

What's going on in the marketplace?

In general, equities across the globe performed well, most notably in the U.S. and Japan. Within the U.S., stocks were fueled by positive economics and solid earnings reports. In addition, the potential of corporate tax cuts was a motivating factor. Outside of the U.S., markets continued to be aided by accommodative monetary policy. Strong growth and muted inflation in Japan resulted in solid market performance. Europe saw good earnings growth but some political uncertainty and a strong Euro hampered market performance. The global bond market provided positive performance; however, for the most part, bonds in the U.S. slid slightly. A silver lining was that weakness was likely a result of better economic growth than expected and the potential for inflation to turn north.

U.S. Equities

U.S. equity markets provided solid returns, gaining 3.04% (Russell 3000) on the month. Mid caps provided the strongest return of 3.68%; large and small caps also performed well, returning 3.07% and 2.88%, respectively. There were no significant style biases during the month, with both growth and value performing in line at roughly 3%.

The KRS U.S. Equity portfolio outperformed the Russell 3000 Index by 12 bps (3.16% vs 3.04%). The portfolio's relative performance was primarily driven by stock selection. The internal factor based and mid cap value portfolios performed well adding 66 and 69 basis points over their respective benchmarks. The all cap mandates, while providing positive absolute returns, struggled in relative terms. Relative outperformance of the total fund was tempered by the underweight to U.S. equities which was the strongest performing asset class for the month.

Non-U.S. Equities

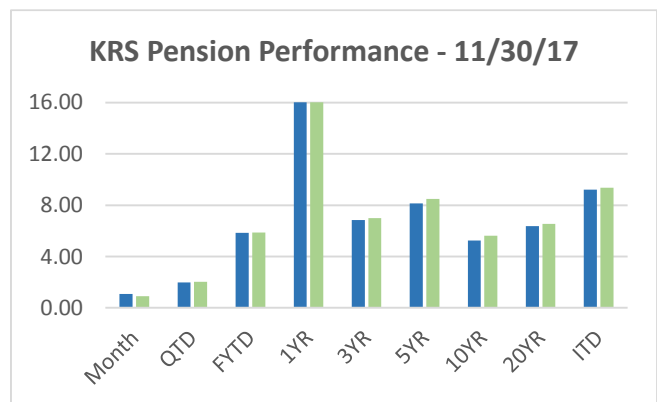
Non-U.S. equities rose approximately 0.91% for the month. Due to a relative performance reversal late in the month, developed markets outperformed emerging markets for the period. Unlike in the U.S., where there was not a strong style bias, outside of the U.S., growth names outperformed value; small caps outperformed large caps.

The KRS Non-U.S. Equity portfolio provided a 1.25% return, outperforming the index by 34 bps on the month. Relative outperformance was driven primarily by stock selection with three of the four active external managers providing relative outperformance. The overweight of the allocation during the month was beneficial to the total fund's performance as this was the second best performing asset class for the period.

Fixed Income

The fixed income market as a whole was negative for the month. Intermediate credit fell 0.31%, the high yield market lost 26 bps, and the U.S. Aggregate fell -0.13%. The emerging market bond market bucked the trend and was slightly positive for the month, gaining 0.05%. The KRS Fixed Income portfolio outperformed its benchmark for the month, gaining 0.12% versus the benchmark return of -0.20%. Performance amongst the individual mandates was good. The majority of KRS' individual strategies outperformed their respective indices.

Alternative Assets



Three of the four sub-asset classes posted positive absolute returns for the month. The Private Equity, Real Estate, and Real Return portfolios returned 0.12%, 0.05% and 0.05%, respectively. The Absolute Return portfolio returned -0.05% compared to the 0.01% return of its benchmark.

Cash

The cash portfolio performed in line with the 3-month Treasury during the month (0.10% vs 0.09%), with a cash allocation of 3.32% at the end of the period.

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) Inception (07/01/02) to 06/30/11 60.00% S&P 1500 Composite Index 40.00% Barclays US Corporate High Yield Index 07/01/11 to 12/31/15 100.00% Russell 3000 Index + 4% (Qtr Lag) 01/01/16 to Present 100.00% Russell 3000 Index + 3% (Qtr Lag)	Private Equity Composite (Insurance) Inception (07/01/02) to 06/30/11 80.00% S&P 1500 Composite Index 20.00% Barclays US Corporate High Yield Index 07/01/11 to 12/31/15 100.00% Russell 3000 Index + 4% (Qtr Lag) 01/01/16 to Present 100.00% Russell 3000 Index + 3% (Qtr Lag)
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- 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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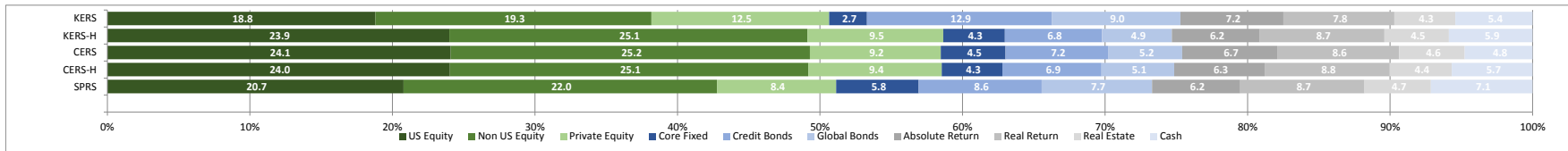
**Fund composite benchmark is a roll-up of individual plans, which may differ from one another.

KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - NET RETURNS - 11/30/17

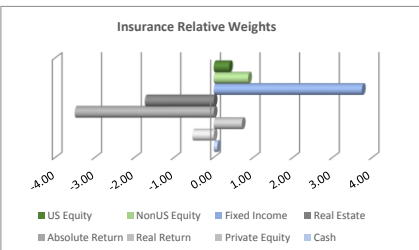
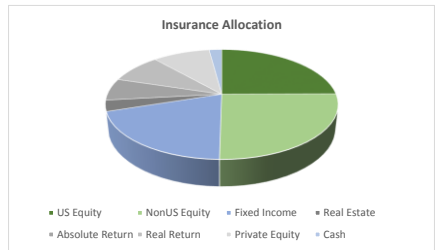
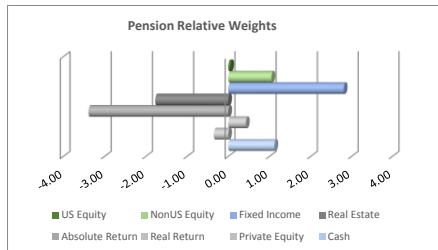
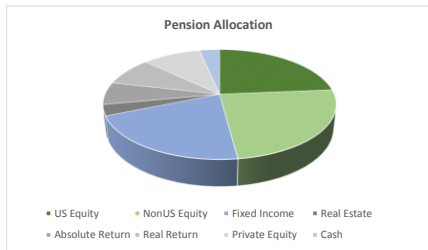
Structure	Benchmark	Inception	Market Value	% of Total	Month		QTD		Fiscal YTD		1 Year		3 Years		5 Years		10 Years		20 Years		ITD	
					KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark
TOTAL FUND	KY Ret. Blended Index	4/1/1984	12,247,780,250.93	100.00	1.08	0.91	1.99	2.04	5.84	5.86	16.10	16.26	6.84	6.99	8.14	8.49	5.24	5.62	6.38	6.55	9.22	9.35
US PUBLIC	KY Domestic Equity Blend	4/1/1984	2,896,691,160.35	23.65	3.16	3.04	5.12	5.29	9.70	10.10	20.55	22.27	10.16	10.75	14.93	15.63	8.21	8.54	7.59	7.68	11.43	11.46
EQUITY NON US	KY Ret.Int'l Eq. Blended Index	7/1/2000	2,969,876,121.92	24.25	1.25	0.91	3.01	2.81	9.99	9.34	29.31	28.53	7.06	6.31	8.35	7.59	2.37	2.01			3.33	3.74
PUBLIC EQUITY	Global Equity Blended Index	4/1/1984	5,866,567,282.27	47.90	2.18	1.98	4.04	4.05	9.87	9.73	24.88	25.38	8.29	8.08	11.12	10.92	5.25	4.94	6.44	6.24	10.72	10.56
FIXED INCOME	KY Ret. Fixed Blended Index	4/1/1984	2,548,338,099.78	20.81	0.12	-0.20	0.25	0.07	1.46	1.56	5.67	6.53	4.33	5.26	3.90	4.01	5.07	5.08	5.70	5.74	7.64	7.46
REAL RETURN	PENSION REAL RETURN CUSTOM BM	7/1/2011	1,032,051,462.44	8.43	0.05	0.05	0.06	0.06	1.57	0.85	8.21	4.26	2.63	1.31	1.88	2.13					3.99	2.69
ABSOLUTE RETURN	HFRF Fund of Funds Diversified Index - 1 Month Ar	4/1/2010	809,856,394.27	6.61	-0.05	0.01	0.38	1.28	2.39	3.68	5.01	7.22	2.30	2.76	4.60	4.11					4.06	3.11
REAL ESTATE	NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	7/1/1984	395,908,746.54	3.23	0.05	0.00	0.02	0.00	2.88	1.47	10.57	6.90	9.24	10.33	8.97	10.76	7.52	4.28	6.11	8.13	5.97	6.40
PRIVATE EQUITY	Russell 3000 + 3%(Qtr Lag)	7/1/2002	1,181,395,312.77	9.65	0.12	0.12	0.04	0.04	4.74	4.74	16.02	16.02	10.40	10.40	12.38	12.38	7.65	11.48			10.97	11.10
CASH ACCOUNT	Citigroup Treasury Bill-3 Month	1/1/1988	406,846,535.24	3.32	0.10	0.09	0.20	0.18	0.49	0.44	0.96	0.77	0.69	0.35	0.58	0.23			2.44	1.99	3.62	3.17

KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - PLAN NET RETURNS - 11/30/17

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		2,066,006,199.72	100.00	0.89	0.74	3.27	3.31	5.16	5.24	14.34	14.63	6.14	6.62	7.77	8.18	5.06	5.47	6.29	6.47	9.17	9.31
KERS-H	KY Ret. KERS Haz Plan Index		635,968,841.23	100.00	1.10	0.95	3.83	3.87	5.94	6.13	16.33	16.78	6.97	6.91	8.20	8.44	5.27	5.59	6.40	6.53	9.23	9.34
CERS	KY Ret. CERS Plan Index		6,987,551,772.42	100.00	1.11	0.95	3.84	3.86	5.97	6.13	16.49	16.79	6.98	6.88	8.21	8.43	5.28	5.59	6.40	6.53	9.23	9.34
CERS-H	KY Ret. CERS Haz Plan Index		2,325,048,712.06	100.00	1.11	0.95	3.83	3.86	5.95	6.13	16.41	16.79	7.01	6.89	8.22	8.43	5.28	5.59	6.40	6.53	9.24	9.34
SPRS	KY Ret. SPRS Plan Index		255,098,329.71	100.00	0.97	0.80	3.39	3.44	5.38	5.54	14.96	15.40	6.00	6.52	7.63	8.18	5.00	5.47	6.26	6.47	9.15	9.31



Note: The above chart displays the average monthly allocation.

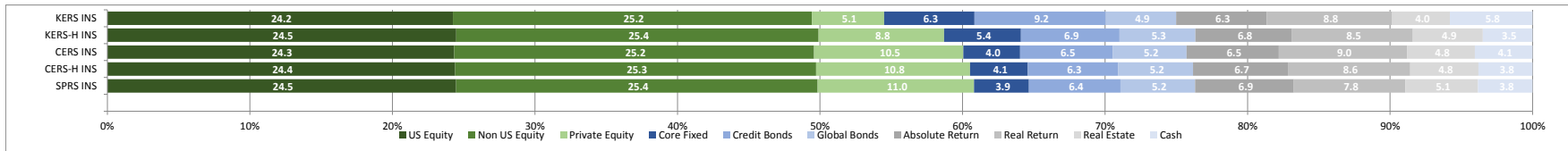


KENTUCKY RETIREMENT SYSTEMS - INSURANCE FUND - NET RETURNS - 11/30/17

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	5,022,130,782.64	100.00	1.13	0.95	2.09	2.13	6.01	6.06	16.47	16.78	7.09	7.35	8.05	8.71	4.20	4.80	5.76	6.05	7.52	7.90
US PUBLIC	KY Domestic Equity Blend	7/1/1992	1,250,042,931.62	24.89	3.18	3.04	5.14	5.29	9.68	10.10	20.62	22.27	10.56	10.75	15.10	15.63	8.07	8.38	7.40	7.12	9.79	9.66
EQUITY NON US	KRS Ins.Int'l Eq Blend	4/1/2000	1,273,921,699.83	25.37	1.26	0.91	3.02	2.81	9.98	9.34	29.22	28.53	6.98	6.31	8.22	7.59	1.97	1.66			3.32	2.86
PUBLIC EQUITY	Global Equity Blended Index	7/1/1992	2,523,964,631.45	50.26	2.20	1.97	4.06	4.04	9.85	9.73	24.80	25.40	8.51	8.13	11.24	10.87	4.99	4.73	6.27	5.90	8.89	8.68
FIXED INCOME	KRS Ins. Fixed Blended Index	7/1/1992	991,492,576.42	19.74	0.10	-0.20	0.26	0.07	1.41	1.56	5.26	6.53	4.16	5.26	3.43	4.01	4.92	5.01	6.11	6.11	6.48	6.46
REAL RETURN	INSURANCE REAL RET CUSTOM BM	7/1/2011	437,416,068.59	8.71	0.06	0.06	0.15	0.15	1.55	1.01	7.64	4.46	2.46	1.50	1.55	2.26					3.69	2.78
ABSOLUTE RETURN	HFRF Fund of Funds Diversified Index - 1 Month Ar	4/1/2010	325,752,598.59	6.49	-0.03	0.01	0.35	1.28	2.38	3.68	4.95	7.22	2.31	2.76	4.58	4.11					3.99	3.11
REAL ESTATE	NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	5/1/2009	163,551,938.64	3.26	0.05	0.00	0.02	0.00	2.91	1.47	11.12	6.90	9.41	10.33	8.76	10.76					8.90	5.73
PRIVATE EQUITY	Russell 3000 + 3% (Qtr Lag)	7/1/2002	475,234,623.16	9.46	0.09	0.09	0.06	0.06	4.77	4.77	16.70	16.70	13.33	13.33	14.53	14.53	9.34	10.65			9.80	10.50
CASH ACCOUNT	Citigroup Treasury Bill-3 Month	7/1/1992	105,028,821.71	2.09	0.10	0.09	0.19	0.18	0.44	0.44	0.90	0.77	0.50	0.35	0.43	0.23	0.57	0.37	2.16	1.99	2.66	2.53

KENTUCKY RETIREMENT SYSTEMS - INSURANCE FUND - PLAN NET RETURNS - 11/30/17

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		816,732,685.12	100.00	1.10	0.95	3.70	3.79	5.82	6.14	16.01	16.83	6.77	6.98	7.75	8.49	4.05	4.69	5.68	6.00	7.47	7.87
KERS-H INS	KY Ins. KERS Haz Plan Index		507,313,435.59	100.00	1.13	0.95	3.88	3.86	5.98	6.15	16.44	16.87	7.02	7.04	8.06	8.53	4.20	4.71	5.76	6.01	7.52	7.87
CERS INS	KY Ins. CERS Plan Index		2,272,486,620.12	100.00	1.13	0.95	3.94	3.90	6.02	6.15	16.51	16.88	7.13	7.09	8.11	8.55	4.23	4.73	5.77	6.02	7.52	7.88
CERS-H INS	KY Ins. CERS Haz Plan Index		1,239,280,207.12	100.00	1.13	0.95	3.97	3.90	6.04	6.15	16.58	16.89	7.20	7.09	8.14	8.56	4.24	4.73	5.78	6.02	7.53	7.88
SPRS INS	KY Ins. SPRS Plan Index		186,317,832.44	100.00	1.13	0.95	3.99	3.90	6.06	6.15	16.59	16.88	7.16	7.11	8.12	8.57	4.23	4.73	5.77	6.02	7.53	7.88



Note: The above chart displays the average monthly allocation.