February	KPPA MONTHLY PERFORMANCE UPDATE
2023	

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 CERS Pension Composite produced a -1.36% return during the month. The CERS and CERS-H Pension portfolios returned -1.35% and -1.36% respectively, while their benchmark fell -1.06%. Both funds underperformed their respective benchmark with similar drivers of attribution. Performance was weaker within the private equity portfolio in terms of selection. Additionally, the underweight to real return, one of the better performing asset classes weighed on relative performance. Offsetting some of the relative weakness was the solid selection within the core fixed income and public equity portfolios.

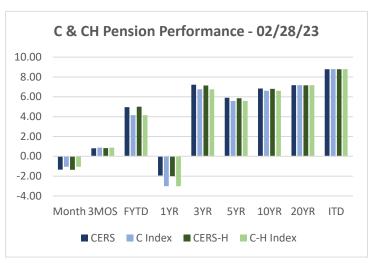
For the fiscal year, the KPPA Pension Trust portfolio gained 4.58%, outperforming the benchmark return 3.98%, while the CERS Pension Composite returned 4.96%. The CERS and CERS-H Pension portfolios returned 4.95% and 5.01%, against a benchmark return of 4.16%.

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 catch-up, 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.

		CERS & CERS	-HAZ - PENSIO	N FUND P	LAN NET RE	TURNS - 02/	28/23						
Plan	Market Value	Month	3 Months Fis	cal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD		
CERS	8,255,255,658.48	-1.35	0.81	4.95	-1.94	7.23	5.91	6.84	7.17	7.63	8.79		
KY Ret. CKERS Plan I	-1.06	0.87	4.16	-3.02	6.76	5.59	6.61	7.17	7.55	8.80			
CERS- H	2,844,521,258.09	-1.36	0.83	5.01	-2.01	7.14	5.85	6.81	7.16	7.62	8.79		
KY Ret. CERS Haz Pla	an IPS Index	-1.06	0.87	4.16	-3.02	6.76	5.59	6.61	7.17	7.55	8.80		
	KPPA PENS	ION FUND UN	IIT - NET RETUR	RNS - 02/2	8/23 - PRO)	Y PLAN ASS	ET PERFORM	ANCE	1	1			
Structure		Month	QTD Fis	cal 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	10.08		
MSCI ACWI		-2.87	4.10	6.47	-8.61	8.35	5.34	7.62	8.23	8.19	9.88		
PRIVATE EQUITY		-0.15	-0.05	-6.04	-0.70	16.09	14.16	13.38	12.72		11.77		
Russell 3000 + 3%(C	Qtr Lag)	5.32	13.16	-7.77	-7.80	13.32	13.35	16.15	12.65		11.90		
SPECIALTY CREDIT		-0.13	1.18	3.50	1.61	4.86	4.99				5.39		
50% BB US HY / 50%	SP LSTA Leveraged Loan	-0.35	2.87	6.76	-1.40	2.64	3.31				3.42		
CORE FIXED INCOME		-0.87	0.78	0.24	-3.55	-0.33	2.09				2.37		
Bloomberg Barclays	s US Aggregate	-2.59	0.41	-2.57	-9.72	-3.77	0.53				1.40		
CASH		0.28	0.56	1.99	2.19	0.84	1.44	1.08	1.65	2.70	3.30		
Citigroup Treasury E	Bill-3 Month	0.35	0.72	2.06	2.22	0.86	1.35	0.81	1.24	2.31	2.90		
REAL ESTATE		-0.25	-2.71	1.08	10.03	13.09	12.34	10.79	8.50	6.69	6.81		
	et 1 Otr in Arrears Index^	0.00	0.00	4.87	20.96	11.38	9.26	9.91			6.77		
REAL RETURN		-0.39	1.79	9.63	9.23	8.71	5.87	3.85			4.72		
US CPI +3%		1.03	0.97	4.32	9.61	8.83	5.94	4.01			4.03		
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CERS	50.	4			8.1		20.4		9.9	0.9 7.0	3.2		
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CERS-H	50.0						20.4		10.7	1. 4 6.5	3.1		
0%	10% 20%	30%	40%	50	1%	60%	70%	80)%	90%	100%		
■ GI	obal Equity Private E	quity 🔳	Specialty Credi	t 🔳	Core Fixed I	ncome	Cash	Real Es	tate	Real Return			
CERS PEN Relative Weights						CERS-HAZ PEN Relative Weights							
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Global Equity Private Equity Specialty Credit Core Fixed					Global Equity Private Equity Specialty Credit Core Fixed								
Cash Real Estate Real Return					Cas	h	■ Real Esta	ate ■F	Real Return				

		CERS IN	IS & CERS H	AZ INS - INS	URANCE FUI	ND - PLAN N	ET RETURNS	6 - 02/28/23					
Plan		Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD	
CERS INS		3,154,367,462.50	-1.37	0.83	5.03	-1.74	7.07	5.83	6.75	7.09	6.75	7.29	
KY Ins. CERS Plan	IPS Index		-1.06	0.87	4.16	-3.02	6.45	5.39	6.58	7.38	6.96	7.48	
CERS - H INS		1,554,699,622.37	-1.33	0.78	4.83	-1.71	7.17	5.93	6.82	7.12	6.77	7.31	
KY Ins. CERS Haz P	lan IPS Inde	x	-1.06	0.87	4.16	-3.02	6.45	5.39	6.58	7.38	6.96	7.48	
		KPPA INSURAN	CE FUND U	NIT - NET RE	TURNS - 02/	/28/23 - PRO	XY PLAN AS	SET PERFORI	MANCE				
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 LSTA Le	veraged Loan	-0.35	2.87	6.76	-1.40	2.64	3.31				3.42	
		-0.94	0.73	0.10	-3.90	-0.58	1.89				2.07		
Bloomberg Barclays US Aggregate		-2.59	0.41	-2.57	-9.72	-3.77	0.53				1.40		
CASH	,		0.28	0.56	1.96		0.82			1.48		2.44	
Citigroup Treasur	v Bill-3 Mont	h	0.35	0.72	2.06	2.22	0.86	1.35	0.81	1.24		2.33	
REAL ESTATE	,		-0.25	-2.68	1.03	9.92	12.97					10.17	
NCREIF NFI-ODCE	Net 1 Otr in A	Arrears Index^	0.00	0.00	4.87	20.96	11.38				-	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		8.56					4.07	
	1										1.3 6.6		
CERS INS 50. CERS-H INS 49.			0			8.3		20.2		11.0	1.3 6.6	2.5	
			5			9.5		20.4		9.8	0.8 7.3	2.8	
0%	10%	20%	30%	40%	,	50%	60%	70%	8	0%	90%	100%	
	🔳 Global Equ	uity Private I	Equity	Specialty (Credit	Core Fixed	Income	Cash	■ Real E	state	Real Return		
CERS Insurance Relative Weights						CERS-HAZ Insurance Relative Weights							
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Global Equity Private Equity Specialty Credit Core Fixed						■ Global Equity ■ Private Equity ■ Specialty Credit ■ Core Fixed							
Cash Real Estate Real Return						Cash Real Estate Real Return							