG Pactual Brazil Timberland Fund I, L.P. Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Oberland Capital Healthcare, L.P. Taurus Mining Finance Fund Tenaska Power Fund II (CF)	Other Composite Custody Fee Accrual (SA)

Asset Allocation by Asset Class - Pension

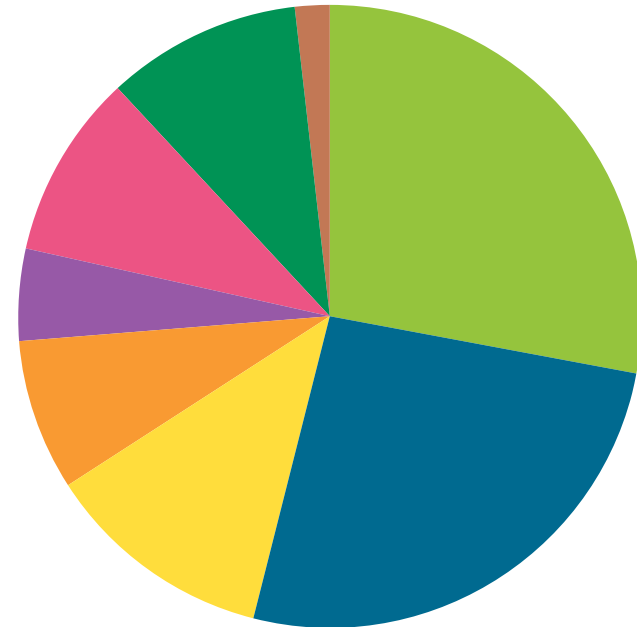
December 31, 2016 : \$2,075,365,784



	Market Value (\$)	Allocation (%)
U.S. Equity Composite	588,183,068	28.34
Non-U.S. Equity Composite	540,966,797	26.07
Fixed Income Composite	241,395,283	11.63
Real Return Composite	168,961,181	8.14
Real Estate Composite	92,272,055	4.45
Absolute Return Composite	190,575,281	9.18
Private Equity Composite	200,413,427	9.66
Cash Equivalents Composite	50,820,264	2.45
Other Composite	1,778,427	0.09

Asset Allocation by Asset Class - Insurance

December 31, 2016 : \$1,097,995,261

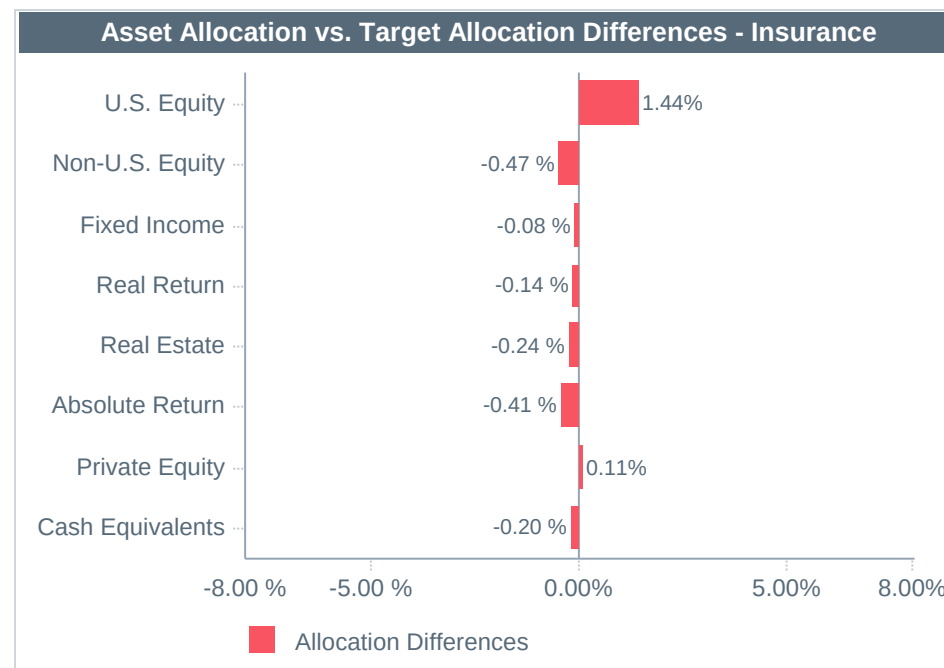
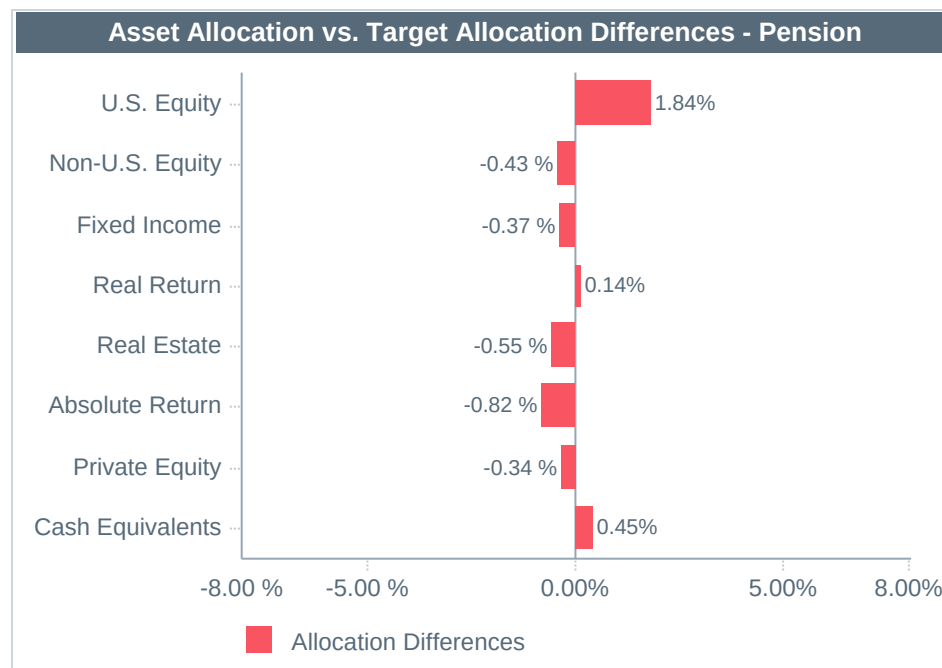


	Market Value (\$)	Allocation (%)
U.S. Equity Composite	306,737,998	27.94
Non-U.S. Equity Composite	285,790,659	26.03
Fixed Income Composite	130,844,490	11.92
Real Return Composite	86,294,573	7.86
Real Estate Composite	52,300,994	4.76
Absolute Return Composite	105,282,581	9.59
Private Equity Composite	110,981,690	10.11
Cash Equivalents Composite	19,807,007	1.80
Other Composite	-44,731	0.00

Asset Allocation vs. Target Allocation

Asset Allocation vs. Target Allocation - Pension					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
CERS Haz (P)	2,075,365,784	100.00	-	-	100.00
U.S. Equity	588,183,068	28.34	21.50	31.50	26.50
Non-U.S. Equity	540,966,797	26.07	21.50	31.50	26.50
Fixed Income	241,395,283	11.63	8.00	16.00	12.00
Real Return	168,961,181	8.14	6.00	10.00	8.00
Real Estate	92,272,055	4.45	3.00	7.00	5.00
Absolute Return	190,575,281	9.18	8.00	12.00	10.00
Private Equity	200,413,427	9.66	7.00	13.00	10.00
Cash Equivalents	50,820,264	2.45	0.00	4.00	2.00

Asset Allocation vs. Target Allocation - Insurance					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
CERS Haz (I)	1,097,995,261	100.00	-	-	100.00
U.S. Equity	306,737,998	27.94	21.50	31.50	26.50
Non-U.S. Equity	285,790,659	26.03	21.50	31.50	26.50
Fixed Income	130,844,490	11.92	8.00	16.00	12.00
Real Return	86,294,573	7.86	6.00	10.00	8.00
Real Estate	52,300,994	4.76	3.00	7.00	5.00
Absolute Return	105,282,581	9.59	8.00	12.00	10.00
Private Equity	110,981,690	10.11	7.00	13.00	10.00
Cash Equivalents	19,807,007	1.80	0.00	4.00	2.00



Kentucky Retirement Systems
Asset Allocation & Performance
CERS Haz - Pension

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
CERS Haz (P)	2,075,365,784	100.00	1.71	1.15	5.29	8.19	8.19	4.28	-0.10	4.92	9.06	04/01/1984
Target Allocation Index (CERS Haz P)			1.83	0.98	5.13	7.92	7.92	4.47	0.22	5.43	9.18	
Difference			-0.12	0.17	0.16	0.27	0.27	-0.19	-0.32	-0.51	-0.12	
U.S. Equity Composite	588,183,068	28.34	1.96	5.06	9.53	14.29	14.29	7.65	-1.19	10.45	11.48	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.01	0.85	0.74	1.55	1.55	-0.78	-1.67	-2.11	-0.65	
Non-U.S. Equity Composite	540,966,797	26.07	2.45	-2.11	4.77	4.23	4.23	-1.14	-3.32	-4.11	3.27	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.08	-0.59	-0.74	-0.68	-0.68	0.22	1.93	-0.67	0.29	
Fixed Income Composite	241,395,283	11.63	0.83	0.61	3.08	8.30	8.30	4.34	0.47	4.38	4.33	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.24	1.05	0.30	-2.08	-2.08	-1.04	0.04	-1.18	-0.55	
Real Return Composite	168,961,181	8.14	0.89	-1.32	1.78	10.38	10.38	2.40	-5.77	3.25	2.29	07/01/2013
Real Return Actual Allocation Index (P)*			1.16	-0.91	0.61	7.22	7.22	1.92	-4.07	2.95	1.55	
Difference			-0.27	-0.41	1.17	3.16	3.16	0.48	-1.70	0.30	0.74	
Real Estate Composite	92,272,055	4.45	2.34	2.44	4.72	9.92	9.92	9.48	9.41	9.12	8.79	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.51	0.61	0.95	0.84	0.84	-1.94	-4.45	-2.24	-3.08	
Absolute Return Composite	190,575,281	9.18	0.57	0.96	3.36	-0.25	-0.25	2.09	1.69	4.89	3.01	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	2.00	1.10	1.10	0.73	0.90	0.17	1.14	
Private Equity Composite	200,413,427	9.66	2.25	2.00	3.97	6.80	6.80	11.84	12.46	16.48	12.54	07/01/2013
Private Equity Benchmark (CERS Haz P) [Short Term]			2.25	2.00	3.97	6.80	6.80	11.84	12.46	16.48	12.54	
Difference			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (P)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			1.79	-3.16	-4.96	-11.16	-11.16	-2.29	8.95	-5.28	-2.79	

Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Pension Fund's Cash Equivalents can be found in the manager performance section of this report.

Kentucky Retirement Systems
Asset Allocation & Performance
CERS Haz - Insurance

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
CERS Haz (I)	1,097,995,261	100.00	1.74	1.23	5.23	8.38	8.38	4.26	0.06	4.51	7.28	04/01/1987
Target Allocation Index (CERS Haz I)			1.78	0.93	4.99	8.15	8.15	4.88	0.96	5.67	7.68	
Difference			-0.04	0.30	0.24	0.23	0.23	-0.62	-0.90	-1.16	-0.40	
U.S. Equity Composite	306,737,998	27.94	1.98	5.08	9.44	14.73	14.73	8.07	-0.47	10.54	11.91	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.03	0.87	0.65	1.99	1.99	-0.36	-0.95	-2.02	-0.22	
Non-U.S. Equity Composite	285,790,659	26.03	2.48	-1.94	5.01	4.13	4.13	-1.25	-3.44	-4.24	3.16	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.05	-0.42	-0.50	-0.78	-0.78	0.11	1.81	-0.80	0.18	
Fixed Income Composite	130,844,490	11.92	0.65	0.65	2.67	8.18	8.18	4.12	0.51	3.80	4.13	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.42	1.09	-0.11	-2.20	-2.20	-1.26	0.08	-1.76	-0.75	
Real Return Composite	86,294,573	7.86	0.86	-1.39	1.44	9.65	9.65	2.20	-6.15	3.74	2.03	07/01/2013
Real Return Actual Allocation Index (I)*			1.04	-1.08	0.37	6.87	6.87	2.06	-3.56	3.15	1.66	
Difference			-0.18	-0.31	1.07	2.78	2.78	0.14	-2.59	0.59	0.37	
Real Estate Composite	52,300,994	4.76	2.70	2.70	5.11	10.12	10.12	8.85	9.01	7.43	8.53	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.87	0.87	1.34	1.04	1.04	-2.57	-4.85	-3.93	-3.34	
Absolute Return Composite	105,282,581	9.59	0.57	0.96	3.32	-0.26	-0.26	2.09	1.79	4.80	3.00	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	1.96	1.09	1.09	0.73	1.00	0.08	1.13	
Private Equity Composite	110,981,690	10.11	2.49	2.22	3.76	9.39	9.39	14.57	16.94	17.57	14.82	07/01/2013
Private Equity Benchmark (CERS Haz I) [Short Term]			2.49	2.22	3.76	9.39	9.39	14.57	16.94	17.57	14.82	
Difference			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (I)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			2.03	-2.94	-5.17	-8.57	-8.57	0.44	13.43	-4.19	-0.51	

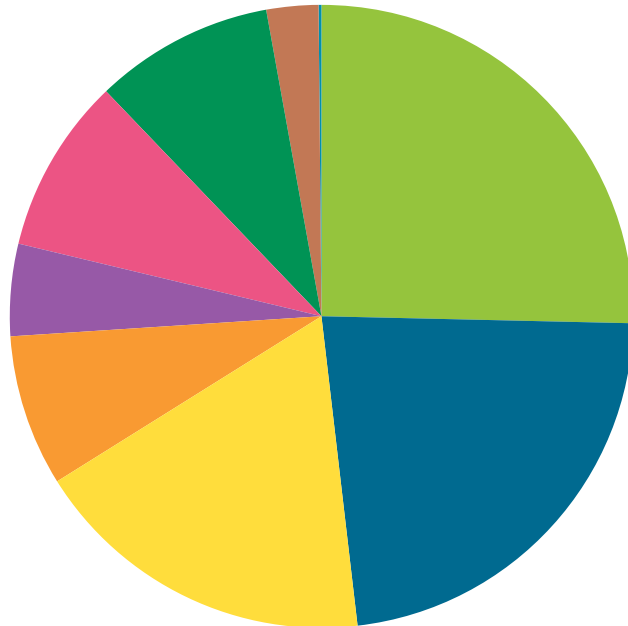
Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Insurance Fund's Cash Equivalents can be found in the manager performance section of this report.

Pension	
U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA) Pension Transition (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Patron Capital V, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. DivCoWest Fund IV, L.P. Greenfield Acquisition Partners VI, L.P. Greenfield Acquisition Partners VII, L.P. Lubert Adler Real Estate Fund VII, L.P. Rubenstein Properties Fund II, L.P. Walton Street Real Estate Fund VI, L.P. Walton Street Real Estate Fund VII, L.P.
Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) NT Int'l Sm Cap Eq Index (SA)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthead Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC
Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents Composite Cash Equivalents (SA)
Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Amerra-AGRI Holding (CF) BTG Pactual Brazil Timberland Fund I, L.P. Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Oberland Capital Healthcare, L.P. Taurus Mining Finance Fund Tenaska Power Fund II (CF)	Other Composite Perimeter Park (SA) Custody Fee Accrual (SA)

Insurance	
U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. DivCoWest Fund IV, L.P. Greenfield Acquisition Partners VI, L.P. Greenfield Acquisition Partners VII, L.P. Patron Capital V, L.P. Lubert Adler Real Estate Fund VII, L.P. Rubenstein Properties Fund II, L.P. Walton Street Real Estate Fund VI, L.P. Walton Street Real Estate Fund VII, L.P.
Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) BTC ACWI Ex US Small Cap Fund (CF)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthead Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC
Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents Composite Cash Equivalents (SA)
Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Amerra-AGRI Holding (CF) BTG Pactual Brazil Timberland Fund I, L.P. Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Oberland Capital Healthcare, L.P. Taurus Mining Finance Fund Tenaska Power Fund II (CF)	Other Composite Custody Fee Accrual (SA)

Asset Allocation by Asset Class - Pension

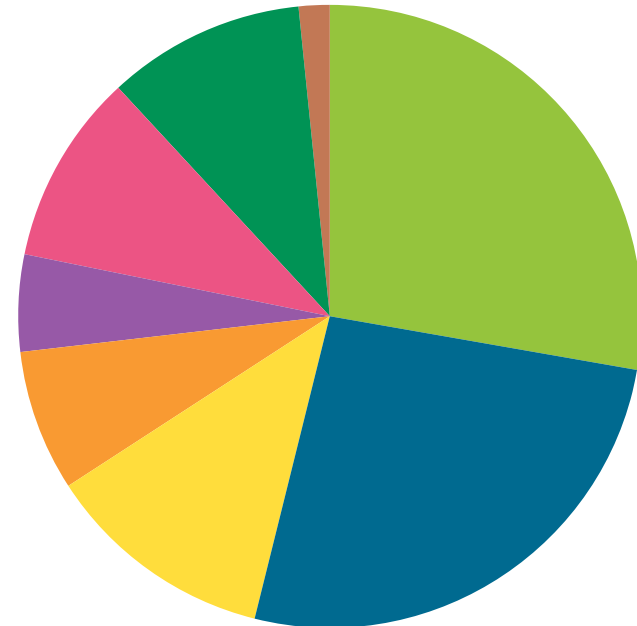
December 31, 2016 : \$223,551,312



	Market Value (\$)	Allocation (%)
U.S. Equity Composite	56,688,237	25.36
Non-U.S. Equity Composite	50,952,472	22.79
Fixed Income Composite	40,142,344	17.96
Real Return Composite	17,570,882	7.86
Real Estate Composite	10,705,545	4.79
Absolute Return Composite	20,325,926	9.09
Private Equity Composite	20,797,084	9.30
Cash Equivalents Composite	6,009,381	2.69
Other Composite	359,440	0.16

Asset Allocation by Asset Class - Insurance

December 31, 2016 : \$166,248,806

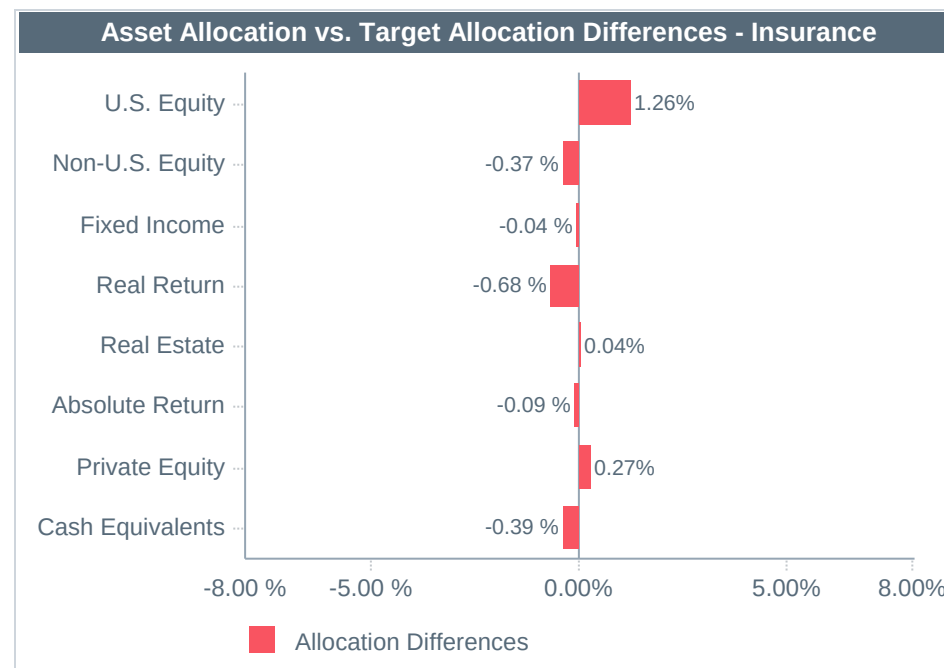
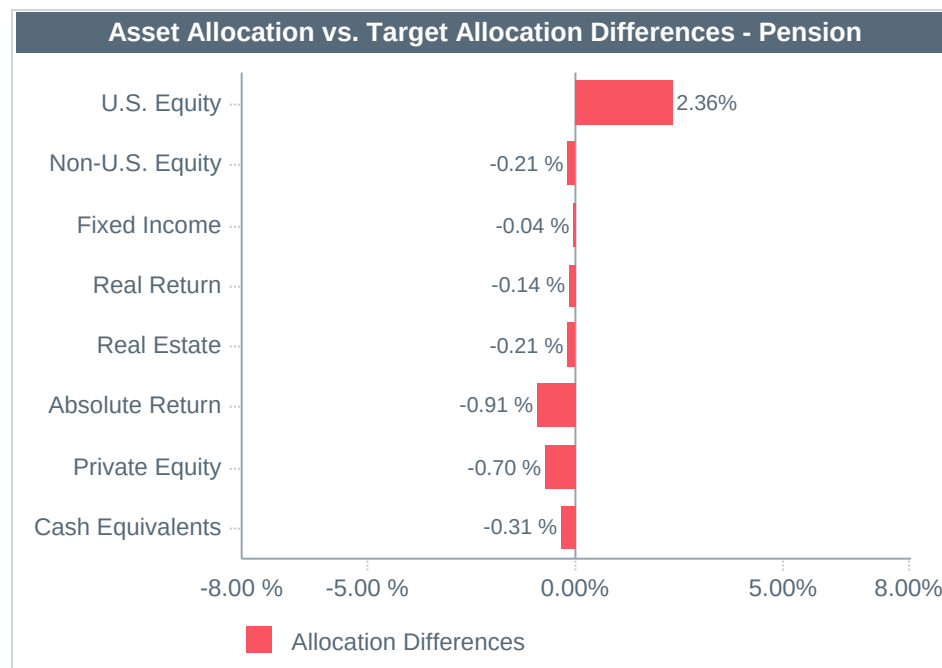


	Market Value (\$)	Allocation (%)
U.S. Equity Composite	46,145,660	27.76
Non-U.S. Equity Composite	43,444,623	26.13
Fixed Income Composite	19,887,547	11.96
Real Return Composite	12,173,681	7.32
Real Estate Composite	8,370,970	5.04
Absolute Return Composite	16,477,787	9.91
Private Equity Composite	17,081,888	10.27
Cash Equivalents Composite	2,673,429	1.61
Other Composite	-6,779	0.00

Asset Allocation vs. Target Allocation

Asset Allocation vs. Target Allocation - Pension					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
SPRS (P)	223,551,312	100.00	-	-	100.00
U.S. Equity	56,688,237	25.36	18.00	28.00	23.00
Non-U.S. Equity	50,952,472	22.79	18.00	28.00	23.00
Fixed Income	40,142,344	17.96	14.00	22.00	18.00
Real Return	17,570,882	7.86	6.00	10.00	8.00
Real Estate	10,705,545	4.79	3.00	7.00	5.00
Absolute Return	20,325,926	9.09	8.00	12.00	10.00
Private Equity	20,797,084	9.30	7.00	13.00	10.00
Cash Equivalents	6,009,381	2.69	1.00	5.00	3.00

Asset Allocation vs. Target Allocation - Insurance					
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
SPRS (I)	166,248,806	100.00	-	-	100.00
U.S. Equity	46,145,660	27.76	21.50	31.50	26.50
Non-U.S. Equity	43,444,623	26.13	21.50	31.50	26.50
Fixed Income	19,887,547	11.96	8.00	16.00	12.00
Real Return	12,173,681	7.32	6.00	10.00	8.00
Real Estate	8,370,970	5.04	3.00	7.00	5.00
Absolute Return	16,477,787	9.91	8.00	12.00	10.00
Private Equity	17,081,888	10.27	7.00	13.00	10.00
Cash Equivalents	2,673,429	1.61	0.00	4.00	2.00



Kentucky Retirement Systems
Asset Allocation & Performance
SPRS - Pension

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
SPRS (P)	223,551,312	100.00	1.62	1.18	4.80	6.75	6.75	3.72	-0.41	4.96	9.00	04/01/1984
Target Allocation Index (SPRS P)			1.74	0.86	4.79	7.92	7.92	4.45	0.21	5.37	9.18	
Difference			-0.12	0.32	0.01	-1.17	-1.17	-0.73	-0.62	-0.41	-0.18	
U.S. Equity Composite	56,688,237	25.36	1.96	5.16	8.45	12.44	12.44	7.15	-1.20	10.75	11.11	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.01	0.95	-0.34	-0.30	-0.30	-1.28	-1.68	-1.81	-1.02	
Non-U.S. Equity Composite	50,952,472	22.79	2.45	-2.04	4.85	2.97	2.97	-1.58	-3.33	-4.22	2.88	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.08	-0.52	-0.66	-1.94	-1.94	-0.22	1.92	-0.78	-0.10	
Fixed Income Composite	40,142,344	17.96	0.81	0.52	2.94	8.23	8.23	4.29	0.48	4.31	4.32	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.26	0.96	0.16	-2.15	-2.15	-1.09	0.05	-1.25	-0.56	
Real Return Composite	17,570,882	7.86	0.86	-1.12	1.96	10.16	10.16	2.32	-5.77	3.20	2.25	07/01/2013
Real Return Actual Allocation Index (P)*			1.16	-0.91	0.61	7.22	7.22	1.92	-4.07	2.95	1.55	
Difference			-0.30	-0.21	1.35	2.94	2.94	0.40	-1.70	0.25	0.70	
Real Estate Composite	10,705,545	4.79	2.39	2.50	4.76	9.91	9.91	9.15	8.75	8.80	8.72	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.56	0.67	0.99	0.83	0.83	-2.27	-5.11	-2.56	-3.15	
Absolute Return Composite	20,325,926	9.09	0.57	0.96	3.36	-0.24	-0.24	2.06	1.64	4.84	2.95	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	2.00	1.11	1.11	0.70	0.85	0.12	1.08	
Private Equity Composite	20,797,084	9.30	2.13	1.91	3.92	4.26	4.26	9.65	9.28	15.70	10.73	07/01/2013
Private Equity Benchmark (SPRS P) [Short Term]			2.13	1.91	3.92	4.26	4.26	9.65	9.28	15.70	10.73	
Difference			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (P)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			1.67	-3.25	-5.01	-13.70	-13.70	-4.48	5.77	-6.06	-4.60	

Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Pension Fund's Cash Equivalents can be found in the manager performance section of this report.

Kentucky Retirement Systems
Asset Allocation & Performance
SPRS - Insurance

As of December 31, 2016

	Allocation		Performance (%)									
	Market Value (\$)	%	MTD	QTD	FYTD	CYTD	1 Year	3 Years	2015	2014	Since Incep.	Inception Date
SPRS (I)	166,248,806	100.00	1.74	1.22	5.24	8.30	8.30	4.22	0.02	4.50	7.27	04/01/1987
Target Allocation Index (SPRS I)			1.78	0.93	4.99	8.15	8.15	4.88	0.96	5.67	7.68	
Difference			-0.04	0.29	0.25	0.15	0.15	-0.66	-0.94	-1.17	-0.41	
U.S. Equity Composite	46,145,660	27.76	1.98	5.05	9.42	14.69	14.69	8.03	-0.50	10.50	11.89	07/01/2013
Russell 3000 Index			1.95	4.21	8.79	12.74	12.74	8.43	0.48	12.56	12.13	
Difference			0.03	0.84	0.63	1.95	1.95	-0.40	-0.98	-2.06	-0.24	
Non-U.S. Equity Composite	43,444,623	26.13	2.48	-1.93	5.01	4.20	4.20	-1.23	-3.42	-4.26	3.18	07/01/2013
MSCI ACW Ex US Investable Mkt Index (Gross)*			2.53	-1.52	5.51	4.91	4.91	-1.36	-5.25	-3.44	2.98	
Difference			-0.05	-0.41	-0.50	-0.71	-0.71	0.13	1.83	-0.82	0.20	
Fixed Income Composite	19,887,547	11.96	0.66	0.69	2.74	8.26	8.26	4.18	0.54	3.89	4.19	07/01/2013
50/50 Bloomberg US Unv Bond/US Corp: Hi Yld Index*			1.07	-0.44	2.78	10.38	10.38	5.38	0.43	5.56	4.88	
Difference			-0.41	1.13	-0.04	-2.12	-2.12	-1.20	0.11	-1.67	-0.69	
Real Return Composite	12,173,681	7.32	0.87	-1.35	1.49	9.66	9.66	2.22	-6.13	3.76	2.05	07/01/2013
Real Return Actual Allocation Index (I)*			1.04	-1.08	0.37	6.87	6.87	2.06	-3.56	3.15	1.66	
Difference			-0.17	-0.27	1.12	2.79	2.79	0.16	-2.57	0.61	0.39	
Real Estate Composite	8,370,970	5.04	2.68	2.68	5.08	10.08	10.08	8.82	8.94	7.44	8.49	07/01/2013
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)			1.83	1.83	3.77	9.08	9.08	11.42	13.86	11.36	11.87	
Difference			0.85	0.85	1.31	1.00	1.00	-2.60	-4.92	-3.92	-3.38	
Absolute Return Composite	16,477,787	9.91	0.57	0.96	3.32	-0.26	-0.26	2.08	1.78	4.80	2.99	07/01/2013
HFRI FOF: Dvf'd Index (1 Mo Lag)			0.36	0.11	1.36	-1.35	-1.35	1.36	0.79	4.72	1.87	
Difference			0.21	0.85	1.96	1.09	1.09	0.72	0.99	0.08	1.12	
Private Equity Composite	17,081,888	10.27	2.41	2.15	3.75	8.24	8.24	13.37	14.80	17.26	13.91	07/01/2013
Private Equity Benchmark (SPRS I) [Short Term]			2.41	2.15	3.75	8.24	8.24	13.37	14.80	17.26	13.91	
Difference			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
R 3000 Index+3% (Qtr Lag) (I)* [Long Term]			0.46	5.16	8.93	17.96	17.96	14.13	3.51	21.76	15.33	
Difference			1.95	-3.01	-5.18	-9.72	-9.72	-0.76	11.29	-4.50	-1.42	

Performance shown is net of fees. An index marked with an asterisk (*) represents the current benchmark. Fiscal year ends June 30th. Allocations shown may not sum up to 100% due to the exclusion of Cash Equivalents and Other from this page; returns for Kentucky Retirement Systems Insurance Fund's Cash Equivalents can be found in the manager performance section of this report.

Pension	
U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA) Pension Transition (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Patron Capital V, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. DivCoWest Fund IV, L.P. Greenfield Acquisition Partners VI, L.P. Greenfield Acquisition Partners VII, L.P. Lubert Adler Real Estate Fund VII, L.P. Rubenstein Properties Fund II, L.P. Walton Street Real Estate Fund VI, L.P. Walton Street Real Estate Fund VII, L.P.
Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) NT Int'l Sm Cap Eq Index (SA)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthead Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC
Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents Composite Cash Equivalents (SA)
Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Amerra-AGRI Holding (CF) BTG Pactual Brazil Timberland Fund I, L.P. Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Oberland Capital Healthcare, L.P. Taurus Mining Finance Fund Tenaska Power Fund II (CF)	Other Composite Perimeter Park (SA) Custody Fee Accrual (SA)

Insurance	
U.S. Equity Composite River Road Asset Management (SA) River Road FAV (SA) Westfield Capital (SA) Scientific Beta (SA) Internal S&P 500 Index (SA) Internal US Mid Cap (SA) Systematic Financial Management (SA) NT Structured Small Cap (SA)	Real Estate Composite H/2 Credit Partners (CF) Harrison Street Core (CF) Mesa West Core Lending, L.P. Prologis Targeted U.S. Logistics Fund (CF) Stockbridge SmtMkts, L.P. DivCoWest Fund IV, L.P. Greenfield Acquisition Partners VI, L.P. Greenfield Acquisition Partners VII, L.P. Patron Capital V, L.P. Lubert Adler Real Estate Fund VII, L.P. Rubenstein Properties Fund II, L.P. Walton Street Real Estate Fund VI, L.P. Walton Street Real Estate Fund VII, L.P.
Non-U.S. Equity Composite Lazard Int'l Strategic Equity (SA) LSV Int'l Concentrated Value Equity (SA) BTC ACWI Ex US Fund (CF) American Century Non-US Growth Equity (SA) Franklin Templeton Non-US Equity (SA) BTC ACWI Ex US Small Cap Fund (CF)	Absolute Return Composite BAAM (SA) Davidson-Kemper, L.P. PAAMCO (SA) Prisma Capital Partners (SA) Senator LP Tourbillon Global Master Fund, Ltd Anchorage Capital Blackrock GAO Fund, Ltd (CF) Coatue Qualified Partners, L.P. DSAM Fund, L.P. Finisterre Global Op Glenview Capital (CF) HBK II (CF) Jana Partners (CF) Knighthead Capital (CF) LibreMax Capital (CF) Liquidalts H2O Force (CF) Luxor Capital (CF) Myriad Opportunities Pine River (CF) QMS Diversified Global Macro (CF) Scopia PX, LLC
Fixed Income Composite <i>Core Fixed Income Composite</i> NISA Core Agg Fixed Income (SA) <i>High Yield Fixed Income Composite</i> Cerberus KRS Levered Loan Opps, L.P. Columbia HY Fixed Income (SA) Marathon Bluegrass Credit Fund Shenkman Capital (SA) Waterfall (SA) <i>Global Fixed Income Composite</i> Manulife Asset Mgmt (SA)	Private Equity Composite Cash Equivalents Composite Cash Equivalents (SA)
Real Return Composite Internal TIPS (SA) Nuveen Real Asset Income (SA) PIMCO:All Asset;Inst (PAAIX) Tortoise Capital (CF) Amerra Ag Fund II (CF) Amerra-AGRI Holding (CF) BTG Pactual Brazil Timberland Fund I, L.P. Magnetar MTP Energy Fund, L.P. Magnetar MTP EOF II, L.P. Oberland Capital Healthcare, L.P. Taurus Mining Finance Fund Tenaska Power Fund II (CF)	Other Composite Custody Fee Accrual (SA)

Performance Related Comments

- Performance shown is net of fees and is annualized for periods greater than one year.
- Indices show N/A for Since Inception returns when the fund contains more history than the corresponding benchmark.
- All data reported for Kentucky Retirement Systems, including manager and composite market values and performance, is provided by BNY Mellon. Performance for managers assumes an interim return of 0.00% when current valuation is unavailable.
- An index marked with an asterisk (*) represents the current benchmark.

Asset Allocation Comments

- Fixed Income target allocations represent merged sub-asset class targets (Core Fixed Income, High Yield Bonds, Global Bonds).
- Fixed Income target ranges are calculated using a weighted average of sub-asset class (Core Fixed Income, High Yield Bonds, Global Bonds) allowable ranges.

Benchmark Comments

Manager Performance

- Waterfall (SA) - The blended index is calculated monthly and consists of 60.00% Bloomberg US Corp: High Yield Index, 40.00% Bloomberg US ABS Floating Rate Index.
- Shenkman Capital (SA) - The blended index is calculated monthly and consists of 50.00% Bloomberg US Corp: High Yield Index, 50.00% Bloomberg US High Yield Loans Index through 6/30/2014 and 100.00% S&P/LSTA Leveraged Loan Index thereafter.
- Nuveen Real Asset Income (SA) - The blended index is calculated monthly and consists of 33.00% S&P Global Infrastructure Index, 20.00% Bloomberg US Corp: High Yield Index, 20.00% BofA Merrill Lynch REIT Preferred Index, 15.00% MSCI US REIT Index, and 12.00% BofA Merrill Lynch Preferred Stock, Fixed Rate Index .

Plan Performance

- Target Allocation Indices - These passive custom indices are calculated monthly and consist of target allocation weights applied to each corresponding primary benchmark return for each plan.
- Real Return Actual Allocation Index (P) - The custom index is calculated monthly and consists of 100.00% Consumer Price Index+3% through 10/31/2013 and beginning of month investment weights applied to each corresponding primary benchmark return for liquid managers and each corresponding manager return for illiquid managers.
- Real Return Actual Allocation Index (I) - The custom index is calculated monthly and consists of 100.00% Consumer Price Index+3% through 10/31/2013 and beginning of month investment weights applied to each corresponding primary benchmark return for liquid managers and each corresponding manager return for illiquid managers.
- Real Return Actual Allocation Index (KERS I) - The custom index is calculated monthly and consists of 100.00% Consumer Price Index+2.5% through 10/31/2013 and beginning of month investment weights applied to each corresponding primary benchmark return for liquid managers and each corresponding manager return for illiquid managers.
- Performance for the Private Equity Composite should be evaluated using the short-term benchmark for trailing periods less than five years and using the long-term benchmark for trailing periods five years or greater.
- Private Equity Benchmark (P) [Short Term] - The custom index is calculated monthly and consists of 100.00% of the respective Pension Private Equity Composite.
- Private Equity Benchmark (I) [Short Term] - The custom index is calculated monthly and consists of 100.00% of the respective Insurance Private Equity Composite.
- R 3000 Index+3% (Qtr Lag) (P*) [Long Term] - The custom index is calculated monthly and consists of 60.00% S&P 1500 Composite Index, 40.00% Bloomberg US Corp: High Yield Index through 6/30/2011, 100.00% Russell 3000 Index+4% (Quarter Lag) through 12/31/2015, and 100.00% Russell 3000 Index+3% (Quarter Lag) thereafter.
- R 3000 Index+3% (Qtr Lag) (I*) [Long Term] - The custom index is calculated monthly and consists of 80.00% S&P 1500 Composite Index, 20.00% Bloomberg US Corp: High Yield Index through 6/30/2011, 100.00% Russell 3000 Index+4% (Quarter Lag) through 12/31/2015, and 100.00% Russell 3000 Index+3% (Quarter Lag) thereafter.

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