## What's going on in the marketplace?

May continued the global market recovery. Investors were undeterred by weaker economic data, choosing instead to focus on slowing COVID-19 infection rates. This spurred improving market sentiment as countries and states formulated plans to reopen. Reopenings in combination with monetary and fiscal stimulus led to hopes of a global economic resurgence driving markets higher.

## The KRS investment portfolio gained 2.4% versus the benchmark return of 2.6%.

Relative underperformance was primarily driven by weaker performance in the Specialty Credit and Absolute Return portfolios. Offsetting some of the drag on relative performance was the relative strong performance of the Non-US Equity and Core Fixed Income allocations. The overweight position to public equities also was beneficial.

## **U.S. Equities**

U.S. markets continued their strong bounce from the lows experienced in March, as the Russell 3000 gained 5.4% during the month. All market cap segments were positive, with mid-caps leading the way with a return of 7.3%; small caps followed and then large caps returning 6.5% and 4.8%, respectively. Growth again outpaced value by nearly 350 bps (R3000G 6.9%, R3000V 3.4%).

During the month, the KRS U.S. Equity portfolio outpaced the Russell 3000 Index by 21 bps. From a stock selection perspective, relative performance of the individual mandates was primarily positive and provided a tailwind. The effect of allocation positioning was relatively neutral as sizing was beneficial (slightly smaller in terms of market cap) but the slight value tilt weighed on the portfolio.

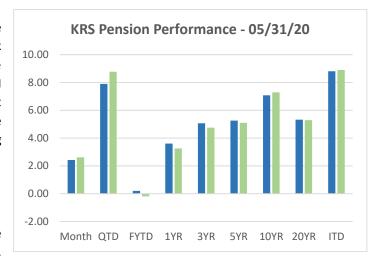
# Non-U.S. Equities

Non-U.S. equity gained 3.6% for the month per the MSCI ACWI-Ex US Index. Developed markets (4.3%) outperformed their emerging market counterpart, which gained 0.8%. Growth outpaced value in both developed and emerging countries.

The KRS Non-U.S. Equity portfolio gained 4.6% during the month, outpacing the benchmark by 96 bps. Stock selection was the primary driver of relative outperformance as three of the four active MSCI ACWI Ex-US mandates, and both active emerging market portfolios outpaced their respective benchmarks. The small cap piece of the portfolio returned 6.8%; outpacing the benchmark by 76 bps. Allocation decisions had little effect on the period's relative performance.



The fixed income markets were positive during the period, with those higher risk segments leading the way.



The U.S. Corporate High Yield and Leveraged Loan markets gained approximately 4.4% and 3.8%, respectively. The U.S. Intermediate Credit Index rose 1.7% and the Barclays Universal Index returned 0.9%. The U.S. Aggregate gained 0.5% for the month.

The KRS Specialty Credit allocation gained 0.3%, trailing the benchmark by roughly 3.8%, as a couple of the leveraged loan and high yield strategies struggled versus their respective indices. The KRS Core Fixed Income allocation added 82 bps over the Bloomberg Barclays Aggregate (0.5%). Relative outperformance can be attributed solid performance of the U.S. Aggregate portfolios, and the U.S. Credit-Intermediate allocation.

### **Alternative Assets**

The diversifying strategy group gained 1.6% during the month; relative performance of the individual sub asset classes was mixed. The Opportunistic portfolio earned 3.9%, followed by the Real Return portfolio, which gained 1.9%. The Absolute Return portfolio rose 1.0%, and the Real Estate portfolio added 28 bps. The Private Equity portion of the portfolio lost 17 bps during the month.

## Cash

The Cash portfolio trailed the 3-month T-Bill, returning 3 bps versus 4 bps.

#### 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.4).
- 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)

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 05/31/18 -

Transition Period w/Sliding Targets

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 05/31/18 -

Transition Period w/Sliding Targets

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%)

Pension Benchmark Composite 06/01/18 to 07/31/18

US Equity: Russell 3000 (17.0%)

Non US Equity: MSCI AXCI Ex-US IMI (21.0%)

Global Fixed Income: Barclays Universal Index (13.0%) Credit Fixed Income: Barclays US High Yield (12.4%)

Real Estate: NCREIF ODCE (5.0%)

Absolute Return: HFRI Diversified FOF (10.0%)

Real Return<5yrs: Actual Performance Real Return>5yrs: CPI+3% (10.0%) Private Equity<5Yrs: Actual Performance

Private Equity>5Yrs: Russell 3000 Index+3% (9.4%)

Cash: Cit Grp 3-mos Treasury Bill (2.2%)

Pension Benchmark Composite 07/31/18 to Present

US Equity: Russell 3000 (18.2%)

Non US Equity: MSCI AXCI Ex-US IMI (18.2%)
Core Fixed Income: Barclays US Aggregate (14.8%)

Specialty Credit/High Yield FI: Custom Benchmark (15.0%)

Real Estate: NCREIF ODCE (5.0%)

Absolute Return: HFRI Diversified FOF (3.0%)
Real Return<5yrs: Actual Performance
Real Return>5yrs: CPI+3% (15.0%)
Private Equity<5Yrs: Actual Performance

Private Equity>5Yrs: Russell 3000 Index+3% (9.4%)

Cash: Cit Grp 3-mos Treasury Bill (1.4%)

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%)

Insurance Benchmark Composite 06/01/18 to 07/31/18

US Equity: Russell 3000 (17.9%)

Non US Equity: MSCI AXCI Ex-US IMI (21.9%)

Global Fixed Income: Barclays Universal Index (13.0%) Credit Fixed Income: Barclays US High Yield (11.0%)

Real Estate: NCREIF ODCE (5.0%)

Absolute Return: HFRI Diversified FOF (10.0%)

Real Return<5yrs: Actual Performance Real Return>5yrs: CPI+3% (10.0%) Private Equity<5Yrs: Actual Performance

Private Equity>5Yrs: Russell 3000 Index+3% (9.2%)

Cash: Cit Grp 3-mos Treasury Bill (2.0%)

Insurance Benchmark Composite 07/31/18 to Present

US Equity: Russell 3000 (18.75%)

Non US Equity: MSCI AXCI Ex-US IMI (18.75%)
Core Fixed Income: Barclays US Aggregate (5.0%)

Specialty Credit/High Yield FI: Custom Benchmark (13.5%)

Real Estate: NCREIF ODCE (10.0%)

Absolute Return: HFRI Diversified FOF (3.0%)
Real Return<5yrs: Actual Performance
Real Return>5yrs: CPI+3% (15.0%)
Private Equity<5Yrs: Actual Performance

Private Equity>5Yrs: Russell 3000 Index+3% (15.0%)

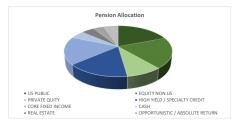
Cash: Cit Grp 3-mos Treasury Bill (1.0%)

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

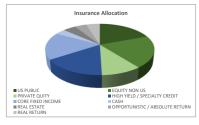
KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - NET RETURNS - 05/31/20 3 Years 5 Years 10 Years 20 Years Benchmark KRS Benchmark Benchmark KRS Benchmark KRS KY Ret. Blended Index 7.90 TOTAL FUND 4/1/1984 12.614.304.931.30 100.00 2.42 2.62 8.77 0.20 -0.20 3.60 3.26 5.06 4.75 5.25 5.10 7.08 7.29 5.32 5.29 8.81 8.90 8,035,281,684.13 3.08 10.06 GROWTH 7/1/2018 63.70 -0.56 4.10 2.72 5.06 5.56 -2.38 4.15 4.42 6.09 PUBLIC EQUITY Global Equity Blended Index 4/1/1984 4,885,196,395.01 38.73 4.50 16 35 15 70 -2.10 4.30 3.89 4.82 4.61 9.54 5.04 8.29 4.82 8.10 8.32 4.36 6.49 10.07 9.91 19.31 19.30 KY Domestic Equity Blend 4/1/1984 2,413,252,504.08 19.13 5.35 2.65 9.82 11.46 8.58 9.17 12.05 12.80 11.04 11.14 US PUBLIC EQUITY NON US KY Ret.Int'l Eq. Blended Index 7/1/2000 2,471,943,890.93 19.60 13.25 0.95 12.08 -8.71 -1.03 -3.41 4.75 0.95 7.68 PRIVATE FOUITY Russell 3000 + 3%(Qtr Lag) 7/1/2002 1.134.738.456.31 9.00 -0.17 0.30 -0.17 7.68 11.09 -0.51 11.09 12.52 12.52 11.33 11.33 12.11 15.28 11.05 11.21 HIGH YIELD / SPECIALTY CREDI' High Yield Custom Benchmark 7/1/2017 2,015,346,832.81 15.98 4.10 0.83 8.79 -2.02 -0.78 3.68 2.42 7/1/2018 7/1/2013 22.67 17.57 1.01 3.17 4.12 3.28 4.13 FIXED INCOME / LIQUIDITY 2.860.211.600.71 4.31 5.34 4.97 CORE FIXED INCOME **Bloomberg Barclays US Aggregate** 2,215,721,072.00 3.46 2.25 8.06 3.92 9.42 3.81 3.35 CASH Citigroup Treasury Bill-3 Month 1/1/1988 644,490,528.71 5.11 0.03 0.04 0.09 0.13 1.55 2.08 1.75 2.07 1.75 1.52 1.15 0.94 0.61 2.03 1.60 3.51 3.07 DIVERSIFYING STRATEGIES 1,719,360,822.74 1.60 4.51 7/1/2018 13.63 -2.41 -0.84 1.35 NCREIF NFI-ODCE Net 1 Qtr in Arrears Index 7/1/1984 582,484,733.35 4.62 0.28 11.18 3.15 12.31 11.12 6.13 10.48 10.39 7.59 7.17 6.33 OPPORTUNISTIC / ABSOLUTE R HFRI Diversified 476 859 772 32 3.78 1.00 2.27 -3.34 5.54 -5.21 -0.70 -6.17 0.75 -0.19 2 01 -0.11 1 33 2.76 2.60 Pension Real Return Custom Benchmark 1.89 9.09 9.09 -5.46 2.53 1.61 REAL RETURN 7/1/2011 660.016.317.07 1.89 -7.75 -7.75 -5.46 -0.37 -0.37 1.11 1.11 KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - PLAN NET RETURNS - 05/31/20 KY Ret. KERS Plan Index 1.01 4.99 2.13 4.02 4.78 6.94 8.77 8.88 2.45 0.35 7.20 KERS- H KY Ret. KERS Haz Plan Index 686,455,330.25 100.00 2.58 2.68 -1.49 -1.23 -0.05 -0.16 3.37 3.38 4.96 5.02 4.86 4.86 5.25 5.27 5.13 7.08 7.27 5.32 5.28 5.28 8.81 8.90 6.997.308.522.52 2.49 -1.54 -1.23 -0.02 -0.16 3.48 5.12 7.10 5.33 8.81 8.90 CERS KY Ret. CERS Plan Index 100.00 CERS- H KY Ret. CERS Haz Plan Index 2,362,602,857.57 100.00 2.49 2.68 -1.52 -1.23 -0.16 3.39 3.38 5.01 7.27 SPRS KY Ret SPRS Plan Index 283.220.376.49 100.00 2 35 2.45 -1 26 -1.12 0.87 0.35 3 89 3.52 4.94 4.81 4 79 5.00 6.85 7.19 5.21 5 24 8.75 2 22 17.3 17.2 14.8 6.2 5.4 3.6 KERS-H 19.4 20.6 15.6 3.8 5.4 3.5 CERS 18.7 20.5 15.4 4,2 5,8 3,9 5,9



Note: The above chart displays the average monthly allocation









TOTAL FUND KY Ret. Blended Index 4/1/1987 5,498/299,653.33 10.0.00 2,40 2.60 7.83 8.64 -0.17 -0.37 3.28 3.12 5.04 4.84 5.33 5.26 7.05 7.81 4.81 4.95 7.19 7 GROWTH Growth Custom Benchmark 7/1/2018 3,582,426,500.43 65.74 2.98 2.52 9.72 10.24 -1.14 0.15 3.50 4.82 5.04 4.84 5.33 5.26 7.05 7.81 4.81 4.95 7.19 7 GROWTH Global Equity Blended Index 7/1/1992 2,147/11,310.12.1 39.40 5.04 4.49 16.35 15.67 -2.14 -2.43 4.27 3.83 4.75 4.57 5.13 4.83 7.99 8.28 4.71 4.26 8.21 8 8 9 9.17 1.20 12.78 6.36 6.17 9.44 9 1.63 1.62 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70	KENTUCKY RETIREMENT SYSTEMS - INSURANCE FUND - NET RETURNS - 05/31/20																						
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GROWTH Growth Custom Benchmark 7/1/2018 3,524,625,004 8 65.74 2,98 2,52 9,72 10,24 -1.14 0.15 3.50 4.82  PUBLIC CQUITY Global Equity Blended Index 7/1/192 2,147,011,301,21 39.40 5.04 4.49 16.35 15.67 -2.14 -2.43 4.27 4.38 4.77 4.57 5.13 4.83 7.99 8.28 4.71 4.26 8.21 8  US PUBLIC KY Domestic Equity Blend 7/1/192 1,047,944,104.61 19.23 5.59 5.35 19.37 19.30 2.56 4.15 9.73 11.46 8.54 9.54 8.49 9.17 12.09 12.78 6.36 6.17 9.44 9  EQUITY NON US KY Ret.Int'l Eq. Blended Index 4/1/200 1,099,667,196.60 20.17 4.55 3.63 11.20 12.08 -6.79 -8.71 -1.05 -3.41 1.37 -0.31 2.22 0.95 4.29 4.71 4.26 8.21 8.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1						KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS E	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS I	Benchmark	KRS B	Benchmark
PUBLIC EQUITY Global Equity Blended Index 7/1/1992 2,147/01,1301.21 33.40 5.04 4.49 16.35 15.67 -2.14 -2.43 4.27 3.83 4.75 4.57 5.13 4.83 7.99 8.28 4.71 4.26 8.21 8 US PUBLIC KY Domestic Equity Blend 7/1/1992 1,047,041,046 1 19.23 5.59 5.35 19.37 19.30 2.56 4.15 9.73 11.46 8.54 9.54 8.49 9.17 12.09 12.78 6.36 6.17 9.26 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TOTAL FUND	KY Ret. Blended Index	4/1/1987	5,449,299,653.33	100.00	2.40	0 2.60	7.83	8.64	-0.17	-0.37	3.28	3.12	5.04	4.84	5.33	5.26	7.09	7.81	4.81	4.95	7.19	7.53
US PUBLIC KY Domestic Equity Blend 7/1/1992 1.047/944,104.61 19.23 5.59 5.35 19.30 2.56 4.15 9.73 11.46 8.54 9.54 8.49 9.17 12.09 12.78 6.36 6.17 9.44 99.00 1.099.067.196.00 20.17 4.55 3.63 13.20 12.08 6.67 9 8.71 1.05 3.41 1.37 -0.31 2.22 0.95 4.29 4.71 2.67 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28	GROWTH	Growth Custom Benchmark	7/1/2018	3,582,426,500.43	65.74	2.9	8 2.52	9.72	10.24	-1.14	0.15	3.50	4.82									2.32	3.65
EQUITY NON US KY Ret.Int'l Eq. Blended Index 4/1/2000 1,099,067,196.60 20.17 4.55 3.63 13.20 12.08 -6.79 -8.71 -1.05 -3.41 1.37 -0.31 2.22 0.95 4.29 4.71 2.62 1 PRIVATE EQUITY RUSSHI 3000 + 3X(fur Lag) 7/1/2002 \$550,684,388.92 10.11 -0.39 -0.39 -0.35 -0.25 -0.25 3.90 7.08 7.08 7.08 12.17 12.17 12.37 12.37 13.28 15.42 9.98 10 HIGH YIRDLO SPECIALTY CRED! Bloomberg Barclavs US High Yield 7/1/2017 884,730.810.30 16.24 0.26 4.10 0.67 8.79 -1.88 2.02 0.71 -0.78 FIXED INCOME / LOUIDITY 7/1/2018 1,130,796,255.57 20.75 1.06 3.44 3.23 4.20 CORE FIXED INCOME Bloomberg Barclavs US Aggregate 7/1/2013 936,105,045.61 17.18 1.27 0.47 4.02 2.25 3.74 8.06 4.93 9.42 3.71 5.07 3.29 3.94 CASH Cligroup Treasury Bill-3 Month 7/1/1992 194,691,209.96 3.57 0.03 0.04 0.10 0.13 1.42 1.55 1.62 1.75 1.80 1.75 1.25 1.15 0.77 0.61 1.79 1.60 2.59 2	PUBLIC EQUITY	Global Equity Blended Index	7/1/1992	2,147,011,301.21	39.40	5.0	4.49	16.35	15.67	-2.14	-2.43	4.27	3.83	4.75	4.57	5.13	4.83	7.99	8.28	4.71	4.26	8.21	8.01
PRIVATE EQUITY Russell 3000 + 3%(Qtr Lag) 7/1/2002 55.0684,388.92 10.11 - 0.39 - 0.25 - 0.25 - 3.09 3.00 7.08 12.17 12.17 12.37 12.37 13.28 15.42 9.98 10 11 11 11 11 11 11 11 11 11 11 11 11	US PUBLIC	KY Domestic Equity Blend	7/1/1992	1,047,944,104.61	19.23	5.59	9 5.35	19.37	19.30	2.56	4.15	9.73	11.46	8.54	9.54	8.49	9.17	12.09	12.78	6.36	6.17	9.44	9.42
HIGH YIELD / SPECIALTY CREDI' Bloomberg Barclays US High Yield 7/1/2017 884,730,810.30 16.24 0.26 4.10 0.67 8.79 -1.88 -2.02 -0.71 -0.78  FIXED INCOME / LIQUIDITY 7/1/2018 1.130,796,255.57 20.75 1.06 3.44 3.23 4.20  CORE FIXED INCOME Bloomberg Barclays US Aggregate 7/1/2013 936,105,045.61 17.18 1.27 0.47 4.02 2.25 3.74 8.06 4.93 9.42 3.71 5.07 3.29 3.94  CASH Citigroup Treasury Bill-3 Month 7/1/1992 194,691,209.96 3.57 0.03 0.04 0.10 0.13 1.42 1.55 1.62 1.75 1.80 1.75 1.25 1.15 0.77 0.61 1.79 1.60 2.59 2	EQUITY NON US	KY Ret.Int'l Eq. Blended Index	4/1/2000	1,099,067,196.60	20.17	4.5	5 3.63	13.20	12.08	-6.79	-8.71	-1.05	-3.41	1.37	-0.31	2.22	0.95	4.29	4.71			2.62	1.98
FIXED INCOME / LIQUIDITY 7/1/2018 1,130,796,255.57 20.75 1.06 3.44 3.23 4.20 4.86 CORE FIXED INCOME Bloomberg Barclays US Aggregate 7/1/2013 956,105,045.61 1.718 1.27 0.47 4.02 2.25 3.74 8.06 4.93 9.42 3.71 5.07 3.29 3.94 3.11 3.11 3 CASH Cligroup Treasury Bill-3 Month 7/1/1992 194,691,209.96 3.57 0.03 0.04 0.10 0.13 1.42 1.55 1.62 1.75 1.80 1.75 1.25 1.15 0.77 0.61 1.79 1.60 2.59 2	PRIVATE EQUITY	Russell 3000 + 3%(Qtr Lag)	7/1/2002	550,684,388.92	10.11	-0.39	9 -0.39	-0.25	-0.25	3.90	3.90	7.08	7.08	12.17	12.17	12.37	12.37	13.28	15.42			9.98	10.69
CORE FIXED INCOME Bloomberg Barclays US Aggregate 7/1/2013 936,105,045.61 17.18 1.27 0.47 4.02 2.25 3.74 8.06 4.93 9.42 3.71 5.07 3.29 3.94 3.11 3 CASH Citigroup Treasury Bill-3 Month 7/1/1992 194,691,209.96 3.57 0.03 0.04 0.10 0.13 1.42 1.55 1.62 1.75 1.80 1.75 1.25 1.15 0.77 0.61 1.79 1.60 2.59 2	HIGH YIELD / SPECIALTY CREE	DI' Bloomberg Barclays US High Yield	7/1/2017	884,730,810.30	16.24	0.20	6 4.10	0.67	8.79	-1.88	-2.02	-0.71	-0.78									3.41	2.42
CASH Citigroup Treasury Bill-3 Month 7/1/1992 194/691,209.96 3.57 0.03 0.04 0.10 0.13 1.42 1.55 1.62 1.75 1.80 1.75 1.25 1.15 0.77 0.61 1.79 1.60 2.59 2	FIXED INCOME / LIQUIDITY		7/1/2018	1,130,796,255.57	20.75	1.0	6	3.44		3.23		4.20										4.86	
	CORE FIXED INCOME	Bloomberg Barclays US Aggregate	7/1/2013	936,105,045.61	17.18	1.2	7 0.47	4.02	2.25	3.74	8.06	4.93	9.42	3.71	5.07	3.29	3.94					3.11	3.92
DIVERSIEVING STRATEGIES 7/1/2018 736 405 414 83 13 51 1 57 4 13 .1 61 .0 09	CASH	Citigroup Treasury Bill-3 Month	7/1/1992	194,691,209.96	3.57	0.0	3 0.04	0.10	0.13	1.42	1.55	1.62	1.75	1.80	1.75	1.25	1.15	0.77	0.61	1.79	1.60	2.59	2.47
	DIVERSIFYING STRATEGIES		7/1/2018	736,405,414.83	13.51	1.5	7	4.13		-1.61		-0.09										1.79	
			5/1/2009	244,011,828.63	4.48	0.29	9 0.00	1.09	0.00	11.33	3.15	12.48	4.39	11.24	6.13	10.52	7.99					9.46	5.81
OPPORTUNISTIC / ABSOLUTE R HFRI Diversified 225,206,550.07 4.13 1.01 2.27 -3.20 5.54 -5.12 -0.70 -6.06 0.75 -0.12 2.01 -0.07 1.33 2.72 2	OPPORTUNISTIC / ABSOLUTE	R HFRI Diversified		225,206,550.07	4.13	1.0	1 2.27	-3.20	5.54	-5.12	-0.70	-6.06	0.75	-0.12	2.01	-0.07	1.33					2.72	2.60
REAL RETURN Pension Real Return Custom Benchmark 7/1/2011 267,187,036.13 4.90 1.62 1.62 8.03 8.03 -6.04 -6.04 -3.83 -3.83 0.15 0.15 1.35 1.35 2.51 1	REAL RETURN	Pension Real Return Custom Benchmark	7/1/2011	267,187,036.13	4.90	1.67	2 1.62	8.03	8.03	-6.04	-6.04	-3.83	-3.83	0.15	0.15	1.35	1.35					2.51	1.87

				k	ENTUCKY RE	TIREMENT	SYSTEM	S - INSURA	NCE FUN			RNS - 05/31	/20										
	Plan	Benchmark	Inception	Market Value	% of Total	Month		3 Mont	:hs	Fiscal Y	TD	1 Year		3 Years		5 Years		10 Year	s	20 Year	5	ITD	
KERS INS		KY Ins. KERS Plan Index		974,215,659.52	100.00	2.62	2.62	-1.49	-1.17	-0.24	-0.24	3.11	3.27	4.35	4.83	4.85	5.15	6.73	7.71	4.65	4.90	7.10	7.50
KERS - H INS		KY Ins. KERS Haz Plan Index		512,100,142.01	100.00	2.32	2.62	-1.74	-1.17	-0.38	-0.24	3.05	3.27	4.88	4.91	5.20	5.21	7.01	7.74	4.79	4.91	7.18	7.51
CERS INS		KY Ins. CERS Plan Index		2,467,574,629.29	100.00	2.39	2.62	-1.54	-1.17	-0.21	-0.24	3.23	3.27	5.11	4.93	5.37	5.23	7.09	7.75	4.83	4.92	7.21	7.51
CERS - H INS		KY Ins. CERS Haz Plan Index		1,297,032,461.55	100.00	2.31	2.62	-1.50	-1.17	-0.14	-0.24	3.35	3.27	5.19	4.93	5.46	5.24	7.13	7.75	4.85	4.92	7.22	7.51
SPRS INS		KY Ins. SPRS Plan Index		198,376,770.41	100.00	2.31	2.62	-1.28	-1.17	0.24	-0.24	3.71	3.27	5.30	4.93	5.52	5.25	7.15	7.76	4.86	4.92	7.23	7.51

KERS INS		21.9		21.1	6.3	16.1	17.6	4.1	4.6	3.7	4.6
KERS-H INS	18.7		20.5		10.7	15.3	15.5	2.9	6.5	4.5	5.4
CERS INS	17.9		20.2		11.5	15.5	16.3	3.2	5.9	4.1	
CERS-H INS	17.5		20.0		12.3	15.2	15.9	3.3	6.1	4.3	
SPRS INS	18.4		20.3		12.3	13.9	16.1	3.3	6.4	4.3	
1											
09	% 10	0% 20% ■ US Eq	30% juity ■ Non US Equity ■ Privat	40 te Equity High Yield / S	0% 50 Specialty Credit ■ Core Fixed Ir	% 60% ncome Cash Real Estate	70%  © Opportunistic / Absolute Return	80%	90%	6	10

Note: The above chart displays the average monthly allocation