## What's going on in the marketplace?

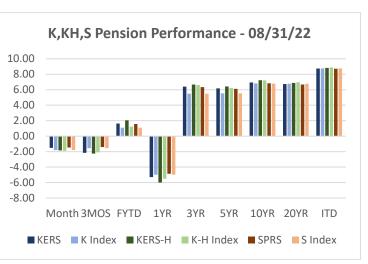
Equity markets were broadly weaker as concerns of persistently high inflation took hold; inflation across the developed world now sits near or at four-decade highs. This has spurred fears of more aggressive central bank policy with higher interest rates for longer stoking growing concerns of recession. Bond markets fell in response to rising interest rates.

The KPPA pension investment portfolio fell -1.91% during the month of August, providing 13bps of downside protection versus its benchmark. The KRS Pension Composite produced a -1.57% return during the month. The KERS and SPRS Pension portfolios returned -1.52% and -1.46%, while their benchmark returned -1.79%. The KERS-H Pension portfolio declined -1.85% versus its benchmark return of -1.90%. All three funds outperformed their respective benchmarks with similar drivers of attribution. Relative outperformance was a product of solid performance in the Fixed Income portfolio, specifically within the core fixed income segment. The KERS and SPRS portfolios also benefitted from an overweight to cash and an underweight to public equities during a volatile period.

**Global equity markets** were weaker during the month of August, as evidenced by the MSCI ACWI Index returning -3.68%. International markets held up better than their US market counterpart (MSCI ACWI Ex-US: -3.13% versus R3000: -3.73%).

**US equity markets** fell -3.73% during the month (Russell 3000), the KPPA portfolio fared slightly better, returning -3.63%. All market segments struggled; however, small caps fared much better, returning -2.05%, followed by midcaps (-3.10%) and large caps (-4.08%). From a style perspective, value outperformed growth, providing 145bps of downside protection (R300V: -2.99% vs R3000G: -4.44%). The KPPA portfolio's relative outperformance was driven by a combination of allocation and stock selection. The portfolio benefitted from its slight value tilt and overweight to small caps. Stock selection was fairly mixed; however, relative performance skewed positive.

4.67% (MSCI World Ex-US) during the period while emerging markets actually gained 42bps (MSCI EM). Small caps performed better than their larger cap counterparts, falling -2.62%. The KPPA portfolio lost -4.30% during the month, underperforming its benchmark by 117bps. Stock selection was weak across the board, particularly within those mandates that are tilted towards growth. The only real bright spot came from the emerging market value mandate which not only remained positive in absolute terms, but added 49bps over its benchmark.



NonUS equity markets returned -3.13% (MSCI ACWI Ex-US) during the month. Developed markets returned -

**The specialty credit portfolio** underperformed its benchmark during the month, returning -0.58% versus -0.38%. The High Yield market declined as spreads widened and rates rose in response to a snap-back to a risk-off sentiment. The leveraged loan segment of the market held up better as the Morningstar LSTA Leveraged Loan Index rose 1.54% during the month, its second consecutive month of positive performance as the short-term reference rates rose.

**The core fixed income portfolio** returned -1.03% compared to the Bloomberg Aggregate Index return of -2.83%. Core bonds suffered as rate volatility increased in response to a strong July employment report and FED speakers preparing markets for a restrictive policy stance for some time and downplaying the probability of a dovish pivot. Relative outperformance was attributable to positioning within the allocation; the portfolios remain underweight overall duration given the outlook for rising rates and elevated volatility.

**The private equity allocation** was relatively flat during the month, falling just 10bps. The 1-year return is just shy of 21%.

**The real return portfolio** gained 1.62% during the month, compared to its benchmark return of 0.24%. Performance was driven almost entirely by the MLP portion of the portfolio, which gained 4.01%, bringing the MLP FYTD return to 17.08%.

**Real estate** remained relatively flat during the month, falling 12bps; the 1-year return remains in excess of 27%. The portfolio has benefitted from recent strength in industrial, multi-family, and storage properties.

**The cash portfolio** outperformed its benchmark, the 3-month T-bill for the month returning 0.20% versus 0.15% for the benchmark.

	KERS	, KERS-HAZ	, & SPRS - PI		) - PLAN NE	T RETURNS -	08/31/22					
Plan	Market Value			Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD	
KERS	3,114,573,371.83	-1.52	-2.16	1.63	-5.29	6.41	6.18	6.95	6.73	7.68	8.74	
KY Ret. KERS Plan Index		-1.79	-1.55	1.10	-4.99	5.50	5.53	6.82	6.78	7.59	8.77	
KERS- H	832,973,436.90	-1.85	-2.26	2.04	-6.00	6.68	6.43	7.24	6.88	7.77	8.82	
KY Ret. KERS Haz Plan Index		-1.90	-2.08	1.24	-5.50	6.62	6.22	7.21	6.97	7.71	8.88	
SPRS	559,448,791.53	-1.46	-1.40	1.57	-4.85	6.34	6.11	6.84	6.68	7.64	8.71	
KY Ret. SPRS Plan Index		-1.79	-1.55	1.10	-4.99	5.50	5.53	6.79	6.77	7.57	8.77	
	KPPA PENSIO	N FUND UN	IIT - NET RET	TURNS - 08/3	1/22 - PRO)	Y PLAN ASS	ET PERFORM	ANCE				
Structure		Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD	
PUBLIC EQUITY		-3.90	3.43	3.43	-17.96	7.48	6.64	8.60	7.55	8.63	10.07	
Global Equity Blended	Index	-3.68	3.04	3.04	-16.65	7.53	6.51	8.47	7.60	8.40	9.92	
PRIVATE EQUITY		-0.10	-0.11	-0.11	20.78	19.03	17.23	14.70	12.80		12.42	
Russell 3000 + 3%(Qtr L	ag)	0.15	-8.29	-8.29	-0.68	18.64	15.78	17.30	12.59		12.18	
HIGH YIELD / SPECIALTY CREDIT		-0.58	0.93	0.93	0.93	4.53	5.24			_	5.42	
High Yield Custom Ben		-0.38	3.63	3.63	-5.17	2.13	3.09				3.16	
CORE FIXED INCOME		-1.03	0.28	0.28	-5.57	0.55	1.87				2.50	
Bloomberg Barclays US	Aggregate	-2.83	-0.45	-0.45	-11.52	-2.00	0.52				1.71	
CASH		0.20	0.35	0.35	0.58	0.74	1.33	0.93	1.61	2.70	3.30	
Citigroup Treasury Bill-	3 Month	0.15	0.25	0.25	0.44	0.56	1.10	0.64	1.19	2.30	2.89	
REAL ESTATE		-0.12	2.98	2.98	27.58	16.84	14.11	11.42	8.46	6.71	6.95	
NCREIF NFI-ODCE Net 1	Otr in Arrears Index^	0.00	0.00	0.00	27.26	10.30	8.90	9.91	7.66	7.55	6.73	
REAL RETURN	Qu'III Alleurs Huex	1.62	5.72	5.72	7.62	7.18	5.14	3.71	7.00	7.55	4.59	
Pension Real Return Cu	ustom Benchmark	0.24	1.82	1.82	9.30	7.74	5.47	3.96			3.98	
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KERS	30.6	6.1	6.1 18.6		20		0.9	9.9		5.7	2.1	
KERS-H	41.7			8.0		20.4		13.0	8.0	6.1	2.8	
SPRS	30.0		3.3 16.1		20.5		24.5		24.5	3.9 1.7		
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KERS PEN Relative Weights			KERS-HAZ PEN Relative Weights				SPRS PEN Relative Weights					
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Core Fixed Cash	Real Estate	Core	Fixed	Cash	R	eal Estate	Core F	ixed	Cash	Real I	Estate	
Real Return			■ Real Return				Real Return					

	KERS INS, KE	RS-HAZ INS	, SPRS INS - I	NSURANCE	FUND - PLA	N NET RETU	RNS - 08/31	/22			
Plan	Market Value	Month	3 Months F	iscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
KERS INS	1,316,151,620.82	-1.84	-2.02	1.97	-6.18	6.65	6.07	6.82	6.51	6.74	7.21
KY Ins. KERS Plan Index		-1.90	-2.08	1.24	-5.14	6.43	6.13	7.17	6.98	7.13	7.55
KERS - H INS	587,507,431.80	-1.87	-1.97	1.90	-4.74	6.88	6.55	7.19	6.69	6.86	7.32
KY Ins. KERS Haz Plan Index		-1.90	-2.08	1.24	-5.14	6.33	6.06	7.16	6.97	7.12	7.54
SPRS INS	232,484,323.02	-1.90	-2.03	1.91	-4.68	7.11	6.84	7.36	6.78	6.92	7.36
KY Ins. SPRS Plan Index		-1.90	-2.08	1.24	-5.14	6.33	6.06	7.18	6.98	7.13	7.55
	KPPA INSURAN	E FUND UN	IT - NET RET	URNS - 08/3	1/22 - PRO	XY PLAN ASS	ET PERFORM	MANCE			
Structure		Month	QTD F	iscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY		-3.93	3.41	3.41	-17.86	7.50	6.61	8.62	7.50		8.35
Global Equity Blended Inde	ex	-3.68	3.04	3.04	-16.67	7.50	6.47	8.42	7.22		8.17
PRIVATE EQUITY		-0.22	-0.31	-0.31	28.13	17.09	16.50	15.33	12.09		11.32
Russell 3000 + 3%(Qtr Lag)		0.15	-8.29	-0.68	-0.68	18.64	15.78	17.30	12.20		11.72
HIGH YIELD / SPECIALTY CREDIT		-0.48	0.98	0.98	1.20	4.45	5.11				5.24
Bloomberg Barclays US High Yield		-0.38	3.63	3.63	-5.17	2.13	3.09				3.16
CORE FIXED INCOME		-1.13	0.24	0.24	-5.83	0.33	1.74				2.20
Bloomberg Barclays US Agg	regate	-2.83	-0.45	-0.45	-11.52	-2.00	0.52				1.71
CASH		0.20	0.34	0.34	0.56	0.57	1.16	0.78	1.44		2.42
Citigroup Treasury Bill-3 Mo	onth	0.15	0.25	0.25	0.44	0.56	1.10	0.64	1.19		2.30
REAL ESTATE		-0.17	2.91	2.91	27.31	16.76	14.08	11.25			10.73
NCREIF NFI-ODCE Net 1 Qtr i	n Arrears Index^	0.00	0.00	0.00	27.26	10.30	8.90	9.91			6.90
REAL RETURN		1.32	4.59	4.59	5.99	7.03	5.07	3.51			4.39
Pension Real Return Custom Benchmark		0.24	1.82	1.82	7.97	7.69	5.46	4.02			4.03
KERS INS	41.8			6.5		20.0		12.3	12.	6 4.7	7 2.2
KERS-H INS	41.7			9.5		20.9		12.1	5.2	2 7.8	2.9
SPRS INS				10.7		21.0		12.(	) 4	.5 7.5	2.7
0% 10% 20%		30%	40%	5	0%	60%	70%	80'	%	90%	100%
■ Global Equ					Core Fixed		Cash	■ Real Esta		Real Return	100/0
Giobai equ	ity Private E		Specialty Cr	eait		income	Cash			Real Return	
KERS Insurance Relative		KERS-HAZ Insurance Relative Weights					SPRS Insurance Relative Weights				
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