

What's going on in the marketplace?

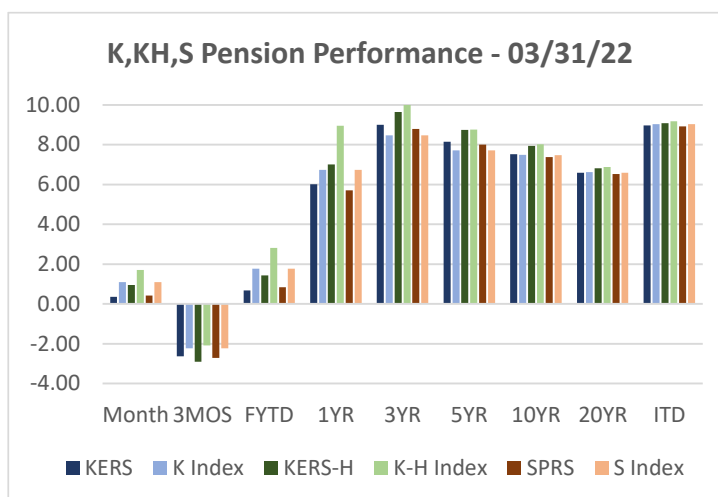
The strong rotation out of growth stocks and into value that began in November 2021 continued through the first quarter of 2022. This market shift was a reaction to a sharp increase in interest rates, a response to growing inflation by central banks. Markets were pressured by geopolitical and macroeconomic factors. Volatility heightened in response to Russia's attack on Ukraine, as investors expressed concern over further supply chain disruptions, and the potential for impending commodity price shocks as scarcity fears increased. China's zero covid policy lockdowns only added to tensions surrounding supply chains. All of these headwinds culminated in a fear of slowing growth, sparking a rotation into more defensive areas of the market as growth multiples collapsed. Individual companies will be challenged in the near-term as rising input costs and increasing labor expenditures weigh on margins, and therefore pressure earnings. Ultimately, there were few places to hide during the quarter, as markets were significantly lower, despite a rebound in March.

The KPPA investment portfolio returned just under 1% for the month of March, bringing the first quarter return to -2.7% and the fiscal year return to 1.6%. Private equity (+3.9%) and US equity (+2.8%) drove performance for the month. However, public equities weighed on the portfolio during the quarter (-6.5%). This was partially offset by the real return portfolio (+0.8%) and specialty credit portfolio (-0.5%) which held up relatively well. The overweight to cash helped during a volatile period. For the fiscal year, all asset classes worked to push the portfolio northward with the exception of Core Fixed Income (-3.5%) and NonUS equities (-9.0%), whose weakness for the 9-month period was almost entirely attributable to January and February's steep decline.

US equity markets returned 3.2% during the month (R3000), and the KPPA portfolio returned 2.8%. Underperformance was driven by a small market cap tilt (SP500 3.7% vs R2000 1.2%), and relative weakness in the all cap mandates. The KPPA US equity portfolio held up slightly better than the market during the quarter despite being smaller, thanks to a slight value tilt (R3000V -0.9% vs R3000G -9.3%). For the fiscal year, the portfolio has trailed the R3000 by 16bps (3.2% vs 3.4%) due in part to weaker stock selection across several mandates.

NonUS equity markets were positive on the month (MSCI ACWI Ex-US 0.3%), and the KPPA portfolio performed in line with the index. For the quarter, the KPPA portfolio underperformed the index (-8.2% vs -5.6%). The significant underperformance was due to weakness across the growth portion of the portfolio, and one of the relative value mandates was unable to capture its style tailwind due to a couple of Russian names weighing on the portfolio. For the fiscal year, the portfolio has underperformed (-9.0% vs -6.5%), having been heavily influenced by the first quarter of 2022.

The specialty credit portion of the portfolio which includes High Yield has produced strong positive performance and added value over its IPS index, outperforming by 50bps during the month, 290bps during the quarter and 390bps for fiscal year to date. FYTD all individual mandates have outperformed their respective benchmarks except 1 which still produced positive performance. FYTD within the overall asset category, specialty credit was the largest contributor to positive absolute performance and relative outperformance as the mandates produced positive performance while the public high yield and



loan markets struggled with headwinds from rising rates and spreads.

The core fixed income portfolio, produced negative absolute performance during the month, quarter and FYTD, as public fixed income markets faced sharply rising rates, flattening yield curves and widening spreads. The portfolio continues to perform well in relative terms with the KPPA portfolio outperforming the Bloomberg Aggregate Index for the month by 101bps, for the quarter by 262bps, and for the FYTD by 242bps. The portfolio benefitted from its shorter duration profile and tactical allocation to front end investment grade credit, which outperformed during the market volatility.

The private equity allocation returned 4.4% during the quarter, bringing the fiscal year return to 20.7%. It should be noted that the asset class is reported on a quarter lag, so the volatile first quarter of 2022 is not yet reflected in these performance figures. Staff anticipates that the reported performance may be adversely impacted when it is captured.

The real return portfolio returned 0.8% during the first quarter and brought the fiscal year performance to just over 4%. Helped by broad commodity price increases, investments in agriculture, mine financing, and MLPs drove a significant portion of performance. The Alerian MLP Index was up nearly 20% for the quarter.

Real estate has performed well for several quarters, and has been one of the best performing asset classes for the portfolio. The allocation returned 7.2%, bringing the fiscal year performance to 20.1%, and has been driven by continued strength in industrial and multi-family properties. It should be noted that this asset class is also reported on quarter lag, and another strong quarter of appreciation in the first quarter of calendar 2022 is not reflected in these performance figures.

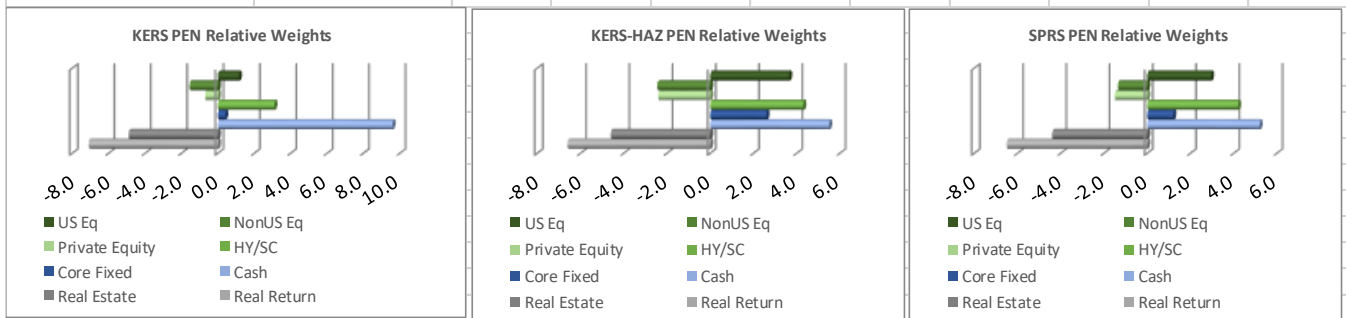
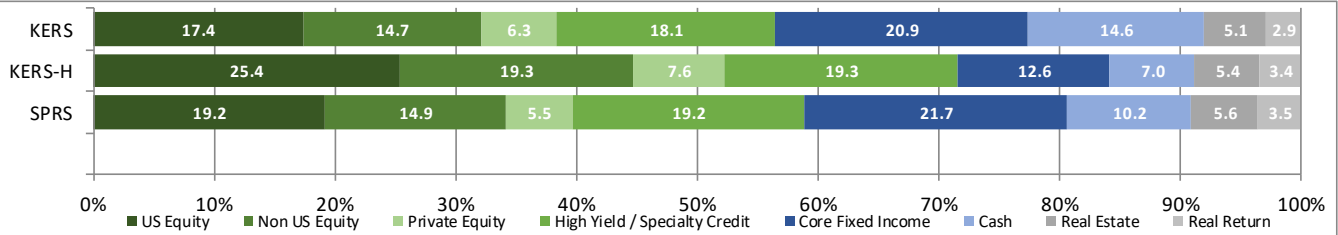
The cash portfolio performed in line with the 3-month T-bill for all periods. The overweight to cash helped bolster the total portfolio during a volatile quarter; however, it has been a headwind for the fiscal year.

KERS, KERS-HAZ, & SPRS - PENSION FUND - PLAN NET RETURNS - 03/31/22

Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	ITD
KERS	3,176,183,177.12	0.35	-2.64	0.68	6.01	9.01	8.15	7.53	6.60	8.97
KY Ret. KERS Plan Index		1.09	-2.23	1.77	6.74	8.47	7.72	7.50	6.62	9.03
KERS- H	880,776,836.91	0.95	-2.90	1.44	7.01	9.64	8.74	7.95	6.81	9.08
KY Ret. KERS Haz Plan Index		1.70	-2.09	2.82	8.96	10.00	8.77	8.03	6.88	9.18
SPRS	352,246,009.42	0.42	-2.71	0.84	5.71	8.79	8.01	7.38	6.53	8.93
KY Ret. SPRS Plan Index		1.09	-2.23	1.77	6.74	8.47	7.72	7.47	6.60	9.03

KPPA PENSION FUND UNIT - NET RETURNS - 03/31/22 - PROXY PLAN ASSET PERFORMANCE

Structure	Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	ITD
GROWTH	1.45	-3.72	1.24	8.21	12.17				10.34
Growth Custom Benchmark	1.47	-2.98	1.36	7.44	13.83				11.45
PUBLIC EQUITY	1.66	-6.53	-2.68	3.96	13.10	11.26	9.79	7.25	10.58
Global Equity Blended Index	1.77	-5.42	-1.57	5.27	13.05	11.21	9.74	7.27	10.45
US PUBLIC	2.79	-5.19	3.24	11.26	17.78	14.69	13.59	9.07	11.72
KY Domestic Equity Blend	3.24	-5.28	3.40	11.92	18.24	15.40	14.28	9.49	11.81
EQUITY NON US	0.24	-8.22	-8.96	-3.62	8.27	7.92	6.52	6.26	3.72
KY Ret.Int'l Eq. Blended Index	0.28	-5.60	-6.50	-1.27	7.87	6.98	5.90	6.26	3.88
PRIVATE EQUITY	3.92	4.38	20.66	40.86	21.11	18.29	15.24		12.61
Russell 3000 + 3%(Qtr Lag)	3.92	4.38	20.66	40.86	21.11	18.29	19.61		13.19
HIGH YIELD / SPECIALTY CREDIT	-0.02	-0.45	3.05	6.01	6.20				6.11
High Yield Custom Benchmark	-0.55	-2.48	-0.79	1.30	4.42				4.28
FIXED INCOME / LIQUIDITY	-1.13	-2.36	-2.46	-1.78	2.29				2.87
Liquidity Custom Benchmark	-2.59	-5.53	-5.47	-3.86	1.63				2.48
CORE FIXED INCOME	-1.71	-3.31	-3.45	-2.66	2.57	2.76			2.84
Bloomberg Barclays US Aggregate	-2.78	-5.93	-5.87	-4.15	1.69	2.14			2.41
CASH	0.01	0.02	0.07	0.08	0.91	1.31	0.89	1.63	3.33
Citigroup Treasury Bill-3 Month	0.02	0.03	0.05	0.06	0.76	1.09	0.60	1.20	2.91
DIVERSIFYING STRATEGIES	1.77	3.65	10.70	16.93	9.08				8.17
Diversifying Strategies Custom	2.47	3.24	8.92	11.90	7.15				6.50
REAL ESTATE	2.08	7.17	20.08	25.93	13.84	12.42	10.87	8.08	6.77
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index	7.66	7.66	18.78	21.02	8.23	7.74	9.43	7.30	6.61
REAL RETURN	1.32	0.78	4.18	10.49	6.16	4.78	3.79		4.40
Pension Real Return Custom Benchmark	1.32	0.78	4.18	10.49	6.16	4.78	3.59		3.62

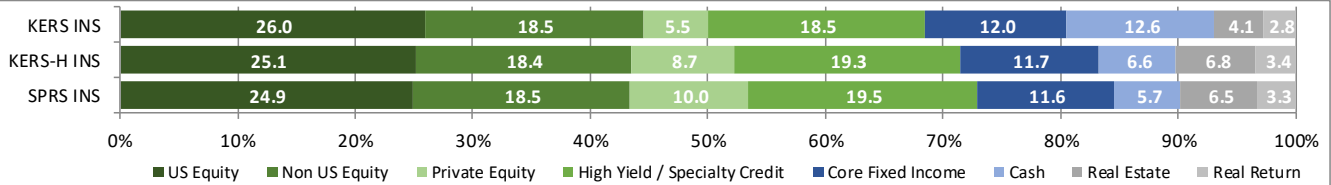


KERS INS, KERS-HAZ INS, SPRS INS - INSURANCE FUND - PLAN NET RETURNS - 03/31/22

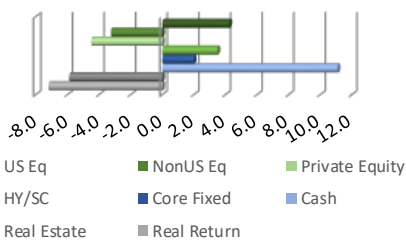
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	ITD
KERS INS	1,389,028,654.52	0.90	-3.05	0.91	6.12	9.41	8.31	7.48	6.13	7.46
KY Ins. KERS Plan Index		1.78	-2.04	3.22	8.74	9.83	8.64	7.98	6.52	7.85
KERS - H INS	625,937,358.03	1.13	-2.51	2.35	7.81	9.64	8.76	7.83	6.30	7.56
KY Ins. KERS Haz Plan Index		1.78	-2.04	3.22	8.74	9.65	8.60	7.97	6.52	7.85
SPRS INS	247,435,683.70	1.14	-2.50	2.50	8.01	9.96	9.09	8.01	6.39	7.61
KY Ins. SPRS Plan Index		1.78	-2.04	3.22	8.74	9.65	8.62	7.98	6.53	7.85

KPPA INSURANCE FUND UNIT - NET RETURNS - 03/31/22 - PROXY PLAN ASSET PERFORMANCE

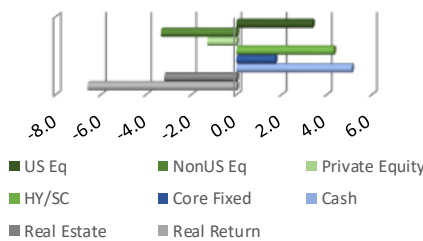
Structure	Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	ITD
GROWTH	1.61	-3.38	1.94	8.41	11.76				9.97
Growth Custom Benchmark	1.47	-2.98	1.36	7.44	13.83				11.45
PUBLIC EQUITY	1.67	-6.43	-2.59	4.06	13.11	11.23	9.84	7.26	8.98
Global Equity Blended Index	1.76	-5.42	-1.61	5.21	13.01	11.18	9.70	6.90	8.80
US PUBLIC	2.81	-5.03	3.43	11.44	17.79	14.70	13.69	9.04	10.39
KY Domestic Equity Blend	3.24	-5.28	3.40	11.92	18.24	15.40	14.28	9.28	10.37
EQUITY NON US	0.23	-8.18	-8.97	-3.64	8.23	7.82	6.39	6.62	3.69
KY Ret.Int'l Eq. Blended Index	0.28	-5.60	-6.50	-1.27	7.87	6.98	5.90	6.11	3.17
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HIGH YIELD / SPECIALTY CREDIT	0.03	-0.29	3.07	6.00	6.03				5.86
Bloomberg Barclays US High Yield	-0.55	-2.48	-0.79	1.30	4.42				4.28
FIXED INCOME / LIQUIDITY	-1.03	-2.16	-2.18	-1.49	2.31				2.87
Liquidity Custom Benchmark	-2.59	-5.53	-5.47	-3.86	1.63				2.48
CORE FIXED INCOME	-1.72	-3.37	-3.43	-2.60	2.42	2.69			2.56
Bloomberg Barclays US Aggregate	-2.78	-5.93	-5.87	-4.15	1.69	2.14			2.41
CASH	0.01	0.02	0.06	0.07	0.74	1.14	0.74	1.45	2.44
Citigroup Treasury Bill-3 Month	0.02	0.03	0.05	0.06	0.76	1.09	0.60	1.20	2.32
DIVERSIFYING STRATEGIES	1.62	2.94	9.96	15.67	9.05				8.13
Diversifying Strategies Custom	2.47	3.24	8.92	11.90	7.15				6.50
REAL ESTATE	2.00	6.96	19.54	25.41	13.77	12.39	10.69		10.29
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index ^A	7.66	7.66	18.78	21.02	8.23	7.74	9.43		6.56
REAL RETURN	1.02	-0.42	3.17	8.69	6.21	4.77	3.63		4.21
Pension Real Return Custom Benchmark	1.02	-0.42	3.17	8.69	6.21	4.77	3.64		3.67



KERS Insurance Relative Weights



KERS-HAZ Insurance Relative Weights



SPRS Insurance Relative Weights

