### What's going on in the marketplace?

Improving fundamentals and continued accommodative monetary policy fueled a strong rise in global stocks during the month. Non-U.S. markets did especially well as corporate earnings hit a six-year high in Europe, surpassing earnings growth in the U.S. In the United Kingdom, stocks reached new highs as the unemployment rate hit a 40-year low. Japan posted a higher than expected annualized growth rate of 2.2% which bolstered their markets. Global bonds were also positive as investors continued their search for yield.

# **U.S. Equities**

U.S. equity markets gained a little more than 1% (Russell 3000) on the month. The market was driven entirely by large caps, gaining 1.41%; while both mid and small caps fell -0.49% and -2.03%, respectively. Once again, growth was in heavy favor over value as evidenced by the Russell 3000 style benchmarks' performance; the Russell 3000 Growth earned 2.34%, while the Russell 3000 Value lost 34 basis points on the month.

The KRS U.S. equity portfolio fell short of the Russell 300 Index (0.76% vs 1.02%) with the relative underweight causing a drag on the portfolio. Within the U.S. equity portfolio specifically, the slight overweight coming down the cap spectrum is what really hindered relative performance. From a stock selection perspective, the portfolio did pretty well with only the All Cap Value mandates struggling against their respective index.

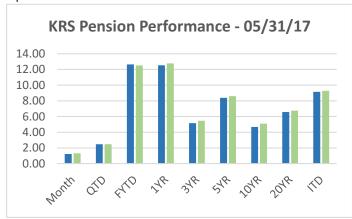
# Non-U.S. Equities

Non-U.S. equities rose over 3.3% on the month as developed markets lead the way returning roughly 3.5%. Emerging markets performed well earning just shy of 3%.

The KRS Non-U.S. equity portfolio performed well from an absolute perspective and was in line with the index. For the month, the portfolio added 3.30% with two of the four active concentrated strategies adding value. On the fiscal year (11 months to date), two of the four active mandates have outperformed the index, with the entire Non-U.S. equity portfolio returning 20.22%. Relative allocation had little effect on the portfolio's performance.

#### **Fixed Income**

The KRS Fixed Income portfolio trailed its index for the month, returning 0.50% versus 0.82%. Performance amongst the individual mandates was mixed, with the majority outperforming their respective indices. One of the corporate high yield mandates served as the primary drag on the allocation trailing its index by 167 bps; however, the strategy has performed well on the fiscal year.



## **Alternative Assets**

All sub-asset classes provided positive absolute returns during the month with three of the four adding value over their respective benchmarks. The Real Return portfolio added 50 bps over its index. The Real Estate allocation returned 0.12% for the month, and the Private Equity portfolio gained 0.98%. The Absolute Return portfolio was essentially flat, returning 0.02% while its benchmark gained 0.23%.

#### Cash

The cash portfolio performed well during the month (0.08% vs 0.06%). The slight overweight to cash in both the pension and insurance funds acted as a slight drag on the total portfolios' performance.

### 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 (detailed return sheets pgs.4-5), returns are net of fees beginning with July 2011, and gross of fees for prior data.
- 2) Individual plan allocation and performance (pg.6).
- 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.

 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)

- 5) The Private Equity Benchmark, from one month returns up until five year returns, is equal to the performance of the KRS Private Equity allocation. 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 private equity investments.
- 6) Pension Benchmark Composite 01/01/14 to 12/31/15

US Equity: Russell 3000 (20.5%)

Non US Equity: MSCI AXCI Ex-US (20.0%)

Emerging Market: MSCI Emerging Markets (2.9%) Fixed Income: Barclays Universal Index (19.3%)

Real Estate: NCREIF ODCE (4.5%)

Absolute Return: HFRI Diversified FOF (10.0%) Real Return: Allocation Specific (10.0%) Private Equity<5Yrs: Actual Performance

Private Equity>5Yrs: Russell 3000 Index+4% (10.0%)

Cash: Cit Grp 3-mos Treasury Bill (2.8%)

Pension Benchmark Composite 01/01/16 to Present

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%) Insurance Benchmark Composite 01/01/14 to 12/31/15

US Equity: Russell 3000 (20.0%)

Non US Equity: MSCI AXCI Ex-US (20.0%)

Emerging Market: MSCI Emerging Markets (4.0%) Fixed Income: Barclays Universal Index (20.0%)

Real Estate: NCREIF ODCE (5.0%)

Absolute Return: HFRI Diversified FOF (10.0%)
Real Return: Allocation Specific (10.0%)
Private Equity<5Yrs: Actual Performance

Private Equity>5Yrs: Russell 3000 Index+4% (10.0%)

Cash: Cit Grp 3-mos Treasury Bill (1.0%)

Insurance Benchmark Composite 01/01/16 to Present

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%)

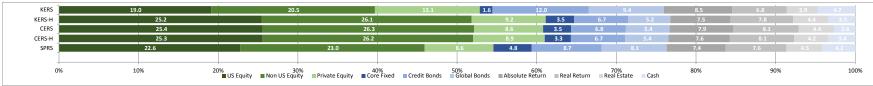
<sup>\*\*</sup>Fund composite benchmark is a roll-up of individual plans, which may differ from one another.

KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - NET RETURNS - 05/31/17

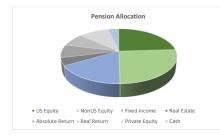
RENTOCKT RETIREMENT STSTEMS - FENSION TONG - NET RETORNS - 03/32/17																						
Structure	Benchmark	Inception	Market Value	% of Total	Month		QTD		Fiscal YTD		1 Year		3 Years		5 Years		10 Years		20 Years		ITE	,
					KRS	Benchmark	KRS I	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark
TOTAL FUND KY Re	et. Blended Index	4/1/1984	11,723,189,667.77	100.00	1.23	1.31	2.47	2.47	12.64	12.51	12.54	12.77	5.16	5.47	8.38	8.61	4.68	5.10	6.58	6.76	9.16	9.29
US PUBLIC KY Do	omestic Equity Blend	4/1/1984	2,815,707,182.84	24.02	0.76	1.02	1.54	2.09	16.72	17.45	16.78	17.69	8.82	9.68	14.56	15.26	6.72	7.02	7.71	7.81	11.26	11.29
EQUITY NON US KY RE	et.Int'l Eq. Blended Index	7/1/2000	3,008,766,337.94	25.67	3.30	3.27	6.26	5.66	20.22	20.53	17.20	18.51	2.32	1.74	9.50	8.89	1.68	1.36			2.85	3.28
PUBLIC EQUITY Globa	al Equity Blended Index	4/1/1984	5,824,473,520.78	49.68	2.05	2.14	3.93	3.86	18.55	19.07	17.10	18.20	5.25	5.15	11.58	11.41	4.06	3.78	6.57	6.39	10.55	10.40
FIXED INCOME KY RE	et.Fixed Blended Index	4/1/1984	1,976,665,315.27	16.86	0.50	0.82	1.53	1.82	6.41	6.64	7.58	8.07	4.30	5.28	4.63	4.26	5.53	5.59	5.96	5.98	7.70	7.53
REAL RETURN PENS	SION REAL RETURN CUSTOM BM	7/1/2011	905,180,857.73	7.72	0.28	-0.22	0.52	0.06	7.40	3.44	10.80	6.21	1.88	1.04	2.50	2.43					4.04	2.82
ABSOLUTE RETUR HFRI	Fund of Funds Diversified Index - 1 Month A	rr 4/1/2010	898,056,766.84	7.66	0.02	0.23	0.49	0.65	5.46	5.58	5.25	6.07	1.81	2.30	4.65	3.51					4.02	2.85
REAL ESTATE NCRE	EIF NFI-ODCE Net 1 Qtr in Arrears Index^	7/1/1984	531,658,250.10	4.54	0.12	0.00	0.26	0.00	7.74	5.72	9.71	7.79	9.02	11.04	9.03	11.16	7.02	4.84	5.99	8.29	5.91	6.40
PRIVATE EQUITY Russe	ell 3000 + 3%(Qtr Lag)	7/1/2002	1,150,025,574.16	9.81	0.98	0.98	1.90	1.90	8.84	8.84	9.52	9.52	9.32	9.32	11.63	11.63	6.50	10.40			10.75	10.99
CASH ACCOUNT Citigr	roup Treasury Bill-3 Month	1/1/1988	430,281,125.86	3.67	0.08	0.06	0.15	0.11	0.91	0.39	0.96	0.41	0.52	0.18	0.49	0.13	1.09	0.54	2.56	2.09	3.66	3.21

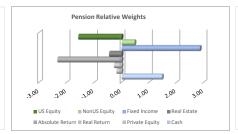
KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - PLAN NET RETURNS - 05/31/17

KERS KY Ret. KERS Plan Index 2,016,196,281.09 100.00 1.14 1.17 3.43 3.29 11.19 11.12 11.25 11.60 4.77 5.13 8.13 8.42 4.56 5.01 6.52 6.72 9.12 KERS-H KY Ret. KERS Haz Plan Index 597,065,648.06 100.00 1.25 1.34 3.87 3.65 12.61 12.81 12.46 13.03 5.24 5.15 8.43 8.50 4.70 5.05 6.59 6.74 9.16	9.26
	9.27
CERS KY Ret. CERS Plan Index 6,660,844,304.12 100.00 1.25 1.34 3.86 3.63 13.01 12.88 12.87 13.10 5.28 5.16 8.43 8.50 4.70 5.05 6.59 6.74 9.16	9.27
CERS-H KY Ret. CERS Haz Plan Index 2,205,485,771.14 100.00 1.24 1.34 3.84 3.64 12.90 12.85 12.76 13.06 5.32 5.15 8.44 8.50 4.71 5.05 6.60 6.74 9.17	9.27
SPRS KY Ret. SPRS Plan Index 243,597,661.18 100.00 1.18 1.24 3.54 3.37 11.75 11.91 11.75 12.28 4.53 5.00 7.98 8.38 4.49 4.99 6.48 6.71 9.10	9.25

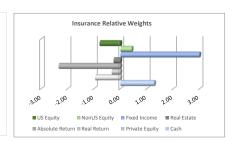


Note: The above chart displays the average monthly allocation.



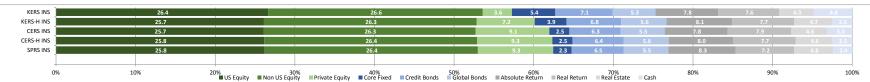






					KENTUC	Y RETIREM	ENT SYST	EMS - INS	URANCE	FUND - NET	RETURNS	5 - 05/31/1	.7									
Structure	Benchmark	Inception	Market Value	% of Total	Mo	Month		QTD		Fiscal YTD		1 Year		3 Years		ears	10 Years		20 Years		ITD	
					KRS	Benchmark	KRS	<b>Benchmark</b>	KRS	Benchmark	KRS	Benchmark	KRS	<b>Benchmark</b>	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS E	Benchmark
TOTAL FUND	KY Ins. Blended Index	4/1/1987	4,722,927,526.86	100.00	1.19	1.29	2.53	2.58	12.89	12.77	12.79	13.07	5.30	5.82	8.23	8.80	3.60	4.15	5.95	6.30	7.41	7.80
US PUBLIC	KY Domestic Equity Blend	7/1/1992	1,214,326,610.53	25.71	0.75	1.02	1.58	2.09	16.78	17.45	16.79	17.69	9.24	9.68	14.71	15.26	6.64	6.94	7.51	7.27	9.55	9.40
EQUITY NON U	S KRS Ins.Int'l Eq Blend	4/1/2000	1,271,747,869.97	26.93	3.26	3.27	6.19	5.66	20.33	20.53	17.14	18.51	2.22	1.74	9.38	8.89	1.68	1.01			2.85	2.39
PUBLIC EQUITY	Global Equity Blended Index	7/1/1992	2,486,074,480.50	52.64	2.02	2.15	3.89	3.87	18.63	19.08	17.16	18.20	5.57	5.22	11.64	11.35	3.94	3.63	6.40	6.08	8.64	8.43
FIXED INCOME	KRS Ins. Fixed Blended Index	7/1/1992	707,896,168.30	14.99	0.46	0.82	1.42	1.82	5.78	6.64	7.27	8.07	3.71	5.28	4.15	4.26	5.75	5.83	6.38	6.39	6.55	6.53
REAL RETURN	INSURANCE REAL RET CUSTOM BM	7/1/2011	362,103,645.91	7.67	0.33	-0.09	0.64	0.26	6.58	3.30	9.82	6.07	1.76	1.18	2.13	2.53					3.73	2.91
ABSOLUTE RET	UF HFRI Fund of Funds Diversified Index - 1 Month A	Arr 4/1/2010	361,855,016.48	7.66	-0.06	0.23	0.45	0.65	5.35	5.58	5.11	6.07	1.83	2.30	4.66	3.51					3.94	2.85
REAL ESTATE	NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	5/1/2009	223,727,628.27	4.74	0.12	0.00	0.13	0.00	8.19	5.72	10.24	7.79	9.28	11.04	8.70	11.16					8.81	5.70
PRIVATE EQUIT	Y Russell 3000 + 3% (Qtr Lag)	7/1/2002	426,798,533.33	9.04	0.37	0.37	2.24	2.24	8.93	8.93	10.41	10.41	12.94	12.94	13.65	13.65	8.49	9.59			9.54	10.37
CASH ACCOUNT	Citigroup Treasury Bill-3 Month	7/1/1992	154,771,083.84	3.28	0.08	0.06	0.15	0.11	0.54	0.39	0.58	0.41	0.36	0.18	0.36	0.13	0.80	0.54	2.26	2.09	2.69	2.56

	KENTUCKY RETIREMENT SYSTEMS - INSURANCE FUND - PLAN NET RETURNS - 05/31/17																				
Plan	Benchmark	Inception Market Value	% of Total	Month		3 Months		Fiscal YTD		1 Year		3 Years		5 Years		10 Years		20 Years			
KERS INS	KY Ins. KERS Plan Index	763,922,550.0	0 100.00	1.22	1.33	3.66	3.54	13.18	13.30	12.95	13.52	5.09	5.38	8.01	8.60	3.50	4.06	5.90	6.25	7.37	7.77
KERS - H INS	KY Ins. KERS Haz Plan Index	481,565,837.2	1 100.00	1.19	1.31	3.79	3.65	12.97	13.03	12.86	13.29	5.25	5.40	8.25	8.62	3.61	4.06	5.96	6.25	7.41	7.77
CERS INS	KY Ins. CERS Plan Index	2,132,053,232.0	8 100.00	1.18	1.30	3.85	3.71	12.80	12.87	12.73	13.15	5.33	5.42	8.27	8.63	3.62	4.07	5.96	6.26	7.42	7.77
CERS - H INS	KY Ins. CERS Haz Plan Index	1,169,024,034.2	0 100.00	1.18	1.30	3.88	3.71	12.82	12.85	12.74	13.14	5.38	5.42	8.30	8.63	3.64	4.07	5.97	6.26	7.42	7.77
SPRS INS	KY Ins. SPRS Plan Index	176,361,871.	1 100.00	1.18	1.30	3.91	3.71	12.84	12.85	12.75	13.14	5.33	5.44	8.28	8.64	3.63	4.07	5.96	6.26	7.42	7.78



Note: The above chart displays the average monthly allocation.