What's going on in the marketplace?

The fourth quarter mirrored 2017 as a whole. Synchronized global growth was solid during the year, and manifested itself through strong corporate earnings. Both consumer and business confidence remained at high levels. Increased corporate profits generated additional capital spending and employment opportunities. Global equity markets were strong on the backs of fundamentals, which meant earnings correlated more strongly with stock price movements than they have in the past couple years, and intra-stock correlations declined allowing winners and losers to emerge. Bond yields rose fairly consistently throughout the year across all durations.

U.S. Equities

U.S. equity markets gained approximately 1.0% (Russell 3000) on the month. Large caps were essentially responsible for the market's entire return and gained 1.1%; mid caps were slightly positive and earned 0.2% while small caps fell by 40 bps. Value had a strong month, which outperformed growth by 55 bps (1.28% vs 0.73%). For the calendar year, U.S. markets were up over 21%. There was a significant dispersion in the performance of large caps versus small caps (21.8% vs 14.7%) and growth versus value (29.6% vs 13.2%).

The KRS U.S. Equity portfolio trailed the Russell 3000 Index by 12 bps (0.9% vs 1.0%). The portfolio's relative performance was hampered by stock selection, primarily within the internal factor based portfolio (0.5% vs 1.1%). For 2017, the portfolio provided a strong absolute return of 19.3%, however, it trailed the market by 188 bps. Underperformance can be attributed to both allocation and stock selection. The portfolio's slight nod to value served as a hindrance (-800bps vs the core index), stock selection was weaker within the internal factor-based and all cap value portfolios.

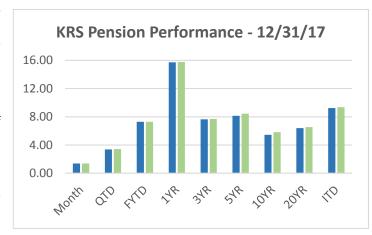
Non-U.S. Equities

Non-U.S. equities had a strong month where they gained approximately 2.4%, and capped off a very strong year where they returned 28.3%. While developed markets performed very well, emerging markets added 37.3% on the year. Like in the U.S., international markets exhibited a growth style bias during 2017; value underperformed the core index by 4.5%.

The KRS Non-U.S. Equity portfolio provided a 2.5% return and outperformed the index by 9 bps on the month. Relative outperformance was driven primarily by stock selection, with the value oriented managers earning roughly 3%. For the 2017 calendar year, the KRS portfolio returned 29.3%, 100 bps over its benchmark. Stock selection was the primary driver where three of the four active managers outperformed their index.

Fixed Income

The fixed income market as a whole was positive for the month. The U.S. Aggregate gained 46 bps, the high yield market was up approximately 0.3%, and intermediate



credit rose 25 bps. The emerging market bond market performed even better and gained 0.7%. The KRS Fixed Income portfolio trailed its benchmark for the month by 15 bps (0.2% vs 0.4%). For the year, the fixed income market performed well; emerging market bonds added 10.3%, high yield markets gained 7.5%, and the aggregate earned 3.5%. Manager selection was mixed and provided an annual return of 5.02%. The portfolio trailed its benchmark by 77 bps.

Alternative Assets

All four sub-asset classes posted positive absolute returns for the month and three of the asset classes provided positive relative performance. The Private Equity, Real Estate, Absolute Return, and Real Return portfolios returned 3.1%, 2.8%, 0.9%, and 0.7%, respectively. During 2017, all sub-asset classes provided strong absolute returns (three outperformed on a relative perspective). For the year, the Private Equity, Real Estate, Real Return, and Absolute Return portfolios returned 17.1%, 11.4%, 8.0%, and 5.4%, respectively.

Cash

The cash portfolio performed well due to receipt of a security litigation distribution (0.4% vs 0.1%). For the year, the cash portfolio outperformed the 3-month Treasury by 48 bps (1.3% vs 0.8%).

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).
- 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 & 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 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 (2.0%)

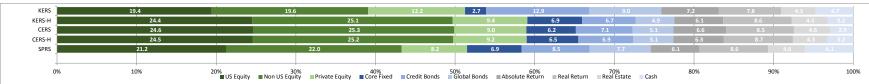
 $^{{\}bf **Fund\ composite\ benchmark\ is\ a\ roll-up\ of\ individual\ plans,\ which\ may\ differ\ from\ one\ another.}$

KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - NET RETURNS - 12/31/17

					KLITTO	CKI KEIIKE	VILIAL DIDI	LIVIS I L	143101411	SIND - INET IN	LIGITIES	12/ 31/ 1/										
Structure	Benchmark	Inception	Market Value	% of Total	Month		QTD		Fiscal YTD		1 Year		3 Years		5 Years		10 Years		20 Ye	ars	ITC	į.
					KRS	Benchmark	KRS E	enchmark	KRS	Benchmark	KRS B	enchmark	KRS B	enchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark
TOTAL FUND	KY Ret. Blended Index	4/1/1984	12,360,980,379.50	100.00	1.37	1.37	3.38	3.42	7.29	7.30	15.73	15.76	7.65	7.68	8.13	8.44	5.45	5.82	6.40	6.54	9.24	9.37
US PUBLIC	KY Domestic Equity Blend	4/1/1984	2,916,432,412.77	23.59	0.88	3 1.00	6.05	6.34	10.66	11.20	19.25	21.13	10.46	11.12	14.83	15.58	8.35	8.71	7.58	7.64	11.43	11.46
EQUITY NON US	KY Ret.Int'l Eq. Blended Index	7/1/2000	3,038,822,648.57	24.58	2.45	2.36	5.54	5.23	12.69	11.92	29.32	28.31	9.11	8.44	8.07	7.35	2.81	2.48			3.46	3.86
PUBLIC EQUITY	Global Equity Blended Index	4/1/1984	5,955,255,061.34	48.18	1.68	3 1.67	5.79	5.79	11.71	11.57	24.24	24.68	9.51	9.43	10.87	10.72	5.52	5.25	6.46	6.24	10.74	10.59
FIXED INCOME	KY Ret.Fixed Blended Index	4/1/1984	2,553,675,582.66	20.66	0.22	0.37	0.47	0.44	1.69	1.94	5.02	5.79	4.61	5.45	3.83	4.08	5.09	5.10	5.67	5.71	7.62	7.45
REAL RETURN	PENSION REAL RETURN CUSTOM BM	7/1/2011	1,047,571,070.77	8.47	0.68	0.68	0.74	0.74	2.26	1.53	7.97	3.81	3.90	2.13	2.05	2.31					4.04	2.76
ABSOLUTE RETU	F HFRI Fund of Funds Diversified Index - 1 Month	Arr 4/1/2010	816,074,450.20	6.60	0.90	0.74	1.29	1.83	3.31	4.26	5.36	6.64	2.24	2.49	4.66	4.13					4.14	3.15
REAL ESTATE	NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	7/1/1984	407,938,735.67	3.30	2.83	1.64	2.85	1.64	5.79	3.14	11.39	6.70	9.90	9.84	9.54	10.57	7.82	4.08	6.19	8.04	6.04	6.44
PRIVATE EQUITY	Russell 3000 + 3%(Qtr Lag)	7/1/2002	1,198,554,411.82	9.70	3.10	3.10	3.15	3.15	7.99	7.99	17.12	17.12	11.24	11.24	12.99	12.99	8.18	11.81			11.13	11.23
CASH ACCOUNT	Citigroup Treasury Bill-3 Month	1/1/1988	374,912,929.85	3.03	0.41	0.10	0.61	0.28	0.90	0.54	1.32	0.84	0.82	0.38	0.65	0.24	0.88	0.34	2.43	1.97	3.62	3.17

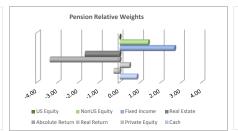
KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - PLAN NET RETURNS - 12/31/17

Plan	Benchmark	Inception	Market Value	% of Total	Month	Month		3 Months		Fiscal YTD			3 Years		5 Years		10 Years		20 Years			
KERS	KY Ret. KERS Plan Index		2,070,630,033.82	100.00	1.25	1.24	2.92	2.96	6.47	6.53	13.98	14.09	6.88	7.29	7.74	8.10	5.26	5.66	6.30	6.45	9.18	9.32
KERS- H	KY Ret. KERS Haz Plan Index		643,170,907.60	100.00	1.38	1.40	3.45	3.54	7.40	7.60	15.97	16.28	7.80	7.70	8.20	8.39	5.49	5.80	6.41	6.52	9.25	9.36
CERS	KY Ret. CERS Plan Index		7,060,352,031.67	100.00	1.39	1.40	3.47	3.54	7.45	7.60	16.10	16.29	7.81	7.67	8.21	8.39	5.49	5.80	6.42	6.52	9.25	9.36
CERS- H	KY Ret. CERS Haz Plan Index		2,350,255,173.12	100.00	1.39	1.40	3.46	3.54	7.42	7.60	16.04	16.29	7.84	7.67	8.22	8.39	5.50	5.80	6.42	6.52	9.26	9.36
SPRS	KY Ret. SPRS Plan Index		258,465,838.22	100.00	1.25	1.31	3.06	3.16	6.70	6.90	14.54	14.90	6.78	7.26	7.60	8.12	5.20	5.66	6.27	6.46	9.16	9.32

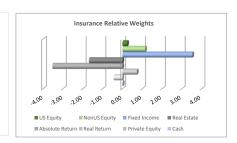


Note: The above chart displays the average monthly allocation.









					KENTUCI	(Y RETIREM	ENT SYST	EMS - INS	URANCE	FUND - NET	RETURNS	5 - 12/31/1	7									
Structure	Benchmark	Inception	Market Value	% of Total	Mo	nth	Q.	rd	Fisca	I YTD	1 Ye	ar	3 Ye	ars	5 Ye	ars	10 Ye	ears	20 Y€	ars	ITD	
					KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS E	Benchmark
TOTAL FUND	KY Ins. Blended Index	4/1/1987	5,086,713,940.45	100.00	1.41	1.43	3.53	3.57	7.50	7.56	16.10	16.30	7.90	8.06	8.06	8.68	4.44	5.05	5.75	6.05	7.54	7.93
US PUBLIC	KY Domestic Equity Blend	7/1/1992	1,258,512,079.14	24.74	0.88	1.00	6.06	6.34	10.64	11.20	19.31	21.13	10.83	11.12	14.99	15.58	8.24	8.56	7.36	7.08	9.80	9.67
EQUITY NON US	KRS Ins.Int'l Eq Blend	4/1/2000	1,304,681,798.32	25.65	2.46	2.36	5.56	5.23	12.69	11.92	29.21	28.31	9.05	8.44	7.92	7.35	2.37	2.13			3.45	2.98
PUBLIC EQUITY	Global Equity Blended Index	7/1/1992	2,563,193,877.46	50.39	1.68	1.68	5.81	5.79	11.69	11.57	24.15	24.71	9.71	9.47	11.02	10.68	5.27	5.05	6.27	5.90	8.93	8.72
FIXED INCOME	KRS Ins. Fixed Blended Index	7/1/1992	993,498,178.49	19.53	0.19	0.37	0.45	0.44	1.60	1.94	4.77	5.79	4.46	5.45	3.35	4.08	4.97	5.07	6.06	6.08	6.46	6.46
REAL RETURN	INSURANCE REAL RET CUSTOM BM	7/1/2011	443,867,675.76	8.73	0.55	0.55	0.71	0.71	2.12	1.57	7.34	4.01	3.39	2.25	1.75	2.41					3.73	2.84
ABSOLUTE RETU	R HFRI Fund of Funds Diversified Index - 1 Month A	rr 4/1/2010	328,682,652.29	6.46	0.95	0.74	1.30	1.83	3.35	4.26	5.35	6.64	2.27	2.49	4.65	4.13					4.07	3.15
REAL ESTATE	NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	5/1/2009	168,416,589.06	3.31	2.80	1.64	2.82	1.64	5.79	3.14	11.53	6.70	10.09	9.84	9.31	10.57					9.16	5.87
PRIVATE EQUITY	Russell 3000 + 3% (Qtr Lag)	7/1/2002	486,341,420.02	9.56	3.43	3.43	3.49	3.49	8.37	8.37	17.96	17.96	14.13	14.13	15.24	15.24	9.74	11.00			9.98	10.63
CASH ACCOUNT	Citigroup Treasury Bill-3 Month	7/1/1992	102,910,596.16	2.02	0.30	0.10	0.49	0.28	0.74	0.54	1.15	0.84	0.59	0.38	0.45	0.24	0.57	0.34	2.15	1.97	2.66	2.52
	= : :																					

	KENTUCKY RETIREMENT SYSTEMS - INSURANCE FUND - PLAN NET RETURNS - 12/31/17																				
Plan	Benchmark	Inception Market V	lue % of Total	Mont	Month		3 Months			1 Year		3 Years		5 Years		10 Years		20 Years			
KERS INS	KY Ins. KERS Plan Index	826,960	049.93 100.00	1.22	1.43	3.33	3.57	7.11	7.63	15.48	16.37	7.53	7.77	7.72	8.46	4.27	4.95	5.67	5.99	7.49	7.89
KERS - H INS	KY Ins. KERS Haz Plan Index	512,852	744.72 100.00	1.39	1.43	3.51	3.57	7.45	7.64	16.04	16.40	7.83	7.83	8.07	8.50	4.44	4.97	5.75	6.00	7.54	7.90
CERS INS	KY Ins. CERS Plan Index	2,303,344	255.95 100.00	1.44	1.43	3.56	3.57	7.55	7.65	16.17	16.40	7.95	7.87	8.12	8.52	4.46	4.98	5.77	6.01	7.55	7.90
CERS - H INS	KY Ins. CERS Haz Plan Index	1,254,947	593.20 100.00	1.46	1.43	3.57	3.57	7.59	7.65	16.25	16.40	8.02	7.88	8.16	8.53	4.48	4.98	5.78	6.01	7.56	7.90
SPRS INS	KY Ins. SPRS Plan Index	188,609	297.13 100.00	1.46	1.43	3.59	3.57	7.61	7.65	16.28	16.40	7.99	7.90	8.14	8.54	4.47	4.98	5.77	6.01	7.56	7.90

