What's going on in the marketplace?

During the month of February, investors' hopes that central banks would slow or even temper the fight against inflation were dashed as economic data came in stronger-than-expected. In response, both stocks and bonds fell as markets anticipated additional interest rate hikes and the potential that rates could remain higher for longer increasing the risk of recession. International developed markets held up better than domestic markets, while emerging markets significantly underperformed. Bond prices declined in response to increased yields and credit spreads widened on rising economic uncertainty.

The KPPA Pension Trust portfolio returned -1.24% during the month of February, underperforming its blended benchmark return of -1.04%. The KRS Pension Composite produced a -1.01% return during the month. The KERS and SPRS Pension portfolios returned -0.96% and -0.98% respectively, while their benchmark fell -1.02%. Both funds outperformed their respective benchmarks due to similar drivers of attribution. The portfolios benefited from solid relative performance in the core fixed income and public equity spaces combined with an overweight to cash during a difficult market environment. Partially offsetting relative performance, was weakness in the private equity portfolio and the underweight to real return, one of the few asset classes that held up during the month. The KERS-H Pension portfolio fell -1.23% versus its benchmark return of -0.92%. The biggest detractors to relative performance being the underweight to the real return asset class and weakness in private equity. This was partially offset by relative strength from the core fixed income and public equity portfolios.

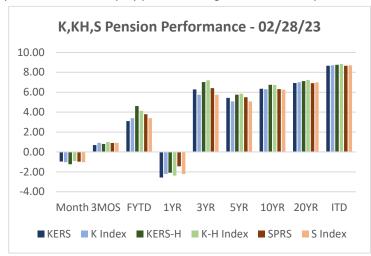
For the fiscal year, the KPPA Pension Trust portfolio gained 4.58%, outperforming the benchmark return 3.98%, while the KRS Pension Composite returned 3.47%. The KERS and SPRS Pension portfolios returned 3.11% and 3.79%, against a benchmark return of 3.39%. The KERS-H Pension portfolio gained 4.61% while its benchmark returned 4.13%.

Global equity markets were weaker during the month, as evidenced by the MSCI ACWI Index falling -2.87%. US markets outpaced their international market counterparts (R3000: -2.34% versus MSCI ACWI Ex-US: -3.38%). This brought the fiscal year return for global equity markets to 6.47% (KPPA global equity portfolio: 8.90%).

US equity markets fell -2.34% during the month (Russell 3000), while the KPPA portfolio slightly underperformed, returning -2.41%. All market segments were weaker (LC: -2.44%, MC: -1.81%, SC: -1.69%); with growth holding up better than value (R3000G: -1.18% versus R3000V: -3.45%). For the fiscal year, the KPPA US Equity portfolio has gained 7.50% compared with

its benchmark return of 6.89%. Relative outperformance has been driven by the portfolio's slight overweight down market cap and to value.

NonUS equity markets returned -3.38% (MSCI ACWI Ex-US) during the month. Developed markets returned -2.32% (MSCI World Ex-US) during the period while emerging markets fell -6.48% (MSCI EM). The KPPA portfolio returned -2.31% during the month, providing 107bps of downside protection. Relative outperformance was driven by stock selection, as all individual mandates bested their respective



benchmarks. The fiscal year return now stands at 10.79% versus 7.56%.

The specialty credit portfolio outperformed its benchmark during the month, returning -0.13% versus -0.35%. The high yield market fell -1.29%, driven by the impact of rising rates which was partially offset by modestly tighter spreads. Leveraged loans were able to gain 0.58% during the period attributable to their lower rate sensitivity. For the fiscal year to date, the portfolio has underperformed its benchmark, gaining 3.50% versus 6.76%. The reported relative underperformance is largely driven by the issues associated with timing differences between the private market mandates and the public market benchmarks which tend to be exacerbated during periods of larger moves in the public markets. Individual strategy relative performance has been mixed fiscal year to date (though tilted positively), especially with private market pricing playing catchup, but continues to produce strong relative performance over longer periods.

The core fixed income portfolio fell -87bps compared to the Bloomberg Aggregate Index return of -2.59% as signs that inflation continued to remain stubbornly high and economic data strengthened despite central bank efforts to date shifted market expectations toward even higher rates. Relative outperformance continues to be attributable to positioning within the allocation; the portfolios have remained underweight overall duration given the potential for higher rates and continued volatility. This underweight is slowing being reduced given the magnitude and pace of the tightening already realized and the elevated uncertainty of the outlook. Both shorter-term and intermediate credit market segments held up better. For the fiscal year, the portfolio has returned 0.24% compared to the benchmark return of -2.57%.

The private equity allocation fell -15bps during the month, bringing the fiscal year to date return to -6.04%. Trailing public marks have significantly affected the overall performance of the portfolio, and the portfolio's 1-year return crossed into negative territory recently coming in at -0.70% at the end of February.

The real return portfolio fell -39bps during the month, compared to its benchmark return of 1.03%. As with several of the previous months, performance was driven by the MLP portion of the portfolio (approximately 40% of the allocation); which lost -1.08%. For the fiscal year, the portfolio has returned 9.63% versus the benchmark return of 4.32%.

The real estate portfolio fell -0.25% during the month of February. The 1-year return now stands at 10.03% versus the 20.96% return of its benchmark. This benchmark will fall to 6.5% next quarter as the negative impact of higher interest rates on 4Q 2022 valuations show up in the quarterly lagged returns. However, for calendar year 2022, all three of KPPA's open-end real estate funds (approximately 75% of the allocation) outperformed the benchmark by at least 250bps.

The cash portfolio returned 0.28% during the month compared with the 3-month T-bill's 0.35%. This brought the fiscal year return to 1.99%, slightly trailing the benchmark return of 2.06%. The relative underperformance of the cash portfolio is most attributable to lower rates offered by overnight repurchase agreements relative to the yields of the 3-month T-bill.

	KER	S, KERS-HAZ,	& SPRS - P	ENSION FUN			- 02/28/23				
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
KERS	3,309,329,386.75	-0.96	0.70	3.11	-2.57	6.29	5.43	6.35	6.93	7.46	8.6
KY Ret. KERS Plan IPS Ind	ex	-1.02	0.92	3.39	-2.22	5.76	5.08	6.30	7.01	7.44	8.7
KERS- H	855,850,886.56	-1.23	0.81	4.61	-2.09	7.02	5.75	6.75	7.13	7.60	8.7
KY Ret. KERS Haz Plan IPS	Index	-0.92	1.00	4.13	-2.38	7.20	5.85	6.74	7.24	7.59	8.8
SPRS	567,240,010.86	-0.98	0.91	3.79	-1.44	6.42	5.50	6.32	6.91	7.45	8.6
KY Ret. SPRS Plan IPS Ind	ex	-1.02	0.92	3.39	-2.22	5.76	5.08	6.27	7.00	7.43	8.7
	KPPA PENSI	ON FUND UN	IT - NET RE	TURNS - 02/2	28/23 - PROX	KY PLAN ASS	ET PERFORM	MANCE			
Structure		Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY		-2.37	5.02	8.90	-6.78	8.94	5.79	7.93	8.33	8.43	10.0
MSCI ACWI		-2.87	4.10	6.47	-8.61	8.35	5.34	7.62	8.23	8.19	9.
RIVATE EQUITY		-0.15	-0.05	-6.04	-0.70	16.09	14.16	13.38	12.72		11.
Russell 3000 + 3%(Qtr La	g)	5.32	13.16	-7.77	-7.80	13.32	13.35	16.15	12.65		11.
PECIALTY CREDIT		-0.13	1.18	3.50	1.61	4.86	4.99				5.
50% BB US HY / 50% SP LS	TA Leveraged Loan	-0.35	2.87	6.76	-1.40	2.64	3.31				3.
ORE FIXED INCOME		-0.87	0.78	0.24	-3.55	-0.33	2.09				2.
Bloomberg Barclays US A	Aggregate	-2.59	0.41	-2.57	-9.72	-3.77	0.53				1.
CASH		0.28	0.56	1.99	2.19	0.84	1.44	1.08	1.65	2.70	3.
Citigroup Treasury Bill-3	Month	0.35	0.72		2.22	0.86	1.35	0.81	1.24	2.31	2.
REAL ESTATE		-0.25	-2.71		10.03	13.09	12.34	10.79	8.50	6.69	6.
NCREIF NFI-ODCE Net 1 Q	tr in Arrears Index^	0.00	0.00		20.96	11.38	9.26	9.91	7.78	7.85	6.
REAL RETURN	l m / m cars m acx	-0.39	1.79		9.23	8.71	5.87	3.85	7.170	7.03	4.
US CPI +3%		1.03	0.97		9.61	8.83	5.94	4.01			4.0
KERS	31.8	4.	7	18.0		19	.6		18.0	5.7	7 2.1
KERS-H	43.6			7.2		20.6		12.6	6.	8 6.2	2.9
SPRS	32.8	2.	9	16.4		20.2		22.0		4.0 1.8	
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	KERS INS, KE	RS-HAZ IN	S, SPRS INS -	INSURANCE	FUND - PLA	N NET RETU	RNS - 02/28	3/23					
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD		
KERS INS	1,373,008,231.67	-1.18	0.88	5.04	-1.43	7.15	5.56	6.41	6.92	6.63	7.20		
KY Ins. KERS Plan IPS Inde	х	-0.92	1.00	4.13	-2.30	6.98	5.75	6.73	7.45	7.02	7.52		
KERS - H INS	594,275,342.68	-1.20	0.71	4.57	-1.37	7.23	5.87	6.74	7.08	6.75	7.29		
KY Ins. KERS Haz Plan IPS	ndex	-0.92	1.00	4.13	-2.30	6.96	5.69	6.72	7.45	7.01	7.52		
SPRS INS	236,190,502.08	-1.24	0.73	4.56	-1.47	7.45	6.11	6.90	7.16	6.80	7.34		
KY Ins. SPRS Plan IPS Inde	x	-0.92	1.00	4.13	-2.30	6.96	5.69	6.73	7.45	7.02	7.52		
	KPPA INSURANC	CE FUND UI	NIT - NET RE	TURNS - 02/	28/23 - PRO	XY PLAN ASS	ET PERFORI	MANCE	1				
Structure		Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD		
PUBLIC EQUITY		-2.38	5.03	8.88	-6.74	8.99	5.77	7.97	8.21		8.39		
MSCI ACWI		-2.87	4.10	6.47	-8.62	8.32	5.30	7.59	7.89		8.14		
PRIVATE EQUITY		-0.13	-0.04	-2.58	5.43	16.26	14.18	14.48	12.29		10.90		
Russell 3000 + 3%(Qtr Lag)	5.32	13.16	-7.77	-7.80	13.32	13.35	16.15	12.45		11.45		
SPECIALTY CREDIT		-0.09	1.22	3.69	2.04	4.85	4.93				5.26		
50% BB US HY / 50% SP LS1	A Leveraged Loan	-0.35	2.87	6.76	-1.40	2.64	3.31				3.42		
CORE FIXED INCOME		-0.94	0.73	0.10	-3.90	-0.58	1.89				2.07		
Bloomberg Barclays US Ag	gregate	-2.59	0.41	-2.57	-9.72	-3.77	0.53				1.40		
CASH	,,,	0.28	0.56	1.96	2.16	0.82	1.33	0.90	1.48		2.44		
Citigroup Treasury Bill-3 N	Month	0.35	0.72	2.06	2.22	0.86	1.35	0.81			2.33		
REAL ESTATE		-0.25	-2.68	1.03	9.92	12.97	12.31	10.70		-	10.17		
NCREIF NFI-ODCE Net 1 Qt	r in Arrears Index^	0.00	0.00	4.87	20.96	11.38	9.26	9.91			7.01		
REAL RETURN		-0.32	0.96	7.43	7.55	7.99	5.60	3.58			4.43		
US CPI +3%		1.03	0.97	4.32	9.28	8.56	5.94	4.06			4.07		
KERS INS	43.6			6.5		10.0		11.8	1	1.3 4	7 2.2		
-						19.8			_				
KERS-H INS	44.5				8.8 21			.4 11.9		2.4 8.1	3.0		
SPRS INS	44.4			9.9		21.4		11.8		2.0 7.8	2.8		
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