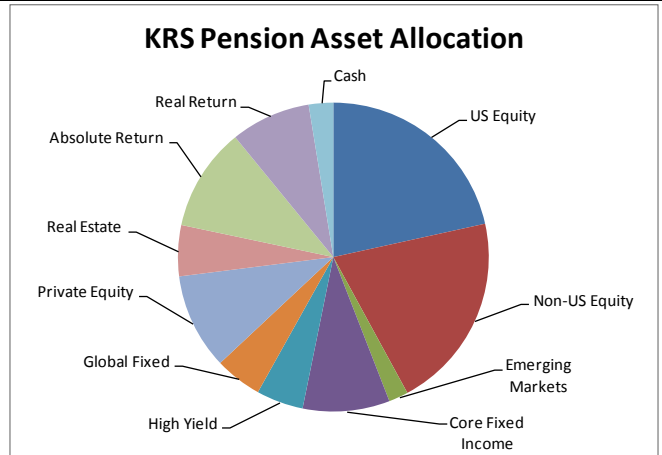


What’s going on in the marketplace?

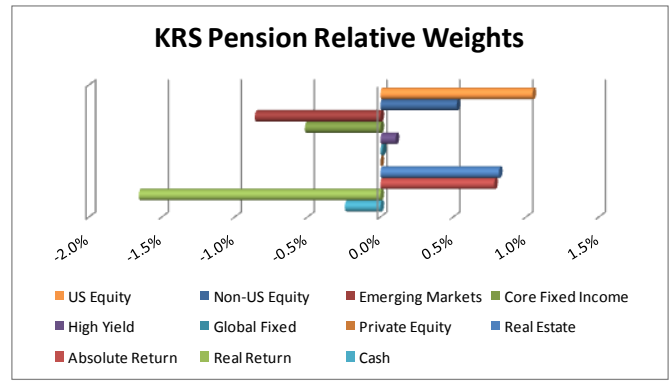
After a strong showing in October, stocks seemed to even out in November with early gains vanishing by mid-month to month end. Returns for U.S. Equities improved moving down the cap spectrum, with large caps earning 0.30% (S&P 500 Index), mid caps earning 1.35% (S&P Midcap 400 Index), and small caps earning 3.25% (Russell 2000 Index).

International equities on the whole showed negative performance for the month with the MSCI ACWI Ex US Index returning -2.05%; much of this underperformance was driven by Emerging Market equities which fell -3.89% (MSCI Emerging Market Index) as compared to developed international equities falling only -1.54% (MSCI EAFE Index).

Concerns over rate increases took its toll on the U.S. Bond Market in November. The Barclays U.S. Aggregate Bond Index fell -0.26 as the 10-year U.S. Treasury bond yield rose from 2.16% to 2.21% throughout November. High Yield bonds suffered even greater, with the Barclays U.S. Corporate High Yield bond index falling -2.22% for the month.



	Nov	1-Yr	3-Yr	5-Yr	10-Yr
Total Fund	-0.37	0.13	6.68	6.80	5.41
Benchmark	-0.50	0.87	7.39	7.27	5.72



What added value this month?

PENSION – From a manager selection standpoint the pension portfolio was able to add value in four asset classes: Non U.S. Equity, U.S. Equity, Emerging Market Equity, and Fixed Income. The relative manager outperformance that had the greatest impact on the total portfolio came from the Non U.S. Equity portfolio, which outperformed its benchmark by 60 basis points. The Emerging Market portfolio was able to outperform its benchmark by 81 basis points, and the US Equity portfolio was able to outperform by 13.

From an allocation standpoint, the portfolio benefited from an overweight to U.S. Equity, Real Estate, and Absolute Return due to the relatively strong performance of their benchmarks. The pension portfolio also benefited from an underweight to Emerging Markets and Real Return due to the weak performance of their respective benchmarks. In total, the pension portfolio returned -0.37% in November versus the benchmark return of -0.50%.

INSURANCE –The insurance portfolio had positive manager contribution in three portfolios: U.S. Equity, Non U.S. Equity, and Emerging Market Equity. Like in the pension portfolio, the manager contribution for the Non U.S. Equity portfolio had the greatest contribution to the total portfolio return due to its relatively large size. The Non U.S. Equity portfolio outperformed by 64 basis points, the Emerging Market Equity portfolio outperformed by 63 basis points, and the U.S. Equity portfolio outperformed by 16 basis points.

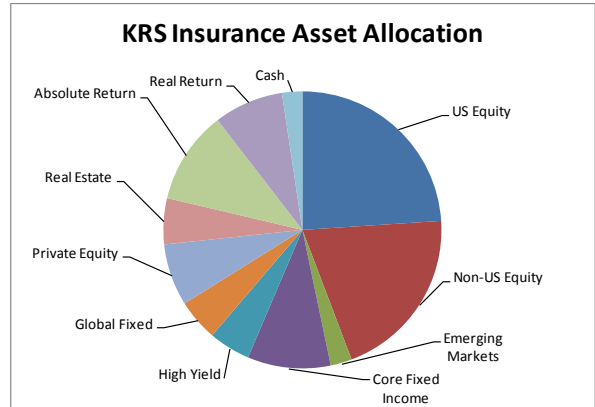
From an allocation standpoint, the insurance portfolio benefited from an underweight to Emerging Markets and Real Return due to their weak benchmark performance. The Insurance portfolio also benefited from an overweight to U.S.

Equity, Real Estate, and Absolute Return due to the relatively strong performance of their benchmarks. In total, the insurance portfolio earned -0.35% for the month of November compared to the benchmark return of -0.55%.

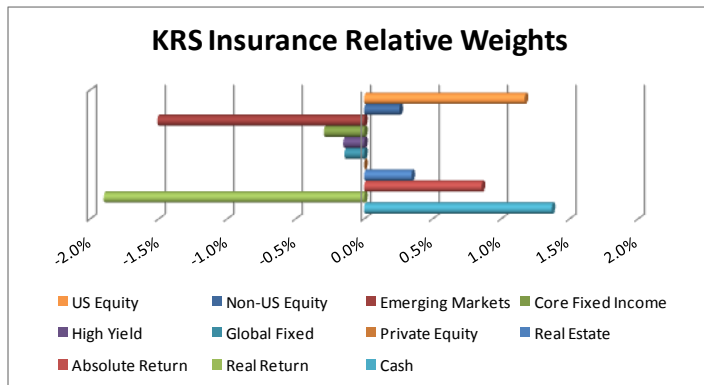
What detracted this month?

PENSION – The biggest detractor from a manager selection standpoint came from the Absolute Return portfolio, which underperformed its benchmark by 43 basis points. The only other detractor of performance came from the Real Return portfolio, which underperformed its benchmark by 37 basis points

From an allocation perspective the pension portfolio suffered most from an overweight to the Non U.S. Equity portfolio as indicated by the relatively weak performance of the MSCI ACWI Ex US Index. The portfolio also suffered from an underweight to Fixed Income due to its benchmark having a greater return than the overall pension portfolio.



	Nov	1-Yr	3-Yr	5-Yr	10-Yr
Total Fund	-0.35	3.26	6.27	6.45	4.66
Benchmark	-0.55	2.81	7.60	7.89	5.24



INSURANCE – From a manager selection standpoint the biggest detractor from performance came from the Absolute Return portfolio, which underperformed its benchmark by 39 basis points. Fixed Income and Real Return detracted value from a manager selection standpoint as well, underperforming their benchmarks

by 6 and 24 basis points respectively.

From an allocation standpoint, the insurance portfolio suffered from an underweight to Fixed Income as indicated by its strong benchmark performance compared to the overall insurance portfolio. The insurance portfolio also suffered from an overweight to Non U.S. Equity, due to the weak performance of the MSCI ACWI Ex US Index.

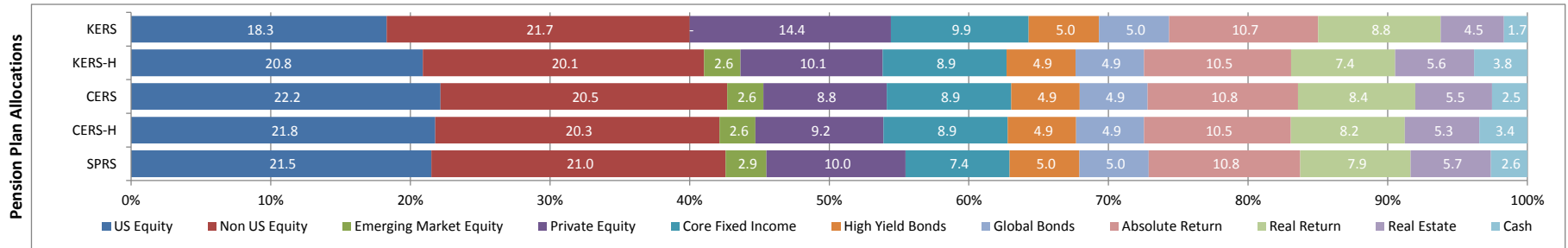
NOTES:

- 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).
- 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 Present
100.00% Russell 3000 Index + 4% (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 Present
100.00% Russell 3000 Index + 4% (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.

KENTUCKY RETIREMENT SYSTEMS - PENSION & INSURANCE - PLAN PERFORMANCE & ALLOCATION -11/30/15



KRS - PENSION

	Month	FYTD	1 YR	3 YR	5 YR	10 YR	ITD
KERS	-0.44	-1.67	0.24	6.54	6.71	5.37	9.14
KY Ret. KERS Plan Index	-0.56	-1.25	1.44	7.46	7.31	5.73	9.31
KERS- H	-0.38	-2.05	-0.06	6.49	6.68	5.35	9.13
KY Ret. KERS Haz Plan Index	-0.70	-2.02	0.31	7.18	7.14	5.65	9.28
CERS	-0.40	-2.23	-0.34	6.31	6.57	5.30	9.12
KY Ret. CERS Plan Index	-0.69	-2.08	0.12	7.13	7.12	5.64	9.28
CERS- H	-0.37	-2.02	0.00	6.55	6.71	5.37	9.14
KY Ret. CERS Haz Plan Index	-0.69	-2.06	0.16	7.15	7.12	5.64	9.28
SPRS	-0.38	-2.24	-0.34	6.46	6.66	5.34	9.13
KY Ret. SPRS Plan Index	-0.69	-2.04	0.28	7.14	7.12	5.64	9.28

KRS - INSURANCE

	Month	FYTD	1 YR	3 YR	5 YR	10 YR	ITD
KERS INS	-0.32	-2.01	-0.46	5.91	6.23	4.56	7.25
KY Ins. KERS Plan Index	-0.66	-2.14	-0.08	7.07	7.58	5.09	7.67
KERS - H INS	-0.34	-1.92	-0.05	6.32	6.48	4.68	7.30
KY Ins. KERS Haz Plan Index	-0.67	-2.02	0.21	7.18	7.64	5.12	7.69
CERS INS	-0.36	-1.86	0.17	6.35	6.50	4.69	7.30
KY Ins. CERS Plan Index	-0.69	-1.93	0.44	7.26	7.69	5.14	7.69
CERS - H INS	-0.35	-1.82	0.22	6.36	6.50	4.69	7.30
KY Ins. CERS Haz Plan Index	-0.69	-1.93	0.46	7.26	7.69	5.14	7.69
SPRS INS	-0.35	-1.83	0.17	6.34	6.49	4.69	7.30
KY Ins. SPRS Plan Index	-0.69	-1.90	0.54	7.29	7.71	5.15	7.70

