July 2022	KPPA MONTHLY PERFORMANCE UPDATE	KERS/KERS-H/SPRS

What's going on in the marketplace?
Weaker economic data (and perhaps a bit of a rebound after a tough June) led to a rally of global equity markets. Investors' sentiment shifted as markets began anticipating less Central Bank tightening and even began to price in the prospects of interest rate cuts in 2023 following signs of a slowing global economy. Market gains were broad as US stocks outpaced their international counterparts. Fixed Income markets rose as bond yields fell and credit spreads narrowed. Like in the equity markets, US bond markets outperformed their NonUS counterparts.

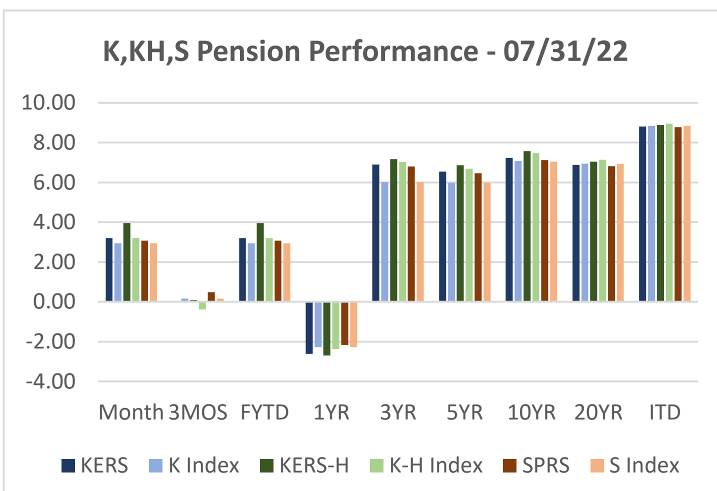
The KPPA pension investment portfolio returned 4.0% during the month of July, outperforming its benchmark by 0.7%. The KRS Pension Composite returned 3.3% during the month with the KERS and SPRS Pension portfolios returning 3.2% and 3.1%, respectively, while their benchmark returned 3.0%. The KERS-H Pension portfolio returned 4.0% versus its benchmark return of 3.2%. All three funds outperformed their respective benchmarks with similar drivers of attribution. Relative outperformance was a product of solid performance in the Public Equity and Real Estate allocations of the portfolios versus their respective benchmarks; this was partially offset higher cash balances during a strong market period.

Global equity markets experienced a strong rebound in July, with the MSCI ACWI returning 7.0%%. US markets outperformed their International market counterparts (up 9.4% versus up 3.8%).

US equity markets gained 9.4% during the month (Russell 3000), the KPPA portfolio fared slightly better, returning 9.5%. While all market segments performed well, midcaps were the best performers, returning 10.9%, followed by small caps (10.45%) and large caps (9.2%). From a style perspective, growth significantly outperformed value (R300G: 12.0% vs R3000V: 6.8%). The KPPA portfolio's relative outperformance was driven by a combination of stock selection and allocation. A number of the individual strategies outpaced their respective indices, and the overweight to small caps proved beneficial during the period.

NonUS equity markets gained 3.8% (MSCI ACWI Ex-US) during the month. Developed markets returned 5.0% (MSCI World Ex-US) during the period while emerging markets fell 25bps (MSCI EM) in response to higher commodity prices and interest rates, along with geopolitical pressures, such as China and a strengthening USD. Small caps performed even better, gaining 5.8%. The KPPA portfolio gained 5.0% during the month, outpacing its benchmark by 120bps. All but one individual mandate produced relative outperformance. Those strategies with a growth tilt and small cap bias performed extremely well. The slight overweight to emerging markets tempered the allocations overall outperformance.

The specialty credit portfolio underperformed its benchmark during the month, returning 1.5% versus 4.0%. The High Yield market rallied sharply as rates fell and credit spreads snapped tighter supported by risk-on sentiment. Leveraged loans rebounded as well but failed to keep pace given their lower sensitivity to rates. Relative underperformance was due primarily to security selection with certain mandates struggling to match the performance of their stated benchmarks.



The core fixed income portfolio returned 1.3% compared to the Bloomberg Aggregate Index return of 2.4%. Relative underperformance was attributable to positioning with the allocation; the portfolios remain underweight overall duration given the outlook for rising rates and elevated volatility.

The private equity allocation was flat during the month. The 1-year return remains in excess of 22%.

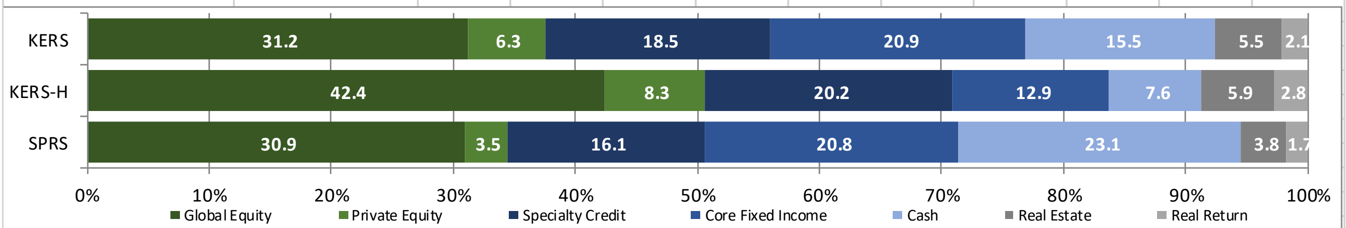
The real return portfolio gained 4.0% during the month, compared to its benchmark return of 1.6%. Performance was driven almost entirely by the MLP portion of the portfolio, which gained 12.6%.

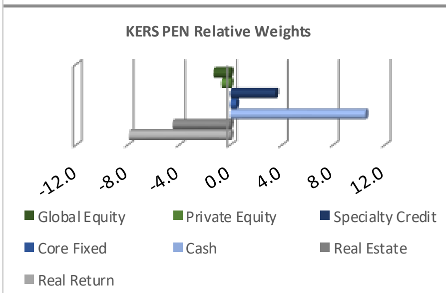
Real estate continued to perform well, returning another 3.1% for the month, bringing the 1-year return to 27.6%. The portfolio continues to benefit from strength in industrial, multi-family, and storage properties.

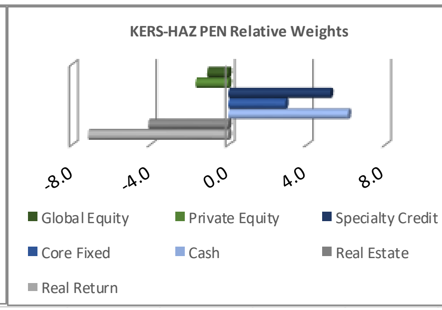
The cash portfolio outperformed its benchmark, the 3-month T-bill for the month returning 0.2% versus 0.1% for the benchmark.

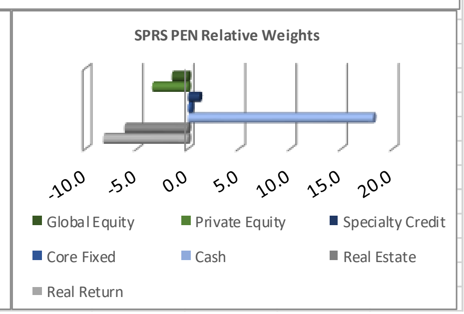
KERS, KERS-HAZ, & SPRS - PENSION FUND - PLAN NET RETURNS - 07/31/22											
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
KERS	**3,155,573,241.05**	**3.20**	**-0.01**	**3.20**	**-2.61**	**6.90**	**6.55**	**7.24**	**6.88**	**7.69**	**8.81**
KY Ret. KERS Plan Index		2.95	0.17	2.95	-2.28	6.02	5.98	7.07	6.94	7.62	8.85
KERS- H	**848,048,981.67**	**3.96**	**0.09**	**3.96**	**-2.69**	**7.17**	**6.87**	**7.57**	**7.04**	**7.80**	**8.89**
KY Ret. KERS Haz Plan Index		3.20	-0.38	3.20	-2.38	7.03	6.69	7.47	7.14	7.75	8.95
SPRS	**559,310,572.33**	**3.07**	**0.48**	**3.07**	**-2.17**	**6.80**	**6.47**	**7.13**	**6.82**	**7.65**	**8.78**
KY Ret. SPRS Plan Index		2.95	0.17	2.95	-2.28	6.02	5.98	7.04	6.93	7.61	8.84

KPPA PENSION FUND UNIT - NET RETURNS - 07/31/22 - PROXY PLAN ASSET PERFORMANCE										
Structure	Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY	**7.62**	**7.62**	**7.62**	**-12.24**	**8.04**	**7.53**	**9.28**	**7.78**	**8.67**	**10.20**
Global Equity Blended Index	6.98	6.98	6.98	-11.37	7.95	7.40	9.10	7.82	8.46	10.05
PRIVATE EQUITY	**-0.01**	**-0.01**	**-0.01**	**22.68**	**19.55**	**17.27**	**14.72**	**12.85**		**12.48**
Russell 3000 + 3%(Qtr Lag)	-8.43	-8.43	-8.43	-0.11	16.16	16.04	16.60	12.67		12.23
HIGH YIELD / SPECIALTY CREDIT	**1.52**	**1.52**	**1.52**	**2.27**	**5.15**	**5.34**				**5.63**
High Yield Custom Benchmark	4.02	4.02	4.02	-4.33	2.28	3.16				3.29
CORE FIXED INCOME	**1.33**	**1.33**	**1.33**	**-4.46**	**1.37**	**2.20**				**2.64**
Bloomberg Barclays US Aggregate	2.44	2.44	2.44	-9.12	-0.21	1.28				2.05
CASH	**0.15**	**0.15**	**0.15**	**0.39**	**0.73**	**1.31**	**0.91**	**1.61**	**2.70**	**3.30**
Citigroup Treasury Bill-3 Month	0.10	0.10	0.10	0.29	0.58	1.09	0.63	1.19	2.30	2.89
REAL ESTATE	**3.10**	**3.10**	**3.10**	**27.60**	**16.75**	**14.04**	**11.58**	**8.48**	**6.72**	**6.97**
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	0.00	0.00	0.00	27.26	10.30	8.90	9.91	7.66	7.55	6.74
REAL RETURN	**4.03**	**4.03**	**4.03**	**6.84**	**6.29**	**4.86**	**3.58**			**4.48**
Pension Real Return Custom Benchmark	1.58	1.58	1.58	10.01	7.33	5.44	3.94			3.99









KERS INS, KERS-HAZ INS, SPRS INS - INSURANCE FUND - PLAN NET RETURNS - 07/31/22

Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
KERS INS	**1,340,404,108.54**	**3.88**	**0.33**	**3.88**	**-2.98**	**7.09**	**6.52**	**7.16**	**6.64**	**6.82**	**7.29**
KY Ins. KERS Plan Index		3.20	-0.38	3.20	-2.02	6.90	6.60	7.45	7.12	7.20	7.62
KERS - H INS	**600,156,044.98**	**3.84**	**0.34**	**3.84**	**-1.40**	**7.36**	**7.00**	**7.53**	**6.82**	**6.94**	**7.39**
KY Ins. KERS Haz Plan Index		3.20	-0.38	3.20	-2.02	6.73	6.54	7.44	7.12	7.19	7.62
SPRS INS	**237,460,841.07**	**3.88**	**0.32**	**3.88**	**-1.30**	**7.64**	**7.29**	**7.70**	**6.91**	**7.00**	**7.44**
KY Ins. SPRS Plan Index		3.59	0.20	3.59	-1.21	7.03	6.80	7.62	7.21	7.25	7.67

KPPA INSURANCE FUND UNIT - NET RETURNS - 07/31/22 - PROXY PLAN ASSET PERFORMANCE

Structure	Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY	**7.64**	**7.64**	**7.64**	**-12.11**	**8.07**	**7.52**	**9.30**	**7.73**		**8.52**
Global Equity Blended Index	6.98	6.98	6.98	-11.40	7.92	7.36	9.05	7.44		8.33
PRIVATE EQUITY	**-0.09**	**-0.09**	**-0.09**	**30.12**	**17.57**	**16.57**	**15.41**	**12.14**		**11.38**
Russell 3000 + 3%(Qtr Lag)	-8.43	-8.43	-0.11	-0.11	16.16	16.04	16.60	12.25		11.76
HIGH YIELD / SPECIALTY CREDIT	**1.46**	**1.46**	**1.46**	**2.43**	**5.03**	**5.30**				**5.42**
Bloomberg Barclays US High Yield	4.02	4.02	4.02	-4.33	2.28	3.16				3.29
CORE FIXED INCOME	**1.38**	**1.38**	**1.38**	**-4.73**	**1.16**	**2.08**				**2.35**
Bloomberg Barclays US Aggregate	2.44	2.44	2.44	-9.12	-0.21	1.28				2.05
CASH	**0.14**	**0.14**	**0.14**	**0.37**	**0.57**	**1.14**	**0.76**	**1.44**		**2.42**
Citigroup Treasury Bill-3 Month	0.10	0.10	0.10	0.29	0.58	1.09	0.63	1.19		2.30
REAL ESTATE	**3.08**	**3.08**	**3.08**	**27.40**	**16.68**	**14.02**	**11.38**			**10.81**
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	0.00	0.00	0.00	27.26	10.30	8.90	9.91			6.94
REAL RETURN	**3.23**	**3.23**	**3.23**	**5.55**	**6.33**	**4.86**	**3.39**			**4.30**
Pension Real Return Custom Benchmark	1.58	1.58	1.58	8.69	7.37	5.47	4.00			4.04