

County Employees Retirement System Investment Committee – Regular Meeting August 30, 2023 at 2:00 PM ET Live Video Conference/Facebook Live

AGENDA

1.	Call to Order	Dr. Merl Hackbart
2.	Opening Statement	Legal Services
3.	Roll Call	Sherry Rankin
4.	Public Comment	Sherry Rankin
5.	Approval of Minutes* – June 9, 2023	Dr. Merl Hackbart
6.	Wilshire Market Overview	David Lindberg Craig Morton Chris Tessman
7.	Investment Office Quarterly Update	Steve Willer
8.	ADJOURN	Dr. Merl Hackbart

^{*}Committee Action May Be Taken

MINUTES OF MEETING COUNTY EMPLOYEES RETIREMENT SYSTEM INVESTMENT COMMITTEE MEETING JUNE 9, 2023, 2:00 P.M., E.T. VIA LIVE VIDEO TELECONFERENCE

At the June 9, 2023, County Employees Retirement System' (CERS) Investment Committee Meeting, the following Committee members were present: Dr. Merl Hackbart (Chair), George Cheatham, Dr. Martin Milkman, and William O'Mara. Staff members present were Rebecca Adkins, Victoria Hale, Michael Lamb, Steve Willer, Brian Caldwell, Joseph Gilbert, Ashley Gabbard, Katie Park, Sherry Rankin, and Shaun Case. Also in attendance were CERS CEO Ed Owens, III, Eric Branco with Johnson, Bowman, Branco LLP and David Lindberg, Craig Morton, and Chris Tessman with Wilshire.

Dr. Hackbart called the meeting to order.

Ms. Hale read the Legal Opening Statement.

Ms. Rankin called roll.

There being no *Public Comment*, Dr. Hackbart introduced agenda item *Approval of Minutes* – *February 22, 2023, and March 2, 2023 (Video 00:07:57 to 00:09:55)*. A motion was made by Mr. O'Mara and seconded by Mr. Cheatham to approve the February 22, 2023 (as amended) and March 2, 2023, minutes (as presented). The motion passed unanimously.

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CERS Investment Committee Meeting - Approval of Minutes - June 9, 2023

Dr. Hackbart introduced agenda item Wilshire Market Overview (Video 00:09:56 to 00:36:04).

David Lindberg and Craig Morton with Wilshire succinctly reviewed the Wilshire Market

Overview.

Dr. Milkman entered the meeting

Dr. Hackbart introduced agenda item Investment Office Quarterly Update (Video 00:36:05 to

01:19:15). KPPA Chief Investment Officer Steve Willer presented the Investment Office

Quarterly Update. Mr. Cheatham requested that the inception date and cost basis for each holding

be added to the Unit Holdings Report moving forward.

There being no further business, Dr. Hackbart *adjourned* the meeting.

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CERTIFICATION

I do certify that I was present at this meeting, and I have recorded above the action of the
Committee on the various items considered by it at this meeting. Further, I certify that all
requirements of KRS 61.805-61.850 were met in connection with this meeting.
Recording Secretary
I, as Chair of the County Employees Retirement System Investment Committee of the Board of
Trustees of the County Employees Retirement System, do certify that the Minutes of the meeting

held on June 9, 2023, were approved by the County Employees Retirement System Investment

Committee on August 30, 2023.

CERS Investment Committee Chair

I have reviewed the Minutes of the County Employees Retirement System Investment Committee Meeting on June 9, 2023, for form, content, and legality.

Office of Legal Services

Kentucky Public Pensions Authority
County Employees Retirement System (CERS)

Quarterly Board Summary *June 30, 2023*

Quarterly Market Review

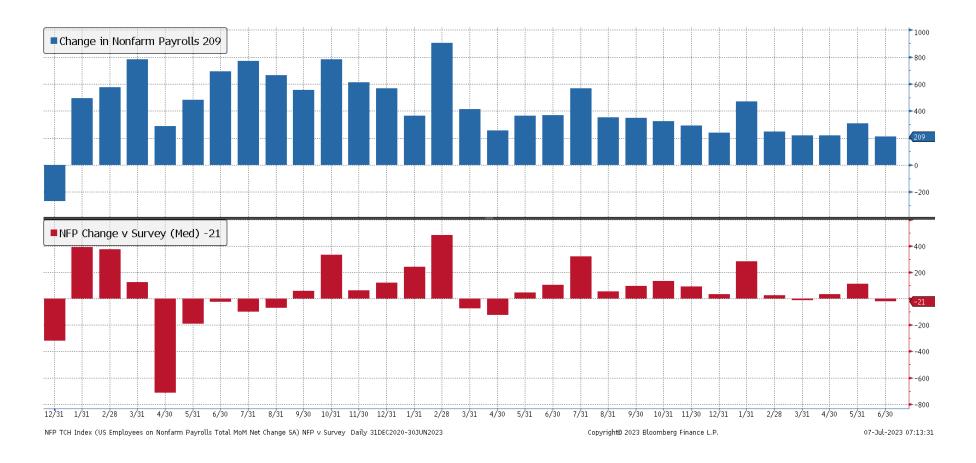
June 30, 2023

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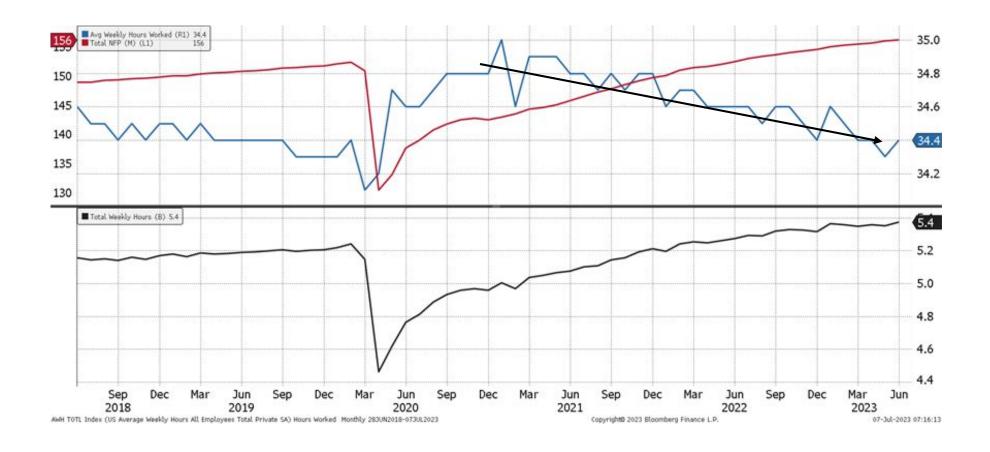
June 2023 Asset Class Assumptions

			Equ	iity					Fi	xed Incom	е					Real Assets	S		
		Dev		Global					LT				Dev ex-		Real Estate	е			
	US	ex-US	Emg	ex-US	Global	Private		Core	Core		High	Private	US Bond	US	Global	Private		Real	US
	Stock	Stock	Stock	Stock	Stock	Equity	Cash	Bond	Bond	TIPS	Yield	Credit	(Hdg)	RES	RES	RE	Cmdty	Assets	CPI
Compound Return (%)	5.50	6.50	6.75	6.85	6.15	9.00	3.85	4.85	4.80	4.05	6.20	8.35	3.05	5.75	5.90	6.00	6.10	6.60	2.25
Expected Risk (%)	17.00	18.00	26.00	19.05	17.10	29.65	0.75	4.70	9.85	6.00	10.00	12.75	4.00	17.50	16.45	13.90	16.00	12.35	1.75
Cash Yield (%)	1.50	3.10	2.60	2.95	2.05	0.00	3.85	4.95	5.15	4.35	9.40	5.00	3.60	4.05	4.05	2.30	3.85	3.25	0.00
Growth Exposure	8.00	8.00	8.00	8.00	8.00	14.00	0.00	-0.95	-2.40	-3.00	4.00	5.10	-1.00	6.00	6.00	3.50	0.00	2.70	0.00
Inflation Exposure	-3.00	0.00	5.00	1.45	-1.30	-3.75	0.00	-2.50	-6.80	2.50	-1.00	-1.50	-3.00	1.00	1.80	1.00	12.00	5.25	1.00
Correlations																			
US Stock	1.00																		
Dev ex-US Stock (USD)	0.81	1.00																	
Emerging Mkt Stock	0.74	0.74	1.00																
Global ex-US Stock	0.84	0.95	0.89	1.00															
Global Stock	0.95	0.91	0.84	0.94	1.00														
Private Equity	0.72	0.63	0.61	0.67	0.73	1.00													
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.06	0.00	1.00												
Core Bond	0.28	0.13	0.00	0.08	0.20	0.30	0.18	1.00											
LT Core Bond	0.31	0.15	0.01	0.11	0.24	0.31	0.11	0.94	1.00										
TIPS	-0.05	0.00	0.15	0.06	-0.01	-0.03	0.20	0.60	0.48	1.00									
High Yield Bond	0.54	0.39	0.49	0.46	0.53	0.31	-0.10	0.24	0.32	0.05	1.00								
Private Credit	0.68	0.55	0.58	0.60	0.68	0.44	0.00	0.24	0.30	0.00	0.76	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.16	0.17	0.26	0.10	0.68	0.66	0.39	0.26	0.22	1.00						
US RE Securities	0.58	0.47	0.44	0.49	0.57	0.49	-0.05	0.17	0.22	0.10	0.56	0.62	0.05	1.00					
Global RE Securities	0.64	0.57	0.54	0.60	0.65	0.55	-0.05	0.17	0.21	0.11	0.61	0.68	0.04	0.96	1.00				
Private Real Estate	0.55	0.45	0.45	0.49	0.54	0.50	-0.05	0.19	0.25	0.09	0.58	0.63	0.05	0.79	0.78	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.28	0.00	-0.03	-0.03	0.25	0.29	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.62	0.63	0.65	0.69	0.67	0.57	-0.03	0.22	0.24	0.30	0.64	0.69	0.04	0.78	0.84	0.76	0.64	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	0.00	-0.08	0.05	0.04	0.05	0.44	0.22	1.00

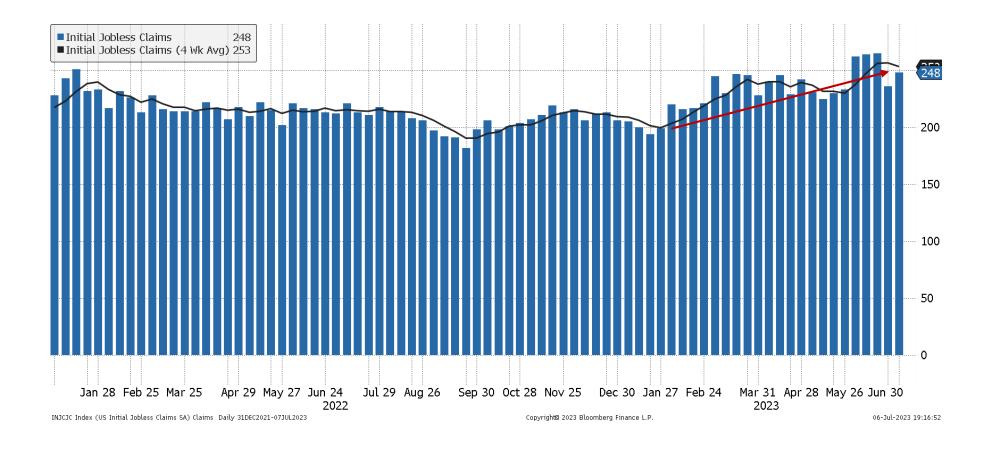
Job Market Looks Strong (and exceeding expectations)...



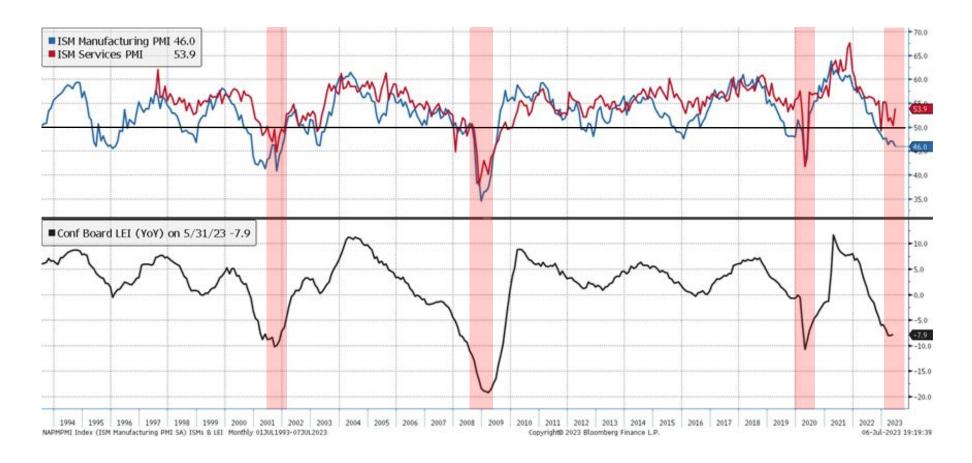
Early Signs of Slowing: Plateau in Hours Worked



Early Signs of Slowing: Increase in Claims



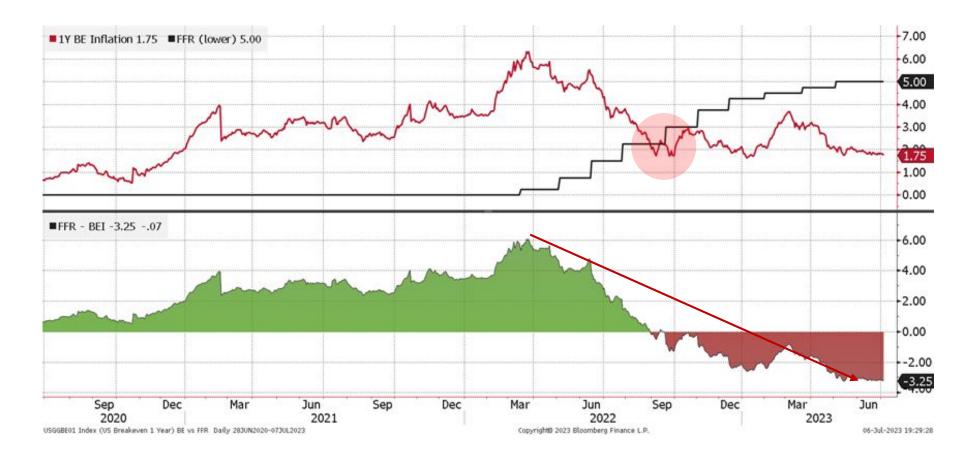
ISM Surveys & Leading Indicators Pointing Down...



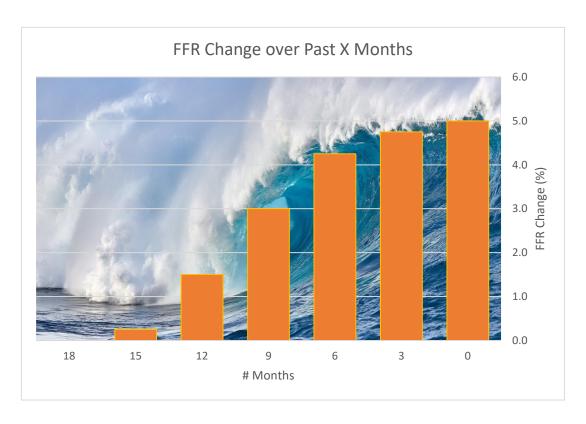
Yield Curve Flashing Red



Are We There Yet?: Fed Journey Towards the "Neutral Rate"

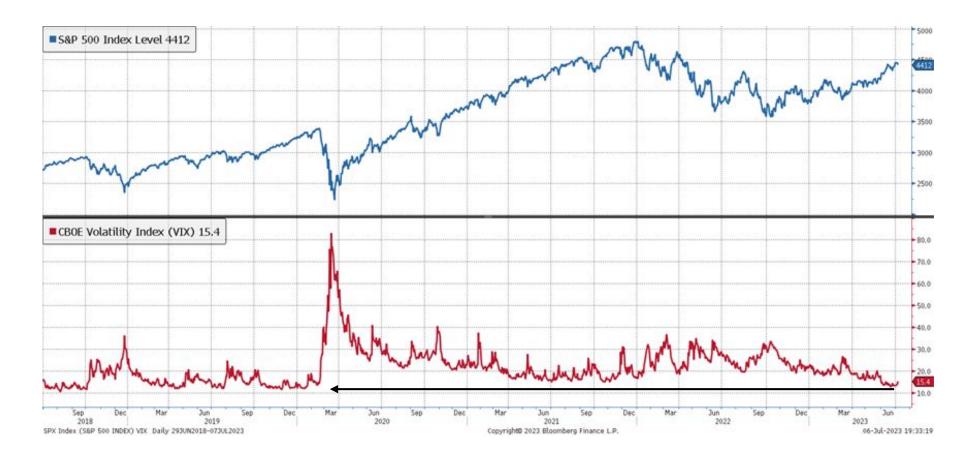


The Tightening Wave: Unpredictable but Building



Arguably less than a year since the overnight rate has been meaningfully higher, with a sizeable lag between rate changes and when they hit the real economy

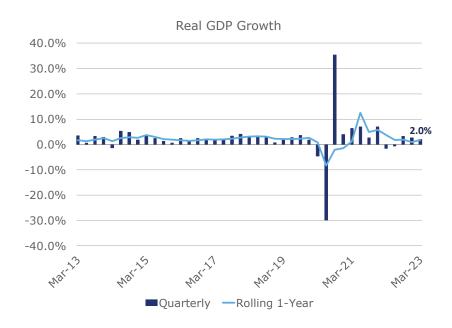
U.S. Stock Markets Showing No Fear...

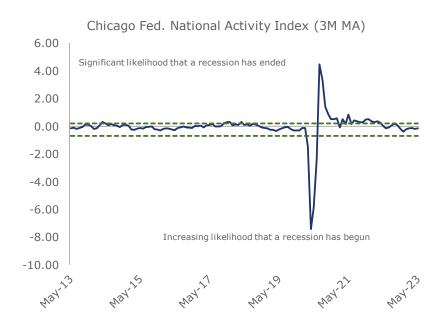


Economic/Market Activity

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Economic Growth

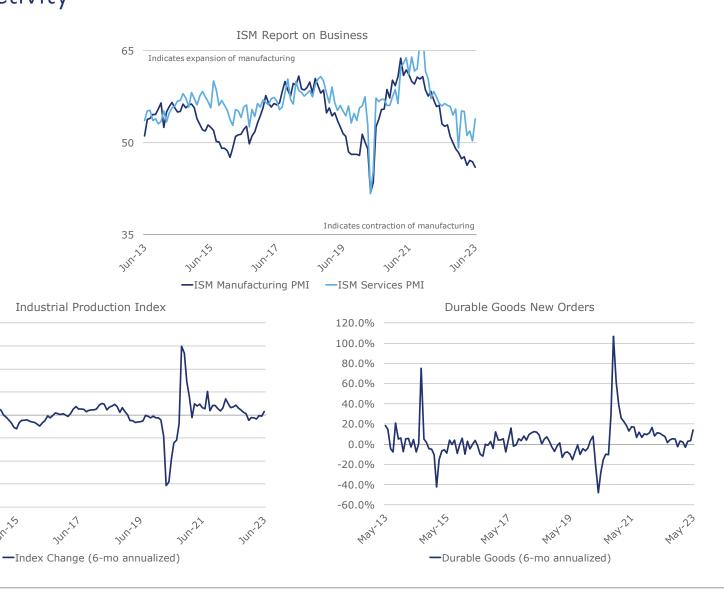




Consumer Activity



Business Activity



Data Sources: Bloomberg

40.0%

30.0%

20.0%

10.0%

0.0%

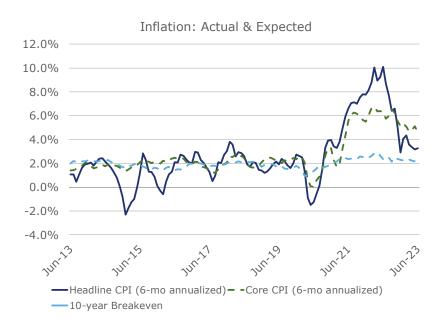
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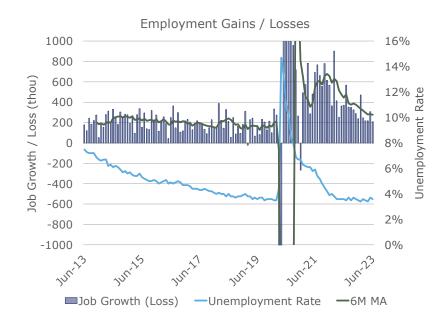
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-30.0%

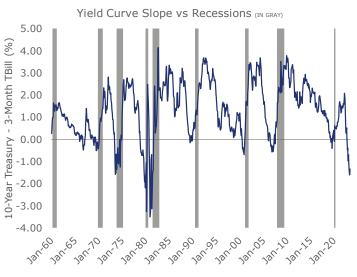
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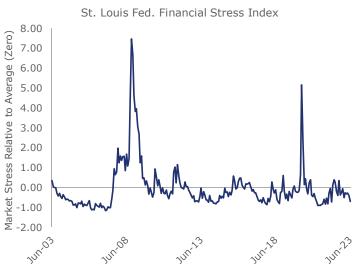
Inflation and Employment

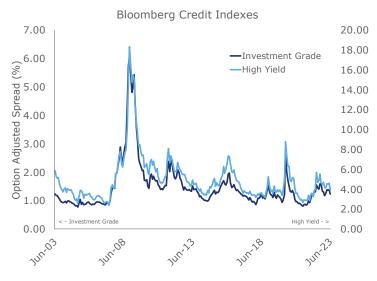


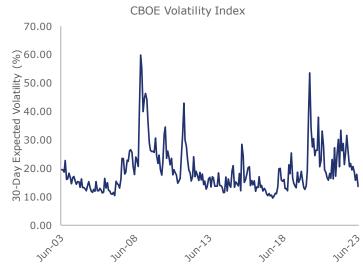


Risk Monitor



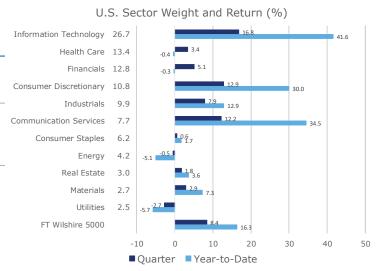




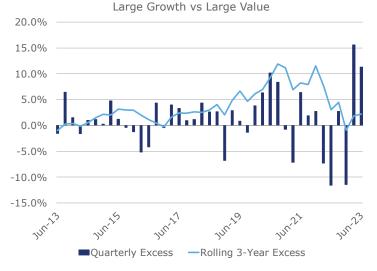


U.S. Equity Market

As of 6/30/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	8.4	16.3	19.0	14.2	11.7	12.5
Wilshire U.S. Large Cap	8.7	17.0	19.6	14.4	12.3	12.9
Wilshire U.S. Small Cap	5.1	8.8	13.3	12.9	5.4	8.9
Wilshire U.S. Large Growth	14.2	32.1	28.7	15.5	14.9	15.5
Wilshire U.S. Large Value	2.6	2.7	9.9	12.9	9.5	10.2
Wilshire U.S. Small Growth	6.7	13.5	19.1	10.1	6.2	9.4
Wilshire U.S. Small Value	3.5	4.6	8.2	15.7	4.7	8.4
Wilshire REIT Index	3.3	6.7	-0.3	8.5	4.4	6.4
MSCI USA Min. Vol. Index	2.6	4.0	8.0	8.9	9.1	10.9
FTSE RAFI U.S. 1000 Index	5.0	6.7	13.2	17.4	10.4	11.2



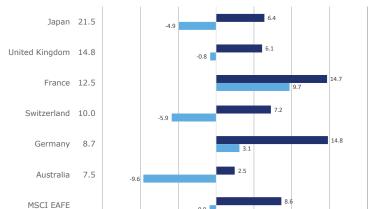




Data Sources: Bloomberg, Wilshire Atlas

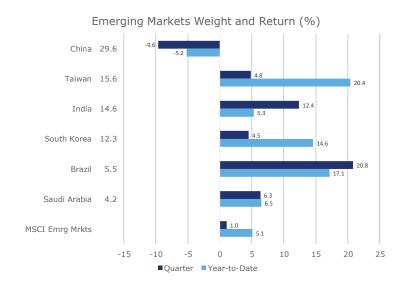
Non-U.S. Equity Market

As of 6/30/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	2.7	9.9	13.3	7.7	4.0	5.2
MSCI EAFE (\$G)	3.2	12.1	19.4	9.5	4.9	5.9
MSCI Emerging Markets (\$G)	1.0	5.1	2.2	2.7	1.3	3.3
MSCI Frontier Markets (\$G)	2.2	4.8	4.6	3.4	-1.0	0.8
MSCI ACWI ex-US Growth (\$G)	2.1	11.0	13.7	4.3	4.4	6.0
MSCI ACWI ex-US Value (\$G)	3.2	8.5	12.9	11.2	3.3	4.5
MSCI ACWI ex-US Small (\$G)	2.2	7.2	11.5	8.6	3.1	6.2
MSCI ACWI Minimum Volatility	2.4	4.1	6.4	6.3	6.0	7.9
MSCI EAFE Minimum Volatility	1.8	7.7	9.9	3.4	2.1	5.2
FTSE RAFI Developed ex-US	3.4	10.4	17.4	13.2	4.5	5.7
MSCI EAFE LC (G)	4.6	12.6	18.1	12.3	6.9	8.2
MSCI Emerging Markets LC (G)	1.8	5.8	3.8	4.3	3.4	6.1



■Quarter ■1 Year

Developed Markets Weight and Return (%)



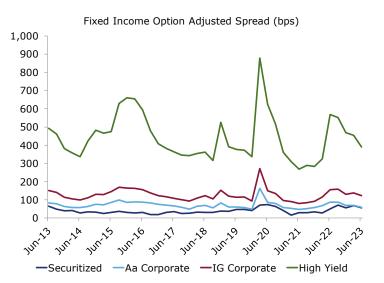
Data Sources: Bloomberg

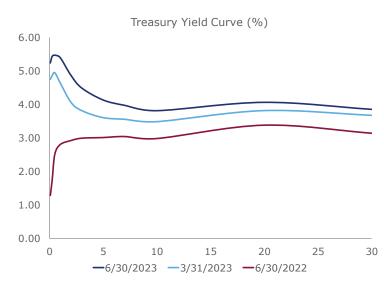
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U.S. Fixed Income

As of 6/30/2023	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.8	6.3	-0.8	2.1	-0.9	-4.0	0.8	1.5
Bloomberg Treasury	4.4	6.2	-1.4	1.6	-2.1	-4.8	0.4	1.0
Bloomberg Gov't-Rel.	4.9	5.3	-0.5	2.4	0.2	-2.9	1.1	1.7
Bloomberg Securitized	4.8	5.9	-0.6	1.8	-1.5	-3.6	0.1	1.2
Bloomberg Corporate	5.5	7.1	-0.3	3.2	1.5	-3.4	1.8	2.6
Bloomberg LT Gov't/Credit	4.8	14.3	-1.3	4.4	-2.6	-8.6	0.7	2.9
Bloomberg LT Treasury	4.0	16.0	-2.3	3.7	-6.8	-12.1	-0.9	1.8
Bloomberg LT Gov't-Rel.	5.2	11.8	0.3	5.5	1.2	-5.5	1.0	3.2
Bloomberg LT Corporate	5.4	13.0	-0.5	4.9	1.0	-6.2	1.6	3.5
Bloomberg U.S. TIPS *	3.8	7.4	-1.4	1.9	-1.4	-0.1	2.5	2.1
Bloomberg High Yield	8.5	3.5	1.7	5.4	9.1	3.1	3.4	4.4
S&P/LSTA Leveraged Loan	9.6	0.3	3.1	6.5	10.7	6.3	4.1	4.1
Treasury Bills	5.3	0.3	1.2	2.3	3.6	1.2	1.5	1.0

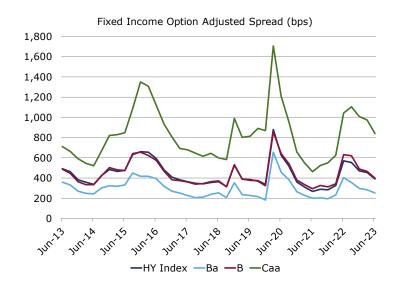
^{*} Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index





High Yield Bond Market

As of 6/30/2023		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		8.5	1.7	5.4	9.1	3.1	3.4	4.4
S&P LSTA Leveraged Loan		9.1	3.3	6.4	11.8	5.4	4.0	3.7
High Yield Quality Distribution	Weight							
Ba U.S. High Yield	47.9%	7.1	0.9	4.4	8.1	2.3	4.2	4.8
B U.S. High Yield	39.9%	8.7	1.9	5.4	9.9	3.1	3.1	4.0
Caa U.S. High Yield	11.2%	12.9	4.2	9.3	9.4	5.5	0.7	3.9
Ca to D U.S. High Yield	0.9%	22.2	11.5	7.5	18.7	15.7	-2.1	-4.4



Asset Class Performance

		_	_	
Accat	Clace	Returns	- Roct to	Worst
A33EL	Class	DELUID	- บะละเบ	VVUISL

2018	2019	2020	2021	2022	2023 YTD
T-Bills	U.S. Equity	U.S. Equity	REITs	Commodities	U.S. Equity
1.9%	31.0%	20.8%	46.2%	16.1%	16.3%
Core Bond	REITs	Emrg Mrkts	Commodities	T-Bills	Developed
0.0%	25.8%	18.7%	27.1%	1.3%	12.1%
U.S. TIPS	Developed	U.S. TIPS	U.S. Equity	High Yield	REITs
-1.3%	22.7%	11.0%	26.7%	-11.2%	6.7%
High Yield	Emrg Mrkts	Developed	Developed	U.S. TIPS	High Yield
-2.1%	18.9%	8.3%	11.8%	-11.8%	5.4%
REITs	High Yield	Core Bond	U.S. TIPS	Core Bond	Emrg Mrkts
-4.8%	14.3%	7.5%	6.0%	-13.0%	5.1%
U.S. Equity	Core Bond	High Yield	High Yield	Developed	T-Bills
-5.3%	8.7%	7.1%	5.3%	-14.0%	2.3%
Commodities	U.S. TIPS	T-Bills	T-Bills	U.S. Equity	Core Bond
-11.2%	8.4%	0.7%	0.0%	-19.0%	2.1%
Developed	Commodities	Commodities	Core Bond	Emrg Mrkts	U.S. TIPS
-13.4%	7.7%	-3.1%	-1.5%	-19.7%	1.9%
Emrg Mrkts	T-Bills	REITs	Emrg Mrkts	REITs	Commodities
-14.2%	2.3%	-7.9%	-2.2%	-26.8%	-7.8%

Annualized 5-Year as of 6/23 U.S. Equity 11.7% Developed 4.9% Commodities 4.7% REITs 4.4% U.S. TIPS 2.5% T-Bills 1.5% **Emrg Mrkts** 1.3% Core Bond

0.8%

Data Sources: Bloomberg

Note: Developed asset class is developed equity markets ex-U.S., ex-Canada

County Employees Retirement Systems

Investment Office Quarterly Update

Quarter Ending: June 30, 2023

County Employees Retirement Systems

Performance and Asset Allocations

Quarter Ending: June 30, 2023

KPPA MONTHLY PERFORMANCE UPDATE

CERS/CERS-H

Overview

The narrative focus of the markets shifted from 'transitory' to 'resilient' as risk markets continued to rebound and perform better than expectations despite a multitude of headwinds including the gradual acceptance that inflation might take longer to moderate than hoped resulting in the global central banks having to keep interest rates higher for longer.

The CERS and CERS-H Pension portfolios produced returns of 3.30% and 3.31% respectively during the quarter while the CERS Insurance portfolio returned 3.24% and the CERS-H Insurance portfolio produced a return of 3.25% compared to their benchmark performance of 4.06%. Underperformance in the Public Equity and Private Equity portfolios were the primary drivers of relative performance during the quarter as the benefit from the underweight to Real Return was offset by the proxy overweight to Specialty Credit. The relative underperformance in the Private Equity portfolios was partially driven by vintage and legacy issues as well as 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.

For the fiscal year, the CERS Pension Composite gained 10.27%, outperforming the benchmark return of 9.54%, while the CERS Insurance Composite returned 10.26%, outperforming the benchmark return by 72bps. Fiscal Year outperformance was driven by strong performance in the Public Equities, Core Fixed Income, Private Equity and Real Return portfolios which was partially offset by underperformance in the Specialty Credit portfolio.

Public Equity

Global equity markets continued to advance during the second quarter, gaining 6.18% per the MSCI ACWI. This brought the asset class return to 16.53% for the one-year period. US markets outpaced Non-US markets for the year (18.95% versus 12.47%), driven by their significant outperformance during the quarter ending June 30, 2023. For the quarter, US markets returned 8.39% per the Russell 3000, compared to the 2.38% of international markets.

US market gains during the second quarter were the result of a narrow market driven almost entirely by mega cap tech, growth, and the excitement surrounding artificial intelligence (AI). The fuel behind this

KPPA MONTHLY PERFORMANCE UPDATE

CERS/CERS-H

market push was four-fold. Liquidity provided in response to the regional banking crisis experienced in the early quarter, mega cap safe haven perception during volatility, P/E multiple expansion in large cap tech names, and an almost euphoric response to AI and its potential. In addition, inflation and the Fed continue to significantly influence the market. Inflation continued to fall during the quarter, allowing the Fed to slow the pace of additional hikes, causing some to conclude that we may have reached the end of the tightening cycle.

Non-US developed markets pushed higher, partly in response to abating concerns surrounding the US banking system. European and UK markets gained as their central banks continued to raise rates in an attempt to curtail inflation in the region. Broadly speaking, as with the domestic market, large-cap stocks outperformed small caps, and growth outpaced value. An interesting phenomenon is occurring where a divergence between hard and soft data continues to manifest. Despite recession fears, the consumer has remained relatively strong and wage growth continues. Manufacturing trends also remain positive as supply chain issues subside and capacity continues to come online.

The KPPA global equity returned 5.57% during the quarter versus its benchmark return of 6.18%. Relative underperformance is primarily the result of allocation. The KPPA global equity portfolio is slightly underweight domestic markets compared to that of the benchmark, which created a relative performance headwind as US markets broadly outperformed their international counterparts.

Within the US equity allocation, the portfolio trailed its index by 61bps (7.78% vs 8.39%). This was the result of a combination of stock selection and allocation decisions. Strong returns concentrated in just seven names at the top of the market drove US index returns and created a hurdle for active management. The "Magnificent 7" returned approximately 64% in the first 6 months of the year versus just 3% for the rest of the S&P 500. This extraordinary performance has now created a scenario were these few companies account for over 15% of the global market cap. As a result, investments down market cap and those with a value orientation had no chance of keeping pace. The strong relative outperformance of the mega cap growth names seems unsustainable.

The international equity allocation performed well from a relative perspective, returning 2.47% versus the benchmark return of 2.38%. Relative outperformance was driven by strong stock selection from the value mandates within the portfolio, both active developed and the emerging market managers.

The KPPA global equity portfolio returned 17.74% versus 16.53% for the fiscal year. This was primarily attributed to stock selection. The US equity portion of the portfolio returned 18.54% versus the Russell 3000 return of 18.95%. Stock selection was particularly strong within the mid-, small, and micro-cap

KPPA MONTHLY PERFORMANCE UPDATE

CERS/CERS-H

strategies; however, it was not able to overcome the influence of the narrow market and value headwinds. The Non-US portfolio returned 16.43% versus the MSCI ACWI Ex-US return of 12.72%. Strong stock selection drove relative outperformance, with all active mandates, with the exception of one, beating their respective benchmark.

Core Fixed Income

The Bloomberg U.S. Aggregate Bond Index returned (0.36%) for June resulting in a quarterly loss of (0.84%) and finishing the fiscal year losing (0.94%) as U.S. Treasury yields rose and credit spreads tightened. The yield curve inverted further during June, almost entirely from higher yields at the shorter end of the curve. Rising fed funds expectations, reinforced by data consistently stronger than expected in June, helped move 2-year UST yields to their highest since the first week of March. The 10 year and 20 year Treasuries were steadier through the month, reaching as high as 3.84% and 4.12%, respectively. Bank tensions caused the 2-year UST to rally in March, narrowing the 10s-2s spread, but the inversion has since moved to its widest level of the quarter.

Corporate bonds were the best performing spread sector for the quarter and fiscal year, returning 1.31% and 3.98% in excess returns to Treasuries, respectively. The Securitized sector (CMBS, ABS and MBS) provided 0.76% excess return for the quarter but a loss of (0.41%) for the fiscal year.

The Core Fixed Income portfolio posted a loss of (0.12%) for the quarter but a positive return of 1.27% for the fiscal year, outperforming the benchmark by 0.72% for the quarter and 2.21% for the fiscal year. The relative outperformance is directly attributable to the underweight overall duration as rates rose and allocations to the Corporate and ABS sectors within our mandates.

Specialty Credit - Private Equity - Real Return - Real Estate

High yield bonds delivered strong returns for the quarter and fiscal year as the benchmark posted returns of 2.45% and 9.94%, respectively. Performance was driven by positive sentiment around the economy, including receding macro risks and resilient labor market data causing spreads to compress on the high yield side. For the loan universe, key performance drivers were a steady rise in rates, lighter retail withdrawals and collateralized loan obligation (CLO) origination.

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At the end of June, default activity was elevated and raised the high yield bond default rate to a fresh 2-year high. The par-weighted U.S. high yield bond and loan default rates increased to 2.71% and 2.94%, respectively. Although default rates have moved higher, forecasts for broader high yield bond and leveraged loan defaults for the remainder of 2023 continue to be 3.00% and 3.50%, respectively. These rate projections remain roughly in line with long-term averages of 3.2% for high yield bonds and 3.1% for leveraged loans. The Federal Reserve's seven rate increases totaling 350 basis points during FY 2022-23 greatly improved current and future expected returns in the Specialty Credit portfolio. Although defaults have increased, the pickup in yield has helped areas with floating rate exposure like direct lending and regulatory capital relief produce high single digit to low teens returns for the fiscal year.

The Specialty Credit portfolio returned 1.90% for the quarter ending June 30 and 7.16% for the fiscal year underperforming the benchmark by 0.55% and 2.78%, respectively. The relative underperformance was driven by portfolios with underlying real estate exposure as part of the mandate as those sectors lagged as well as 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. However, the portfolio has performed well over longer time periods as represented by the 3-Year and 5-Year returns outperforming the benchmark by 2.96% and 1.88%, respectively. The top three managers within the Specialty Credit portfolio for the fiscal year were Capital Springs returning 21.41%, Blue Torch returning 14.13% and Arrowmark returning 13.81%.

The slowdown in M&A and real estate that began in 2022 continued through the first half of 2023. Increasing interest rates have reduced the value of the discounted cash flows that underpin asset values, but this mathematic change has generally not been accepted by sellers in their expectations of asset value.

As a result of this bid/ask spread, global private equity deal volume fell 63% year-over-year in the first half of 2023 according to Dealogic. Similarly, CBRE noted that global commercial real estate investment volume declined by 55% year-over-year in the first quarter of 2023. Higher rates have also tightened credit availability. Although this has constrained new deal activity overall, lenders that remain in the market have benefited as their capital has become more valuable.

Though not as steep as the decline in public markets, valuations in private equity and venture capital fell noticeably during the fiscal year. The aforementioned decline in deal activity has also slowed fundraising. The \$107 billion raised by global private equity firms from April-June 2023 was down 35% compared to prior year and the lowest quarterly total since 2018, according to Preqin. The KPPA portfolio has been primarily impacted by markdowns in its legacy fund-of-funds and venture capital assets. While many of

KPPA MONTHLY PERFORMANCE UPDATE

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these are still strong performers in absolute terms, their valuations have come down from 2021 peak levels.

Asset markdowns in Real Estate investments continued during the quarter but seem to be more a result of interest rate increases rather than deteriorating property-level fundamentals. Industrial has grown to be the portfolio's largest sector exposure, and while rent growth in that area has slowed, it continues to rise as occupancy remains in the high-90s. Occupancy has stayed stable or even increased in certain sectors of the portfolio, like student housing and senior living. The portfolio also stands to benefit from reduced supply, as higher interest rates constrain new construction across all sectors.

MLP exposure has been the main driver of performance in the Real Return portfolio, returning nearly 30% for the fiscal year. Strong cash flows, disciplined capex, and consolidation have contributed to the industry's 30% annualized returns for the past 3 years since its crash during the early months of COVID. Additionally, higher rates benefited the portfolio's infrastructure debt portfolio as well as its legacy Prisma exposure, which is mostly in cash pending litigation. The Real Return portfolio has also begun to grow as the mandates approved earlier this year begin to deploy capital. KPPA has met two capital calls totaling 20% of its fund commitment to Arctos and expects to fund a sizable portion of its commitment to Maritime Partners in the September/October timeframe.

Cash

Federal Reserve officials paused in June following 15 months of interest-rate hikes but signaled they would likely resume tightening to cool inflation. New economic projections released in June showed the Fed expects to raise rates, at a slower pace, to 5.60% by year-end 2023 from 5.10% in March, according to the median estimate.

The T-Bill market has so far shown no significant disruptions from one month of catch-up Treasury issuance following the debt ceiling resolution. T-Bill yields hovered near 5.10% and did not experience the wild increases or fluctuations some had feared. As expected, the Fed's reverse repo facility has provided a big buffer for this needed liquidity, declining in step with the increasing issuance and taking much of the pressure off bank reserves.

The 3-month T-Bill ended June yielding 5.28%. However, from a total return perspective, the cash benchmark returned 0.43% for the month, 1.25% for the quarter and ended the fiscal year returning 3.75%. The pause from the Federal Reserve allowed the cash portfolio to catch-up to market rates

KPPA MONTHLY PERFORMANCE UPDATE

CERS/CERS-H

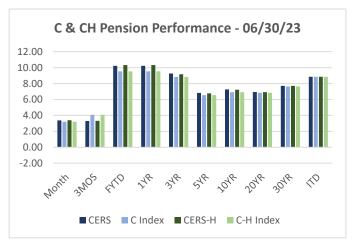
returning 0.40% for June but lagging the benchmark for the quarter returning 1.05% and fiscal year-end returning 3.38%. The underperformance is attributable to lower rates offered by overnight repurchase

agreements which is tied to the Fed Funds rate relative to market yields of the 3-month T-Bill. Since the Federal Reserve has begun to slow interest rate hikes, the difference in deposit rates compared to market rates will begin to compress going forward.

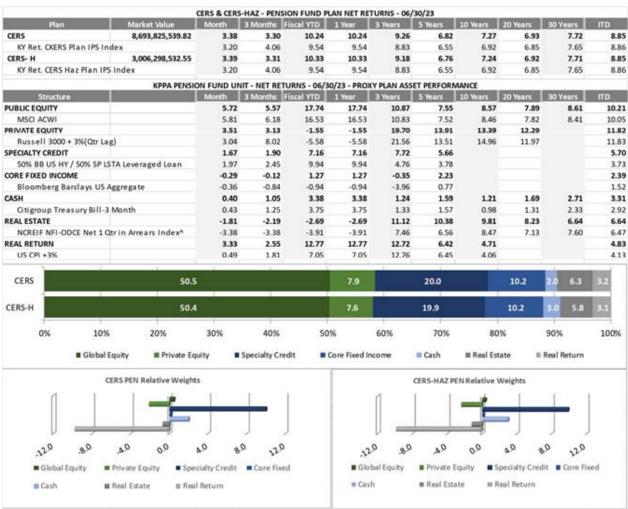
End of June key cash market interest rates: Fed Funds Effective 5.08%, 1M T-Bill 5.11% and 3M T-Bill 5.28%.

KPPA MONTHLY PERFORMANCE UPDATE

CERS/CERS-H

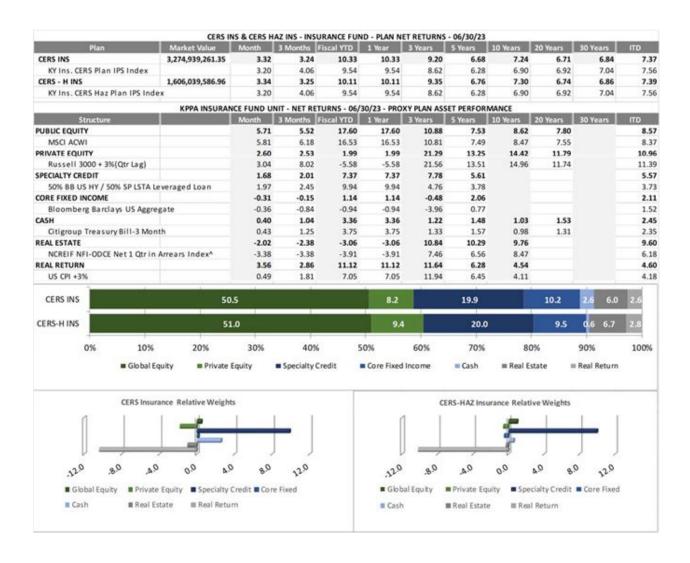






KPPA MONTHLY PERFORMANCE UPDATE

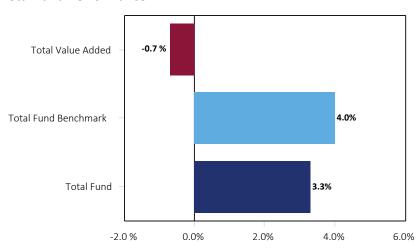
CERS/CERS-H



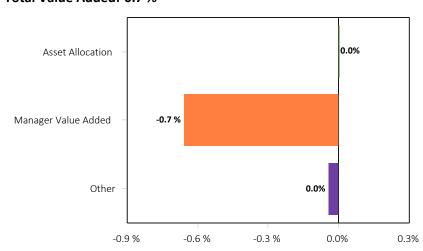
Total Fund Attribution

CERS Pension Plan
Periods Ended 1 Quarter Ending June 30, 2023

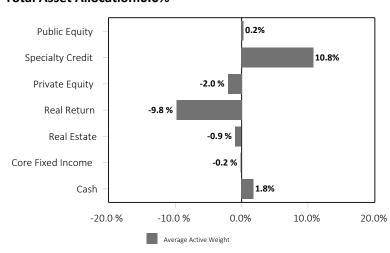
Total Fund Performance



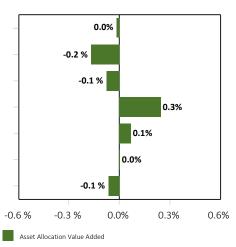
Total Value Added:-0.7 %



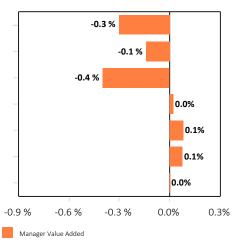
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Asset Allocation Value Added:0.0%



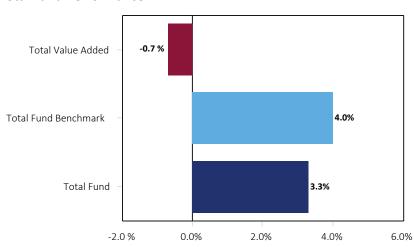
Total Manager Value Added:-0.7 %



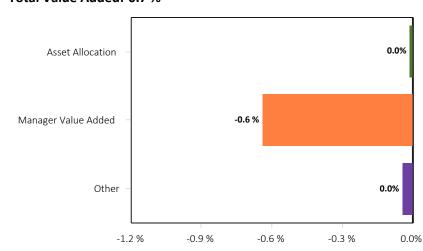
Total Fund Attribution

CERS (H) Pension Plan
Periods Ended 1 Quarter Ending June 30, 2023

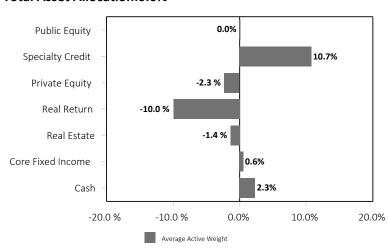
Total Fund Performance



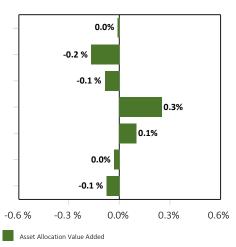
Total Value Added:-0.7 %



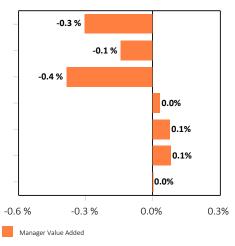
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Asset Allocation Value Added:0.0%



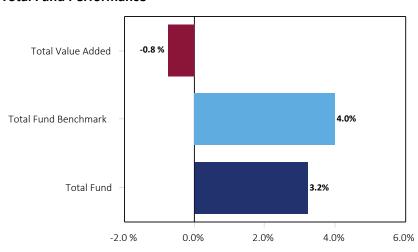
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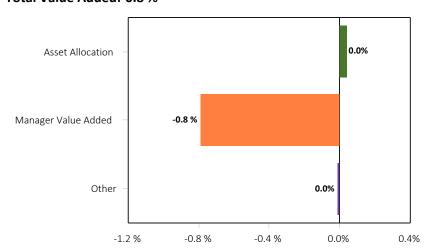
Total Fund Attribution

CERS Insurance Plan
Periods Ended 1 Quarter Ending June 30, 2023

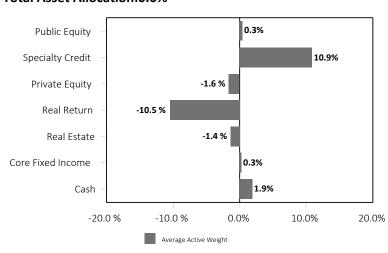
Total Fund Performance



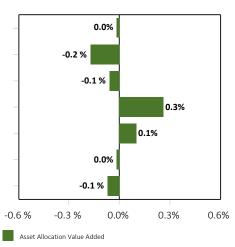
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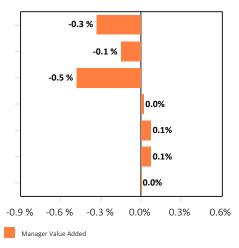
Total Asset Allocation:0.0%



Asset Allocation Value Added:0.0%



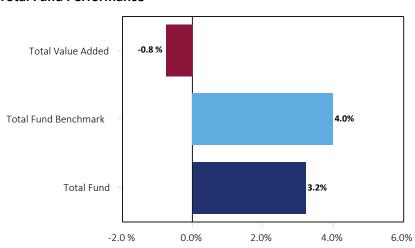
Total Manager Value Added:-0.8%



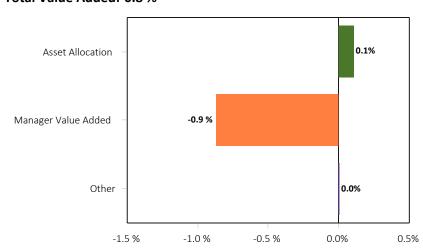
Total Fund Attribution

CERS (H) Insurance Plan
Periods Ended 1 Quarter Ending June 30, 2023

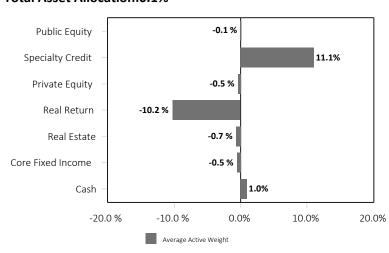
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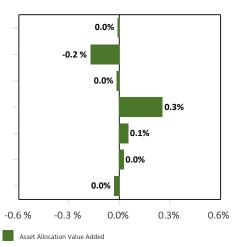
Total Value Added:-0.8 %



Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



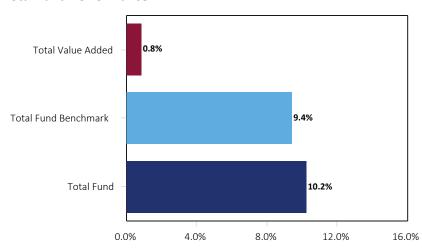
Total Manager Value Added:-0.9%



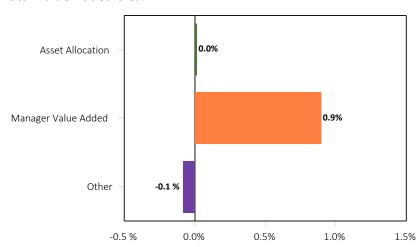
Total Fund Attribution

CERS Pension Plan
Periods Ended 1 Year Ending June 30, 2023

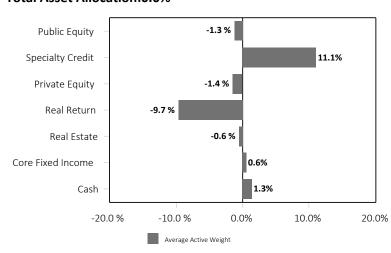
Total Fund Performance



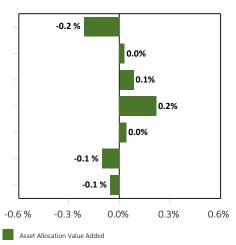
Total Value Added:0.8%



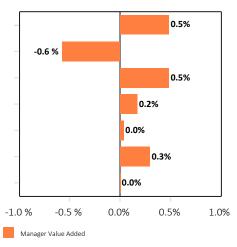
Total Asset Allocation:0.0%



Asset Allocation Value Added:0.0%



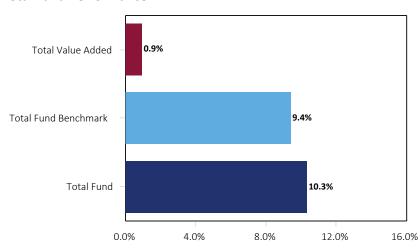
Total Manager Value Added:0.9%



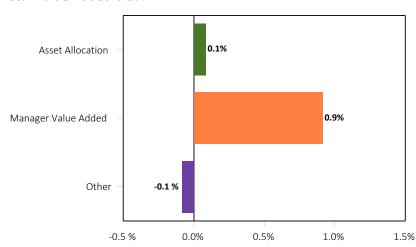
Total Fund Attribution

CERS (H) Pension Plan
Periods Ended 1 Year Ending June 30, 2023

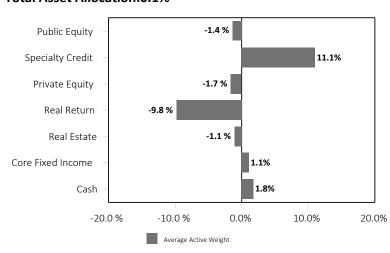
Total Fund Performance



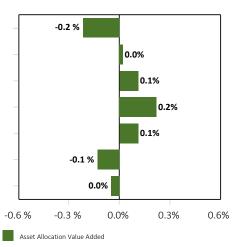
Total Value Added: 0.9%



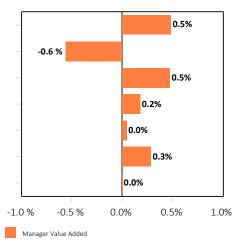
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Asset Allocation Value Added:0.1%



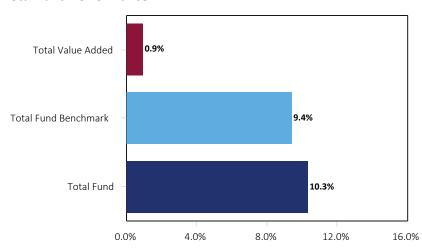
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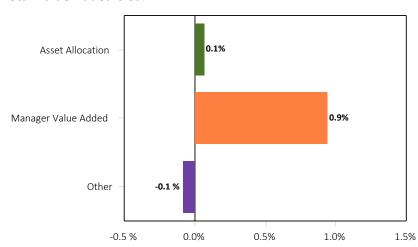
Total Fund Attribution

CERS Insurance Plan
Periods Ended 1 Year Ending June 30, 2023

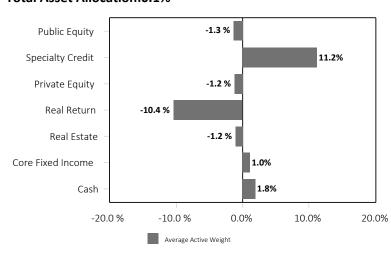
Total Fund Performance



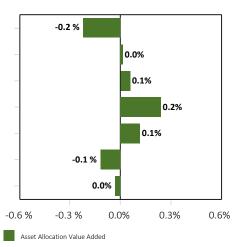
Total Value Added:0.9%



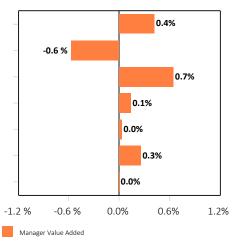
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



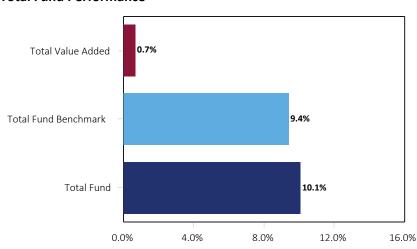
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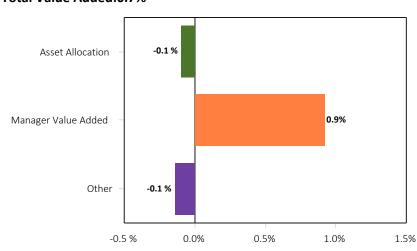
Total Fund Attribution

CERS (H) Insurance Plan
Periods Ended 1 Year Ending June 30, 2023

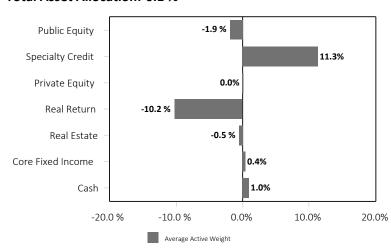
Total Fund Performance



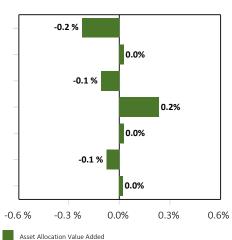
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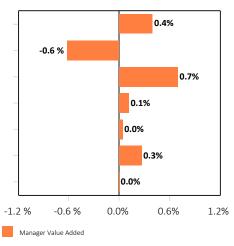
Total Asset Allocation:-0.1 %



Asset Allocation Value Added:-0.1 %

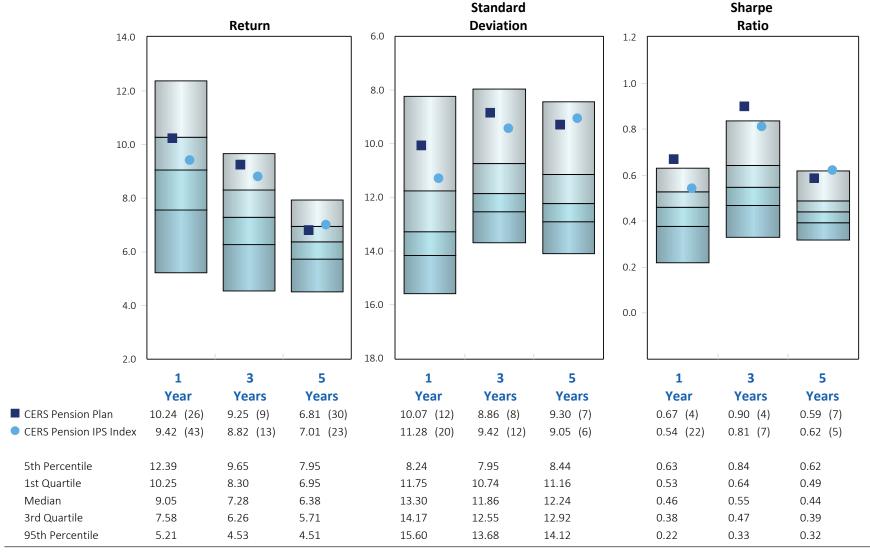


Total Manager Value Added:0.9%



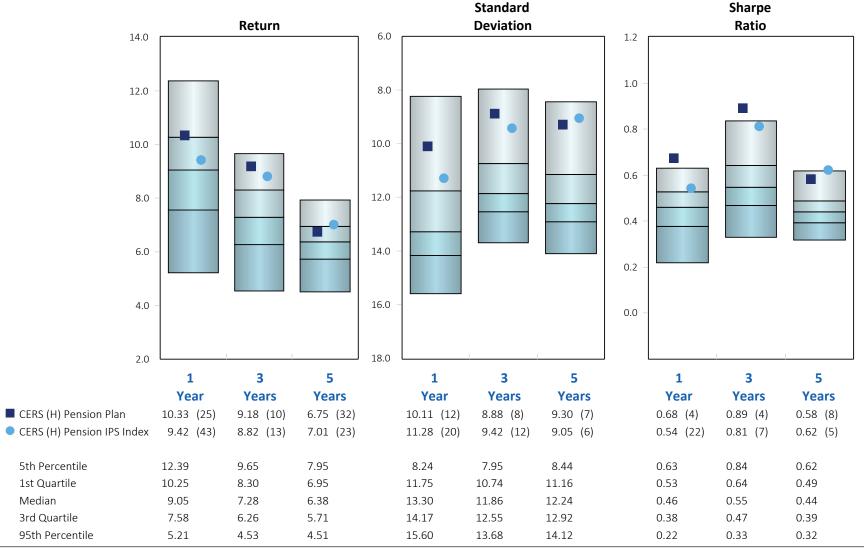
Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Pension Plan vs All Public Plans-Total Fund Periods Ended June 30, 2023



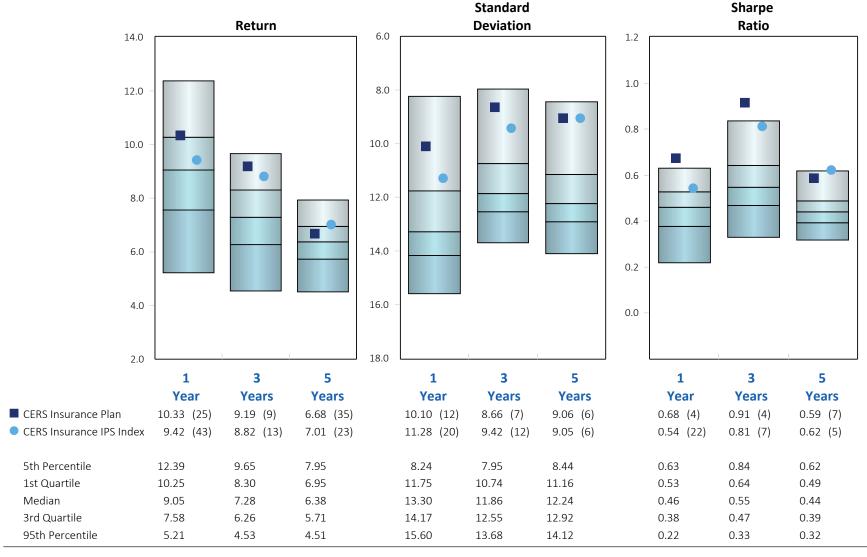
Plan Sponsor Peer Group Analysis - Multi Statistics

CERS (H) Pension Plan vs All Public Plans-Total Fund Periods Ended June 30, 2023



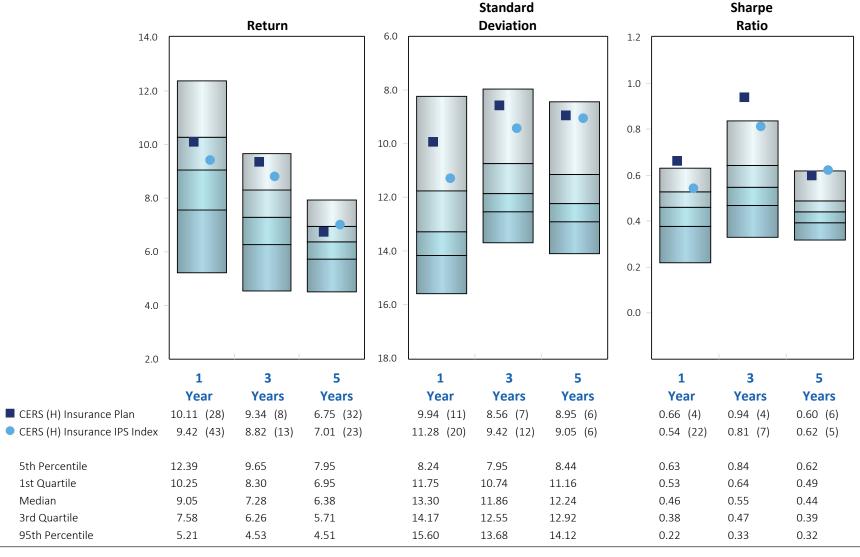
Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Insurance Plan vs All Public Plans-Total Fund Periods Ended June 30, 2023



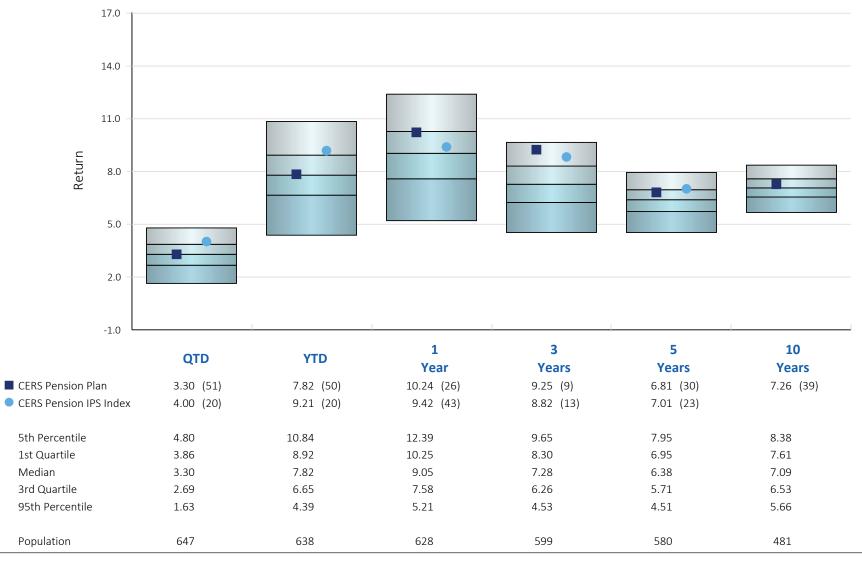
Plan Sponsor Peer Group Analysis - Multi Statistics

CERS (H) Insurance Plan vs All Public Plans-Total Fund *Periods Ended June 30, 2023*



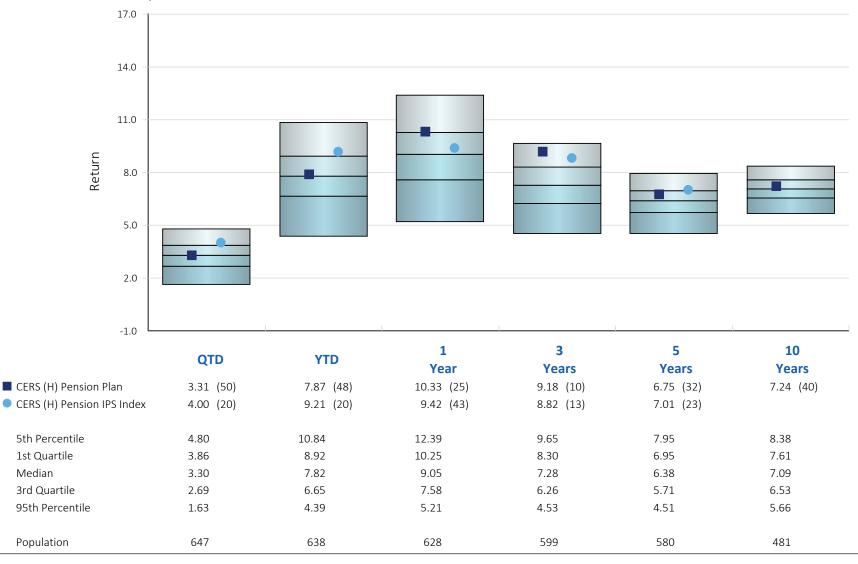
Plan Sponsor Peer Group Analysis

CERS Pension Plan vs All Public Plans-Total Fund Periods Ended June 30, 2023



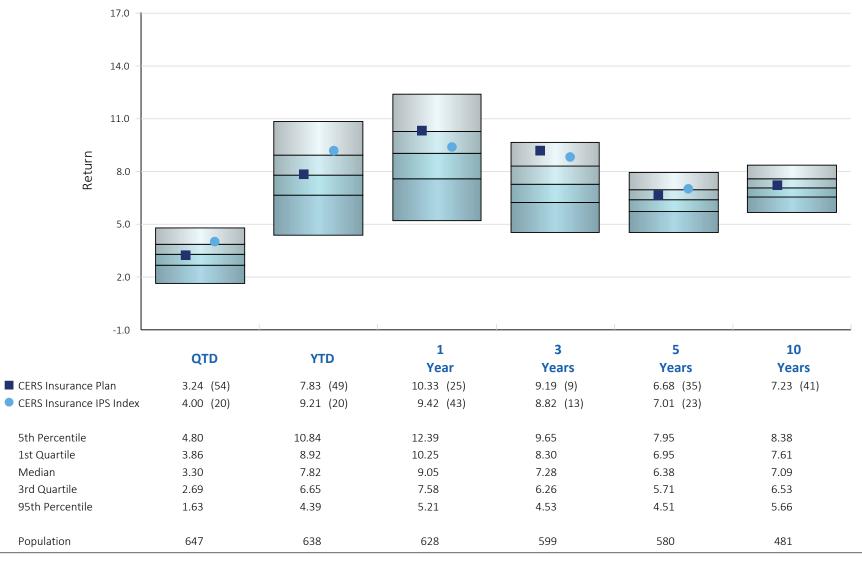
Plan Sponsor Peer Group Analysis

CERS (H) Pension Plan vs All Public Plans-Total Fund Periods Ended June 30, 2023



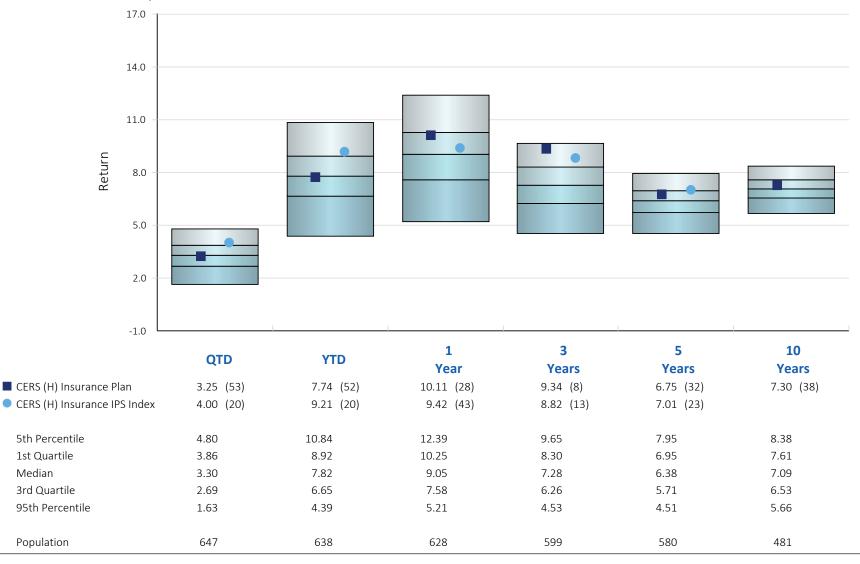
Plan Sponsor Peer Group Analysis

CERS Insurance Plan vs All Public Plans-Total Fund Periods Ended June 30, 2023



Plan Sponsor Peer Group Analysis

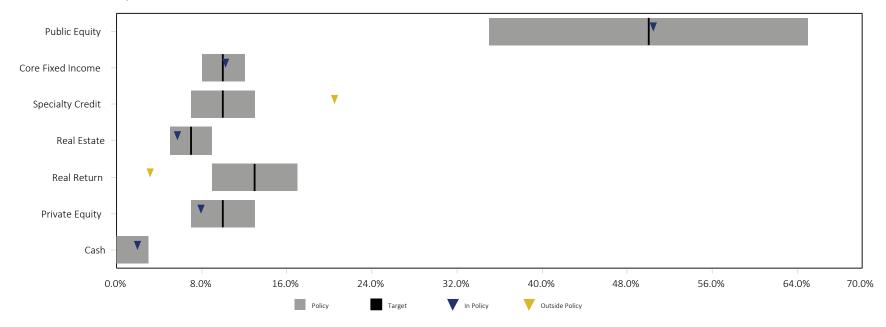
CERS (H) Insurance Plan vs All Public Plans-Total Fund Periods Ended June 30, 2023



Asset Allocation Compliance

CERS Pension Plan
Periods Ended As of June 30, 2023

Executive Summary

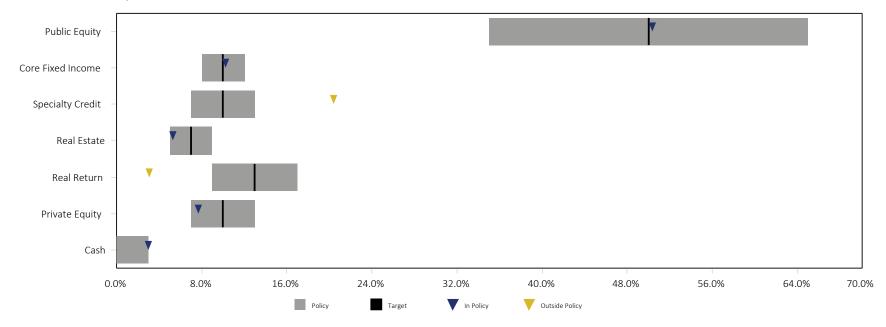


	Asset Allocation	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	4,387,286,430	50.46	35.00	65.00	50.00	-40,373,662
Core Fixed Income	888,227,664	10.22	8.00	12.00	10.00	-18,845,110
Specialty Credit	1,781,836,053	20.50	7.00	13.00	10.00	-912,453,499
Real Estate	500,825,211	5.76	5.00	9.00	7.00	107,742,577
Real Return	274,707,402	3.16	9.00	17.00	13.00	855,489,917
Private Equity	689,035,272	7.93	7.00	13.00	10.00	180,347,282
Cash	171,907,505	1.98	0.00	3.00	0.00	-171,907,505
Total Fund	8,693,825,536	100.00			100.00	

Asset Allocation Compliance

CERS (H) Pension Plan
Periods Ended As of June 30, 2023

Executive Summary

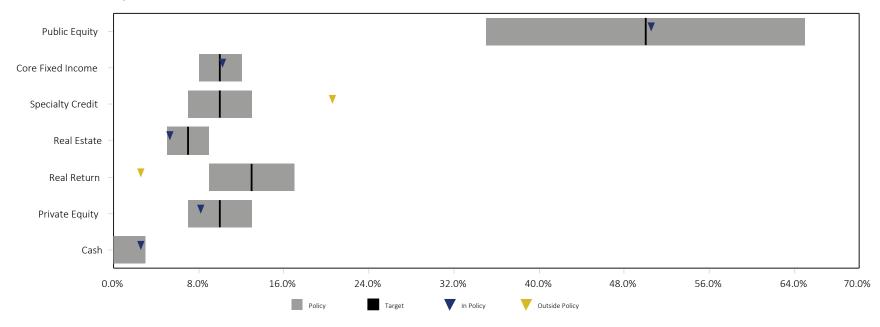


	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,515,427,955	50.41	35.00	65.00	50.00	-12,278,689
Core Fixed Income	308,106,397	10.25	8.00	12.00	10.00	-7,476,544
Specialty Credit	612,963,745	20.39	7.00	13.00	10.00	-312,333,892
Real Estate	159,479,031	5.30	5.00	9.00	7.00	50,961,866
Real Return	91,713,509	3.05	9.00	17.00	13.00	299,105,300
Private Equity	229,769,451	7.64	7.00	13.00	10.00	70,860,402
Cash	88,838,443	2.96	0.00	3.00	0.00	-88,838,443
Total Fund	3,006,298,532	100.00			100.00	

Asset Allocation Compliance

CERS Insurance Plan
Periods Ended As of June 30, 2023

Executive Summary

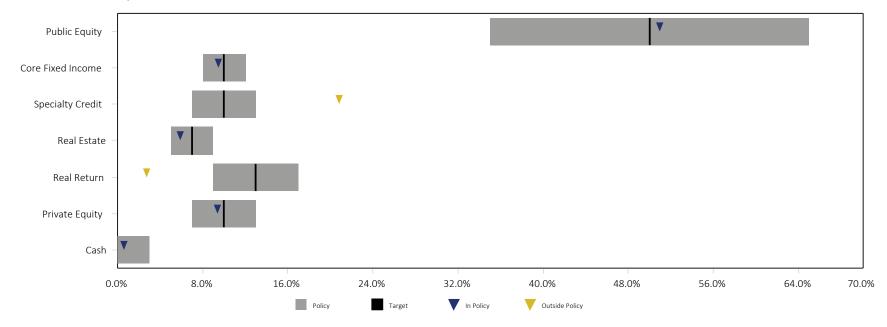


	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,655,332,174	50.55	35.00	65.00	50.00	-17,862,546
Core Fixed Income	335,364,055	10.24	8.00	12.00	10.00	-7,870,129
Specialty Credit	673,638,734	20.57	7.00	13.00	10.00	-346,144,808
Real Estate	173,577,283	5.30	5.00	9.00	7.00	55,668,465
Real Return	84,098,030	2.57	9.00	17.00	13.00	341,644,073
Private Equity	268,196,982	8.19	7.00	13.00	10.00	59,296,944
Cash	84,731,999	2.59	0.00	3.00	0.00	-84,731,999
Total Fund	3,274,939,256	100.00			100.00	

Asset Allocation Compliance

CERS (H) Insurance Plan
Periods Ended As of June 30, 2023

Executive Summary



	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	818,974,392	50.99	35.00	65.00	50.00	-15,954,600
Core Fixed Income	152,770,945	9.51	8.00	12.00	10.00	7,833,014
Specialty Credit	334,355,039	20.82	7.00	13.00	10.00	-173,751,081
Real Estate	95,156,595	5.92	5.00	9.00	7.00	17,266,176
Real Return	44,444,638	2.77	9.00	17.00	13.00	164,340,508
Private Equity	150,751,408	9.39	7.00	13.00	10.00	9,852,550
Cash	9,586,566	0.60	0.00	3.00	0.00	-9,586,566
Total Fund	1,606,039,584	100.00			100.00	

Asset Allocation & Performance

Total Fund
Periods Ended June 30, 2023

536 3. 4 -0. 1. 1. 256 3. 4 -0.	3.30 4.00 0.70 53 77 3.24 4.00	7.82 9.21 -1.39 3.08 4.74 7.83 9.21 -1.38	10.24 9.42 0.82 6.25 3.99 10.33 9.42	1 Year 10.24 9.42 0.82 6.25 3.99 10.33	3 Years 9.25 8.82 0.43 6.25 3.00	5 Years 6.81 7.01 -0.20 6.25 0.56	10 Years 9.30	20 Years 6.93	30 Years 7.71	Since Inception 8.85	Inception Date 4/1/1984
256 3. 4.	1.00 0.70 0.53 0.77 3.24 1.00	9.21 -1.39 3.08 4.74 7.83 9.21	9.42 0.82 6.25 3.99	9.42 0.82 6.25 3.99	8.82 0.43 6.25 3.00	7.01 -0.20 6.25 0.56		6.93	7.71	8.85	4/1/1984
256 3.4.	0.70 53 77 3.24 4.00 0.76	-1.39 3.08 4.74 7.83 9.21	0.82 6.25 3.99	0.82 6.25 3.99	0.43 6.25 3.00	-0.20 6.25 0.56	744				
256 3.4 -0.	53 77 3.24 4.00 0.76	3.08 4.74 7.83 9.21	6.25 3.99 10.33	6.25 3.99 10.33	6.25 3.00	6.25 0.56	744				
256 3. 4.	3.24 1.00 0.76	7.83 9.21	3.99 10.33	3.99 10.33	3.00	0.56	744				
256 3. 4.	3.24 1.00 0.76	7.83 9.21	10.33	10.33			7.44				
4. -0.	1.00 0.76	9.21			9.19	6.69	7.44			1	
4. -0.).76		9.42	0.43		0.00	7.11	6.71	6.84	7.37	4/1/1987
		-1.38		9.42	8.82	7.01					
1.			0.91	0.91	0.37	-0.33					
	53	3.08	6.25	6.25	6.25	6.25					
1.	71	4.75	4.08	4.08	2.94	0.43					
532 3	3.31	7.87	10.33	10.33	9.18	6.75	9.30	6.92	7.71	8.85	4/1/1984
	1.00	9.21	9.42	9.42	8.82	7.01					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
-0.	0.69	-1.34	0.91	0.91	0.36	-0.26					
1.	53	3.08	6.25	6.25	6.25	6.25					
1.	78	4.79	4.08	4.08	2.93	0.50					
584 3.	3.25	7.74	10.11	10.11	9.34	6.75	7.11	6.74	6.86	7.39	4/1/1987
4.	1.00	9.21	9.42	9.42	8.82	7.01					
-0.).75	-1.47	0.69	0.69	0.52	-0.26					
1.	53	3.08	6.25	6.25	6.25	6.25					
1.	72	4.66	3.86	3.86	3.09	0.50					
Э,	9,584 3 4 -C	1.53 1.78	9,584 3.25 7.74 4.00 9.21 -0.75 -1.47 1.53 3.08	9,584 3.25 7.74 10.11 4.00 9.21 9.42 -0.75 -1.47 0.69 1.53 3.08 6.25	1.53 3.08 6.25 6.25 1.78 4.79 4.08 4.08 9,584 3.25 7.74 10.11 10.11 4.00 9.21 9.42 9.42 -0.75 -1.47 0.69 0.69 1.53 3.08 6.25 6.25	1.53 3.08 6.25 6.25 6.25 1.78 4.79 4.08 4.08 2.93 9,584 3.25 7.74 10.11 10.11 9.34 4.00 9.21 9.42 9.42 8.82 -0.75 -1.47 0.69 0.69 0.52 1.53 3.08 6.25 6.25 6.25	1.53 3.08 6.25 6.25 6.25 6.25 1.78 4.79 4.08 4.08 2.93 0.50 9,584 3.25 7.74 10.11 10.11 9.34 6.75 4.00 9.21 9.42 9.42 8.82 7.01 -0.75 -1.47 0.69 0.69 0.52 -0.26 1.53 3.08 6.25 6.25 6.25 6.25	1.53 3.08 6.25 6.25 6.25 6.25 1.78 4.79 4.08 4.08 2.93 0.50 9,584 3.25 7.74 10.11 10.11 9.34 6.75 7.11 4.00 9.21 9.42 9.42 8.82 7.01 -0.75 -1.47 0.69 0.69 0.52 -0.26 1.53 3.08 6.25 6.25 6.25 6.25	1.53 3.08 6.25 6.25 6.25 6.25 1.78 4.79 4.08 4.08 2.93 0.50 9,584 3.25 7.74 10.11 10.11 9.34 6.75 7.11 6.74 4.00 9.21 9.42 9.42 8.82 7.01 -0.75 -1.47 0.69 0.69 0.52 -0.26 1.53 3.08 6.25 6.25 6.25 6.25 6.25	1.53 3.08 6.25 6.25 6.25 6.25 1.78 4.79 4.08 4.08 2.93 0.50 9,584 3.25 7.74 10.11 10.11 9.34 6.75 7.11 6.74 6.86 4.00 9.21 9.42 9.42 8.82 7.01 -0.75 -1.47 0.69 0.69 0.52 -0.26 1.53 3.08 6.25 6.25 6.25 6.25	1.53 3.08 6.25 6.25 6.25 6.25 1.78 4.79 4.08 4.08 2.93 0.50 9,584 3.25 7.74 10.11 10.11 9.34 6.75 7.11 6.74 6.86 7.39 4.00 9.21 9.42 9.42 8.82 7.01 -0.75 -1.47 0.69 0.69 0.52 -0.26 1.53 3.08 6.25 6.25 6.25 6.25 6.25

Asset Allocation & Performance

				Perforn	nance (%) n	et of fees			
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Public Equity	5.71	5.50	13.42	17.56	17.56			-2.35	12/1/2021
Public Equity Policy Index	5.81	6.18	13.93	16.53	16.53			-2.08	
Value Added	-0.10	-0.68	-0.51	1.03	1.03			-0.27	
US Equity Composite	6.90	7.75	15.04	18.46	18.46	14.09	10.88	9.93	7/1/1992
Russell 3000 Index	6.83	8.39	16.17	18.95	18.95	13.89	11.39	10.13	
Value Added	0.07	-0.64	-1.13	-0.49	-0.49	0.20	-0.51	-0.20	
S&P 500 Index	6.59	8.72	16.81	19.60	19.60	14.56	12.50	8.54	7/1/2001
S&P 500 Index	6.61	8.74	16.89	19.59	19.59	14.60	12.31	8.12	
value added	-0.02	-0.02	-0.08	0.01	0.01	-0.04	0.19	0.42	
Scientific Beta	5.81	2.95	6.00	11.32	11.32	11.60	8.46	9.66	7/1/2016
S&P 500 Index	6.61	8.74	16.89	19.59	19.59	14.60	12.31	13.38	
Value Added	-0.80	-5.79	-10.89	-8.27	-8.27	-3.00	-3.85	-3.72	
River Road FAV	9.14	4.37	5.06	10.00	10.00	7.99	5.23	8.58	7/1/2016
Russell 3000 Value Index	6.72	4.03	4.98	11.22	11.22	14.38	7.79	8.87	
Value Added	2.42	0.34	0.08	-1.22	-1.22	-6.39	-2.56	-0.29	
Westfield Capital	6.11	11.65	28.40	26.01	26.01	12.65	14.72	13.79	7/1/2011
Russell 3000 Growth Index	6.91	12.47	28.05	26.60	26.60	13.24	14.39	14.56	
Value Added	-0.80	-0.82	0.35	-0.59	-0.59	-0.59	0.33	-0.77	
Internal US Mid Cap	9.25	5.10	9.46	18.60	18.60	15.74	8.32	9.72	8/1/2014
S&P MidCap 400 Index	9.16	4.85	8.84	17.61	17.61	15.44	7.79	9.27	
Value Added	0.09	0.25	0.62	0.99	0.99	0.30	0.53	0.45	
NTGI Structured	8.06	4.41	7.34	13.28	13.28	14.04	6.19	9.92	7/1/2011
Russell 2000 Index	8.13	5.21	8.09	12.31	12.31	10.82	4.21	8.59	
Value Added	-0.07	-0.80	-0.75	0.97	0.97	3.22	1.98	1.33	

Asset Allocation & Performance

				Perforn	nance (%) n	et of fees			
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Next Century Growth	7.08	8.84	21.57	26.97	26.97	24.11		27.30	11/1/2019
Russell Microcap Growth Index	5.17	6.35	7.16	12.41	12.41	1.45		5.63	
Value Added	1.91	2.49	14.41	14.56	14.56	22.66		21.67	
Non-US Equity Composite	4.01	2.45	11.19	16.29	16.29	7.36	4.12	2.79	4/1/2000
MSCI ACWI ex US IMI (10/17)	4.34	2.38	9.10	12.47	12.47	7.33	3.38	2.84	
Value Added	-0.33	0.07	2.09	3.82	3.82	0.03	0.74	-0.05	
BlackRock World Ex US	4.85	3.18	11.48	17.77	17.77	9.56	4.58	6.58	6/1/2012
MSCI World ex US (11/19)	4.75	3.03	11.29	17.41	17.41	9.30	4.45	6.46	
value added	0.10	0.15	0.19	0.36	0.36	0.26	0.13	0.12	
American Century	3.41	1.08	10.67	16.08	16.08	5.44	5.96	5.82	7/1/2014
MSCI ACWI ex US IMI (10/17)	4.34	2.38	9.10	12.47	12.47	7.33	3.38	3.14	
Value Added	-0.93	-1.30	1.57	3.61	3.61	-1.89	2.58	2.68	
Franklin Templeton	-0.48	-0.95	11.18	15.52	15.52	-1.14	0.92	4.22	7/1/2014
MSCI ACWI ex US IMI (10/17)	4.34	2.38	9.10	12.47	12.47	7.33	3.38	3.14	
Value Added	-4.82	-3.33	2.08	3.05	3.05	-8.47	-2.46	1.08	
Lazard Asset Mgmt	4.94	3.97	13.29	16.53	16.53	8.43	4.29	4.12	7/1/2014
MSCI ACWI ex US IMI (10/17)	4.34	2.38	9.10	12.47	12.47	7.33	3.38	3.14	
Value Added	0.60	1.59	4.19	4.06	4.06	1.10	0.91	0.98	
LSV Asset Mgmt	4.98	3.11	10.38	17.44	17.44	10.23	3.95	3.16	7/1/2014
MSCI ACWI ex US IMI (10/17)	4.34	2.38	9.10	12.47	12.47	7.33	3.38	3.14	
Value Added	0.64	0.73	1.28	4.97	4.97	2.90	0.57	0.02	
Axiom	2.96	-0.86	6.69	7.66	7.66			-16.84	12/1/2021
MSCI AC World ex USA Small Cap (Net)	3.44	2.05	6.84	10.93	10.93			-7.02	
Value Added	-0.48	-2.91	-0.15	-3.27	-3.27			-9.82	

Asset Allocation & Performance

Insurance Plan Accounts
Periods Ended June 30, 2023

				Perforn	nance (%) n	et of fees			
	1	OTD	VTD	EVED	1	3	5	Since	Inception
	Month	QTD	YTD	FYTD	Year	Years	Years	Inception	Date
JP Morgan Emerging Markets	2.59	-1.13	4.36	4.60	4.60	1.11		1.25	11/1/2019
MSCI Emerging Markets IMI Index	3.99	1.76	5.84	3.68	3.68	4.02		2.27	
Value Added	-1.40	-2.89	-1.48	0.92	0.92	-2.91		-1.02	
Pzena Emerging Markets	7.19	7.09	14.73	20.26	20.26	15.37		7.88	11/1/2019
MSCI Emerging Markets (Net)	3.80	0.90	4.89	1.75	1.75	2.32		1.00	
Value Added	3.39	6.19	9.84	18.51	18.51	13.05		6.88	
Private Equity Composite	2.60	2.53	4.65	1.97	1.97	21.32	13.27	10.98	7/1/2002
Russell 3000 +3% 1 Quarter Lag	2.93	7.98	16.59	-5.84	-5.84	22.03	13.76	11.70	
Value Added	-0.33	-5.45	-11.94	7.81	7.81	-0.71	-0.49	-0.72	
Core Fixed Income Composite	-0.29	-0.13	1.78	1.14	1.14	-0.48		2.05	10/1/2018
Blmbg. U.S. Aggregate Index	-0.36	-0.84	2.09	-0.94	-0.94	-3.97		0.80	
Value Added	0.07	0.71	-0.31	2.08	2.08	3.49		1.25	
NISA	-0.36	-0.68	2.32	-0.55	-0.55	-3.85	0.84	1.94	7/1/2011
Blmbg. U.S. Aggregate Index	-0.36	-0.84	2.09	-0.94	-0.94	-3.97	0.77	1.81	
Value Added	0.00	0.16	0.23	0.39	0.39	0.12	0.07	0.13	
Loomis Sayles Intmd	-0.49	-0.50	1.94	-0.23	-0.23	-2.59		0.81	2/1/2019
Blmbg. U.S. Intermediate Aggregate Index	-0.60	-0.75	1.62	-0.60	-0.60	-2.89		0.31	
Value Added	0.11	0.25	0.32	0.37	0.37	0.30		0.50	
Lord Abbett	-0.22	0.07	1.66	1.78	1.78	0.70		1.70	10/1/2018
ICE BofA 1-3 Year U.S. Corporate Index	-0.14	0.28	1.57	1.66	1.66	-0.37		1.61	
Value Added	-0.08	-0.21	0.09	0.12	0.12	1.07		0.09	
Specialty Credit Composite	1.44	1.77	4.56	7.13	7.13	7.70		5.57	10/1/2018
Specialty Credit Policy Index	1.97	2.45	5.94	9.94	9.94	4.76		3.52	
Value Added	-0.53	-0.68	-1.38	-2.81	-2.81	2.94		2.05	

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Asset Allocation & Performance

				Perforr	nance (%) n	et of fees			
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Adams St SPC II A	3.67	3.67	6.75	10.21	10.21	15.38		14.93	6/1/2020
Adams St SPC II B	2.56	2.56	4.66	8.98	8.98	9.92		9.64	6/1/2020
Blue Torch	3.27	3.27	7.32	14.13	14.13			10.46	8/1/2020
BSP Coinvestment	3.06	3.06	5.42	7.75	7.75	6.93		6.79	10/1/2019
Morningstar LSTA US Leveraged Loan	2.26	3.15	6.48	10.71	10.71	6.31		4.18	
Value Added	0.80	-0.09	-1.06	-2.96	-2.96	0.62		2.61	
BSP Private Credit	3.17	3.17	4.43	5.23	5.23	11.13	6.53	5.96	2/1/2018
Morningstar LSTA US Leveraged Loan	2.26	3.15	6.48	10.71	10.71	6.31	4.13	4.03	
Value Added	0.91	0.02	-2.05	-5.48	-5.48	4.82	2.40	1.93	
CapitalSpring	11.28	11.28	20.38	21.41	21.41	16.68		12.94	2/1/2020
Morningstar LSTA US Leveraged Loan	2.26	3.15	6.48	10.71	10.71	6.31		3.91	
Value Added	9.02	8.13	13.90	10.70	10.70	10.37		9.03	
Cerberus Capital Mgmt	0.67	1.89	4.02	8.53	8.53	12.59	10.87	9.61	9/1/2014
Morningstar LSTA US Leveraged Loan	2.26	3.15	6.48	10.71	10.71	6.31	4.13	3.96	
Value Added	-1.59	-1.26	-2.46	-2.18	-2.18	6.28	6.74	5.65	
Columbia	1.44	1.42	5.44	9.72	9.72	3.06	3.67	5.36	11/1/2011
Blmbg. U.S. Corp: High Yield Index	1.67	1.75	5.38	9.06	9.06	3.13	3.36	5.27	
Value Added	-0.23	-0.33	0.06	0.66	0.66	-0.07	0.31	0.09	
Manulife Asset Mgmt	1.05	0.97	4.35	6.74	6.74	2.09	3.61	3.66	12/1/2011
Policy Index	-0.16	-0.59	2.32	-0.04	-0.04	-3.43	0.98	0.99	
Value Added	1.21	1.56	2.03	6.78	6.78	5.52	2.63	2.67	
Marathon Bluegrass	0.38	-0.16	1.10	-4.14	-4.14	6.73	4.31	5.36	1/1/2016
Blmbg. U.S. Corp: High Yield Index	1.67	1.75	5.38	9.06	9.06	3.13	3.36	5.44	
Value Added	-1.29	-1.91	-4.28	-13.20	-13.20	3.60	0.95	-0.08	

Asset Allocation & Performance

				Perforr	nance (%) n	et of fees			
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Shenkman Capital	2.13	2.97	5.87	10.08	10.08	5.58	3.95	3.96	7/1/2011
Morningstar LSTA US Leveraged Loan	2.26	3.15	6.48	10.71	10.71	6.31	4.13	4.28	
Value Added	-0.13	-0.18	-0.61	-0.63	-0.63	-0.73	-0.18	-0.32	
Waterfall	0.60	-1.71	0.90	3.87	3.87	8.95	3.93	7.58	7/1/2011
Policy Index	1.25	1.82	4.98	7.98	7.98	3.01	2.97	3.86	
Value Added	-0.65	-3.53	-4.08	-4.11	-4.11	5.94	0.96	3.72	
White Oak Yield Spectrum	1.58	1.58	2.56	5.09	5.09	6.71	5.64	5.35	3/1/2018
Morningstar LSTA US Leveraged Loan	2.26	3.15	6.48	10.71	10.71	6.31	4.13	4.06	
Value Added	-0.68	-1.57	-3.92	-5.62	-5.62	0.40	1.51	1.29	
Arrowmark	1.27	4.02	7.93	13.81	13.81	14.53	10.07	9.90	6/1/2018
Morningstar LSTA US Leveraged Loan	2.26	3.15	6.48	10.71	10.71	6.31	4.13	4.09	
Value Added	-0.99	0.87	1.45	3.10	3.10	8.22	5.94	5.81	
H/2 Credit Partner	0.00	0.00	0.00	0.00	0.00	9.40	1.09	3.99	7/1/2011
Mesa West Core Lend	-3.94	-3.94	-4.94	-2.22	-2.22	2.96	4.59	5.48	5/1/2013
Mesa West IV	-11.12	-11.12	-12.02	-13.48	-13.48	0.38	3.26	3.25	3/1/2017
Cash Composite	0.40	1.04	1.94	3.36	3.36	1.22	1.51	2.47	7/1/1992
FTSE 3 Month T-Bill	0.43	1.25	2.39	3.75	3.75	1.33	1.57	2.35	
Value Added	-0.03	-0.21	-0.45	-0.39	-0.39	-0.11	-0.06	0.12	

Asset Allocation & Performance

		Performance (%) net of fees									
	1	QTD	YTD	FYTD	1	3	5	Since	Inception		
	Month	QID	110	1110	Year	Years	Years	Inception	Date		
Real Estate Composite	-2.02	-2.38	-6.62	-3.05	-3.05	10.86	9.98	9.37	5/1/2009		
NCREIF ODCE NOF 1 Quarter Lag	-3.38	-3.38	-8.37	-3.91	-3.91	7.46	6.56				
Value Added	1.36	1.00	1.75	0.86	0.86	3.40	3.42				
Baring	-17.07	-18.45	-26.37	-27.50	-27.50	-0.43		8.94	1/1/2019		
Barings Euro RE II	-8.91	-10.57	-25.74	-26.59	-26.59			-21.93	12/1/2020		
Divcowest IV	0.47	0.47	-3.84	-4.03	-4.03	14.33	11.66	17.01	3/1/2014		
Fundamental Partners III	0.33	0.33	4.13	3.94	3.94	18.57	15.98	13.69	5/1/2017		
Greenfield Acq VI	-5.10	-5.10	-24.36	-35.66	-35.66	-36.28	-40.65	-18.49	12/1/2012		
Greenfield Acq VII	3.22	3.22	-11.22	0.46	0.46	17.21	15.26	13.70	7/1/2014		
Harrison Street	0.00	0.00	-1.03	7.34	7.34	7.09	7.08	7.77	5/1/2012		
Lubert Adler VII	-1.04	-1.04	-9.68	-9.52	-9.52	-3.86	-1.11	-1.63	7/1/2014		
Lubert Adler VII B	1.70	1.70	9.39	15.07	15.07	26.33	20.03	15.82	7/1/2017		
Patron Capital	6.11	4.14	2.63	-1.89	-1.89	10.02	6.76	4.24	8/1/2016		
Prologis Targeted US	0.00	-0.73	-6.27	-0.78	-0.78	21.02	18.68	17.24	10/1/2014		
Rubenstein PF II	-25.09	-25.09	-38.19	-45.01	-45.01	-18.26	-9.86	1.25	7/1/2013		
Stockbridge Sm/Mkts	-3.85	-3.85	-9.85	-9.27	-9.27	9.61	8.15	8.63	5/1/2014		
Walton St RE VI	2.14	2.14	7.50	14.01	14.01	11.61	4.77	-10.74	5/1/2009		
Walton St RE VII	-6.79	-6.79	-7.16	-3.50	-3.50	0.68	-2.95	4.81	7/1/2013		

Asset Allocation & Performance

June 30, 2023				Perforn	nance (%) n	et of fees			
	1	QTD	YTD	FYTD	1	3	5	Since	Inception
	Month	QID	טוז	FTID	Year	Years	Years	Inception	Date
Real Return Composite	3.56	2.86	4.43	11.15	11.15	11.65	6.28	4.60	7/1/2011
US CPI +3%	0.43	1.42	3.14	6.18	6.18	8.91	7.01	5.62	
Value Added	3.13	1.44	1.29	4.97	4.97	2.74	-0.73	-1.02	
Tortoise Capital	5.81	4.44	7.79	28.85	28.85	29.45	6.12	9.58	8/1/2009
Alerian MLP Index	4.14	5.38	9.70	30.51	30.51	30.70	6.16	6.99	
Value Added	1.67	-0.94	-1.91	-1.66	-1.66	-1.25	-0.04	2.59	
Amerra AGRI Fund II	1.16	1.16	-0.31	8.60	8.60	8.76	8.68	6.18	12/1/2012
Amerra AGRI Holdings	-9.93	-9.93	-6.73	-10.16	-10.16	-4.37	-3.17	-2.43	8/1/2015
BTG Pactual	2.74	2.74	3.61	10.50	10.50	12.86	4.74	-1.48	12/1/2014
IFM Infrastructure	2.80	1.05	4.91	7.31	7.31	6.39		4.98	7/1/2019
Magnetar MTP EOF II	20.38	20.38	17.83	27.22	27.22	100.25	45.88	27.67	8/1/2015
Oberland Capital	3.25	3.25	6.70	11.29	11.29	10.98		13.84	8/1/2018
Taurus Mine Finance	4.66	4.66	8.02	37.28	37.28	26.24	17.30	15.67	4/1/2015
TPF II	-0.92	-0.92	-5.10	-7.70	-7.70	3.63	4.74	-0.86	10/1/2008
Blackstone Strat Opp	0.34	-5.67	-5.57	-8.03	-8.03	-2.75	-4.64	-2.84	8/1/2017
Luxor Capital	-0.04	-0.12	-0.20	3.12	3.12	8.79	-1.40	-0.04	4/1/2014
Myriad Opportunities	0.00	0.00	-0.30	-7.59	-7.59	-19.64	-15.91	-8.92	5/1/2016
Pine River	-0.23	0.05	-7.38	-3.79	-3.79	-3.17	3.22	1.61	5/1/2014
PRISMA Capital	0.21	0.70	1.68	1.09	1.09	-0.12	0.41	2.41	9/1/2011
SRS Partners US	0.00	0.00	0.00	0.00	0.00	6.01	5.55	7.60	8/1/2017
Tricadia Select	0.00	0.00	0.00	0.00	0.00	0.00	-1.36	-4.29	9/1/2017

County Employees Retirement Systems

Investment Budget Update

Quarter Ending: June 30, 2023

KENTUCKY PUBLIC PENSIONS AUTHORITY Investment Budget For the twelve month period ending June 30, 2023 **Trust Budget** Percentage **Trust Budget Account Name** FY 2019 FY 2020 FY 2021 FY 2022 Q4 2023 FYTD 2023 Remaining FY 2023 FY 2024 Spent CONSULTING SERVICES Wilshire Associates 1,021,799 1,238,170 1,225,671 \$ 1,021,175 1,190,000 274,600 838,172 351,828 70% 1,200,000 Albourne 270,000 67,500 306,750 (36,750) 114% 275,000 MercerInsight 160,000 153,548 153,548 6,452 96% 165,000 1,021,799 1,238,170 SUBTOTAL 1,225,671 1,021,175 1,620,000 495,648 1,298,471 321,529 80% 1,640,000 **LEGAL & AUDITING SERVICES** Faegre Drinker 96,039 202,502 375,000 810 16,428 358,572 4% 100,000 Intelligent Management Solutions (IMS 620,001 202,140 155,700 69,884 81,880 (6,880) 109% 350,000 75,000 McClain/Goldber 891 25,000 25,000 0% 100,000 Reinhar 317,909 671,269 663,689 619,509 437,500 43,825 109,508 327,992 25% 2,500,000 Stoll-Keenon-Ogder 10,314 135,353 254,211 463,560 750,438 (500,438) 300% 250,000 393,985 750,000 Haystacl 140,000 64,283 120,175 19,825 86% 100,000 289,100 498,058 Umberg Zipser 360,000 364,137 606,701 (246,701)169% 850,000 Frost Brown Todo 50,000 50,000 0% Swansburg & Smith 5,288 (5,288 50,000 Eddins Domine 40,305 (40,305 50,000 75,804 142,720 (142,720) 50,000 Miscellaneous 200,000 200,000 0% 50,000 942,844 948,225 1,008,762 1,459,630 1,853,513 1,912,500 1,873,441 39,059 98% 4,950,000 SUBTOTAL **CONTRACTURAL SERVICES** 68,722 71,810 98,163 102,243 150,000 26,623 104,153 45,847 69% 150,000 Bloomber 2,056,390 2,088,475 BNYM Custodial Fees 2,379,838 2,565,169 4,000,000 613,522 2,333,981 1,666,019 58% 2,600,000 30,000 35,000 33,800 1,200 97% 35,000 eVestment (Solovis RMS 100% 275,000 Solovis (Reporting & Analytics 245,000 265,000 8,767 266,017 (1,017)FactSe 222,476 162,295 109,662 140,098 150,000 52,657 146,411 3,589 98% 150,000 Russell Index Subscription 1,075 1,250 1,000 1,000 1,500 250 750 750 50% 1,500 S&P Globa 94,500 26,250 68,250 75,000 27,563 27,563 47,438 37% 75,000 TradeWe 6,000 7,500 2,100 7,700 (200) 103% 7,500 15,000 State Street/Elkins McSherr 10,000 5,000 10,000 10,000 10,000 100% 10,000 35,813 32,050 32,050 28,288 37,000 8,013 39,875 (2,875) 108% 60,000 MSC 1,000 1,000 1,000 1,000 1,000 1,000 100% 1,000 **KPMG Tax Guarantor Services** 7,606 22,050 7,350 7,500 7,500 0% 7,500 Jayant Ghevaria and CO 10,050 52,085 55,000 55,000 0% 55,000 India Renewal Fee (SEBI 3,000 3,000 3,000 0% 3,000 With Intelligence 9,520 (9,520) 0% 9,520 250,000 250,000 0% 250,000 Miscellaneous & New Services **SUBTOTAL** 2,391,713 2,474,036 2,681,251 3,267,008 5,047,500 739,495 2,980,769 2,066,731 59% 3,690,020

KENTUCKY PUBLIC PENSIONS AUTHORITY Investment Budget For the twelve month period ending June 30, 2023										
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	Trust Budget FY 2023	Q4 2023	FYTD 2023	Remaining	Percentage Spent	Trust Budget FY 2024
INACTIVE CONTRACTURAL SERVICES										
Dean Dorton	9,719		-	-	-		250	(250)		-
Hirschler		4,794	-	-						
INFORMA	12,904		-	-	-					-
Lighthouse Solutions	3,093		-	=						
London Stock Exchange GBP (GREAT BRITISH POUNDS)		3,544	-	-	-					-
Deutsche Bank Trust	3,000		3,000	-						
Morris James LLP	94,192	20,154	-	-	-					-
Calcaterra Pollack			1,200,000	-						
Manatt		90,798	30,757	-	-					-
ORG	162,344		-	-	-					-
SUBTOTAL	291,718	119,290	1,233,757	-	-	-	250	(250)		-
TOTAL	\$ 4.653.455	\$ 4.840.258	\$ 6,600,309	\$ 6.141.696	\$ 8.580.000	\$ 2.177.987	\$ 6.152.931	\$ 2,427,069	72%	\$ 10.280.020

INVESTMENT BUDGET	
CONSULTING SERVICES	
Wilshire Associates	General Investment Consultanting Services, Manager Research and Due Dilligence, Reporting, Asset Allocation
Albourne	Investment Consultant Research database - Private Markets Manager Research, Private Markets Research, Pension Markets Research
MercerInsight	Investment Consultant Research database - Public Markets Manager Research, Public Markets Research, Pension Markets Research
LEGAL & AUDITING SERVICES	
Faegre Drinker	Delaware litigation counsel
Intelligent Management Solutions (IMS)	IMS is an expert witness in the Bay Hills case.
McClain/Goldberg	Blackstone litigation counsel for the Trustees and Officers
Reinhart	Bay Hills counsel and investment counsel for contract negotiations
Stoll-Keenon-Ogden	Mayberry counsel
Haystack	Conduct Mayberry eDiscovery
Umberg Zipser	PAAMCO-Prisma (California litigation)
Frost Brown Todd	Currently has no investment-related cases
Swansburg & Smith	Reimbursement of Fiduciary Legal Expenses (KKR)
Eddins Domine	Reimbursement of Fiduciary Legal Expenses (KKR)
Taft	Reimbursement of Fiduciary Legal Expenses (Calcaterra Pollack)
CONTRACTURAL SERVICES	
Bloomberg	Bloomberg Professional Services, Data Analytics and Tools, Market Information and News, Research Portal
BNYM Custodial Fees	Full Service Custodial Services, Investment Accounting, Investment Operations, Transaction Services, Performance and Attribution, Reporting
eVestment (Solovis RMS)	Research Management Program organizing internal and exteranl research
Solovis (Reporting & Analytics)	Portfolio and Risk Analytics, Perfromance Measurement and Attribution, Reporting
FactSet	Workstation and Quant/Risk Applications for managing Public Equity Portfolios
Russell Index Subscription	Access to Russell Indexes for Portfolio Management, Reporting and Performance
S&P Global	Data on the S & P US Index / License to 10,000 Identifiers for Portfolio Management, Reporting and Performance
TradeWeb	Electronic Trading Platform for Internal Management
State Street/Elkins McSherry	Public Equity Trade Cost Analysis
ISS	Portfolio Monitoring and Proxy Voting Services
MSCI	International Public Equity Data Package
KPMG Tax Guarantor Services	Tax Accounting Services - Taiwan
Jayant Ghevaria and CO	Tax Accounting Services - India
India Renewal Fee (SEBI)	Registration of India Local Market Accounts
With Intelligence	Portfolio Management Research provider

Investment Fees and Expenses

For the twelve month period ending June 30, 2023

Pension

	2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	2,810,843	2,157,082,914	2,679,056	2,126,730,865	2,648,483	2,380,760,174
Investment Advisory Fees	2,161,526		2,284,025		2,579,704	
Performance Fees	597,736		327,140		-	
Miscellaneous Fees and Expenses	51,580		67,891		68,779	
Public Equity	13,439,395	7,675,481,712	14,055,871	6,283,684,703	12,690,120	6,952,113,563
Investment Advisory Fees	13,221,493		13,773,772		12,466,655	
Miscellaneous Fees and Expenses	217,902		282,099		223,465	
Specialty Credit Fixed Income	65,560,653	3,232,557,049	50,984,092	3,140,978,211	44,112,571	3,048,523,710
Investment Advisory Fees	18,967,582		18,167,989		15,415,716	
Performance Fees	18,303,365		23,790,103		24,234,258	
Miscellaneous Fees and Expenses	28,289,706		9,025,999		4,462,596	
Real Estate	6,077,555	970,705,137	34,875,097	882,758,681	9,191,005	610,213,834
Investment Advisory Fees	7,666,218		5,759,527		4,772,617	
Performance Fees	(3,012,939)		25,779,317		2,414,707	
Miscellaneous Fees and Expenses	1,424,277		3,336,253		2,003,680	
Real Return	6,438,573	477,175,149	4,923,027	560,575,289	8,313,392	1,033,884,979
Investment Advisory Fees	3,643,650		3,237,685		4,663,221	
Performance Fees	1,787,354		1,326,636		3,021,470	
Miscellaneous Fees and Expenses	1,007,569		358,707		628,701	
Private Equity	10,690,392	1,158,434,650	59,843,619	1,289,931,630	58,785,850	1,236,163,938
Investment Advisory Fees	6,858,327		7,269,395		8,081,476	
Performance Fees	(206,420)		47,992,035		48,458,818	
Miscellaneous Fees and Expenses	4,038,484		4,582,189		2,245,555	
Administrative Expense/Cash	3,907,558	1,037,039,063	4,288,007	718,023,703	4,248,561	526,326,268
Total Investment Mgmt Fees	108,924,969	16,708,475,674	171,648,769	15,002,683,082	139,989,981	15,787,986,466

Investment Fees and Expenses

For the twelve month period ending June 30, 2023

Insurance

	20	023	2	2022	2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	1,045,453	767,203,724	1,025,837	783,771,227	1,050,510	865,995,148
Investment Advisory Fees	815,621		884,381		995,622	
Performance Fees	212,206		117,337		28,448	
Miscellaneous Fees and Expenses	17,626		24,118		26,440	
Public Equity	6,213,291	3,502,969,757	6,254,311	2,913,823,466	5,708,928	3,116,599,040
Investment Advisory Fees	6,114,797		6,151,291		5,612,577	
Miscellaneous Fees and Expenses	98,493		103,020		96,351	
Specialty Credit Fixed Income	29,502,537	1,450,421,603	22,623,007	1,417,059,844	19,174,439	1,383,567,012
Investment Advisory Fees	8,250,969		9,031,968		6,978,722	
Performance Fees	8,673,066		9,702,493		10,392,111	
Miscellaneous Fees and Expenses	12,578,501		3,888,546		1,803,605	
Real Estate	2,906,175	428,207,724	14,379,286	372,994,823	3,945,135	258,214,840
Investment Advisory Fees	3,467,712		2,491,508		2,048,449	
Performance Fees	(1,172,536)		10,457,273		1,043,274	
Miscellaneous Fees and Expenses	610,998		1,430,505		853,412	
Real Return	2,958,987	185,474,384	2,154,305	218,958,241	3,278,267	435,909,260
Investment Advisory Fees	1,645,581		1,456,997		2,005,961	
Performance Fees	809,344		526,052		91,499	
Miscellaneous Fees and Expenses	504,062		171,255		1,180,807	
Private Equity	7,312,492	591,148,154	35,364,269	625,456,058	35,821,138	585,420,005
Investment Advisory Fees	4,438,736		4,821,382		5,232,127	
Performance Fees	959,666		28,808,835		29,557,732	
Miscellaneous Fees and Expenses	1,914,090		1,734,052		1,031,279	_
Administrative Expense/Cash	1,938,475	269,624,118	2,171,197	277,962,758	2,183,105	291,596,737
Total Investment Mgmt Fees	\$ 51,877,408	\$ 7,195,049,465	\$ 83,972,211	\$ 6,610,026,417	\$ 71,161,521	\$ 6,937,302,042

Investment Fees and Expenses For the twelve month period ending June 30, 2023

Pension

	CE	RS	CERS Hazardous		
	FYTD Fees	Market Value	FYTD Fees	Market Value	
Core Fixed Income	1,185,720	888,227,664	426,481	308,106,397	
Investment Advisory Fees	657,773		237,608		
Performance Fees	251,424		90,822		
Miscellaneous Fees and Expenses	276,522		98,051		
Public Equity	7,740,466	4,387,286,431	2,642,874	1,515,427,955	
Investment Advisory Fees	7,615,668		2,600,201		
Miscellaneous Fees and Expenses	124,798		42,673		
Specialty Credit Fixed Income	36,824,276	1,736,726,444	12,362,724	598,736,102	
Investment Advisory Fees	10,397,747		3,516,942		
Performance Fees	10,559,452		3,511,209		
Miscellaneous Fees and Expenses	15,867,077		5,334,573		
Real Estate	3,531,907	545,934,822	1,111,846	173,706,674	
Investment Advisory Fees	4,412,442		1,390,583		
Performance Fees	(1,692,745)		(535,316)		
Miscellaneous Fees and Expenses	812,210		256,578		
Real Return	3,825,109	274,707,402	1,358,772	91,713,509	
Investment Advisory Fees	2,155,566		761,082		
Performance Fees	1,000,077		382,490		
Miscellaneous Fees and Expenses	669,465		215,199		
Private Equity	7,482,353	689,035,272	2,230,020	229,769,451	
Investment Advisory Fees	4,424,966		1,476,587		
Performance Fees	598,142		(63,433)		
Miscellaneous Fees and Expenses	2,459,245		816,866		
Administrative Expenses/Cash	2,042,242	171,907,505	702,496	88,838,443	
Total Investment Mgmt Fees	62,632,073	8,693,825,540	20,835,214	3,006,298,533	

Investment Fees and Expenses

For the twelve month period ending June 30, 2023

Insurance

	С	ERS	CERS Hazardous			
	FYTD Fees	Market Value	FYTD Fees	Market Value		
Core Fixed Income	467,645	335,364,055	218,672	152,770,944		
Investment Advisory Fees	365,670		169,840			
Performance Fees	94,155		45,087			
Miscellaneous Fees and Expenses	7,821		3,745			
Public Equity	2,864,591	1,655,332,174	1,417,576	818,974,392		
Investment Advisory Fees	2,818,363		1,395,115			
Miscellaneous Fees and Expenses	46,228		22,461			
Specialty Credit Fixed Income	13,309,873	650,532,690	7,044,758	321,600,060		
Investment Advisory Fees	3,706,529		1,906,037			
Performance Fees	3,918,081		2,118,938			
Miscellaneous Fees and Expenses	5,685,263		3,019,782			
Real Estate	1,335,788	196,683,332	732,331	107,911,578		
Investment Advisory Fees	1,593,550		873,895			
Performance Fees	(538,409)		(295,491)			
Miscellaneous Fees and Expenses	280,647		153,926			
Real Return	1,398,921	84,098,030	643,813	44,444,638		
Investment Advisory Fees	777,558		363,888			
Performance Fees	390,796		154,355			
Miscellaneous Fees and Expenses	230,567		125,569			
Private Equity	2,718,202	268,196,982	1,462,639	150,751,408		
Investment Advisory Fees	2,144,383		1,196,508			
Performance Fees	(271,682)		(195,393)			
Miscellaneous Fees and Expenses	845,501		461,525			
Administrative Expenses/Cash	881,713	84,731,999	436,450	9,586,566		
Total Investment Mgmt Fees	\$ 22,976,733	\$ 3,274,939,261	\$ 11,956,237	\$ 1,606,039,587		

County Employees Retirement Systems

Compliance Report

Quarter Ending: June 30, 2023



Compliance Guideline Review for the Period Ended June 30, 2023	Compliance Status
Total assets assigned to the selected manager shall not exceed 25% of that firm's total assets under management and shall not exceed 25% of a firm's total assets under management in a commingled product.	•
The assets managed by any one active or passive investment manager shall not exceed 15% of the overall assets in the pension and insurance funds.	•
No more than 20% of the total net assets of the Real Return portfolio may be invested in any single closed-end or open-end limited partnership or other unregistered investment vehicle.	•
Securities issued by the state of Kentucky, its subsidiaries, or affiliates are prohibited.	
An investment in any single domestic or international equity allocation in any single corporation cannot exceed 5% of the market value of CERS' total assets.	•
The systems in aggregate shall not hold in excess of 3% of the outstanding shares of any single corporation.	•



The amount of stock in any one industry in the domestic equity allocation shall not exceed 10% of the aggregate market value of the System's assets.	•
Investment in "frontier" markets shall not exceed 5% of the System's international equity assets.	•
The duration of the total fixed income portfolio shall not deviate from the Fixed Income Index by more than 25%.	•
The duration of the TIPS portfolio shall not deviate from the Barclay's TIPS Index by more than 10%.	•
The amount invested in the debt of a single corporation shall not exceed 5% of the total market value of the System's Assets.	•
50% of the fixed income assets must have liquidity that is T+3 (trade date plus three days) or better.	•
No public fixed income manager shall invest more than 5% of the total market value of assets held in any single issue, short-term instruments, with the exception of U.S. Government issued, guaranteed or agency obligations.	•
No more than 50% of the total net assets of the Real Return portfolio may be invested in any one registered investment vehicle, mutual fund, or separately managed account.	•
The maximum investment in any co-investment vehicle shall not exceed 50 percent of the total capital committed by all partners at the time of the final closing. The maximum investment in any single direct co-investment shall not exceed 20 percent of the original partnership commitment. Total investment in direct co-investments shall not exceed 20 percent of the asset class portfolio on a cost basis at the time of investment.	•

For those open-end funds where assets can be added or subtracted, the CIO will have discretion to reduce or increase an investment manager's allocation between 50% and 150% of the approved target. The target will not be raised prior to the one-year anniversary of the amount approved by the CERS Investment Committee, and must be reported to the CERS Investment Committee at the next scheduled meeting.

The CERS Board is aware that from time to time the investment manager will require a portion of the allocated funds to be held in cash provided the cash holdings do not exceed five percent (5%) of the manager's allocation for any given quarter. unless such cash holdings are an integral part of a fixed income manager's investment strategy.

The KPPA Investment Staff may passively manage up to twenty (20%) percent of the overall portfolio dedicated to these efficient markets. Beyond this level the CIO shall seek the approval of the Investment Committee by e,xplaining how further passive management would help achieve the overall portfolio objectives.

Kentucky Public Pensions Authority

Security Litigation Report

Quarter Ending: June 30, 2023

Claims Filed during the Quarter (pg 3):

7

Proceeds Received during the Quarter (pg 4):

\$27,166.50

Kentucky	Retirement	Systems
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Quarterly Securities Litigation Report

Quarter Ended 06/30/23

Total Claims Filed	
No Claim on File	9
Fiscal Year 1997	1
Fiscal Year 1998	2
Fiscal Year 1999	5
Fiscal Year 2000	9
Fiscal Year 2001	8
Fiscal Year 2002	33
Fiscal Year 2003	45
Fiscal Year 2004	38
Fiscal Year 2005	89
Fiscal Year 2006	150
Fiscal Year 2007	70
Fiscal Year 2008	73
Fiscal Year 2009	85
Fiscal Year 2010	65
Fiscal Year 2011	69
Fiscal Year 2012	54
Fiscal Year 2013	48
Fiscal Year 2014	65
Fiscal Year 2015	80
Fiscal Year 2016	224
Fiscal Year 2017	140
Fiscal Year 2018	74
Fiscal Year 2019	55
Fiscal Year 2020	42
Fiscal Year 2021	43
Fiscal Year 2022	49
Fiscal Year 2023	49
Total Filed	1,674

Proceeds Received		
Fiscal Year 1998		\$67,682
Fiscal Year 1999		\$233,370
Fiscal Year 2000		\$303,918
Fiscal Year 2001		\$415,502
Fiscal Year 2002		\$387,318
Fiscal Year 2003		\$519,059
Fiscal Year 2004		\$1,080,920
Fiscal Year 2005		\$1,645,440
Fiscal Year 2006		\$797,535
Fiscal Year 2007		\$5,398,363
Fiscal Year 2008		\$5,402,336
Fiscal Year 2009		\$3,504,682
Fiscal Year 2010		\$2,776,544
Fiscal Year 2011		\$1,292,484
Fiscal Year 2012		\$468,657
Fiscal Year 2013		\$1,070,427
Fiscal Year 2014		\$308,704
Fiscal Year 2015		\$23,639,565
Fiscal Year 2016		\$2,417,957
Fiscal Year 2017		\$1,886,532
Fiscal Year 2018		\$2,247,966
Fiscal Year 2019		\$1,702,272
Fiscal Year 2020		\$1,743,474
Fiscal Year 2021		\$286,420
Fiscal Year 2022		\$616,557
Fiscal Year 2023		\$259,261
	Total Proceeds	\$60,472,947

Class Action Name	TNT Status Code	Status as of Date	Class Period Start Date	Class Period End Date	Class Account Id	Claimed Account Name
CD PROJEKT S.A., Securities Litigation	FILED	5/1/2023	1/16/2020	12/17/2020	412211	KRS INS JP MORGAN EMERGING MARKETS
CD PROJEKT S.A., Securities Litigation	FILED	5/1/2023	1/16/2020	12/17/2020	412207	KRS JP MORGAN EMERGING MARKETS
MCKESSON CORPORATION, Securities Litigation	FILED	5/10/2023	10/24/2013	10/27/2016	KR3F1902002	S&P 500 INDEX
MCKESSON CORPORATION, Securities Litigation	FILED	5/10/2023	10/24/2013	10/27/2016	KR2F1011002	KRS INTERNAL EQUITY
MCKESSON CORPORATION, Securities Litigation	FILED	5/10/2023	10/24/2013	10/27/2016	KR2F1902002	S&P 500 INDEX
MCKESSON CORPORATION, Securities Litigation	FILED	5/10/2023	10/24/2013	10/27/2016	KR2F1009002	INVESCO
MCKESSON CORPORATION, Securities Litigation	FILED	5/11/2023	10/24/2013	10/27/2016	KR3F1011002	KRS INTERNAL EQUITY
CREDIT SUISSE GROUP AG., Securities Litigation	FILED	5/23/2023	10/29/2020	3/31/2021	956805	KRS INS MANULIFE ASSET MGMT
CREDIT SUISSE GROUP AG., Securities Litigation	FILED	5/23/2023	10/29/2020	3/31/2021	956629	KRS MANULIFE ASSET MGMT
FIFTH THIRD BANCORP, Fair Fund	FILED	6/1/2023	10/21/2008	1/22/2009	KR2F1902002	S&P 500 INDEX
FIFTH THIRD BANCORP, Fair Fund	FILED	6/1/2023	10/21/2008	1/22/2009	KR3F1902002	S&P 500 INDEX
CHEMBIO DIAGNOSTICS, INC Securities Litigation	FILED	6/26/2023	3/12/2020	6/16/2020	956765	KRS INS NTGI STRUCTURED
CHEMBIO DIAGNOSTICS, INC Securities Litigation	FILED	6/26/2023	3/12/2020	6/16/2020	956588	KRS NTGI STRUCTURED
EMC INSURANCE GROUP INC. Securities Litigation	FILED	7/28/2023	7/1/2018	11/20/2019	956765	KRS INS NTGI STRUCTURED
EMC INSURANCE GROUP INC. Securities Litigation	FILED	7/28/2023	7/1/2018	11/20/2019	956588	KRS NTGI STRUCTURED
MICRO FOCUS INTERNATIONAL PLC, Securities Litigation	FILED	7/28/2023	9/1/2017	8/28/2019	956772	KRS INS KRS INTERNAL EQUITY
MICRO FOCUS INTERNATIONAL PLC, Securities Litigation	FILED	7/28/2023	9/1/2017	8/28/2019	956774	KRS INS S P 500 INDEX
MICRO FOCUS INTERNATIONAL PLC, Securities Litigation	FILED	7/28/2023	9/1/2017	8/28/2019	956599	KRS S P 500 INDEX
MICRO FOCUS INTERNATIONAL PLC, Securities Litigation	FILED	7/28/2023	9/1/2017	8/28/2019	956596	KRS KRS INTERNAL EQUITY



KR2G00000000 - TOTAL FUND

Transaction Detail Reported By Transaction Category

Report ID: IACS0008
Base Currency: USD

3/31/2023 - 6/30/2023 Status: REVISED

Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id Broker	C. Settle Date	Local/Base	Local/Base	ase Local/Base	Local/Base
	Transaction No./Client Ref No.	Reported Date				
CLASS ACTIONS						
CASH & CASH E	EQUIVALENTS					
U.S. DOLLAR						
CD	0.000 20721HONEYWELL INTERNATIONAL,	3/31/2023	0.000000	141.80	141.80	141.80
	NA9123459 INC. (2018) Distribution 1ST D		0.000000	141.80	141.80	141.80
	20230331S000270 / 000000000087	3/31/2023			Gain/Loss Local Am	J
	KR2F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Am	ounts: 141.80 Long
CD	0.000 22119NETAPP, INC., Securities	3/31/2023	0.00000	67.44	67.44	67.44
	NA9123459 Litigation Distribution 1ST DI		0.000000	67.44	67.44	67.44
	20230331S000420 / 000000000000	3/31/2023			Gain/Loss Local A	mounts: 67.44 Long
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base A	mounts: 67.44 Long
CD	0.000 20739ALIGN TECHNOLOGY, INC. (2	4/7/2023	0.000000	545.26	545.26	545.26
	NA9123459 018) Distribution 1ST DISTRIBU		0.000000	545.26	545.26	545.26
	20230410S000050 / 000000000271	4/7/2023			Gain/Loss Local Am	J
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Am	ounts: 545.26 Long
CD	0.000 25020ALTRIA GROUP, INC., Secur	5/17/2023	0.000000	2,607.94	2,607.94	2,607.94
	NA9123459 ities Litigation Distribution		0.000000	2,607.94	2,607.94	2,607.94
	20230517S000110 / 000000000001	5/17/2023			Gain/Loss Local Amor	, ,
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Amor	unts: 2,607.94 Long
CD	0.000 16915SIGNET JEWELERS LIMITED (5/25/2023	0.000000	508.98	508.98	508.98
	NA9123459 2016) Distribution 2ND DISTRIB		0.000000	508.98	508.98	508.98
	20230525\$005260 / 000000000000	5/25/2023			Gain/Loss Local Am	•
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Am	ounts: 508.98 Long
CD	0.000 2-17-CV-3711-TJSEndo Internati	5/26/2023	0.000000	2,074.07	2,074.07	2,074.07
	NA9123459 onal plc (2017) (E.D. Pa.) Dis		0.000000	2,074.07	2,074.07	2,074.07
	20230526S000070 / 000000000000	5/26/2023			Gain/Loss Local Amor	
	KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Amor	unts: 2,074.07 Long



Transaction Detail Reported By Transaction Category

Report ID: IACS0008
Base Currency: USD

Status: REVISED

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3/31/2023 - 6/30/2023

Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
	Transaction No./Client Ref No.	Reported Date				
CD	0.000 2-17-CV-3711-TJSEndo Internati	5/26/2023	0.000000	296.85	296.85	296.85
	NA9123459 onal plc (2017) (E.D. Pa.) Dis		0.000000	296.85	296.85	296.85
	20230526\$000230 / 00000000000	5/26/2023			Gain/Loss Local Am	ounts: 296.85 Long
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Am	ounts: 296.85 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	5.36	5.36	5.36
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	5.36	5.36	5.36
	20230530\$000010 / 00000004000	5/30/2023			Gain/Loss Local A	Amounts: 5.36 Long
	KR2F35060002 : NUVEEN REAL ASSET				Gain/Loss Base A	Amounts: 5.36 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	8.87	8.87	8.87
0.5	NA9123459 NEW YORK MELLON ADR FX Distri	0,00,2020	0.000000	8.87	8.87	8.87
	20230530\$000020 / 00000002000	5/30/2023	0.00000	0.01		Amounts: 8.87 Long
	KR2F35060002 : NUVEEN REAL ASSET	5,55,2525				Amounts: 8.87 Long
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CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	2.22	2.22	2.22
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	2.22	2.22	2.22
	20230530\$000020 / 00000002000	5/30/2023				Amounts: 2.22 Long
	KR2F10120002 : RIVER ROAD FAV				Gain/Loss Base A	Amounts: 2.22 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	1.06	1.06	1.06
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	1.06	1.06	1.06
	20230530\$000040 / 00000002000	5/30/2023				Amounts: 1.06 Long
	KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base A	Amounts: 1.06 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	1.62	1.62	1.62
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	1.62	1.62	1.62
	20230530S000050 / 00000002000	5/30/2023			Gain/Loss Local A	Amounts: 1.62 Long
	KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base A	Amounts: 1.62 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	21.50	21.50	21.50
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	21.50	21.50	21.50
	20230530S000060 / 000000004000	5/30/2023			Gain/Loss Local Ar	-
	KR2F20070002 : LSV ASSET MANAGEMENT				Gain/Loss Base Ar	nounts: 21.50 Long



KR2G00000000 - TOTAL FUND

Transaction Detail Reported By Transaction Category 3/31/2023 - 6/30/2023

Report ID: IACS0008
Base Currency: USD

Status: REVISED

KK2G0000000 - 1C	_		31/2023 - 0/30/2023			Status. REVISED		
Trans Code		Description	Trade Date	Price	Cost	Amount	Net Gain/Loss	
Link Ref	Security Id		C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base	
		Transaction No./Client Ref No.	Reported Date					
CD		16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	2.18	2.18	2.18	
	NA9123459	NEW YORK MELLON ADR FX Distri		0.000000	2.18	2.18	2.18	
		20230530S000060 / 00000002000	5/30/2023				mounts: 2.18 Long	
		KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base A	mounts: 2.18 Long	
CD	0.000	16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	21.75	21.75	21.75	
	NA9123459	NEW YORK MELLON ADR FX Distri		0.000000	21.75	21.75	21.75	
		20230530S000070 / 00000002000	5/30/2023			Gain/Loss Local An	nounts: 21.75 Long	
		KR2F20070002 : LSV ASSET MANAGEMENT				Gain/Loss Base An	nounts: 21.75 Long	
CD	0.000	16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	5.01	5.01	5.01	
CD		NEW YORK MELLON ADR FX Distri	3/30/2023	0.000000	5.01	5.01	5.01	
	14/10/120409	20230530S000070 / 000000002000	5/30/2023	0.00000	3.01		mounts: 5.01 Long	
		KR2F10060002 : WESTFIELD CAPITAL	0/00/2020				mounts: 5.01 Long	
		THE TOURSE THE THE STATE OF THE				Gaii # 2000 Ba00 7 (inounte. G.GT Long	
CD		16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	10.21	10.21	10.21	
	NA9123459	NEW YORK MELLON ADR FX Distri		0.000000	10.21	10.21	10.21	
		20230530S000540 / 000000002000	5/30/2023			Gain/Loss Local An	J	
		KR2F20080002 : LAZARD ASSET MGMT				Gain/Loss Base An	nounts: 10.21 Long	
CD	0.000	16593DAIMLER AG, Securities Li	6/2/2023	0.000000	6,852.91	6,852.91	6,852.91	
	NA9123459	tigation (16CV02942) Distribut		0.000000	6,852.91	6,852.91	6,852.91	
		20230602S000050 / 000000000000	6/2/2023			Gain/Loss Local Amou		
		KR2F20070002 : LSV ASSET MANAGEMENT				Gain/Loss Base Amou	nts: 6,852.91 Long	
CD	0.000	18173FUQI INTERNATIONAL INC.(2	6/6/2023	0.000000	291.96	291.96	291.96	
	NA9123459	015) Distribution 1ST DISTRIBU		0.000000	291.96	291.96	291.96	
		20230606S000220 / 00000000010	6/6/2023			Gain/Loss Local Amo	ounts: 291.96 Long	
		KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Amo	ounts: 291.96 Long	
CD	0.000	21637INTERSECT ENT, INC., Secu	6/7/2023	0.000000	2,331.23	2,331.23	2,331.23	
		rities Litigation Distribution	3/1/2320	0.000000	2,331.23	2.331.23	2.331.23	
	14/10/120409	20230607S000030 / 00000000000	6/7/2023	0.00000	2,001.20	Gain/Loss Local Amou	,	
		KR2F10060002 : WESTFIELD CAPITAL	0,1,2020			Gain/Loss Base Amou	, ,	
							<u>-,00</u>	



KR2G00000000 - TOTAL FUND

Transaction Detail Reported By Transaction Category

Report ID: IACS0008
Base Currency: USD

3/31/2023 - 6/30/2023 Status: REVISED

Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
	Transaction No./Client Ref No.	Reported Date				
CD	0.000 2-17-CV-3711-TJSEndo Internati	6/21/2023	0.000000	155.45	155.45	155.45
	NA9123459 onal plc (2017) (E.D. Pa.) Dis		0.000000	155.45	155.45	155.45
	20230621S000100 / 000000000000	6/21/2023			Gain/Loss Local Am	ounts: 155.45 Long
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Am	ounts: 155.45 Long
CD	0.000 2-17-CV-3711-TJSEndo Internati	6/21/2023	0.000000	1,086.07	1,086.07	1,086.07
	NA9123459 onal plc (2017) (E.D. Pa.) Dis		0.000000	1,086.07	1,086.07	1,086.07
	20230621S000110 / 000000000000	6/21/2023			Gain/Loss Local Amou	unts: 1,086.07 Long
	KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Amou	unts: 1,086.07 Long
CD	0.000 THE BANK OF NEW YORK MELLON	6/12/2023	0.000000	391.90	391.90	391.90
	NA9123459 ADR FX		0.000000	391.90	391.90	391.90
	20230622A000020	6/12/2023			Gain/Loss Local Am	ounts: 391.90 Long
	KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Am	ounts: 391.90 Long
CD	0.000 THE BANK OF NEW YORK MELLON	6/12/2023	0.000000	31.27	31.27	31.27
	NA9123459 ADR FX		0.000000	31.27	31.27	31.27
	20230622A000030	6/12/2023			Gain/Loss Local Ar	mounts: 31.27 Long
	KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Ar	mounts: 31.27 Long
CD	0.000 JP MORGAN CHASE BANK NA ADR FX	6/12/2023	0.000000	54.19	54.19	54.19
	NA9123459 20230622A000040		0.000000	54.19	54.19	54.19
	KR2F90010002 : CASH ACCOUNT KR2	6/12/2023				mounts: 54.19 Long mounts: 54.19 Long
CD	0.000 25114Exactech Shareholder Secu	6/26/2023	0.00000	1,027.52	1,027.52	1,027.52
OB	NA9123459 rities Litigation Distribution	0/20/2020	0.000000	1,027.52	1,027.52	1,027.52
	20230626S000120 / 00000000000	6/26/2023	0.00000	1,027.02	Gain/Loss Local Amou	,
	KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Amou	
CD	0.000 04-cv-9866 (LTS)(HBP)Pfizer, I	6/30/2023	0.000000	90.23	90.23	90.23
	NA9123459 nc. (2004) Distribution 4TH DI		0.000000	90.23	90.23	90.23
	20230630\$000470 / 00000008745	6/30/2023			Gain/Loss Local Ar	mounts: 90.23 Long
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Ar	mounts: 90.23 Long
	TOTAL U.S	. DOLLAR CASH & CASH EQU	IVALENTS:	18,634.85	18,634.85	18,634.85
				18,634.85	18,634.85	18,634.85
				10,00-1.00	10,00-1.00	10,00-1.00



Transaction Detail Reported By Transaction Category

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KR2G00000000 - TOTAL FUND		3/31/2023 - 6/30/2023			Star	tus: REVISED
Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
	Transaction No./Client Ref No.	Reported Date				
	TOTAL C	CASH & CASH EQUIVALENTS CLASS A	CTIONS:	18,634.85	18,634.85	18,634.85
EQUITY						
U.S. DOLLAR						
CD	0.000 SIGNET SECURITIES LITIGATION	6/12/2023	0.000000	1,383.80	1,383.80	1,383.80
	G81276100 SETTLEMENT		0.000000	1,383.80	1,383.80	1,383.80
	20230622A000020	6/12/2023			Gain/Loss Local Amou	nts: 1,383.80 Long
	KR2F20080002 : LAZARD ASSET MGMT				Gain/Loss Base Amou	nts: 1,383.80 Long
		TOTAL CLASS A	CTIONS:	20,018.65	20,018.65	20,018.65
		TOTAL TRANSACTION	S BASE:	20,018.65	20,018.65	20,018.65



KR3G00000000 - TOTAL FUND

Transaction Detail Reported By Transaction Category 3/31/2023 - 6/30/2023

Report ID: IACS0008
Base Currency: USD

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Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
	Transaction No./Client Ref No.	Reported Date				
CLASS ACTIONS						
CASH & CASH	EQUIVALENTS					
U.S. DOLLAR						
CD	0.000 20721HONEYWELL INTERNATIONAL,	3/31/2023	0.000000	58.93	58.93	58.93
	NA9123459 INC. (2018) Distribution 1ST D		0.000000	58.93	58.93	58.93
	20230331S000260 / 00000000087	3/31/2023				mounts: 58.93 Long
	KR3F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Ar	mounts: 58.93 Long
CD	0.000 22119NETAPP, INC., Securities	3/31/2023	0.000000	29.05	29.05	29.05
	NA9123459 Litigation Distribution 1ST DI		0.000000	29.05	29.05	29.05
	20230331S000400 / 000000000000	3/31/2023			Gain/Loss Local Ar	mounts: 29.05 Long
	KR3F19020002 : S&P 500 INDEX				Gain/Loss Base Ar	mounts: 29.05 Long
CD	0.000 20739ALIGN TECHNOLOGY, INC. (2	4/7/2023	0.000000	241.64	241.64	241.64
	NA9123459 018) Distribution 1ST DISTRIBU		0.000000	241.64	241.64	241.64
	20230410S000050 / 000000000271	4/7/2023			Gain/Loss Local Am	ounts: 241.64 Long
	KR3F19020002 : S&P 500 INDEX				Gain/Loss Base Am	ounts: 241.64 Long
CD	0.000 25729BLACKHAWK NETWORK HOLDING	5/1/2023	0.000000	1,111.94	1,111.94	1,111.94
	NA9123459 S INC., Securities Litigation(0.000000	1,111.94	1,111.94	1,111.94
	20230501S000370 / 000000000000	5/1/2023			Gain/Loss Local Amou	, ,
	KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amou	unts: 1,111.94 Long
CD	0.000 25020ALTRIA GROUP, INC., Secur	5/17/2023	0.000000	1,294.73	1,294.73	1,294.73
	NA9123459 ities Litigation Distribution		0.000000	1,294.73	1,294.73	1,294.73
	20230517S000110 / 000000000001	5/17/2023			Gain/Loss Local Amou	,
	KR3F19020002 : S&P 500 INDEX				Gain/Loss Base Amou	unts: 1,294.73 Long
CD	0.000 16915SIGNET JEWELERS LIMITED (5/25/2023	0.000000	308.42	308.42	308.42
	NA9123459 2016) Distribution 2ND DISTRIB		0.000000	308.42	308.42	308.42
	20230525\$000130 /00000000000	5/25/2023			Gain/Loss Local Am	
	KR3F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Am	ounts: 308.42 Long



KR3G00000000 - TOTAL FUND

Transaction Detail Reported By Transaction Category

Report ID: IACS0008
Base Currency: USD

3/31/2023 - 6/30/2023 Status: REVISED

Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
	Transaction No./Client Ref No.	Reported Date				
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	2.19	2.19	2.19
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	2.19	2.19	2.19
	20230530S000010 / 000000004000	5/30/2023			Gain/Loss Local A	mounts: 2.19 Long
	KR3F35060002 : NUVEEN REAL ASSET				Gain/Loss Base A	mounts: 2.19 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	3.62	3.62	3.62
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	3.62	3.62	3.62
	20230530S000020 / 000000002000	5/30/2023			Gain/Loss Local A	mounts: 3.62 Long
	KR3F35060002 : NUVEEN REAL ASSET				Gain/Loss Base A	mounts: 3.62 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.00000	2.78	2.78	2.78
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	2.78	2.78	2.78
	20230530\$000040 / 000000002000	5/30/2023			Gain/Loss Local A	mounts: 2.78 Long
	KR3F90010002 : CASH ACCOUNT KR3				Gain/Loss Base A	mounts: 2.78 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.00000	10.13	10.13	10.13
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	10.13	10.13	10.13
	20230530\$000060 / 000000004000	5/30/2023			Gain/Loss Local Ar	nounts: 10.13 Long
	KR3F20070002 : LSV ASSET MGMT				Gain/Loss Base Ar	nounts: 10.13 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	1.96	1.96	1.96
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	1.96	1.96	1.96
	20230530S000070 / 000000002000	5/30/2023			Gain/Loss Local A	mounts: 1.96 Long
	KR3F10060002 : WESTFIELD CAPITAL				Gain/Loss Base A	mounts: 1.96 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.00000	5.13	5.13	5.13
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	5.13	5.13	5.13
	20230530S000070 / 000000002000	5/30/2023			Gain/Loss Local A	mounts: 5.13 Long
	KR3F20070002 : LSV ASSET MGMT				Gain/Loss Base A	mounts: 5.13 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	5/30/2023	0.000000	3.66	3.66	3.66
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	3.66	3.66	3.66
	20230530S000540 / 000000002000	5/30/2023			Gain/Loss Local A	mounts: 3.66 Long
	KR3F20080002 : LAZARD ASSET MGMT				Gain/Loss Base A	mounts: 3.66 Long
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KR3G00000000 - TOTAL FUND

Transaction Detail Reported By Transaction Category 3/31/2023 - 6/30/2023

Report ID: IACS0008
Base Currency: USD

Status: REVISED

Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
	Transaction No./Client Ref No.	Reported Date				
CD	0.000 16593DAIMLER AG, Securities Li	6/2/2023	0.000000	2,596.05	2,596.05	2,596.05
	NA9123459 tigation (16CV02942) Distribut		0.000000	2,596.05	2,596.05	2,596.05
	20230602S000060 / 000000000000	6/2/2023			Gain/Loss Local Amou	nts: 2,596.05 Long
	KR3F20070002 : LSV ASSET MGMT				Gain/Loss Base Amou	nts: 2,596.05 Long
CD	0.000 21637INTERSECT ENT, INC., Secu	6/7/2023	0.000000	1,038.00	1,038.00	1,038.00
	NA9123459 rities Litigation Distribution		0.000000	1,038.00	1,038.00	1,038.00
	20230607S000030 / 000000000000	6/7/2023			Gain/Loss Local Amou	nts: 1,038.00 Long
	KR3F10060002 : WESTFIELD CAPITAL				Gain/Loss Base Amou	nts: 1,038.00 Long
CD	0.000 25114Exactech Shareholder Secu	6/26/2023	0.000000	409.61	409.61	409.61
	NA9123459 rities Litigation Distribution		0.000000	409.61	409.61	409.61
	20230626S000110 / 000000000000	6/26/2023			Gain/Loss Local Amo	ounts: 409.61 Long
	KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amo	ounts: 409.61 Long
CD	0.000 04-cv-9866 (LTS)(HBP)Pfizer, I	6/30/2023	0.000000	30.01	30.01	30.01
	NA9123459 nc. (2004) Distribution 4TH DI		0.000000	30.01	30.01	30.01
	20230630S000460 / 000000008745	6/30/2023			Gain/Loss Local Am	nounts: 30.01 Long
	KR3F19020002 : S&P 500 INDEX				Gain/Loss Base An	nounts: 30.01 Long
	TOTAL U.S	S. DOLLAR CASH & CASH EQUI	VALENTS:	7,147.85	7,147.85	7,147.85
				7,147.85	7,147.85	7,147.85
	TOTAL CASH	& CASH EQUIVALENTS CLASS	ACTIONS:	7,147.85	7,147.85	7,147.85
		TOTAL CLASS	ACTIONS:	7,147.85	7,147.85	7,147.85
		TOTAL TRANSACTIO	NS BASE:	7,147.85	7,147.85	7,147.85

County Employees Retirement Systems

Capital Calls and Distributions

Quarter Ending: June 30, 2023

Kentucky Public Pensions Authority Capital Calls and Distributions

For the period April 1, 2023 thru June 30, 2023

County Employees Retirement System											
	Total Pension Fund	CERS	CERS Beginning	CERS Period	CERS Period	CERS Ending	CERS Haz	Beginning	CERS Haz Period		•
Pension Funds Managers	Commitment	Commitment	Valuation	Contributions	Distributions	Valuation	Commitment	Valuation	Contributions	Distributions	Valuation
Adams Street SPC II A1	175,000,000	97,124,912	80,501,932	10,105,851	12,543,197	78,064,586	32,749,407	27,144,329	3,407,577	4,229,422	26,322,484
Adams Street SPC II B1	175,000,000	97,124,911	78,817,166	4,051,230	6,025,174	76,843,222	32,749,407	26,576,245	1,366,028	2,031,620	25,910,654
AMERRA Agri Fund II, LP	40,100,000	27,641,371	16,140,388	0	216,867	15,923,521	8,727,285	5,096,048	3 0	68,472	5,027,576
AMERRA-KRS Agri Holding Company, LP	65,000,000	44,805,214	25,457,826	0	239,911	25,217,915	14,146,472	8,037,869	9 0	75,748	7,962,121
Arcano KRS Fund I, L.P.	36,000,000	15,587,717	7,043,598	0	0	7,043,598	4,852,329	2,192,614	1 0	0	2,192,614
Arctos Sports Partners Fund II	85,000,000	42,000,000	2,390,757	3,084,413	0	5,353,226	18,000,000	1,024,610	1,321,891	. 0	2,294,240
Ares Special Situations Fund IV, L.P.	26,192,000	17,935,797	13,287,025	0	710,854	12,576,171	6,121,833	4,535,118	3 0	242,628	4,292,489
Barings Euro Real Estate II	162,286,250	91,302,246	15,394,998	2,703,215	0	18,140,448	28,870,718	4,868,058	854,785	0	5,736,198
Barings Real Estate European Value Add I SCSp	114,555,000	64,448,644	19,367,414	2,184,745	11,045,880	10,702,032	20,379,330	6,124,17	7 690,839	3,492,822	3,384,094
Bay Hills Capital I, L.P.	67,500,000	29,226,970	2,068,362	0	0	2,068,362	9,098,116	643,864	1 0	0	643,864
Bay Hills Capital III, L.P.	51,250,000	35,095,051	32,625,210	0	0		11,978,618		3 0	0	
Bay Hills Emerging Partners II LP	45,000,000	19,484,647	42,310,929	357,856	0	42,668,785	6,065,411	13,171,046	111,398	0	13,282,443
Bay Hills Emerging Partners II-B LP	45,000,000	19,484,647	28,171,967	0	0		6,065,411			0	
BDCM Opportunity Fund IV, L.P.	35,580,000	24,364,524	42,958,242	. 0	0	42,958,242	8,316,082	14,662,476		0	14,662,476
Blackstone Capital Partners V, L.P.	47,174,735	20,426,290	54,769	0		53,500	6,358,537	17,049		395	
Blackstone Capital Partners VI, L.P.	60,000,000	38,220,311	15,587,957	0			18,479,695				
Blue Torch Credit Opportunities Fund II LP	140,000,000	77,659,705	78,813,114	. 0		78,813,114	26,221,374			1,172,000	26,610,816
BSP Co-Invest Vehicle K LP	110,000,000	77,033,703	22,821,404	. 0	656,170		20,221,07	7,558,534		217,326	
BSP Private Credit Fund	100.000.000	58,940,485	54,695,242	0			19,521,309			502,653	
BTG Pactual Brazil Timberland Fund I	34,500,000	23,847,150	17,959,006	0			7,642,335				
Camelot Opportunities Fund, L.P.	23,400,000	10,132,016	2,803,888	0			3,154,014			0	
Cerberus KRS Levered Loan Opportunities Fund, L.P.	140,000,000	82,516,679	107,815,150	0			27,329,832			·	0,2,02,
Ceres Farms	100,000,000	82,510,073	107,613,130	0		109,100,707	27,329,032	33,700,700			30,103,734
Columbia Captal Equity Partners IV, L.P.	27,000,000	11,690,788	1,216,220	0		1,216,220	3,639,247	378,599			378,599
Crestview Partners II, L.P.	67,500,000	29,226,970	12,755,752	0			9,098,116			171,483	
Crestview Partners III, L.P.	39,000,000	26,706,479	22,628,285	0	550,876	22,628,285	9,115,436			1/1,483	7,723,470
CS Adjacent Investment Partners Parallel LP	140,000,000	82,516,679	45,750,647	10,529,218	11,262,535		27,329,832	15,152,785		3,730,194	
CVC European Equity Partners VI, L.P.	23,915,560	16,376,933	18,138,235	0	-,,		5,589,763			1,154,379	
DAG Ventures II, L.P.	27,000,000	11,690,788	903,895	0	0	,	3,639,247			0	281,375
DAG Ventures III, L.P.	27,000,000	11,690,788	138,051	. 0	Ŭ	150,051	3,639,247			0	42,974
DAG Ventures IV, L.P.	90,000,000	38,969,294	8,749,723	0		0,7 13,723	12,130,822	2,723,71		0	2,723,717
DAG Ventures V, L.P.	8,000,000	5,096,042	25,325	0		25,325	2,463,959			0	12,245
DCM VI, L.P.	13,500,000	5,845,394	1,906,044	. 0	102,555	1,423,651	1,819,623			150,165	
DivcoWest Fund IV	20,800,000	14,568,740	824,492	. 0			4,539,761			37,207	
Essex Woodlands Fund VIII, L.P.	22,500,000	9,742,323	-748,415	0		-748,415	3,032,705	-232,975		0	-232,975
Fundamental Partners III LP	70,000,000	39,382,001	35,453,594	. 0			12,452,997	11,210,794		313,519	
Green Equity Investors V, L.P.	90,000,000	38,969,294	597,963	0		597,963	12,130,822	186,14		0	186,141
Green Equity Investors VI, L.P.	32,000,000	20,384,166	21,778,976	0	, -		9,855,837	10,530,234		25,051	
Green Equity Investors VII LP	25,000,000	17,900,000	22,211,489	0		22,211,489	5,575,000	6,917,824		0	6,917,824
Greenfield Acquisition Partners VI, L.P.				0		0		(0	0	0
Greenfield Acquisition Partners VII, L.P.	27,800,000	19,471,678	1,750,552	. 0	346,211		6,067,572	545,490		107,883	437,607
H.I.G. BioVentures II, L.P.	13,500,000	8,599,570	5,075,024	. 0	Ŭ	5,075,024	4,157,931			0	2,453,797
H.I.G. Capital Partner V, L.P.	13,100,000	8,970,638	6,629,877	88,774	. 0	-, -,	3,061,852			0	-)
H.I.G. Ventures II, L.P.	18,000,000	7,793,859	1,167,994	. 0	0	, . ,	2,426,164			0	363,587
H&F Spock I LP	3,250,153	1,407,291	4,497,343	0	0	4,497,343	438,078	1,399,986	5 0	0	1,399,986
Harvest Partners V, L.P.	36,000,000	15,587,717	-75,818	0	0		4,852,329			0	,
Harvest Partners VI, L.P.	28,400,000	20,768,921	3,884,794	. 0	0	3,884,794	5,782,239	1,081,559	9 0	0	1,081,559
Harvest Partners VII LP	20,000,000	14,320,000	21,253,565	0	0	21,253,565	4,460,000	6,619,47	7 0	0	6,619,477
Hellman and Friedman Capital Partners VI, L.P.	20,000,000	8,659,843	132	. 0	0	132	2,695,738	4:	1 0	0	41
Horsley Bridge International Fund V, L.P.	45,000,000	19,484,647	41,112,842	. 0	1,167,465	39,945,377	6,065,411	12,798,091	1 0	363,422	12,434,669
IFM US Infrastructure Debt Fund	70,000,000	39,669,146	39,745,158	5,521,837	5,521,837	39,745,158	13,660,943	13,687,119	1,901,566		
Institutional Venture Partners XII, L.P.	27,000,000	11,690,788	80,930	0			3,639,247	25,193		24,504	
Kayne Anderson Energy Fund VII LP	50,000,000	35,800,000		0		18,716,458	11,150,000			0	5,829,288

Kentucky Public Pensions Authority Capital Calls and Distributions

For the period April 1, 2023 thru June 30, 2023

County Employees Retirement System											
Pension Funds Managers	Total Pension Fund Commitment	CERS Commitment	CERS Beginning Valuation	CERS Period Contributions	CERS Period Distributions	CERS Ending Valuation	CERS Haz Commitment	CERS Haz Beginning Valuation	CERS Haz Period Contributions	CERS Haz Period Distributions	CERS Haz Ending Valuation
KCP IV Co-Invest	12,939,260	8,860,565	2,839,245	5 (1,073,719	1,782,266	3,024,282	969,089	(366,481	608,322
Keyhaven Capital Partners Fund III, L.P.	27,528,320	11,919,546	4,643,746	6 () (4,663,193	3,710,457	1,445,560	(0	1,451,614
Keyhaven Capital Partners IV LP	12,939,260	8,860,565	8,685,884	108,168	1,015,516	7,818,540	3,024,282	2,964,660	36,920	346,615	2,668,618
Levine Leichtman Capital Partners V, L.P.	46,000,000	31,499,949	10,679,706	6 (13,800	10,665,906	10,751,540	3,645,190	(4,710	3,640,479
Levine Leichtman Capital Partners VI LP	37,500,000	26,849,987	32,565,848	3,097,974	40,482	35,623,340	8,362,509	10,142,730	964,873	12,608	11,094,995
Lubert Adler VII	34,750,000	24,338,900	13,192,425	6 () (13,192,425	7,585,925	4,111,803	(0	4,111,803
Lubert-Adler Real Estate Fund VII-B LP	36,750,000	20,675,550	5,752,294	. () (5,752,294	6,537,824	1,818,935	(0	1,818,935
Magentar MTP Energy Opportunities Fund II LLC	37,500,000	26,265,000	242,818	36,427	182,14	97,099	8,186,251	75,681	11,354	56,772	30,264
Maritime Partners LP	175,000,000										
MatlinPatterson Global Opportunities Partners II	45,000,000	19,484,647	272,572) (272,572	6,065,411	84,850	(0	84,850
MatlinPatterson Global Opportunities Partners III	45,000,000	19,484,647	43,709) (41,40	2,304	6,065,411	13,606	(12,889	717
Merit Mezzanine Fund IV, L.P.	27,000,000	11,690,788	173,373	3 () (173,373	3,639,247	53,970		0	53,970
Mesa West Core Lending Fund, LP	57,500,000	36,357,250	36,054,548	689,426	689,420	36,054,548	11,459,750	11,364,338	217,306	217,306	11,364,338
Mesa West Real Estate Income Fund IV LP	36.000.000	15,587,717) (6,969,022	4.852.329	2.169.399	. (0	2,169,399
MiddleGround Partners I LP	50,000,000	35,875,000		1) (62,319,274	11,200,000	19,455,773	(0	
MiddleGround Partners II LP	50,000,000	27,301,556		5,736,393	213,358		9,256,264			72,337	
MiddleGround Partners II-X LP	25,000,000	13,650,778			106,680		4,628,132	3,401,780			
Mill Road Capital I, L.P.	27,000,000	11,690,788) (3,639,247				
New Mountain Partners II, L.P.	25,000,000	10,824,804) (3,369,673			0	· · · · ·
New Mountain Partners III, L.P.	32,337,197	14,001,752			,	702,031	4,358,631	192,034	26,502	2 0	
New Mountain Partners IV, L.P.	32,800,000	22,460,833	7,702,004		40,853		7,666,315		10,017		2,624,939
New State Capital Partners Fund III LP	17,500,000	9,555,545) (2,183,461	3,239,692	740,276) 0	740,276
Oak Hill Capital Partners II, L.P.	67,500,000	29,226,970				67,348	9,098,116			0	
Oak Hill Capital Partners III, L.P.	33,750,000	14,613,485) (4,549,058			0	
Oberland Capital Healthcare LP	3,450,000	2,475,375		,		4,235,547	772,800	1,322,316		0	1,322,316
Patron Capital V LP	39,276,000	22,096,678	10,969,745		717,833		6,987,199			226,986	
Riverside Capital Appreciation Fund VI, L.P.	35,500,000	25,961,146					7,227,806		156,381		
Rubenstein Properties Fund II	20,800,000	14,568,738) 22,13		4,539,767	1,951,840	150,500	-	
Secondary Opportunities Fund III, L.P.	25,000,000	19,411,552					5,588,448			-	
Strategic Value Special Situations Fund IV LP	43,300,000	31,067,750			25,563		9,699,200				
Strategic Value Special Situations Fund V LP	70,000,000	38,222,178					12,958,769				
Taurus Mining Finance Fund LLC	45,100,000	30,883,643			20,3 .	2,507,921	10,541,186				
Tenaska Power Fund II, L.P.	27,000,000	12,131,225				35,419	4,055,317	11,840		1	11,840
Triton Fund IV. L.P.	27,448,385	18,796,146			4,983,065		6,415,487	4,671,126		,	
VantagePoint Venture Partners 2006, L.P.	27,000,000	11,690,788				2,914,028	3,639,247	907,113		1,700,010	907,113
VantagePoint Venture Partners IV, L.P.	36,000,000	15,587,717				24,946	4,852,329) 0	
Vista Equity Partners III, L.P.	45,000,000	19,484,647	2,272,131	2.598	1,469,228		6,065,411	707,296			
Vista Equity Partners IV, L.P.	27,000,000	17,199,140		,	, ,		8,315,863	6,187,098	475		
Vista Equity Partners VI LP	25,000,000	17,900,000			, -	, ,	5,575,000		23,152		
Walton Street Real Estate Fund VI, LP	36,000,000	17,056,796					6,030,018	2,627,307	23,132	-	
Walton Street Real Estate Fund VII, LP	38,120,000	26,700,008					8,319,997			1	
Warburg, Pincus Private Equity IX, L.P.	50,000,000	21,649,608			1		6,739,345			1	
Warburg, Pincus Private Equity IX, L.P. Warburg, Pincus Private Equity X, L.P.	38,750,000	16,778,446				308,001	5,222,993			-	
Wayzata Opportunities Fund II, L.P.	67,500,000	29,226,970			1 2	632	9,098,116) 0	95,878
Wayzata Opportunities Fund III, L.P.	35,500,000	25,961,146			401.300		7,227,806			111.725	
		58,940,485			. ,		19,521,309			, .	,
White Oak Yield Spectrum Parallel Fund LP	100,000,000	58,940,485	//,2/3,126	3,206,234	1,391,10	79,088,256	19,521,309	25,593,148	1,061,917	460,739	26,194,32

Kentucky Public Pensions Authority Capital Calls and Distributions For the period April 1, 2023 thru June 30, 2023

For the period April 1, 2023 thru June 30, 2023											
County Employees Retirement System											
	Total Insurance	CERS	CERS Beginning	CEDE Davied	CERS Period	CERS Ending	CERS Haz	Beginning	CERS Haz Period	CERS Haz Period	CERS Haz Ending
Insurance Funds Managers	Fund Commitment	Commitment	Valuation	CERS Period Contributions	Distributions	Valuation	Commitment	Valuation	Contributions	Distributions	Valuation
Adams Street SPC II A1											
Adams Street SPC II A1 Adams Street SPC II B1	75,000,000 75,000,000	34,007,112 34,007,113	28,186,778 27,596,877	3,538,441 1,418,489	4,391,850		17,965,829 17,965,828			2,320,198 1,114,516	14,440,117 14,214,192
AMERRA Agri Fund II, LP	16,200,000	7,502,182	4,373,216	1,418,485	58,760		4.141.562			32.438	2,381,786
AMERRA-KRS Agri Holding Company, LP	35,000,000	16,208,417	9,209,443	(,- ,	8,947,820			32,438 47,911	5,036,141
Arcano KRS Fund I. L.P.	4.000.000	1,611,501	728.186	(862,625			47,911	389,793
Arctos Sports Partners Fund II	40.000,000	20,500,000	1,166,916	1,505,487			7,000,000			0	892,204
Ares Special Situations Fund IV, L.P.	13,808,000	7,867,793	5,828,543	1,505,487	311,826		4,255,629			168,664	2,983,950
Barings Euro Real Estate II	69,551,250	31,937,936	5,385,240	945,597	311,820	6,345,610	17,526,911			108,004	3,482,346
Barings Real Estate European Value Add I SCSp	49,095,000	22,544,426	6,774,809	764,234	3,863,898		12,371,937			2,120,431	2,054,425
Bay Hills Capital I, L.P.	7,500,000	3,021,564	213,833	704,232	3,003,030	213,833	1,617,422			2,120,431	114,463
Bay Hills Capital III, L.P.	48,750,000	27,777,730	23,228,921				15,024,764			0	12,564,347
Bay Hills Emerging Partners II LP	5,000,000	2,014,376	4,374,219	36,996			1,078,282			0	2,361,293
Bay Hills Emerging Partners II-B LP	5,000,000	2,070,000	2,992,919	30,990) (1,250,000	1,807,318		0	1,807,318
	24,420,000	13,914,506				,,-	7,526,253			0	13,269,896
BDCM Opportunity Fund IV, L.P. Blackstone Capital Partners V, L.P.	24,420,000 12,414,403	5,001,455	24,533,329 13,298	(,,-	2,677,245			166	13,269,896
	40,000,000	21,919,994	8,939,944	(_		13,120,008			832,137	4,518,783
Blackstone Capital Partners VI, L.P.	60,000,000	27,169,450	27,572,973			7,549,667	14,281,092			832,137	4,518,783 14,493,195
Blue Torch Credit Opportunities Fund II LP BSP Co-Invest Vehicle K LP	60,000,000	27,109,450	7,929,588	(14,281,092	4,324,721	0	126,447	4,198,274
BSP Private Credit Fund	50,000,000	22,344,255	20,734,889				12,186,342		. 0	313,785	10,994,823
BTG Pactual Brazil Timberland Fund I	15,500,000	7,016,381	5,283,954	(3,855,131			313,785	2,903,253
Camelot Opportunities Fund, L.P.	2,600,000	1,047,475	289,872	(560,706			0	155,167
	60,000,000	26,813,106	35,033,633	(14,623,610			0	19,350,442
Cerberus KRS Levered Loan Opportunities Fund, L.P.		26,813,106					14,623,610	19,107,006	0	0	19,350,442
Ceres Farms	50,000,000 3,000,000	1,208,626	0 125,737	(646,969	67,306		0	67,306
Columbia Captal Equity Partners IV, L.P.				(-	
Crestview Partners II, L.P. Crestview Partners III, L.P.	7,500,000 21,000,000	3,021,564 11,965,793	1,318,715 10,138,563		56,95	1,261,763 10,138,563	1,617,422 6,472,206		0	30,486	675,413 5,483,871
·				2 424 204	2.550.55				1,865,988	1,995,947	
CS Adjacent Investment Partners Parallel LP CVC European Equity Partners VI, L.P.	60,000,000 13,201,318	26,813,106 7,522,105	14,866,291 7,974,915	3,421,381	3,659,66		14,623,610 4,068,650			1,995,947 804,321	7,977,974 3,524,946
DAG Ventures II, L.P.	3,000,000	1,208,626	93,443	(93,443	646,969			804,321	50,020
DAG Ventures III, L.P.	3,000,000	1,208,626	14,267	(646,969			0	7,637
			904,570		·					0	484,210
DAG Ventures IV, L.P. DAG Ventures V, L.P.	10,000,000 7,000,000	4,028,752	19,058	(2,156,563 2,296,001			0	484,210 11.407
		3,835,999			`				0	20.000	, .
DCM VI, L.P. DivcoWest Fund IV	1,500,000 9,200,000	604,313 4,244,869	197,052 240,233	(323,484 2,306,449			26,696 18,903	78,785 111,627
	5,000,000	2,014,376	-154,746	(· · · · · ·	154,746	1,078,282			18,903	-82,835
Essex Woodlands Fund VIII, L.P. Fundamental Partners III LP	30,000,000	13,776,001	12,401,830	(7,559,998			190,332	-82,835 6,615,548
Green Equity Investors V, L.P.	10,000,000	4,028,752	61,819		· · · · · ·	61,819	2,156,563		0	190,332	33,091
Green Equity Investors VI, L.P.	28,000,000	15,343,995	16,393,932				9,184,005			23,884	9,788,551
Green Equity Investors VI, L.P. Green Equity Investors VII LP	25,000,000	10,349,999	12,842,955	(· · · · · ·	10,354,029	6,250,000			23,884	7,755,409
Greenfield Acquisition Partners VII, L.P.	12,200,000	5,628,527	506.019		·		3,058,186			54,375	220,564
H.I.G. BioVentures II, L.P.	11,500,000	6,301,998	3,719,115		, .		3,772,002			54,375	2,226,042
H.I.G. Capital Partner V, L.P.	6,900,000	3,931,617	2,905,717	38,908	`		2.126.582			0	1,592,725
H.I.G. Ventures II, L.P.	2,000,000		120,750	30,300) (431,313	,- ,		0	
H&F Spock I LP	1,794,672	805,750 723,029	1,569,197	(·		387,032	839,981	0	0	64,637 839,981
Harvest Partners V, L.P.	4,000,000	1,611,501	-7,839	(,,	862,625		0	0	-4,196
Harvest Partners V, L.P. Harvest Partners VI, L.P.	11,600,000	6,609,681	1,236,331	(3,575,121			0	-4,196 668,721
Harvest Partners VI, L.P. Harvest Partners VII LP	20,000,000	8,279,999	1,236,331	(·		5,000,000			0	7,420,938
			12,289,072							0	
Hellman and Friedman Capital Partners VI, L.P.	7,500,000	3,021,564	4,250,358		`	46	1,617,422			64,607	25
Horsley Bridge International Fund V, L.P. IFM US Infrastructure Debt Fund	5,000,000 30,000,000	2,014,376			120,033		1,078,282			996,215	2,210,580
		13,890,494	13,917,110	1,933,519			7,156,853		996,215	996,215 4,327	7,170,566
Institutional Venture Partners XII, L.P.	3,000,000	1,208,626	8,313	(8,084		646,969		0	4,327	122
Kayne Anderson Energy Fund VII LP	50,000,000	20,699,998	10,822,085	(10,822,085	12,500,001			221 674	6,535,077
KCP IV Co-Invest	8,880,740	5,060,242	1,621,483	(613,198	1,017,846	2,737,047	877,048	0	331,674	550,545

Kentucky Public Pensions Authority Capital Calls and Distributions For the period April 1, 2023 thru June 30, 2023

County Employees Retirement System											
Insurance Funds Managers	Total Insurance Fund Commitment	CERS Commitment	CERS Beginning Valuation	CERS Period Contributions	CERS Period Distributions	CERS Ending Valuation	CERS Haz Commitment	CERS Haz Beginning Valuation	CERS Haz Period Contributions	CERS Haz Period Distributions	CERS Haz Ending Valuation
Keyhaven Capital Partners Fund III, L.P.	3,054,800	1,230,703	480,083	(0	482,093	658,787			0	258,061
Keyhaven Capital Partners IV LP	8,880,740	5,060,242	4,960,482	61,774			2,737,047				2,415,164
Levine Leichtman Capital Partners V, L.P.	24,000,000	13,675,190		. (5,993		7,396,807			3,240	2,504,565
Levine Leichtman Capital Partners VI LP	37,500,000	15,525,007	18,829,990	1,791,288	23,40		9,374,983			14,135	12,438,300
Lubert Adler VII	15,250,000	7,036,350	3,813,915	() (3,813,915	3,823,174			0	2,072,276
Lubert-Adler Real Estate Fund VII-B LP	15,750,000	7,232,401	2,012,179) (2,012,179	3,968,999	1,104,244		0	1,104,244
Magentar MTP Energy Opportunities Fund II LLC	12,500,000	5,764,587	53,293	7,995	39,97	7 21,311	3,188,762	29,480	4,422	22,114	11,788
Maritime Partners LP	75,000,000	0	0	() (,	C	0	0	0	0
MatlinPatterson Global Opportunities Partners II	5,000,000	2,014,376	28,179	(0	28,179	1,078,282	15,084	. 0	0	15,084
MatlinPatterson Global Opportunities Partners III	5,000,000	2,014,376	4,524	. (4,286	5 238	1,078,282	2,422	0	2,294	127
Merit Mezzanine Fund IV, L.P.	3,000,000	1,208,626	17,924	. (0	17,924	646,969	9,595	0	0	9,595
Mesa West Core Lending Fund, LP	29,600,000	13,790,640	20,233,153	386,909	386,909	20,233,153	7,619,040	11,178,393	213,759	213,759	11,178,393
Mesa West Real Estate Income Fund IV LP	14,000,000	6,428,800	2,872,896	() (2,872,896	3,527,999	1,576,589	0	0	1,576,589
MiddleGround Partners I LP	25,000,000	3,750,000	6,514,211	. () (6,514,211	1,999,999	3,474,244	. 0	0	3,474,244
MiddleGround Partners II LP	25,000,000	11,262,207	8,499,030	2,366,328	88,013	10,777,346	5,794,817	4,373,061	1,217,562	45,286	5,545,338
MiddleGround Partners II-X LP	12,500,000	5,631,103	4,138,984	1,164,504	1 44,006	5,259,482	2,897,408	2,129,658	599,180	22,643	2,706,195
Mill Road Capital I, L.P.	3,000,000	1,208,626	127,607	() (127,607	646,969	68,307	0	0	68,307
New Mountain Partners II, L.P.	5,000,000	2,014,376	16	() (16	1,078,282	9	0	0	9
New Mountain Partners III, L.P.	7,186,045	2,895,079	127,552	17,603	3 (145,155	1,549,716	68,278	9,423	0	77,701
New Mountain Partners IV, L.P.	17,200,000	9,800,553	3,360,683	12,807	7 17,826	3,355,693	5,301,045	1,817,768	6,927	9,642	1,815,069
New State Capital Partners Fund III LP	7,500,000	3,378,662	772,031	. () (772,031	1,738,445	397,238	0	0	397,238
Oak Hill Capital Partners II, L.P.	7,500,000	3,021,564	6,963	() (6,963	1,617,422	3,727	0	0	3,727
Oak Hill Capital Partners III, L.P.	12,500,000	5,035,940	0	() (0	2,695,704		0	0	0
Oberland Capital Healthcare LP	15,500,000	4,840,652	828,270	() (828,270	2,631,898	450,337	0	0	450,337
Patron Capital V LP	15,274,000	7,013,821	3,482,017	(227,85	1 3,267,127	3,849,047	1,910,862	. 0	125,040	1,792,935
Riverside Capital Appreciation Fund VI, L.P.	18,712,500	10,748,972	3,191,998	232,566	9,290	3,415,275	5,705,349	1,694,251	123,442	4,931	1,812,762
Rubenstein Properties Fund II	9,200,000	4,244,871	1,825,052	() (1,825,052	2,306,445	991,639	0	0	991,639
Secondary Opportunities Fund III, L.P.	75,000,000	34,884,827	7,898,398	() (7,898,398	18,849,301	4,267,738	0	0	4,267,738
Strategic Value Special Situations Fund IV LP	21,700,000	6,776,910	8,225,766	(5,576	8,220,190	3,684,660	4,472,415	0	3,032	4,469,383
Strategic Value Special Situations Fund V LP	30,000,000	13,514,648	7,481,411	. (7,26	7,474,147	6,953,780	3,849,459	0	3,738	3,845,721
Taurus Mining Finance Fund LLC	19,900,000	11,339,013	920,790	() (920,790	6,133,188	498,048	0	0	498,048
Tenaska Power Fund II, L.P.	3,000,000	1,278,755	3,734	. () (3,734	678,044	1,980	0	0	1,980
Triton Fund IV, L.P.	14,121,904	8,046,655	6,002,633	(2,185,635	3,817,216	4,352,375	3,246,779	0	1,182,193	2,064,703
VantagePoint Venture Partners 2006, L.P.	3,000,000	1,208,626	301,260				646,969			0	161,263
VantagePoint Venture Partners IV, L.P.	4,000,000	1,611,501	2,579) (2,579	862,625	1,381	. 0	0	1,381
Vista Equity Partners III, L.P.	5,000,000	2,014,376	234,902	269	151,893	83,278	1,078,282	125,741	144	81,307	44,578
Vista Equity Partners IV, L.P.	23,000,000	12,603,996	9,377,520	720	458,375	8,919,865	7,544,005	5,612,827	431	274,356	5,338,902
Vista Equity Partners VI LP	25,000,000	10,349,999	14,720,931	42,983	1,420,300	13,343,612	6,250,000	8,889,452	25,955	857,669	8,057,738
Walton Street Real Estate Fund VI, LP	4,000,000	1,712,019	745,934	. () (917,457	399,740		0	399,740
Walton Street Real Estate Fund VII, LP	16,755,000	7,730,005	1,729,693			1 1,729,692	4,199,996			1	939,805
Warburg, Pincus Private Equity IX, L.P.	10,000,000	4,028,752	1,564) (2,156,563			0	837
Warburg, Pincus Private Equity X, L.P.	7,500,000	3,021,564	55,443) (1,617,422			0	29,678
Wayzata Opportunities Fund II, L.P.	7,500,000	3,021,564	65			65	1,617,422			0	35
Wayzata Opportunities Fund III, L.P.	18,712,500	10,748,972	1,583,353		166,154	1,417,198	5,705,349			88,192	752,222
White Oak Yield Spectrum Parallel Fund LP	50,000,000	22,344,255	27,573,561				12,186,342			270,702	15,391,569
	22,230,000			_,,,,,,,,						,,, 02	

Kentucky Public Pensions Authority

Commissions Report

Quarter Ending: June 30, 2023

Reports can be found:

https://kyret.ky.gov/Investments/Investments-Library/Pages/Commissions-Reports.aspx

Kentucky Public Pensions Authority

Internal Asset Holdings Report & Internal Asset Transaction Report

Quarter Ending: June 30, 2023

Reports can be found:

https://kyret.ky.gov/Investments/Investments-Library/Pages/Internal-Reports.aspx