



**County Employees Retirement System
Investment Committee – Regular Meeting
May 22, 2024 at 2:00 PM ET
Live Video Conference/Facebook Live**

AGENDA

- | | |
|---|---|
| 1. Call to Order | Lisle Cheatham |
| 2. Opening Statement | Eric Branco |
| 3. Roll Call | Sherry Rankin |
| 4. Public Comment | Sherry Rankin |
| 5. Approval of Minutes – February 28, 2024* | Lisle Cheatham |
| 6. Investment Office Quarterly Update | Steve Willer |
| 7. Benchmark for Internally Managed Large Cap Public Equity* | Steve Willer |
| 8. Reconsideration: Asset Allocation Recommendation* | Steve Willer
David Lindberg
Craig Morton
Chris Tessman |
| 9. Adjourn | Lisle Cheatham |

****Committee Action May Be Taken***

**MINUTES OF MEETING
COUNTY EMPLOYEES RETIREMENT SYSTEM
INVESTMENT COMMITTEE MEETING
FEBRUARY 28, 2024, 2:00 P.M., E.T.
VIA LIVE VIDEO TELECONFERENCE**

At the February 28, 2024, County Employees Retirement System Investment Committee Meeting, the following Committee members were present: Dr. Merl Hackbart (Chair), George Cheatham, and William O’Mara. Staff members present were David Eager, Rebecca Adkins, Erin Surratt, Victoria Hale, Michael Lamb, Steve Willer, Anthony Chiu, Brian Caldwell, Joseph Gilbert, Ashley Gabbard, Katie Park, Sherry Rankin, and Phillip Cook. Also in attendance were CERS CEO Ed Owens, III, Eric Branco with Johnson, Bowman, Branco LLP, and David Lindberg with Wilshire.

Dr. Hackbart called the meeting to order.

Mr. Branco read the Legal Opening Statement.

Ms. Rankin called roll.

There being no *Public Comment*, Dr. Hackbart introduced agenda item *Approval of Minutes – January 24, 2024* (Video 00:09:22 to 00:09:53). A motion was made by Mr. O’Mara and seconded by Mr. Cheatham to approve the January 24, 2024, minutes as presented. The motion passed unanimously.

Dr. Hackbart requested that the *Investment Office Quarterly Update* be presented prior to the *Asset Allocation Recommendation*.

Therefore, Dr. Hackbart introduced agenda item *Investment Office Quarterly Update* (Video 00:09:54 to 00:50:10). Mr. David Lindberg with Wilshire presented an Economic and Update for the quarter ending December 31, 2023.

Next, KPPA Chief Investment Officer Mr. Willer reviewed CERS Nonhazardous and CERS Hazardous plan performance data for the three-month period ending December 31, 2023. Mr. Willer also presented the Investment Budget and Investment Fees and Expenses for the six-month period ending December 31, 2023. Lastly, Mr. Willer provided a Compliance review for the period ended December 31, 2023.

Dr. Hackbart introduced agenda item ***Asset Allocation Recommendation*** (Video 00:50:11 to 01:58:21). Dr. Hackbart reminded the Committee that the Asset Allocation Recommendation was previously discussed at the January 24, 2024, meeting of the CERS Investment Committee. After considerable discussion, the Committee requested a more in-depth discussion of specialty credit prior to approving changes to the current asset allocation.

Mr. Willer and Mr. Lindberg with Wilshire presented a CERS Asset Allocation Analysis and the recommended options for reallocation. After extensive discussion, Mr. Cheatham stated that he would feel comfortable making a motion to move the targets to the Lower Risk A recommendation. He requested that the optimization ranges for each asset class be presented at a future next meeting.

Mr. Cheatham wished to forward the issue and to the CERS Board of Trustees. Therefore, Mr. Cheatham made a motion to look to change the allocation targets to Lower Risk A. The motion was seconded by Mr. O'Mara. Dr. Hackbart opposed; however, the motion passed.

Dr. Hackbart introduced agenda item ***Strategic Planning Process*** (Video 01:58:22 to 01:58:39). Due to time constraints, the CERS Investment Committee opted to postpone their discussion of the strategic planning process to a future meeting.

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 February 28, 2024, were approved by the County Employees Retirement System Investment Committee on May 22, 2024.

CERS Investment Committee Chair

I have reviewed the Minutes of the County Employees Retirement System Investment Committee Meeting on February 28, 2024, for form, content, and legality.

Office of Legal Services

County Employees Retirement System

Investment Office Quarterly Update

Quarter Ending: March 31, 2024

County Employees Retirement System

Economic and Market Update

Quarter Ending: March 31, 2024

Market Commentary

U.S. Equity

The U.S. stock market was up 9.9% for the first quarter and is up 29.3% for the past year. Nearly every sector was positive with the best performing being communication services (+14.3%) and energy (+13.0%). The worst performing and only negative sector was real estate (-1.2%). Small-cap underperformed large-cap by 230 basis points while growth stocks generally outperformed value. Large-cap growth stocks hold a massive advantage over large-cap value for the past 12 months.

The first cryptocurrency, Bitcoin, came into existence in 2009. It was to be the first truly decentralized global currency, driven by the technological breakthrough called blockchain. Adoption and scalability – including the tension between the speed of transactions and security and decentralization – have always been critical components to the maturation story of digital assets. In 2024, the U.S. SEC approved the first U.S.-listed exchange traded funds (ETFs) to track bitcoin. Since trading started in January, the four largest have grown to a combined \$33.5 billion in total assets while the price of bitcoin has grown by 66% during the first quarter.

Non-U.S. Equity

The European economy remains weak with consumers hesitant to spend, fewer exports and lower investment, all reflecting diminished economic demand. Recent data in England confirmed that their economy entered a technical recession during 2023. The outlook in China is improving due to stronger industrial activity and retail spending. Manufacturing saw growth in production and domestic orders during the quarter, but export orders fell.

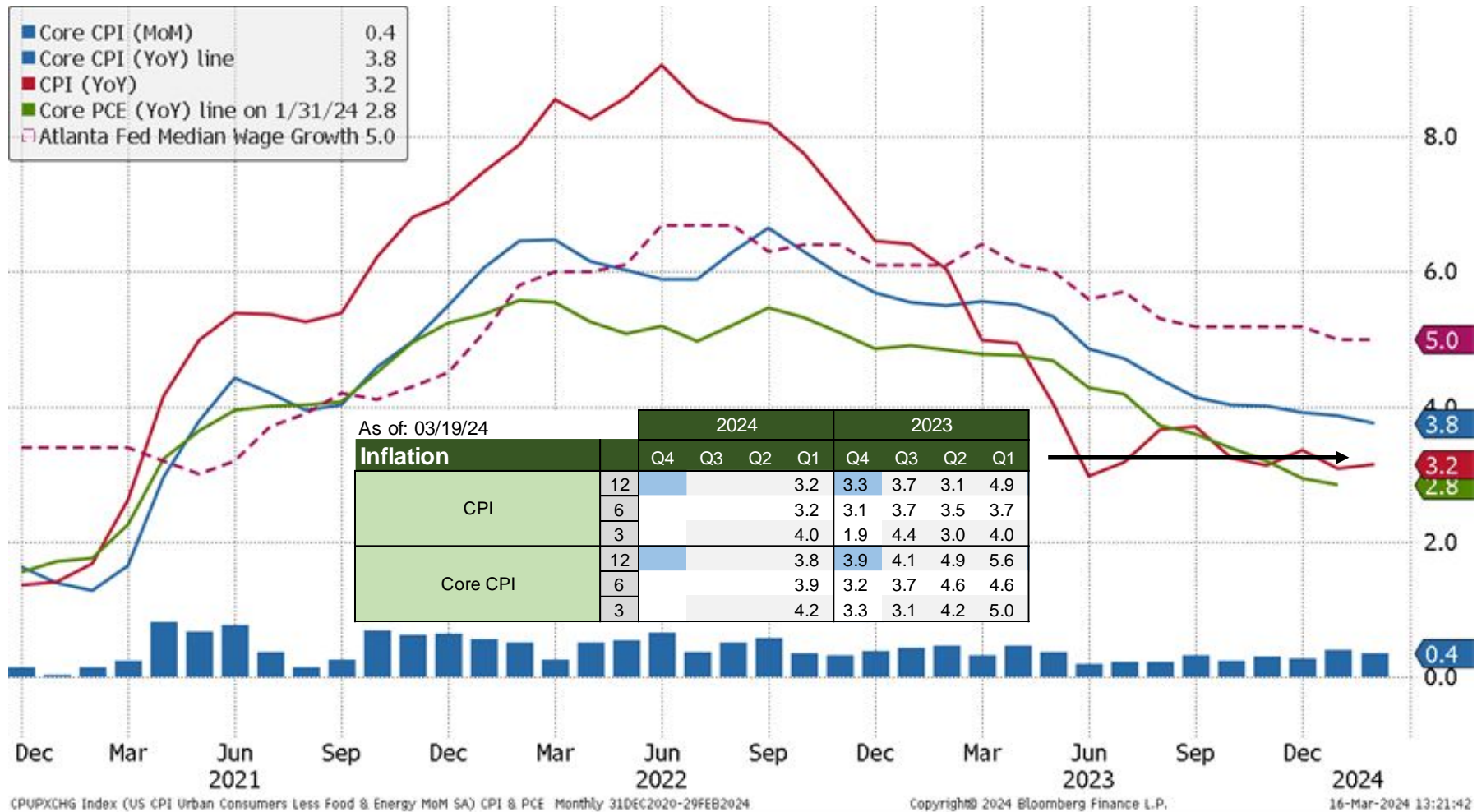
Fixed Income

The U.S. Treasury yield curve was up across nearly the entire maturity spectrum, and to a greater degree in the long end of the curve. The 10-year Treasury yield ended the quarter at 4.20%, up 32 basis points from December. High yield bond spreads were down -24 basis points, the lowest level in more than a year. The FOMC left the overnight rate unchanged, targeting a range of 5.25% to 5.50%. During a recent speech, Fed Chair Jerome Powell said that the central bank is in no hurry to raise rates, "This is an economy that doesn't feel like it's suffering from the current level of rates."

March 2024 Asset Class Assumptions

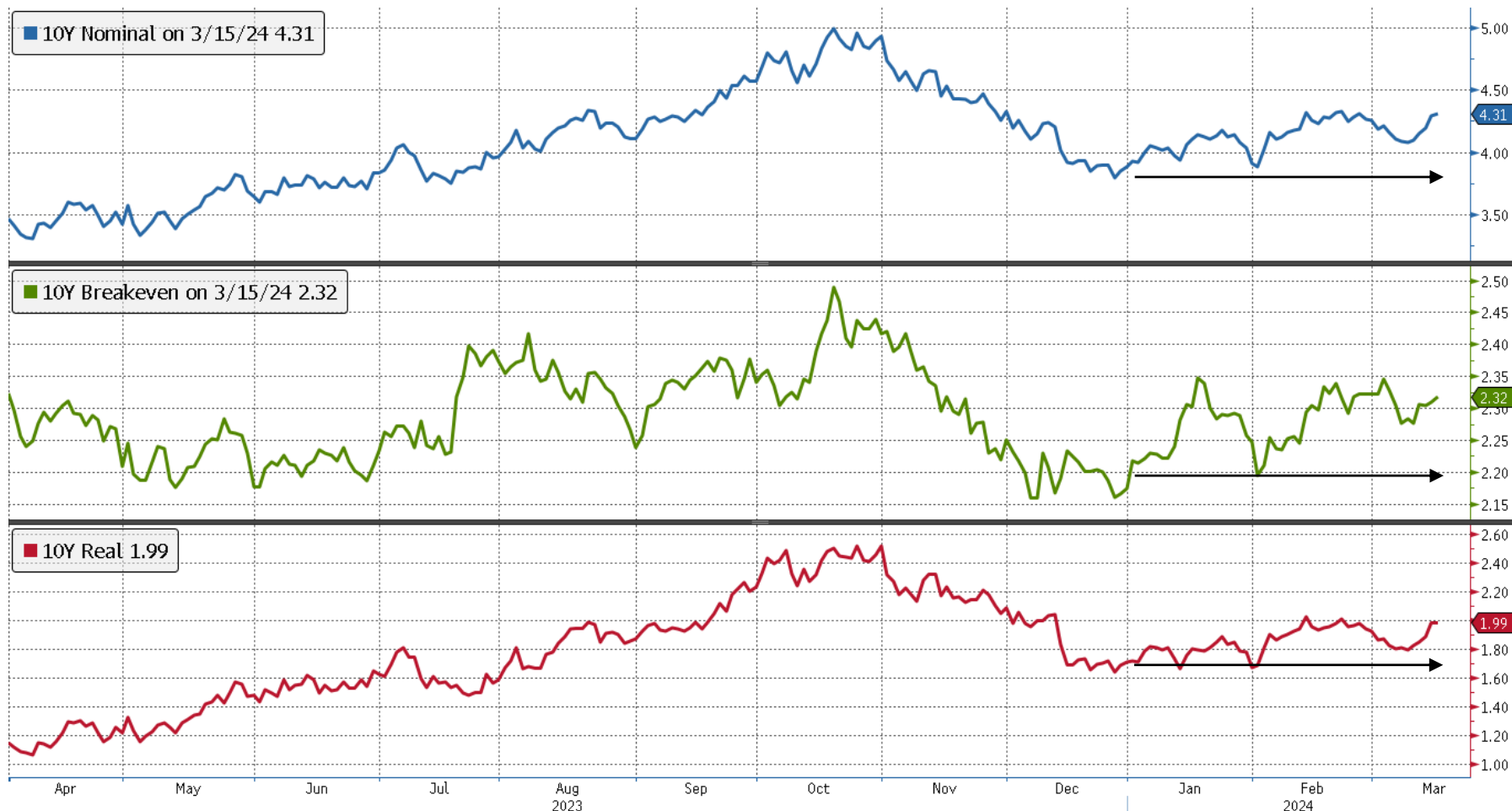
	EQUITY						FIXED INCOME							REAL ASSETS					
	US Stock	Dev ex-US Stock	Emg Stock	Global ex-US Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Private Credit	Dev ex-US Bond (Hdg)	US RES	Global RES	Private RE	Cmdty	Real Assets	US CPI
Compound Return (%)	4.50	5.50	5.75	5.85	5.10	7.65	4.00	5.05	5.00	4.35	6.25	8.20	3.05	5.80	5.95	6.15	6.30	6.90	2.30
Arithmetic Return (%)	5.85	7.00	8.75	7.50	6.45	11.40	4.00	5.15	5.45	4.50	6.70	8.95	3.15	7.20	7.20	7.05	7.45	7.65	2.30
Risk (%)	17.00	18.00	26.00	19.00	17.05	29.65	0.75	4.70	9.85	6.00	10.00	12.75	4.00	17.50	16.45	13.90	16.00	12.60	1.75
Yield (%)	1.35	2.90	2.45	2.75	1.90	0.00	4.00	5.35	5.40	4.65	9.70	5.10	3.95	4.05	4.05	2.60	4.00	3.60	0.00
Growth Factor Exposure	8.00	8.00	8.00	8.00	8.00	14.00	0.00	-0.90	-2.40	-3.00	4.00	5.10	-1.00	6.00	6.00	3.50	0.00	2.70	0.00
Inflation Factor Exposure	-3.00	-1.00	3.00	0.10	-1.85	-4.25	0.00	-2.55	-6.85	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	0.67	0.55	0.57	0.59	0.67	0.44	0.00	0.24	0.30	0.00	0.75	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.16	0.17	0.26	0.10	0.67	0.65	0.39	0.26	0.22	1.00						
US RE Securities	0.57	0.47	0.44	0.49	0.56	0.49	-0.05	0.17	0.22	0.10	0.56	0.61	0.05	1.00					
Global RE Securities	0.63	0.56	0.54	0.59	0.64	0.55	-0.05	0.17	0.21	0.11	0.60	0.67	0.04	0.97	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	0.57	0.62	0.05	0.78	0.77	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	0.61	0.62	0.66	0.68	0.66	0.56	-0.03	0.24	0.26	0.32	0.64	0.69	0.05	0.78	0.83	0.76	0.62	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	0.21	1.00

Inflation Stubbornly Settling Near 3%



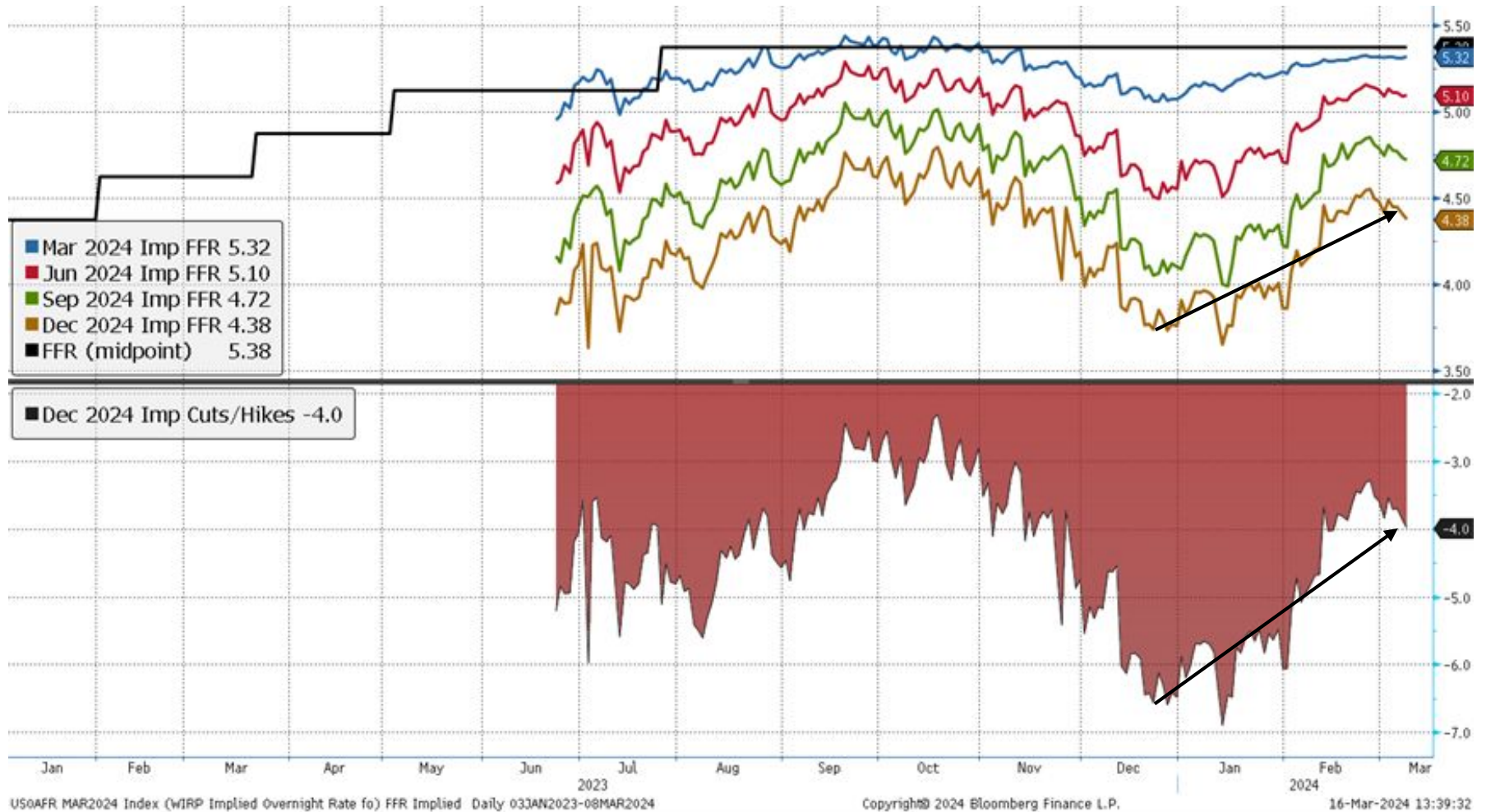
Data Sources: Bloomberg

Inflation Expectations Driving Rates Volatility



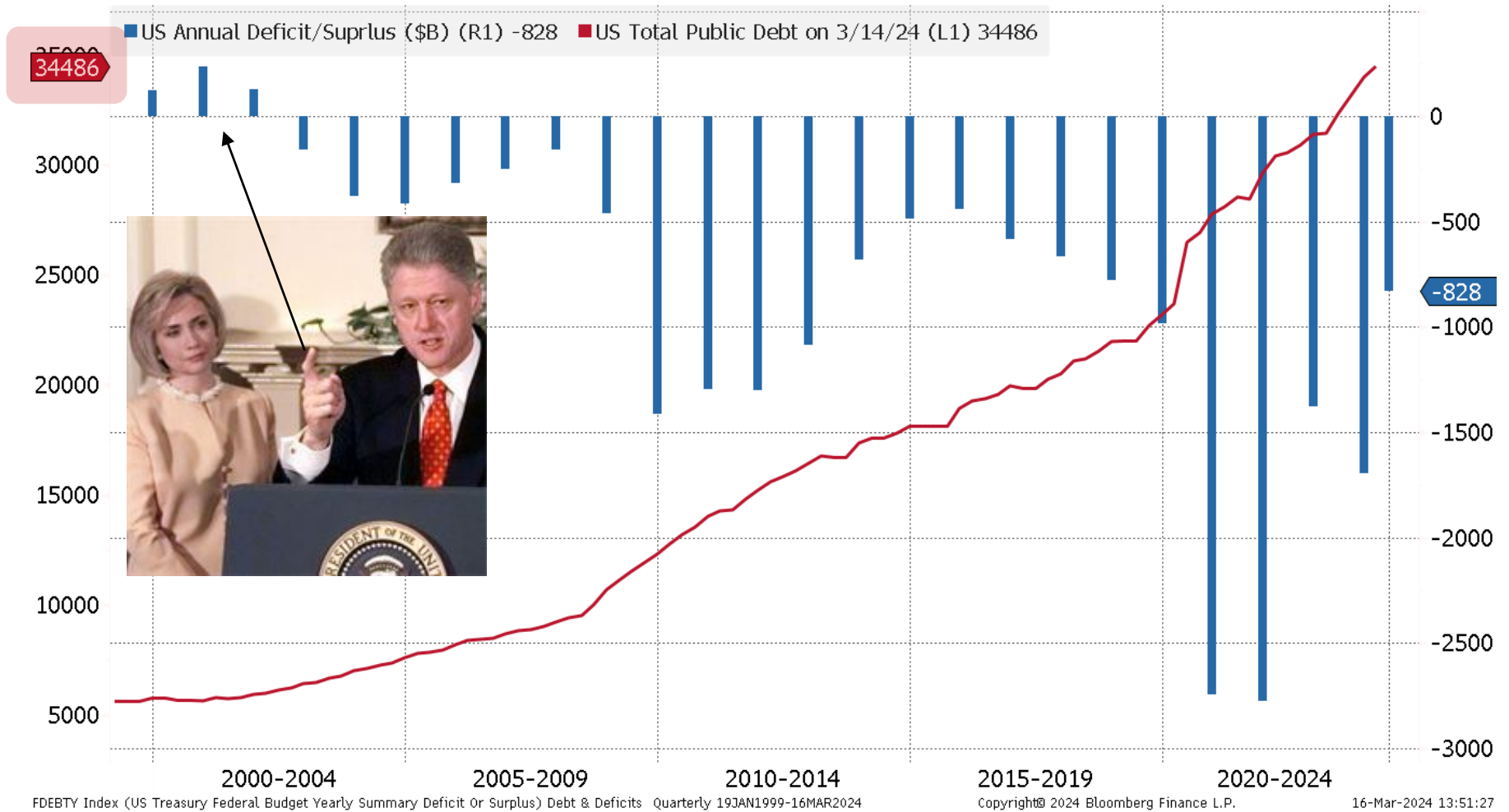
Data Sources: Bloomberg

Markets Begin to Align with Fed's Median Expectations (i.e., Dot-Plot)



Data Sources: Bloomberg

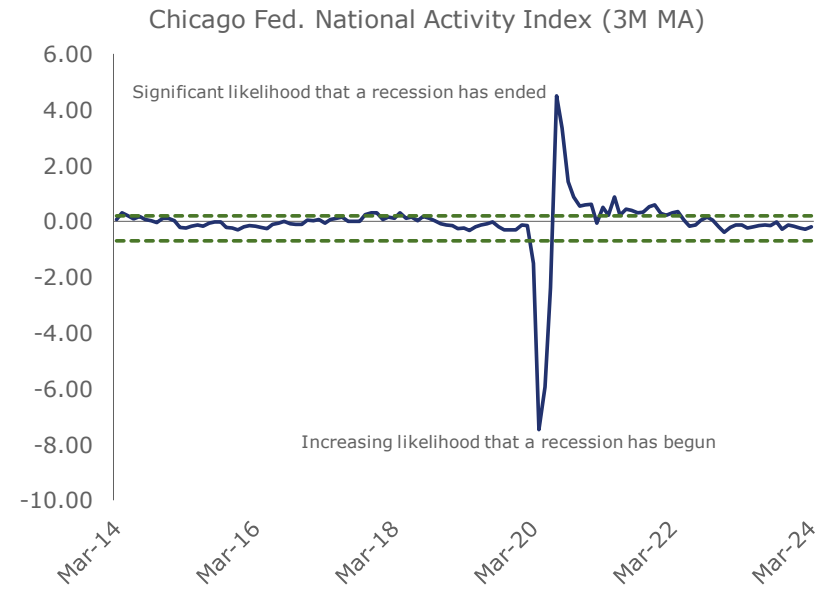
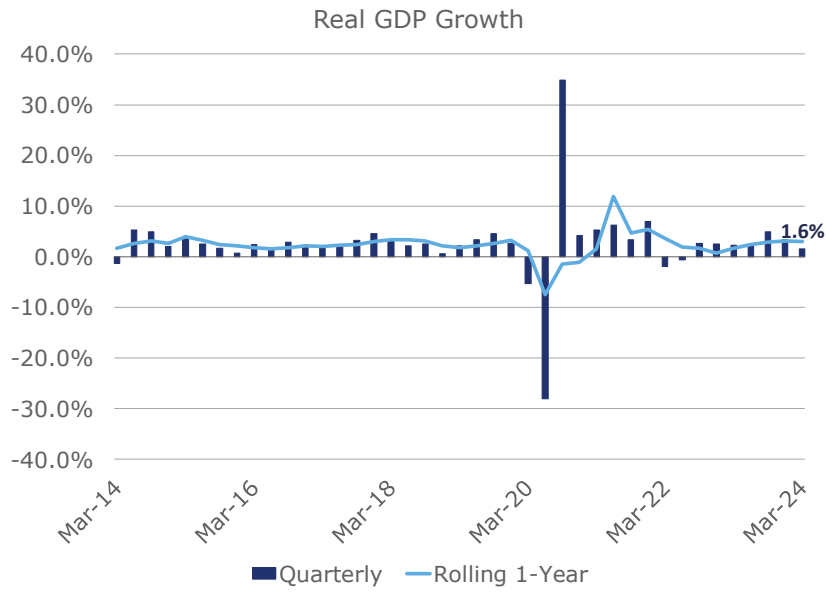
Meanwhile, Nobody Seems to Care About Debt/Deficits



Data Sources: Bloomberg

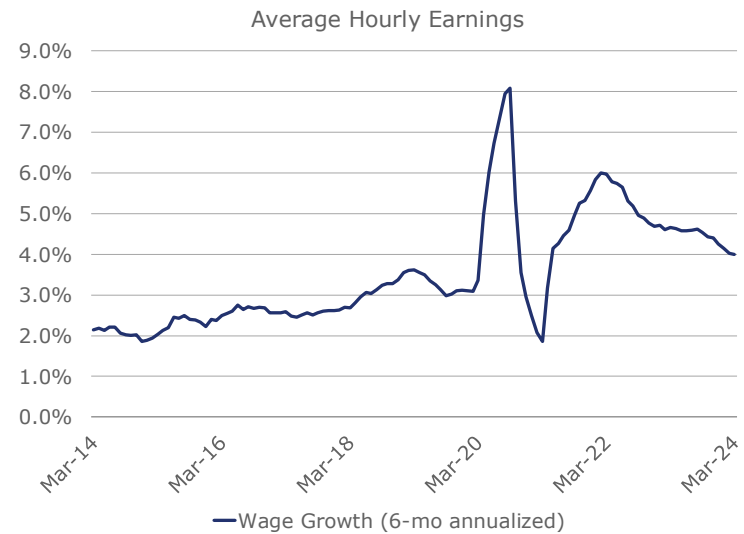
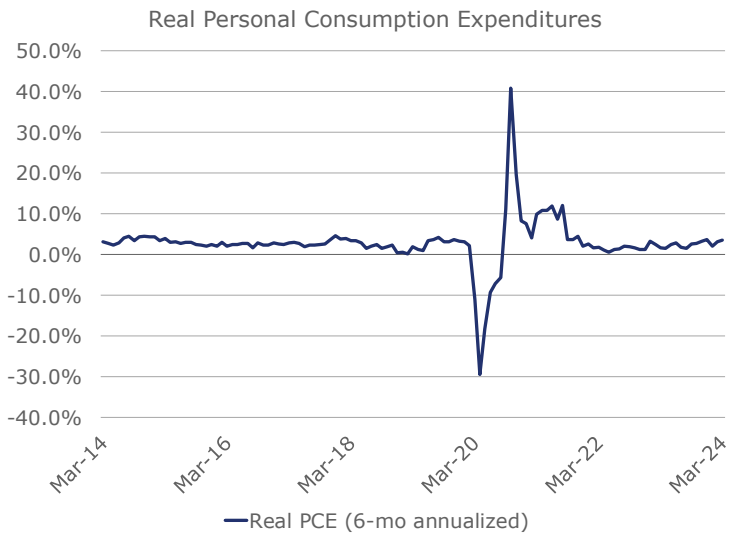
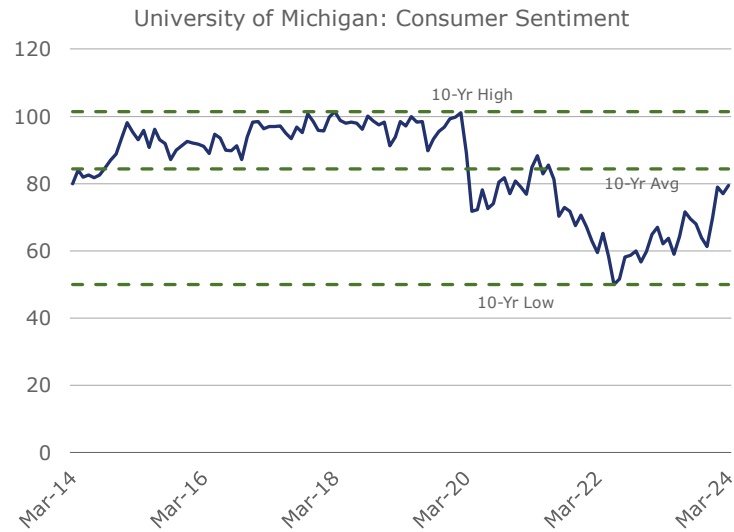
Economic/Market Activity

Economic Growth



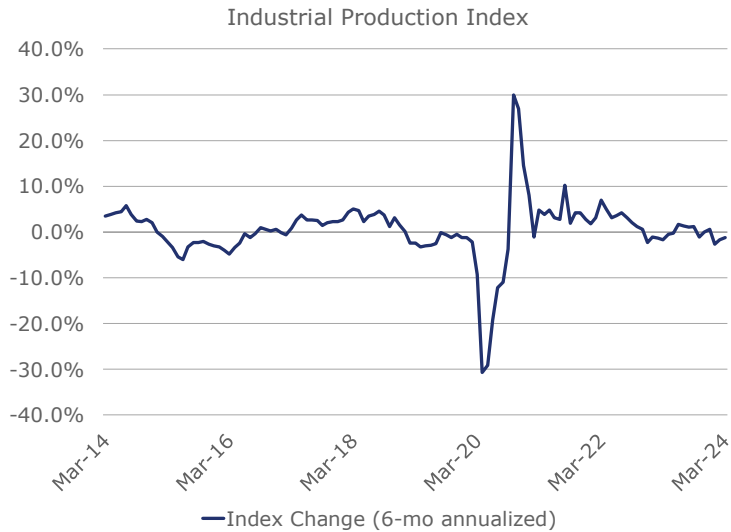
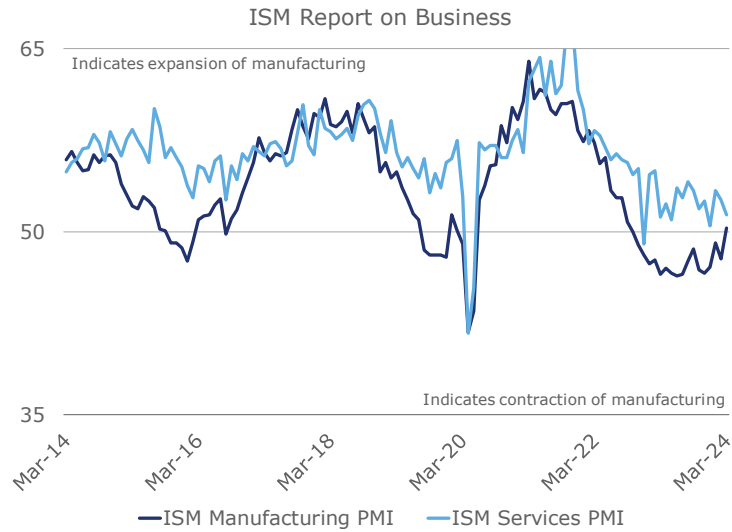
Data Sources: Bloomberg

Consumer Activity



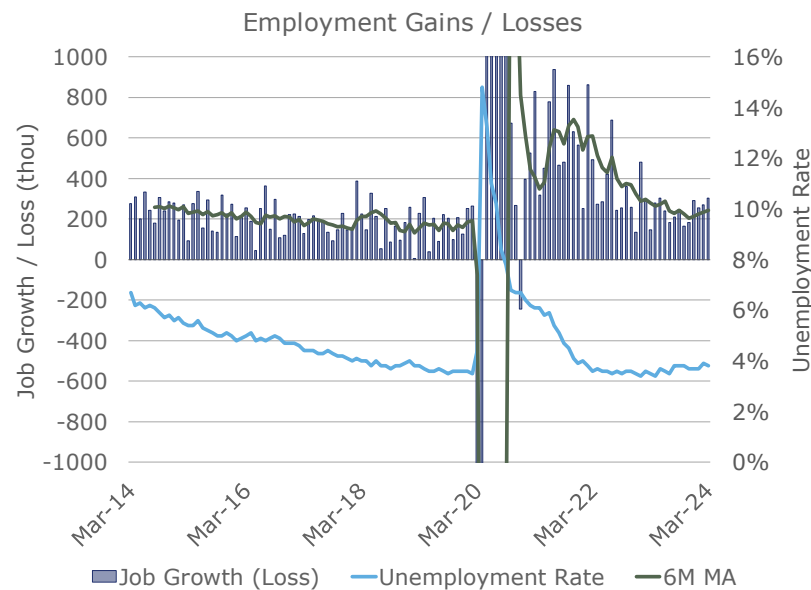
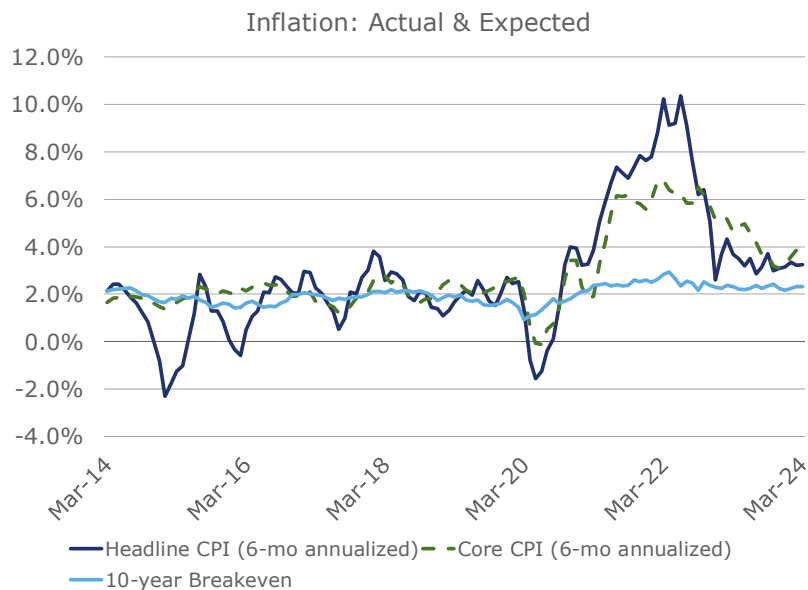
Data Sources: Bloomberg

Business Activity



Data Sources: Bloomberg

Inflation and Employment

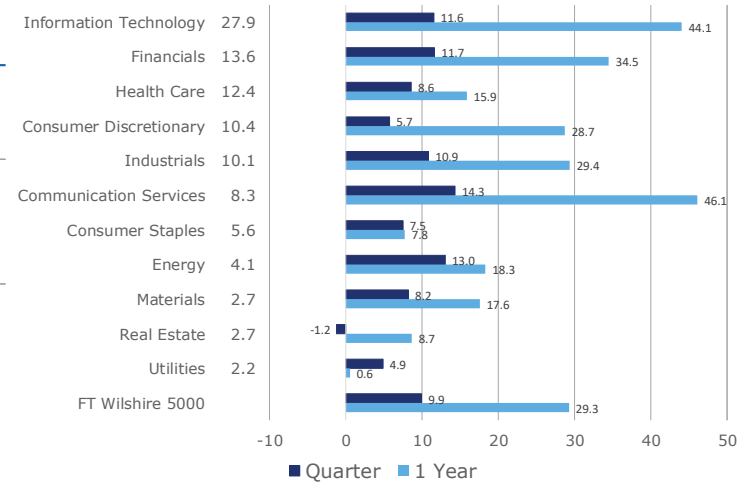


Data Sources: Bloomberg

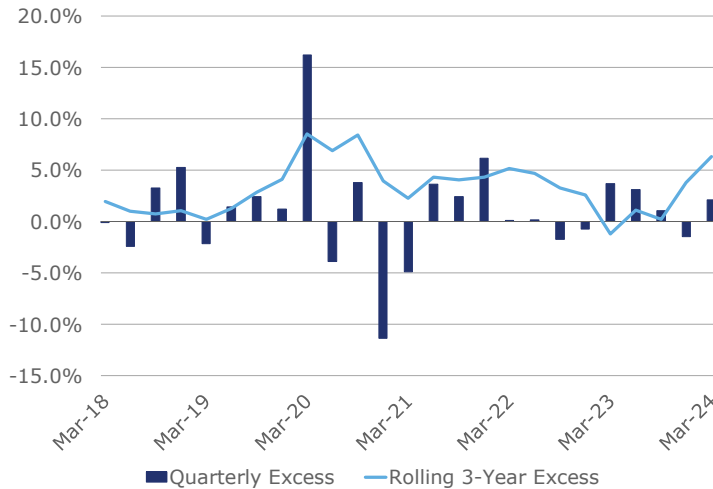
U.S. Equity Market

As of 3/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	9.9	9.9	29.3	10.1	14.6	12.5
FT Wilshire U.S. Large Cap	10.3	10.3	30.2	11.2	15.2	13.1
FT Wilshire U.S. Small Cap	8.0	8.0	24.1	4.6	10.4	9.4
FT Wilshire U.S. Large Growth	11.9	11.9	41.1	12.2	18.4	n/a
FT Wilshire U.S. Large Value	8.6	8.6	19.7	9.7	11.6	n/a
FT Wilshire U.S. Small Growth	8.2	8.2	23.0	1.8	9.6	n/a
FT Wilshire U.S. Small Value	7.8	7.8	25.1	7.1	10.8	n/a
Wilshire REIT Index	0.0	0.0	12.4	4.5	4.4	6.7
MSCI USA Min. Vol. Index	7.7	7.7	16.7	8.3	9.3	11.0
FTSE RAFI U.S. 1000 Index	10.0	10.0	25.6	10.8	13.9	11.2

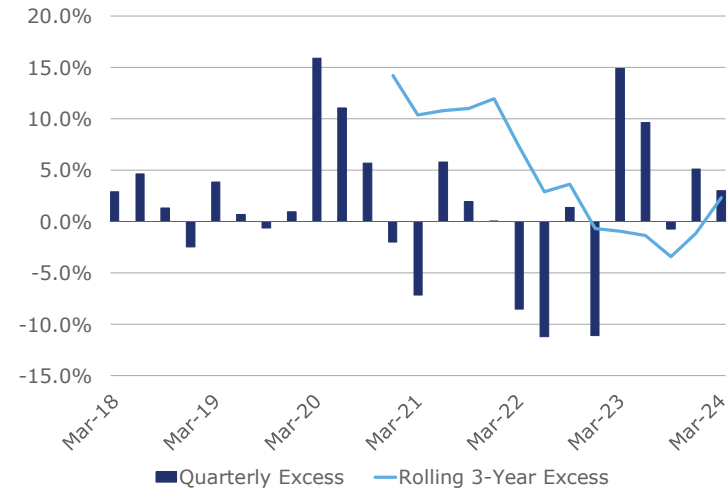
U.S. Sector Weight and Return (%)



Large Cap vs Small Cap



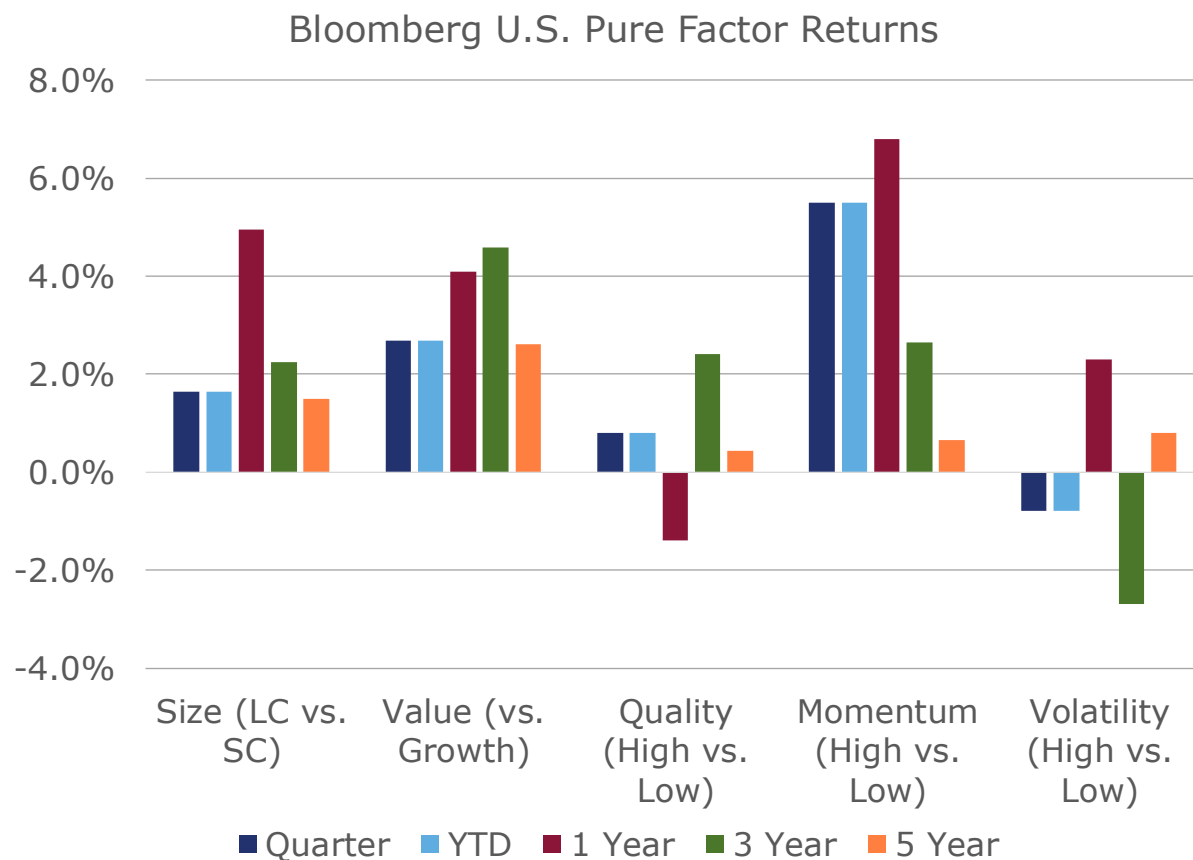
Large Growth vs Large Value



Data Sources: Bloomberg, Wilshire Atlas

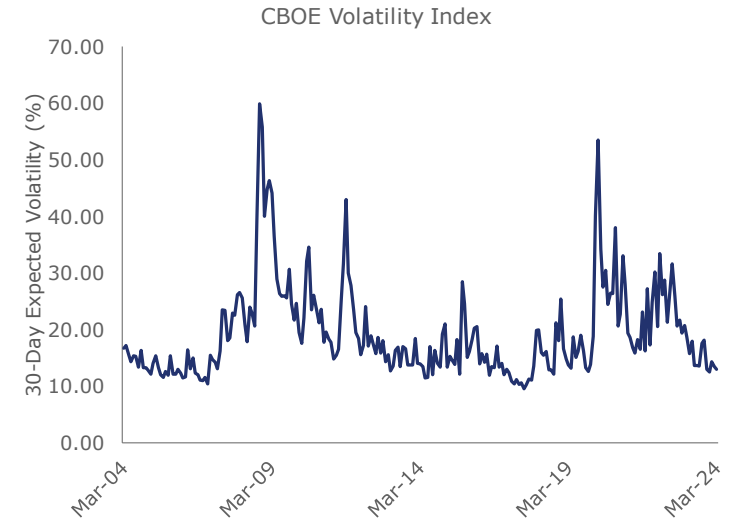
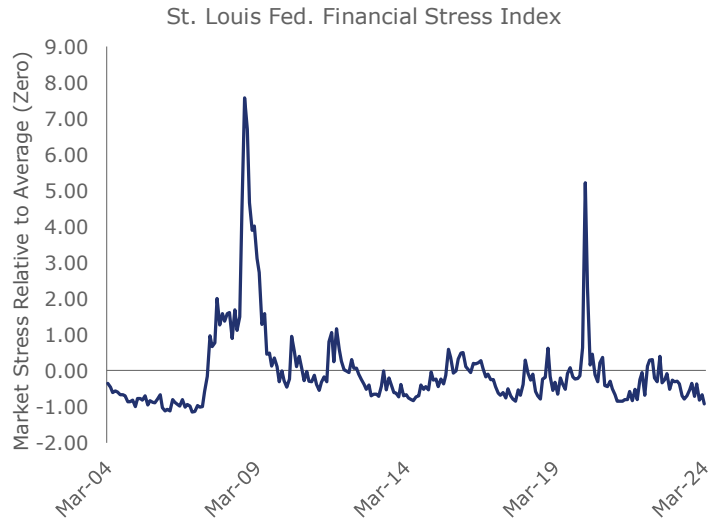
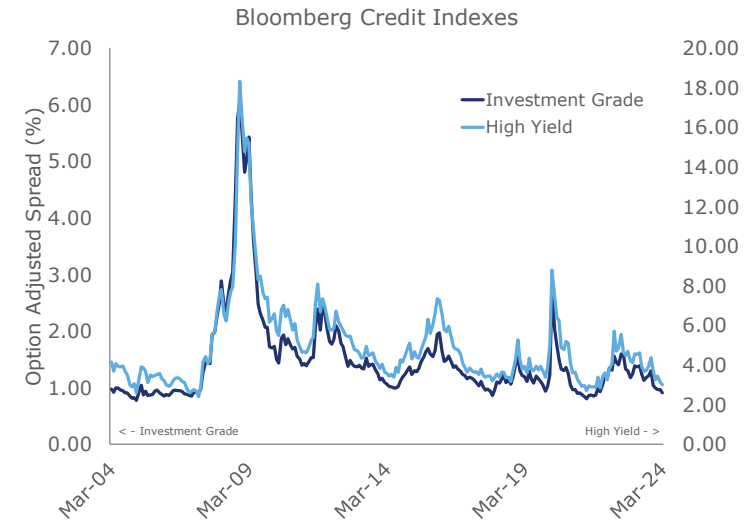
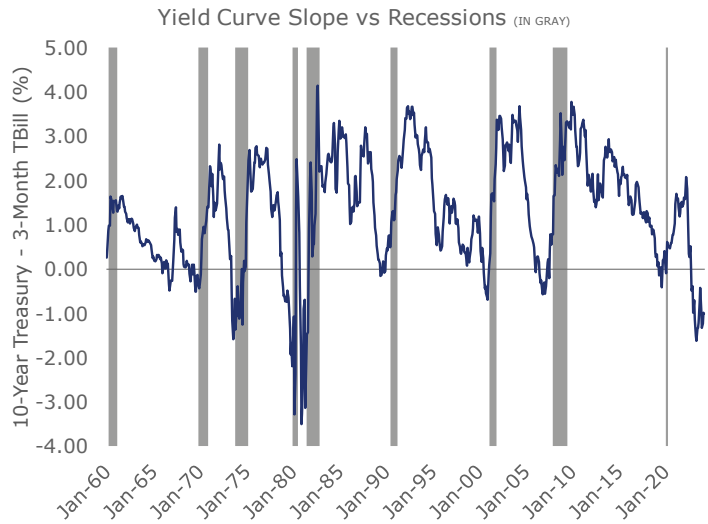
U.S. Factor Returns

- Factor returns represent the contribution from large cap, value, etc. stocks within Bloomberg’s Portfolio & Risk Analytics module
- Momentum had a strong quarter while high volatility detracted



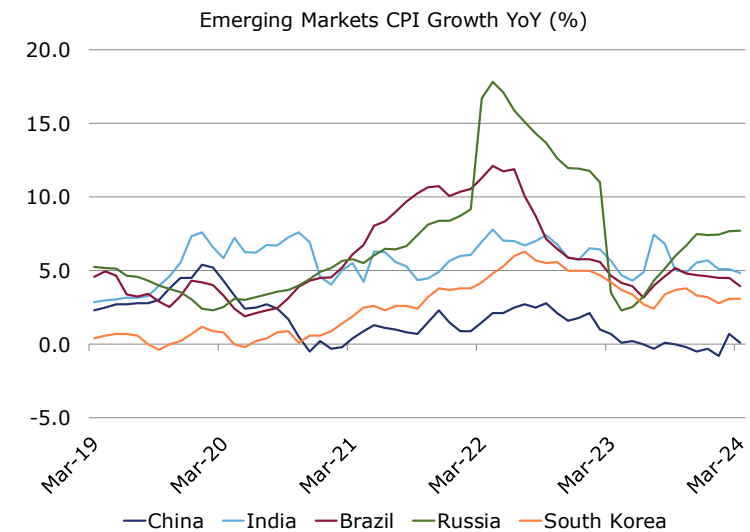
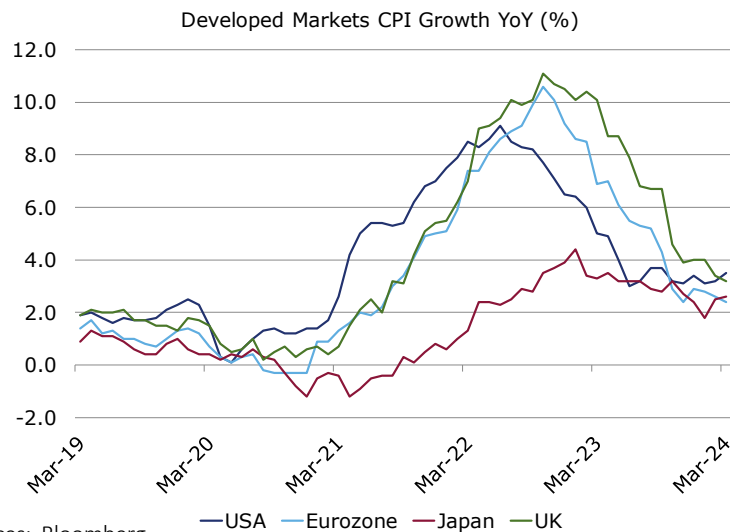
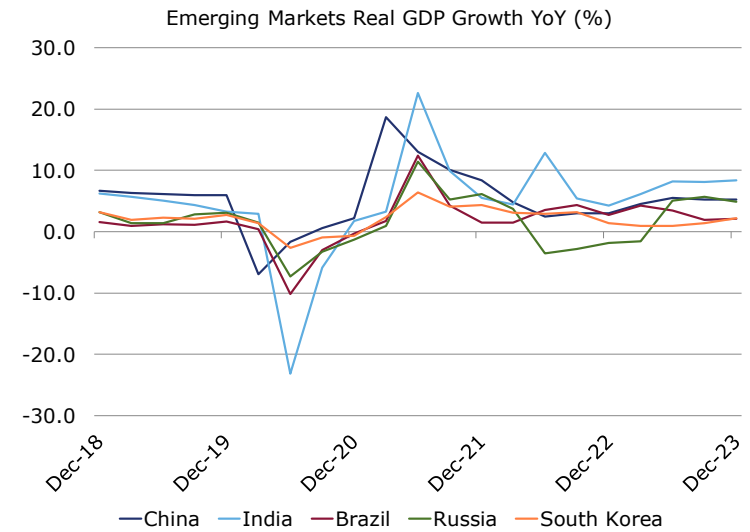
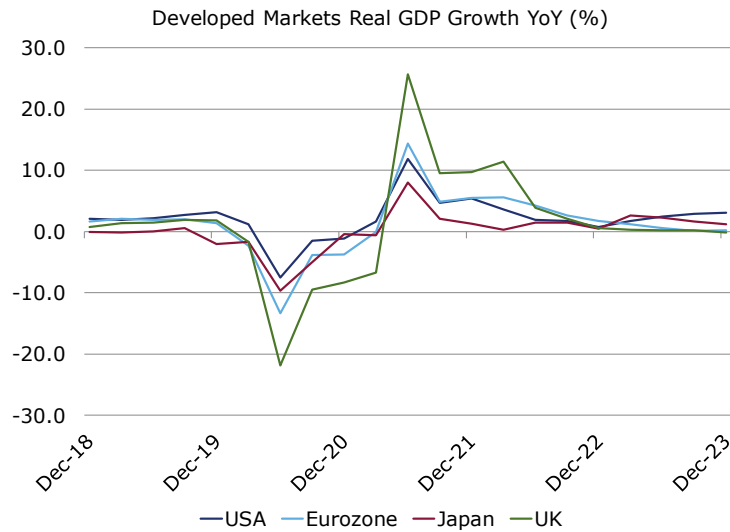
Data Sources: Bloomberg

Risk Monitor



Data Sources: Bloomberg

Non-U.S. Growth and Inflation

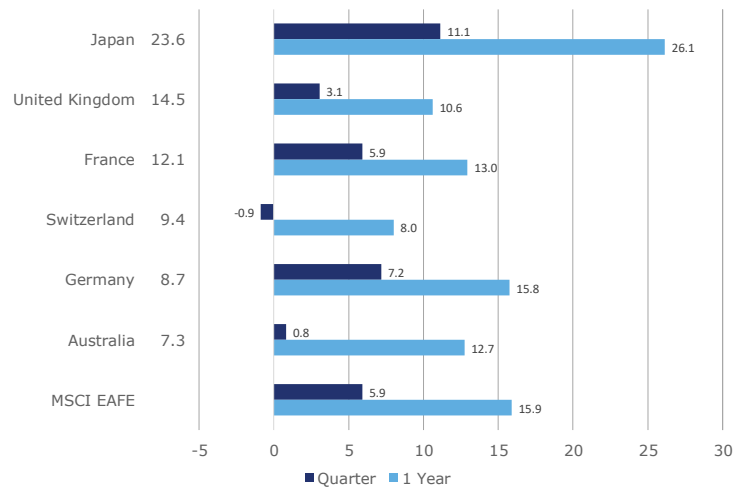


Data Sources: Bloomberg

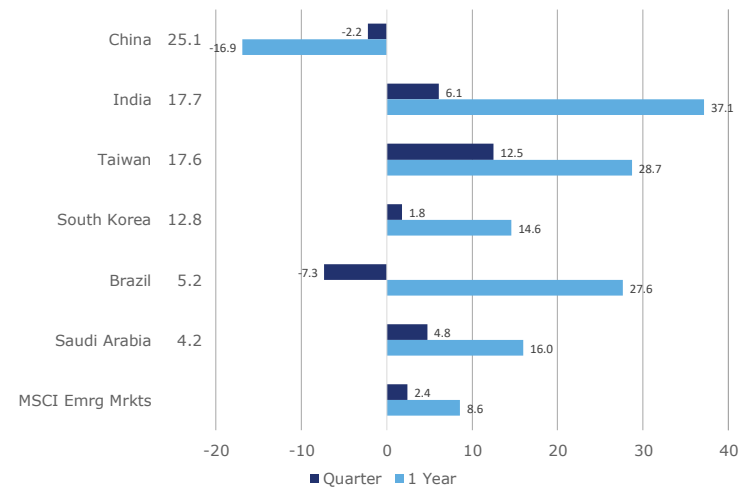
Non-U.S. Equity Market

As of 3/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	4.8	4.8	13.8	2.4	6.5	4.7
MSCI EAFE (\$G)	5.9	5.9	15.9	5.3	7.9	5.3
MSCI Emerging Markets (\$G)	2.4	2.4	8.6	-4.7	2.6	3.3
MSCI Frontier Markets (\$G)	5.7	5.7	16.0	2.8	0.8	0.7
MSCI ACWI ex-US Growth (\$G)	6.0	6.0	11.5	-0.5	6.6	5.5
MSCI ACWI ex-US Value (\$G)	3.4	3.4	16.2	5.1	6.2	4.0
MSCI ACWI ex-US Small (\$G)	2.2	2.2	13.4	0.8	6.7	5.2
MSCI ACWI Minimum Volatility	4.8	4.8	11.7	4.8	6.1	7.9
MSCI EAFE Minimum Volatility	2.4	2.4	8.8	2.1	2.9	4.7
FTSE RAFI Developed ex-US	5.6	5.6	17.8	6.7	8.2	4.9
MSCI EAFE LC (G)	10.1	10.1	19.4	10.0	9.9	8.2
MSCI Emerging Markets LC (G)	4.6	4.6	11.1	-2.0	4.8	6.1

Developed Markets Weight and Return (%)



Emerging Markets Weight and Return (%)

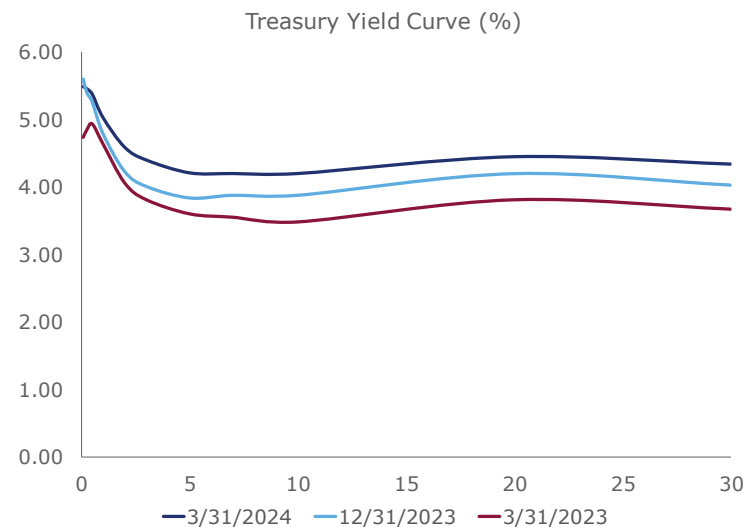
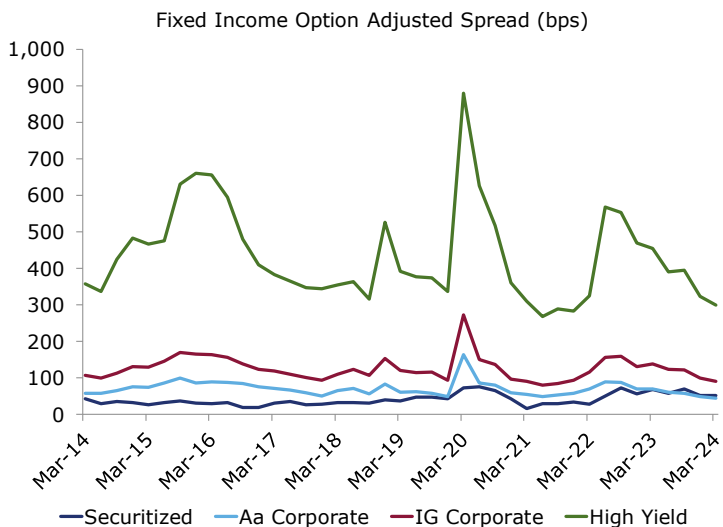


Data Sources: Bloomberg

U.S. Fixed Income

As of 3/31/2024	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.8	6.2	-0.8	-0.8	1.7	-2.5	0.4	1.5
Bloomberg Treasury	4.4	6.0	-1.0	-1.0	0.1	-2.7	-0.1	1.0
Bloomberg Gov't-Rel.	4.9	5.3	-0.4	-0.4	2.5	-1.6	0.7	1.7
Bloomberg Securitized	5.1	5.9	-0.9	-0.9	1.6	-2.7	-0.3	1.2
Bloomberg Corporate	5.3	7.0	-0.4	-0.4	4.4	-1.9	1.5	2.6
Bloomberg LT Gov't/Credit	5.0	14.0	-2.4	-2.4	-1.1	-6.0	-0.6	2.3
Bloomberg LT Treasury	4.4	15.3	-3.3	-3.3	-6.1	-8.0	-2.8	1.2
Bloomberg LT Gov't-Rel.	5.5	11.6	-1.3	-1.3	2.1	-4.1	-0.1	2.7
Bloomberg LT Corporate	5.5	12.9	-1.7	-1.7	3.4	-4.3	1.0	3.1
Bloomberg U.S. TIPS *	4.2	7.3	-0.1	-0.1	0.5	-0.5	2.5	2.2
Bloomberg High Yield	7.7	3.2	1.5	1.5	11.2	2.2	4.2	4.4
S&P/LSTA Leveraged Loan	9.4	0.3	2.5	2.5	12.5	6.0	5.5	4.5
Treasury Bills	5.3	0.3	1.3	1.3	5.3	2.6	2.0	1.4

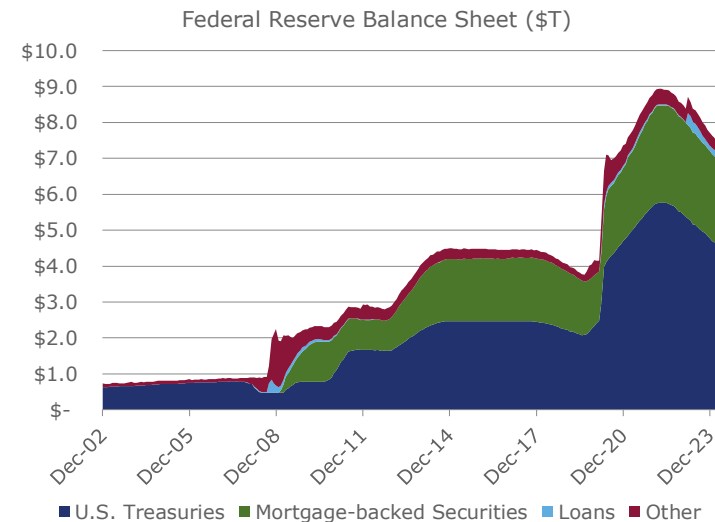
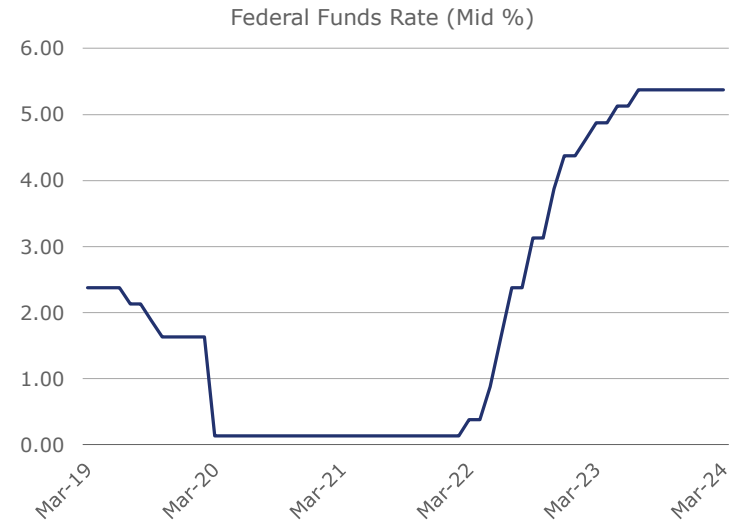
* Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index



Data Sources: Bloomberg

Federal Reserve

- The Federal Open Market Committee has left their overnight rate unchanged since July of 2023
- QE4 was larger than the 3 phases of quantitative easing – combined – following the global financial crisis
- The Fed’s balance sheet has begun to shrink again during the past year



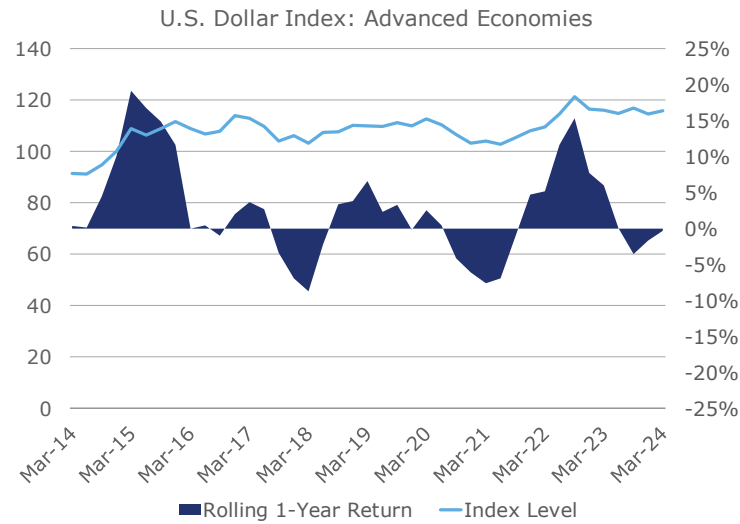
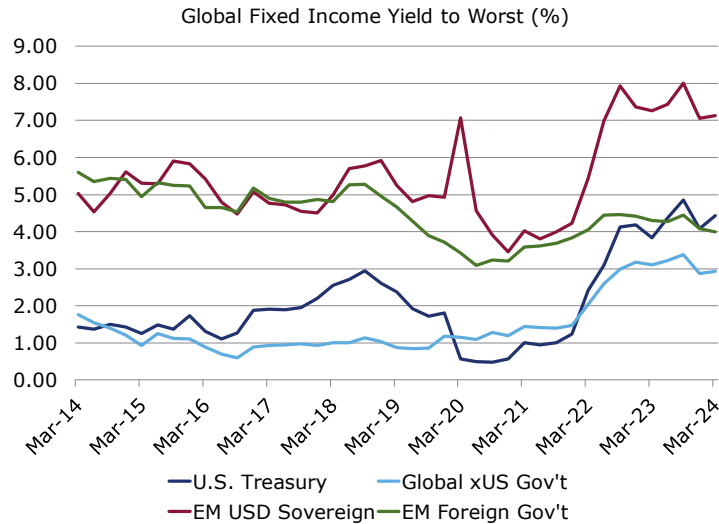
	Announced	Closed	Amount (bil)
QE1	11/25/2008	3/31/2010	\$1,403
QE2	11/3/2010	6/29/2012	\$568
QE3	9/13/2012	10/29/2014	\$1,674
QE4	3/23/2020	3/15/2022	\$4,779

Data Sources: Bloomberg

Non-U.S. Fixed Income

As of 3/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Developed Markets						
Bloomberg Global Aggregate xUS	-3.2	-3.2	-0.7	-6.5	-2.5	-1.4
Bloomberg Global Aggregate xUS *	0.6	0.6	5.9	-0.4	1.0	2.6
Bloomberg Global Inflation Linked xUS	-3.2	-3.2	-1.4	-8.3	-2.9	-0.9
Bloomberg Global Inflation Linked xUS *	-0.9	-0.9	0.3	-3.7	-0.6	2.9
Emerging Markets (Hard Currency)						
Bloomberg EM USD Aggregate	1.5	1.5	8.4	-1.5	1.1	2.9
Emerging Markets (Foreign Currency)						
Bloomberg EM Local Currency Gov't	-1.1	-1.1	2.6	-0.3	1.4	1.1
Bloomberg EM Local Currency Gov't *	1.8	1.8	8.1	2.7	3.1	3.1
Euro vs. Dollar	-2.3	-2.3	-0.5	-2.7	-0.8	-2.4
Yen vs. Dollar	-6.8	-6.8	-12.2	-9.9	-6.0	-3.8
Pound vs. Dollar	-0.8	-0.8	2.3	-2.9	-0.6	-2.7

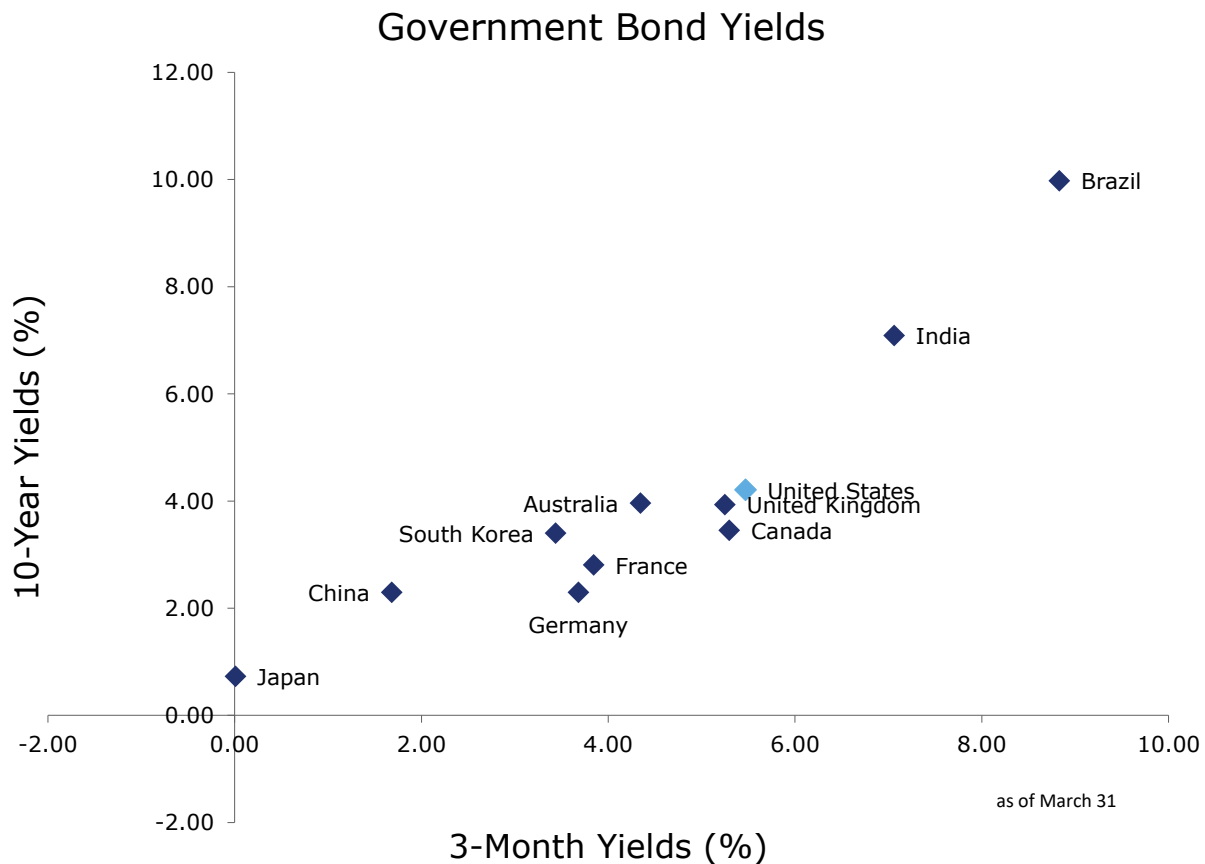
* Returns are reported in terms of local market investors, which removes currency effects.



Data Sources: Bloomberg

Global Interest Rates

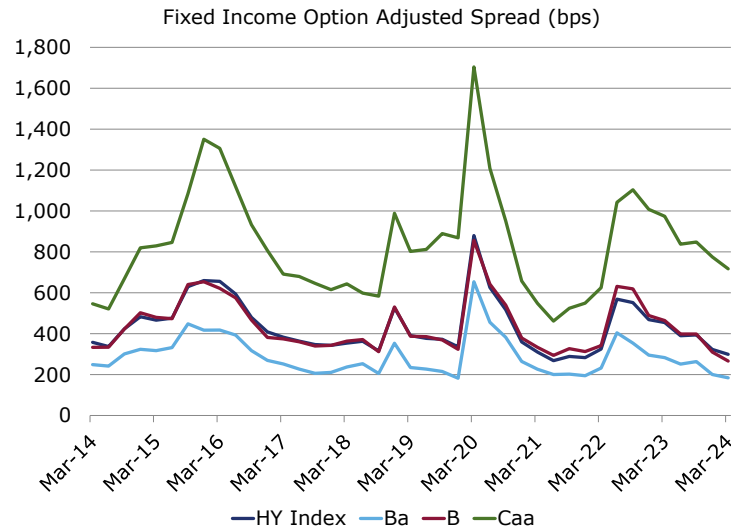
Short-term rates have turned positive in most larger countries; longer-term rates near 4.0% in the U.K. and Australia



Data Sources: Bloomberg

High Yield Bond Market

As of 3/31/2024		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		7.7	1.5	1.5	11.2	2.2	4.2	4.4
S&P LSTA Leveraged Loan		9.4	2.0	2.0	12.2	5.5	5.1	4.1
High Yield Quality Distribution	Weight							
Ba U.S. High Yield	47.9%	6.5	1.1	1.1	9.1	1.8	4.6	4.8
B U.S. High Yield	38.4%	7.4	1.4	1.4	11.5	2.4	4.0	4.1
Caa U.S. High Yield	12.5%	11.9	2.1	2.1	16.6	2.4	3.1	3.9
Ca to D U.S. High Yield	1.2%	19.9	13.2	13.2	36.7	5.1	3.0	-2.7

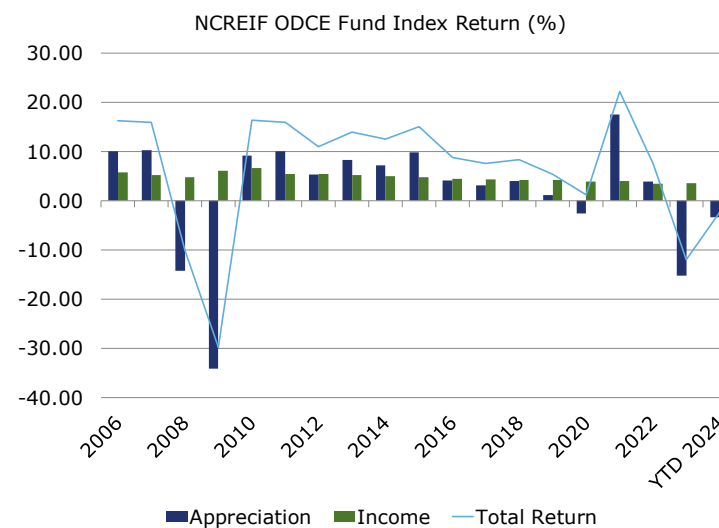
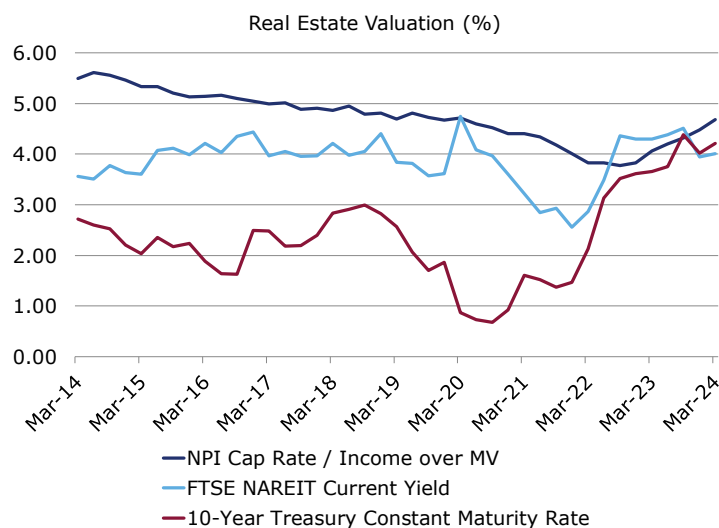


Data Sources: Bloomberg

Real Assets

As of 3/31/2024

	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg U.S. TIPS	-0.1	-0.1	0.5	-0.5	2.5	2.2
Bloomberg Commodity Index	2.2	2.2	-0.6	9.1	6.4	-1.6
Bloomberg Gold Index	7.4	7.4	12.1	8.5	10.2	4.8
Wilshire Global RESI Index	-0.1	-0.1	12.1	2.7	2.7	5.2
NCREIF ODCE Fund Index	-2.4	-2.4	-11.3	3.4	3.5	6.8
NCREIF Timberland Index	2.1	2.1	9.9	11.0	7.0	5.8
FTSE Global Core Infrastructure 50/50	1.8	1.8	4.1	3.7	4.6	6.4
Alerian Midstream Energy	10.2	10.2	24.6	20.5	10.5	4.8
Bitcoin	66.7	66.7	149.5	6.3	76.9	65.3



Data Sources: Bloomberg, National Council of Real Estate Investment Fiduciaries

Asset Class Performance

Asset Class Returns - Best to Worst

Annualized
5-Year
as of 3/24

2019	2020	2021	2022	2023	2024 YTD	
U.S. Equity 31.0%	U.S. Equity 20.8%	REITs 46.2%	Commodities 16.1%	U.S. Equity 26.1%	U.S. Equity 9.9%	U.S. Equity 14.6%
REITs 25.8%	Emrg Mrkts 18.7%	Commodities 27.1%	T-Bills 1.3%	Developed 18.9%	Developed 5.9%	Developed 7.9%
Developed 22.7%	U.S. TIPS 11.0%	U.S. Equity 26.7%	High Yield -11.2%	REITs 16.1%	Emrg Mrkts 2.4%	Commodities 7.2%
Emrg Mrkts 18.9%	Developed 8.3%	Developed 11.8%	U.S. TIPS -11.8%	High Yield 13.4%	High Yield 1.5%	REITs 4.4%
High Yield 14.3%	Core Bond 7.5%	U.S. TIPS 6.0%	Core Bond -13.0%	Emrg Mrkts 10.3%	T-Bills 1.3%	High Yield 4.2%
Core Bond 8.7%	High Yield 7.1%	High Yield 5.3%	Developed -14.0%	Core Bond 5.5%	REITs 0.0%	Emrg Mrkts 2.6%
U.S. TIPS 8.4%	T-Bills 0.7%	T-Bills 0.0%	U.S. Equity -19.0%	T-Bills 5.1%	U.S. TIPS -0.1%	U.S. TIPS 2.5%
Commodities 7.7%	Commodities -3.1%	Core Bond -1.5%	Emrg Mrkts -19.7%	U.S. TIPS 3.9%	Core Bond -0.8%	T-Bills 2.0%
T-Bills 2.3%	REITs -7.9%	Emrg Mrkts -2.2%	REITs -26.8%	Commodities -1.3%	Commodities -4.6%	Core Bond 0.4%

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

County Employees Retirement System

Performance and Asset Allocations

Quarter Ending: March 31, 2024



CERS Quarterly Performance Update

March 2024

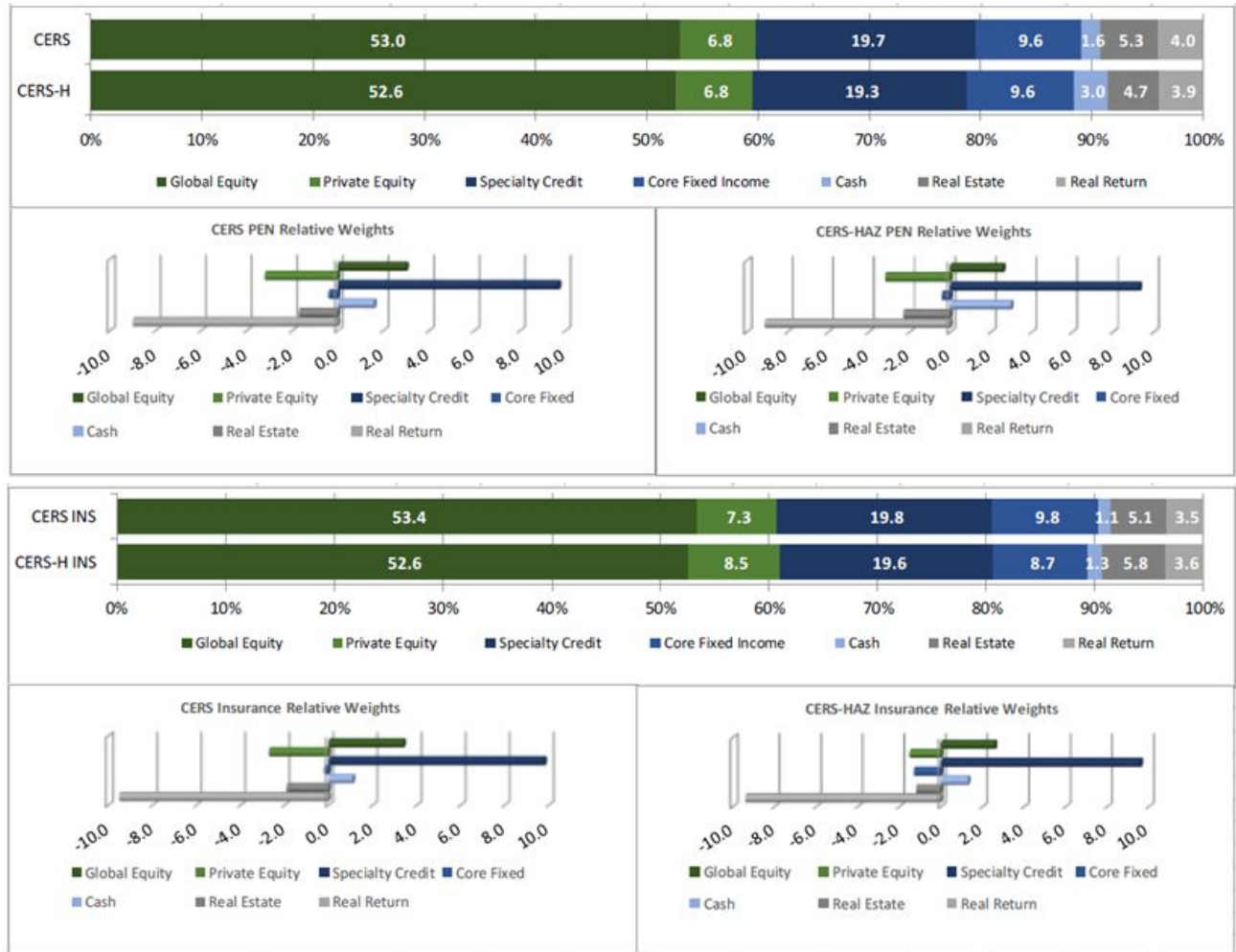
Pension Portfolios Performance

CERS & CERS-HAZ - PENSION FUND PLAN NET RETURNS - 03/31/24											
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
CERS	9,518,354,564.88	2.20	4.64	10.15	13.79	6.48	8.30	7.13	6.73	8.03	8.94
KY Ret. CERS Plan IPS Index		2.10	5.27	11.06	15.56	6.46	8.07	6.89	6.68	7.98	8.98
CERS- H	3,354,701,178.90	2.21	4.67	10.26	13.90	6.45	8.25	7.12	6.72	8.02	8.94
KY Ret. CERS Haz Plan IPS Index		2.10	5.27	11.06	15.56	6.46	8.07	6.89	6.67	7.98	8.97
KPPA PENSION FUND UNIT - NET RETURNS - 03/31/24 - PROXY PLAN ASSET PERFORMANCE											
Structure		Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY		3.27	8.22	15.44	21.88	5.97	10.61	8.41	7.58	9.10	10.40
MSCI ACWI		3.14	8.20	16.05	23.22	6.28	10.51	8.38	7.50	8.89	10.26
PRIVATE EQUITY		1.51	1.08	4.05	7.30	13.63	13.10	11.95	10.92		11.59
Russell 3000 + 3%(Qtr Lag)		5.71	12.01	19.38	28.96	11.61	18.21	14.61	12.15		12.31
SPECIALTY CREDIT		1.38	2.58	8.93	11.00	6.71	6.54				6.39
50% BB US HY / 50% Morningstar LSTA Lev'd Ln		1.02	1.97	9.17	11.84	4.13	4.88				4.66
CORE FIXED INCOME		0.97	-0.59	4.78	4.65	0.37	2.31	2.60			2.67
Bloomberg US Aggregate		0.92	-0.78	2.56	1.70	-2.46	0.36	1.54			1.65
CASH		0.46	1.36	3.94	5.03	2.51	2.04	1.54	1.83	2.75	3.35
FTSE Treasury Bill-3 Month		0.46	1.37	4.21	5.52	2.70	2.07	1.39	1.48	2.39	2.97
REAL ESTATE		-0.95	-4.24	-8.92	-10.92	5.97	6.87	8.18	7.41	6.10	6.26
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^		-5.00	-5.00	-9.68	-12.73	4.01	3.34	6.33	6.25	7.25	6.07
REAL RETURN		3.00	4.75	11.36	14.19	10.91	8.12	5.43			5.42
US CPI +3%		0.85	1.79	4.27	6.15	8.55	6.72	4.35			4.23

Insurance Portfolios Performance

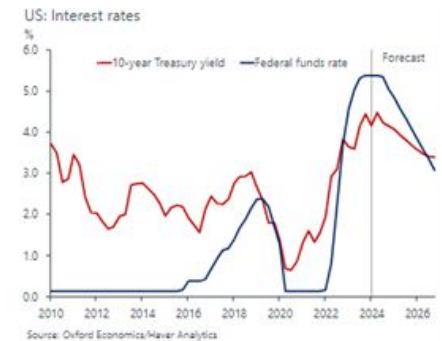
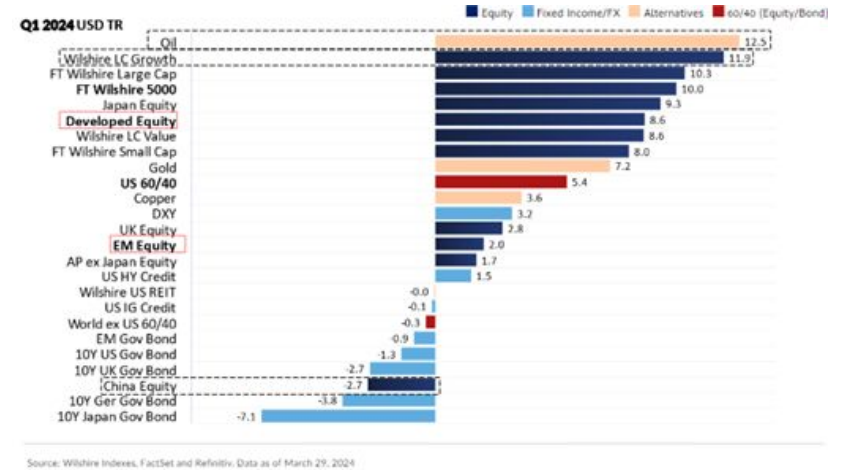
CERS INS & CERS HAZ INS - INSURANCE FUND - PLAN NET RETURNS - 03/31/24											
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
CERS INS	3,563,663,759.68	2.22	4.69	10.33	13.91	6.59	8.19	7.16	6.59	7.18	7.50
KY Ins. CERS Plan IPS Index		2.10	5.27	11.06	15.56	6.32	7.82	6.88	6.56	7.40	7.70
CERS - H INS	1,719,596,964.13	2.23	4.70	10.25	13.83	6.68	8.25	7.22	6.62	7.20	7.52
KY Ins. CERS Haz Plan IPS Index		2.10	5.27	11.06	15.56	6.32	7.82	6.88	6.56	7.40	7.70
KPPA INSURANCE FUND UNIT - NET RETURNS - 03/31/24 - PROXY PLAN ASSET PERFORMANCE											
Structure		Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY		3.25	8.17	15.37	21.73	5.95	10.59	8.47	7.53		8.85
MSCI ACWI		3.14	8.20	16.05	23.22	6.27	10.48	8.38	7.35		8.67
PRIVATE EQUITY		2.01	1.99	6.01	8.69	16.11	12.96	13.28	10.94		10.86
Russell 3000 + 3%(Qtr Lag)		5.71	12.01	19.38	28.96	11.61	18.21	14.61	11.86		11.88
SPECIALTY CREDIT		1.39	2.69	9.10	11.29	6.90	6.55				6.30
50% BB US HY / 50% Morningstar LSTA Lev'd Ln		1.02	1.97	9.17	11.84	4.13	4.88				4.66
CORE FIXED INCOME		0.98	-0.63	4.63	4.47	0.23	2.12	2.33			2.39
Bloomberg US Aggregate		0.92	-0.78	2.56	1.70	-2.46	0.36	1.54			1.65
CASH		0.47	1.37	3.95	5.04	2.51	1.93	1.41	1.68		2.52
FTSE Treasury Bill-3 Month		0.46	1.37	4.21	5.52	2.70	2.07	1.39	1.48		2.43
REAL ESTATE		-1.03	-4.12	-8.66	-10.84	5.80	6.82	8.27			8.44
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^		-5.00	-5.00	-9.68	-12.73	4.01	3.34	6.33			5.14
REAL RETURN		2.53	3.96	9.71	12.84	9.50	7.67	5.13			5.09
US CPI +3%		0.85	1.79	4.27	6.15	7.95	6.76	4.40			4.27

Allocations



Performance Highlights

- The CERS and CERS-H Pension portfolios performed well during the quarter with returns of 4.64% and 4.67% respectively but were unable to keep pace with the benchmark's return of 5.27%
- The Insurance portfolios produced similar performance with the CERS portfolio returning 4.69% and the CERS-H portfolio returning 4.70%
- Across portfolios, for the quarter the largest contributors to outperformance were the underweight positioning in Real Return and the relative outperformance of the Specialty Credit portfolio
- The most significant detractors of performance were the overweight to Specialty Credit, the proxy for Real Return, as well as the underperformance of the Private Equity portfolio compared to its public markets benchmark
- Despite geopolitical concerns and US rates rising on expectations of a shallower US easing cycle, markets charged higher during the quarter with various markets setting all-time highs on the back of AI optimism and US exceptionalism
- Monetary policy will continue to have an unduly high impact via the valuations discounting mechanism and the interaction between fiscal and monetary policy will be crucial to outcomes for 2024



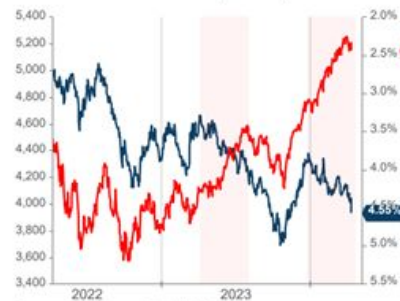
Performance Highlights

Public Equities

- Public Equity markets pushed higher despite expectations of fewer cuts pointing to higher rates for longer based on signals of economic strength
- Market participation broadened to include cyclicals and hard assets
- Large caps continued to outperform small and midcaps, growth outperformed value
- Stocks are priced close to perfection, meaning a lot has to go right for stocks to move higher, as such it is important to prioritize high quality and practice value discipline
- International Equity markets experienced steady growth during the quarter
- Improved inflation and growth trends, financial conditions eased, improved manufacturing activity, and earnings growth remained strong bolstering international developed markets
- Emerging market equities were mixed, domestic-oriented economies strengthened, while commodity-linked countries were weaker

The S&P and Rates (Inverted) Have Moved in Lockstep Outside of the AI Frenzy Over the Summer and in Q1

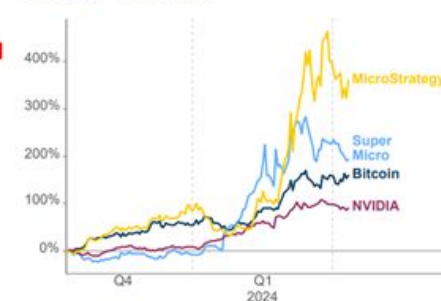
S&P 500 vs. U.S. 10Y Yield (inverted)



Source: FactSet as of 4/10/2024

AI & Crypto Related Assets Caught Fire in 1Q

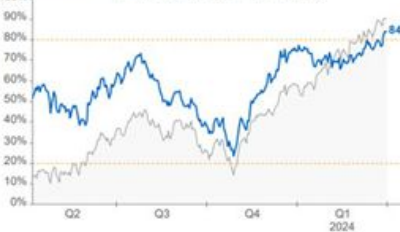
AI & Crypto - Indexed Return



Source: FactSet as of 4/10/2024

Over 80% of the S&P 500 Above the 200 Day Moving Average

S&P 500 Stocks Above 200D Moving Average



Source: FactSet as of 3/29/2024

Participation Broadening Beyond Tech into Cyclicals

Sectors 1Q S&P 500 Sector Absolute Performance



Source: Piper Sandler, as of 4/1/2024

Performance Highlights

Public Equities

- The Public Equity portfolio returned 8.22% during the quarter versus its benchmark return of 8.20%
- Stock selection was a positive contributor to performance while a relative underweight to US and a relative overweight to Non-US detracted from performance
- The US Equity Portfolio returned 10.33% vs 10.02% for the Russell 3000
- The Non-US Equity Portfolio returned 5.01% vs 4.33% for the MSCI ACWI Ex-US
- In the US portfolio, only 1 strategy did not outperform during the quarter, but it behaved as expected given factor tilts
- In the Non-US portfolio, relative performance was mixed, but skewed positive as strategies with modest style tilts performed better than those with a more aggressive bent

YTD Size and Style Returns (03/31/24)

	Value	Core	Growth
Large	8.99%	10.30%	11.41%
Mid	8.23%	8.60%	9.50%
Small	2.90%	5.18%	7.58%

****Data from FactSet, Russell Indices**

Source: Westfield, FactSet, as of 3/31/2024



Source: Strategas, as of 3/31/2024



Performance Highlights

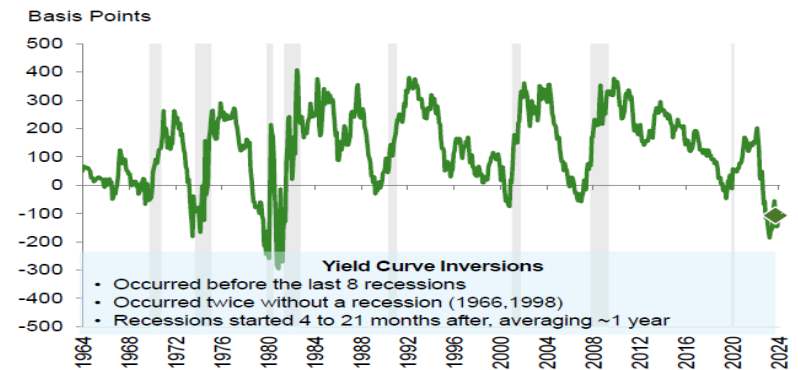
Core Fixed Income

- Treasury rates rose across the curve, leading most fixed income categories to end the quarter with yields around their long-term averages
- Strong corporate and economic trends continued to boost the fundamental outlook for spread sectors and credit spreads tightened further in most categories, ending the quarter at the lower end of historical range
- The Treasury 10-Year minus 3-Month inversion continues with the current level at -117 basis points at the end of the quarter
- Corporate bonds were once again the top performing spread sector, outgaining same duration Treasuries by 89 basis points for the quarter
- Surprisingly, CMBS was the best performer within the securitized sector providing 145 basis points of excess returns followed by ABS providing 54 basis points of excess returns for the quarter



Treasury Yield Curve Spread

— 10-Year minus 3-Month



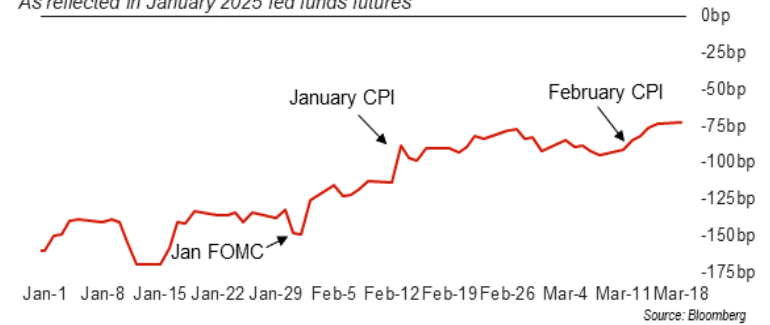
Performance Highlights

Core Fixed Income

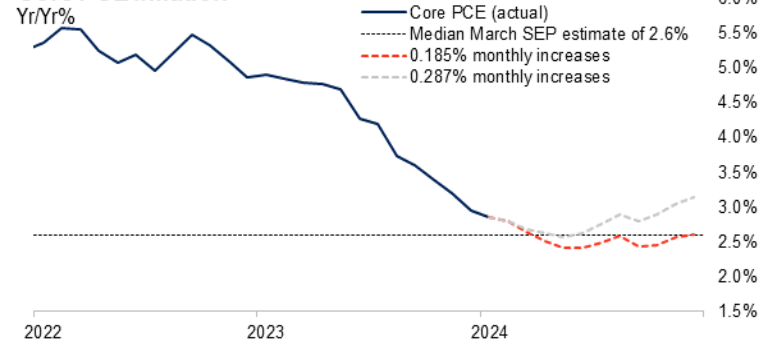
- The Core Fixed Income Portfolio produced a return of -0.59% for the quarter, outperforming the benchmark’s return of -0.78%
- The portfolio’s relative outperformance was driven by its higher allocation to corporate and ABS sectors compared to the benchmark
- Despite losing ground during the quarter, FYTD the portfolio continued to deliver strong relative performance producing a return of 4.78% and outperforming the Bloomberg Aggregate Index by 222 basis points
- The bond market is trading with less optimism for 2024 policy easing than the start of the year
- Fed funds futures trading have slowly converged with the March dot plot’s median projection for three 25 basis point cuts in 2024
- Starting 2024, futures had priced in almost seven 25 basis point cuts
- Because of inflation concerns, all eyes will be on the PCE report for March released at the end of April

Expectations for cumulative 2024 change in fed funds

As reflected in January 2025 fed funds futures



Core PCE Inflation



Performance Highlights

Specialty Credit Fixed Income

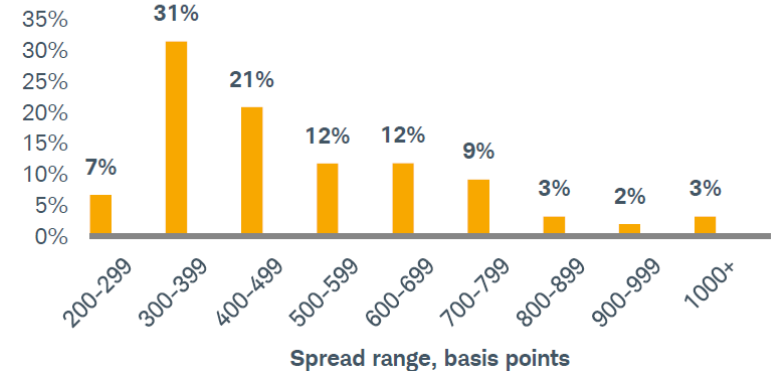
- The Specialty Credit portfolio produced a return of 2.58% for the quarter, outperforming the blended benchmark which returned 1.97%. Fiscal Year to Date the portfolio has continued to perform well, returning 8.93% compared to the benchmark's return of 9.17%
- The public High Yield Bond and Private Credit components of the portfolio were all positive contributors to relative performance, mandates with structured credit and mortgage-backed exposures performed well as spreads tightened
- Over longer periods the portfolio has contributed significant outperformance, beating the benchmark by 258 and 166 basis points over three- and five-year periods respectively
- The High Yield option adjusted spread (OAS) tightened 24 basis points for the quarter and 91 basis points fiscal year-to-date to 299

CREDIT SPREADS HAVE TIGHTENED TO NEAR HISTORICAL LOWS
Bloomberg U.S. High Yield OAS and Cycles



High-yield bond spreads have rarely been this low

Percent of time spend in OAS bucket

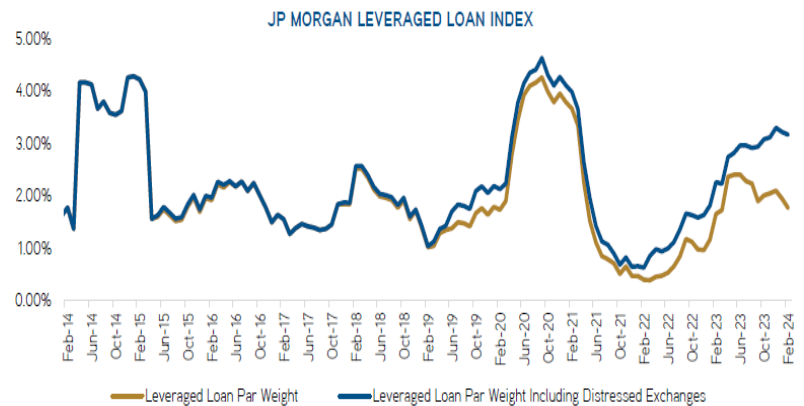
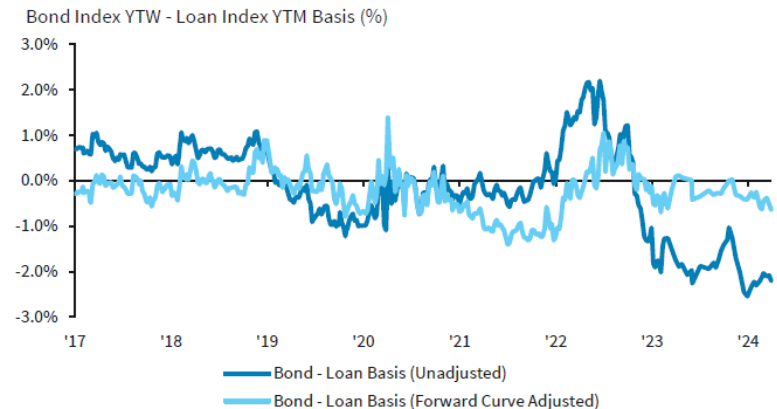


Performance Highlights

Specialty Credit Fixed Income

- With high yield spreads compressing to historically tight levels, the yield offering of loans versus high yield is attractive
- The spot yield pickup between loans and high yield is over 200 basis points, and on a curve-adjusted basis, the differential is still nearly 50 basis points
- Due to the elevated carry, demand for loans continues to increase
- Default activity in the leveraged finance markets subsided in March
- The trailing twelve-month par-weighted default rates for high yield bonds and leveraged loans ended the quarter at 1.67% and 1.77%, respectively, well below historical averages of approximately 3%
- After a relatively low level of M&A in 2023, early 2024 has shown a reversal in the trend within selected industries like Financials, Energy and Technology

Loan Yields vs HY Bonds



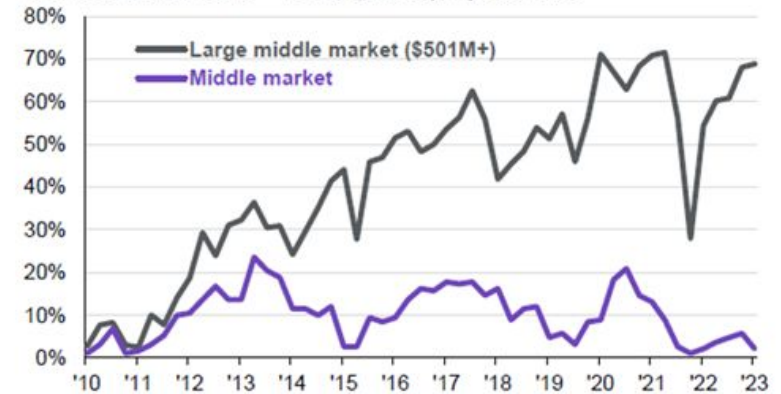
Performance Highlights

Specialty Credit Fixed Income

- While volumes in several areas have rebounded sharply, certain sectors have acted as if the easy money era never ended with generally worse credit protections and terms for lenders
- Leveraged loan issuance backing dividend recaps have risen significantly and are on a record pace as traditional deal-exit routes for private equity remain limited
- Recent spread compression in Private Credit has been driven by increased competition among lenders with significant capital to deploy as well as the revitalization of the syndicated loan market
- We continue to view the space as one of the most attractive current investment opportunities, but remain selective in deploying capital favoring managers with strong underwriting that protect capital rather than being volume focused

Covenant-lite loans*

% of total loans, 4Q10 – 4Q23, quarterly, by deal size



Dividend recap institutional loan volume (\$B): Jan. 1–April 17

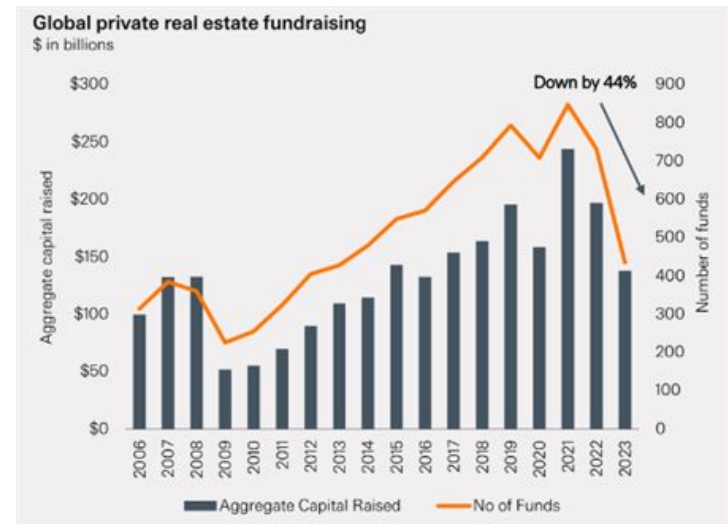
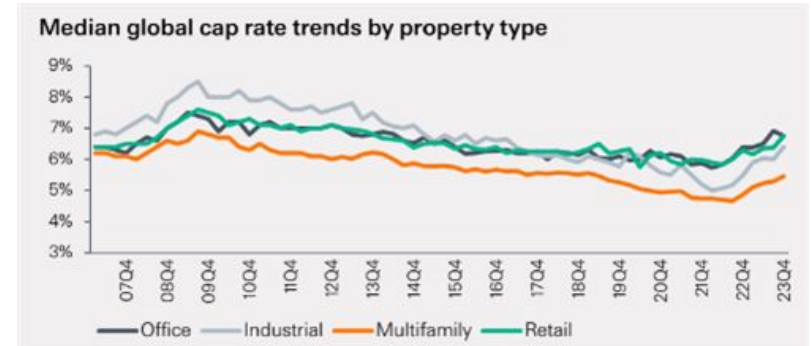


Source: PitchBook | LCD • Data through April 17, 2024

Performance Highlights

Real Return- Real Estate

- While Real Return markets were able to rebound during the quarter posting positive performance, Real Estate markets continued to struggle, posting their fifth consecutive quarter of negative performance
- The Real Estate portfolio declined 4.24% during the quarter but was able to outperform its benchmark which fell 5.00%
- FYTD the Real Estate portfolio has declined 8.92% while its benchmark has declined 9.68%
- Performance in the Real Estate portfolio has been mixed but overall outperformance has been driven by good performance in the Core strategies and lower exposures to the most stressed parts of the market including the Office sector
- We have maintained an underweight position in Real Estate as we view more pain to come for the asset class with cyclical slowing of fundamentals in healthy sectors, a challenging outlook for office due to work from home and functional obsolescence amid frozen capital markets and repricing ultimately needed to restore yields at normal spreads above now higher interest rates



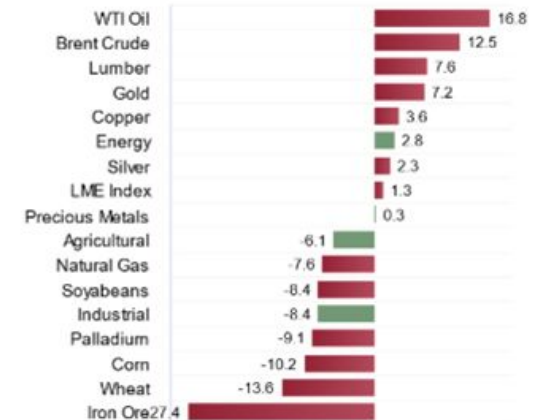
Performance Highlights

Real Return- Real Estate

- The Real Return portfolio performed well during the quarter posing a return of 4.75% which outpaced the 1.79% return of the benchmark
- FYTD the Real Return portfolio has produced a return of 11.36%, significantly outperforming the 4.27% return of its benchmark
- Outperformance has continued to be paced by the portfolio’s MLP exposure which returned over 14% for the quarter and is up over 28% FYTD as strong cash flows, disciplined capex and consolidation have continued to benefit the industry
- Broad commodities were up for the quarter with Oil and Gold leading the markets higher
 - Oil was up over 12% for the quarter on elevated geopolitical tensions but remains below the high it reached in September
 - Gold experienced a strong rally in March, setting a new all-time high for the precious metal
 - Agricultural commodities continued to struggle with Wheat down almost 14% for the quarter



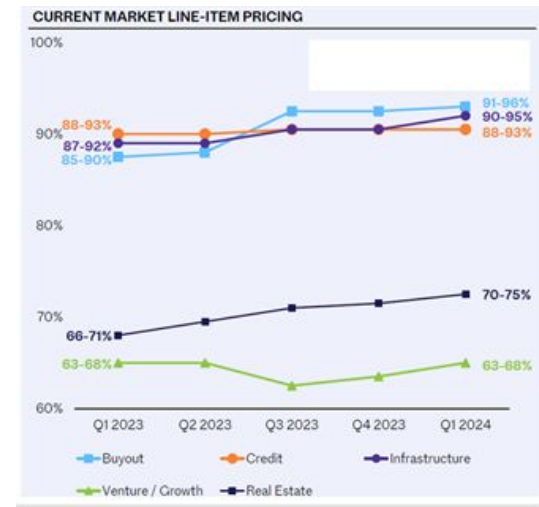
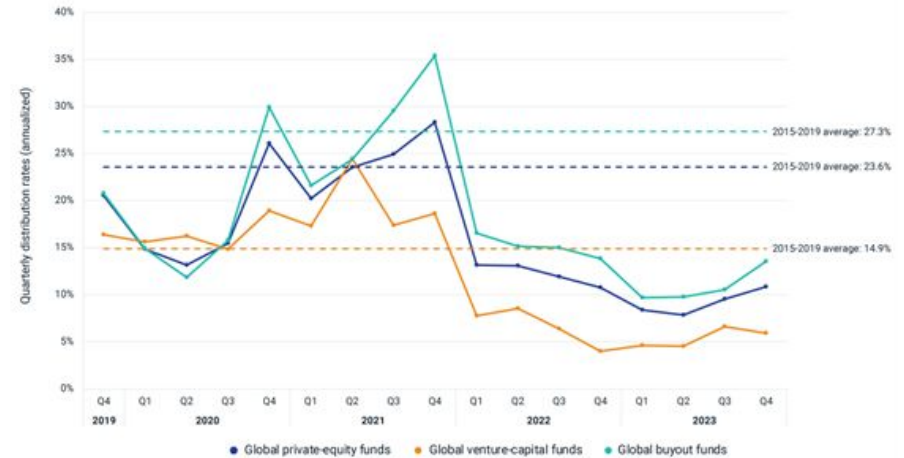
Q1 2024 USD (%)



Performance Highlights

Private Equity

- The Private Equity portfolio produced a return of 1.08% for the quarter, underperforming the benchmark's return of 12.01%
- Performance relative to the benchmark (Russell 3000 + 3% based on a quarter lag) continues to be volatile given the market and timing misalignments as well as the vintage of the investments in the portfolio
- Broad indications of Private Equity investment performance for the quarter indicated performance of around positive 2.5-3% with Buyout Funds outperforming Venture Capital Funds
- While the pace of PE Fund distributions has picked up recently, the very slow pace of distributions remains a concern for LPs in PE funds as newly raised funds continued to call capital while distributions from mature funds have been muted since 2022
- Markets have seen a slight improvement in secondary pricing over the past year but markets have been slow to move overall
- Capital remained scarce as GPs faced a more arduous fundraising environment with constrained capital allocations from LPs as a result of limited distributions and already full allocations



Performance Highlights

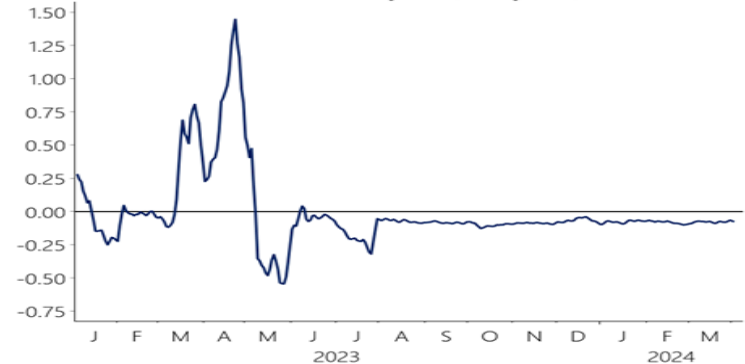
Liquidity

- The Fed’s overnight reverse repo facility (RRP) has been steadily falling since May 2023. Seen as a gauge of excess reserves in the system and as it approaches zero (likely mid-year) the pace and timing of quantitative tightening (QT) will be reconsidered
- As long as short-maturity bill yields remain above the RRP rate, money will continue flowing out of RRP
- Cash produced a return of 1.36% for the 3-month period ending March 31st, slightly underperforming the 3-Month Treasury Bill benchmark which returned 1.37%
- Fiscal Year-To-Date, cash has earned 3.94% underperforming the benchmark by 27 basis points as market rates (T-Bills) yielded more than deposit rates (Fed funds)
- The FOMC maintained the range for the federal funds target rate at 5.25% to 5.50% during the quarter as it continued to cautiously assess the effects of its policy firming
- The Committee noted that inflation “remains elevated” while acknowledging that it has “eased over the past year”

US: RRP demand still trending lower



RRP award rate minus 1m T-bill yield (3-day MA)

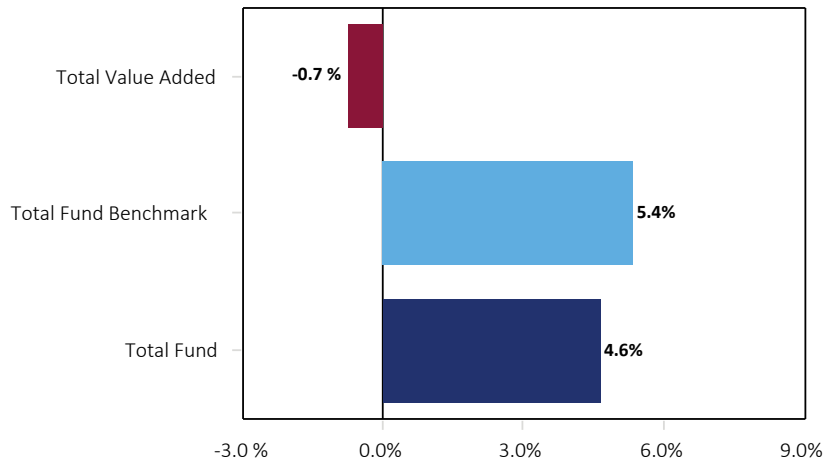


Total Fund Attribution

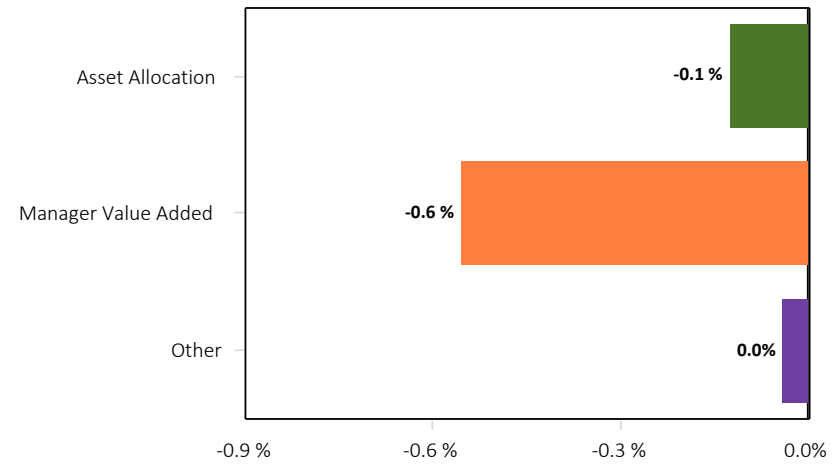
CERS Pension Plan

Periods Ended 1 Quarter Ending March 31, 2024

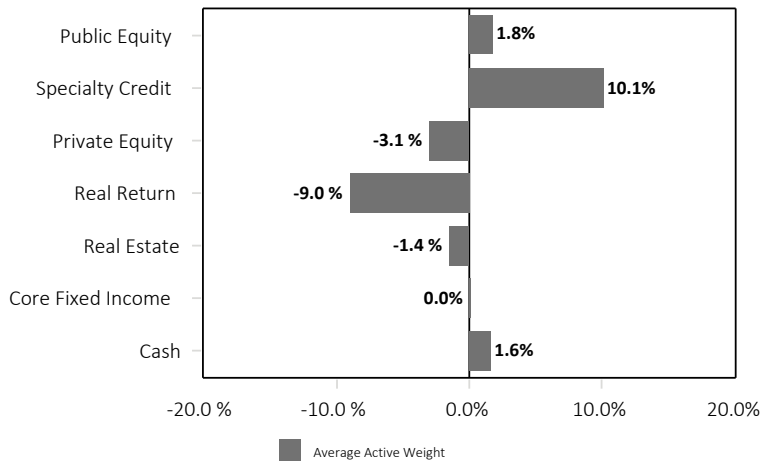
Total Fund Performance



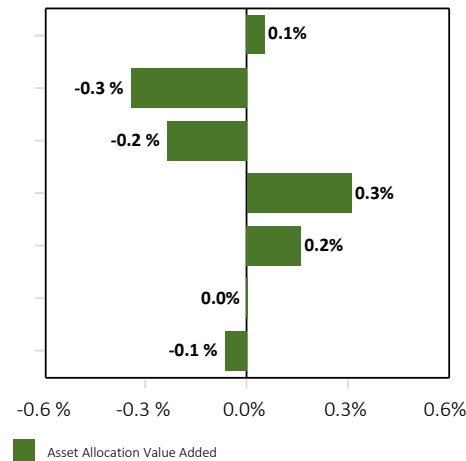
Total Value Added:-0.7 %



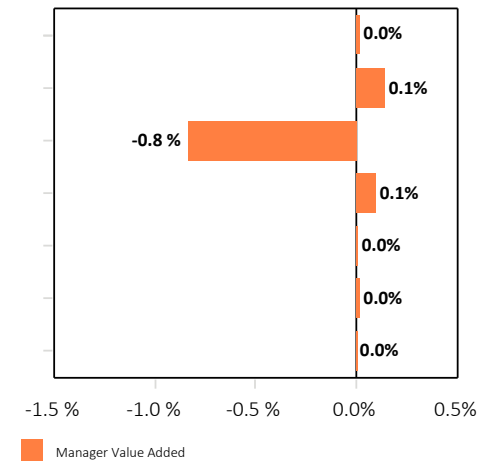
Total Asset Allocation:-0.1 %



Asset Allocation Value Added:-0.1 %



Total Manager Value Added:-0.6 %

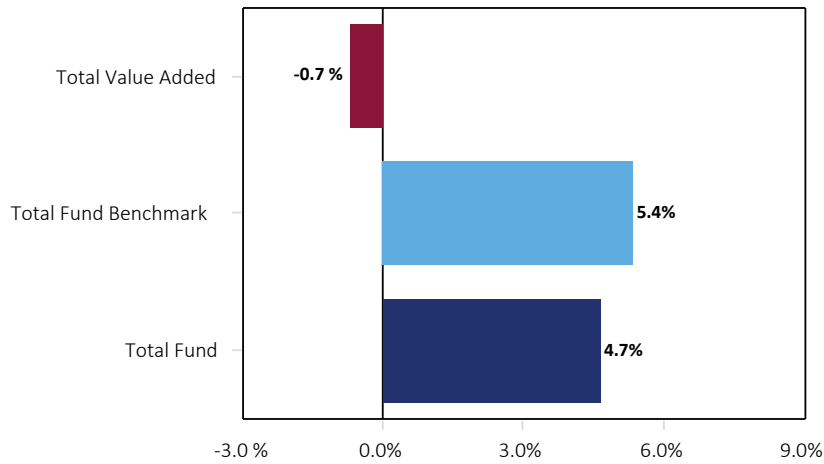


Total Fund Attribution

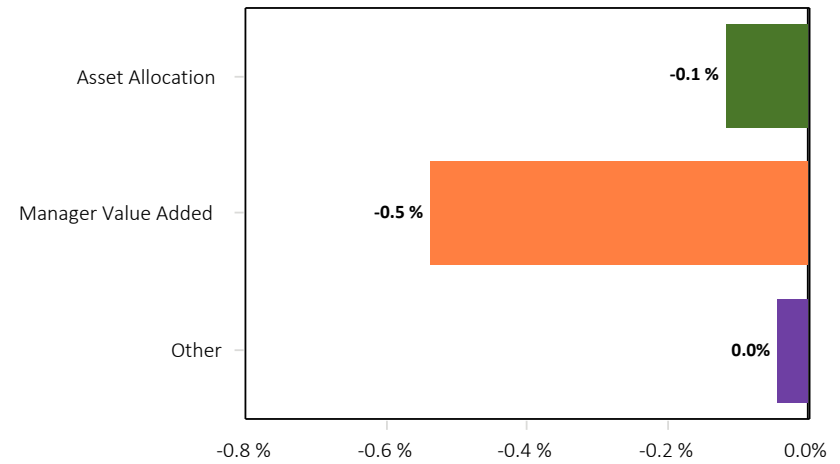
CERS (H) Pension Plan

Periods Ended 1 Quarter Ending March 31, 2024

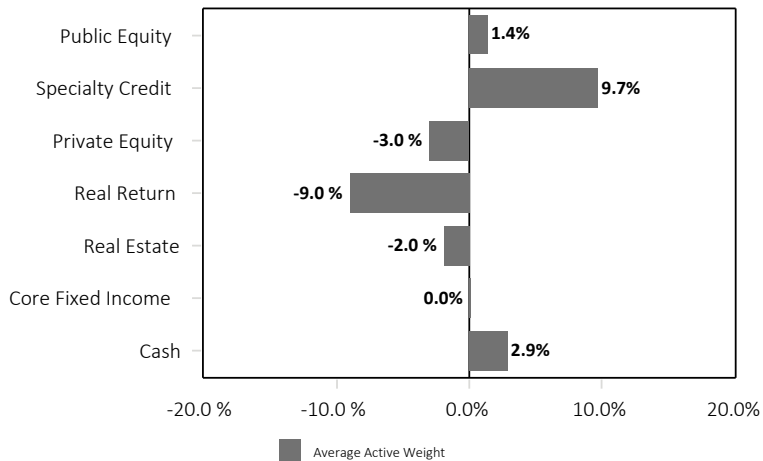
Total Fund Performance



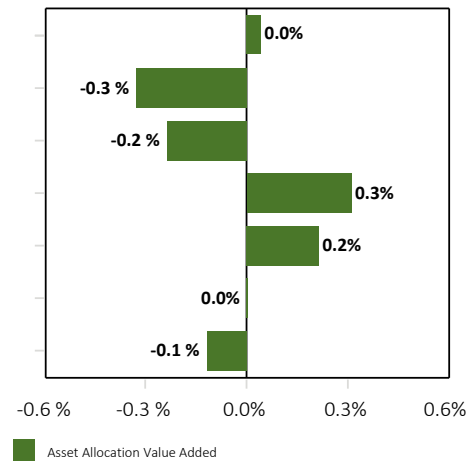
Total Value Added:-0.7 %



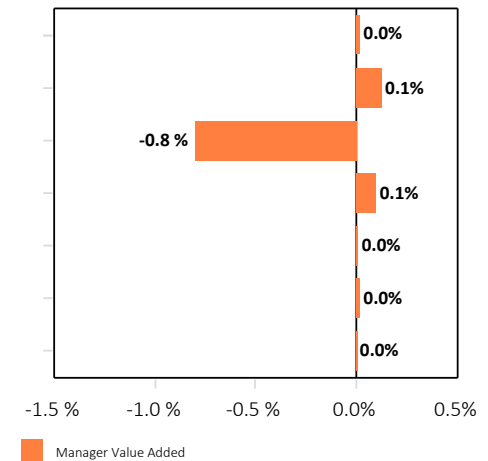
Total Asset Allocation:-0.1 %



Asset Allocation Value Added:-0.1 %



Total Manager Value Added:-0.5 %

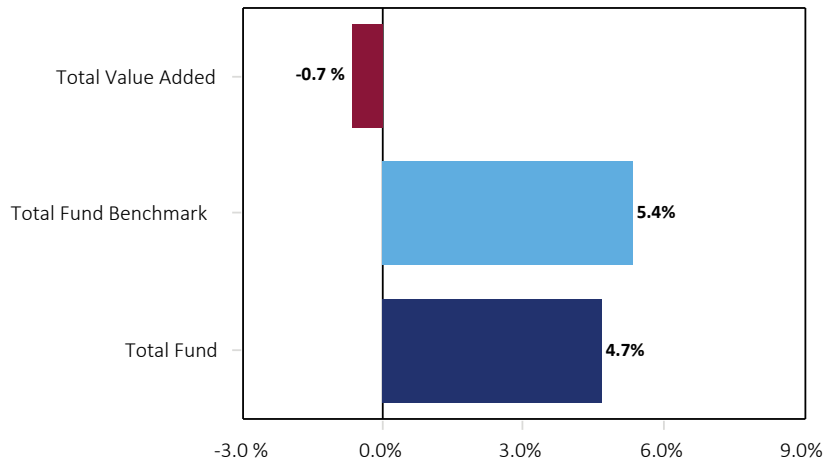


Total Fund Attribution

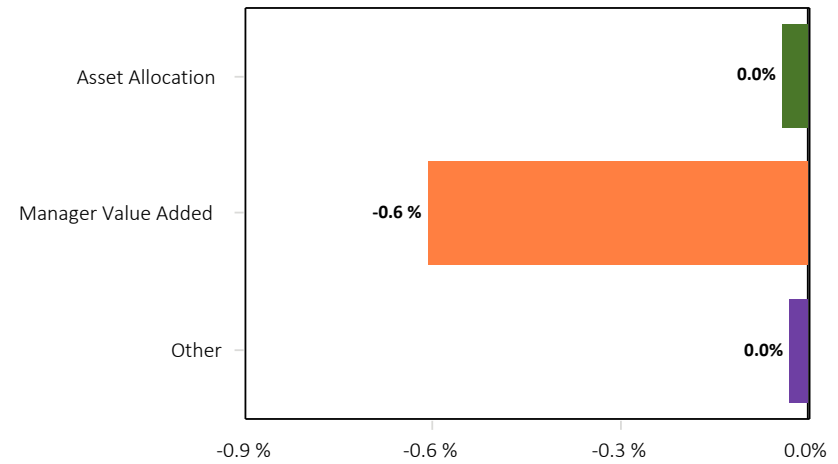
CERS Insurance Plan

Periods Ended 1 Quarter Ending March 31, 2024

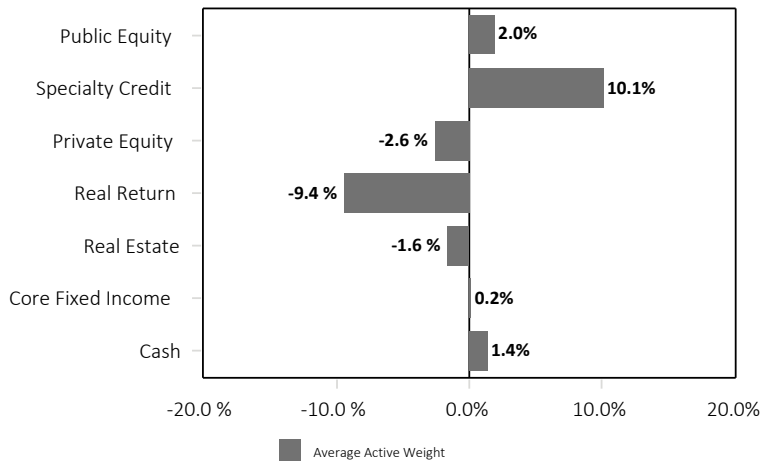
Total Fund Performance



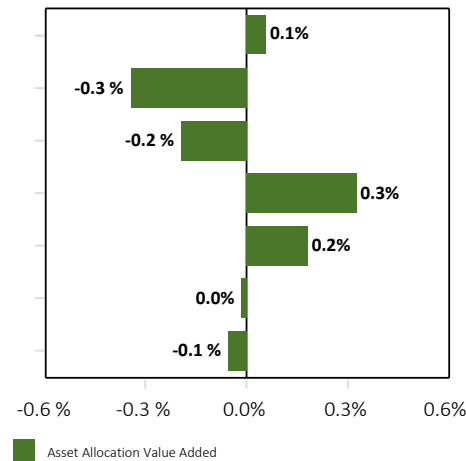
Total Value Added:-0.7 %



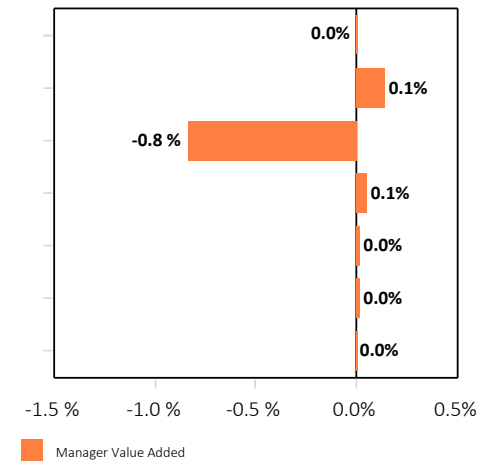
Total Asset Allocation:0.0%



Asset Allocation Value Added:0.0%



Total Manager Value Added:-0.6 %

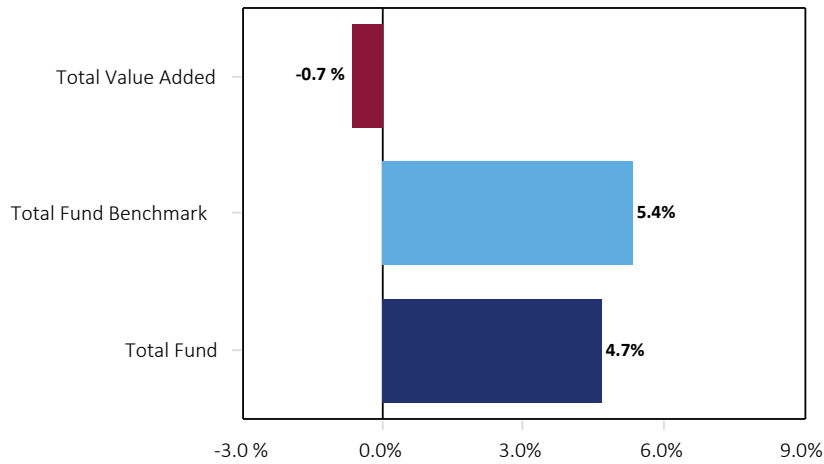


Total Fund Attribution

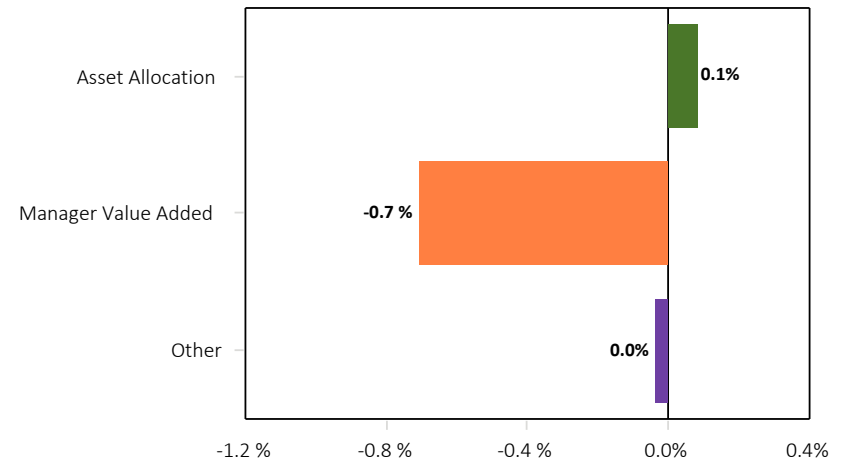
CERS (H) Insurance Plan

Periods Ended 1 Quarter Ending March 31, 2024

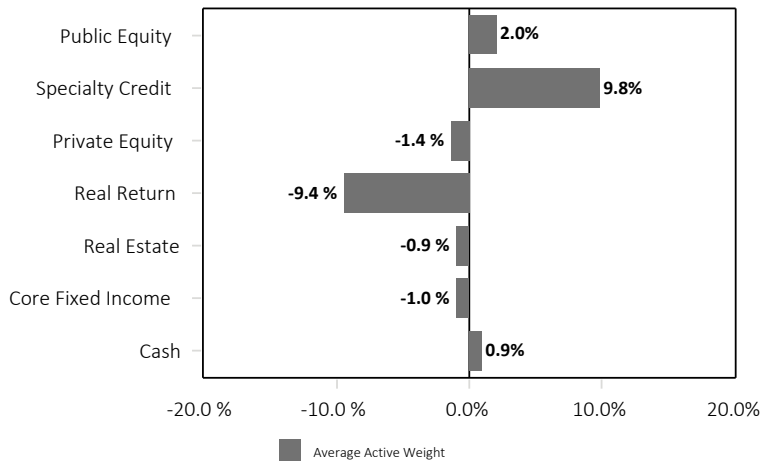
Total Fund Performance



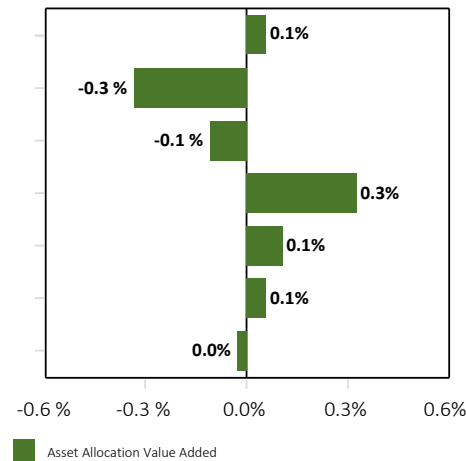
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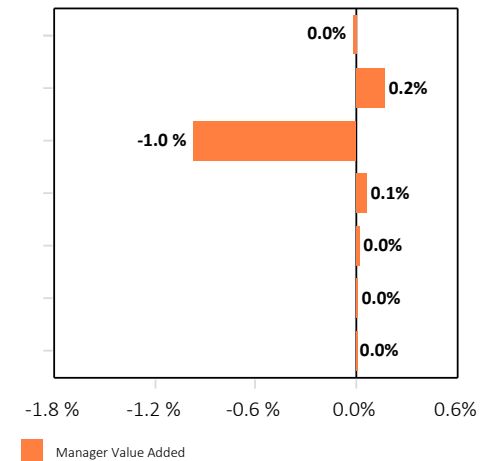
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:-0.7%

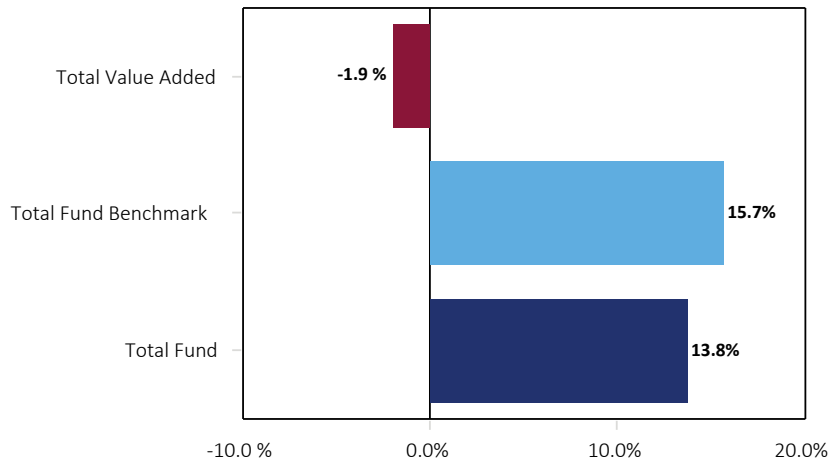


Total Fund Attribution

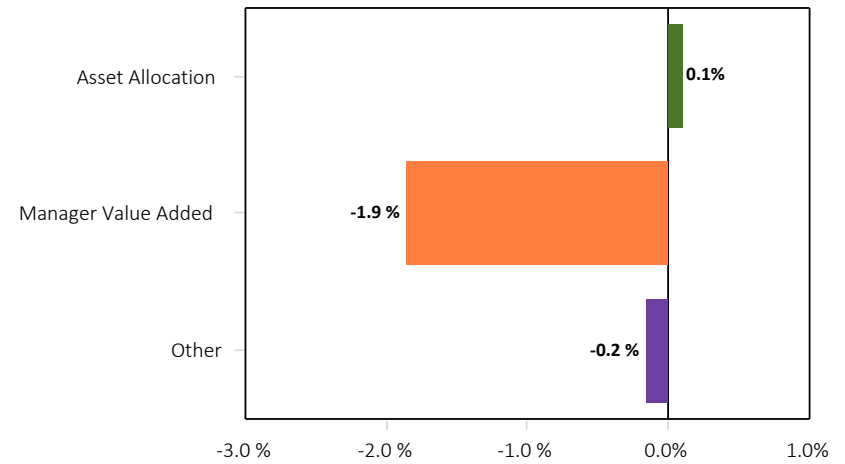
CERS Pension Plan

Periods Ended 1 Year Ending March 31, 2024

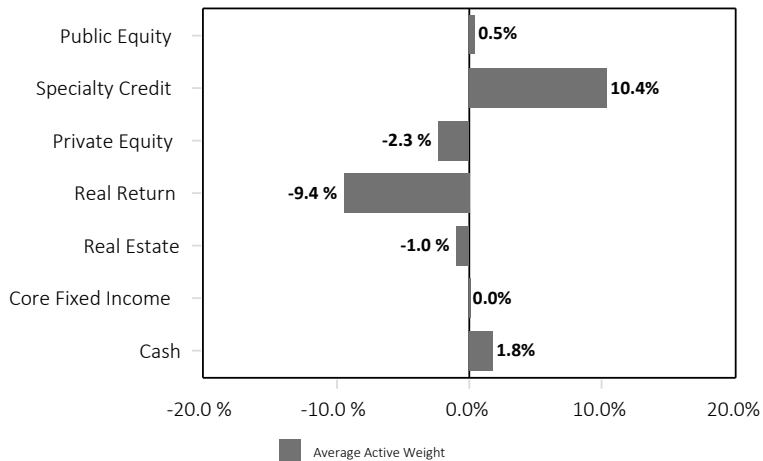
Total Fund Performance



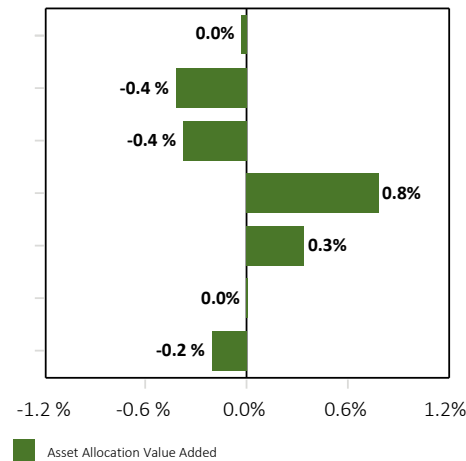
Total Value Added:-1.9 %



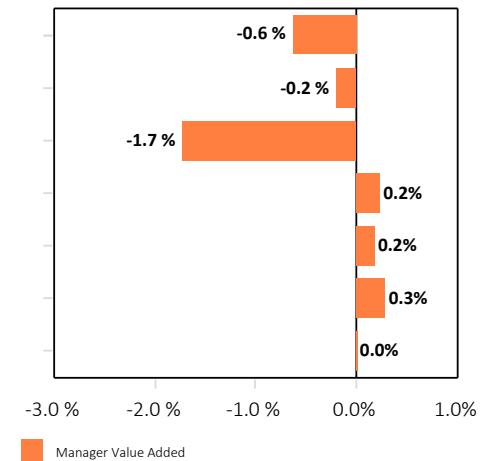
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:-1.9%

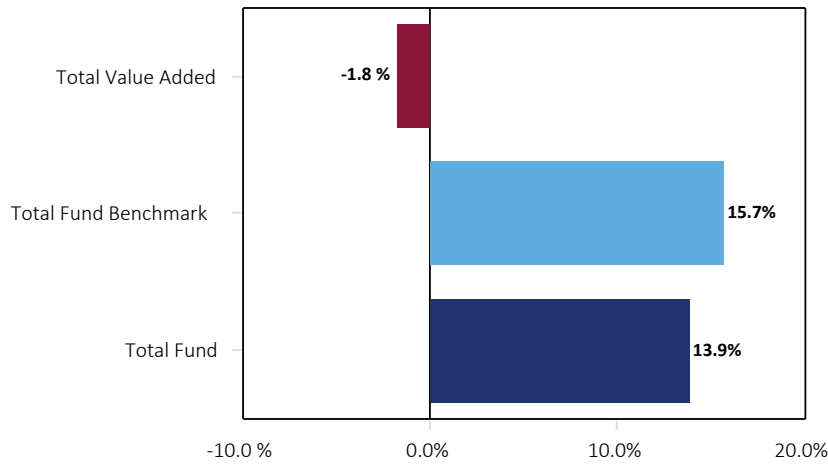


Total Fund Attribution

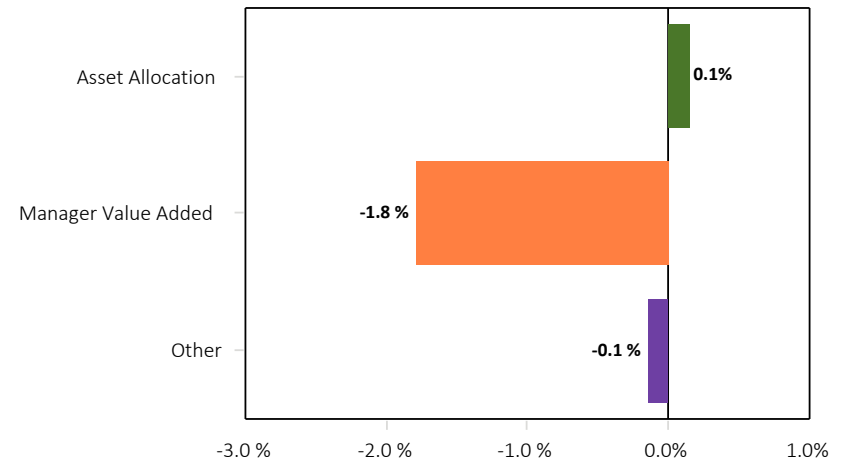
CERS (H) Pension Plan

Periods Ended 1 Year Ending March 31, 2024

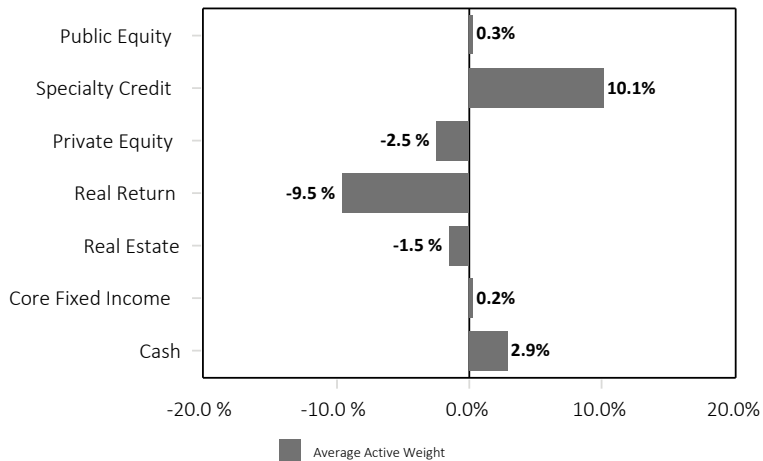
Total Fund Performance



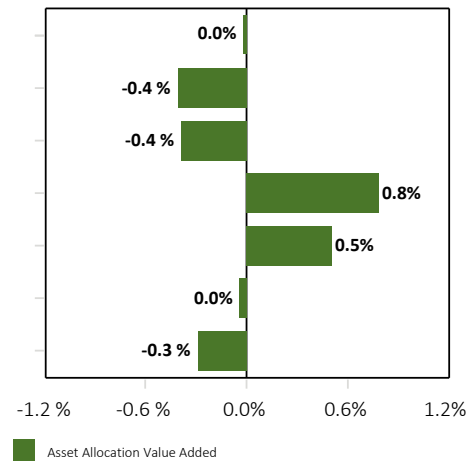
Total Value Added:-1.8 %



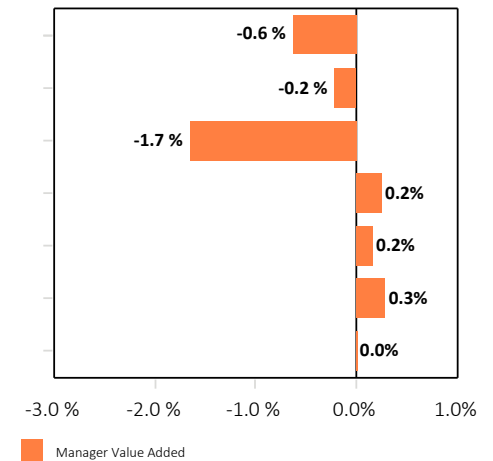
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:-1.8%

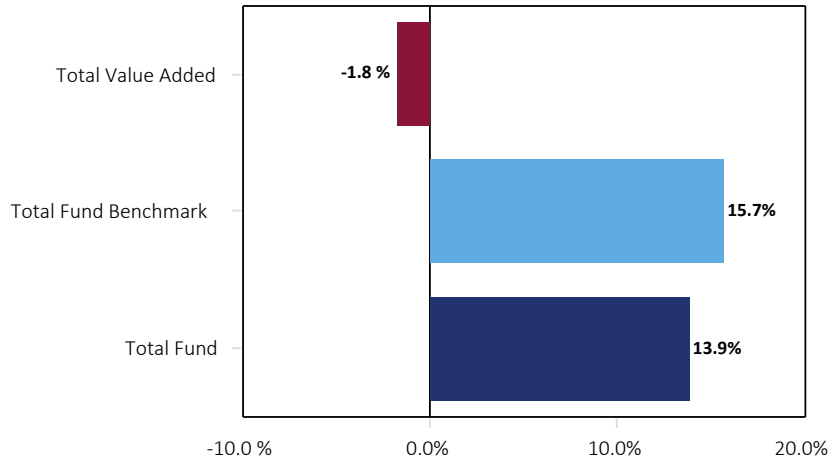


Total Fund Attribution

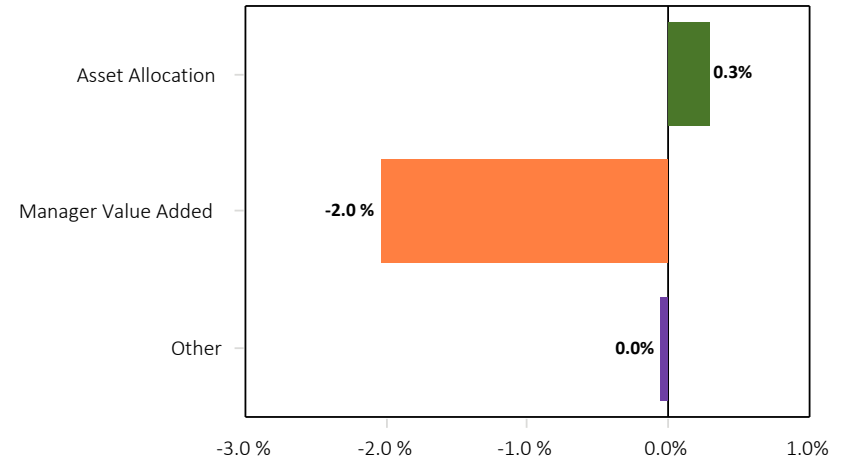
CERS Insurance Plan

Periods Ended 1 Year Ending March 31, 2024

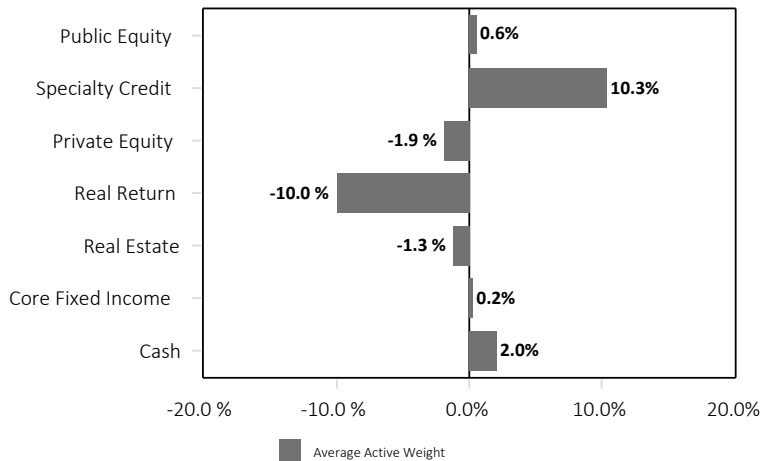
Total Fund Performance



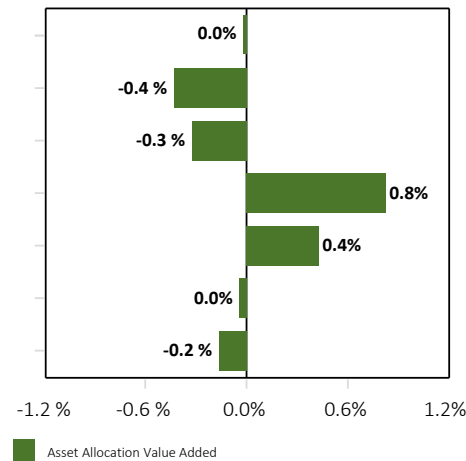
Total Value Added:-1.8 %



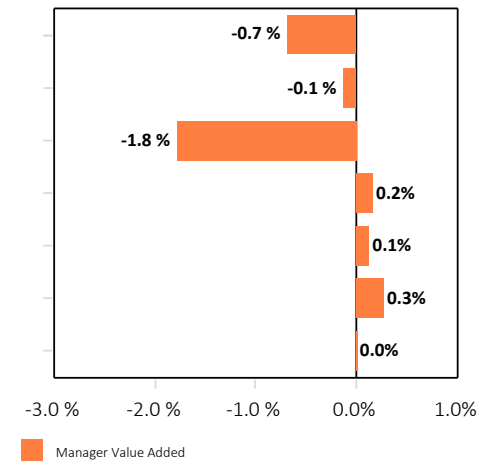
Total Asset Allocation:0.3%



Asset Allocation Value Added:0.3%



Total Manager Value Added:-2.0 %

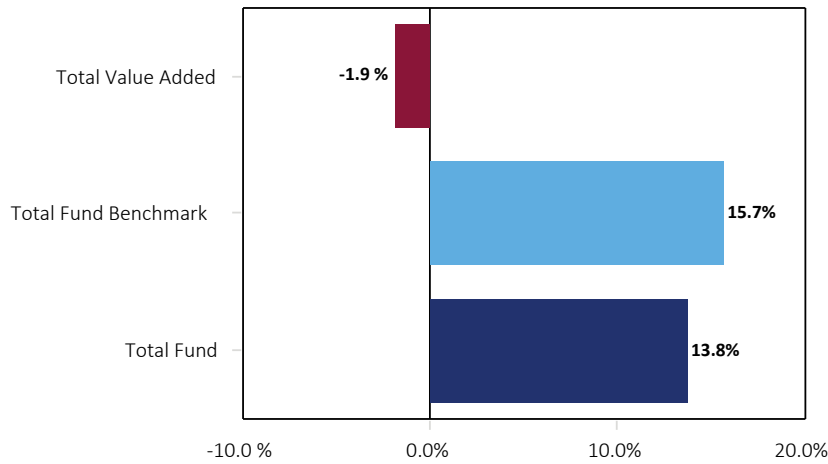


Total Fund Attribution

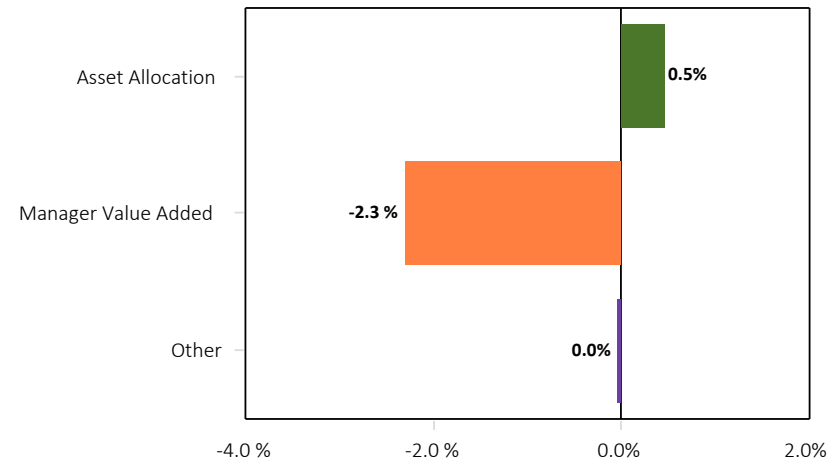
CERS (H) Insurance Plan

Periods Ended 1 Year Ending March 31, 2024

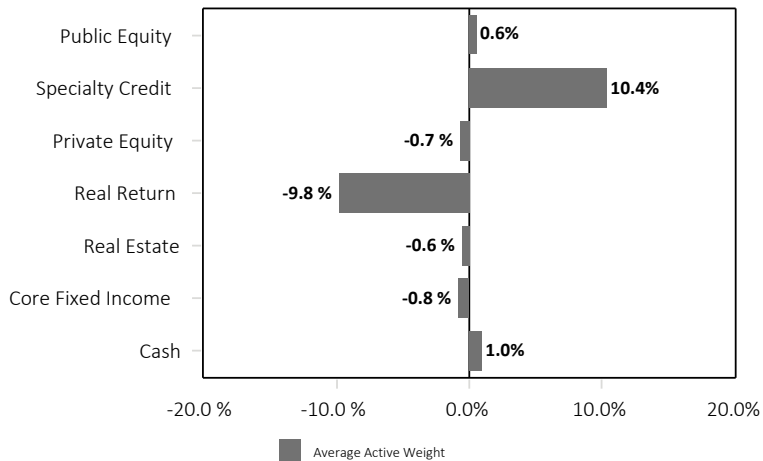
Total Fund Performance



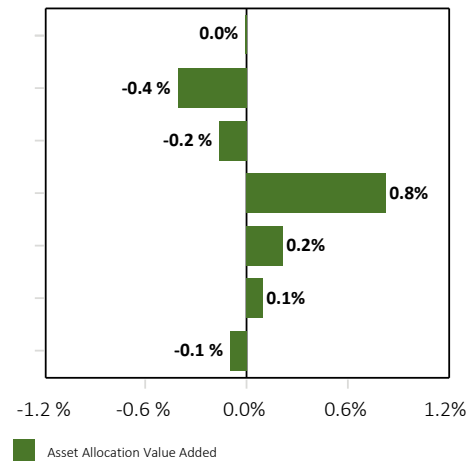
Total Value Added:-1.9 %



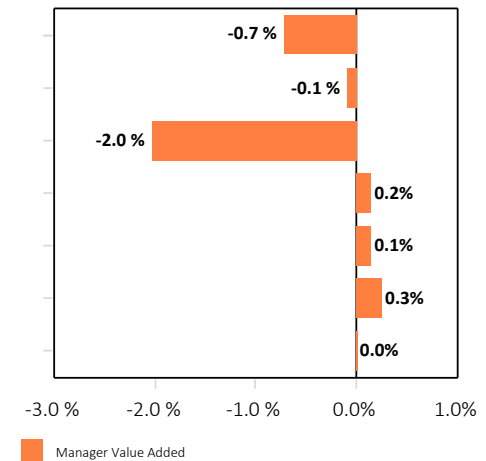
Total Asset Allocation:0.5%



Asset Allocation Value Added:0.5%



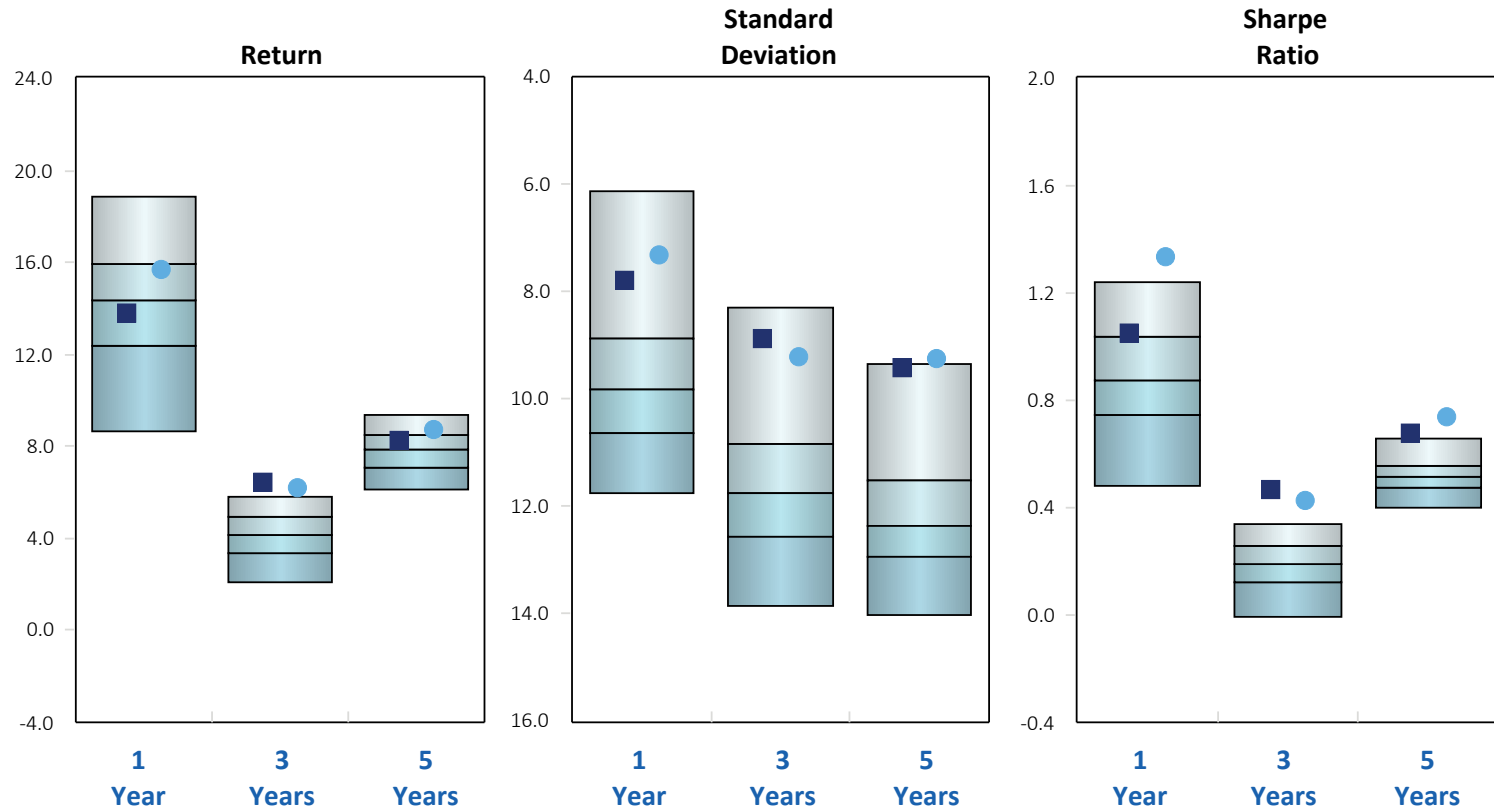
Total Manager Value Added:-2.3%



Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2024



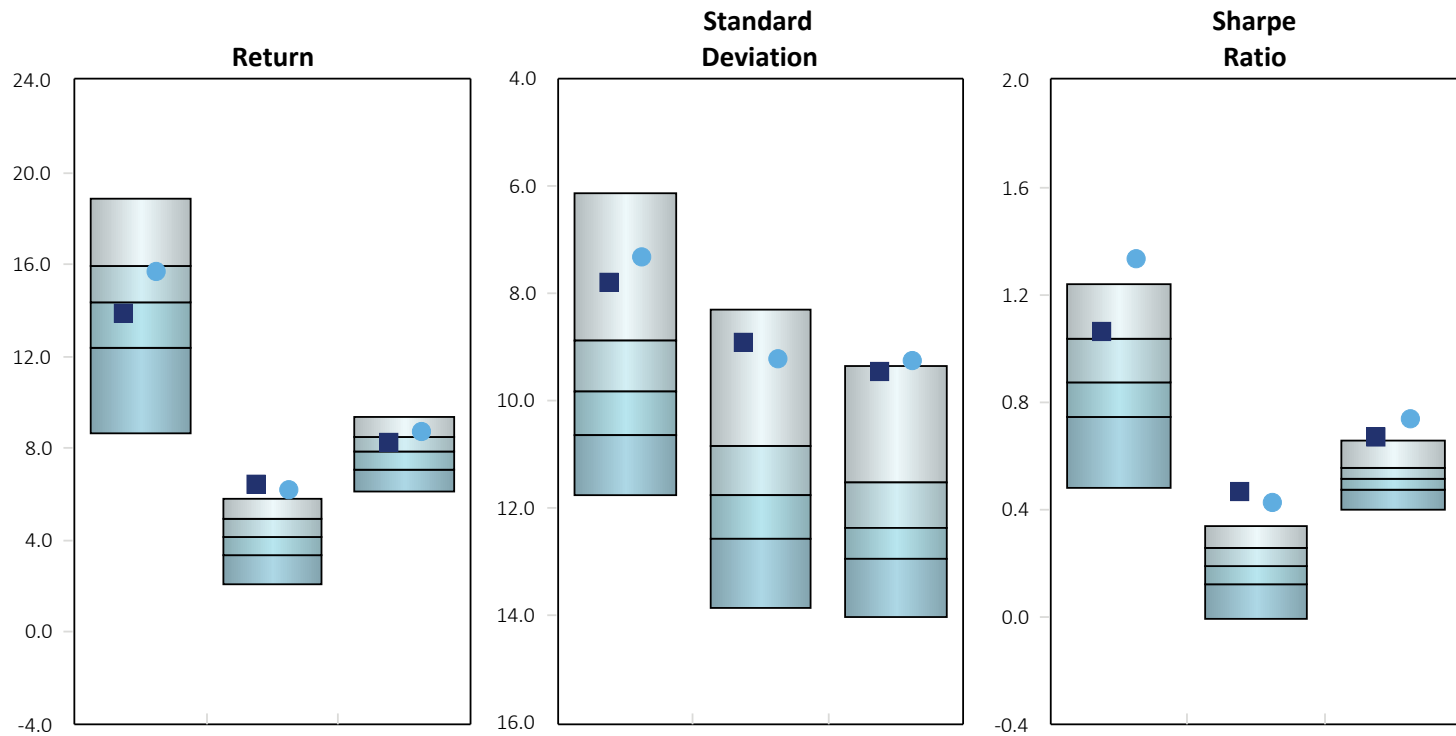
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS Pension Plan	13.79 (58)	6.47 (2)	8.29 (33)	7.79 (11)	8.90 (7)	9.44 (5)	1.05 (23)	0.47 (2)	0.68 (4)
● CERS Pension IPS Index	15.70 (28)	6.22 (3)	8.76 (18)	7.32 (9)	9.21 (8)	9.24 (4)	1.34 (2)	0.43 (3)	0.74 (2)
5th Percentile	18.84	5.78	9.39	6.15	8.31	9.34	1.24	0.34	0.65
1st Quartile	15.97	4.97	8.46	8.87	10.84	11.53	1.03	0.26	0.56
Median	14.35	4.13	7.88	9.82	11.75	12.36	0.87	0.19	0.52
3rd Quartile	12.38	3.35	7.11	10.63	12.57	12.94	0.75	0.12	0.47
95th Percentile	8.63	2.07	6.12	11.75	13.87	14.03	0.48	0.00	0.40

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS (H) Pension Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2024



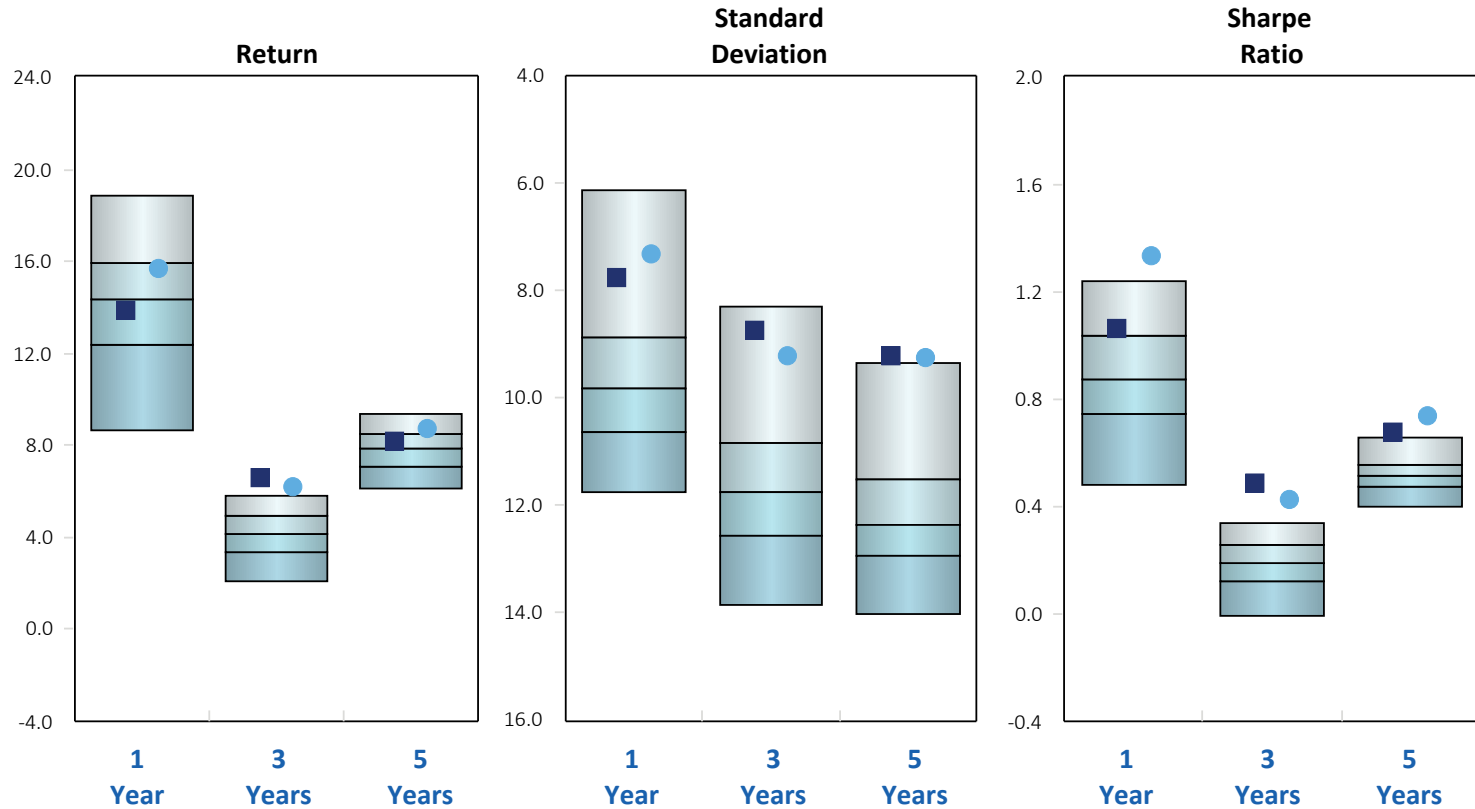
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS (H) Pension Plan	13.90 (56)	6.45 (2)	8.25 (36)	7.80 (11)	8.92 (7)	9.44 (5)	1.06 (22)	0.46 (2)	0.67 (4)
● CERS (H) Pension IPS Index	15.70 (28)	6.22 (3)	8.76 (18)	7.32 (9)	9.21 (8)	9.24 (4)	1.34 (2)	0.43 (3)	0.74 (2)
5th Percentile	18.84	5.78	9.39	6.15	8.31	9.34	1.24	0.34	0.65
1st Quartile	15.97	4.97	8.46	8.87	10.84	11.53	1.03	0.26	0.56
Median	14.35	4.13	7.88	9.82	11.75	12.36	0.87	0.19	0.52
3rd Quartile	12.38	3.35	7.11	10.63	12.57	12.94	0.75	0.12	0.47
95th Percentile	8.63	2.07	6.12	11.75	13.87	14.03	0.48	0.00	0.40

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2024



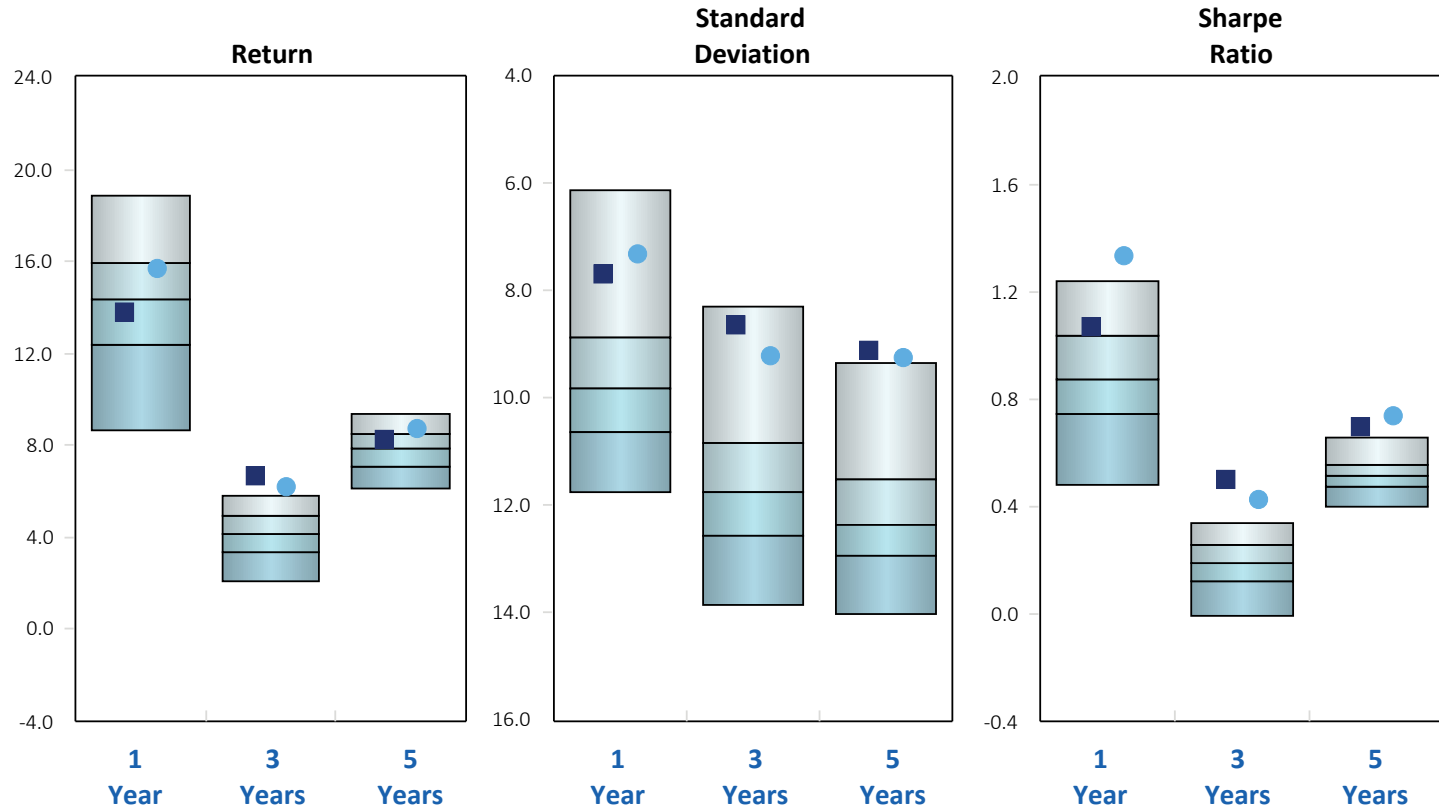
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS Insurance Plan	13.91 (56)	6.59 (2)	8.19 (38)	7.78 (11)	8.75 (6)	9.23 (4)	1.06 (22)	0.49 (1)	0.68 (4)
● CERS Insurance IPS Index	15.70 (28)	6.22 (3)	8.76 (18)	7.32 (9)	9.21 (8)	9.24 (4)	1.34 (2)	0.43 (3)	0.74 (2)
5th Percentile	18.84	5.78	9.39	6.15	8.31	9.34	1.24	0.34	0.65
1st Quartile	15.97	4.97	8.46	8.87	10.84	11.53	1.03	0.26	0.56
Median	14.35	4.13	7.88	9.82	11.75	12.36	0.87	0.19	0.52
3rd Quartile	12.38	3.35	7.11	10.63	12.57	12.94	0.75	0.12	0.47
95th Percentile	8.63	2.07	6.12	11.75	13.87	14.03	0.48	0.00	0.40

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS (H) Insurance Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2024



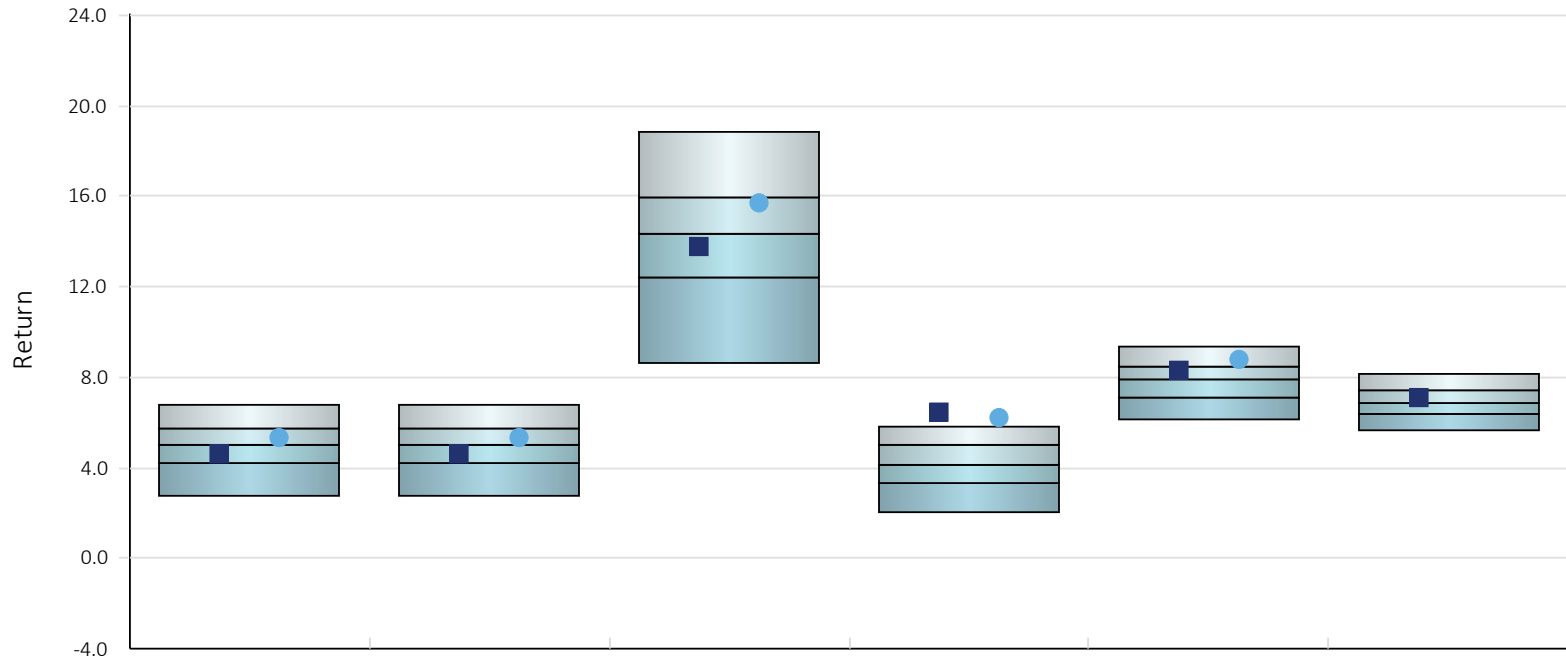
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS (H) Insurance Plan	13.83 (58)	6.68 (2)	8.24 (36)	7.68 (11)	8.65 (6)	9.10 (3)	1.07 (21)	0.50 (1)	0.69 (3)
● CERS (H) Insurance IPS Index	15.70 (28)	6.22 (3)	8.76 (18)	7.32 (9)	9.21 (8)	9.24 (4)	1.34 (2)	0.43 (3)	0.74 (2)
5th Percentile	18.84	5.78	9.39	6.15	8.31	9.34	1.24	0.34	0.65
1st Quartile	15.97	4.97	8.46	8.87	10.84	11.53	1.03	0.26	0.56
Median	14.35	4.13	7.88	9.82	11.75	12.36	0.87	0.19	0.52
3rd Quartile	12.38	3.35	7.11	10.63	12.57	12.94	0.75	0.12	0.47
95th Percentile	8.63	2.07	6.12	11.75	13.87	14.03	0.48	0.00	0.40

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2024



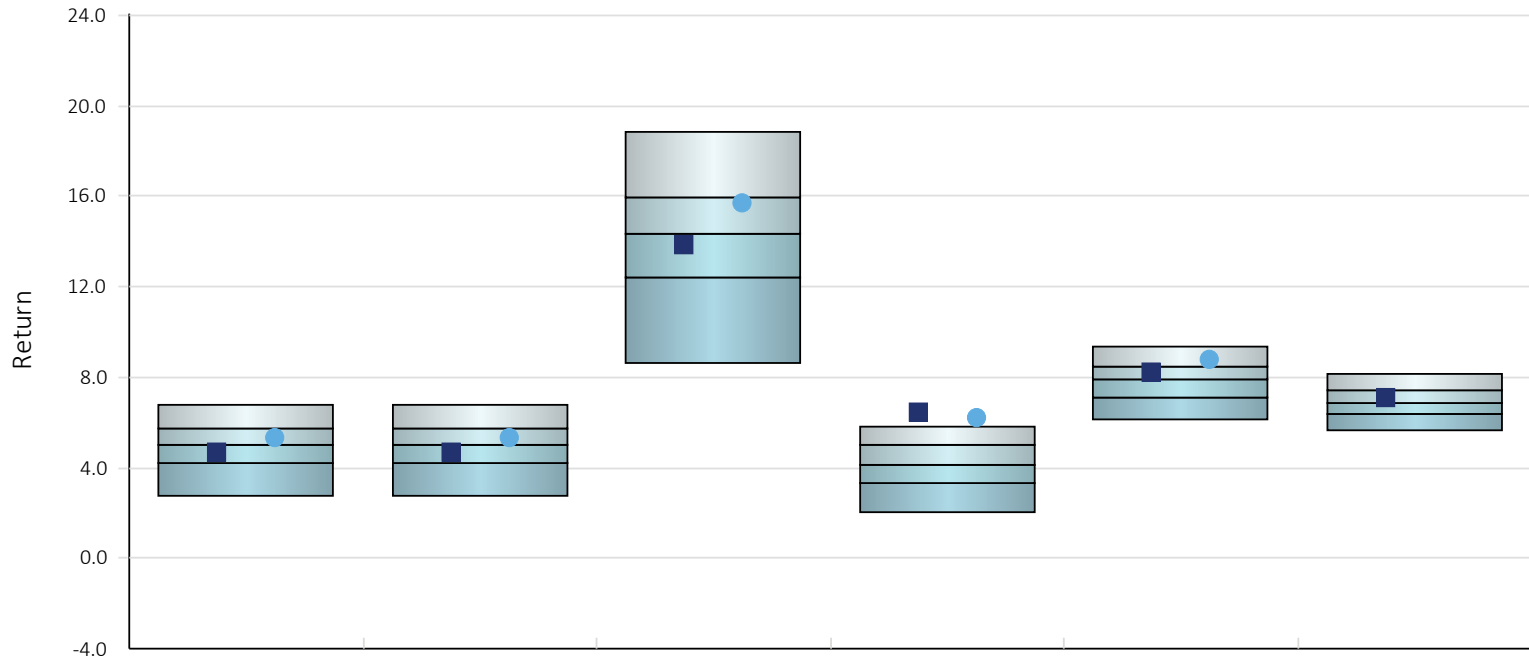
	QTD	YTD	1 Year	3 Years	5 Years	10 Years
■ CERS Pension Plan	4.64 (65)	4.64 (65)	13.79 (58)	6.47 (2)	8.29 (33)	7.13 (40)
● CERS Pension IPS Index	5.37 (37)	5.37 (37)	15.70 (28)	6.22 (3)	8.76 (18)	
5th Percentile	6.82	6.82	18.84	5.78	9.39	8.15
1st Quartile	5.73	5.73	15.97	4.97	8.46	7.39
Median	5.00	5.00	14.35	4.13	7.88	6.90
3rd Quartile	4.24	4.24	12.38	3.35	7.11	6.40
95th Percentile	2.74	2.74	8.63	2.07	6.12	5.69
Population	512	512	440	408	393	330

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS (H) Pension Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2024



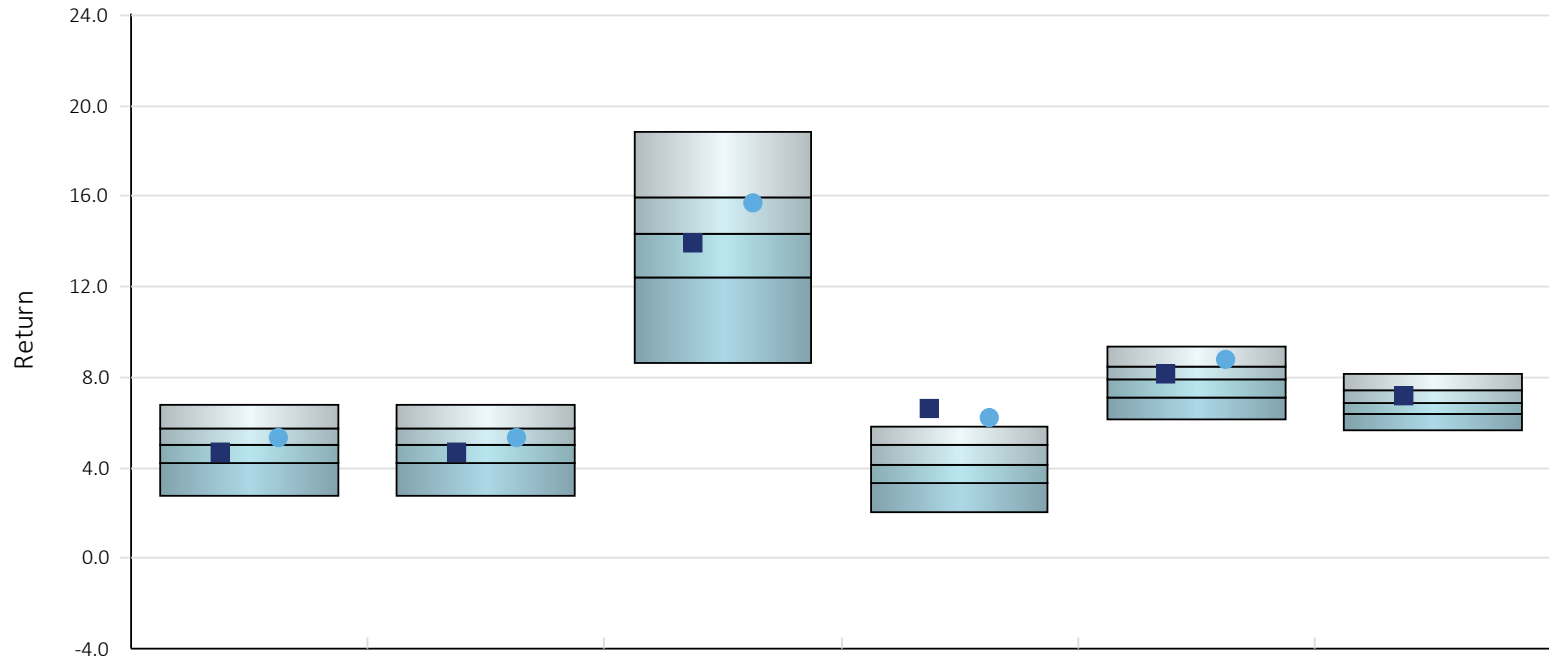
	QTD	YTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Pension Plan	4.67 (64)	4.67 (64)	13.90 (56)	6.45 (2)	8.25 (36)	7.12 (40)
● CERS (H) Pension IPS Index	5.37 (37)	5.37 (37)	15.70 (28)	6.22 (3)	8.76 (18)	
5th Percentile	6.82	6.82	18.84	5.78	9.39	8.15
1st Quartile	5.73	5.73	15.97	4.97	8.46	7.39
Median	5.00	5.00	14.35	4.13	7.88	6.90
3rd Quartile	4.24	4.24	12.38	3.35	7.11	6.40
95th Percentile	2.74	2.74	8.63	2.07	6.12	5.69
Population	512	512	440	408	393	330

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2024



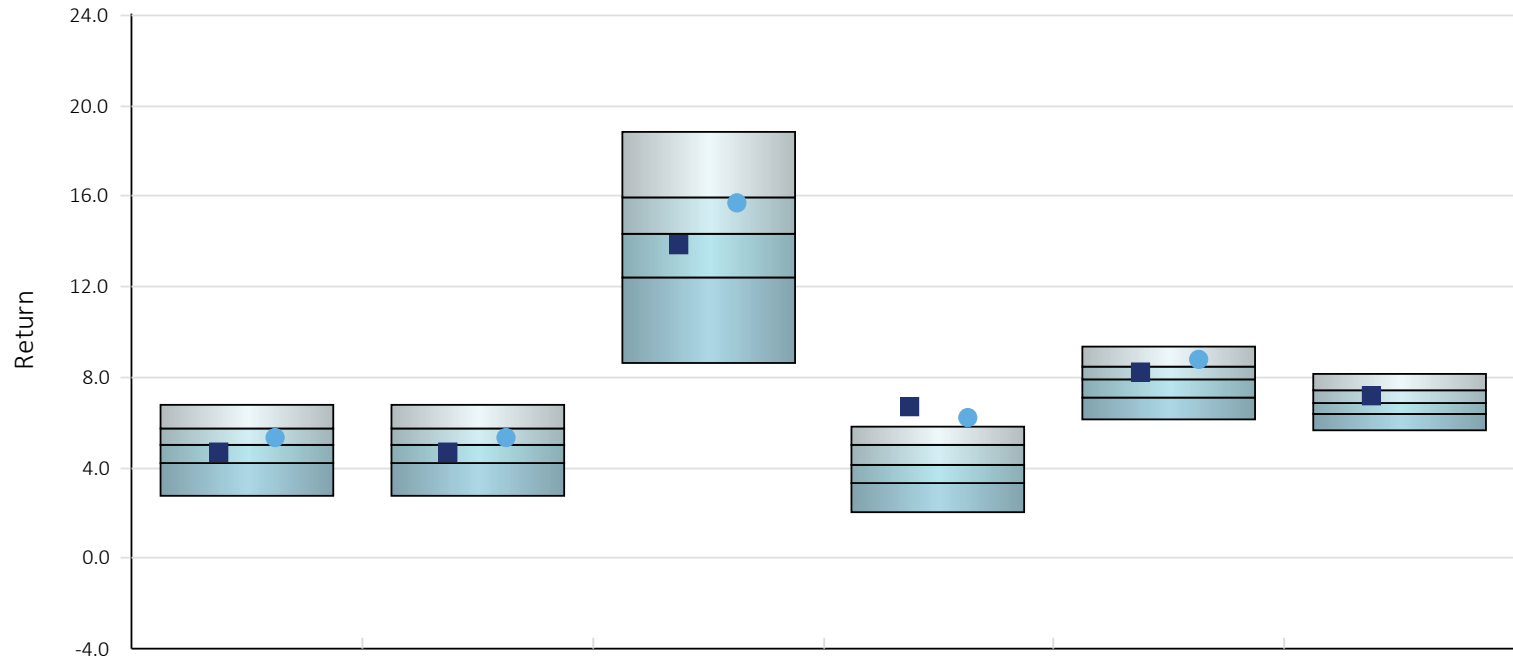
	QTD	YTD	1 Year	3 Years	5 Years	10 Years
■ CERS Insurance Plan	4.69 (63)	4.69 (63)	13.91 (56)	6.59 (2)	8.19 (38)	7.16 (39)
● CERS Insurance IPS Index	5.37 (37)	5.37 (37)	15.70 (28)	6.22 (3)	8.76 (18)	
5th Percentile	6.82	6.82	18.84	5.78	9.39	8.15
1st Quartile	5.73	5.73	15.97	4.97	8.46	7.39
Median	5.00	5.00	14.35	4.13	7.88	6.90
3rd Quartile	4.24	4.24	12.38	3.35	7.11	6.40
95th Percentile	2.74	2.74	8.63	2.07	6.12	5.69
Population	512	512	440	408	393	330

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS (H) Insurance Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2024



	QTD	YTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Insurance Plan	4.70 (63)	4.70 (63)	13.83 (58)	6.68 (2)	8.24 (36)	7.22 (36)
● CERS (H) Insurance IPS Index	5.37 (37)	5.37 (37)	15.70 (28)	6.22 (3)	8.76 (18)	
5th Percentile	6.82	6.82	18.84	5.78	9.39	8.15
1st Quartile	5.73	5.73	15.97	4.97	8.46	7.39
Median	5.00	5.00	14.35	4.13	7.88	6.90
3rd Quartile	4.24	4.24	12.38	3.35	7.11	6.40
95th Percentile	2.74	2.74	8.63	2.07	6.12	5.69
Population	512	512	440	408	393	330

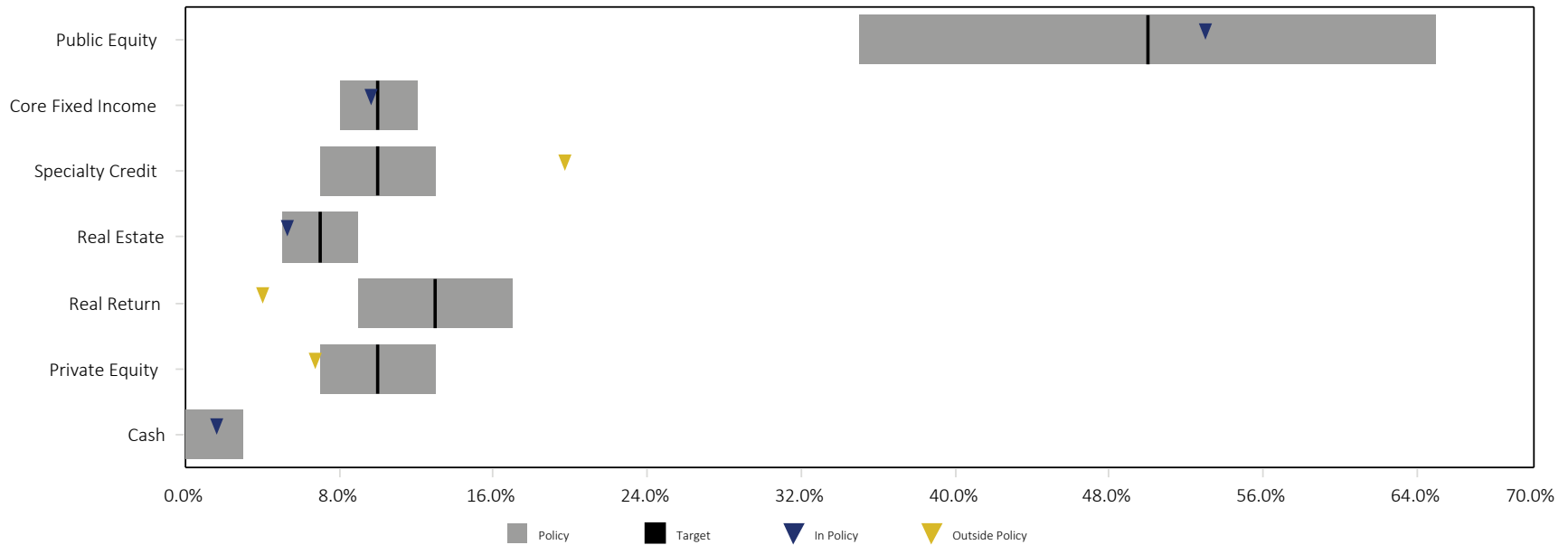
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Asset Allocation Compliance

CERS Pension Plan

Periods Ended As of March 31, 2024

Executive Summary



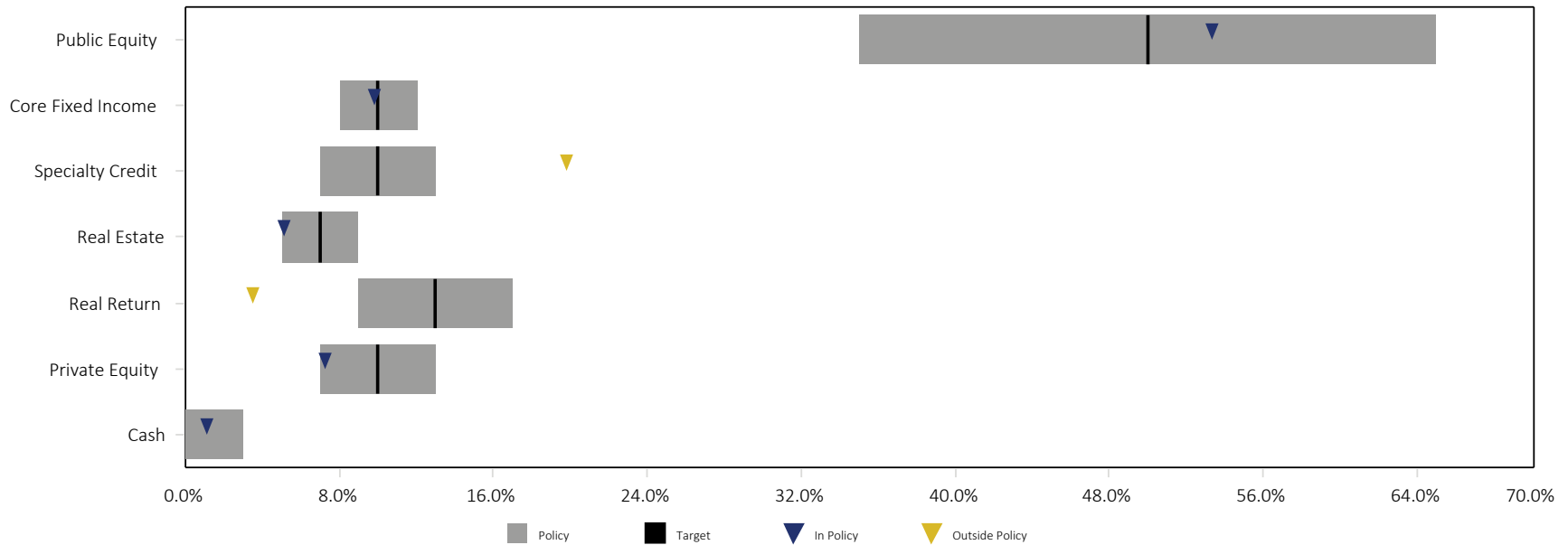
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	5,046,908,429	53.02	35.00	65.00	50.00	-287,731,147
Core Fixed Income	916,025,849	9.62	8.00	12.00	10.00	35,809,607
Specialty Credit	1,879,449,559	19.75	7.00	13.00	10.00	-927,614,102
Real Estate	499,783,446	5.25	5.00	9.00	7.00	166,501,373
Real Return	378,243,593	3.97	9.00	17.00	13.00	859,142,501
Private Equity	643,086,458	6.76	7.00	13.00	10.00	308,748,999
Cash	154,857,231	1.63	0.00	3.00	0.00	-154,857,231
Total Fund	9,518,354,565	100.00			100.00	

Asset Allocation Compliance

CERS Insurance Plan

Periods Ended As of March 31, 2024

Executive Summary



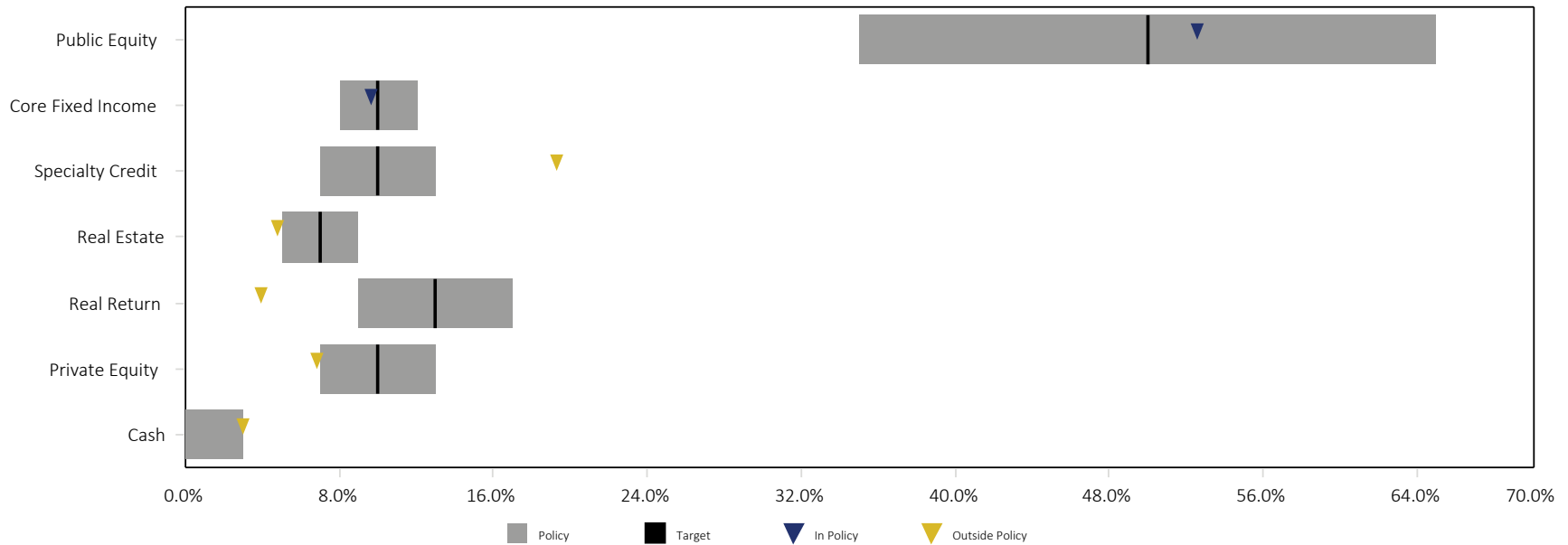
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,902,577,349	53.39	35.00	65.00	50.00	-120,745,469
Core Fixed Income	350,572,451	9.84	8.00	12.00	10.00	5,793,925
Specialty Credit	704,525,881	19.77	7.00	13.00	10.00	-348,159,505
Real Estate	181,208,694	5.08	5.00	9.00	7.00	68,247,769
Real Return	125,273,412	3.52	9.00	17.00	13.00	338,002,876
Private Equity	259,588,402	7.28	7.00	13.00	10.00	96,777,974
Cash	39,917,570	1.12	0.00	3.00	0.00	-39,917,570
Total Fund	3,563,663,760	100.00			100.00	

Asset Allocation Compliance

CERS (H) Pension Plan

Periods Ended As of March 31, 2024

Executive Summary



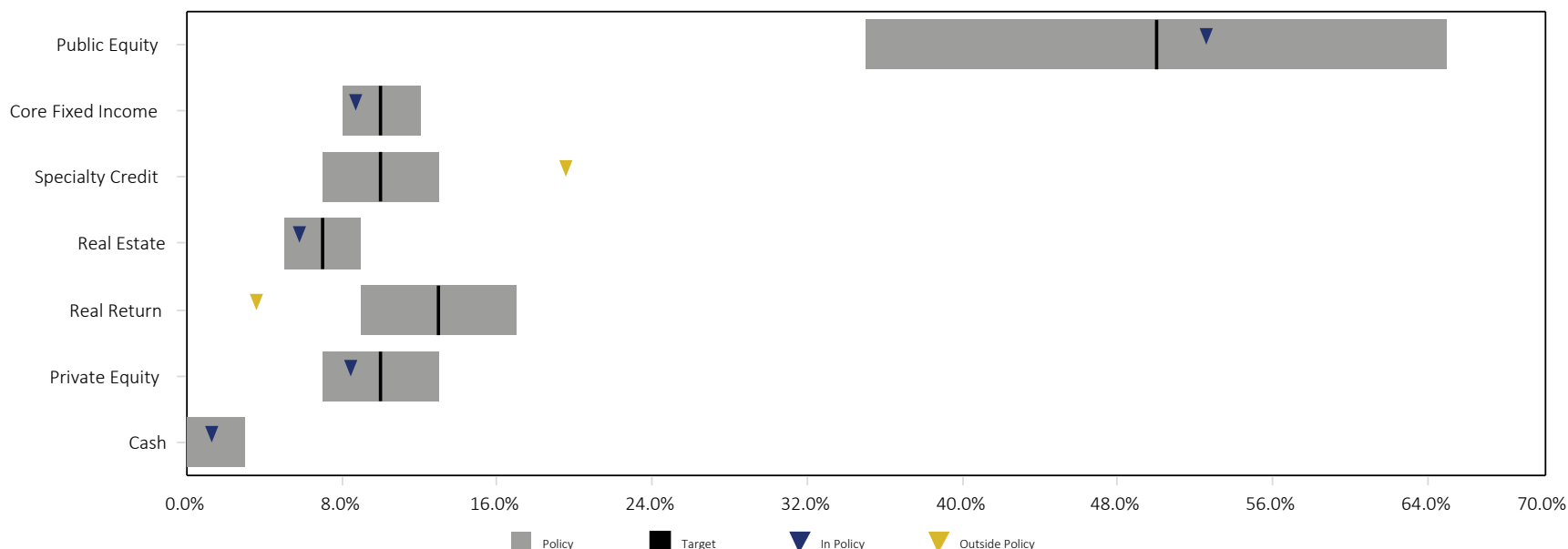
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,764,062,312	52.58	35.00	65.00	50.00	-86,711,723
Core Fixed Income	322,441,144	9.61	8.00	12.00	10.00	13,028,974
Specialty Credit	647,665,579	19.31	7.00	13.00	10.00	-312,195,461
Real Estate	159,153,989	4.74	5.00	9.00	7.00	75,675,094
Real Return	132,375,830	3.95	9.00	17.00	13.00	303,735,323
Private Equity	228,253,308	6.80	7.00	13.00	10.00	107,216,810
Cash	100,749,016	3.00	0.00	3.00	0.00	-100,749,016
Total Fund	3,354,701,179	100.00			100.00	

Asset Allocation Compliance

CERS (H) Insurance Plan

Periods Ended As of March 31, 2024

Executive Summary



	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	904,646,816	52.61	35.00	65.00	50.00	-44,848,334
Core Fixed Income	149,943,255	8.72	8.00	12.00	10.00	22,016,442
Specialty Credit	336,612,867	19.58	7.00	13.00	10.00	-164,653,171
Real Estate	99,432,462	5.78	5.00	9.00	7.00	20,939,326
Real Return	61,153,002	3.56	9.00	17.00	13.00	162,394,604
Private Equity	145,870,273	8.48	7.00	13.00	10.00	26,089,423
Cash	21,938,290	1.28	0.00	3.00	0.00	-21,938,290
Total Fund	1,719,596,964	100.00			100.00	

Asset Allocation & Performance

Total Fund

Periods Ended March 31, 2024

	Market Value \$	Performance (%) net of fees										
		QTD	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
CERS Pension Plan	9,518,354,565	4.64	4.64	10.15	13.79	6.47	8.29	10.68	6.72	8.03	8.94	4/1/1984
CERS Pension IPS Index		5.37	5.37	11.23	15.70	6.22	8.76					
Value Added		-0.73	-0.73	-1.08	-1.91	0.25	-0.47					
Assumed Rate 6.50%		1.59	1.59	4.84	6.50	6.50	6.50					
Value Added		3.05	3.05	5.31	7.29	-0.03	1.79					
CERS Insurance Plan	3,563,663,760	4.69	4.69	10.33	13.91	6.59	8.19	8.36	6.59	7.18	7.50	4/1/1987
CERS Insurance IPS Index		5.37	5.37	11.23	15.70	6.22	8.76					
Value Added		-0.68	-0.68	-0.90	-1.79	0.37	-0.57					
Assumed Rate 6.50%		1.59	1.59	4.84	6.50	6.50	6.50					
Value Added		3.10	3.10	5.49	7.41	0.09	1.69					
CERS (H) Pension Plan	3,354,701,179	4.67	4.67	10.25	13.90	6.45	8.25	10.68	6.72	8.02	8.94	4/1/1984
CERS (H) Pension IPS Index		5.37	5.37	11.23	15.70	6.22	8.76					
Value Added		-0.70	-0.70	-0.98	-1.80	0.23	-0.51					
Assumed Rate 6.50%		1.59	1.59	4.84	6.50	6.50	6.50					
Value Added		3.08	3.08	5.41	7.40	-0.05	1.75					
CERS (H) Insurance Plan	1,719,596,964	4.70	4.70	10.25	13.83	6.68	8.24	8.36	6.62	7.19	7.51	4/1/1987
CERS (H) Insurance IPS Index		5.37	5.37	11.23	15.70	6.22	8.76					
Value Added		-0.67	-0.67	-0.98	-1.87	0.46	-0.52					
Assumed Rate 6.50%		1.59	1.59	4.84	6.50	6.50	6.50					
Value Added		3.11	3.11	5.41	7.33	0.18	1.74					

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2024

	Performance (%) net of fees								
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Public Equity	3.25	8.17	8.17	15.38	21.72			4.62	12/1/2021
Public Equity Policy Index	3.14	8.20	8.20	16.05	23.22			5.08	
Value Added	0.11	-0.03	-0.03	-0.67	-1.50			-0.46	
US Equity Composite	3.49	10.32	10.32	19.00	28.22	9.59	14.05	10.28	7/1/1992
Russell 3000 Index	3.23	10.02	10.02	19.29	29.29	9.78	14.34	10.49	
Value Added	0.26	0.30	0.30	-0.29	-1.07	-0.19	-0.29	-0.21	
S&P 500 Index	3.23	10.55	10.55	19.48	29.90	11.50	15.26	9.10	7/1/2001
S&P 500 Index	3.22	10.56	10.56	19.44	29.88	11.49	15.05	8.69	
value added	0.01	-0.01	-0.01	0.04	0.02	0.01	0.21	0.41	
Scientific Beta	4.27	8.78	8.78	16.41	19.85	7.77	10.81	10.84	7/1/2016
S&P 500 Index	3.22	10.56	10.56	19.44	29.88	11.49	15.05	14.61	
Value Added	1.05	-1.78	-1.78	-3.03	-10.03	-3.72	-4.24	-3.77	
River Road FAV	5.09	10.68	10.68	18.06	23.23	3.27	7.18	10.05	7/1/2016
Russell 3000 Value Index	4.97	8.62	8.62	15.53	20.18	7.74	10.18	10.01	
Value Added	0.12	2.06	2.06	2.53	3.05	-4.47	-3.00	0.04	
Westfield Capital	2.65	14.08	14.08	28.01	42.92	12.49	18.91	15.14	7/1/2011
Russell 3000 Growth Index	1.81	11.23	11.23	22.66	37.95	11.54	17.82	15.49	
Value Added	0.84	2.85	2.85	5.35	4.97	0.95	1.09	-0.35	
Internal US Mid Cap	5.64	9.99	9.99	18.47	24.50	7.53	12.30	10.86	8/1/2014
S&P MidCap 400 Index	5.60	9.95	9.95	17.63	23.33	6.96	11.71	10.36	
Value Added	0.04	0.04	0.04	0.84	1.17	0.57	0.59	0.50	
NTGI Structured	3.69	6.22	6.22	16.44	21.57	3.90	10.32	10.62	7/1/2011
Russell 2000 Index	3.58	5.18	5.18	13.79	19.71	-0.10	8.10	9.17	
Value Added	0.11	1.04	1.04	2.65	1.86	4.00	2.22	1.45	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2024

	Performance (%) net of fees								
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Next Century Growth	2.29	6.96	6.96	-2.33	6.30	-1.26		21.54	11/1/2019
Russell Microcap Growth Index	1.26	6.60	6.60	8.54	15.43	-10.99		6.61	
Value Added	1.03	0.36	0.36	-10.87	-9.13	9.73		14.93	
Non-US Equity Composite	2.86	4.95	4.95	10.06	12.75	1.53	6.61	3.11	4/1/2000
MSCI ACWI ex US IMI (10/17)	3.09	4.33	4.33	10.56	13.20	1.72	6.00	3.18	
Value Added	-0.23	0.62	0.62	-0.50	-0.45	-0.19	0.61	-0.07	
BlackRock World Ex US	3.29	5.51	5.51	11.83	15.39	5.11	7.32	7.15	6/1/2012
MSCI World ex US (11/19)	3.37	5.59	5.59	11.90	15.29	4.93	7.18	7.05	
value added	-0.08	-0.08	-0.08	-0.07	0.10	0.18	0.14	0.10	
American Century	3.11	8.16	8.16	6.71	7.87	-1.80	8.25	6.06	7/1/2014
MSCI ACWI ex US IMI (10/17)	3.09	4.33	4.33	10.56	13.20	1.72	6.00	3.96	
Value Added	0.02	3.83	3.83	-3.85	-5.33	-3.52	2.25	2.10	
Franklin Templeton	2.22	1.99	1.99	4.22	3.23	-6.29	3.17	4.33	7/1/2014
MSCI ACWI ex US IMI (10/17)	3.09	4.33	4.33	10.56	13.20	1.72	6.00	3.96	
Value Added	-0.87	-2.34	-2.34	-6.34	-9.97	-8.01	-2.83	0.37	
Lazard Asset Mgmt	2.65	6.23	6.23	11.54	15.97	2.87	6.65	4.97	7/1/2014
MSCI ACWI ex US IMI (10/17)	3.09	4.33	4.33	10.56	13.20	1.72	6.00	3.96	
Value Added	-0.44	1.90	1.90	0.98	2.77	1.15	0.65	1.01	
LSV Asset Mgmt	3.19	3.74	3.74	13.83	17.37	5.77	6.76	4.29	7/1/2014
MSCI ACWI ex US IMI (10/17)	3.09	4.33	4.33	10.56	13.20	1.72	6.00	3.96	
Value Added	0.10	-0.59	-0.59	3.27	4.17	4.05	0.76	0.33	
Axiom	1.51	6.07	6.07	9.45	8.51			-8.28	12/1/2021
MSCI AC World ex USA Small Cap (Net)	2.86	2.11	2.11	10.54	12.80			-0.64	
Value Added	-1.35	3.96	3.96	-1.09	-4.29			-7.64	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2024

	Performance (%) net of fees								Inception Date
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
JP Morgan Emerging Markets	1.19	1.01	1.01	4.26	3.08	-8.14		1.99	11/1/2019
MSCI Emerging Markets IMI Index	2.16	2.24	2.24	8.31	10.22	-3.53		3.74	
Value Added	-0.97	-1.23	-1.23	-4.05	-7.14	-4.61		-1.75	
Pzena Emerging Markets	3.25	3.30	3.30	10.87	18.73	4.47		9.02	11/1/2019
MSCI Emerging Markets (Net)	2.48	2.37	2.37	7.19	8.15	-5.05		2.42	
Value Added	0.77	0.93	0.93	3.68	10.58	9.52		6.60	
Private Equity Composite	2.02	2.00	2.00	5.99	8.67	16.11	12.98	10.87	7/1/2002
Russell 3000 +3% 1 Quarter Lag	5.56	12.90	12.90	20.15	29.74	11.80	18.62	12.21	
Value Added	-3.54	-10.90	-10.90	-14.16	-21.07	4.31	-5.64	-1.34	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2024

	Performance (%) net of fees								
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Core Fixed Income Composite	0.98	-0.63	-0.63	4.64	4.49	0.23	2.12	2.61	10/1/2018
Blmbg. U.S. Aggregate Index	0.92	-0.78	-0.78	2.56	1.70	-2.46	0.36	1.16	
Value Added	0.06	0.15	0.15	2.08	2.79	2.69	1.76	1.45	
NISA	0.99	-0.63	-0.63	3.22	2.52	-2.05	0.57	2.08	7/1/2011
Blmbg. U.S. Aggregate Index	0.92	-0.78	-0.78	2.56	1.70	-2.46	0.36	1.91	
Value Added	0.07	0.15	0.15	0.66	0.82	0.41	0.21	0.17	
Loomis Sayles	1.04	-0.58	-0.58	3.18	2.67	-1.55	1.04	1.31	2/1/2019
Blmbg. U.S. Aggregate Index (Since 8/1/23)	0.92	-0.78	-0.78	2.58	0.83	-5.29	-0.15	0.74	
Value Added	0.12	0.20	0.20	0.60	1.84	3.74	1.19	0.57	
Lord Abbett	0.42	1.56	1.56	4.08	4.15	0.71	1.89	2.20	10/1/2018
ICE BofA 1-3 Year U.S. Corporate Index	0.52	0.85	0.85	4.85	5.15	0.71	1.96	2.27	
Value Added	-0.10	0.71	0.71	-0.77	-1.00	0.00	-0.07	-0.07	
Internal Core Fixed Income	0.90	-0.76	-0.76					3.48	9/1/2023
Blmbg. U.S. Aggregate Index	0.92	-0.78	-0.78					3.30	
value added	-0.02	0.02	0.02					0.18	
Cash Composite	0.47	1.38	1.38	3.96	5.05	2.51	1.97	2.54	7/1/1992
FTSE 3 Month T-Bill	0.46	1.37	1.37	4.21	5.52	2.70	2.07	2.43	
Value Added	0.01	0.01	0.01	-0.25	-0.47	-0.19	-0.10	0.11	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2024

	Performance (%) net of fees								
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Specialty Credit Composite	1.39	2.69	2.69	9.08	11.27	6.90	6.62	6.50	10/1/2018
Specialty Credit Policy Index	1.02	1.97	1.97	9.17	11.84	4.13	4.88	4.69	
Value Added	0.37	0.72	0.72	-0.09	-0.57	2.77	1.74	1.81	
Cerberus Capital Mgmt	0.85	1.76	1.76	5.25	7.23	11.16	10.35	9.41	9/1/2014
Morningstar LSTA U.S. Leveraged Loan	0.85	2.46	2.46	9.04	12.47	5.99	5.48	4.58	
Value Added	0.00	-0.70	-0.70	-3.79	-5.24	5.17	4.87	4.83	
Columbia	1.20	1.26	1.26	8.87	10.41	2.55	4.17	5.75	11/1/2011
Blmbg. U.S. Corp: High Yield Index	1.18	1.47	1.47	9.24	11.15	2.19	4.21	5.69	
Value Added	0.02	-0.21	-0.21	-0.37	-0.74	0.36	-0.04	0.06	
Manulife Asset Mgmt	0.97	0.88	0.88	5.85	6.88	0.80	4.03	3.92	12/1/2011
Policy Index	0.98	-0.47	-0.47	3.28	2.67	-2.11	0.69	1.19	
Value Added	-0.01	1.35	1.35	2.57	4.21	2.91	3.34	2.73	
Marathon Bluegrass	0.40	2.81	2.81	5.78	5.61	3.74	4.30	5.58	1/1/2016
Blmbg. U.S. Corp: High Yield Index	1.18	1.47	1.47	9.24	11.15	2.19	4.21	6.06	
Value Added	-0.78	1.34	1.34	-3.46	-5.54	1.55	0.09	-0.48	
Shenkman Capital	1.03	2.18	2.18	7.83	11.03	5.15	4.90	4.34	7/1/2011
Morningstar LSTA U.S. Leveraged Loan	0.85	2.46	2.46	9.04	12.47	5.99	5.48	4.73	
Value Added	0.18	-0.28	-0.28	-1.21	-1.44	-0.84	-0.58	-0.39	
Waterfall	0.71	4.18	4.18	11.61	9.69	7.21	5.12	8.05	7/1/2011
Policy Index	1.04	1.90	1.90	8.36	10.33	2.93	3.89	4.28	
Value Added	-0.33	2.28	2.28	3.25	-0.64	4.28	1.23	3.77	
Arrowmark	0.94	3.54	3.54	11.71	16.21	12.78	10.77	10.65	6/1/2018
Morningstar LSTA U.S. Leveraged Loan	0.85	2.46	2.46	9.04	12.47	5.99	5.48	5.10	
Value Added	0.09	1.08	1.08	2.67	3.74	6.79	5.29	5.55	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2024

	Performance (%) net of fees								
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Real Estate Composite	-1.03	-4.12	-4.12	-8.63	-10.81	5.83	6.75	8.22	5/1/2009
NCREIF ODCE NOF 1 Quarter Lag	-5.00	-5.00	-5.00	-9.68	-12.73	4.01	3.34		
Value Added	3.97	0.88	0.88	1.05	1.92	1.82	3.41		
Internal Real Estate	1.76	-0.62	-0.62					0.44	12/1/2023
Baring	-9.71	-11.55	-11.55	-30.91	-43.66	-14.63	0.67	0.30	1/1/2019
Barings Euro RE II	-0.08	-2.18	-2.18	-22.98	-31.12	-16.87		-23.68	12/1/2020
Divcowest IV	-0.47	-0.47	-0.47	1.59	2.07	12.76	9.90	15.83	3/1/2014
Fundamental Partners III	-1.24	-1.24	-1.24	-3.00	-2.69	12.77	13.51	11.63	5/1/2017
Greenfield Acq VI	0.00	0.00	0.00	-2.98	-7.92	-28.63	-37.24	-17.60	12/1/2012
Greenfield Acq VII	-10.72	-10.72	-10.72	-5.74	-2.71	8.77	11.63	11.91	7/1/2014
Lubert Adler VII	-19.74	-19.74	-19.74	-28.87	-29.61	-9.76	-9.69	-4.89	7/1/2014
Lubert Adler VII B	2.08	2.08	2.08	2.80	4.54	24.63	18.79	14.41	7/1/2017
Harrison Street	0.00	-3.41	-3.41	-4.91	-4.91	4.38	4.92	6.81	5/1/2012
Mesa West Core Lend	-3.46	-3.46	-3.46	-3.65	-7.45	0.75	2.77	4.74	5/1/2013
Mesa West IV	-7.16	-7.16	-7.16	-14.61	-24.11	-6.03	-1.21	0.63	3/1/2017
Patron Capital	7.33	5.14	5.14	-4.87	-0.94	6.81	3.69	3.15	8/1/2016
Prologis Targeted US	0.00	-7.02	-7.02	-12.30	-12.94	13.09	12.95	14.19	10/1/2014
Rubenstein PF II	-17.28	-17.28	-17.28	-41.09	-55.87	-30.14	-20.68	-3.70	7/1/2013
Stockbridge Sm/Mkts	-0.57	-0.57	-0.57	-4.51	-8.18	6.32	5.69	7.45	5/1/2014
Walton St RE VI	-3.32	-3.32	-3.32	-0.74	1.38	11.38	4.44	-10.27	5/1/2009
Walton St RE VII	3.92	3.92	3.92	-7.89	-14.14	-0.39	-4.28	3.67	7/1/2013

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2024

	Performance (%) net of fees								
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Real Return Composite	2.53	3.95	3.95	9.64	12.78	9.50	7.67	5.08	7/1/2011
US CPI +3%	0.63	1.88	1.88	5.01	6.58	8.80	7.32	5.69	
Value Added	1.90	2.07	2.07	4.63	6.20	0.70	0.35	-0.61	
Tortoise Capital	7.32	14.60	14.60	28.74	34.45	30.17	11.15	10.97	8/1/2009
Alerian MLP Index	4.53	13.89	13.89	31.39	38.46	29.44	11.46	8.62	
Value Added	2.79	0.71	0.71	-2.65	-4.01	0.73	-0.31	2.35	
Internal TIPS	0.46	1.35	1.35	4.14	5.45	2.72	2.27	3.69	10/1/2003
Blmbg. U.S. TIPS 1-10 Year	0.80	0.26	0.26	3.11	1.65	0.80	2.96	3.29	
Value Added	-0.34	1.09	1.09	1.03	3.80	1.92	-0.69	0.40	
Internal Real Return	5.49	4.99	4.99					4.54	12/1/2023
Amerra AGRI Fund II	-9.43	-9.43	-9.43	-8.94	-7.88	4.43	6.53	4.89	12/1/2012
Amerra AGRI Holdings	-4.64	-4.64	-4.64	-7.82	-16.98	-7.00	-4.10	-3.14	8/1/2015
BTG Pactual	3.16	3.16	3.16	13.74	16.85	15.83	7.23	0.01	12/1/2014
IFM Infrastructure	-1.53	-1.53	-1.53	3.38	4.46	6.27		4.91	7/1/2019
Blackstone Strat Opp	0.22	-1.32	-1.32	-2.51	-8.04	-0.89	-5.13	-2.90	8/1/2017
Magnetar MTP EOF II	16.09	16.09	16.09	13.54	36.68	77.05	48.10	26.84	8/1/2015
Maritime Partners	0.00	0.00	0.00					0.00	10/1/2023
Myriad Opportunities	0.00	0.00	0.00	0.00	0.00	-26.54	-14.77	-8.11	5/1/2016
Oberland Capital	1.39	1.39	1.39	6.39	9.85	10.47	15.41	13.27	10/1/2014
Taurus Mine Finance	5.80	5.80	5.80	1.90	6.64	28.87	14.57	8.33	1/1/2009
Tricadia Select	0.00	0.00	0.00	0.00	0.00	0.00	0.36	-3.81	9/1/2017
TPF II	0.00	0.00	0.00	-2.92	-3.81	2.68	4.25	-1.00	10/1/2008

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2024

	Performance (%) net of fees								
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Luxor Capital	-0.02	0.81	0.81	-1.83	-1.95	5.98	-3.56	-0.22	4/1/2014
Pine River	0.98	10.69	10.69	10.87	10.93	-1.71	5.34	2.55	5/1/2014
PRISMA Capital	0.41	1.30	1.30	3.93	4.66	1.18	0.97	2.58	9/1/2011

County Employees Retirement System











Compliance Report


Quarter Ending: March 31, 2024



<p style="text-align: center;">Compliance Review Period Ended March 31, 2024</p>	<p style="text-align: center;">Legend</p>
	<p>● In Compliance ● To be determined ● Not In Compliance</p>
<p>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. Separate accounts or funds of one are not included in this 25% limitation for commingled products.</p>	●
<p>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 per KRS 61.650(5).*</p>	●
<p>Cash holdings do not exceed five percent (5%) of the manager's allocation for any given quarter.**</p>	●
<p>The KPPA Investment Staff may passively manage up to twenty (20%) percent of the overall portfolio dedicated to these efficient markets (Public Equity)</p>	●
<p>CERS Pension - 21.7%</p>	
<p>CERSH Pension - 21.3%</p>	
<p>CERS Insurance - 21.6%</p>	
<p>CERSH Insurance - 20.7%</p>	
<p>No more than fifteen (15) percent of the CERS Pension or Insurance total allocation to private equity investments may be committed to any one partnership, without the approval of the Board.</p>	●

<p style="text-align: center;">Compliance Review Period Ended March 31, 2024</p>	<p style="text-align: center;">Legend</p>
<p>Maximum of thirteen (13%) percent of CERS Pan assets allocated to Private Equity</p>	<p style="text-align: center;">● In Compliance ● To be determined ● Not In Compliance</p>
<p>All instruments in the Liquidity allocation shall have a maturity at the time of purchase that does not exceed 397 days. Repurchase agreements shall be deemed to have a maturity equal to the period remaining until the date on which the repurchase of the underlying securities is scheduled to occur. Variable rate securities shall be deemed to have a maturity equal to the time left until the next interest rate reset occurs, but in no case will any security have a stated final maturity of more than three years.</p>	<p style="text-align: center;">●</p>
<p>No more than 50% of the total net assets of the Real Return allocation may be invested in any one registered investment vehicle, mutual fund, or separately managed account.</p>	<p style="text-align: center;">●</p>
<p>No more than 20% of the total net assets of the Real Return allocation may be invested in any single closed-end or open-end limited partnership or other unregistered investment vehicle.</p>	<p style="text-align: center;">●</p>
<p>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.</p>	<p style="text-align: center;">●</p>
<p>The maximum investment in any single direct co-investment shall not exceed 20 percent of the original partnership commitment.</p>	<p style="text-align: center;">●</p>
<p>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.</p>	<p style="text-align: center;">●</p>
<p>The amount of stock in the domestic or international equity allocation in any single corporation shall not exceed 5% of the aggregate market value of CERS' assets.</p>	<p style="text-align: center;">●</p>

<p style="text-align: center;">Compliance Review Period Ended March 31, 2024</p>	<p style="text-align: center;">Legend</p>
<p>The amount of stock held in the domestic or international equity allocation shall not exceed 3% of the outstanding shares of any single corporation.</p>	<p style="text-align: center;">Compliance Status</p> <p>  In Compliance  To be determined  Not In Compliance </p>
<p>Investment in "frontier" markets (those countries not included in the MSCI EM Index) shall not exceed 5% of CERS' international equity assets.</p>	
<p>The duration of the core fixed income portfolios combined shall not vary from that of CERS' Fixed Income Index by more than +/- 25% duration as measured by effective duration, modified duration, or dollar duration except when the Investment Committee has determined a target duration to be used for an interim basis.</p>	
<p>The amount invested in the debt of a single issuer shall not exceed 5% of the total market value of CERS' fixed income assets, with the exception of U.S. Government issued, guaranteed or agency obligations (or securities collateralized by same).</p>	
<p>50% of the core fixed income assets must have stated liquidity that is trade date plus three days or better.</p>	
<p>CERS permits external managers and Staff to invest in derivative securities, or strategies which make use of derivative investments, for exposure, cost efficiency and risk management purposes, if such investments do not cause the portfolio to be leveraged beyond a 100% invested position.</p>	
<p>Except for investments in Real Return investments, derivatives may not be used for any activity for which the primary purpose is speculation or to profit while materially increasing risk to CERS.</p>	
<p>External Investment Managers shall manage assets in accordance with this IPS and any additional guidelines established by contract, as may be modified in writing from time to time.</p>	

<p style="text-align: center;">Compliance Review Period Ended March 31, 2024</p>	<p style="text-align: center;">Compliance Status</p>
<p>IPS Asset Allocation Guidelines</p>	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Legend</p> <p>● In Compliance</p> <p>● To be determined</p> <p>● Not In Compliance</p> </div>
<p>CERS Pension - Specialty Credit allocation 19.7% > maximum 13.0%</p>	
<p>CERS Pension - Private Equity allocation 6.8% < minimum 7.0%</p>	
<p>CERS Pension - Real Return allocation 4.0% < minimum 9.0%</p>	
<p>CERSH Pension - Specialty Credit allocation 19.3% > maximum 13.0%</p>	
<p>CERSH Pension - Private Equity allocation 6.8% < minimum 7.0%</p>	
<p>CERSH Pension - Real Return allocation 3.9% < minimum 9.0%</p>	
<p>CERSH Pension - Real Estate allocation 4.7% < minimum 5.0%</p>	
<p>CERS Insurance - Specialty Credit allocation 19.8% > maximum 13.0%</p>	
<p>CERS Insurance - Real Return allocation 3.5% < minimum 9.0%</p>	
<p>CERSH Insurance - Specialty Credit allocation 19.6% > maximum 13.0%</p>	
<p>CERSH Insurance - Real Return allocation 3.6% < minimum 9.0%</p>	
<p><i>* Only applies to external manager and not assets managed by KPPA Investment Staff</i></p> <p><i>** Excludes cash holdings that are an integral part of a fixed income manager's investment strategy.</i></p>	

County Employees Retirement System

Investment Budget Update

Quarter Ending: March 31, 2024

KENTUCKY PUBLIC PENSIONS AUTHORITY									
Investment Budget									
For the nine month period ending March 31, 2024									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Trust Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent
CONSULTING SERVICES									
Wilshire Associates	\$ 1,021,799	\$ 1,238,170	\$ 1,225,671	\$ 1,021,175	\$ 838,172	\$ 1,200,000	\$ 847,085	\$ 352,915	71%
Albourne	-	-	-	-	306,750	275,000	202,500	72,500	74%
MercerInsight	-	-	-	-	153,548	165,000	120,000	45,000	73%
SUBTOTAL	1,021,799	1,238,170	1,225,671	1,021,175	1,298,471	1,640,000	1,169,585	470,415	71%
LEGAL & AUDITING SERVICES									
Faegre Drinker			96,039	202,502	16,428	100,000	9,313	90,687	9%
Intelligent Management Solutions (IMS)	620,001	202,140	155,700	69,884	81,880	350,000	2,179	347,822	1%
McClain/Goldberg			891	-	-	100,000	-	100,000	0%
Reinhart	317,909	671,269	663,689	619,509	109,508	2,500,000	137,068	2,362,932	5%
Stoll-Keenon-Ogden	10,314	135,353	254,211	463,560	750,438	750,000	104,343	645,657	14%
Haystack			-	-	120,175	100,000	153,456	(53,456)	153%
Umberg Zipser			289,100	498,058	606,701	850,000	529,812	320,188	62%
Fiduciary Legal Expenses	-	-	-	-	188,312	150,000	193,841	(43,841)	129%
Miscellaneous			-	-	-	50,000	3,160	46,840	6%
SUBTOTAL	948,225	1,008,762	1,459,630	1,853,513	1,873,441	4,950,000	1,133,171	3,816,829	23%
CONTRACTURAL SERVICES									
Bloomberg	68,722	71,810	98,163	102,243	104,153	150,000	82,626	67,374	55%
BNYM Custodial Fees	2,056,390	2,088,475	2,379,838	2,565,169	2,333,981	2,600,000	1,296,582	1,303,418	50%
eVestment (Solovis RMS)			-	30,000	33,800	35,000	-	35,000	0%
Solovis (Reporting & Analytics)			-	245,000	266,017	275,000	306,319	(31,319)	111%
FactSet	222,476	162,295	109,662	140,098	146,411	150,000	97,506	52,494	65%
Russell Index Subscription	1,075	1,250	1,000	1,000	750	1,500	750	750	50%
S&P Global		94,500	26,250	68,250	27,563	75,000	-	75,000	0%
TradeWeb			-	6,000	7,700	7,500	2,800	4,700	37%
State Street/Elkins McSherry	10,000	5,000	15,000	10,000	10,000	10,000	-	10,000	0%
ISS	32,050	32,050	28,288	35,813	39,875	60,000	47,156	12,844	79%
MSCI	1,000	1,000	1,000	1,000	1,000	1,000	1,000	-	100%
KPMG Tax Guarantor Services		7,606	22,050	7,350	-	7,500	9,450	(1,950)	126%
Jayant Ghevaria and CO		10,050	-	52,085	-	55,000	-	55,000	0%
India Renewal Fee (SEBI)			-	3,000	-	3,000	2,950	50	98%
With Intelligence	-	-	-	-	9,520	9,520	9,520	-	100%
Miscellaneous & New Services	-	-	-	-	-	250,000	35,253	214,747	14%
SUBTOTAL	2,391,713	2,474,036	2,681,251	3,267,008	2,980,769	3,690,020	1,891,913	1,798,107	51%

KENTUCKY PUBLIC PENSIONS AUTHORITY									
Investment Budget									
For the nine month period ending March 31, 2024									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Trust Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent
INACTIVE CONTRACTUAL SERVICES									
Dean Dorton	9,719		-	-	250	-	-	-	
Hirschler		4,794	-	-		-	-	-	
INFORMA	12,904		-	-		-	-	-	
Lighthouse Solutions	3,093		-	-		-	-	-	
London Stock Exchange GBP (GREAT BRITISH POUNDS)	6,467	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	-		-	
TOTAL	\$ 4,653,455	\$ 4,840,258	\$ 6,600,309	\$ 6,141,696	\$ 6,152,931	\$ 10,280,020	4,194,669	6,085,350.87	41%

INVESTMENT BUDGET	
CONSULTING SERVICES	
Wilshire Associates	General Investment Consulting 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 external research
Solovis (Reporting & Analytics)	Portfolio and Risk Analytics, Performance 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
Oxford Economics	Global macroeconomics and markets research
With Intelligence	Portfolio Management Research provider

KENTUCKY PUBLIC PENSIONS AUTHORITY								
Investment Fees and Expenses								
For the nine month periods ending March 31st								
Pension								
	2024		2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	1,436,262	2,544,276,747	1,961,961	2,021,010,684	2,153,340	2,131,886,569	2,031,618	2,263,311,450
<i>Investment Advisory Fees</i>	1,405,456		1,081,599		1,773,298		1,902,240	
<i>Performance Fees</i>	-		313,985		327,140		81,121	
<i>Miscellaneous Fees and Expenses</i>	30,806		566,378		52,902		48,257	
Public Equity	10,500,632	8,817,430,444	9,871,250	7,364,652,759	10,884,478	6,939,548,432	9,171,752	6,619,150,686
<i>Investment Advisory Fees</i>	10,324,571		9,712,159		10,658,036		8,995,110	
<i>Miscellaneous Fees and Expenses</i>	176,062		159,091		226,442		176,642	
Specialty Credit Fixed Income	69,354,775	3,648,244,718	41,248,671	3,253,455,667	37,495,009	3,117,337,032	29,274,875	2,546,489,496
<i>Investment Advisory Fees</i>	14,434,211		14,472,381		12,988,501		11,228,203	
<i>Performance Fees</i>	25,547,564		8,869,883		18,829,074		15,246,975	
<i>Miscellaneous Fees and Expenses</i>	29,373,000		17,906,407		5,677,434		2,799,697	
Real Estate	4,564,242	968,171,717	4,469,109	929,393,252	25,637,587	844,241,655	5,303,814	589,400,002
<i>Investment Advisory Fees</i>	5,704,259		3,627,098		3,454,869		3,254,551	
<i>Performance Fees</i>	(4,779,365)		42,187		20,336,478		(907,044)	
<i>Miscellaneous Fees and Expenses</i>	3,639,348		799,825		1,846,240		2,956,307	
Real Return	2,848,101	924,917,847	3,159,066	460,465,548	3,848,329	568,603,601	6,282,116	1,011,388,853
<i>Investment Advisory Fees</i>	2,781,907		1,799,568		2,738,748		3,527,345	
<i>Performance Fees</i>	(193,100)		473,651		1,049,935		2,329,614	
<i>Miscellaneous Fees and Expenses</i>	259,294		885,848		59,646		425,157	
Private Equity	10,552,171	1,168,729,880	1,735,503	1,143,005,497	52,650,593	1,303,761,398	34,414,531	1,155,001,941
<i>Investment Advisory Fees</i>	4,288,725		5,111,920		5,375,037		6,202,846	
<i>Performance Fees</i>	2,729,542		(5,910,958)		44,069,198		26,932,151	
<i>Miscellaneous Fees and Expenses</i>	3,533,904		2,534,541		3,206,358		1,279,534	
Administrative Expense/Cash	3,275,020	534,190,997	2,349,103	980,437,717	3,087,180	1,088,261,843	1,932,601	285,262,649
Total Investment Mgmt Fees	102,531,203	18,605,962,349	64,794,664	16,152,421,124	135,756,516	15,993,640,530	88,411,307	14,470,005,077

KENTUCKY PUBLIC PENSIONS AUTHORITY								
Investment Fees and Expenses								
For the nine month periods ending March 31st								
Insurance								
	2024		2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	480,275	784,067,380	737,251	738,513,799	810,054	802,476,521	813,678	864,872,800
<i>Investment Advisory Fees</i>	469,632		612,135		673,659		766,735	
<i>Performance Fees</i>	-		112,040		117,337		28,448	
<i>Miscellaneous Fees and Expenses</i>	10,642		13,075		19,058		18,495	
Public Equity	4,806,899	3,941,379,593	4,563,134	3,377,277,074	4,821,293	3,215,837,276	4,102,906	2,988,294,144
<i>Investment Advisory Fees</i>	4,727,899		4,490,997		4,743,902		4,026,883	
<i>Miscellaneous Fees and Expenses</i>	78,999		72,137		77,391		76,023	
Specialty Credit Fixed Income	30,989,778	1,620,501,044	18,849,336	1,464,234,371	16,639,635	1,409,325,113	12,524,624	1,134,227,766
<i>Investment Advisory Fees</i>	6,250,818		6,424,488		5,791,524		5,087,579	
<i>Performance Fees</i>	11,723,264		4,582,063		8,397,118		6,349,014	
<i>Miscellaneous Fees and Expenses</i>	13,015,696		7,842,785		2,450,993		1,088,031	
Real Estate	2,259,264	434,538,136	2,029,870	392,477,821	10,607,357	356,747,650	2,331,407	249,384,483
<i>Investment Advisory Fees</i>	2,591,757		1,515,332		1,501,018		1,408,641	
<i>Performance Fees</i>	(1,892,121)		171,381		8,302,981		(290,973)	
<i>Miscellaneous Fees and Expenses</i>	1,559,628		343,157		803,358		1,213,739	
Real Return	1,292,405	367,246,753	1,402,993	177,947,842	1,672,090	219,995,987	2,465,100	427,472,422
<i>Investment Advisory Fees</i>	1,228,914		801,226		1,221,294		1,508,890	
<i>Performance Fees</i>	(72,537)		196,724		415,727		(139,583)	
<i>Miscellaneous Fees and Expenses</i>	136,029		405,042		35,069		1,095,793	
Private Equity	7,297,602	597,270,698	2,034,850	584,914,353	32,266,953	621,666,942	22,861,402	561,073,081
<i>Investment Advisory Fees</i>	2,686,334		3,350,796		3,739,853		4,149,597	
<i>Performance Fees</i>	2,417,277		(2,539,096)		27,332,502		18,202,847	
<i>Miscellaneous Fees and Expenses</i>	2,193,991		1,223,150		1,194,598		508,958	
Administrative Expense/Cash	1,683,584	115,745,443	1,225,286	236,662,657	1,564,044	505,485,795	1,219,907	140,405,157
Total Investment Mgmt Fees	\$ 48,809,807	\$ 7,860,749,046	\$ 30,842,720	\$ 6,972,027,917	\$ 68,381,426	\$ 7,131,535,284	\$ 46,319,024	\$ 6,365,729,853

KENTUCKY PUBLIC PENSIONS AUTHORITY				
Investment Fees and Expenses				
For the nine month period ending March 31, 2024				
Pension				
	CERS		CERS Hazardous	
	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	578,878	916,025,852	202,425	322,441,145
<i>Investment Advisory Fees</i>	566,364		198,052	
<i>Performance Fees</i>	-		-	
<i>Miscellaneous Fees and Expenses</i>	12,514		4,373	
Public Equity	5,970,347	5,046,908,426	2,098,829	1,764,062,311
<i>Investment Advisory Fees</i>	5,871,110		2,064,547	
<i>Miscellaneous Fees and Expenses</i>	99,237		34,282	
Specialty Credit Fixed Income	38,661,090	1,879,449,560	12,959,072	647,665,580
<i>Investment Advisory Fees</i>	7,837,116		2,654,779	
<i>Performance Fees</i>	14,348,657		4,756,847	
<i>Miscellaneous Fees and Expenses</i>	16,475,317		5,547,446	
Real Estate	2,559,680	499,783,447	806,391	159,153,989
<i>Investment Advisory Fees</i>	3,197,024		1,008,017	
<i>Performance Fees</i>	(2,691,534)		(851,028)	
<i>Miscellaneous Fees and Expenses</i>	2,054,190		649,402	
Real Return	1,674,326	378,243,593	587,302	132,375,830
<i>Investment Advisory Fees</i>	1,646,040		575,438	
<i>Performance Fees</i>	165,933		(42,571)	
<i>Miscellaneous Fees and Expenses</i>	(137,647)		54,435	
Private Equity	6,383,991	643,086,458	2,173,693	228,253,308
<i>Investment Advisory Fees</i>	2,769,953		917,548	
<i>Performance Fees</i>	1,477,291		544,884	
<i>Miscellaneous Fees and Expenses</i>	2,136,747		711,261	
Administrative Expenses/Cash	1,896,126	154,857,231	593,005	100,749,017
Total Investment Mgmt Fees	57,724,438	9,518,354,567	19,420,717	3,354,701,180

KENTUCKY PUBLIC PENSIONS AUTHORITY				
Investment Fees and Expenses				
For the nine month period ending March 31, 2024				
Insurance				
	CERS		CERS Hazardous	
	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	212,943	350,572,452	93,012	149,943,255
<i>Investment Advisory Fees</i>	208,229		90,951	
<i>Performance Fees</i>	-		-	
<i>Miscellaneous Fees and Expenses</i>	4,714		2,060	
Public Equity	2,217,025	1,902,577,349	1,097,524	904,646,815
<i>Investment Advisory Fees</i>	2,179,934		1,079,708	
<i>Miscellaneous Fees and Expenses</i>	37,090		17,816	
Specialty Credit Fixed Income	13,933,116	704,525,881	7,388,999	336,612,867
<i>Investment Advisory Fees</i>	2,781,577		1,406,567	
<i>Performance Fees</i>	5,262,099		2,854,254	
<i>Miscellaneous Fees and Expenses</i>	5,889,440		3,128,178	
Real Estate	1,007,287	181,208,694	552,519	99,432,462
<i>Investment Advisory Fees</i>	1,159,939		636,324	
<i>Performance Fees</i>	(868,881)		(476,803)	
<i>Miscellaneous Fees and Expenses</i>	716,228		392,998	
Real Return	599,407	125,273,413	285,862	61,153,002
<i>Investment Advisory Fees</i>	577,410		275,763	
<i>Performance Fees</i>	(39,471)		(22,926)	
<i>Miscellaneous Fees and Expenses</i>	61,468		33,025	
Private Equity	3,190,821	259,588,402	1,824,234	145,870,273
<i>Investment Advisory Fees</i>	1,250,335		699,723	
<i>Performance Fees</i>	939,321		566,798	
<i>Miscellaneous Fees and Expenses</i>	1,001,166		557,712	
Administrative Expenses/Cash	771,594	39,917,570	411,225	21,938,290
Total Investment Mgmt Fees	\$ 21,932,192	\$ 3,563,663,760	\$ 11,653,374	\$ 1,719,596,964

County Employees Retirement System

Capital Calls and Distributions

Quarter Ending: March 31, 2024

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the period January 1, 2024 thru March 31, 2024
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
Adams Street SPC II A1	175,000,000	97,124,912	81,610,078	0	4,140,964	77,469,113	32,749,407	27,517,983	0	1,396,286	26,121,697
Adams Street SPC II B1	175,000,000	97,124,911	82,035,156	314,013	2,435,603	79,913,566	32,749,407	27,661,315	105,882	821,257	26,945,939
AMERRA Agri Fund II, LP	40,100,000	27,641,371	11,773,442	0	325,300	11,448,141	8,727,285	3,717,260	0	102,708	3,614,553
AMERRA-KRS Agri Holding Company, LP	65,000,000	44,805,214	20,478,612	3,120,761	1,114,557	22,484,816	14,146,472	6,465,768	985,326	351,902	7,099,192
Arcano KRS Fund I, L.P.	36,000,000	15,587,717	6,264,040	0	0	6,264,040	4,852,329	1,949,944	0	0	1,949,944
Arcos Sports Partners Fund II	85,000,000	42,000,000	12,158,251	0	0	12,158,251	18,000,000	5,210,679	0	0	5,210,679
Arcos Sports Partners Fund II Co-Investments LP	85,000,000	42,000,000	8,433,471	0	0	8,433,471	18,000,000	3,614,345	0	0	3,614,345
Ares Special Situations Fund IV, L.P.	26,192,000	17,935,797	13,204,328	0	0	13,204,328	6,121,833	4,506,892	0	0	4,506,892
Barings Euro Real Estate II	160,650,004	90,381,694	17,631,709	4,254,766	0	21,484,575	28,579,630	5,575,330	1,345,401	0	6,793,646
Barings Real Estate European Value Add I SCSp	113,400,003	63,798,843	9,582,294	846,262	0	10,213,908	20,173,856	3,030,021	267,597	0	3,229,744
Bay Hills Capital I, L.P.	67,500,000	29,226,970	2,241,524	0	0	2,241,524	9,098,116	697,768	0	0	697,768
Bay Hills Capital III, L.P.	51,250,000	35,095,051	35,881,432	0	2,769,941	33,111,491	11,978,618	12,247,025	0	945,434	11,301,590
Bay Hills Emerging Partners II LP	45,000,000	19,484,647	42,410,598	0	155,877	42,254,721	6,065,411	13,202,072	0	48,523	13,153,548
Bay Hills Emerging Partners II-B LP	45,000,000	19,484,647	28,411,107	0	584,539	27,826,568	6,065,411	8,844,145	0	181,962	8,662,183
BDCM Opportunity Fund IV, L.P.	35,580,000	24,364,524	42,293,678	0	1,621,195	40,672,483	8,316,082	14,435,648	0	553,345	13,882,303
Blackstone Capital Partners V, L.P.	47,174,735	20,426,290	9,208	0	0	9,208	6,358,537	2,866	0	0	2,866
Blackstone Capital Partners VI, L.P.	60,000,000	38,220,311	11,294,780	0	1,151,877	10,142,903	18,479,695	5,461,077	0	556,938	4,904,140
Blue Torch Credit Opportunities Fund II LP	140,000,000	77,659,705	85,004,096	0	0	85,004,096	26,221,374	28,701,167	0	0	28,701,167
BSP Co-Invest Vehicle K LP	37,262,028	21,962,420	22,979,120	0	606,097	22,373,023	7,274,035	7,610,770	0	200,742	7,410,029
BSP Private Credit Fund	100,000,000	58,940,485	54,218,457	0	1,710,772	52,507,686	19,521,309	17,957,355	0	566,614	17,390,741
BTG Pactual Brazil Timberland Fund I	34,500,000	23,847,150	16,630,285	0	0	16,630,285	7,642,335	5,329,535	0	0	5,329,535
Cerberus KRS Levered Loan Opportunities Fund, L.P.	140,000,000	82,516,679	112,891,645	0	0	114,916,016	27,329,832	37,390,134	0	0	38,060,614
Ceres Farms	100,000,000										
Columbia Capital Equity Partners IV, L.P.	27,000,000	11,690,788	1,409,527	0	0	1,409,527	3,639,247	438,774	0	0	438,774
Crestview Partners II, L.P.	67,500,000	29,226,970	11,110,121	111,698	2,091,038	9,130,781	9,098,116	3,458,490	34,771	650,923	2,842,337
Crestview Partners III, L.P.	39,000,000	26,706,479	17,513,179	3,507,393	475,173	20,545,399	9,115,436	5,977,586	1,197,141	162,186	7,012,541
CS Adjacent Investment Partners Parallel LP	140,000,000	82,516,679	69,026,693	416,881	2,732,931	66,710,643	27,329,832	22,861,898	138,072	905,157	22,094,814
CVC European Equity Partners VI, L.P.	23,674,432	16,211,813	15,184,493	329,551	603,165	14,571,736	5,533,404	5,182,760	112,482	205,872	4,973,614
DAG Ventures II, L.P.	27,000,000	11,690,788	486,917	0	0	486,917	3,639,247	151,573	0	0	151,573
DAG Ventures III, L.P.	27,000,000	11,690,788	76,194	0	0	76,194	3,639,247	23,719	0	0	23,719
DAG Ventures IV, L.P.	90,000,000	38,969,294	9,523,694	0	0	9,523,694	12,130,822	2,964,648	0	0	2,964,648
DAG Ventures V, L.P.	8,000,000	5,096,042	9,075	0	0	9,075	2,463,959	4,388	0	0	4,388
DCM VI, L.P.	13,500,000	5,845,394	1,231,173	0	464,562	766,611	1,819,623	383,254	0	144,614	238,640
DivcoWest Fund IV	20,800,000	14,568,740	716,295	0	0	716,295	4,539,761	223,205	0	0	223,205
Fundamental Partners III LP	70,000,000	39,382,001	32,093,521	0	1,586,385	30,507,136	12,452,997	10,148,305	0	501,631	9,646,673
Green Equity Investors V, L.P.	90,000,000	38,969,294	462,420	0	0	462,420	12,130,822	143,948	0	0	143,948
Green Equity Investors VI, L.P.	32,000,000	20,384,166	23,851,795	0	606,572	23,245,223	9,855,837	11,532,451	0	293,280	11,239,171
Green Equity Investors VII LP	25,000,000	17,900,000	20,120,467	0	0	20,120,467	5,575,000	6,266,570	0	0	6,266,570
Greenfield Acquisition Partners VII, L.P.	27,800,000	19,471,678	1,231,903	0	146,630	1,085,273	6,067,572	383,873	0	45,691	338,182
H.I.G. BioVentures II, L.P.	13,500,000	8,599,570	4,359,939	0	0	4,359,939	4,157,931	2,108,050	0	0	2,108,050
H.I.G. Capital Partner V, L.P.	13,100,000	8,970,638	5,424,363	0	822,494	4,601,869	3,061,852	1,851,440	0	280,733	1,570,706
H.I.G. Ventures II, L.P.	18,000,000	7,793,859	1,189,375	0	0	1,189,375	2,426,164	370,243	0	0	370,243
H&F Spock I LP	3,250,153	1,407,291	4,536,047	0	0	4,536,047	438,078	1,412,034	0	0	1,412,034
Harvest Partners VI, L.P.	28,400,000	20,768,921	3,398,258	0	0	3,398,258	5,782,239	946,103	0	0	946,103
Harvest Partners VII LP	20,000,000	14,320,000	19,401,986	8,938	164,191	19,243,251	4,460,000	6,042,798	2,784	51,138	5,993,359
Hellman and Friedman Capital Partners VI, L.P.	20,000,000	8,659,843	0	0	0	0	2,695,738	0	0	0	0

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the period January 1, 2024 thru March 31, 2024
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
Horsley Bridge International Fund V, L.P.	45,000,000	19,484,647	36,615,576	0	760,728	35,854,848	6,065,411	11,398,129	0	236,808	11,161,321
IFM US Infrastructure Debt Fund	70,000,000	39,669,146	41,086,716	1,097,398	1,097,398	41,086,716	13,660,943	14,149,114	377,913	377,913	14,149,114
Kayne Anderson Energy Fund VII LP	50,000,000	35,800,000	19,701,382	0	0	19,701,382	11,150,000	6,136,045	0	0	6,136,045
KCP IV Co-Invest	12,808,800	8,771,229	1,614,602	0	0	1,578,572	2,993,789	551,095	0	0	538,797
Keyhaven Capital Partners Fund III, L.P.	27,250,767	11,799,368	3,894,956	0	0	3,808,041	3,673,047	1,212,468	0	0	1,185,412
Keyhaven Capital Partners IV LP	12,808,800	8,771,229	8,826,595	0	655,910	7,971,987	2,993,789	3,012,687	0	223,875	2,720,993
Levine Leichtman Capital Partners V, L.P.	46,000,000	31,499,949	1,274,437	0	724	1,273,712	10,751,540	434,990	0	247	434,742
Levine Leichtman Capital Partners VI LP	37,500,000	26,849,987	41,226,738	189,794	97,939	41,318,592	8,362,509	12,840,190	59,112	30,504	12,868,799
Lubert Adler VII	34,750,000	24,338,900	8,766,534	0	0	8,766,534	7,585,925	2,732,345	0	0	2,732,345
Lubert-Adler Real Estate Fund VII-B LP	36,750,000	20,675,550	5,895,877	0	827,027	5,068,850	6,537,824	1,864,337	0	261,514	1,602,823
Magentar MTP Energy Opportunities Fund II LLC	37,500,000	26,265,000	110,249	0	0	110,249	8,186,251	34,362	0	0	34,362
Maritime Partners LP	175,000,000	87,500,000	0	66,890,284	1,413,079	65,477,206	35,000,000	0	26,756,114	565,231	26,190,882
Mesa West Core Lending Fund, LP	57,500,000	36,357,250	34,737,435	360,831	360,831	34,737,435	11,459,750	10,949,186	113,734	113,734	10,949,186
Mesa West Real Estate Income Fund IV LP	36,000,000	15,587,717	5,947,842	0	0	5,947,842	4,852,329	1,851,515	0	0	1,851,515
MiddleGround Partners I LP	50,000,000	35,875,000	32,212,319	4,159,667	0	36,371,985	11,200,000	10,056,529	1,298,628	0	11,355,156
MiddleGround Partners II LP	50,000,000	27,301,556	28,588,156	1,670,512	0	30,258,668	9,256,264	9,692,470	566,367	0	10,258,837
MiddleGround Partners II-X LP	25,000,000	13,650,778	15,160,937	857,523	0	16,018,461	4,628,132	5,140,133	290,733	0	5,430,866
Mill Road Capital I, L.P.	27,000,000	11,690,788	721,519	0	0	721,519	3,639,247	224,603	0	0	224,603
New Mountain Partners III, L.P.	32,337,197	14,001,752	576,454	0	0	576,454	4,358,631	179,445	0	0	179,445
New Mountain Partners IV, L.P.	32,800,000	22,460,833	5,860,634	4,363	668,372	5,196,049	7,666,315	2,000,347	1,489	228,128	1,773,512
New State Capital Partners Fund III LP	17,500,000	9,555,545	3,406,151	0	0	3,406,151	3,239,692	1,154,814	0	0	1,154,814
Oberland Capital Healthcare LP	3,450,000	2,475,375	4,380,584	0	0	4,380,584	772,800	1,367,596	0	0	1,367,596
Patron Capital V LP	38,880,001	21,873,889	9,437,193	625,745	681,339	9,162,278	6,916,751	2,984,138	197,867	215,446	2,897,207
Riverside Capital Appreciation Fund VI, L.P.	35,500,000	25,961,146	8,812,504	216,153	0	9,028,657	7,227,806	2,453,477	60,179	0	2,513,655
Rubenstein Properties Fund II	20,800,000	14,568,738	4,822,988	0	0	4,822,988	4,539,767	1,502,892	0	0	1,502,892
Secondary Opportunities Fund III, L.P.	25,000,000	19,411,552	3,796,202	0	0	3,796,202	5,588,448	1,092,900	0	0	1,092,900
Strategic Value Special Situations Fund IV LP	43,300,000	31,067,750	36,968,887	0	2,671,827	34,297,060	9,699,200	11,541,506	0	834,131	10,707,375
Strategic Value Special Situations Fund V LP	70,000,000	38,222,178	25,273,767	2,837,997	0	28,111,764	12,958,769	8,568,767	962,189	0	9,530,955
Taurus Mining Finance Fund LLC	45,100,000	30,883,643	2,211,068	0	0	2,211,068	10,541,186	754,680	0	0	754,680
Tenaska Power Fund II, L.P.	27,000,000	12,131,225	34,385	0	0	34,385	4,055,317	11,494	0	0	11,494
Triton Fund IV, L.P.	27,171,637	18,606,634	10,588,855	327,415	98,902	10,580,999	6,350,803	3,614,180	111,753	33,757	3,611,499
VantagePoint Venture Partners 2006, L.P.	27,000,000	11,690,788	1,905,884	0	0	1,905,884	3,639,247	593,286	0	0	593,286
VantagePoint Venture Partners IV, L.P.	36,000,000	15,587,717	26,275	0	0	26,275	4,852,329	8,179	0	0	8,179
Vista Equity Partners III, L.P.	45,000,000	19,484,647	887,626	0	0	887,626	6,065,411	276,311	0	0	276,311
Vista Equity Partners IV, L.P.	27,000,000	17,199,140	12,393,307	57,849	0	12,451,156	8,315,863	5,992,221	27,970	0	6,020,191
Vista Equity Partners VI LP	25,000,000	17,900,000	19,420,421	0	24,847	19,395,574	5,575,000	6,048,539	0	7,739	6,040,801
Walton Street Real Estate Fund VI, LP	36,000,000	17,056,796	7,024,951	0	0	7,024,951	6,030,018	2,483,502	0	0	2,483,502
Walton Street Real Estate Fund VII, LP	38,120,000	26,700,008	4,460,944	-15	417,770	4,043,174	8,319,997	1,390,076	-5	130,182	1,259,895
Warburg, Pincus Private Equity IX, L.P.	50,000,000	21,649,608	25,614	0	0	25,614	6,739,345	7,973	0	0	7,973
Warburg, Pincus Private Equity X, L.P.	38,750,000	16,778,446	307,536	0	0	307,536	5,222,993	95,733	0	0	95,733
Wayzata Opportunities Fund III, L.P.	35,500,000	25,961,146	3,184,477	0	0	3,184,477	7,227,806	886,586	0	0	886,586
White Oak Yield Spectrum Parallel Fund LP	100,000,000	58,940,485	0	0	0	82,923,040	19,521,309	0	0	0	27,464,420

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the period January 1, 2024 thru March 31, 2024
County Employees Retirement System**

Insurance Funds Managers	Total Insurance Fund Commitment	CERS	CERS Beginning	CERS Period	CERS Period	CERS Ending	CERS Haz	CERS Haz	CERS Haz	CERS Haz	CERS Haz
		Commitment	Valuation	Contributions	Distributions	Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
Adams Street SPC II A1	75,000,000	34,007,112	28,574,781	0	1,449,909	27,124,873	17,965,829	15,095,950	0	765,981	14,329,968
Adams Street SPC II B1	75,000,000	34,007,113	28,723,617	109,948	852,797	27,980,768	17,965,828	15,174,578	58,085	450,530	14,782,133
AMERRA Agri Fund II, LP	16,200,000	7,502,182	3,189,998	0	88,140	3,101,859	4,141,562	1,761,031	0	48,657	1,712,374
AMERRA-KRS Agri Holding Company, LP	35,000,000	16,208,417	7,408,198	1,128,944	403,195	8,133,948	8,947,820	4,089,679	623,231	222,583	4,490,327
Arcano KRS Fund I, L.P.	4,000,000	1,611,501	647,594	0	0	647,594	862,625	346,652	0	0	346,652
Arcetos Sports Partners Fund II	40,000,000	20,500,000	5,934,385	0	0	5,934,385	7,000,000	2,026,375	0	0	2,026,375
Arcetos Sports Partners Fund II Co-Investments LP	40,000,000	20,500,000	4,116,337	0	0	4,116,337	7,000,000	0	0	0	1,405,578
Ares Special Situations Fund IV, L.P.	13,808,000	7,867,793	5,792,267	0	0	5,792,267	4,255,629	3,132,993	0	0	3,132,993
Barings Euro Real Estate II	68,850,002	31,615,923	6,167,651	1,488,336	0	7,515,400	17,350,197	3,384,686	816,770	0	4,124,304
Barings Real Estate European Value Add I SCSp	48,600,001	22,317,122	3,351,930	296,027	0	3,572,872	12,247,198	1,839,473	162,454	0	1,960,722
Bay Hills Capital I, L.P.	75,000,000	30,215,638	231,735	0	0	231,735	16,174,225	124,046	0	0	124,046
Bay Hills Capital III, L.P.	48,750,000	27,777,730	25,543,189	0	1,968,658	23,574,532	15,024,764	13,816,118	0	1,064,832	12,751,286
Bay Hills Emerging Partners II LP	5,000,000	2,014,376	4,384,523	0	16,115	4,368,408	1,078,282	2,347,005	0	8,626	2,338,379
Bay Hills Emerging Partners II-B LP	5,000,000	2,070,000	3,018,324	0	62,100	2,956,224	1,250,000	1,822,660	0	37,500	1,785,160
BDCM Opportunity Fund IV, L.P.	24,420,000	13,914,506	24,153,798	0	925,860	23,227,938	7,526,253	13,064,611	0	500,791	12,563,820
Blackstone Capital Partners V, L.P.	12,414,403	5,001,455	2,160	0	0	2,160	2,677,245	1,156	0	0	1,156
Blackstone Capital Partners VI, L.P.	40,000,000	21,919,994	6,477,749	0	660,621	5,817,128	13,120,008	3,877,196	0	395,409	3,481,788
Blue Torch Credit Opportunities Fund II LP	60,000,000	27,169,450	29,738,905	0	0	29,738,905	14,281,092	15,631,675	0	0	15,631,675
BSP Co-Invest Vehicle K LP	17,252,566	7,709,915	8,002,798	0	211,217	7,791,582	4,204,913	4,364,649	0	115,196	4,249,454
BSP Private Credit Fund	50,000,000	22,344,255	20,554,140	0	648,551	19,905,589	12,186,342	11,210,030	0	353,713	10,856,317
BTG Pactual Brazil Timberland Fund I	15,500,000	7,016,381	4,893,013	0	0	4,893,013	3,855,131	2,688,452	0	0	2,688,452
Cerberus KRS Levered Loan Opportunities Fund, L.P.	60,000,000	26,813,106	36,683,198	0	0	37,341,001	14,623,610	20,006,663	0	0	20,365,422
Ceres Farms	50,000,000	0	0	0	0	0	0	0	0	0	0
Columbia Captal Equity Partners IV, L.P.	3,000,000	1,208,626	145,721	0	0	145,721	646,969	78,004	0	0	78,004
Crestview Partners II, L.P.	7,500,000	3,021,564	1,148,586	11,548	216,177	943,957	1,617,422	614,830	6,181	115,718	505,294
Crestview Partners III, L.P.	21,000,000	11,965,793	7,846,747	1,571,482	212,898	9,205,331	6,472,206	4,244,245	850,002	115,155	4,979,093
CS Adjacent Investment Partners Parallel LP	60,000,000	26,813,106	22,429,648	135,462	888,043	21,677,067	14,623,610	12,232,914	73,880	484,330	11,822,464
CVC European Equity Partners VI, L.P.	13,068,216	7,446,264	6,676,231	144,895	265,196	6,406,817	4,027,628	3,611,123	78,373	143,443	3,465,399
DAG Ventures II, L.P.	3,000,000	1,208,626	50,335	0	0	50,335	646,969	26,944	0	0	26,944
DAG Ventures III, L.P.	3,000,000	1,208,626	7,872	0	0	7,872	646,969	4,214	0	0	4,214
DAG Ventures IV, L.P.	10,000,000	4,028,752	984,585	0	0	984,585	2,156,563	527,042	0	0	527,042
DAG Ventures V, L.P.	7,000,000	3,835,999	6,826	0	0	6,826	2,296,001	4,086	0	0	4,086
DCM VI, L.P.	1,500,000	604,313	127,282	0	48,028	79,255	323,484	68,133	0	25,709	42,425
DivcoWest Fund IV	9,200,000	4,244,869	208,708	0	0	208,708	2,306,449	113,402	0	0	113,402
Fundamental Partners III LP	30,000,000	13,776,001	11,226,461	0	554,925	10,671,536	7,559,998	6,160,861	0	304,532	5,856,329
Green Equity Investors V, L.P.	10,000,000	4,028,752	47,806	0	0	47,806	2,156,563	25,590	0	0	25,590
Green Equity Investors VI, L.P.	28,000,000	15,343,995	17,954,229	0	456,592	17,497,637	9,184,005	10,746,336	0	273,289	10,473,048
Green Equity Investors VII LP	25,000,000	10,349,999	11,633,900	0	0	11,633,900	6,250,000	7,025,303	0	0	7,025,303
Greenfield Acquisition Partners VII, L.P.	12,200,000	5,628,527	356,097	0	42,386	313,712	3,058,186	193,481	0	23,030	170,451
H.I.G. BioVentures II, L.P.	11,500,000	6,301,998	3,195,082	0	0	3,195,082	3,772,002	1,912,386	0	0	1,912,386
H.I.G. Capital Partner V, L.P.	6,900,000	3,931,617	2,377,369	0	360,480	2,016,889	2,126,582	1,285,901	0	194,981	1,090,920
H.I.G. Ventures II, L.P.	2,000,000	805,750	122,960	0	0	122,960	431,313	65,820	0	0	65,820
H&F Spock I LP	1,794,672	723,029	1,582,702	0	0	1,582,702	387,032	847,209	0	0	847,209
Harvest Partners VI, L.P.	11,600,000	6,609,681	1,081,492	0	0	1,081,492	3,575,121	584,970	0	0	584,970
Harvest Partners VII LP	20,000,000	8,279,999	11,218,466	5,168	94,937	11,126,683	5,000,000	6,774,437	3,121	57,329	6,719,013
Hellman and Friedman Capital Partners VI, L.P.	7,500,000	3,021,564	0	0	0	0	1,617,422	0	0	0	0

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the period January 1, 2024 thru March 31, 2024
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
Horsley Bridge International Fund V, L.P.	5,000,000	2,014,376	3,785,408	0	78,646	3,706,763	1,078,282	2,026,303	0	42,098	1,984,205
IFM US Infrastructure Debt Fund	30,000,000	13,890,494	14,386,868	384,263	384,263	14,386,868	7,156,853	7,412,601	197,985	197,985	7,412,601
Kayne Anderson Energy Fund VII LP	50,000,000	20,699,998	11,391,580	0	0	11,391,580	12,500,001	6,878,975	0	0	6,878,975
KCP IV Co-Invest	8,791,200	5,009,222	922,094	0	0	901,518	2,709,451	498,754	0	0	487,624
Keyhaven Capital Partners Fund III, L.P.	3,024,000	1,218,295	402,671	0	0	393,686	652,145	215,547	0	0	210,737
Keyhaven Capital Partners IV LP	8,791,200	5,009,222	5,040,843	0	374,589	4,552,778	2,709,451	2,726,554	0	202,612	2,462,564
Levine Leichtman Capital Partners V, L.P.	24,000,000	13,675,190	553,278	0	315	552,963	7,396,807	299,264	0	170	299,094
Levine Leichtman Capital Partners VI LP	37,500,000	15,525,007	23,837,828	109,741	56,630	23,890,939	9,374,983	14,394,792	66,269	34,197	14,426,864
Lubert Adler VII	15,250,000	7,036,350	2,534,395	0	0	2,534,395	3,823,174	1,377,054	0	0	1,377,054
Lubert-Adler Real Estate Fund VII-B LP	15,750,000	7,232,401	2,062,404	0	289,298	1,773,107	3,968,999	1,131,807	0	158,761	973,046
Magentar MTP Energy Opportunities Fund II LLC	12,500,000	5,764,587	24,197	0	0	24,197	3,188,762	13,385	0	0	13,385
Maritime Partners LP	75,000,000	37,500,000	28,061,660	0	732,197	27,329,463	15,000,000	11,224,664	0	292,879	10,931,785
Mesa West Core Lending Fund, LP	29,600,000	13,790,640	19,494,022	202,500	202,500	19,494,022	7,619,040	10,770,039	111,877	111,877	10,770,039
Mesa West Real Estate Income Fund IV LP	14,000,000	6,428,800	2,453,052	0	0	2,453,052	3,527,999	1,346,187	0	0	1,346,187
MiddleGround Partners I LP	25,000,000	3,750,000	3,367,142	434,808	0	3,801,951	1,999,999	1,795,808	231,898	0	2,027,706
MiddleGround Partners II LP	25,000,000	11,262,207	11,792,924	689,105	0	12,482,030	5,794,817	6,067,890	354,570	0	6,422,460
MiddleGround Partners II-X LP	12,500,000	5,631,103	6,254,059	353,738	0	6,607,798	2,897,408	3,217,942	182,011	0	3,399,953
Mill Road Capital I, L.P.	3,000,000	1,208,626	74,592	0	0	74,592	646,969	39,929	0	0	39,929
New Mountain Partners III, L.P.	7,186,045	2,895,079	119,190	0	0	119,190	1,549,716	63,801	0	0	63,801
New Mountain Partners IV, L.P.	17,200,000	9,800,553	2,557,220	1,904	291,638	2,267,235	5,301,045	1,383,181	1,030	157,745	1,226,330
New State Capital Partners Fund III LP	7,500,000	3,378,662	1,204,352	0	0	1,204,352	1,738,445	619,683	0	0	619,683
Oberland Capital Healthcare LP	15,500,000	4,840,652	856,633	0	0	856,633	2,631,898	465,757	0	0	465,757
Patron Capital V LP	15,120,000	6,943,105	2,995,562	198,621	216,267	2,908,299	3,810,239	1,643,906	108,999	118,683	1,596,017
Riverside Capital Appreciation Fund VI, L.P.	18,712,500	10,748,972	3,648,701	89,496	0	3,738,197	5,705,349	1,936,660	47,503	0	1,984,163
Rubenstein Properties Fund II	9,200,000	4,244,871	1,405,267	0	0	1,405,267	2,306,445	763,550	0	0	763,550
Secondary Opportunities Fund III, L.P.	75,000,000	34,884,827	6,822,219	0	0	6,822,219	18,849,301	3,686,246	0	0	3,686,246
Strategic Value Special Situations Fund IV LP	21,700,000	6,776,910	8,064,131	0	582,814	7,481,317	3,684,660	4,384,533	0	316,881	4,067,652
Strategic Value Special Situations Fund V LP	30,000,000	13,514,648	8,936,324	1,003,463	0	9,939,787	6,953,780	4,598,065	516,318	0	5,114,383
Taurus Mining Finance Fund LLC	19,900,000	11,339,013	811,799	0	0	811,799	6,133,188	439,096	0	0	439,096
Tenaska Power Fund II, L.P.	3,000,000	1,278,755	3,625	0	0	3,625	678,044	1,922	0	0	1,922
Triton Fund IV, L.P.	13,979,520	7,965,525	4,644,405	143,608	43,380	4,640,959	4,308,492	2,512,124	77,677	23,464	2,510,260
VantagePoint Venture Partners 2006, L.P.	3,000,000	1,208,626	197,036	0	0	197,036	646,969	105,472	0	0	105,472
VantagePoint Venture Partners IV, L.P.	4,000,000	1,611,501	2,716	0	0	2,716	862,625	1,454	0	0	1,454
Vista Equity Partners III, L.P.	5,000,000	2,014,376	91,768	0	0	91,768	1,078,282	49,123	0	0	49,123
Vista Equity Partners IV, L.P.	23,000,000	12,603,996	9,082,153	42,392	0	9,124,545	7,544,005	5,436,038	25,373	0	5,461,412
Vista Equity Partners VI LP	25,000,000	10,349,999	11,229,125	0	14,367	11,214,759	6,250,000	6,780,874	0	8,676	6,772,198
Walton Street Real Estate Fund VI, LP	4,000,000	1,712,019	705,106	0	0	705,106	917,457	377,860	0	0	377,860
Walton Street Real Estate Fund VII, LP	16,755,000	7,730,005	1,291,502	-4	120,950	1,170,552	4,199,996	701,721	-2	65,717	636,004
Warburg, Pincus Private Equity IX, L.P.	10,000,000	4,028,752	4,766	0	0	4,766	2,156,563	2,551	0	0	2,551
Warburg, Pincus Private Equity X, L.P.	7,500,000	3,021,564	55,359	0	0	55,359	1,617,422	29,634	0	0	29,634
Wayzata Opportunities Fund III, L.P.	18,712,500	10,748,972	1,318,504	0	0	1,318,504	5,705,349	699,837	0	0	699,837
White Oak Yield Spectrum Parallel Fund LP	50,000,000	22,344,255	30,018,435	0	428,993	29,589,443	12,186,342	16,371,766	0	233,969	16,137,797

Kentucky Public Pensions Authority

CERS & CERS-Hazardous Unit Holdings

Quarter Ending: March 31, 2024

CERS Investment Committee Meeting - Investment Office Quarterly Update

Kentucky Public Pensions Authority								
Pension: CERS & CERS-H Unit Holdings								
Quarter Ended March 31, 2024								
UNIT OF PARTICIPATION	CERS				CERS-H			
	Shares/Par	Base Cost	Base Market Value	Base Market Unrealized G/L	Shares/Par	Base Cost	Base Market Value	Base Market Unrealized G/L
Grand Total	45,361,830.229	7,412,696,602.100	9,518,354,564.880	2,105,657,962.780	16,298,776.577	2,650,510,831.490	3,354,701,178.900	704,190,347.410
KRS ABSOLUTE RETURN UNIT	464,367.13	57,958,102.79	59,482,718.04	1,524,615.25	147,094.799	18,425,437.44	18,841,984.87	416,547.43
KRS ADAMS STREET A1 UNIT	450,036.19	73,635,046.41	77,469,113.29	3,834,066.88	151,747.047	24,828,893.11	26,121,697.52	1,292,804.41
KRS ADAMS STREET B1 UNIT	553,588.10	78,316,775.46	79,913,565.29	1,596,789.83	186,663.565	26,407,517.72	26,945,938.76	538,421.04
KRS ADAMS STREET III A1 UNIT	428.47	42,847.30	42,847.30	-	156.976	15,697.63	15,697.60	-0.03
KRS ADAMS STREET III B1 UNIT	428.47	0.01	27,715.63	27,715.62	156.976	0.00	10,153.94	10,153.94
KRS AMERRA AGRI UNIT	296,224.91	28,738,197.56	22,484,817.54	(6,253,380.02)	93,527.898	9,073,587.84	7,099,192.64	-1,974,395.20
KRS AMERRA UNIT	65,015.95	11,206,674.81	11,448,140.95	241,466.14	20,527.662	3,538,316.48	3,614,552.32	76,235.84
KRS ARCTOS SPORTS II UNIT	119,730.42	15,935,583.56	20,591,722.52	4,656,138.96	51,313.038	6,856,829.81	8,825,023.94	1,968,194.13
KRS ARROWMARK UNIT	1,387,072.46	182,478,808.44	334,834,422.07	152,355,613.63	458,544.662	60,324,382.39	110,691,071.46	50,366,689.07
KRS BLACKROCK UNIT	2,925,438.07	333,525,444.84	562,165,683.16	228,640,238.32	1,024,153.712	122,553,376.36	196,806,104.79	74,252,728.43
KRS BLUE TORCH UNIT	483,961.91	86,919,362.15	85,004,095.65	(1,915,266.50)	163,407.083	29,347,845.33	28,701,166.64	-646,678.69
KRS BNYM CUSTODY FEE UNIT	(419,803.76)	(419,803.76)	(419,803.76)	-	-	-147,838.70	-147,838.70	0.00
KRS BTG UNIT	162,323.55	10,665,835.42	16,630,284.38	5,964,448.96	52,020.095	3,418,096.70	5,329,534.68	1,911,437.98
KRS CASH UNIT	1,516,270.43	151,999,092.61	155,277,034.65	3,277,942.04	985,251.411	101,189,023.70	100,896,855.05	-292,168.65
KRS DB PRIVATE EQ UNIT	14,017.55	5,474,745.46	3,796,202.05	(1,678,543.41)	4,035.553	1,576,140.68	1,092,899.82	-483,240.86
KRS DIVCOWEST IV UNIT	1,339.80	-	716,295.18	716,295.18	417.494	0.00	223,204.50	223,204.50
KRS DOMESTIC EQUITY UNIT	2,951,305.38	691,068,167.53	931,850,286.69	240,782,119.16	1,058,830.651	249,652,099.03	334,317,028.94	84,664,929.91
KRS GLOBAL FIXED UNIT	1,293,936.63	194,374,342.67	183,728,414.47	(10,645,928.20)	505,140.615	73,966,218.26	71,725,834.27	-2,240,383.99
KRS GREENFIELD UNIT	1,396.11	2.43	-	(2.43)	435.043	1.32	0.00	-1.32
KRS GREENFIELD VII UNIT	3,970.24	1,228,015.17	1,085,272.44	(142,742.73)	1,237.166	382,661.64	338,182.04	-44,479.60
KRS HARRISON UNIT	639,390.83	124,993,200.76	137,856,080.28	12,862,879.52	199,992.765	39,099,011.25	43,119,508.90	4,020,497.65
KRS IFM INFRAST DEBT UNIT	267,825.44	42,823,179.27	41,086,716.38	(1,736,462.89)	92,231.578	14,747,106.13	14,149,114.12	-597,992.01
KRS INTERNAL EQUITY UNIT	5,527,244.43	1,310,555,240.60	2,133,432,728.38	822,877,487.78	1,909,008.394	461,454,149.62	736,848,358.70	275,394,209.08
KRS INTERNAL PRIVATE EQUITY	14,851.99	1,509,224.26	1,609,087.29	99,863.03	126,241.912	12,828,407.56	13,677,241.64	848,834.08
KRS INTERNATIONAL EQUITY UNIT	7,501,250.52	1,226,942,434.45	1,419,459,730.77	192,517,296.32	2,621,632.329	432,523,381.88	496,090,819.72	63,567,437.84
KRS L-A VII UNIT	142,596.53	12,151,044.12	8,766,534.34	(3,384,509.78)	44,444.354	3,787,226.15	2,732,345.24	-1,054,880.91
KRS LIQUID CORE FIXED UNIT	6,995,254.35	913,022,743.03	916,025,849.45	3,003,106.42	2,462,329.876	320,798,192.21	322,441,144.34	1,642,952.13
KRS LIQUID HY FI UNIT	1,171,883.30	212,955,992.42	201,154,656.56	(11,801,335.86)	459,857.435	83,288,301.41	78,934,877.29	-4,353,424.12
KRS MAGNETAR MTP UNIT	113.93	107,920.94	80,829.73	(27,091.21)	36.025	34,126.05	25,558.82	-8,567.23
KRS MARITIME PARTNERS UNIT	637,687.47	63,768,747.46	63,768,747.40	(0.06)	255,074.989	25,507,498.98	25,507,498.90	-0.08
KRS MESA WEST CORE UNIT	205,495.93	40,557,561.13	34,737,435.04	(5,820,126.09)	64,772.004	12,783,682.90	10,949,186.38	-1,834,496.52
KRS MESA WEST IV UNIT	105,087.79	11,107,140.23	7,728,214.18	(3,378,926.05)	33,229.849	3,512,193.43	2,443,741.54	-1,068,451.89
KRS MULTI SECTOR CREDIT FI	1,492,072.54	174,463,979.36	257,022,899.62	82,558,920.26	490,250.072	57,318,511.84	84,449,979.31	27,131,467.47
KRS OBERLAND UNIT	52,782.63	3,481,792.35	4,380,584.39	898,792.04	16,478.469	1,086,997.05	1,367,596.28	280,599.23
KRS PE 2010 UNIT	495,662.44	107,299,663.19	150,309,430.14	43,009,766.95	154,295.660	33,402,459.35	46,790,094.86	13,387,635.51
KRS PE 2011 UNIT	147,690.17	33,535,532.43	50,208,295.81	16,672,763.38	71,408.871	16,213,110.66	24,275,940.42	8,062,829.76
KRS PE 2012 A UNIT	6,977.99	2,954,616.04	3,398,258.11	443,642.07	1,942.729	822,589.02	946,103.02	123,514.00
KRS PE 2012 B UNIT	66,919.67	8,958,175.82	12,213,205.78	3,255,029.96	18,631.008	2,494,032.69	3,400,260.91	906,228.22
KRS PE 2013 UNIT	177,463.14	50,086,911.29	69,335,855.65	19,248,944.36	60,571.590	17,086,248.73	23,665,664.14	6,579,415.41
KRS PE 2014 UNIT	249,203.88	23,735,578.09	33,749,729.59	10,014,151.50	85,058.089	8,101,412.41	11,519,433.32	3,418,020.91
KRS PE 2015 UNIT	138,706.92	20,917,651.59	50,223,040.55	29,305,388.96	47,343.345	7,139,598.76	17,142,091.28	10,002,492.52
KRS PE 2016 UNIT	299,377.41	32,884,128.59	78,460,672.87	45,576,544.28	93,241.854	10,241,844.73	24,436,775.49	14,194,930.76
KRS PE 2017 UNIT	198,676.17	22,466,991.53	41,318,591.85	18,851,600.32	61,878.285	6,997,411.55	12,868,798.78	5,871,387.23
KRS PE 2018 UNIT	184,925.04	30,446,197.44	34,297,060.59	3,850,863.15	57,732.697	9,505,154.74	10,707,375.19	1,202,220.45
KRS PE 2019 UNIT	150,940.77	1,022,121.46	36,371,985.25	35,349,863.79	47,122.972	319,101.47	11,355,156.50	11,036,055.03
KRS PE 2021 UNIT	560,521.24	56,523,437.08	77,795,042.22	21,271,605.14	190,037.978	19,163,592.27	26,375,472.64	7,211,880.37
KRS PERIMETER PARK UNIT	16,232.81	2,200,034.97	1,682,488.76	(517,546.21)	17,672.730	2,395,186.73	1,831,732.41	-563,454.32
KRS POST-2015 REAL ESTATE UNIT	634,009.30	59,400,306.96	76,436,745.76	17,036,438.80	200,480.327	18,785,478.12	24,170,093.07	5,384,614.95
KRS PRIVATE CREDIT FI UNIT	1,538,344.09	329,985,637.44	339,430,406.06	9,444,768.62	509,505.308	109,285,868.89	112,420,617.97	3,134,749.08
KRS PROLOGIS UNIT	741,098.60	93,138,239.13	158,033,123.85	64,894,884.72	234,343.128	29,451,284.50	49,971,726.53	20,520,442.03
KRS REAL RETURN UNIT	581,617.44	90,386,468.40	136,043,578.83	45,657,110.43	200,292.758	30,976,431.04	46,849,598.94	15,873,167.90
KRS RUBENSTEIN PF II UNIT	72,479.81	12,454,853.56	4,822,988.44	(7,631,865.12)	22,585.445	3,881,058.17	1,502,892.29	-2,378,165.88
KRS SHENKMAN UNIT	827,106.62	144,352,152.27	144,595,267.00	243,114.73	278,784.448	48,613,114.95	48,737,261.40	124,146.45
KRS STOCKBRIDGE UNIT	280,090.75	51,057,842.33	56,850,146.74	5,792,304.41	89,313.398	16,280,970.98	18,127,980.76	1,847,009.78
KRS TAURUS UNIT	6,569.89	254,593.90	2,211,067.93	1,956,474.03	2,242.430	86,896.98	754,680.19	667,783.21
KRS TPF II UNIT	351.77	3,984,457.84	34,384.84	(3,950,073.00)	117.591	1,331,957.03	11,494.42	-1,320,462.61
KRS WALTON VI UNIT	37,111.48	7,185,967.21	7,024,951.15	(161,016.06)	13,119.868	2,540,423.71	2,483,501.78	-56,921.93
KRS WALTON VII UNIT	27,606.96	10,000,235.57	4,043,170.04	(5,957,065.53)	8,602.613	3,116,175.20	1,259,893.28	-1,856,281.92
KRS WATERFALL UNIT	897,560.19	155,877,366.73	176,226,155.72	20,348,788.99	300,048.662	52,102,355.61	58,911,283.05	6,808,927.44

CERS Investment Committee Meeting - Investment Office Quarterly Update

Kentucky Public Pensions Authority								
Insurance: CERS & CERS-H Unit Holdings								
Quarter Ended March 31, 2024								
UNIT OF PARTICIPATION	CERS INS				CERS-H INS			
	Shares/Par	Base Cost	Base Market Value	Base Market Unrealized G/L	Shares/Par	Base Cost	Base Market Value	Base Market Unrealized G/L
Grand Total	18,604,735.963	2,791,523,099.080	3,563,663,759.680	772,140,660.600	8,932,093.212	1,319,879,123.140	1,719,596,964.130	399,717,840.990
KRS ABSOLUTE RETURN UNIT	151,068.33	15,654,478.72	19,376,075.93	3,721,597.21	84,638.61	8,965,727.21	10,855,777.07	1,890,049.86
KRS ADAMS STREET A1 UNIT	157,574.73	25,782,422.27	27,124,872.82	1,342,450.55	83,246.13	13,620,756.42	14,329,968.20	709,211.78
KRS ADAMS STREET B1 UNIT	193,805.35	27,421,671.33	27,980,767.66	559,096.33	102,386.63	14,486,764.53	14,782,133.25	295,368.72
KRS ADAMS STREET III A1 UNIT	176.49	17,648.52	17,648.50	(0.02)	90.06	9,005.62	9,005.60	(0.02)
KRS ADAMS STREET III B1 UNIT	176.49	0.50	11,415.79	11,415.29	90.06	-	5,825.20	5,825.20
KRS AMERRA AGRI UNIT	107,150.33	10,396,127.67	8,133,948.83	(2,262,178.84)	59,152.09	5,739,158.10	4,490,327.74	(1,248,830.36)
KRS AMERRA UNIT	17,542.54	3,036,435.14	3,101,858.80	65,423.66	9,684.32	1,676,256.76	1,712,374.29	36,117.53
KRS ARCTOS SPORTS II UNIT	58,439.84	7,779,196.56	10,050,721.83	2,271,525.27	19,955.07	2,666,545.10	3,431,953.52	765,408.42
KRS ARROWMARK UNIT	554,115.80	73,670,717.13	135,199,004.46	61,528,287.33	301,875.79	40,135,118.37	73,654,832.97	33,519,714.60
KRS BLACKROCK UNIT	3,012,626.06	151,695,798.18	230,220,696.18	78,524,898.00	1,497,643.56	73,623,793.24	114,447,839.13	40,824,045.89
KRS BLUE TORCH UNIT	169,315.34	30,408,965.19	29,738,905.09	(670,060.10)	88,997.31	15,983,881.12	15,631,675.32	(352,205.80)
KRS BNYM CUSTODY FEE UNIT	(242,209.77)	(242,209.77)	(242,209.77)	-	(117,089.65)	(117,089.65)	(117,089.65)	-
KRS BTG UNIT	47,759.33	3,138,134.27	4,893,012.88	1,754,878.61	26,241.23	1,724,239.21	2,688,452.12	964,212.91
KRS CASH UNIT	371,690.40	39,591,559.80	40,159,779.74	568,219.94	204,128.93	24,289,444.30	22,055,379.16	(2,234,065.14)
KRS DB PRIVATE EQ UNIT	25,211.82	10,639,633.44	6,822,219.87	(3,817,413.57)	13,622.69	5,748,905.48	3,686,246.19	(2,062,659.29)
KRS DVCOWEST IV UNIT	388.17	-	208,708.54	208,708.54	210.91	-	113,401.54	113,401.54
KRS DOMESTIC EQUITY UNIT	1,088,651.35	248,116,133.97	344,283,679.00	96,167,545.03	561,226.41	127,019,098.33	177,486,662.19	50,467,563.86
KRS GLOBAL FIXED UNIT	414,888.34	60,202,425.67	57,769,358.65	(2,433,067.02)	180,172.16	27,126,909.99	25,087,304.07	(2,039,605.92)
KRS GREENFIELD UNIT	406.08	1.34	-	(1.34)	220.64	1.97	-	(1.97)
KRS GREENFIELD VII UNIT	1,147.59	528,512.09	313,712.31	(214,799.78)	623.53	287,159.57	170,451.43	(116,708.14)
KRS HARRISON UNIT	244,840.32	47,533,128.73	51,669,055.42	4,135,926.69	133,920.35	25,993,744.69	28,261,431.28	2,267,686.59
KRS IFM INFRAST DEBT UNIT	94,964.51	14,994,907.33	14,386,868.86	(608,038.47)	48,928.93	7,725,882.76	7,412,601.66	(313,281.10)
KRS INTERNAL EQUITY UNIT	2,060,629.15	504,413,267.97	796,540,462.92	292,127,194.95	944,352.41	218,564,622.64	365,041,377.18	146,476,754.54
KRS INTERNATIONAL EQUITY UNIT	2,843,120.48	462,373,151.89	531,532,510.80	69,159,358.91	1,324,769.98	210,606,719.06	247,670,937.07	37,064,218.01
KRS L-A VII UNIT	41,214.68	3,512,852.94	2,534,394.64	(978,458.30)	22,393.84	1,908,695.45	1,377,053.87	(531,641.58)
KRS LIQUID CORE FIXED UNIT	2,707,308.78	349,063,455.33	350,572,451.39	1,508,996.06	1,157,942.35	150,728,022.80	149,943,254.50	(784,768.30)
KRS LIQUID HY FI UNIT	578,045.67	99,282,280.38	96,592,322.71	(2,689,957.67)	145,481.73	25,828,246.66	24,310,222.23	(1,518,024.43)
KRS MAGNETAR MTP UNIT	33.86	32,308.51	24,197.28	(8,111.23)	18.73	17,869.79	13,384.80	(4,484.99)
KRS MARITIME PARTNERS UNIT	273,294.63	27,329,463.20	27,329,463.10	(0.10)	109,317.85	10,931,785.28	10,931,785.20	(0.08)
KRS MESA WEST CORE UNIT	117,798.21	22,928,096.05	19,494,021.56	(3,434,074.49)	65,081.05	12,668,584.21	10,770,038.62	(1,898,545.59)
KRS MESA WEST IV UNIT	34,504.07	3,506,439.74	2,453,052.41	(1,053,387.33)	18,935.16	1,924,267.60	1,346,187.01	(578,080.59)
KRS MULTI SECTOR CREDIT FI	531,206.77	61,318,766.92	90,203,071.17	28,884,304.25	290,366.71	33,472,753.13	49,306,541.80	15,833,788.67
KRS OBERLAND UNIT	9,994.39	680,873.48	856,632.63	175,759.15	5,434.02	370,195.18	465,757.53	95,562.35
KRS PE 2010 UNIT	57,304.99	13,032,715.85	17,072,444.37	4,039,728.52	30,674.97	6,976,212.22	9,138,762.37	2,162,550.15
KRS PE 2011 UNIT	102,518.14	22,343,530.92	35,641,217.71	13,297,686.79	61,361.28	13,373,954.64	21,332,719.37	7,958,764.73
KRS PE 2012 A UNIT	2,213.50	850,088.30	1,081,491.90	231,403.60	1,197.26	459,805.74	584,970.10	125,164.36
KRS PE 2012 B UNIT	27,578.20	3,665,165.98	5,056,701.01	1,391,535.03	14,637.98	1,945,073.39	2,684,000.19	738,926.80
KRS PE 2013 UNIT	102,673.23	27,786,266.20	39,459,397.06	11,673,130.86	55,535.17	15,029,384.57	21,343,288.79	6,313,904.22
KRS PE 2014 UNIT	110,855.24	10,600,196.81	14,997,599.17	4,397,402.36	59,960.75	5,733,563.99	8,112,086.81	2,378,522.82
KRS PE 2015 UNIT	79,723.50	12,103,534.06	28,682,232.26	16,578,698.20	43,121.85	6,546,710.87	15,514,007.80	8,967,296.93
KRS PE 2016 UNIT	173,110.35	21,034,671.75	45,366,921.91	24,332,250.16	104,535.25	12,702,099.61	27,395,487.89	14,693,388.28
KRS PE 2017 UNIT	115,501.93	15,825,929.54	23,890,939.21	8,065,009.67	69,747.39	9,556,700.20	14,426,863.87	4,870,163.67
KRS PE 2018 UNIT	39,205.89	3,449,353.33	7,481,316.73	4,031,963.40	21,316.55	1,875,440.93	4,067,651.88	2,192,210.95
KRS PE 2019 UNIT	15,777.79	37,651.60	3,801,950.56	3,764,298.96	8,414.82	20,080.93	2,027,706.16	2,007,625.23
KRS PE 2021 UNIT	217,545.56	22,223,534.47	30,233,970.50	8,010,436.03	111,935.13	11,434,820.57	15,556,481.99	4,121,661.42
KRS POST-2015 REAL ESTATE UNIT	220,409.70	20,450,567.71	26,441,214.56	5,990,646.85	120,956.51	11,224,730.87	14,510,418.42	3,285,687.55
KRS PRIVATE CREDIT FI UNIT	536,836.07	113,526,721.38	116,304,684.32	2,777,962.94	292,785.22	61,909,609.75	63,431,455.30	1,521,845.55
KRS PROLOGIS UNIT	150,318.42	30,659,920.60	51,013,516.43	20,353,595.83	82,491.82	16,825,567.46	27,995,222.78	11,169,655.32
KRS REAL RETURN UNIT	154,783.42	24,238,660.93	36,305,209.53	12,066,548.60	79,766.28	12,534,907.84	18,709,570.49	6,174,662.65
KRS RUBENSTEIN PF II UNIT	21,246.60	3,628,952.42	1,405,266.88	(2,223,685.54)	11,544.31	1,971,784.18	763,549.84	(1,208,234.34)
KRS SHENKMAN UNIT	327,669.82	56,973,862.59	57,096,109.63	122,247.04	121,407.40	21,158,104.72	21,155,106.84	(2,997.88)
KRS STOCKBRIDGE UNIT	117,767.22	21,843,057.51	23,800,094.61	1,957,037.10	64,874.85	12,032,763.33	13,110,843.30	1,078,079.97
KRS TAURUS UNIT	2,407.42	223,138.26	811,797.51	588,659.25	1,302.16	127,740.77	439,095.04	311,354.27
KRS TPF II UNIT	37.09	82,176.26	3,625.27	(78,550.99)	19.67	43,573.37	1,922.26	(41,651.11)
KRS WALTON VI UNIT	3,747.30	721,267.44	705,105.67	(16,161.77)	2,008.15	386,518.53	377,860.48	(8,658.05)
KRS WALTON VII UNIT	7,992.58	2,890,722.13	1,170,550.91	(1,720,171.22)	4,342.66	1,570,633.66	636,003.40	(934,630.26)
KRS WATERFALL UNIT	350,631.89	58,524,768.55	66,487,719.97	7,962,951.42	184,096.21	30,712,276.08	34,908,796.67	4,196,520.59

Kentucky Public Pensions Authority

Proxy Voting Report

Quarter Ending: March 31, 2024

Report can be found:

<https://www.kyret.ky.gov/Investments/Investments-Library/Pages/Proxy-Voting-Reports.aspx>

Kentucky Public Pensions Authority

Security Litigation Report

Quarter Ending: March 31, 2024

Claims Filed during the Quarter (pg 3):

9

Proceeds Received during the Quarter (pg 4):

\$196,705.37

Kentucky Retirement Systems	
Quarterly Securities Litigation Report	
Quarter Ended 03/31/24	
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
Fiscal Year 2024	40
Total Filed	1,714
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
Fiscal Year 2024	\$369,667
Total Proceeds	\$60,842,614

CERS Investment Committee Meeting - Investment Office Quarterly Update

Class Action Name	TNT Status Code	Status as of Date	Class Period Start Date	Class Period End Date	Class Account Id	Claimed Account Name
BAXTER INTERNATIONAL INC FAIR FUND	FILED	1/22/2024	5/6/2015	10/23/2019	956596	KRS KRS INTERNAL EQUITY
BAXTER INTERNATIONAL INC FAIR FUND	FILED	1/22/2024	5/6/2015	10/23/2019	KR3F1006002	WESTFIELD CAPITAL
BAXTER INTERNATIONAL INC FAIR FUND	FILED	1/22/2024	5/6/2015	10/23/2019	956766	KRS INS SYSTEMATIC
BAXTER INTERNATIONAL INC FAIR FUND	FILED	1/22/2024	5/6/2015	10/23/2019	KR2F1006002	WESTFIELD CAPITAL
BAXTER INTERNATIONAL INC FAIR FUND	FILED	1/22/2024	5/6/2015	10/23/2019	956599	KRS S P 500 INDEX
BAXTER INTERNATIONAL INC FAIR FUND	FILED	1/22/2024	5/6/2015	10/23/2019	956589	KRS SYSTEMATIC
BAXTER INTERNATIONAL INC FAIR FUND	FILED	1/22/2024	5/6/2015	10/23/2019	956772	KRS INS KRS INTERNAL EQUITY
BP P.L.C. (SEC FAIR FUND)(ORDINARY SHAR)	FILED	2/8/2024	4/23/2010	5/26/2010	KEN01	KRS PEN PYRAMIS NON-US GROWTH
BP P.L.C. (SEC FAIR FUND)(ORDINARY SHAR)	FILED	2/8/2024	4/23/2010	5/26/2010	KEN03	KRS INS PYRAMIS NON-US GROWTH
BP P.L.C. (SEC FAIR FUND)(ORDINARY SHAR)	FILED	2/8/2024	4/23/2010	5/26/2010	KEN04	KRS PEN BOSTON CO NON-US VALUE
BP P.L.C. (SEC FAIR FUND)(ORDINARY SHAR)	FILED	2/8/2024	4/23/2010	5/26/2010	KEN06	KRS INS BOSTON CO NON-US VALUE
Cleco Corporation Securities Litigation	FILED	3/4/2024	1/13/2015	1/13/2015	KR3F1002002	NTGI STRUCTURED
Cleco Corporation Securities Litigation	FILED	3/4/2024	1/13/2015	1/13/2015	KR2F1002002	NTGI STRUCTURED
CLOOPEN GROUP HOLDING LIMITED Securities Litigation	FILED	2/12/2024	1/19/2021	5/10/2021	904033	KRS INS PUTNAM
CLOOPEN GROUP HOLDING LIMITED Securities Litigation	FILED	2/12/2024	1/19/2021	5/10/2021	412211	KRS INS JP MORGAN EMERGING MARKETS
CLOOPEN GROUP HOLDING LIMITED Securities Litigation	FILED	2/12/2024	1/19/2021	5/10/2021	904032	KRS PUTNAM
CLOOPEN GROUP HOLDING LIMITED Securities Litigation	FILED	2/12/2024	1/19/2021	5/10/2021	412207	KRS JP MORGAN EMERGING MARKETS
MYRIAD GENETICS INC. Securities Litigation	FILED	1/15/2024	8/9/2017	2/6/2020	956588	KRS NTGI STRUCTURED
MYRIAD GENETICS INC. Securities Litigation	FILED	1/15/2024	8/9/2017	2/6/2020	956765	KRS INS NTGI STRUCTURED
PAYSIGN INC. Securities Litigation	FILED	3/4/2024	3/12/2019	3/31/2020	412227	KRS INS NEXT CENTURY GROWTH
PAYSIGN INC. Securities Litigation	FILED	3/4/2024	3/12/2019	3/31/2020	412224	KRS NEXT CENTURY GROWTH
RITE AID Securities Litigation (Walgreens)	FILED	2/12/2024	10/20/2016	6/28/2017	956772	KRS INS KRS INTERNAL EQUITY
RITE AID Securities Litigation (Walgreens)	FILED	2/12/2024	10/20/2016	6/28/2017	956596	KRS KRS INTERNAL EQUITY
SONUS NETWORKS INC. Securities Litigation	FILED	3/13/2024	1/8/2015	3/24/2015	KR2F1002002	NTGI STRUCTURED
SONUS NETWORKS INC. Securities Litigation	FILED	3/13/2024	1/8/2015	3/24/2015	KR3F1002002	NTGI STRUCTURED
THE ALLSTATE CORPORATION Securities Litigation	FILED	2/6/2024	10/29/2014	8/3/2015	KR2F1902002	S&P 500 INDEX
THE ALLSTATE CORPORATION Securities Litigation	FILED	2/6/2024	10/29/2014	8/3/2015	KR3F1902002	S&P 500 INDEX



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008

Base Currency: USD

KR2G00000000 - TOTAL FUND

1/1/2024 - 3/31/2024

Status: FINAL

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	26094EMC INSURANCE GROUP INC.	1/8/2024	0.000000	299.34	299.34	299.34
	NA9123459	Securities Litigation Distribu		0.000000	299.34	299.34	299.34
		20240108S000290 / 000000000000	1/8/2024	Gain/Loss Local Amounts: 299.34 Long			
		KR2F10020002 : NTGI STRUCTURED		Gain/Loss Base Amounts: 299.34 Long			
CD	0.000	18867OMEGA HEALTHCARE INVESTOR	1/12/2024	0.000000	10,376.35	10,376.35	10,376.35
	NA9123459	S, INC., Securities Litigation		0.000000	10,376.35	10,376.35	10,376.35
		20240112S000010 / 000000000000	1/12/2024	Gain/Loss Local Amounts: 10,376.35 Long			
		KR2F35060002 : NUVEEN REAL ASSET		Gain/Loss Base Amounts: 10,376.35 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO &	1/23/2024	0.000000	51.82	51.82	51.82
	NA9123459	COMPANY (2016) Distribution 3		0.000000	51.82	51.82	51.82
		20240123S000010 / 000000000008	1/23/2024	Gain/Loss Local Amounts: 51.82 Long			
		KR2F10120002 : RIVER ROAD FAV		Gain/Loss Base Amounts: 51.82 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO &	1/23/2024	0.000000	18.62	18.62	18.62
	NA9123459	COMPANY (2016) Distribution 3		0.000000	18.62	18.62	18.62
		20240123S000020 / 000000000008	1/23/2024	Gain/Loss Local Amounts: 18.62 Long			
		KR2F10120002 : RIVER ROAD FAV		Gain/Loss Base Amounts: 18.62 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO &	1/23/2024	0.000000	3,598.30	3,598.30	3,598.30
	NA9123459	COMPANY (2016) Distribution 1		0.000000	3,598.30	3,598.30	3,598.30
		20240123S000030 / 0000000000911	1/23/2024	Gain/Loss Local Amounts: 3,598.30 Long			
		KR2F10120002 : RIVER ROAD FAV		Gain/Loss Base Amounts: 3,598.30 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO &	1/23/2024	0.000000	10,016.76	10,016.76	10,016.76
	NA9123459	COMPANY (2016) Distribution 1		0.000000	10,016.76	10,016.76	10,016.76
		20240123S000040 / 0000000000911	1/23/2024	Gain/Loss Local Amounts: 10,016.76 Long			
		KR2F10120002 : RIVER ROAD FAV		Gain/Loss Base Amounts: 10,016.76 Long			



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008

Base Currency: USD

KR2G0000000 - TOTAL FUND

1/1/2024 - 3/31/2024

Status: FINAL

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	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 2	1/23/2024	0.000000	1,404.57	1,404.57	1,404.57
	NA9123459	20240123S000050 / 000000000091	1/23/2024	0.000000	1,404.57	1,404.57	1,404.57
		KR2F10120002 : RIVER ROAD FAV					Gain/Loss Local Amounts: 1,404.57 Long Gain/Loss Base Amounts: 1,404.57 Long
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 3	1/23/2024	0.000000	46.71	46.71	46.71
	NA9123459	20240123S000060 / 000000000008	1/23/2024	0.000000	46.71	46.71	46.71
		KR2F10110002 : KRS INTERNAL EQUITY					Gain/Loss Local Amounts: 46.71 Long Gain/Loss Base Amounts: 46.71 Long
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 2	1/23/2024	0.000000	504.56	504.56	504.56
	NA9123459	20240123S000060 / 000000000091	1/23/2024	0.000000	504.56	504.56	504.56
		KR2F10120002 : RIVER ROAD FAV					Gain/Loss Local Amounts: 504.56 Long Gain/Loss Base Amounts: 504.56 Long
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 1	1/23/2024	0.000000	9,029.32	9,029.32	9,029.32
	NA9123459	20240123S000070 / 000000000091	1/23/2024	0.000000	9,029.32	9,029.32	9,029.32
		KR2F10110002 : KRS INTERNAL EQUITY					Gain/Loss Local Amounts: 9,029.32 Long Gain/Loss Base Amounts: 9,029.32 Long
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 2	1/23/2024	0.000000	1,266.11	1,266.11	1,266.11
	NA9123459	20240123S000080 / 000000000091	1/23/2024	0.000000	1,266.11	1,266.11	1,266.11
		KR2F10110002 : KRS INTERNAL EQUITY					Gain/Loss Local Amounts: 1,266.11 Long Gain/Loss Base Amounts: 1,266.11 Long
CD	0.000	22275VENATOR MATERIALS PLC, Securities Litigation Distributi	1/24/2024	0.000000	61,806.75	61,806.75	61,806.75
	NA9123459	20240124S000010 / 000000000001	1/24/2024	0.000000	61,806.75	61,806.75	61,806.75
		KR2F90010002 : CASH ACCOUNT KR2					Gain/Loss Local Amounts: 61,806.75 Long Gain/Loss Base Amounts: 61,806.75 Long
CD	0.000	23548Wells Fargo & Company (SE C) Distribution 2ND DISTRIBUTI	1/25/2024	0.000000	8,422.34	8,422.34	8,422.34
	NA9123459	20240125S000010 / 000000000000	1/25/2024	0.000000	8,422.34	8,422.34	8,422.34
		KR2F19010002 : STATE STREET TRANSIT					Gain/Loss Local Amounts: 8,422.34 Long Gain/Loss Base Amounts: 8,422.34 Long



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD
 Status: FINAL

KR2G00000000 - TOTAL FUND

1/1/2024 - 3/31/2024

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	23548Wells Fargo & Company (SE NA9123459 C) Distribution 2ND DISTRIBUTI 20240125S000040 / 000000000000 KR2F10120002 : RIVER ROAD FAV	1/25/2024	0.000000	3,153.37	3,153.37	3,153.37
			1/25/2024	0.000000	3,153.37	3,153.37	3,153.37
						Gain/Loss Local Amounts: 3,153.37 Long Gain/Loss Base Amounts: 3,153.37 Long	
CD	0.000	23548Wells Fargo & Company (SE NA9123459 C) Distribution 2ND DISTRIBUTI 20240125S000050 / 000000000000 KR2F10120002 : RIVER ROAD FAV	1/25/2024	0.000000	1,377.34	1,377.34	1,377.34
			1/25/2024	0.000000	1,377.34	1,377.34	1,377.34
						Gain/Loss Local Amounts: 1,377.34 Long Gain/Loss Base Amounts: 1,377.34 Long	
CD	0.000	23548Wells Fargo & Company (SE NA9123459 C) Distribution 2ND DISTRIBUTI 20240125S000060 / 000000000000 KR2F10110002 : KRS INTERNAL EQUITY	1/25/2024	0.000000	1,386.48	1,386.48	1,386.48
			1/25/2024	0.000000	1,386.48	1,386.48	1,386.48
						Gain/Loss Local Amounts: 1,386.48 Long Gain/Loss Base Amounts: 1,386.48 Long	
CD	0.000	18608FRONTIER COMMUNICATIONS C NA9123459 ORPORATION, Securities Litigat 20240206S000110 / 000000006239 KR2F10020002 : NTGI STRUCTURED	2/6/2024	0.000000	531.44	531.44	531.44
			2/6/2024	0.000000	531.44	531.44	531.44
						Gain/Loss Local Amounts: 531.44 Long Gain/Loss Base Amounts: 531.44 Long	
CD	0.000	4-17-CV-0449-ALMADEPTUS HEALTH NA9123459 INC. Distribution 2ND DISTRIB 20240206S000150 / 000000000000 KR2F10020002 : NTGI STRUCTURED	2/6/2024	0.000000	67.53	67.53	67.53
			2/6/2024	0.000000	67.53	67.53	67.53
						Gain/Loss Local Amounts: 67.53 Long Gain/Loss Base Amounts: 67.53 Long	
CD	0.000	19486TEVA PHARMACEUTICAL INDUS NA9123459 TRIES LIMITED Securities Litig 20240207S000070 / 000000000008 KR2F90010002 : CASH ACCOUNT KR2	2/7/2024	0.000000	5,127.38	5,127.38	5,127.38
			2/7/2024	0.000000	5,127.38	5,127.38	5,127.38
						Gain/Loss Local Amounts: 5,127.38 Long Gain/Loss Base Amounts: 5,127.38 Long	
CD	0.000	11-CV-00733-WHPBANK OF AMERICA NA9123459 CORPORATION (2011) Distributi 20240207S000080 / 000000000000 KR2F19020002 : S&P 500 INDEX	2/7/2024	0.000000	9,050.62	9,050.62	9,050.62
			2/7/2024	0.000000	9,050.62	9,050.62	9,050.62
						Gain/Loss Local Amounts: 9,050.62 Long Gain/Loss Base Amounts: 9,050.62 Long	



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
Base Currency: USD
Status: FINAL

KR2G00000000 - TOTAL FUND

1/1/2024 - 3/31/2024

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	LOCKBOX#: 360150, NA9123459 CHECK#: 8965632 20240214A000380 KR2F10020002 : NTGI STRUCTURED	2/8/2024 2/8/2024	0.000000 0.000000	391.00 391.00	391.00 391.00	391.00 391.00
						Gain/Loss Local Amounts: 391.00 Long Gain/Loss Base Amounts: 391.00 Long	
CD	0.000	23855BANKRATE INC., Fair Fund NA9123459 Distribution 2ND DISTRIBUTION 20240220S000250 / 000000000000 KR2F10020002 : NTGI STRUCTURED	2/20/2024 2/20/2024	0.000000 0.000000	52.55 52.55	52.55 52.55	52.55 52.55
						Gain/Loss Local Amounts: 52.55 Long Gain/Loss Base Amounts: 52.55 Long	
CD	0.000	20479MICROCHIP TECHNOLOGY INC. NA9123459 , Securities Litigation Distri 20240222S000060 / 000000006040 KR2F90010002 : CASH ACCOUNT KR2	2/22/2024 2/22/2024	0.000000 0.000000	6,077.19 6,077.19	6,077.19 6,077.19	6,077.19 6,077.19
						Gain/Loss Local Amounts: 6,077.19 Long Gain/Loss Base Amounts: 6,077.19 Long	
CD	0.000	19352SUPER MICRO COMPUTER, INC NA9123459 , Securities Litigation (18CV 20240223S000340 / 000000000000 KR2F10020002 : NTGI STRUCTURED	2/23/2024 2/23/2024	0.000000 0.000000	1,922.94 1,922.94	1,922.94 1,922.94	1,922.94 1,922.94
						Gain/Loss Local Amounts: 1,922.94 Long Gain/Loss Base Amounts: 1,922.94 Long	
CD	0.000	25023ACUITY BRANDS, INC. Secur NA9123459 ity Litigation Distribution 1S 20240228S000140 / 000000000000 KR2F10110002 : KRS INTERNAL EQUITY	2/28/2024 2/28/2024	0.000000 0.000000	168.93 168.93	168.93 168.93	168.93 168.93
						Gain/Loss Local Amounts: 168.93 Long Gain/Loss Base Amounts: 168.93 Long	
CD	0.000	25023ACUITY BRANDS, INC. Secur NA9123459 ity Litigation Distribution 1S 20240228S000170 / 000000000000 KR2F19020002 : S&P 500 INDEX	2/28/2024 2/28/2024	0.000000 0.000000	1,164.89 1,164.89	1,164.89 1,164.89	1,164.89 1,164.89
						Gain/Loss Local Amounts: 1,164.89 Long Gain/Loss Base Amounts: 1,164.89 Long	
CD	0.000	WASTE MANAGEMENT, INC. NA9123459 20240308S000060 / 50ED13CF7BE3 KR2F90010002 : CASH ACCOUNT KR2	3/7/2024 3/7/2024	0.000000 0.000000	430.80 430.80	430.80 430.80	430.80 430.80
						Gain/Loss Local Amounts: 430.80 Long Gain/Loss Base Amounts: 430.80 Long	



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008

Base Currency: USD

Status: FINAL

KR2G0000000 - TOTAL FUND

1/1/2024 - 3/31/2024

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	15-12345-MLWINSULET CORPORATIO	3/15/2024	0.000000	41.23	41.23	41.23
	NA9123459	N Distribution 2ND DISTRIBUTIO		0.000000	41.23	41.23	41.23
		20240315S000980 / 000000000020	3/15/2024				Gain/Loss Local Amounts: 41.23 Long
		KR2F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 41.23 Long
CD	0.000	17316ALLERGAN PLC, Securities	3/26/2024	0.000000	1,946.32	1,946.32	1,946.32
	NA9123459	Litigation Distribution 1ST DI		0.000000	1,946.32	1,946.32	1,946.32
		20240326S000050 / 000000000002	3/26/2024				Gain/Loss Local Amounts: 1,946.32 Long
		KR2F10060002 : WESTFIELD CAPITAL					Gain/Loss Base Amounts: 1,946.32 Long
CD	0.000	17316ALLERGAN PLC, Securities	3/26/2024	0.000000	639.52	639.52	639.52
	NA9123459	Litigation Distribution 1ST DI		0.000000	639.52	639.52	639.52
		20240326S000060 / 000000000002	3/26/2024				Gain/Loss Local Amounts: 639.52 Long
		KR2F19020002 : S&P 500 INDEX					Gain/Loss Base Amounts: 639.52 Long
CD	0.000	18849ENDO INTERNATIONAL PLC, S	3/28/2024	0.000000	8,957.62	8,957.62	8,957.62
	NA9123459	ecurities Litigation Distribut		0.000000	8,957.62	8,957.62	8,957.62
		20240328S000020 / 000000000010	3/28/2024				Gain/Loss Local Amounts: 8,957.62 Long
		KR2F90010002 : CASH ACCOUNT KR2					Gain/Loss Base Amounts: 8,957.62 Long
CD	0.000	18849ENDO INTERNATIONAL PLC, S	3/28/2024	0.000000	3,155.02	3,155.02	3,155.02
	NA9123459	ecurities Litigation Distribut		0.000000	3,155.02	3,155.02	3,155.02
		20240328S000340 / 000000000010	3/28/2024				Gain/Loss Local Amounts: 3,155.02 Long
		KR2F19020002 : S&P 500 INDEX					Gain/Loss Base Amounts: 3,155.02 Long
TOTAL U.S. DOLLAR CASH & CASH EQUIVALENTS:					<u>152,483.72</u>	<u>152,483.72</u>	<u>152,483.72</u>
					<u>152,483.72</u>	<u>152,483.72</u>	<u>152,483.72</u>
TOTAL CASH & CASH EQUIVALENTS CLASS ACTIONS:					<u>152,483.72</u>	<u>152,483.72</u>	<u>152,483.72</u>
TOTAL CLASS ACTIONS:					<u>152,483.72</u>	<u>152,483.72</u>	<u>152,483.72</u>
TOTAL TRANSACTIONS BASE:					<u>152,483.72</u>	<u>152,483.72</u>	<u>152,483.72</u>



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008

Base Currency: USD

KR3G00000000 - TOTAL FUND

1/1/2024 - 3/31/2024

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				
CLASS ACTIONS							
CASH & CASH EQUIVALENTS							
U.S. DOLLAR							
CD	0.000	26094EMC INSURANCE GROUP INC.	1/8/2024	0.000000	131.96	131.96	131.96
	NA9123459	Securities Litigation Distribu		0.000000	131.96	131.96	131.96
		20240108S000250 / 000000000000	1/8/2024				
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Local Amounts: 131.96 Long Gain/Loss Base Amounts: 131.96 Long
CD	0.000	20417J.P. MORGAN CHASE BANK, N	1/9/2024	0.000000	1.32	1.32	1.32
	NA9123459	.A. ADR-FX Distribution 1ST DI		0.000000	1.32	1.32	1.32
		20240109S000010 / 0000000000919	1/9/2024				
		KR3F90010002 : CASH ACCOUNT KR3					Gain/Loss Local Amounts: 1.32 Long Gain/Loss Base Amounts: 1.32 Long
CD	0.000	18867OMEGA HEALTHCARE INVESTOR	1/12/2024	0.000000	4,238.24	4,238.24	4,238.24
	NA9123459	S, INC., Securities Litigation		0.000000	4,238.24	4,238.24	4,238.24
		20240112S000010 / 000000000000	1/12/2024				
		KR3F35060002 : NUVEEN REAL ASSET					Gain/Loss Local Amounts: 4,238.24 Long Gain/Loss Base Amounts: 4,238.24 Long
CD	0.000	19486TEVA PHARMACEUTICAL INDUS	1/16/2024	0.000000	188.46	188.46	188.46
	NA9123459	TRIES LIMITED Securities Litig		0.000000	188.46	188.46	188.46
		20240116S000300 / 0000000000007	1/16/2024				
		KR3F90010002 : CASH ACCOUNT KR3					Gain/Loss Local Amounts: 188.46 Long Gain/Loss Base Amounts: 188.46 Long
CD	0.000	3-16-CV-05479-JSTWELLS FARGO &	1/23/2024	0.000000	8.08	8.08	8.08
	NA9123459	COMPANY (2016) Distribution 3		0.000000	8.08	8.08	8.08
		20240123S000010 / 0000000000008	1/23/2024				
		KR3F10120002 : RIVER ROAD FAV					Gain/Loss Local Amounts: 8.08 Long Gain/Loss Base Amounts: 8.08 Long
CD	0.000	3-16-CV-05479-JSTWELLS FARGO &	1/23/2024	0.000000	1,562.38	1,562.38	1,562.38
	NA9123459	COMPANY (2016) Distribution 1		0.000000	1,562.38	1,562.38	1,562.38
		20240123S000020 / 0000000000911	1/23/2024				
		KR3F10120002 : RIVER ROAD FAV					Gain/Loss Local Amounts: 1,562.38 Long Gain/Loss Base Amounts: 1,562.38 Long



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD

KR3G0000000 - TOTAL FUND

1/1/2024 - 3/31/2024

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	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 3	1/23/2024	0.000000	21.70	21.70	21.70
	NA9123459	20240123S000030 / 000000000008	1/23/2024	0.000000	21.70	21.70	21.70
		KR3F90010002 : CASH ACCOUNT KR3		Gain/Loss Local Amounts: 21.70 Long Gain/Loss Base Amounts: 21.70 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 2	1/23/2024	0.000000	219.08	219.08	219.08
	NA9123459	20240123S000030 / 0000000000091	1/23/2024	0.000000	219.08	219.08	219.08
		KR3F10120002 : RIVER ROAD FAV		Gain/Loss Local Amounts: 219.08 Long Gain/Loss Base Amounts: 219.08 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 1	1/23/2024	0.000000	4,193.43	4,193.43	4,193.43
	NA9123459	20240123S000040 / 0000000000911	1/23/2024	0.000000	4,193.43	4,193.43	4,193.43
		KR3F90010002 : CASH ACCOUNT KR3		Gain/Loss Local Amounts: 4,193.43 Long Gain/Loss Base Amounts: 4,193.43 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 2	1/23/2024	0.000000	588.01	588.01	588.01
	NA9123459	20240123S000050 / 0000000000091	1/23/2024	0.000000	588.01	588.01	588.01
		KR3F90010002 : CASH ACCOUNT KR3		Gain/Loss Local Amounts: 588.01 Long Gain/Loss Base Amounts: 588.01 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 3	1/23/2024	0.000000	32.94	32.94	32.94
	NA9123459	20240123S000060 / 0000000000008	1/23/2024	0.000000	32.94	32.94	32.94
		KR3F10110002 : KRS INTERNAL EQUITY		Gain/Loss Local Amounts: 32.94 Long Gain/Loss Base Amounts: 32.94 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 1	1/23/2024	0.000000	6,366.85	6,366.85	6,366.85
	NA9123459	20240123S000070 / 0000000000911	1/23/2024	0.000000	6,366.85	6,366.85	6,366.85
		KR3F10110002 : KRS INTERNAL EQUITY		Gain/Loss Local Amounts: 6,366.85 Long Gain/Loss Base Amounts: 6,366.85 Long			
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & COMPANY (2016) Distribution 2	1/23/2024	0.000000	892.77	892.77	892.77
	NA9123459	20240123S000080 / 0000000000091	1/23/2024	0.000000	892.77	892.77	892.77
		KR3F10110002 : KRS INTERNAL EQUITY		Gain/Loss Local Amounts: 892.77 Long Gain/Loss Base Amounts: 892.77 Long			



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD

KR3G0000000 - TOTAL FUND

1/1/2024 - 3/31/2024

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	22814PORTOLA PHARMACEUTICALS I	2/1/2024	0.000000	1,102.56	1,102.56	1,102.56
	NA9123459	NC. Securities Litigation Dist		0.000000	1,102.56	1,102.56	1,102.56
		20240201S000380 / 000000000000	2/1/2024				Gain/Loss Local Amounts: 1,102.56 Long
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 1,102.56 Long
CD	0.000	18608FRONTIER COMMUNICATIONS C	2/6/2024	0.000000	28.24	28.24	28.24
	NA9123459	ORPORATION, Securities Litigat		0.000000	28.24	28.24	28.24
		20240206S000040 / 000000006238	2/6/2024				Gain/Loss Local Amounts: 28.24 Long
		KR3F19020002 : S&P 500 INDEX					Gain/Loss Base Amounts: 28.24 Long
CD	0.000	18608FRONTIER COMMUNICATIONS C	2/6/2024	0.000000	219.73	219.73	219.73
	NA9123459	ORPORATION, Securities Litigat		0.000000	219.73	219.73	219.73
		20240206S000110 / 000000006239	2/6/2024				Gain/Loss Local Amounts: 219.73 Long
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 219.73 Long
CD	0.000	4-17-CV-0449-ALMADEPTUS HEALTH	2/6/2024	0.000000	67.54	67.54	67.54
	NA9123459	INC. Distribution 2ND DISTRIB		0.000000	67.54	67.54	67.54
		20240206S000150 / 000000000000	2/6/2024				Gain/Loss Local Amounts: 67.54 Long
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 67.54 Long
CD	0.000	11-CV-00733-WHPBANK OF AMERICA	2/7/2024	0.000000	3,358.35	3,358.35	3,358.35
	NA9123459	CORPORATION (2011) Distributi		0.000000	3,358.35	3,358.35	3,358.35
		20240207S000080 / 000000000000	2/7/2024				Gain/Loss Local Amounts: 3,358.35 Long
		KR3F19020002 : S&P 500 INDEX					Gain/Loss Base Amounts: 3,358.35 Long
CD	0.000	23855BANKRATE INC., Fair Fund	2/20/2024	0.000000	23.56	23.56	23.56
	NA9123459	Distribution 2ND DISTRIBUTION		0.000000	23.56	23.56	23.56
		20240220S000250 / 000000000000	2/20/2024				Gain/Loss Local Amounts: 23.56 Long
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 23.56 Long
CD	0.000	19352SUPER MICRO COMPUTER, INC	2/23/2024	0.000000	290.46	290.46	290.46
	NA9123459	., Securities Litigation (18CV		0.000000	290.46	290.46	290.46
		20240223S000340 / 000000000000	2/23/2024				Gain/Loss Local Amounts: 290.46 Long
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 290.46 Long



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008

Base Currency: USD

KR3G00000000 - TOTAL FUND

1/1/2024 - 3/31/2024

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	25023ACUITY BRANDS, INC. Secur	2/28/2024	0.000000	576.33	576.33	576.33
	NA9123459	ity Litigation Distribution 1S		0.000000	576.33	576.33	576.33
		20240228S000140 / 000000000000	2/28/2024				Gain/Loss Local Amounts: 576.33 Long
		KR3F10110002 : KRS INTERNAL EQUITY					Gain/Loss Base Amounts: 576.33 Long
CD	0.000	CORRECTIONS CORP OF AMERICA	3/7/2024	0.000000	13,712.34	13,712.34	13,712.34
	NA9123459	20240308S000060 / 50ED13CF7BE3		0.000000	13,712.34	13,712.34	13,712.34
		KR3F90010002 : CASH ACCOUNT KR3	3/7/2024				Gain/Loss Local Amounts: 13,712.34 Long
							Gain/Loss Base Amounts: 13,712.34 Long
CD	0.000	15-12345-MLWINSULET CORPORATIO	3/15/2024	0.000000	18.91	18.91	18.91
	NA9123459	N Distribution 2ND DISTRIBUTIO		0.000000	18.91	18.91	18.91
		20240315S0000920 / 0000000000020	3/15/2024				Gain/Loss Local Amounts: 18.91 Long
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 18.91 Long
CD	0.000	17316ALLERGAN PLC, Securities	3/26/2024	0.000000	819.50	819.50	819.50
	NA9123459	Litigation Distribution 1ST DI		0.000000	819.50	819.50	819.50
		20240326S000050 / 0000000000002	3/26/2024				Gain/Loss Local Amounts: 819.50 Long
		KR3F10060002 : WESTFIELD CAPITAL					Gain/Loss Base Amounts: 819.50 Long
CD	0.000	17316ALLERGAN PLC, Securities	3/26/2024	0.000000	306.58	306.58	306.58
	NA9123459	Litigation Distribution 1ST DI		0.000000	306.58	306.58	306.58
		20240326S000050 / 0000000000002	3/26/2024				Gain/Loss Local Amounts: 306.58 Long
		KR3F10110002 : KRS INTERNAL EQUITY					Gain/Loss Base Amounts: 306.58 Long
CD	0.000	18849ENDO INTERNATIONAL PLC, S	3/28/2024	0.000000	3,696.67	3,696.67	3,696.67
	NA9123459	curities Litigation Distribut		0.000000	3,696.67	3,696.67	3,696.67
		20240328S000020 / 0000000000010	3/28/2024				Gain/Loss Local Amounts: 3,696.67 Long
		KR3F90010002 : CASH ACCOUNT KR3					Gain/Loss Base Amounts: 3,696.67 Long
CD	0.000	18849ENDO INTERNATIONAL PLC, S	3/28/2024	0.000000	1,555.66	1,555.66	1,555.66
	NA9123459	curities Litigation Distribut		0.000000	1,555.66	1,555.66	1,555.66
		20240328S000270 / 0000000000010	3/28/2024				Gain/Loss Local Amounts: 1,555.66 Long
		KR3F10110002 : KRS INTERNAL EQUITY					Gain/Loss Base Amounts: 1,555.66 Long
TOTAL U.S. DOLLAR CASH & CASH EQUIVALENTS:					44,221.65	44,221.65	44,221.65
					44,221.65	44,221.65	44,221.65



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD
 Status: REVISED

KR3G00000000 - TOTAL FUND

1/1/2024 - 3/31/2024

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 CASH & CASH EQUIVALENTS CLASS ACTIONS:					44,221.65	44,221.65	44,221.65
TOTAL CLASS ACTIONS:					44,221.65	44,221.65	44,221.65
TOTAL TRANSACTIONS BASE:					44,221.65	44,221.65	44,221.65

Kentucky Public Pensions Authority

Internal Asset Holdings Report & Internal Asset Transaction Report

Quarter Ending: March 31, 2024

Reports can be found:

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

Kentucky Public Pensions Authority

Commissions Report

Quarter Ending: March 31, 2024

Reports can be found:

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

County Employees Retirement System

US Public Equity Benchmark



US LARGE CAP PUBLIC
EQUITY: INTERNAL
PASSIVE BENCHMARK
CHANGE FROM S&P500
TO RUSSELL 500

Recommendation

Kentucky Public Pensions Authority (KPPA) Staff is recommending to change the benchmark index for the US large cap passively managed internal portfolio from the S&P 500 Index to the Russell 500 Index.

No placement agents have been involved or will be compensated as a result of this change.

Background: US Equity Structure

Currently 41% of the overall Pension and Insurance Public Equity portfolios are managed passively in-house by KPPA staff. Approximately 90% of these internally managed assets are in the large cap market segment in a fully replicating S&P index strategy. The remainder of the Public Equity portfolios, whether managed by internal staff or by external managers are managed against an index that is part of the Russell Index family (Russell 3000 Growth, Russell 3000 Value, Russell Midcap, Russell 2000, Russell Microcap Growth).

Potential Issues: Reason for Change

As noted above, currently KPPA utilizes indices from both Dow Jones (S&P 500) and Russell. Due to differences in index construction methodology, index family providers assign differing market cap breakpoints. Aggregating exposures managed against indices from different providers can potentially create unintentional market cap tilts within the portfolio (versus the Russell 3000, which is what staff has viewed historically to be the domestic equity opportunity set).

Dow Jones has contacted staff wishing to renegotiate the fee charged for utilizing its large cap index. Currently KPPA pays a flat annual fee of approximately \$27,500 regardless of how the data is used (whether for benchmarking or replication). The provider is now pushing for a flat data fee plus a variable IP fee based on AUM for entities who replicate the index as part of an investment strategy. Given current AUM levels, KPPA would be assessed roughly an additional \$137,500, to bring total costs to \$165,000 annually.

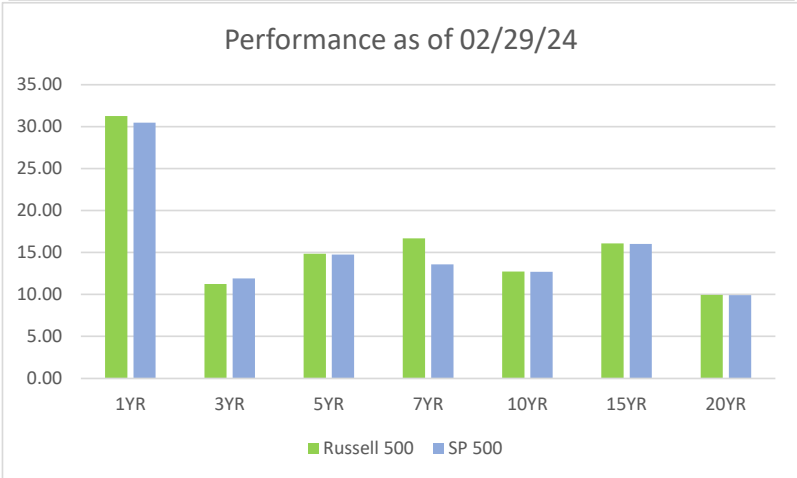
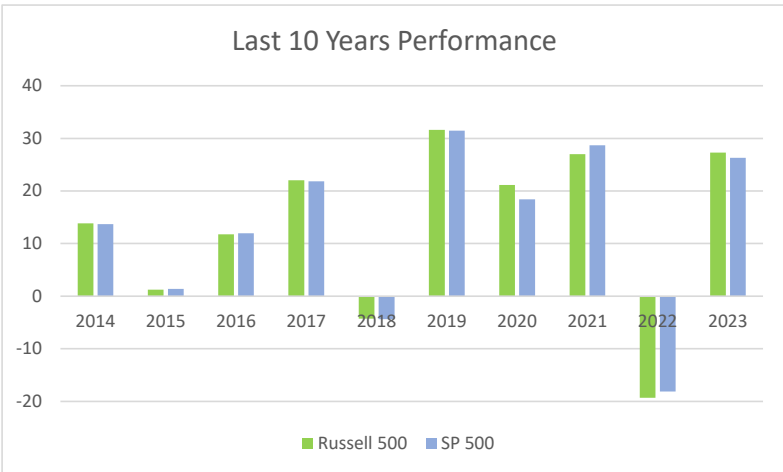
Recommended Solution: Russell 500 Index

Changing from managing to the S&P 500 Index to managing to the Russell 500 Index will increase consistency across the domestic equity allocation. This is a risk mitigation move as it will help to minimize the potential for unintentional market cap tilts within the allocation.

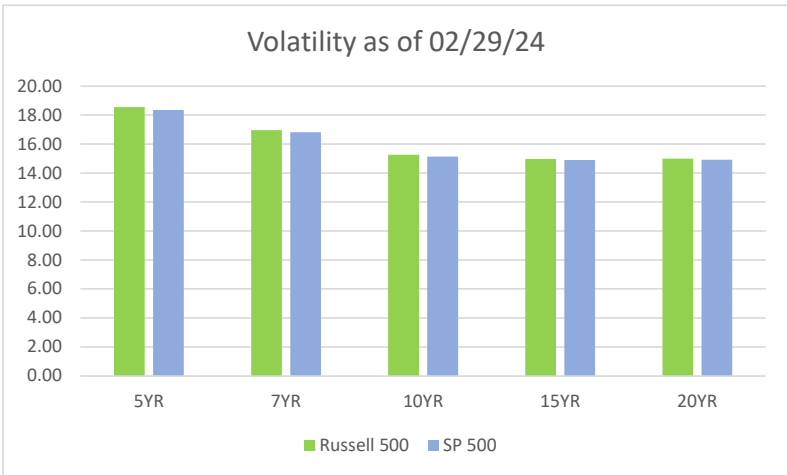
From a cost perspective, Russell has proposed a flat \$30,000 annual fee to gain complete access to all their domestic public equity indices, whether for benchmarking, management, or both. Additionally, the firm is willing to lock that price for an extended period with limitations on future price movements.

Performance Impact

Staff anticipates very little performance impact relative to that provided by the S&P 500. While performance deviations can occur in any given year between the S&P 500 and Russell 500, over the longer-term, defined as +10YR annualized data, the Russell 500 outpaces the S&P 500 by a handful of basis points.



Further, it is anticipated that volatility (as defined by standard deviation) should remain relatively consistent post change. The Russell 500 has produced a slightly elevated standard deviation over the shorter-term; however, over the longer-term standard deviation has roughly been in line with the S&P 500 Index.



Transition

There is a significant amount of overlap between the S&P 500 and the Russell 500. The indices share over +430 names in common that constitute approximately 97% of the index weight. Because there is so much overlap both in names and market cap, the transition will be accomplished through routine rebalancing, eliminating the need for a larger transition to accomplish the change.

Recommendation

Staff is proposing to change the benchmark from the S&P 500 Index to the Russell 500 Index for the US large cap passive internal equity portfolio. Staff anticipates no changes to performance or risk; however, believes managing market cap exposure tilts will become more efficient. In addition, by making the change costs will remain stable, avoiding a significant cost appreciation associated with maintaining the current structure.

We welcome any comments or questions by the Committee.

Wilshire

Asset Allocation Update - CERS

May 2024

Background – Asset Allocation Discussions

Wilshire presented a comprehensive asset-liability study in late 2023, with discussions at the IC and Board carrying into 2024

Focused on market environment changes since the previous asset-liability study (Nov 2020) and asset allocation review (Feb 2022)

Significant regime shifts -

- Interest rates up significantly from near zero of previous environment

- Equity valuations continued their sharp rise

- Regime shifts impact forward-looking capital market assumptions

Higher rates (500+ basis points) drove future return expectations for fixed income higher by significant margins

Higher equity valuations (US market up 19% in trailing one year leading up to 6/30/23 assumptions) drove future return expectations for equities lower

Background – Asset Allocation Discussions

Themes discussed because of these regime shifts

- Higher returns expected from fixed income
- Lower returns expected from equities
- Risk-adjusted return opportunities much different looking forward
- Opportunity exists for CERS to take advantage of these changes
- Other systems around the country recognizing similar opportunities

Wilshire recommended taking advantage of opportunity to reduce risk while maintaining similar expected returns

Previous discussions were based on June 30, 2023 Capital Market Assumptions

Current Overview

Today's discussion based on March 31, 2024 Capital Market Assumptions

Same theme exists but now more pronounced

- Equity risk premium (Stocks vs. Bonds) negative for the first time in Wilshire history

- US Equity up another 19% in the nine months from 6/30/23 to 3/31/24

- Updated assumed rates of return: US Equity 4.50% (Global 5.10%) & US Core Fixed Income 5.05%

Expected returns for the current policy, and those modeled, fall just short of the 6.5% assumed rate of return, but tactical asset allocation and active management can potentially add value over these market return forecasts

Opportunity to reduce risk without reducing returns remains strong and is more compelling

- Higher allocations to Global Equity diminish expected returns in certain policies

Recommendation

Wilshire continues to recommend CERS take advantage of the opportunity to reduce risk while maintaining similar expected returns

Supportive CERS History

The asset allocation work in 2021 resulted in reduced core fixed income

Understandable – rates were near zero, US Core Fixed Income had a 1.25% expected return

CERS added to equity in 2021 and reduced Specialty Credit

Understandable - Equity had an expected return of 5.65% while Specialty Credit had an expected return of 4.50%

Capital Market Assumptions Comparison

Assumption for 2q '23 which were used for the most recent Asset-Liability Study are listed in the top table
 Updated 1q '24 assumptions are provided in the bottom table

Meaningful reduction in growth asset assumptions
 Slight increase in the income-oriented asset classes

2q '23 Standard ACA (10 Years)	Public Equity	Private Equity	Core Fixed Income	Specialty Credit	Cash	Real Estate	Real Return
Expected Return	6.15	9.16	4.85	7.38	3.85	5.98	6.85
Risk	17.10	27.78	4.70	9.06	0.75	13.93	10.67
Cash Yield	2.05	0.00	4.95	9.70	3.85	2.29	3.62

1q '24 Standard ACA (10 Years)	Public Equity	Private Equity	Core Fixed Income	Specialty Credit	Cash	Real Estate	Real Return
Expected Return	5.10	7.90	5.05	7.48	4.00	6.15	6.75
Risk	17.05	27.78	4.70	9.06	0.75	13.93	10.67
Cash Yield	1.90	0.00	5.35	9.93	4.00	2.60	3.60

Note: Subsequent pages will use the 1q '24 for modeling purposes

Efficient Frontier (3/31/24 Assumptions)



Efficient Frontier Data (3/31/24 Assumptions)

Asset Class	50% Equity EF	Current	45% Equity EF	Lower Risk A	40% Equity EF	Lower Risk B
	Constraints		Constraints		Constraints	
Public Equity	50 - 80 %	50.0%	45 - 80 %	45.0%	40 - 80 %	40.0%
Private Equity	0 - 10 % ¹	<u>10.0%</u>	0 - 10 % ¹	<u>8.0%</u>	0 - 10 % ¹	<u>7.5%</u>
Total Growth Assets		60.0%		53.0%		47.5%
Specialty Credit	0 - 25 % ¹	<u>10.0%</u>	0 - 25 % ¹	<u>23.0%</u>	0 - 20 % ¹	<u>20.0%</u>
Total Defensive Growth Assets		10.0%		23.0%		20.0%
Core Fixed Income	10 - 50 %	10.0%	10 - 50 %	10.0%	10 - 50 %	15.5%
Cash	2 - 5 %	<u>0.0%</u>	2 - 5 %	<u>2.0%</u>	2 - 5 %	<u>2.0%</u>
Total Defensive/Rate Sensitive Assets		10.0%		12.0%		17.5%
Real Estate	5 - 10 % ¹	7.0%	5 - 10 % ¹	5.0%	5 - 10 % ¹	5.0%
Real Return	5 - 10 % ¹	<u>13.0%</u>	5 - 10 % ¹	<u>7.0%</u>	5 - 10 % ¹	<u>10.0%</u>
Total RA / Inflation Sensitive Assets		20.0%		12.0%		15.0%
Total Assets		100.0%		100.0%		100.0%
Total Illiquid Assets¹		28.5%		28.0%		27.5%
Expected Return - 10 Years (%)		6.33		6.43		6.40
Standard Deviation of Return (%)		12.79		11.71		10.86
+ / (-) in Expected Return (bps)				0.10		0.07
+ / (-) in Standard Deviation of Return (bps)				(1.08)		(1.93)
Sharpe Ratio		0.17		0.20		0.21

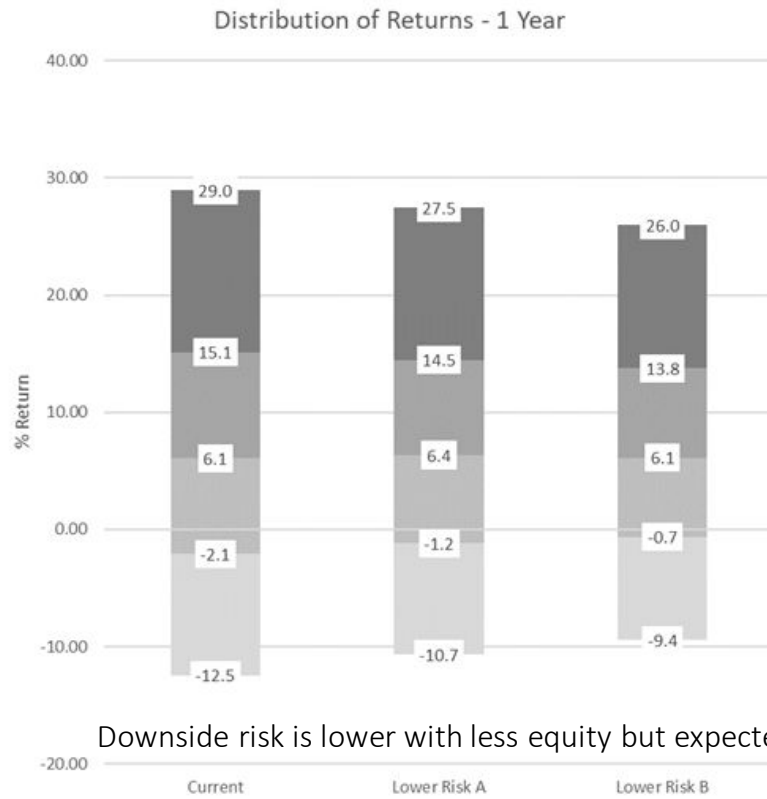
¹ Total Illiquid Assets are constrained to not exceed 35% and are defined as total of Private Equity, Real Estate, and 50% of Specialty Credit and Real Return

Efficient Frontier Data (3/31/24 Assumptions)

Asset Class	Current	Lower Risk A	Lower Risk B
Total Growth Assets	60.0%	53.0%	47.5%
Total Defensive Growth Assets	10.0%	23.0%	20.0%
Total Defensive/Rate Sensitive Assets	10.0%	12.0%	17.5%
<u>Total RA / Inflation Sensitive Assets</u>	<u>20.0%</u>	<u>12.0%</u>	<u>15.0%</u>
Total Assets	100.0%	100.0%	100.0%
Total Illiquid Assets ¹	28.5%	28.0%	27.5%
Expected Return - 10 Years (%)	6.33	6.43	6.40
Expected Return - 30 Years (%)	7.33	7.27	7.17
Standard Deviation of Return (%)	12.79	11.71	10.86
Contribution to Asset Volatility			
Growth	82.8%	78.8%	75.9%
Defensive Growth	4.5%	12.3%	11.5%
Total Defensive/Rate Sensitive Assets	1.0%	1.1%	2.0%
Total RA / Inflation Sensitive Assets	11.7%	7.9%	10.5%
Cash Yield	3.13	4.13	4.14
Growth Factor	6.1	5.7	5.2
Inflation Factor	-0.8	-1.1	-0.9
Market Liquidity	55.5	57.2	57.5
Stressed Liquidity	8.2	10.2	14.8

¹ Total Illiquid Assets are constrained to not exceed 35% and are defined as total of Private Equity, Real Estate, and 50% of Speciality Credit and Real Return

Distribution of Returns



Downside risk is lower with less equity but expected returns are similar

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