

What’s going on in the marketplace?

During the month of September, global markets continued to gain ground. Continued geo-political concerns were overwhelmed by generally positive economic data, partially evidenced by improving earnings. U.S. markets reached new highs in the midst of strong global equity markets. Equity markets were propelled by solid corporate profits and improving economic growth. Bond markets were more mixed in performance as investors were willing to once again pursue risk assets reversing the prior month’s search for quality.

U.S. Equities

U.S. equity markets gained 2.44% (Russell 3000) on the month. All cap segments provided positive performance with small caps leading the way, posting a 6.24% return. Mid- and large caps returned 3.92% and 2.06%, respectively. In a reversal of a recent trend, value outperformed growth as evidenced by the Russell 3000 style benchmarks’ performance; the Russell 3000 Value earned 3.26%, while the Russell 3000 Growth gained 1.62% on the month.

The KRS U.S. Equity portfolio outpaced the Russell 300 Index by 31 bps (2.75% vs 2.44%). The portfolio’s relative performance was bolstered by solid stock selection and an overweight to small caps. From a stock selection perspective, the midcap value mandate stood out during the month adding 178 bps over its index. Relative outperformance of the total fund was tempered by the underweight to U.S. equities which was the second strongest performing asset class for the month.

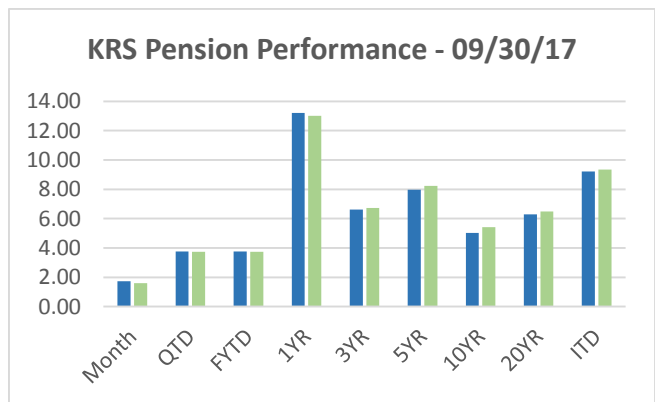
Non-U.S. Equities

Non-U.S. equities rose approximately 1.94% for the month. Developed markets led the way returning 2.35%. Emerging markets were relatively flat, posting a -0.04% return. Like in the U.S., value names outperformed growth, and small caps outperformed their large cap counterparts.

The KRS Non-U.S. Equity portfolio performed well, providing a 2.17% return, outpacing the index by 23 bps on the month. The relative overweight of the allocation during the month was beneficial to the total fund’s performance as this was one of the better performing asset classes. Stock selection was also additive to the total fund relative outperformance.

Fixed Income

The fixed income market as a whole was positive for the month, with diverging individual sector performance. The high yield market gained 0.90%, emerging market bonds were flat, and the U.S. Aggregate fell -0.48%. The KRS Fixed Income portfolio trailed its benchmark for the month, remaining basically flat while the benchmark gained 0.27%. Performance amongst the individual mandates was mixed. KRS’ investments within the aggregate bond space matched the index, while relative performance within the high yield and special opportunities spaces were mixed.



Alternative Assets

Three of the four sub-asset classes provided positive returns for the month, and all either matched or exceeded their respective benchmarks. The Private Equity portfolio returned 4.05%, while the Real Return portfolio was essentially flat, posting -0.04%. The Real Estate portfolio returned 3.20%, outpacing the benchmark return of 1.47%. The Absolute Return portfolio returned 0.59% compared to the 0.48% return of its benchmark.

Cash

The cash portfolio performed inline during the month (0.09% vs 0.09%). The cash allocation finished the month just outside the allocation range at 5.10%.

NOTES:

- 1) Returns displayed are "net". For the purposes of this report, total fund return information is net of fees and expenses, with audited data beginning in July 2011. At the manager level returns are net of fees beginning with July 2011, and gross of fees for prior data.
- 2) Individual plan allocation and performance (pg.3).
- 3) Prior to January 1, 2014, the inception date for the Private Equity asset class was stated as 10/1/1990 for Pension Fund and 6/1/2001 for Insurance Fund. Prior to 07/01/02, the characteristics of the allocation, and the benchmark itself, were more closely aligned with Real Estate. As such, it is not appropriate to report this portion of the return stream within the Private Equity allocation, whose true inception date has been determined to be 07/01/02 based on funding the Systems' first private equity mandate. The portion of the original return streams that are no longer reported within the Private Equity allocation (Pension from 10/1/90 to 06/30/02; Insurance 06/01/01 to 06/30/02) are reported within the Fund Level performance figures.
- 4)

Private Equity Composite (Pension)	Private Equity Composite (Insurance)
Inception (07/01/02) to 06/30/11	Inception (07/01/02) to 06/30/11
60.00% S&P 1500 Composite Index	80.00% S&P 1500 Composite Index
40.00% Barclays US Corporate High Yield Index	20.00% Barclays US Corporate High Yield Index
07/01/11 to 12/31/15	07/01/11 to 12/31/15
100.00% Russell 3000 Index + 4% (Qtr Lag)	100.00% Russell 3000 Index + 4% (Qtr Lag)
01/01/16 to Present	01/01/16 to Present
100.00% Russell 3000 Index + 3% (Qtr Lag)	100.00% Russell 3000 Index + 3% (Qtr Lag)
- 5) The Private Equity & Real Return Benchmarks, from one month returns up until five year returns, is equal to the performance of the associated KRS allocations. Given there is not appropriate benchmark to use for short term performance evaluation, this will allow greater focus on longer term returns, which is more appropriate given the long term nature of these investments.

Pension Benchmark Composite 01/01/16 to 08/31/17

US Equity: Russell 3000 (25.6%)
Non US Equity: MSCI AXCI Ex-US IMI (25.2%)
Global Fixed Income: Barclays Universal Index (6.8%)
Credit Fixed Income: Barclays US High Yield (7.2%)
Real Estate: NCREIF ODCE (5.0%)
Absolute Return: HFRI Diversified FOF (10.0%)
Real Return: Allocation Specific (8.0%)
Private Equity<5Yrs: Actual Performance
Private Equity>5Yrs: Russell 3000 Index+3% (10.0%)
Cash: Cit Grp 3-mos Treasury Bill (2.2%)

Pension Benchmark Composite 09/01/17 to Present

US Equity: Russell 3000 (23.6%)
Non US Equity: MSCI AXCI Ex-US IMI (23.2%)
Global Fixed Income: Barclays Universal Index (9.0%)
Credit Fixed Income: Barclays US High Yield (9.0%)
Real Estate: NCREIF ODCE (5.0%)
Absolute Return: HFRI Diversified FOF (10.0%)
Real Return<5yrs: Actual Performance
Real Return>5yrs: CPI+3% (8%)
Private Equity<5Yrs: Actual Performance
Private Equity>5Yrs: Russell 3000 Index+3% (10.0%)
Cash: Cit Grp 3-mos Treasury Bill (2.2%)

Insurance Benchmark Composite 01/01/16 to 08/31/17

US Equity: Russell 3000 (26.5%)
Non US Equity: MSCI AXCI Ex-US IMI (26.5%)
Global Fixed Income: Barclays Universal Index (6.0%)
Credit Fixed Income: Barclays US High Yield (6.0%)
Real Estate: NCREIF ODCE (5.0%)
Absolute Return: HFRI Diversified FOF (10.0%)
Real Return: Allocation Specific (8.0%)
Private Equity<5Yrs: Actual Performance
Private Equity>5Yrs: Russell 3000 Index+3% (10.0%)
Cash: Cit Grp 3-mos Treasury Bill (2.0%)

Insurance Benchmark Composite 09/01/17 to Present

US Equity: Russell 3000 (24.5%)
Non US Equity: MSCI AXCI Ex-US IMI (24.5%)
Global Fixed Income: Barclays Universal Index (8.0%)
Credit Fixed Income: Barclays US High Yield (8.0%)
Real Estate: NCREIF ODCE (5.0%)
Absolute Return: HFRI Diversified FOF (10.0%)
Real Return<5yrs: Actual Performance
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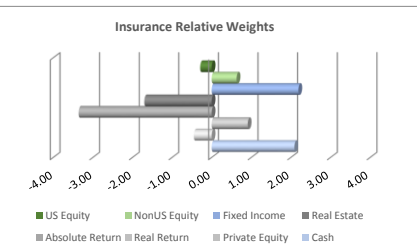
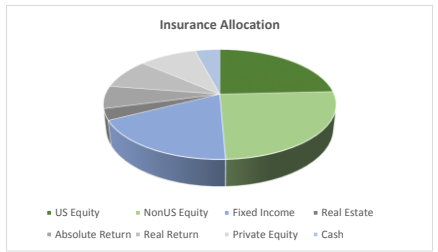
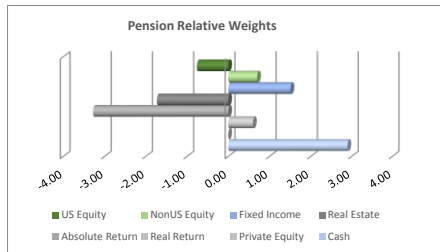
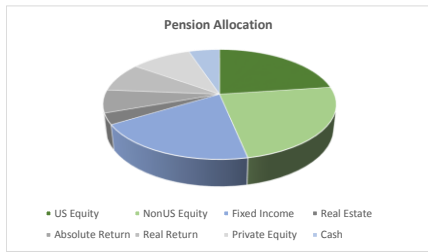
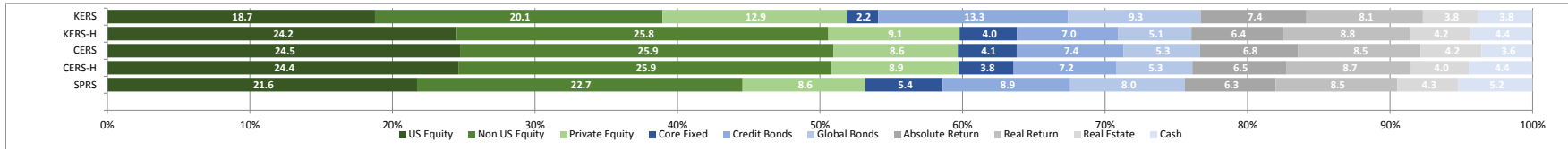
**Fund composite benchmark is a roll-up of individual plans, which may differ from one another.

KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - NET RETURNS - 09/30/17

Structure	Benchmark	Inception	Market Value	% of Total	Month		QTD		Fiscal YTD		1 Year		3 Years		5 Years		10 Years		20 Years		ITD	
					KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark
TOTAL FUND	KY Ret. Blended Index	4/1/1984	12,100,832,221.29	100.00	1.73	1.60	3.77	3.75	3.77	3.75	13.21	13.01	6.62	6.73	7.98	8.24	5.02	5.42	6.30	6.48	9.21	9.34
US PUBLIC	KY Domestic Equity Blend	4/1/1984	2,764,012,296.45	22.84	2.75	2.44	4.35	4.57	4.35	4.57	18.14	18.71	10.14	10.74	13.59	14.23	7.35	7.66	7.31	7.42	11.32	11.35
EQUITY NON US	KY Ret.Int'l Eq. Blended Index	7/1/2000	2,892,373,467.42	23.90	2.17	1.94	6.78	6.36	6.78	6.36	19.94	20.08	6.06	5.25	8.18	7.49	2.15	1.79			3.18	3.61
PUBLIC EQUITY	Global Equity Blended Index	4/1/1984	5,656,385,763.87	46.74	2.45	2.19	5.60	5.46	5.60	5.46	19.18	19.49	7.77	7.46	10.40	10.19	4.65	4.36	6.21	6.04	10.64	10.49
FIXED INCOME	KY Ret. Fixed Blended Index	4/1/1984	2,360,887,698.92	19.51	0.01	0.27	1.21	1.49	1.21	1.49	5.21	4.86	4.95	5.77	4.12	4.11	5.36	5.42	5.79	5.83	7.67	7.50
REAL RETURN	PENSION REAL RETURN CUSTOM BM	7/1/2011	1,041,033,316.90	8.60	-0.04	-0.04	1.51	0.79	1.51	0.79	5.76	1.94	2.51	1.29	2.09	2.30					4.09	2.75
ABSOLUTE RETURN	HFRF Fund of Funds Diversified Index - 1 Month Ar	4/1/2010	813,007,110.45	6.72	0.59	0.48	2.00	2.36	2.00	2.36	5.02	5.87	1.81	2.12	4.78	3.94					4.10	3.00
REAL ESTATE	NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	7/1/1984	395,382,320.30	3.27	3.20	1.47	2.86	1.47	2.86	1.47	10.60	6.90	9.27	10.33	9.40	10.76	7.52	4.28	6.14	8.13	6.00	6.43
PRIVATE EQUITY	Russell 3000 + 3%(Qtr Lag)	7/1/2002	1,209,709,833.02	10.00	4.05	4.05	4.70	4.70	4.70	4.70	15.74	15.74	10.37	10.37	13.13	13.13	7.40	10.94			11.10	11.04
CASH ACCOUNT	Citigroup Treasury Bill-3 Month	1/1/1988	617,417,128.48	5.10	0.09	0.09	0.29	0.26	0.29	0.26	1.17	0.64	0.62	0.29	0.55	0.19	0.95	0.42	2.47	2.02	3.63	3.18

KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - PLAN NET RETURNS - 09/30/17

Plan	Benchmark	Inception	Market Value	% of Total	Month		3 Months		Fiscal YTD		1 Year		3 Years		5 Years		10 Years		20 Years		ITD	
					KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark
KERS	KY Ret. KERS Plan Index		2,051,878,656.01	100.00	1.60	1.57	3.45	3.47	3.45	3.47	11.83	11.70	6.02	6.35	7.68	8.00	4.88	5.31	6.22	6.42	9.16	9.30
KERS-H	KY Ret. KERS Haz Plan Index		623,164,270.75	100.00	1.76	1.70	3.82	3.92	3.82	3.92	13.42	13.42	6.70	6.55	8.04	8.17	5.05	5.39	6.31	6.46	9.21	9.32
CERS	KY Ret. CERS Plan Index		6,886,837,195.38	100.00	1.76	1.70	3.84	3.92	3.84	3.92	13.52	13.45	6.75	6.55	8.04	8.17	5.05	5.39	6.31	6.46	9.22	9.32
CERS-H	KY Ret. CERS Haz Plan Index		2,287,790,327.61	100.00	1.75	1.70	3.83	3.92	3.83	3.92	13.45	13.44	6.77	6.55	8.05	8.17	5.06	5.39	6.31	6.46	9.22	9.32
SPRS	KY Ret. SPRS Plan Index		251,161,760.21	100.00	1.56	1.56	3.53	3.63	3.53	3.63	12.45	12.36	5.86	6.24	7.52	7.97	4.80	5.29	6.18	6.41	9.14	9.29



KENTUCKY RETIREMENT SYSTEMS - INSURANCE FUND - NET RETURNS - 09/30/17

Structure	Benchmark	Inception	Market Value	% of Total	Month		QTD		Fiscal YTD		1 Year		3 Years		5 Years		10 Years		20 Years		ITD	
					KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark
TOTAL FUND	KY Ins. Blended Index	4/1/1987	4,926,590,641.90	100.00	1.79	1.66	3.83	3.85	3.83	3.85	13.56	13.39	6.84	7.05	7.82	8.42	3.92	4.51	5.65	5.95	7.48	7.87
US PUBLIC	KY Domestic Equity Blend	7/1/1992	1,192,483,189.33	24.21	2.76	2.44	4.31	4.57	4.31	4.57	18.24	18.71	10.58	10.74	13.76	14.23	7.24	7.52	7.09	6.81	9.64	9.51
EQUITY NON US	KRS Ins.Int'l Eq Blend	4/1/2000	1,238,291,722.15	25.13	2.16	1.94	6.76	6.36	6.76	6.36	20.04	20.08	5.97	5.25	8.06	7.49	1.85	1.44			3.18	2.72
PUBLIC EQUITY	Global Equity Blended Index	7/1/1992	2,430,774,911.48	49.34	2.45	2.19	5.56	5.47	5.56	5.47	19.32	19.50	8.04	7.52	10.50	10.14	4.44	4.18	6.02	5.66	8.78	8.57
FIXED INCOME	KRS Ins. Fixed Blended Index	7/1/1992	895,925,844.53	18.19	-0.01	0.27	1.14	1.49	1.14	1.49	4.99	4.86	4.42	5.77	3.62	4.11	5.43	5.53	6.22	6.22	6.51	6.50
REAL RETURN	INSURANCE REAL RET CUSTOM BM	7/1/2011	438,993,535.44	8.91	-0.12	-0.12	1.40	0.86	1.40	0.86	5.05	1.91	2.34	1.50	1.76	2.41					3.76	2.83
ABSOLUTE RETURN	HFRF Fund of Funds Diversified Index - 1 Month Ar	4/1/2010	326,917,713.58	6.64	0.64	0.48	2.02	2.36	2.02	2.36	4.99	5.87	1.84	2.12	4.77	3.94					4.03	3.00
REAL ESTATE	NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	5/1/2009	162,407,571.24	3.30	3.24	1.47	2.89	1.47	2.89	1.47	11.05	6.90	9.55	10.33	9.10	10.76					9.08	5.84
PRIVATE EQUITY	Russell 3000 + 3% (Qtr Lag)	7/1/2002	470,377,777.08	9.55	4.29	4.29	4.71	4.71	4.71	4.71	16.38	16.38	13.28	13.28	15.14	15.14	9.24	10.09			9.90	10.44
CASH ACCOUNT	Citigroup Treasury Bill-3 Month	7/1/1992	201,381,614.57	4.09	0.08	0.09	0.25	0.26	0.25	0.26	0.78	0.64	0.45	0.29	0.41	0.19	0.64	0.42	2.19	2.02	2.67	2.54

KENTUCKY RETIREMENT SYSTEMS - INSURANCE FUND - PLAN NET RETURNS - 09/30/17

Plan	Benchmark	Inception	Market Value	% of Total	Month		3 Months		Fiscal YTD		1 Year		3 Years		5 Years		10 Years		20 Years		ITD	
					KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark
KERS INS	KY Ins. KERS Plan Index		798,741,083.90	100.00	1.58	1.62	3.66	3.92	3.66	3.92	13.30	13.61	6.51	6.71	7.52	8.20	3.77	4.40	5.57	5.90	7.44	7.84
KERS-H INS	KY Ins. KERS Haz Plan Index		498,964,269.18	100.00	1.75	1.69	3.81	3.93	3.81	3.93	13.58	13.56	6.77	6.77	7.83	8.24	3.92	4.42	5.65	5.91	7.49	7.84
CERS INS	KY Ins. CERS Plan Index		2,228,395,134.54	100.00	1.83	1.72	3.86	3.93	3.86	3.93	13.57	13.52	6.88	6.80	7.87	8.27	3.94	4.43	5.66	5.91	7.49	7.85
CERS-H INS	KY Ins. CERS Haz Plan Index		1,217,191,221.09	100.00	1.84	1.73	3.88	3.93	3.88	3.93	13.62	13.51	6.94	6.81	7.91	8.27	3.96	4.43	5.67	5.91	7.50	7.85
SPRS INS	KY Ins. SPRS Plan Index		183,298,936.72	100.00	1.86	1.73	3.88	3.93	3.88	3.93	13.62	13.51	6.89	6.82	7.89	8.28	3.95	4.44	5.66	5.92	7.50	7.85

