What’s going on in the marketplace?
The month of March was ugly. Global equity markets sold off dramatically in response to what amounted to a worldwide economic closure in efforts to contain the Coronavirus pandemic. Investors ran to perceived quality as economic growth and earnings became impossible to forecast with clarity. To add fuel to the fire, Saudi Arabia and Russia engaged in an oil supply dispute driving prices to record lows further pressuring economic markets. Bond indices in general held up much better than their equity counterparts, suffering modest declines. U.S. markets in general held up better than foreign markets as the Fed cut rates to nearly 0% and the government passed a $2 trillion rescue package.

The KRS investment portfolio returned -8.7% versus the benchmark of -9.2%.
The portfolio benefitted from its relative outperformance in the Specialty Credit segment of the portfolio in combination with its significant underweight position to the Real Return space, which struggled during the period (-14.0%). However, the portfolio’s relative outperformance was partially offset by weaker performance in the Core Fixed Income space manifesting itself in the short-term corporate credit arena. In addition, stock selection weakness within the Public Equity portfolio weighed on relative performance.

The fiscal year return to date now stands at -7.1% versus a benchmark return of -8.2%
The portfolio benefitted from relative outperformance in the Specialty Credit, Real Estate, and Non-U.S. Equity portfolios combined with the overweight to the Core Fixed Income and Cash allocations. The portfolio’s outperformance was hampered due to weakness in both the Short-term Corporate Credit and U.S. Equity allocations.

U.S. Equities
U.S. markets fell nearly -13.8% during the month per the Russell 3000. All market cap segments lost ground. That said, large caps provided the most shelter from what seemed like a free-fall as a big divide between their performance and mid- and small caps emerged (LC: -12.4% vs MC: -20.3% vs SC: -21.7%). As uncertainty surged in the market, value tumbled falling -17.6% as growth provided somewhat of a hedge, dropping -10.4%.

During the month, the KRS U.S. Equity portfolio trailed the Russell 3000 Index by 54bps. Attribution reports show that allocation and security selection positioning had about the same effect on relative performance. The overall portfolio position of being slightly smaller than the index in terms of market cap, and a slight value tilt hurt relative portfolio performance. Relative performance amongst the individual mandates was mixed, and to some degree was as much about allocation as stock selection, particularly in the all cap mandates.

During the first six months of the fiscal year, the KRS U.S. Equity portfolio returned -14.0%, falling -1.3% more than the Russell 3000. Stock selection has been positive among individual mandates with the exception of the factor-based portfolio (has suffered from its value tilt and smaller market capitalization than the SP500). Allocation decisions have hampered relative performance as a small cap bent and value tilt have been significant headwinds for the portfolio.

Non-U.S. Equities
Non-U.S. equity markets declined -15.1% for the month per the MSCI ACWI-Ex US Index. Developed markets (MSCI World Ex-US: -14.0%) held up better than their emerging counterparts (MSCI EM: -15.4%). Just as in the U.S., growth outpaced value, especially in the emerging markets where the spread between the two styles surpassed 400bps.
The KRS Non-U.S. Equity portfolio fell -15.6% during the month, trailing the benchmark by 50bps. KRS’ external MSCI ACWI Ex-US and MSCI EM individual mandates struggled during the period with five of the six relationships losing ground versus their respective indices. At a high level, relative performance attribution can be explained in equal parts stock selection and allocation decisions. Relative impacts from stock selection was split amongst individual mandates, while allocation in terms of size and style weighed on the portfolio.

For the fiscal year to date, the KRS Non-U.S. Equity portfolio has returned -17.7%, providing 88bps of downside protection. Strong results from two of the four active MSCI ACWI Ex-U.S. mandates have driven this relative outperformance.

**Fixed Income**
The flight to safety that took place during the month created a dichotomy in terms of performance between those segments of the market that are considered more risk-on and those more traditionally thought safer. The leveraged loan and corporate high yield markets fell -12.4% and -11.5%, respectively. The intermediate credit market lost -4.7%. The U.S. aggregate market held up the best falling just 59bps.

The KRS Specialty Credit allocation fell -5.7%, outpacing its benchmark that lost -11.9% during the month. Individual strategy relative performance was pretty evenly split; however, those that outperformed their respective indices, did so to a greater degree than those that underperformed their respective indices. The KRS Core Fixed Income portfolio lost ground to the Bloomberg Barclays Aggregate (-4.0% vs -0.6%). Relative performance was negatively impacted by the portfolio’s short-term credit investment, which fell -7.1%.

The KRS Specialty Credit allocation has returned -2.6% during the first nine months of the fiscal year, as the recent performance of the leveraged loan and corporate high yield markets weighed heavily on the allocation. The liquidity portion of the credit bucket is flat for the fiscal year, as the investments in the aggregate space (-5.7%) and short-term corporates (-4.3%) have offset one another.

**Alternative Assets**
The diversifying strategy group fell -8.3% during the month, with three of the four major portfolio segments losing ground during the period. The Real Estate portfolio was the only segment to provide a positive return and earned 1.7% during the month. The Absolute Return portfolio fared fairly well, falling just -2.3%. The Opportunistic and Real Return portfolios were hit hardest, falling -14.6% and -14.0%, respectively. The Private Equity portion of the portfolio returned 1.7% on the month.

After nine months, the Real Estate and Private Equity allocations added 10.0% and 6.7%, respectively. While the Real Return, Opportunistic, and Absolute Return portfolios have all lost ground, returning -15.4%, -8.7%, and -1.9%, respectively.

**Cash**
The Cash portfolio slightly trailed the 3-month T-Bill, returning 8bps versus 13bps. This brought the fiscal year return to 1.8%.

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**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) Private Equity Composite (Insurance)
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)

40.00% Barclays US Corporate High Yield 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)

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)

100.00% Russell 3000 Index + 3% (Qtr Lag)
07/01/11 to 12/31/15
100.00% Russell 3000 Index + 3% (Qtr Lag)
01/01/16 to Present
100.00% Russell 3000 Index + 3% (Qtr Lag)

50.00% Russell 3000 Index + 3% (Qtr Lag)
07/01/11 to 12/31/15
100.00% Russell 3000 Index + 3% (Qtr Lag)
01/01/16 to Present
100.00% Russell 3000 Index + 3% (Qtr Lag)

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: Russell 3000 Index+3% (10.0%)
Cash: Cit Grp 3-mos Treasury Bill (2.2%)

Pension 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: Russell 3000 Index+3% (10.0%)
Cash: Cit Grp 3-mos Treasury Bill (2.0%)

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: Russell 3000 Index+3% (10.0%)
Cash: Cit Grp 3-mos Treasury Bill (2.0%)

**Fund composite benchmark is a roll-up of individual plans, which may differ from one another.**
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<tr>
<th>Structure</th>
<th>benchmark</th>
<th>Inception</th>
<th>Market Value</th>
<th>1 Year</th>
<th>3 Years</th>
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**KENTUCKY RETIREMENT SYSTEMS - PENSION FUND - Total Net returns - 01/31/20**

**Table Note:**
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