



**County Employees Retirement System  
Board of Trustees – Regular Quarterly Meeting  
March 11, 2024, at 2:00 pm ET (1:00 pm CT)  
Live Video Conference/Facebook Live  
AMENDED AGENDA**

- |     |  |                    |
|-----|--|--------------------|
| 1.  | Call to Order  | Betty Pendergrass  |
| 2.  | Opening Statement  | Eric Branco        |
| 3.  | Roll Call  | Sherry Rankin      |
| 4.  | Public Comment   | Sherry Rankin      |
| 5.  | Approval of Minutes* -- December 4, 2023, January 17, 2024, and February 6, 2024 | Betty Pendergrass  |
| 6.  | Personnel Committee Report   | Jim Tony Fulkerson |
|     | a. Trustee recruitment & training  |                    |
|     | b. 2024 CEO Performance Plan   |                    |
|     | c. Personnel Strategic Plan  |                    |
| 7.  | Finance Committee Report*  | Bill O'Mara        |
|     | a. Acceptance of the FY 2023 Proportionate Share Audits*                         | Adam Gordon, APA   |
|     | b. Quarterly financial reports   | Mike Lamb          |
|     | c. Hazardous duty requests*  | D'Juan Surratt     |
|     | d. Investment Trust Budget   | Steve Willer       |
|     | e. Strategic Planning update   | Bill O'Mara        |
| 8.  | Joint Retiree Health Plan Committee Report                                       | Jerry Powell       |
| 9.  | Investment Committee Report  | Dr. Merl Hackbart  |
|     | a. Investment Office quarterly update  | Steve Willer       |
|     | b. Investment administrative budget  | Steve Willer       |
|     | c. Saba Capital recommendation*  | Steve Willer       |
|     | d. Investment historical performance   |                    |
|     | e. Asset Allocation*   | Dr. Merl Hackbart  |
| 10. | Administrative   |                    |
|     | a. ByLaws*   | Betty Pendergrass  |
|     | b. CERS Board Election Policy*   | Kristen Coffey     |
|     | c. Admin Regulation 105 KAR 1:120*   | Jillian Hall       |
|     |  | Jessica Beaubien   |
|     | d. Metro Government request  | Eric Branco        |
|     | e. Reschedule April 2024 Annual Board Meeting*                                   | Betty Pendergrass  |
| 11. | Closed Session*  | Eric Branco        |
| 12. | Adjourn  | Betty Pendergrass  |

\*Board May Take Action

**MINUTES OF MEETING  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
BOARD OF TRUSTEES MEETING  
DECEMBER 4, 2023, AT 2:00 P.M. ET  
VIA LIVE VIDEO TELECONFERENCE**

At the Meeting of the County Employees Retirement System Board of Trustees held on December 4, 2023, the following members were present: Betty Pendergrass (Chair), Dr. Patricia Carver, George Cheatham, Michael Foster, JT Fulkerson, Dr. Merl Hackbart, William O'Mara, and Jerry Powell. Staff members present were CERS CEO Ed Owens, III, David Eager, Rebecca Adkins, Erin Surratt, Michael Lamb, Connie Davis, Michael Board, Leigh Ann Davis, Victoria Hale, Carrie Bass, Steve Willer, Anthony Chiu, D'Juan Surratt, Ashley Gabbard, Katie Park, Phillip Cook, and Sherry Rankin. Others present included Craig Morton and Chris Tessman with Wilshire, Danny White and Janie Shaw with GRS, Adam Gordon and Linda Hinton with the Auditor of Public Accounts, and Eric Branco with Johnson Bowman Branco, LLP.

Ms. Pendergrass called the meeting to order.

Mr. Branco read the Opening Statement.

Ms. Rankin called Roll.

There being no **Public Comment** received, Ms. Pendergrass introduced agenda item ***Approval of Minutes – November 8, 2023*** (Video 00:05:48 to 00:07:33). Mr. Powell made a motion to approve the minutes as presented and was seconded by Dr. Hackbart and Mr. O'Mara. The motion passed unanimously.

Mr. O'Mara wished to amend the order of the agenda to discuss item ***KPPA Audit Committee Report*** (#8) prior to items ***Actuarial*** (#6) and ***Finance Committee Report*** (#7). Mr. O'Mara made a motion to amend the agenda and was seconded by Mr. Foster. The motion passed unanimously.

Ms. Pendergrass introduced agenda item ***KPPA Audit Committee Report*** (Video 00:07:34 to 00:19:36). Mr. O'Mara stated that Mr. Adam Gordon with the Office of Public Accounts presented the draft 2023 Annual Comprehensive Financial Report (ACFR) at the most recent meeting of the

KPPA Audit Committee. Mr. Gordon briefly reviewed the draft Annual Comprehensive Financial Report (ACFR) for the fiscal year ended June 30, 2023, with the CERS Board of Trustees.

Ms. Pendergrass introduced agenda item **Actuarial** (*Video 00:19:37 to 00:32:36*). Ms. Pendergrass reminded the CERS Board of Trustees that the 2023 draft Actuarial Valuation Results were presented in November of 2023; however, there was an adjustment made to the financial statements for CERS. The CERS Board of Trustees accepted the 2023 Draft Actuarial Valuation Results with the understanding that some figures would change.

Ms. Shaw and Mr. White with GRS highlighted the adjustments made to the 2023 Draft Actuarial Valuation Results.

Mr. Powell made a motion to adopt the 2023 employer contribution rates for CERS Nonhazardous (19.71%) and CERS Hazardous (38.61%). Mr. Cheatham seconded the motion. Ms. Pendergrass advised that these rates would be effective July 1, 2024. A vote was taken, and the motion passed unanimously.

Ms. Pendergrass advised that the KRS Board of Trustees had not yet approved a recommendation regarding an actuarial rate for annuity conversions and service purchase calculations. She stated that additional information was requested by the KRS Board of Trustees. Ms. Shaw presented the additional analysis conducted by GRS; Estimated Financial Cost of Proposed Administrative Factor Assumptions (Meeting Material, p. 41).

After considerable discussion of various rates that could be utilized, the CERS Actuarial Committee unanimously voted to recommend an assumed rate of 5.875% as a single rate to be utilized by all plans administered by KPPA to the CERS Board of Trustees, said Ms. Pendergrass.

Ms. Pendergrass requested a motion for an actuarial rate recommendation to the KRS Board of Trustees. Mr. Foster made a motion to adopt a compromised single rate of 5.875%. Mr. Fulkerson seconded the motion. Ms. Pendergrass opposed; however, the motion was adopted.

Ms. Pendergrass introduced agenda item **Finance Committee Report** (*Video 00:32:37 to 00:57:29*). Mr. O'Mara stated that the CERS Finance Committee met on November 16, 2023. He advised that two (2) items approved by the Committee required ratification by the CERS Board of

Trustees. Mr. D’Juan Surratt presented these items. The CERS Finance Committee considered forty-four (44) requests for Hazardous Duty designation for positions in member organizations, said Mr. Surratt. The Committee voted unanimously to approve each request.

Mr. O’Mara made a motion to approve the Hazardous Duty Requests as presented. The motion was seconded by Mr. Cheatham and passed unanimously.

Additionally, two (2) new agencies elected to participate with the County Employees Retirement System (CERS) under Nonhazardous coverage. Copies of minutes, resolution to participate and agency budgets were submitted. Contracts for Health Insurance were also received from these agencies, said Mr. Surratt.

Mr. O’Mara made a motion to accept the recommendation to add Hyden Leslie County Water District and Springfield Washington County 911 Dispatch. Mr. Powell seconded the motion and the motion passed unanimously.

Mr. Lamb presented the Quarterly Financial Reports to the CERS Finance Committee, said Mr. O’Mara. Mr. Lamb briefly reviewed these reports with the CERS Board of Trustees.

He reviewed the Combining Statement of Fiduciary Net Position of the Pension Funds as of September 30, 2023. Mr. Lamb briefly reviewed the Combining Statement of Changes in Fiduciary Net Position of the Pension Funds for the three-month period ending September 30, 2023. The CERS Pension Funds Contribution Report was also presented. Mr. Lamb went on to present the Combining Statement of Fiduciary Net Position of Insurance Funds as of September 30, 2023, and the Combining Statement of Changes in Fiduciary Net Position of Insurance Funds for the three-month period ending September 30, 2023, with the CERS Board of Trustees. Next, he reviewed the CERS Insurance Funds Contribution Report for the three-month period ending September 30, 2023. The CERS Outstanding Invoices by Type and Employer and Penalty Invoices Reports were presented to the Trustees.

The newly created FY 2023-2024 KPPA Administrative Budget – Budget-to-Actual Summary Analysis for the three-month period ending September 30, 2023, was highlighted by Mr. Lamb. The CERS Board of Trustees requested that the full Budget-to-Actual Analysis be provided directly after the Summary in all future meeting materials.



Lastly, the Mr. Lamb briefly reviewed the separation/plan-specific expenses and the JP Morgan Chase Credit Earnings and Fees and Hard Interest Earned for the fiscal year ending June 30, 2024. He advised that additional information requested by the CERS Board of Trustees regarding JP Morgan Chase Credit Earnings and Fees and Hard Interest Earned was forthcoming.

Ms. Pendergrass introduced agenda item ***Investment Committee Report*** (Video 00:57:30 to 01:10:29). Dr. Hackbart stated that the CERS Investment Committee met on November 28, 2023. The Committee reviewed informational items only; therefore, no items required ratification by the CERS Board of Trustees, said Dr. Hackbart. He noted that robust discussions took place regarding the two primary options presented by Wilshire and the Investment Office for a new asset allocation. Mr. Steve Willer provided a summary of the asset allocation discussion and presented the first quarter results for FY 2024. Mr. Willer announced that a special called CERS Investment Committee meeting would likely be scheduled for January of 2024 to further discuss asset allocation.

Ms. Pendergrass introduced agenda item ***Administrative*** (Video 01:10:30 to 01:19:54). Ms. Pendergrass presented the proposed 2024 Recurring Meeting Schedule and noted several revisions. Mr. Powell made a motion to approve the 2024 Recurring Meeting Schedule for CERS. The motion was seconded by Mr. Cheatham and passed unanimously.

Mr. Owens, III, briefly presented his written CEO Report to the CERS Board of Trustees which included a summary of recent CERS Committee meetings and Trustee Education opportunities. Ms. Pendergrass advised that she and Mr. Willer are working to schedule a two-hour Trustee Education Session about Investments.

Mr. Eager provided the CERS Board of Trustees with a written KPPA Update. Mr. Cheatham requested additional information regarding the lease of space for the KPPA Office of Investments. Mr. Eager added that KPPA has legislative support to lease the space in Louisville. Mr. Cheatham asked why the location of the space would be in Louisville as opposed to Lexington. Mr. Eager stated that most of the Investment staff reside in Louisville and the location aids in recruitment. Additionally, the Louisville Muhammad Ali International Airport provides easy travel for investment managers and consultants.

Ms. Pendergrass introduced agenda item ***Closed Session*** (Video 01:19:55 to 01:21:02). Mr. Powell made a motion to enter closed session to discuss pending litigation pursuant to KRS 61.810(c). The motion was seconded by Dr. Carver and passed unanimously.

Ms. Pendergrass read the following closed session statement: A motion having been made in open session to move into a closed session for a specific purpose, and such motion having carried by majority vote in open, public session, the Board shall now enter closed session to consider litigation, pursuant to KRS 61.810(1)(c), because of the necessity of protecting the confidentiality of the Systems' litigation strategy and preserving any available attorney-client privilege.

*\*\*\*Mr. Fulkerson exited the meeting prior to the start of Closed Session\*\*\**

***Closed Session*** (Video - Part 2 - 00:01:09 to 00:02:17).

Coming back into open session, Mr. Powell made a motion to approve enforcement action if required or necessary on the information discussed in the closed session. Mr. O'Mara seconded the motion and the motion passed unanimously.

Ms. Pendergrass opened the floor for adjournment. Dr. Hackbart made a motion and was seconded by Mr. Powell to ***adjourn*** the meeting. The motion passed unanimously.

Copies of all documents presented are incorporated as part of the Minutes of the Board of Trustees held December 4, 2023, except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

*The remainder of this page left blank intentionally.*

## **CERTIFICATION**

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees 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 conjunction with this meeting.

---

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on December 4, 2023, were approved on January 17, 2024.

---

Chair of the Board of Trustees

I have reviewed the Minutes of the December 4, 2023, Board of Trustees Meeting for content, form, and legality.

---

Executive Director  
Office of Legal Services

**MINUTES OF MEETING  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
BOARD OF TRUSTEES MEETING  
TRUSTEE EDUCATION SESSION  
JANUARY 17, 2024, AT 2:00 P.M. ET  
VIA LIVE VIDEO TELECONFERENCE**

At the Meeting of the County Employees Retirement System Board of Trustees held on January 17, 2024, the following members were present: Betty Pendergrass (Chair), Dr. Patricia Carver, George Cheatham, Michael Foster, Dr. Merl Hackbart, Dr. Martin Milkman, William O'Mara, and Jerry Powell. Staff members present were CERS CEO Ed Owens, III, Rebecca Adkins, Erin Surratt, Michael Lamb, Steve Willer, Victoria Hale, Crystal Smith- Harrod, Ashley Gabbard, Katie Park, Shaun Case, and Sherry Rankin. Others present included Eric Branco with Johnson Bowman Branco, LLP.

Ms. Pendergrass called the meeting to order.

Mr. Branco read the Opening Statement.

Ms. Rankin called Roll.

There being no ***Public Comment*** received, Ms. Pendergrass introduced agenda item ***Open Meetings and Open Records Training*** (Video 00:06:30 to 02:05:20). Mr. Branco led the CERS Board of Trustees in a two-hour Open Meetings and Open Records Training.

Mr. Cheatham requested additional information regarding the process for notifying members, the press, and the public of meetings.

***\*\*\*Mr. Foster exited the meeting\*\*\****

Ms. Pendergrass opened the floor for adjournment. Mr. Powell made a motion and was seconded by Mr. O'Mara to ***adjourn*** the meeting. The motion passed unanimously.

## **CERTIFICATION**

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees 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 conjunction with this meeting.

---

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on January 17, 2024, were approved on March 11, 2024.

---

Chair of the Board of Trustees

I have reviewed the Minutes of the January 17, 2024, Board of Trustees Meeting for content, form, and legality.

---

Executive Director  
Office of Legal Services

**MINUTES OF MEETING  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
BOARD OF TRUSTEES MEETING  
TRUSTEE EDUCATION SESSION  
FEBRUARY 6, 2024, AT 10:00 A.M. ET  
VIA LIVE VIDEO TELECONFERENCE**

At the Meeting of the County Employees Retirement System Board of Trustees held on February 6, 2024, the following members were present: Betty Pendergrass (Chair), George Cheatham, Michael Foster, JT Fulkerson, Dr. Merl Hackbart, William O'Mara, and Jerry Powell. Staff members present were CERS CEO Ed Owens, III, David Eager, Rebecca Adkins, Erin Surratt, Michael Lamb, Steve Willer, Anthony Chiu, Joe Gilbert, Brian Caldwell, Victoria Hale, Katie Park, Phillip Cook, and Sherry Rankin. Others present included Chris Tessman, David Lindberg, Craig Morton, and Madeline Osadjan with Wilshire and Eric Branco with Johnson Bowman Branco, LLP.

Ms. Pendergrass called the meeting to order.

Mr. Branco read the Opening Statement.

Ms. Rankin called Roll.

There being no ***Public Comment*** received, Ms. Pendergrass introduced agenda item ***Investments Training Session*** (Video 00:06:25 to 02:05:33).

\*\*\**Dr. Hackbart entered the meeting*\*\*\*

Madeline Osadjan, Chris Tessman, David Lindberg, and Craig Morton with Wilshire conducted a two-hour Investments Training for the CERS Board of Trustees.

Ms. Osadjan began the training with a presentation on Private Credit.

\*\*\**The CERS Board of Trustees recessed for a 10-Minute Break*\*\*\*

Next, Mr. Tessman presented information on Rebalancing Ranges.

Mr. Lindberg provided the CERS Board of Trustees with an overview of Fund Governance.

Lastly, Mr. Morton gave a presentation on Sector Exposure.

Ms. Pendergrass opened the floor for adjournment. Mr. Fulkerson made a motion and was seconded by Mr. Foster to *adjourn* the meeting. The motion passed unanimously.

*The remainder of this page left blank intentionally.*

## **CERTIFICATION**

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees 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 conjunction with this meeting.

---

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on February 6, 2024, were approved on March 11, 2024.

---

Chair of the Board of Trustees

I have reviewed the Minutes of the February 6, 2024, Board of Trustees Meeting for content, form, and legality.

---

Executive Director  
Office of Legal Services





## MEMORANDUM

**TO:** County Employees Retirement System Board of Trustees

**FROM:** J.T. Fulkerson, Chair  
CERS Personnel Committee

Lori Casey  
Division Director, Human Resources

**DATE:** March 11, 2024

**SUBJECT:** Summary of CERS Personnel Committee Meeting

---

The County Employees Retirement System (CERS) Personnel Committee held a Special Called meeting on January 9, 2024.

**1. The following items were approved by the CERS Personnel Committee and are being forwarded to the CERS Board of Trustees for ratification\***

- a. **2024 CEO Performance Plan** -The CERS Personnel Committee reviewed and discussed the CERS Performance Plan for 2024. Mr. Cheatham made some recommendations on additional topics for Mr. Owens to include as Trustee education topics. The plan was passed unanimously with these changes.
- b. **Personnel Committee Strategic Plan Objectives** – The CERS Personnel Committee unanimously approved the CERS Strategic Plan Objectives for adoption in the CERS Strategic Plan. The HR Director noted that the Personnel Policy Manual would need to be updated at a future date to coincide with the Personnel Committee Strategic Plan.

**RECOMMENDATION: The CERS Personnel Committee requests that the County Employees Retirement System Board ratify the actions taken by the CERS Personnel Committee.**

**2. The following items were also discussed during the Personnel Committee meeting:**

- a. The CERS Board of Trustees Election Policy was presented. A reminder was given that nominations are due by July 31, 2024, for the next election in January of 2025. Assistance to recruit candidates may be helpful.
- b. Trustee education was discussed. A recommendation was made that the Committee Members brainstorm topics/speakers for the scheduled upcoming sessions (July 2024, October 2024, and January 2025).

**\*Board of Trustees Action Required**



<b>CEO 2024 JOB TASKS AND EXPECTATIONS</b>		
<b><u>Describe</u></b>	<b><u>Due Date</u></b>	<b><u>Date Completed</u></b>
Administration		
• Coordinate with Shawn Sparks and Chris Clair to develop PR structure for CERS communications	Ongoing	
• Keep CERS Board Chair informed about key issues affecting CERS pension management	Ongoing	
• Keep CERS Committee Chairs informed about key issues affecting CERS pension management	Ongoing	
• Stakeholder Communications	Ongoing	
○ Newsletters		
○ Conferences, seminars		
○ Press releases		
○ Develop webinars to publish on KPPA site for CERS topics of interest	04/2024	
• CERS Strategic Planning	06/30/2024	
○ Assist Committees with developing goals and measurement tools	03/31/2024	
○ Consolidate Committee plans to organize Board Strategic Plan	04/30/2024	
○ Develop communications to distribute CERS Strategic plan to key stakeholders (Separation workgroup, KLC, KACo, KSBA & General Assembly)	06/30/2024	
○ Establish data collection system to develop measurement process and reporting to Board for quarterly meetings	07/31/2024	
Trustee Education:		
• Develop a catalog of Trustee Education courses, including recorded sessions that were presented live	03/2024	
• Organize CERS-sponsored education sessions (2-hour in-person training) to provide 6 – 8 hours of annual training	3/31, 6/30, 9/30, & 12/31	
• Monitor Trustee training reports and assist Trustees with finding educational opportunities	Ongoing	
• Provide quarterly reports to Board Chair about Trustee education hours completed	3/31, 6/30, 9/30, & 12/31	
Monthly CEO reports to CERS Board Chair	Last work day of each month	
Quarterly CEO report in CERS Board packet	3/1/2024, 6/1/2024, 9/1/2024, & 11/25/2024	

<u>Describe</u>	<u>Due Date</u>	<u>Date Completed</u>
Legislative		
• Contact PPOB chairs to coordinate CERS presentations for regular PPOB meetings	Ongoing	
• Assist Committee Chair with meeting agendas, scheduling, and summaries to CERS Board	Ongoing	
• Coordinate draft bill review for KPPA legislative proposals with CERS Legislative Working Group and ensure that CERS Board has input prior to submission to LRC/General Assembly	10/31/2024	
• Coordinate bill review with Legislative Working Group during General Assembly regular and special sessions	Jan – April (Annually)	
• Coordinate CERS legislative requests with Legislative Working Group and CERS General Counsel	Ongoing	
Investment Management		
• Assist Committee Chair with meeting agenda, packet, and scheduling	Ongoing	
• Asset Allocation		
○ Contact NCPERS to find out when Asset Allocation study (Kinlaw, Kritzman, & Turkington) will be published	01/31/2023	
Finance		
• Assist Committee Chair with meeting agenda, packet, scheduling, and summary for CERS Board packet	Ongoing	
• Evaluate ongoing Admin Costs	Ongoing	
• Review proposed KPPA Admin Budget	08/2024	
• Develop historical financial trend reports for each of CERS plans	03/31/2024	
• Coordinate with Internal Audit to evaluate Risk Assessments	Ongoing	
Actuarial		
• Assist Committee Chair with meeting agenda, packet, scheduling, and summary for CERS Board	Ongoing	
• Monitor investment performance versus discount rate	Ongoing	
Develop Peer Group Research	02/2024	
• Identify peer public pension plans	02/2024	
• Research NASRA info for small plans	02/2024	
• Check contacts on NCPERS conference attendee lists for potential peer public plans	02/2024	



## Personnel Committee Strategic Plan Objectives

<b>Objective A. Enhance Personnel Committee framework for CERS staff evaluations, professional development, and succession planning.</b>	
1)	<b>Measure:</b> Adopt CEO Performance Plan. <b>Target:</b> Annually in January
2)	<b>Measure:</b> Evaluate CEO annually. <b>Target:</b> Annually in June
3)	<b>Measure:</b> Recruit Trustees for elected and appointed positions. <b>Target:</b> July 2024 (Elected Trustees) & 2025 (Appointed Trustees)
<b>Objective C. Formalize annual planning for Trustee Education.</b>	
1)	<b>Measure:</b> Educational sessions (January, July, & October) provide a minimum of 6 hours of CERS-sponsored education. <b>Target:</b> Ongoing
2)	<b>Measure:</b> Education catalog of videos provide Trustees with additional resources for training hours, including specific training for New Trustee Orientation sessions. <b>Target:</b> July 2024
3)	<b>Measure:</b> All Trustees meet the statutory requirements for 12 hours of annual training. <b>Target:</b> Ongoing
<b>Objective D. Risk Management</b>	
1)	<b>Measure:</b> Establish methodology to evaluate effectiveness of Board governance with an Independent analysis of CERS Board governance <b>Target:</b> September 2024 and ongoing

GOAL/OBJECTIVE	2024	2025	2026	2027	2028
<b>Goal 6. Administrative (Personnel Objectives)</b>					
1) Adopt annual CEO Performance plan.	Jan	Jan	Jan	Jan	Jan
2) Evaluate CEO performance annually.	June	June	June	June	June
3) Formalize annual planning for in-person Trustee education sessions in January, July & October.	Jan	Jan	Jan	Jan	Jan
4) Establish methodology to evaluate effectiveness of Board governance.	September				



## MEMORANDUM

**TO:** County Employees Retirement System Board of Trustees

**From:** William O'Mara, Chair  
Finance Committee

**Date:** March 11, 2024

**Subject:** Summary of Finance Committee Quarterly Meeting

---

The County Employees Retirement System held a regularly scheduled quarterly meeting on February 19, 2024.

**1. The following items were approved by the Finance Committee and are being forwarded to the County Employees Retirement System Board of Trustees for ratification\***

- a. **Hazardous Duty Requests** – The Finance Committee considered a total of nine (9) requests for Hazardous Duty designation for positions in member organizations. After hearing the presentation from KPPA staff indicating staff had reviewed each request and determined that they meet the statutory guidelines for Hazardous coverage, the Finance Committee voted unanimously to approve each request.

**RECOMMENDATION:** The Finance Committee requests the County Employees Retirement System Board of Trustees ratify the actions taken by the Finance Committee.

**2. The following items were also discussed during the Finance Committee meeting:**

- a. KPPA staff presented quarterly financial reports consisting of:
  - a. YTD Financial Spreadsheet
  - b. Administration Expense to Budget
  - c. Investment Expense to Budget
  - d. Contribution Report
  - e. Outstanding Invoice Report
  - f. Penalty Waiver Report

- b. The CFO made several pertinent observations concerning the financial position of the CERS funds. The fiduciary net position for the pension funds stood at approximately \$12.4 billion which was up over 13% from the second quarter of fiscal year 2023. Both member (11.1%) and employer (9.8%) contributions were up year over year in the pension plans.

The fiduciary net position for the insurance funds stood at approximately \$5.1 billion which was up over 11% from the second quarter of fiscal year 2023. The employer contribution was significantly down in both the Non-Hazardous and Hazardous funds as both are over 100% funded. The Humana gain share represented a 76% increase year over year.

The administrative expenses were up approximately \$900,000 year over year for both the pension and insurance funds. The Outstanding Invoices remained steady at \$3.2 million representing a 2% increase year over year. The CFO indicated that the top five employers on the invoice list are currently in litigation with KPPA.

- c. A discussion of the Investment budget yielded the fact that insurance coverage for some existing legal matters has been exhausted and the payments to parties in those matters will now come directly from the Trust.
- d. The committee inquired about a significant increase in the real estate position for the funds and staff indicated the Mesa West accounts were moved from the Specialty Credit asset bucket to the Real Estate asset bucket. These accounts had originally been placed in the Opportunistic asset class which has since been dissolved by the Investment Committee and the Board of Trustees.
- e. The committee also discussed strategic planning initiatives that were important to the committee. It was determined that CERS would work collaboratively with the KPPA strategic planning process. The goal for the committee will be to finalize strategic goals/objectives by the end of the fiscal year.

**\*Board of Trustees Action Required**



**ALLISON BALL**  
**AUDITOR OF PUBLIC ACCOUNTS**

Independent Auditor's Report

Board of Trustees  
 Kentucky Public Pensions Authority

***Opinion***

We have audited the accompanying schedules of employer allocations of the Kentucky Employees Retirement System-Nonhazardous Pension Plan (KERS Nonhazardous), Kentucky Employees Retirement System-Hazardous Pension Plan (KERS Hazardous), County Employees Retirement System-Nonhazardous Pension Plan (CERS Nonhazardous), and County Employees Retirement System-Hazardous Pension Plan (CERS Hazardous) as of and for the year ended June 30, 2023, and the related notes. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) included in the accompanying schedules of pension amounts by employer of the KERS Nonhazardous, KERS Hazardous, CERS Nonhazardous, and CERS Hazardous Plans as of and for the year ended June 30, 2023, and the related notes.

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating entities for the KERS Nonhazardous, KERS Hazardous, CERS Nonhazardous, and CERS Hazardous Plans as of and for the year ended June 30, 2023, in accordance with accounting principles generally accepted in the United States of America.

***Basis for Opinion***

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of the Kentucky Public Pensions Authority (KPPA) and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

209 ST. CLAIR STREET  
 FRANKFORT, KY 40601-1817

TELEPHONE 502.564.5841  
 FACSIMILE 502.564.2912  
 AUDITOR.KY.GOV

AN EQUAL OPPORTUNITY EMPLOYER M/F/D





Board of Trustees  
Kentucky Public Pensions Authority

### ***Responsibilities of Management for the Schedules***

Management is responsible for the preparation and fair presentation of the schedules in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of schedules that are free from material misstatement, whether due to fraud or error.

In preparing the schedules, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about KPPA's ability to continue as a going concern for twelve months beyond the schedule date, including any currently known information that may raise substantial doubt shortly thereafter.

### ***Auditor's Responsibilities for the Audit of the Schedules***

Our objectives are to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we

- exercise professional judgment and maintain professional skepticism throughout the audit.
- identify and assess the risks of material misstatement of the schedule of employer allocations and the specified totals included in the schedule of pension amounts by employer, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedule of employer allocations and the specified totals included in the schedule of pension amounts by employer.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of KPPA's internal control. Accordingly, no such opinion is expressed.
- evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the schedule of employer allocations and the specified totals included in the schedule of pension amounts by employer.
- conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about KPPA's ability to continue as a going concern for a reasonable period of time.

Board of Trustees  
Kentucky Public Pensions Authority

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

***Other Matters***

We have audited, in accordance with auditing standards generally accepted in the United States of America, the combining financial statements of KPPA as of and for the fiscal year ended June 30, 2023, and our report thereon, dated November 27, 2023, expressed an unmodified opinion on those combining financial statements.

***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated March 21, 2024 on our consideration of KPPA's internal control over the preparation of these schedules and on our test of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering KPPA's internal control over financial reporting and compliance.

***Restriction on Use***

Our report is intended solely for the information and use of KPPA management, Audit Committee, Board of Trustees, KERS Nonhazardous, KERS Hazardous, CERS Nonhazardous, and CERS Hazardous Plans employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Respectfully Submitted,

Allison Ball  
Auditor of Public Accounts  
Frankfort, KY

March 21, 2024

**Kentucky Public Pensions Authority**  
**Notes to Schedules of Employer Allocations and Pension Amounts by Employer**  
**For the Fiscal Year Ended June 30, 2023**

**Note 1 - Organization**

Under the provisions of Kentucky Revised Statute Section 78.782 and 61.645 the Kentucky Public Pensions Authority oversees the administration and operation of the personnel and accounting systems for the County Employees Retirement System – Nonhazardous Pension Plan (CERS Nonhazardous) County Employees Retirement System – Hazardous Pension Plan (CERS Hazardous) collectively CERS, the Kentucky Employees Retirement System – Nonhazardous (KERS Nonhazardous), Kentucky Employees Retirement System – Hazardous (KERS Hazardous), collectively KERS, and State Police Retirement System (SPRS). Although the assets of the funds are invested as a whole, each plan's assets are accounted for separately, invested according to plan-specific asset allocation goals, and are used only for the payment of benefits to the members of that fund and a pro rata share of administrative costs, in accordance with the provisions of Kentucky Revised Statute Sections 78.630, 61.570 and 16.555.

The KPPA Board is comprised of elected and appointed representatives from the CERS and Kentucky Retirement System (KRS) boards. The KPPA Board, as of December 6, 2023, is comprised of Keith Percy, Chair, elected by SPRS, selected by KRS Board Chair; Jerry W. Powell, Vice Chair, elected by CERS, selected by CERS Board Chair; Betty Pendergrass, elected by CERS, CERS Board Chair; Lynn Hampton, Governor Appointee, KRS Board Chair; Dr. Merl Hackbart, Governor Appointee, CERS Investment Committee Chair; C. Prewitt Lane, Governor Appointee, KRS Investment Committee Chair; William O'Mara, Governor Appointee, selected by CERS Chair; and William Summers V, Governor Appointee, selected by KRS Chair.

The CERS Board and the KRS Board each have nine trustees. Three elected by the membership and six appointed by the Governor. For more information on the Boards and their makeup including bios for each trustee, please visit the KPPA website, [kyret.ky.gov](http://kyret.ky.gov).

CERS Nonhazardous, CERS Hazardous, KERS Nonhazardous, and KERS Hazardous are cost-sharing multiple-employer defined benefit plans that cover all regular full-time members employed in nonhazardous and hazardous positions of any state department, board, agency, county, city, school board, and any additional eligible local agencies electing to participate. The plans provide for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances.

SPRS is a single-employer defined benefit plan that covers all full-time state troopers employed in a hazardous duty position by the Kentucky State Police. The plan provides for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances. No schedule has been presented for SPRS, since it is a single-employer defined benefit pension plan.

**Kentucky Public Pensions Authority**  
**Notes to Schedules of Employer Allocations and Pension Amounts by Employer**  
**For the Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 2 - Relationship to Combining Financial Statements**

The components associated with pension expense and deferred outflows and inflows of resources have been determined based on the net increase in fiduciary net position as shown in the Combining Statement of Changes in Fiduciary Net Position and in accordance with requirements promulgated by Governmental Accounting Standards Board (GASB) Statements No. 67 and 68. The net pension liability at June 30, 2023, is reported in the Notes to Combining Financial Statements and Required Supplementary Information.

Based on guidance issued by GASB in connection with GASB statement No. 74, the 1% of pay member contribution for Tier 2 and Tier 3 members to a 401(h) subaccount are considered as an OPEB asset. As a result, the reported fiduciary net positions as of June 30, 2017 and later are net of the 401(h) asset balance.

**Note 3 - Summary of Significant Accounting Policies**

Employer contributions to KPPA are calculated based upon creditable compensation for active members reported by employers for CERS Hazardous, CERS Nonhazardous and KERS Hazardous. House Bill 8 passed during the 2021 legislative session changed how employer contributions are allocated and collected from the participating employers in the KERS Nonhazardous fund. Therefore, the calculation of the proportionate share of the Collective Pension Amounts for employers that participate in the KERS Nonhazardous pension fund has been updated since June 30, 2020. The proportionate share of the Collective Pension Amounts for employers that participate in the KERS Nonhazardous fund is based upon their allocation of the amortization cost, as specified under the revised statutes. It is further based upon their allocation of the normal cost portion of the required contribution, as allocated by actual salary for fiscal year ending June 30, 2023. The final proportionate share calculation, which represents an employer's share of the long-term contribution effort assumes the amortization cost is approximately 88% of the aggregate required contribution for the fund. Employer contributions are accrued when earned and the employer has made a formal commitment to provide the contributions.

Net investment income represents realized and unrealized gains and losses based on the fair value of investments, interest, and dividends, net of investment expenses. Investment income/loss is allocated to each plan based on the plan's ownership in the respective investment account.

The Schedule of Employer Allocations reflects employer contributions received for the fiscal year ended June 30, 2023, and includes the following for each individual employer:

- employer contributing entity and reporting code;
- the amount of the employer contributing entity's contributions; and,
- the employer contributing entity's contributions as a percentage of total employer contributions, as defined by this allocation.

**Kentucky Public Pensions Authority**  
**Notes to Schedules of Employer Allocations and Pension Amounts by Employer**  
**For the Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 3 - Summary of Significant Accounting Policies (Continued)**

The Employer Allocation Percentage has been rounded to six decimal places.

The components of the net pension liability of CERS and KERS for participating employers as of June 30, 2023, calculated in accordance with GASB Statement No. 67, are as follows (dollars in thousands):

	CERS Nonhazardous	CERS Hazardous	KERS Nonhazardous	KERS Hazardous
Total Pension Liability	\$ 15,089,106	\$ 5,731,148	\$ 15,858,669	\$ 1,316,521
Fiduciary Net Position	8,672,597	3,035,192	3,539,943	893,533
Net Pension Liability	<u>\$ 6,416,509</u>	<u>\$ 2,695,956</u>	<u>\$ 12,318,726</u>	<u>\$ 422,988</u>

Actuarial Methods and Assumptions for Determining the Total Pension Liability and Net Pension Liability

For financial reporting, the actuarial valuation as of June 30, 2023, was performed by Gabriel Roeder Smith (GRS). The total pension liability, net pension liability, and sensitivity information as of June 30, 2023, were based on an actuarial valuation date of June 30, 2022. The total pension liability was rolled-forward from the valuation date (June 30, 2022) to the plan's fiscal year ending June 30, 2023, using generally accepted actuarial principles.

The CERS Board of Trustees adopted new actuarial assumptions on May 9, 2023, and include a change in the investment return assumption from 6.25% to 6.50%. The KRS Board of Trustees adopted new actuarial assumptions on June 5, 2023. These assumptions are documented in the report titled "2022 Actuarial Experience Study for the Period Ending June 30, 2022." The Total Pension Liability as of June 30, 2023, is determined using these updated assumptions.

House Bill 506 passed during the 2023 legislative session and reinstated the Partial Lump Sum Option form of payment for members who retire on and after January 1, 2024, with the lump-sum options expanded to include 48 or 60 times the member's monthly retirement allowance. Since this optional form of payment results in a reduced, actuarial equivalent, monthly retirement allowance for members who elect a partial lump-sum option, this provision does not have a fiscal impact to the total pension liability.

House Bill 506 also adjusted the minimum required separation period before a retiree may become reemployed and continue to receive their retirement allowance to one month under all circumstances. This is a minimal change for members in the hazardous plans, as the minimum separation period was already one month for members who became reemployed on a full-time basis in a hazardous position. The requirement was previously three months only for members who became reemployed on a part-time basis or in any nonhazardous position. GRS believes this provision of House Bill 506 will have an insignificant impact on the retirement pattern of hazardous members and therefore have reflected no fiscal impact to the total pension liability of the hazardous plan.

**Kentucky Public Pensions Authority**  
**Notes to Schedules of Employer Allocations and Pension Amounts by Employer**  
**For the Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 3 - Summary of Significant Accounting Policies (Continued)**

Actuarial Methods and Assumptions for Determining the Total Pension Liability and Net Pension Liability (Continued)

Similarly, this is a relatively small change for future retirees in the nonhazardous plans. But as the minimum separation period was previously three months in almost every circumstance, GRS assumed that there would be a 1.0% increase in the rate of retirement for each of the first two years a nonhazardous member becomes retirement eligible under the age of 65 in order to reflect a shift in the retirement pattern. The total pension liability as of June 30, 2023, for the nonhazardous plans in determined using these updated benefits provisions.

There have been no other plan provision changes that would materially impact the total pension liability since June 30, 2022. It is GRS's opinion that these procedures for determining the information contained in this report are reasonable, appropriate, and comply with applicable requirements under GASB No. 68.

The actuarial assumptions are:

Inflation	2.50%
Payroll Growth Rate	2.0% for CERS Nonhazardous and Hazardous, and 0.0% for KERS Nonhazardous and Hazardous
Salary Increases	3.30% to 10.30%, varies by service for CERS Nonhazardous 3.55% to 19.05%, varies by service for CERS Hazardous 3.30% to 15.30%, varies by service for KERS Nonhazardous 3.55% to 20.05%, varies by service for KERS Hazardous
Investment Rate of Return	6.50% for CERS Nonhazardous and Hazardous, 6.25% for KERS Hazardous, 5.25% for KERS Nonhazardous

The mortality table used for active members was a Pub-2010 General Mortality table, for the Nonhazardous System, and the Pub-2010 Public Safety Mortality table for the Hazardous System, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010. The mortality table used for healthy retired members was a system-specific mortality table based on mortality experience from 2013-2022, projected with the ultimate rates from MP-2020 mortality improvement scale using a base year of 2023. The mortality table used for the disabled members was PUB-2010 Disabled Mortality table, with rates multiplied by 150% for both male and female rates, projected with the ultimate rates from the MP-2020 mortality improvement scale using a base year of 2010.

**Kentucky Public Pensions Authority**  
**Notes to Schedules of Employer Allocations and Pension Amounts by Employer**  
**For the Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 3 - Summary of Significant Accounting Policies (Continued)**

Discount Rate

The projection of cash flows used to determine the discount rate of 6.50% for CERS Nonhazardous and CERS Hazardous assumes that the funds receive the required employer contributions each future year, as determined by the current funding policy established in Statute, as amended by House Bill 362, (passed in 2018) over the remaining 28 years (closed) amortization period of the unfunded actuarial accrued liability.

The projection of cash flows used to determine the discount rate of 5.25% for the KERS Nonhazardous, and 6.25% for KERS Hazardous, assumes that the funds receive the required employer contributions each future year, as determined by the current funding policy, established in Statute as amended by House Bill 8, passed during the 2021 legislative session, over the remaining 28 years (closed) amortization period of the unfunded actuarial accrued liability.

The discount rate determination does not use a municipal bond rate. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the Annual Comprehensive Financial Report (ACFR).

Basis of Accounting

The underlying financial information used to prepare allocation schedules is based on KPPA's combining financial statements. KPPA's combining financial statements for all plans are prepared using the accrual basis of accounting and are prepared in accordance with accounting principles generally accepted in the United State of America (GAAP) that apply to governmental accounting for fiduciary funds.

Use of Estimates in Preparation of the Schedules

The preparation of the schedules in conformity with Generally Accepted Accounting Principles (GAAP) requires management to make estimates and assumptions that affect certain amounts and disclosures. KPPA accrues employer contributions using estimates based on historical data. Actual results could differ from those estimates.

**Kentucky Public Pensions Authority**  
**Notes to Schedules of Employer Allocations and Pension Amounts by Employer**  
**For the Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 4 - Reconciliation of Employer Contributions**

The reconciliation between the employer contributions used for the Schedule of Employer Allocations and the Combining Statements of Changes in Fiduciary Net Position as of June 30, 2023, are presented below (\$ in thousands):

	<u>CERS Nonhazardous</u>	<u>CERS Hazardous</u>	<u>KERS Nonhazardous</u>	<u>KERS Hazardous</u>
Per GRS Schedule A	\$ 679,246	\$ 300,339	\$ 1,022,116	\$ 68,332
Retired Reemployed	17,519	6,907	4,589	2,940
Other Employer Contributions	(2,589)	(1,226)	(381)	(20)
Interest	87	366	44	8
Write-Offs/Refunds	3	(76)	(467)	128
Employer Pay Credit	(51,694)	(21,683)	(22,018)	(8,758)
Sick Leave	3,209	1,726	7,869	1,390
Outstanding Checks	159	-	102	-
KPPA	-	-	1,033	-
KTRS	-	-	85	-
Total	<u>\$ 645,940</u>	<u>\$ 286,353</u>	<u>\$ 1,012,972</u>	<u>\$ 64,020</u>
Employer Contributions on the Statement of Change in Fiduciary Net Position	\$ 645,940	\$ 286,353	\$ 1,012,972	\$ 64,020
Dollar Difference	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Percentage Difference	<u>0%</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>

\* Other Employer Contributions - contributions from prior period adjustments; omitted contributions/invoices; and other ER invoices not sick leave.

The items listed above are included in the contributions on the Combining Statements of Changes in Fiduciary Net Position, but are not included in Schedule A (GRS reports). The contributions per Schedule A (GRS reports) represent actual contributions made related to the measurement period.



**Kentucky Public Pensions Authority**  
**Notes to Schedules of Employer Allocations and Pension Amounts by Employer**  
**For the Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 5 - Actuarial Methods and Assumptions used to determine the Actuarial Determined Contributions for Fiscal Year 2023**

The following actuarial methods and assumptions were used to determine the actuarially determined contributions effective for fiscal year ending June 30, 2023:

Valuation Date	June 30, 2021 for CERS Nonhazardous and CERS Hazardous
Experience Study	June 30, 2021 for KERS Nonhazardous and KERS Hazardous
Actuarial Cost Method	July 1, 2018 to June 30, 2022
Amortization Method	Entry Age Normal
Remaining Amortization period	Level percent of pay
	30 years closed period at June 30, 2019
	Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases
Payroll Growth Rate	2.0% for CERS Nonhazardous and Hazardous
	0.0% for KERS Nonhazardous and Hazardous
Asset Valuation Method	20% of the difference between the market value of the assets and the expected actuarial value of assets is recognized
Inflation	2.30%
Salary Increase	3.30% to 10.30%, varies by service for CERS Nonhazardous
	3.55% to 19.05%, varies by service for CERS Hazardous
	3.30% to 15.30%, varies by service for KERS Nonhazardous
	3.55% to 20.05%, varies by service for KERS Hazardous
Investment Rate of Return	6.25% for CERS Nonhazardous and Hazardous and KERS Hazardous
	5.25% for KERS Nonhazardous
	Board certified rate is phased into the actuarially determined rate in accordance with
Phase-in Provision	HB 362 enacted in 2018 for CERS Nonhazardous and CERS Hazardous

The retiree mortality is a System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019.

**Note 6 - Deferred Inflows and Outflows of Resources**

The Deferred Inflows and Outflows of Resources and Pension Expense included in the Schedule of Pension Amounts by Employer include only certain categories of deferred outflows of resources and deferred inflows of resources. These include differences between expected and actual experience, changes of assumptions and differences between projected and actual earnings on plan investments. The Schedule of Pension Amounts by Employer does not include deferred outflows/inflows of resources for changes in the employer's proportionate share of contributions or employer contributions made subsequent to the measurement date. The net pension liability as of June 30, 2023, is based on the June 30, 2022 actuarial valuation rolled forward. Deferred outflows and inflows related to differences between projected and actual earnings on plan investments are amortized over a closed five-year period.



ALLISON BALL  
AUDITOR OF PUBLIC ACCOUNTS

Report On Internal Control Over Financial Reporting And  
On Compliance And Other Matters Based On An Audit Of Financial  
Statements Performed In Accordance With *Government Auditing Standards*

Independent Auditor's Report

To the Board of Trustees  
Kentucky Public Pensions Authority

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the schedules of employer allocations of the Kentucky Employees Retirement System – Nonhazardous Pension Plan (KERS Nonhazardous), Kentucky Employees Retirement System – Hazardous Pension Plan (KERS Hazardous), County Employees Retirement System – Nonhazardous Pension Plan (CERS Nonhazardous) and County Employees Retirement System – Hazardous Pension Plan (CERS Hazardous) as of and for the year ended June 30, 2023, and the related notes to the schedules. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) included in the accompanying schedules of pension amounts by employer of the KERS Nonhazardous, KERS Hazardous, CERS Nonhazardous, and CERS Hazardous Pension Plans as of and for the fiscal year ended June 30, 2023 and have issued our report thereon dated March 21, 2024.

***Report on Internal Control Over Financial Reporting***

In planning and performing our audit of the schedules, we considered the Kentucky Public Pensions Authority's (KPPA) internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the schedules, but not for the purpose of expressing an opinion on the effectiveness of KPPA's internal control. Accordingly, we do not express an opinion on the effectiveness of KPPA's internal control.

209 ST. CLAIR STREET  
FRANKFORT, KY 40601-1817

TELEPHONE 502.564.5841  
FACSIMILE 502.564.2912  
AUDITOR.KY.GOV

AN EQUAL OPPORTUNITY EMPLOYER M/F/D



Board of Trustees  
Kentucky Public Pensions Authority

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's schedules will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

***Report on Compliance and Other Matters***

As part of obtaining reasonable assurance about whether KPPA's schedules are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the schedules. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

***Purpose of this Report***

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Respectfully Submitted,

Allison Ball  
Auditor of Public Accounts  
Frankfort, KY

March 21, 2024



ALLISON BALL  
AUDITOR OF PUBLIC ACCOUNTS

*Independent Auditor's Report*

Board of Trustees  
Kentucky Public Pensions Authority

***Opinion***

We have audited the accompanying schedules of employer allocations of the Kentucky Employees Retirement System-Nonhazardous Other Post Employee Benefit (OPEB) Plan (KERS Nonhazardous), Kentucky Employees Retirement System-Hazardous OPEB Plan (KERS Hazardous), County Employees Retirement System-Nonhazardous OPEB Plan (CERS Nonhazardous), and County Employees Retirement System-Hazardous OPEB Plan (CERS Hazardous) as of and for the year ended June 30, 2023, and the related notes. We have also audited the total for all entities of the columns titled net OPEB liability, total deferred outflows of resources, total deferred inflows of resources, and total OPEB expense (specified column totals) included in the accompanying schedules of OPEB amounts by employer of the KERS Nonhazardous, KERS Hazardous, CERS Nonhazardous, and CERS Hazardous Plans as of and for the year ended June 30, 2023, and the related notes.

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net OPEB liability, total deferred outflows of resources, total deferred inflows of resources, and total OPEB expense for the total of all participating entities for the KERS Nonhazardous, KERS Hazardous, CERS Nonhazardous, and CERS Hazardous Plans as of and for the year ended June 30, 2023, in accordance with accounting principles generally accepted in the United States of America.

***Basis for Opinion***

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of the Kentucky Public Pensions Authority (KPPA) and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

209 ST. CLAIR STREET  
FRANKFORT, KY 40601-1817

TELEPHONE 502.564.5841  
FACSIMILE 502.564.2912  
AUDITOR.KY.GOV

AN EQUAL OPPORTUNITY EMPLOYER M/F/D



Board of Trustees  
Kentucky Public Pensions Authority

### ***Responsibilities of Management for the Schedules***

Management is responsible for the preparation and fair presentation of the schedules in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of schedules that are free from material misstatement, whether due to fraud or error.

In preparing the schedules, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about KPPA's ability to continue as a going concern for twelve months beyond the schedule date, including any currently known information that may raise substantial doubt shortly thereafter.

### ***Auditor's Responsibilities for the Audit of the Schedules***

Our objectives are to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of OPEB amounts by employer are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the schedule of employer allocations and specified column totals included in the schedule of OPEB amounts by employer.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- exercise professional judgment and maintain professional skepticism throughout the audit.
- identify and assess the risks of material misstatement of the schedule of employer allocations and the specified totals included in the schedule of OPEB amounts by employer, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedule of employer allocations and the specified totals included in the schedule of OPEB amounts by employer.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of KPPA's internal control. Accordingly, no such opinion is expressed.
- evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the schedule of employer allocations and the specified totals included in the schedule of OPEB amounts by employer.
- conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about KPPA's ability to continue as a going concern for a reasonable period of time.

Board of Trustees  
Kentucky Public Pensions Authority

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

***Other Matters***

We have audited, in accordance with auditing standards generally accepted in the United States of America, the combining financial statements of KPPA as of and for the fiscal year ended June 30, 2023, and our report thereon, dated November 27, 2023, expressed an unmodified opinion on those combining financial statements.

***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated March 21, 2024 on our consideration of KPPA's internal control over the preparation of these schedules and on our test of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering KPPA's internal control over financial reporting and compliance.

***Restriction on Use***

Our report is intended solely for the information and use of KPPA management, Audit Committee, Board of Trustees, KERS Nonhazardous, KERS Hazardous, CERS Nonhazardous, and CERS Hazardous Plans employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Respectfully Submitted,

Allison Ball  
Auditor of Public Accounts  
Frankfort, KY

March 21, 2024

**Kentucky Public Pensions Authority**  
**Notes to the Schedules of Employer Allocations and OPEB Amounts by Employer**  
**Fiscal Year Ended June 30, 2023**

**Note 1 - Organization**

Under the provisions of Kentucky Revised Statute Section 78.782 and 61.645 the Kentucky Public Pensions Authority (KPPA) oversees the administration and operation of the personnel and accounting systems for the CERS Nonhazardous, and Hazardous which are administered by the CERS Board, the KERS Nonhazardous and Hazardous, and State Police Retirement System (SPRS) which are administered by the Kentucky Retirement Systems Board (KRS). Although the assets of the plans are invested as a whole, each plan's assets are accounted for separately, invested according to plan-specific asset allocation goals, and are used only for the payment of benefits to the members of that plan and a pro rata share of administrative costs, in accordance with the provisions of Kentucky Revised Statute Sections 78.630, 61.570 and 16.555.

The KPPA Board is comprised of elected and appointed representatives from the CERS and KRS boards. The KPPA Board, as of December 6, 2023, is comprised of Keith Peercy, Chair, elected by SPRS, selected by KRS Board Chair; Jerry W. Powell, Vice Chair, elected by CERS, selected by CERS Board Chair; Betty Pendergrass, elected by CERS, CERS Board Chair; Lynn Hampton, Governor Appointee, KRS Board Chair; Dr. Merl Hackbart, Governor Appointee, CERS Investment Committee Chair; C. Prewitt Lane, Governor Appointee, KRS Investment Committee Chair; William O'Mara, Governor Appointee, selected by CERS Chair; and William Summers V, Governor Appointee, selected by KRS Chair.

The CERS Board and the KRS Board each have nine trustees. Three elected by the membership and six appointed by the Governor. For more information on the Boards and their makeup including bios for each trustee, please visit the KPPA website, [kyret.ky.gov](http://kyret.ky.gov).

CERS Nonhazardous, CERS Hazardous, KERS Nonhazardous, and KERS Hazardous are cost-sharing multiple-employer other post-employment benefits (OPEB) plans that cover all regular full-time members employed in nonhazardous and hazardous positions of any state department, board, agency, county, city, school board, and any additional eligible local agencies electing to participate. The plans provide for health insurance benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances.

SPRS is a single-employer defined benefit OPEB plan that covers all full-time state troopers employed in a hazardous duty position by the Kentucky State Police. The plan provides for health insurance benefits to plan members. OPEB may be extended to beneficiaries of plan members under certain circumstances. No schedule has been presented for SPRS, since it is a single-employer defined benefit OPEB plan.

**Kentucky Public Pensions Authority**  
**Notes To Schedules of Employer Allocations and OPEB Amounts by Employer**  
**Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 2 - Relationship to Combining Financial Statements**

The accompanying schedules were reconciled to the KPPA's Combining Statement of Changes in Fiduciary Net Position – Insurance Fund in KPPA's Annual Comprehensive Financial Report (ACFR) for the fiscal year ended June 30, 2023, with the following difference. The 1% of pay member contributions for Tier 2 and Tier 3 members to a 401(h) subaccount on the Pension Funds are considered as an OPEB asset. As a result, the reported plan fiduciary net position for the Insurance Fund as of June 30, 2017, includes the 401(h) asset balance.

The components associated with OPEB expense and deferred outflows and inflows of resources have been determined based on the net increase in fiduciary net position as shown in the Combining Statement of Changes in Fiduciary Net Position and in accordance with requirements promulgated by Governmental Accounting Standards Board (GASB) Statements No. 74 and 75. The net OPEB liability at June 30, 2023, is reported in the Notes to Combining Financial Statements and Required Supplementary Information.

**Note 3 - Summary of Significant Accounting and Reporting Policies**

Measurement Focus, Basis of Accounting and Basis of Presentation

The accompanying schedules were prepared in accordance with U.S generally accepted accounting principles as applicable to governmental organizations. In doing so, KPPA adheres to the reporting requirements established by GASB.

The CERS Nonhazardous, CERS Hazardous, KERS Nonhazardous, KERS Hazardous Insurance Funds are reported as OPEB trust funds and are accounted for on the accrual basis of accounting. OPEB contributions are determined by the CERS and KRS Boards and required by the employers, and the employees' contributions are set by Kentucky Revised Statute 78.5536(3)(b)(1) and 61.702(3)(b)(1). KPPA recognized employer and employee contributions to the plans through June 30, 2023. OPEB expenses are recognized as the benefits come due for the CERS Nonhazardous, CERS Hazardous, KERS Nonhazardous, and KERS Hazardous Insurance Plans, which includes payments made to the Department of Employee Insurance (DEI), and Humana Inc. for OPEB costs incurred for the fiscal year ended June 30, 2023. KPPA contracts with DEI and Humana to administer the claims. DEI administers retiree claims for retirees who are non-Medicare eligible, and Humana administers retiree claims for members who are Medicare eligible. Since the average cost of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees, there is an implicit employer subsidy for the non-Medicare eligible retirees. GASB 74 requires that the liability associated with this implicit subsidy be included in the calculation of the Total OPEB Liability.

The plans are charged administrative expenses based on the number of members and dependents electing an insurance policy provided by DEI or Humana, on a monthly basis. The administrative expenses are reported in KPPA's basic financial statements included in the ACFR for the Insurance Fund.



**Kentucky Public Pensions Authority**  
**Notes To Schedules of Employer Allocations and OPEB Amounts by Employer**  
**Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 3 - Summary of Significant Accounting and Reporting Policies (Continued)**

Measurement Focus, Basis of Accounting and Basis of Presentation (Continued)

The Schedule of Employer Allocations reflects employer contributions received for the fiscal year ended June 30, 2023, and includes the following for each individual employer:

- employer contributing entity and reporting code;
- the amount of the employer contributing entity's contributions; and,
- the employer contributing entity's contributions as a percentage of total employer contributions, defined by this allocation.

The Employer Allocation Percentage has been rounded to six decimal places.

The components of the net OPEB liability of CERS and KERS for participating employers as of June 30, 2023, calculated in accordance with GASB Statement No. 74, are as follows (dollars in thousands):

	CERS Nonhazardous	CERS Hazardous	KERS Nonhazardous	KERS Hazardous	SPRS	Insurance Total
Total OPEB Liability	\$ 3,260,308	\$ 1,771,015	\$ 2,317,344	\$ 417,361	\$ 263,450	\$ 8,029,478
Fiduciary Net Position	3,398,375	1,634,192	1,532,752	625,356	248,109	7,438,784
Net OPEB Liability	\$ (138,067)	\$ 136,823	\$ 784,592	\$ (207,995)	\$ 15,341	\$ 590,694

Net investment income represents realized and unrealized gains and losses based on the fair value of investments, interest, and dividends, net of investment expenses. Investment income/loss is allocated to each plan based on the plan's ownership in the respective investment account.

Actuarial Methods and Assumptions to Determine the Total OPEB Liability and the Net OPEB Liability

For financial reporting, the actuarial valuation as of June 30, 2023, was performed by Gabriel Roeder Smith (GRS). The total OPEB liability, net OPEB liability, and sensitivity information as of June 30, 2023, were based on an actuarial valuation date of June 30, 2022. The total OPEB liability was rolled-forward from the valuation date (June 30, 2022) to the plan's fiscal year ending June 30, 2023, using the generally accepted actuarial principles.

**Kentucky Public Pensions Authority**  
**Notes To Schedules of Employer Allocations and OPEB Amounts by Employer**  
**Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 3 - Summary of Significant Accounting and Reporting Policies (Continued)**

Actuarial Methods and Assumptions to Determine the Total OPEB Liability and the Net OPEB Liability (Continued)

The following actuarial assumptions were used in performing the actuarial valuation as of June 30, 2023:

Inflation	2.50%
Payroll Growth Rate	2.0% for CERS Nonhazardous and CERS Hazardous 0.0% for KERS Nonhazardous and KERS Hazardous
Salary Increase	3.30% to 10.30%, varies by service for CERS Nonhazardous 3.55% to 19.05%, varies by service for CERS Hazardous 3.30% to 15.30%, varies by service for KERS Nonhazardous 3.55% to 20.05%, varies by service for KERS Hazardous
Investment Rate of Return	6.50%
Health Care trend Rates	
Pre-65	Initial trend starting at 6.80% at January 1, 2025, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years
Post-65	Initial trend starting at 8.50 in 2025, then gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years
Mortality	
Pre-retirement	PUB-2010 General Mortality table, for the Nonhazardous Systems, and the PUB-2010 Public Safety Mortality table for the Hazardous Systems, projected with the ultimate rates from the MP-2020 mortality improvement scale using a base year of 2010.
Post-retirement (nondisabled)	System-specific mortality table based on mortality experience from 2013-2022, projected with the ultimate rates from MP-2020 mortality improvement scale using a base year of 2023
Post-retirement (disabled)	PUB-2010 Disabled Mortality table, with rates multiplied by 150% for both male and female rates, projected with the ultimate rates from the MP-2020 mortality improvement scale using a base year 2010

The CERS Board of Trustees adopted new actuarial assumptions on May 9, 2023. The KRS Board of Trustees adopted new actuarial assumptions on June 5, 2023. These assumptions are documented in the report titled "2022 Actuarial Experiences Study for the Period Ending June 30, 2022". Additionally, the single discount rates used to calculate the total OPEB liability within each plan changed since the prior year. Additional information regarding the single discount rates is provided below. The Total OPEB Liability as of June 30, 2023, is determined using these updated assumptions.

**Kentucky Public Pensions Authority**  
**Notes To Schedules of Employer Allocations and OPEB Amounts by Employer**  
**Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 3 - Summary of Significant Accounting and Reporting Policies (Continued)**

Actuarial Methods and Assumptions to Determine the Total OPEB Liability and the Net OPEB Liability (Continued)

House Bill 506 passed during the 2023 legislative session reinstated the Partial Lump Sum Option form of payment for members who retire on and after January 1, 2024, and adjusted the minimum required separation period before a retiree may become reemployed and continue to receive their retirement allowance to one month for all circumstances.

This is a minimal change for members in the hazardous plans, as the minimum separation period was already one month for members who became reemployed on a full-time basis in a hazardous position. The requirement was previously three months only for members who became reemployed on a part-time basis in any nonhazardous position. GRS believes this provision of House Bill 506 will have an insignificant impact on the retirement pattern of hazardous members and therefore have reflected no fiscal impact to the total OPEB liability of the hazardous plan.

Similarly, this is a relatively small change for future retirees in the nonhazardous plan. But as the minimum separation period was previously three months in almost every circumstance, GRS assumed that there would be a 1.0% increase in the rate of retirement for each of the first two years a nonhazardous member becomes retirement eligible under the age of 65, in order to reflect a shift in the retirement pattern. The total OPEB liability as of June 30, 2023, for the nonhazardous plan is determined using these updated benefit provisions.

There have been no other plan provision changes that would materially impact the total OPEB liability since June 30, 2022. It is GRS's opinion that these procedures are reasonable and appropriate and comply with applicable requirements under GASB Statement No. 75.

Discount Rate

Single discount rates of 5.93% for CERS Nonhazardous, 5.97% for CERS Hazardous, 5.94% for KERS Nonhazardous and KERS Hazardous systems were used to measure the total OPEB liability as of June 30, 2023. The single discount rates are based on the expected rate of return on OPEB plan investments of 6.50%, and a municipal bond rate of 3.86%, as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2023. Based on the stated assumptions and the projection of cash flows as of each fiscal year ending, each plan's fiduciary net position and future contributions were projected separately and were sufficient to finance the future benefit payments of the current plan members. Therefore, the long-term expected rate of return on insurance plan investments was applied to all periods of the projected benefit payments paid from the plan. However, the cost associated with the implicit employer subsidy was not included in the calculation of the plans actuarially determined contributions, and any cost associated with the implicit subsidy will not be paid out of the plan trusts. Therefore, the municipal bond rate was applied to future expected benefit payments associated with the implicit subsidy. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the ACFR.

**Kentucky Public Pensions Authority**  
**Notes To Schedules of Employer Allocations and OPEB Amounts by Employer**  
**Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 3 - Summary of Significant Accounting and Reporting Policies (Continued)**

Discount Rate (Continued)

The projection of cash flows used to determine the single discount rate must include an assumption regarding future employer contributions made each year. Future contributions are projected assuming that each participating employer in each insurance plan contributes the actuarially determined employer contribution each future year calculated in accordance with the current funding policy.

Basis of Accounting

The underlying financial information used to prepare allocation schedules is based on KPPA's combining financial statements. KPPA's combining financial statements for all plans are prepared using the accrual basis of accounting and are prepared in accordance with accounting principles generally accepted in the United State of America (GAAP) that apply to governmental accounting for fiduciary funds.

Use of Estimates in the Preparation of the Schedules

The preparation of the schedules in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect certain amounts and disclosures. KPPA accrues employer contributions using estimates based on historical data. Actual results could differ from those estimates.

**Note 4 - Reconciliation of Employer Contributions**

The reconciliation between the employer contributions used for the Schedule of Employer Allocations and the Combining Statements of Changes in Fiduciary Net Position as of June 30, 2023, are presented below (dollars in thousands):

	CERS Nonhazardous	CERS Hazardous	KERS Nonhazardous	KERS Hazardous
Per GRS Schedule A	\$ 98,407	\$ 47,598	\$ 121,545	\$ -
Retired Reemployed	2,538	1,094	1,208	-
*Other Employer Contributions	177	101	120	37
Write-Offs/Refunds	(1)	(1)	(1)	-
KPPA	-	-	328	-
KTRS	-	-	23	-
Total	\$ 101,121	\$ 48,792	\$ 123,223	\$ 37
Employer Contributions on the Statement of Change in Fiduciary Net Position	\$ 101,121	\$ 48,792	\$ 123,223	\$ 37
Dollar Difference	\$ -	\$ -	\$ -	\$ -
Percentage Difference	0%	0%	0%	0%

\* Other Employer Contributions - contributions from prior period adjustments; omitted contributions/invoices; and, other ER invoices not sick leave.

**Kentucky Public Pensions Authority**  
**Notes To Schedules of Employer Allocations and OPEB Amounts by Employer**  
**Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 4 - Reconciliation of Employer Contributions (Continued)**

The items listed above are included in the contributions on the Combining Statements of Changes in Fiduciary Net Position, but are not included in the Schedule A (GRS reports). The contributions per Schedule A (GRS reports) represents actual contributions made related to the measurement period.

**Note 5 - Actuarial Methods and Assumptions used to determine the Actuarial Determined Contribution for Fiscal Year 2023**

The following actuarial methods and assumptions were used to determine the actuarially determined contributions effective for the fiscal year ending June 30, 2023:

Valuation Date	June 30, 2021
Experience Study	July 1, 2018 to June 30, 2022
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level percent of pay
Remaining Amortization period	30 years closed period at June 30, 2019 Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases
Payroll Growth Rate	2.0% for CERS Nonhazardous and Hazardous 0.0% for KERS Nonhazardous and Hazardous 20% of the difference between the market value of the assets and the expected actuarial value of assets is recognized
Asset Valuation Method	
Inflation	2.30%
Salary Increase	3.30% to 10.30%, varies by service for CERS Nonhazardous 3.55% to 19.05%, varies by service for CERS Hazardous 3.30% to 15.30%, varies by service for KERS Nonhazardous 3.55% to 20.05%, varies by service for KERS Hazardous
Investment Rate of Return	6.25%
Health Care Trend Rates	
Pre - 65	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.
Post - 65	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.

**Kentucky Public Pensions Authority**  
**Notes To Schedules of Employer Allocations and OPEB Amounts by Employer**  
**Fiscal Year Ended June 30, 2023**  
**(Continued)**

**Note 6 - Deferred Inflows and Outflows of Resources**

The Deferred Inflows and Outflows of Resources and OPEB Expense included in the Schedule of OPEB Amounts by Employer include only certain categories of deferred outflows of resources and deferred inflows of resources. These include differences between expected and actual experience, changes of assumptions and differences between projected and actual earnings on plan investments. The Schedule of OPEB Amounts by Employer does not include deferred outflows/inflows of resources for changes in the employer's proportionate share of contributions or employer contributions made subsequent to the measurement date. The net OPEB liability as of June 30, 2023, is based on the June 30, 2022 actuarial valuation rolled forward. Deferred outflows and inflows related to differences between projected and actual earnings on plan investments are amortized over a closed five-year period.



ALLISON BALL  
AUDITOR OF PUBLIC ACCOUNTS

Report On Internal Control Over Financial Reporting And  
On Compliance And Other Matters Based On An Audit Of Financial  
Statements Performed In Accordance With *Government Auditing Standards*

Independent Auditor's Report

Board of Trustees  
Kentucky Public Pensions Authority

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the schedules of employer allocations of the Kentucky Employees Retirement System – Nonhazardous Other Post Employee Benefit (OPEB) Plan (KERS Nonhazardous), Kentucky Employees Retirement System – Hazardous OPEB Plan (KERS Hazardous), County Employees Retirement System – Nonhazardous OPEB Plan (CERS Nonhazardous) and County Employees Retirement System – Hazardous OPEB Plan (CERS Hazardous) as of and for the year ended June 30, 2023, and the related notes to the schedules. We have also audited the total for all entities of the columns titled net OPEB liability, total deferred outflows of resources, total deferred inflows of resources, and total OPEB expense (specified column totals) included in the accompanying schedules of OPEB amounts by employer of the KERS Nonhazardous, KERS Hazardous, CERS Nonhazardous, and CERS Hazardous OPEB Plans as of and for the fiscal year ended June 30, 2023 and have issued our report thereon dated March 21, 2024.

***Report on Internal Control Over Financial Reporting***

In planning and performing our audit of the schedules, we considered the Kentucky Public Pensions Authority's (KPPA) internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the schedules, but not for the purpose of expressing an opinion on the effectiveness of KPPA's internal control. Accordingly, we do not express an opinion on the effectiveness of KPPA's internal control.

209 ST. CLAIR STREET  
FRANKFORT, KY 40601-1817

TELEPHONE 502.564.5841  
FACSIMILE 502.564.2912  
AUDITOR.KY.GOV

AN EQUAL OPPORTUNITY EMPLOYER M/F/D



Report On Internal Control Over Financial Reporting  
And On Compliance And Other Matters Based On An Audit Of Financial Statements  
Performed In Accordance With *Government Auditing Standards*  
(Continued)

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's schedules will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

***Report on Compliance and Other Matters***

As part of obtaining reasonable assurance about whether KPPA's schedules are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the schedules. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

***Purpose of this Report***

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Respectfully Submitted,

Allison Ball  
Auditor of Public Accounts  
Frankfort, KY

March 21, 2024





**STRATEGIC PLANNING PROCESS**  
**FINANCE COMMITTEE**

1. **GOVERNANCE**
  - a. Work with the Office of the CFO on CERS specific Annual Comprehensive Financial Report (ACFR) issues. Fourth Quarter 2025
2. **ORGANIZATIONAL EXCELLENCE**
  - a. Ensure CERS specific policies and procedures surrounding financial reporting are adequate. First Quarter 2025
  - b. Establish an Escalation Policy for the Office of the CFO regarding policy decisions for the committee. First Quarter 2025
3. **CUSTOMER SERVICE DELIVERY**
  - a. Ensure that all regulations related to Participation of CERS Employers and Employer Duties are updated and codified. Third Quarter 2024
4. **INFRASTRUCTURE AND KEY RESOURCES**



### Combining Statement of Fiduciary Net Position - Pension Funds

As of December 31, 2023, with Comparative Totals as of December 31, 2022 (\$ in Thousands) (Unaudited)

ASSETS	CERS		TOTAL		Percentage of Change	Note
	Nonhazardous	Hazardous	FY 2024	FY 2023		
CASH AND SHORT-TERM INVESTMENTS						
Cash Deposits	\$2,640	\$710	\$3,350	\$442	658.21%	1
Short-term Investments	258,095	131,235	389,331	267,076	45.78%	2
Total Cash and Short-term Investments	260,735	131,946	392,681	267,518	46.79%	
RECEIVABLES						
Accounts Receivable	78,391	35,145	113,536	151,303	(24.96)%	3
Accounts Receivable - Investments	44,836	16,088	60,924	115,909	(47.44)%	4
Total Receivables	123,227	51,233	174,460	267,212	(34.71)%	
INVESTMENTS, AT FAIR VALUE						
Core Fixed Income	918,621	323,355	1,241,976	1,070,123	16.06%	5
Public Equities	4,616,764	1,613,458	6,230,222	5,253,453	18.59%	6
Private Equities	640,011	221,335	861,346	902,153	(4.52)%	
Specialty Credit	1,817,632	625,763	2,443,395	2,275,715	7.37%	
Derivatives	(617)	(252)	(869)	(937)	(7.29)%	
Real Return	360,324	126,338	486,662	341,078	42.68%	7
Real Estate	521,611	166,031	687,642	671,025	2.48%	
Total Investments, at Fair Value	8,874,346	3,076,029	11,950,375	10,512,610	13.68%	
Securities Lending Collateral Invested	200,034	70,227	270,261	275,574	(1.93)%	
CAPITAL/INTANGIBLE ASSETS						
Capital Assets	1,701	153	1,854	1,854	0.00%	
Intangible Assets	9,961	827	10,788	10,788	0.00%	
Accumulated Depreciation	(1,701)	(153)	(1,854)	(1,854)	0.00%	
Accumulated Amortization	(9,961)	(827)	(10,788)	(10,710)	0.72%	
Total Capital Assets	-	-	-	78	(100.00)%	
Total Assets	9,458,343	3,329,434	12,787,777	11,322,992	12.94%	
LIABILITIES						
Accounts Payable	5,365	940	6,304	5,444	15.80%	8
Investment Accounts Payable	69,063	24,163	93,225	68,791	35.52%	9
Securities Lending Collateral	200,034	70,227	270,261	275,574	(1.93)%	
Total Liabilities	274,462	95,330	369,791	349,810	5.71%	
Total Fiduciary Net Position Restricted for Pension Benefits						
	\$9,183,881	\$3,234,105	\$12,417,986	\$10,973,182	13.17%	

#### NOTE - Variance Explanation

#### Differences due to rounding

- 1) The variance is a result of continuous fluctuation of deposits and transactions that flow through the cash account. As a result of an Internal Audit finding, we continue to evaluate the optimum cash balances at JP Morgan Chase.
- 2) Short term investments are primarily comprised of cash on hand at the custodial bank, the variance in the balance is a result of the cash flows of each plan.
- 3) The decrease in Accounts Receivable is primarily due to the 06/30/2022 CERS and CERH pension/insurance split correction that was carried as a receivable into FY 2023.
- 4) The variance in Investment Accounts Receivable is due to pending trades.
- 5) The increase in Core Fixed Income is a result of favorable market conditions during the prior fiscal year as well as additional funding.
- 6) The increase in Public Equities is the result of favorable market conditions resulting in an increase in gains/losses and additional funding.
- 7) The increase in Real Return is a result of favorable market conditions as well as additional funding.
- 8) The variance in Accounts Payable is due to an increase in the payroll and leave liability accrual as well as an increase in outstanding employer credit invoices.
- 9) The variance in Investment Accounts Payable is due to pending trades.



### Combining Statement of Changes In Fiduciary Net Position - Pension Funds

For the six month period ending December 31, 2023, with Comparative Totals for the six month period ending December 31, 2022 (\$ in Thousands) (Unaudited)

	CERS		Total	Percentage of		Note
	Nonhazardous	Hazardous	FY 2024	FY 2023	Change	
ADDITIONS						
Member Contributions	\$75,536	\$30,204	\$105,740	\$95,189	11.08%	1
Employer Pay Credit	27,897	11,966	39,863	33,382	19.42%	2
Employer Contributions	330,976	144,783	475,759	433,269	9.81%	
Actuarially Accrued Liability Contributions (AALC)	-	-	-	-		
Pension Spiking Contributions	16	34	49	63	(21.62)%	3
Health Insurance Contributions (HB1)	(22)	(29)	(52)	(21)	148.65%	4
Employer Cessation Contributions	-	-	-	-		
Total Contributions	434,403	186,957	621,359	561,882	10.59%	
INVESTMENT INCOME						
From Investing Activities						
Net Appreciation (Depreciation) in FV of Investments	352,490	124,779	477,269	123,369	286.86%	5
Interest/Dividends	139,714	49,111	188,825	148,471	27.18%	6
Total Investing Activities Income	492,204	173,890	666,094	271,841		
Less: Investment Expense	29,788	9,966	39,753	31,817	24.94%	7
Less: Performance Fees	8,041	2,670	10,711	574	1,766.17%	8
Net Income from Investing Activities	454,376	161,254	615,630	239,450		
From Securities Lending Activities						
Securities Lending Income	5,621	2,006	7,626	4,983		
Less: Securities Lending Borrower Rebates (Income)/Expense	5,045	1,801	6,846	4,242		
Less: Securities Lending Agent Fees	86	31	117	111		
Net Income from Securities Lending	489	174	663	630	5.17%	
Net Investment Income	454,865	161,428	616,293	240,080	156.70%	
Total Additions	889,268	348,384	1,237,652	801,962	54.33%	
DEDUCTIONS						
Benefit Payments	461,050	166,012	627,062	600,732	4.38%	
Refunds	13,602	2,993	16,595	14,922	11.21%	9
Administrative Expenses	12,174	1,072	13,246	12,399	6.83%	
Total Deductions	486,826	170,076	656,903	628,053	4.59%	
Net Increase (Decrease) in Fiduciary Net Position Restricted for Pension Benefits	402,441	178,308	580,749	173,909		
Total Fiduciary Net Position Restricted for Pension Benefits						
Beginning of Period	8,781,440	3,055,797	11,837,237	10,799,273	9.61%	
End of Period	\$9,183,881	\$3,234,105	\$12,417,986	\$10,973,182	13.17%	

**NOTE - Variance Explanation** **Differences due to rounding**

- 1) The increase in Member Contributions is due to an increase in covered payroll across all plans.
- 2) The Employer Pay Credit will continue to increase as Tier 3 members increase.
- 3) Pension Spiking contributions decreased due to a decrease in pension spiking billed to employers.
- 4) Health Insurance Contributions continue to fluctuate in the Pension accounts due to Tier 2 and Tier 3 retiree health insurance system costs as well as corrections being processed to previous fiscal years.
- 5) The increase in Net Appreciation in Fair Value of Investments is the result of gains primarily from public equities.
- 6) The increase in Interest/Dividend Income is primarily the result of increased dividends/interest from public equity and core fixed income as well as partnership income from Specialty Credit.
- 7) The increase in Investment Expense is primarily the result of increased market value due to favorable performance and additional funding as well as increased partnership expenses for Specialty Credit.
- 8) The increase in performance fees is the result of more favorable market conditions creating higher performance fees for Private Equity and Specialty Credit.
- 9) Refunds to active members who have terminated employment increased in CERS and CERH.

**Pension Funds Contribution Report**

For the six month period ending December 31, 2023, with Comparative Totals for the six month period ending December 31, 2022  
(\$ in Millions)



## County Employees Retirement System

	Nonhazardous		Hazardous	
	FY24	FY23	FY24	FY23
Member Contributions	\$75.5	\$68.4	\$30.2	\$26.8
Employer Pay Credit	27.9	23.5	12.0	9.8
Employer Contributions	331.0	300.7	144.8	132.6
Net Investment Income	102.4	86.3	36.6	30.5
<b>Total Inflows</b>	<b>536.8</b>	<b>478.9</b>	<b>223.6</b>	<b>199.7</b>
Benefit Payments/Refunds	474.6	454.8	169.0	160.9
Administrative Expenses	12.2	11.4	1.1	1.0
<b>Total Outflows</b>	<b>486.8</b>	<b>466.2</b>	<b>170.1</b>	<b>161.9</b>
<b>NET Contributions</b>	<b>50.0</b>	<b>12.7</b>	<b>53.5</b>	<b>37.8</b>
Realized Gain/(Loss)	35.6	(25.2)	12.4	(9.9)
Unrealized Gain/(Loss)	316.9	117.3	112.4	41.2
<b>Change in Net Position</b>	<b>402.5</b>	<b>104.8</b>	<b>178.3</b>	<b>69.1</b>
<b>Beginning of Period</b>	<b>8,781.4</b>	<b>8,062.3</b>	<b>3,055.8</b>	<b>2,736.9</b>
<b>End of Period</b>	<b>\$9,183.9</b>	<b>\$8,167.1</b>	<b>\$3,234.1</b>	<b>\$2,806.0</b>

*Differences due to rounding.*

Net Contributions*	(\$52.4)	(\$73.6)	\$16.9	\$7.3
Cash Flow as % of Assets	(0.57)%	(0.90)%	0.52%	0.26%
Net Investment Income	\$102.4	\$86.3	\$36.6	\$30.5
Yield as % of Assets	1.11%	1.06%	1.13%	1.09%

*\*Net Contributions are less Net Investment Income.*



### Combining Statement of Fiduciary Net Position - Insurance Funds

As of December 31, 2023, with Comparative Totals as of December 31, 2022 (\$ in Thousands) (Unaudited)

	CERS		TOTAL		Percentage of	
ASSETS	Nonhazardous	Hazardous	FY 2024	FY 2023	Change	Note
CASH AND SHORT-TERM INVESTMENTS						
Cash Deposits	\$1,527	\$17	\$1,544	\$102	1409.69%	1
Short-term Investments	96,058	38,165	134,223	118,895	12.89%	2
Total Cash and Short-term Investments	97,585	38,182	135,767	118,997	14.09%	
RECEIVABLES						
Accounts Receivable	4,678	2,718	7,396	16,174	(54.28)%	3
Investment Accounts Receivable	16,830	7,134	23,963	53,890	(55.53)%	4
Total Receivables	21,507	9,852	31,359	70,064	(55.24)%	
INVESTMENTS, AT FAIR VALUE						
Core Fixed Income	350,660	149,981	500,641	471,818	6.11%	
Public Equities	1,741,642	843,915	2,585,557	2,208,570	17.07%	5
Private Equities	257,655	144,704	402,360	411,616	(2.25)%	
Specialty Credit	681,570	326,623	1,008,193	970,646	3.87%	
Derivatives	(164)	(57)	(221)	(350)	(36.86)%	6
Real Return	120,510	58,589	179,099	118,393	51.27%	7
Real Estate	188,639	103,503	292,142	272,897	7.05%	8
Total Investments, at Fair Value	3,340,511	1,627,258	4,967,769	4,453,589	11.55%	
Securities Lending Collateral Invested	52,993	25,753	78,745	100,402	(21.57)%	9
Total Assets	3,512,596	1,701,044	5,213,640	4,743,053	9.92%	
LIABILITIES						
Accounts Payable	213	21	234	57,339	(99.59)%	10
Investment Accounts Payable	25,795	11,055	36,850	28,278	30.31%	11
Securities Lending Collateral	52,993	25,753	78,745	100,402	(21.57)%	12
Total Liabilities	79,001	36,829	115,830	186,019	(37.73)%	
Total Fiduciary Net Position Restricted for OPEB	\$3,433,595	\$1,664,216	\$5,097,810	\$4,557,034	11.87%	

#### NOTE - Variance Explanation Differences due to rounding

- 1) The variance is a result of continuous fluctuation of deposits and transactions that flow through the cash account. As a result of an Internal Audit finding, we continue to evaluate the optimum cash balances at JP Morgan Chase.
- 2) Short term investments are primarily comprised of cash on hand at the custodial bank, the variance in the balance is a result of the cash flows of each plan.
- 3) The decrease in Accounts Receivable is due to a decrease in the member/employer month-end accrual due to the decreased insurance transfer rate.
- 4) The variance in Investment Accounts Receivable is the result of pending trades.
- 5) The increase in Public Equities is the result of favorable market conditions resulting in an increase in gains/losses and additional funding.
- 6) The variance in Derivatives is a result of hedging and arbitration of risk within the portfolios.
- 7) The increase in Real Return is a result of favorable market conditions as well as additional funding.
- 8) The increase in Real Estate is the result of a movement of the Mesa West Accounts from the Specialty Credit asset class to the Real Estate Asset Class
- 9) The variance is a result of the demands of the Securities Lending Program.
- 10) The decrease in Accounts Payable is primarily due to the 06/30/2022 CERS and CERH pension/insurance split correction that was carried as a payable into FY 2023.
- 11) The variance in Investment Accounts Payable is due to pending trades.
- 12) The variance is a result of the demands of the Securities Lending Program.



### Combining Statement of Changes In Fiduciary Net Position - Insurance Funds

For the six month period ending December 31, 2023, with Comparative Totals for the six month period ending December 31, 2022 (\$ In Thousands) (Unaudited)

	CERS		TOTAL		Percentage of Change	Note
	Nonhazardous	Hazardous	FY 2024	FY 2023		
ADDITIONS						
Employer Contributions	\$2,013	\$10,174	\$12,187	\$69,903	(82.57)%	1
Actuarially Accrued Liability Contributions (AALC)	-	-	-	-		
Medicare Drug Reimbursement	-	-	-	-		
Insurance Premiums	202	(30)	172	219	(21.19)%	2
Humana Gain Share Payment	10,445	1,637	12,082	6,864	76.00%	3
Retired Re-employed Healthcare	3,265	860	4,125	3,112	32.56%	4
Health Insurance Contributions (HB1)	9,590	2,423	12,012	10,071	19.28%	5
Employer Cessation Contributions	-	-	-	-		
Total Contributions	25,515	15,063	40,578	90,169	(55.00)%	
INVESTMENT INCOME						
From Investing Activities						
Net Appreciation (Depreciation) in FV of Investments	135,629	65,228	200,857	50,322	299.15%	6
Interest/Dividends	52,806	25,430	78,237	64,928	20.50%	7
Total Investing Activities Income	188,435	90,658	279,094	115,250		
Less: Investment Expense	11,082	5,838	16,920	13,434	25.95%	8
Less: Performance Fees	3,100	1,684	4,784	(780)	713.06%	9
Net Income from Investing Activities	174,254	83,136	257,390	102,596		
From Securities Lending Activities						
Securities Lending Income	1,559	739	2,299	1,787		
Less: Securities Lending Borrower Rebates (Income)/Expense	1,308	622	1,930	1,511		
Less: Securities Lending Agent Fees	38	18	55	41		
Net Income from Securities Lending	214	100	314	235	33.64%	10
Net Investment Income	174,467	83,236	257,704	102,831	150.61%	
Total Additions	199,982	98,300	298,282	193,000	54.55%	
DEDUCTIONS						
Healthcare Premiums Subsidies	53,565	47,285	100,850	118,567	(14.94)%	11
Administrative Expenses	468	263	731	732	(0.15)%	
Self-Funded Healthcare Costs	1,880	123	2,003	1,868	7.26%	
Excise Tax Insurance	7	-	7	-	(100.00)%	12
Total Deductions	55,920	47,671	103,591	121,167	(14.51)%	
Net Increase (Decrease) in Fiduciary Net Position Restricted for OPEB	144,062	50,629	194,691	71,832		
Total Fiduciary Net Position Restricted for OPEB						
Beginning of Period	3,289,532	1,613,587	4,903,119	4,485,201	9.32%	
End of Period	\$3,433,594	\$1,664,216	\$5,097,810	\$4,557,034	11.87%	

**NOTE - Variance Explanation** *Differences due to rounding*

- 1) Employer Contributions decreased due to a decrease in the employer insurance rate.
- 2) Health Insurance Premiums decreased due to refunds processed to hazardous retirees for premiums paid for dependents that should have been covered by KPPA.
- 3) The Humana Gain Share payment will fluctuate year to year based on claims paid.
- 4) Retired Reemployed contributions increased due to an increase in retired reemployed members.
- 5) Health Insurance Contributions will continue to rise as Tier 2 and Tier 3 members increase.
- 6) The increase in Net Appreciation in Fair Value of Investments is the result of gains primarily from public equities.
- 7) The increase in Interest/Dividend Income is primarily the result of increased dividends/interest from public equity and core fixed income as well as partnership income from Specialty Credit.
- 8) The increase in Investment Expense is primarily the result of increased increasing market value due to favorable performance and additional funding as well as increased partnership expenses for Specialty Credit.
- 9) The increase in performance fees is the result of more favorable market conditions creating higher performance fees for Private Equity and Specialty Credit.
- 10) The variance is a result of the demand of the Securities Lending Program.
- 11) Healthcare Subsidies decreased due to a decrease in healthcare premiums paid for CERS retirees.

**Insurance Fund Contribution Report**For the six month period ending December 31, 2023, with Comparative Totals for the six month period ending December 31, 2022  
(\$ in Millions)**County Employees Retirement System**

	<b>Nonhazardous</b>		<b>Hazardous</b>	
	<b>FY24</b>	<b>FY23</b>	<b>FY24</b>	<b>FY23</b>
Employer Contributions	\$2.0	\$47.1	\$10.2	\$22.8
Insurance Premiums	0.2	0.2	-	-
Humana Gain Share	10.4	6.0	1.6	0.9
Retired Reemployed Healthcare	3.3	2.4	0.9	0.7
Health Insurance Contributions	9.6	8.1	2.4	1.9
Net Investment Income	38.8	35.2	18.0	17.3
<b>Total Inflows</b>	<b>64.3</b>	<b>99.0</b>	<b>33.1</b>	<b>43.6</b>
Healthcare Premiums	55.4	73.5	47.4	46.9
Administrative Expenses	0.5	0.4	0.3	0.3
<b>Total Outflows</b>	<b>55.9</b>	<b>73.9</b>	<b>47.7</b>	<b>47.2</b>
<b>NET Contributions</b>	<b>8.4</b>	<b>25.1</b>	<b>(14.6)</b>	<b>(3.6)</b>
Realized Gain/(Loss)	15.3	(10.3)	9.1	(4.2)
Unrealized Gain/(Loss)	120.4	44.9	56.1	19.9
<b>Change in Net Position</b>	<b>144.1</b>	<b>59.7</b>	<b>50.6</b>	<b>12.1</b>
<b>Beginning of Period</b>	<b>3,289.5</b>	<b>2,981.2</b>	<b>1,613.6</b>	<b>1,504.0</b>
<b>End of Period</b>	<b>\$3,433.6</b>	<b>\$3,040.9</b>	<b>\$1,664.2</b>	<b>\$1,516.1</b>

*Differences due to rounding.*

Net Contributions*	\$(30.4)	\$(10.1)	\$(32.6)	\$(20.8)
Cash Flow as % of Assets	(0.89)%	(0.33)%	(1.96)%	(1.37)%
Net Investment Income	\$38.8	\$35.2	\$18.0	\$17.3
Yield as % of Assets	1.13%	1.16%	1.08%	1.14%

*\*Net Contributions are less Net Investment Income.*



## CERS Outstanding Invoices by Type and Employer

Invoice Type	12/31/2023	9/30/2023	Change H/(L)
Averaging Refund to Employer	\$(306,988)	\$(322,861)	-5%
Employer Free Military and Decompression Service	-	-	0%
Member Pension Spiking Refund	(18,336)	(23,880)	(23)%
Monthly Reporting Invoice	164,075	95,798	71%
Penalty – Monthly Reporting	212,100	216,100	-2%
Reinstatement	175,292	175,292	0%
Other Invoices**	7,800	3,862	102%
<b>Total</b>	<b>233,944</b>	<b>144,311</b>	
Health Insurance Reimbursement	330,394	331,913	(0)%
Omitted Employer	1,158,682	1,210,838	(4)%
Employer Pension Spiking*	1,333,858	1,308,495	2%
Standard Sick Leave	146,807	138,757	6%
<b>Total</b>	<b>2,969,741</b>	<b>2,990,002</b>	(1)%
<b>Grand Total</b>	<b>\$3,203,685</b>	<b>\$3,134,314</b>	<b>2%</b>

\*Pension Spiking invoices on this report are Employer Pension Spiking. By statute these invoices are due 12 months from the invoice date. Employer Pension Spiking is in effect only for retirements prior to July 1, 2018, therefore, unless there has been a recently created invoice for a backdated retirement, all of these invoices are greater than 12 months old.

\*\*Other Invoices include Expense Allowance; Expired Post Pending; IPS Employer Refund; Penalty EOY Reporting; Personnel Adjustment; and, Refunded Member Contributions Due.

Employer Name (Top Ten)	12/31/2023	9/30/2023	Change H/(L)
Kentucky River Regional Jail***	\$893,893	\$893,893	0%
City of Covington***	409,956	405,820	1%
Kenton County Airport Board***	399,567	388,496	3%
City of Fort Thomas***	265,350	260,457	2%
Livingston County Fiscal Court***	228,567	228,567	0%
TARC Transit Authority of River City	217,658	196,330	11%
City of Taylor Mill	135,641	143,227	(5)%
City of Jeffersontown	117,425	101,529	16%
Bullitt County Fiscal Court	101,595	101,393	0%
City of Winchester	\$98,537	\$50,916	94%

\*\*\*Indicates invoices turned over to Legal for further action

	Total Unpaid Balance	Invoice Count
CERS	\$1,823,805	1,487
CERH	1,379,881	168
<b>Grand Total:</b>	<b>\$3,203,685</b>	<b>1,655</b>



CERS Board Meeting - Finance Committee Report



County Employees Retirement System

Penalty Invoices Report

From: 10/1/2023 To: 12/31/2023

Note: Delinquent Interest amounts are included in the totals for the invoice

Invoice Amount	Invoice Remaining Balance	Delinquent Interest	Invoice Status Date	Invoice Due Date	Invoice Status	Employer Classification	Comments
\$1,000	\$-	\$-	11/13/2023	1/4/2017	CANC	Special Districts & Boards	Employer in good standing with KPPA
1,000	-	-	10/6/2023	1/20/2023	CANC	County Attorneys	New Employer Reporting Official
1,000	-	-	11/13/2023	8/30/2023	CANC	Utility Boards	Employer in good standing with KPPA
1,000	-	-	12/20/2023	10/8/2023	CANC	Utility Boards	New Employer Reporting Official
1,000	-	-	12/20/2023	10/8/2023	CANC	Utility Boards	New Employer Reporting Official
1,000	-	-	12/20/2023	10/13/2023	CANC	Utility Boards	New Employer Reporting Official
1,000	-	-	12/20/2023	10/13/2023	CANC	Utility Boards	New Employer Reporting Official
1,000	-	-	12/20/2023	10/13/2023	CANC	Utility Boards	New Employer Reporting Official
13,115	-	-	11/30/2023	11/25/2023	CANC	Boards of Education	KPPA at fault
1,000	-	-	12/7/2023	11/30/2023	CANC	Cities	New Employer Reporting Official
1,000	-	-	11/22/2023	12/7/2023	CANC	Fiscal Courts	Employer in good standing with KPPA
1,000	-	-	12/7/2023	12/16/2023	CANC	Cities	Circumstances outside of the employer's control
<b>Total</b>	<b>\$24,115</b>	<b>\$-</b>	<b>\$-</b>				
\$1,000	\$1,000	\$-	10/17/2023	11/16/2023	CRTD	Boards of Education	
1,000	1,000	-	10/24/2023	11/23/2023	CRTD	Fiscal Courts	
1,000	1,000	-	10/31/2023	11/30/2023	CRTD	Fiscal Courts	
1,000	1,000	-	11/1/2023	12/1/2023	CRTD	Cities	
1,000	1,000	-	11/1/2023	12/1/2023	CRTD	County Attorneys	
1,000	1,000	-	11/1/2023	12/1/2023	CRTD	County Attorneys	
1,000	1,000	-	11/16/2023	12/16/2023	CRTD	Housing Authorities	
1,000	1,000	-	11/17/2023	12/17/2023	CRTD	Libraries	
1,000	1,000	-	11/20/2023	12/20/2023	CRTD	Sanitation Districts	
1,000	1,000	-	11/27/2023	12/27/2023	CRTD	Libraries	
1,000	1,000	-	12/12/2023	1/11/2024	CRTD	Libraries	
1,000	1,000	-	12/12/2023	1/11/2024	CRTD	Libraries	
1,000	1,000	-	12/12/2023	1/11/2024	CRTD	Libraries	
1,000	1,000	-	12/18/2023	1/17/2024	CRTD	Boards of Education	
1,000	1,000	-	12/18/2023	1/17/2024	CRTD	Cities	
1,000	1,000	-	12/18/2023	1/17/2024	CRTD	Boards of Education	
1,000	1,000	-	12/19/2023	1/18/2024	CRTD	Fiscal Courts	
1,000	1,000	-	12/20/2023	1/19/2024	CRTD	Boards of Education	
1,000	1,000	-	12/20/2023	1/19/2024	CRTD	Libraries	
1,000	1,000	-	12/27/2023	1/26/2024	CRTD	Fiscal Courts	
<b>Total</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$-</b>				

CERS Board Meeting - Finance Committee Report



County Employees Retirement System

Penalty Invoices Report

From: 10/1/2023 To: 12/31/2023

Note: Delinquent Interest amounts are included in the totals for the invoice

Invoice Amount	Invoice Remaining Balance	Delinquent Interest	Invoice Status Date	Invoice Due Date	Invoice Status	Employer Classification	Comments
\$1,000	\$-	\$-	10/11/2023	4/21/2016	PAID	Fiscal Courts	
1,000	-	-	10/11/2023	5/18/2016	PAID	Fiscal Courts	
1,000	-	-	10/11/2023	6/15/2016	PAID	Fiscal Courts	
1,000	-	-	10/11/2023	6/19/2016	PAID	Fiscal Courts	
1,000	-	-	10/11/2023	7/20/2016	PAID	Fiscal Courts	
1,000	-	-	10/11/2023	7/24/2016	PAID	Fiscal Courts	
1,000	-	-	10/11/2023	8/19/2016	PAID	Fiscal Courts	
1,000	-	-	10/11/2023	12/16/2016	PAID	Fiscal Courts	
1,000	-	-	10/11/2023	2/8/2017	PAID	Fiscal Courts	
1,000	-	-	11/28/2023	8/2/2023	PAID	Tourist Commissions	
1,000	-	-	10/23/2023	9/3/2023	PAID	Cities	
1,000	-	-	12/11/2023	9/15/2023	PAID	Cities	
1,000	-	-	11/1/2023	9/15/2023	PAID	Cities	
1,000	-	-	10/16/2023	9/15/2023	PAID	Fiscal Courts	
1,000	-	-	12/11/2023	9/16/2023	PAID	Cities	
1,000	-	-	12/11/2023	10/15/2023	PAID	Cities	
1,000	-	-	10/6/2023	10/19/2023	PAID	Special Districts & Boards	
1,000	-	-	12/28/2023	10/19/2023	PAID	Sanitation Districts	
1,000	-	-	12/27/2023	10/20/2023	PAID	Fiscal Courts	
1,000	-	-	10/9/2023	10/21/2023	PAID	Fiscal Courts	
9,413	-	-	10/26/2023	10/25/2023	PAID	Boards of Education	
1,000	-	-	10/16/2023	10/26/2023	PAID	Fiscal Courts	
1,000	-	-	10/9/2023	11/1/2023	PAID	Cities	
1,000	-	-	12/11/2023	11/22/2023	PAID	Cities	
1,000	-	-	12/12/2023	11/24/2023	PAID	Utility Boards	
1,000	-	-	12/27/2023	11/26/2023	PAID	Fiscal Courts	
1,000	-	-	11/20/2023	11/30/2023	PAID	Cities	
1,000	-	-	12/4/2023	12/1/2023	PAID	Cities	
1,000	-	-	11/27/2023	12/6/2023	PAID	Housing Authorities	
1,000	-	-	12/11/2023	12/14/2023	PAID	Cities	
1,000	-	-	12/5/2023	12/16/2023	PAID	Area Development Districts	
1,000	-	-	12/11/2023	12/17/2023	PAID	Cities	
1,000	-	-	12/19/2023	12/17/2023	PAID	Fiscal Courts	
1,000	-	-	12/11/2023	12/17/2023	PAID	Cities	
1,000	-	-	12/11/2023	12/17/2023	PAID	Cities	
1,000	-	-	12/27/2023	12/17/2023	PAID	Fiscal Courts	
1,000	-	-	12/8/2023	12/20/2023	PAID	Fiscal Courts	



## County Employees Retirement System

## Penalty Invoices Report

From: 10/1/2023 To: 12/31/2023

Note: Delinquent Interest amounts are included in the totals for the invoice

Invoice Amount	Invoice Remaining Balance	Delinquent Interest	Invoice Status Date	Invoice Due Date	Invoice Status	Employer Classification	Comments
1,000	-	-	12/8/2023	12/21/2023	PAID	Housing Authorities	
\$1,000	\$-	\$-	12/7/2023	1/3/2024	PAID	Cities	
1,000	-	-	12/12/2023	1/10/2024	PAID	Cities	
<b>Total</b>	<b>\$48,413</b>	<b>\$-</b>					

**Notes:****Invoice Status:**

CANC - Cancelled

PAID - Paid

<b>KPPA ADMINISTRATIVE BUDGET FY 2023-2024</b> <b>BUDGET-TO-ACTUAL SUMMARY ANALYSIS</b> <b>FOR THE SIX MONTHS ENDING DECEMBER 31, 2023, WITH COMPARATIVE TOTALS FOR THE SIX MONTHS ENDING DECEMBER 31, 2022</b>						
CATEGORY	BUDGETED	FY 2024 EXPENSE	REMAINING	PERCENT REMAINING	FY 2023 EXPENSE	PERCENT DIFFERENCE
PERSONNEL	\$34,520,287	\$16,870,195	\$17,650,092	51.13%	\$16,186,341	4.22%
LEGAL CONTRACTS	1,210,000	578,954	631,046	52.15%	413,625	39.97%
AUDITING	300,000	214,821	85,179	28.39%	77,808	176.09%
ACTUARIAL SERVICES	500,000	190,067	309,933	61.99%	134,300	41.52%
MEDICAL REVIEWERS	1,800,000	693,145	1,106,855	61.49%	660,075	5.01%
OTHER PERSONNEL	500,000	145,071	354,929	70.99%	4,535	3,098.92%
<b>PERSONNEL TOTAL</b>	<b>\$38,830,287</b>	<b>\$18,692,253</b>	<b>\$20,138,034</b>	<b>51.86%</b>	<b>\$17,476,684</b>	<b>6.96%</b>
RENTALS - BUILDING & EQUIPMENT	1,166,500	525,891	640,609	54.92%	549,266	(4.26)%
INFORMATION TECHNOLOGY	4,190,000	1,312,370	2,877,630	68.68%	1,076,973	21.86%
OTHER OPERATIONAL	1,371,200	441,129	930,071	67.83%	410,176	7.55%
<b>OPERATIONAL TOTAL</b>	<b>\$6,727,700</b>	<b>\$2,279,390</b>	<b>\$4,448,310</b>	<b>66.12%</b>	<b>\$2,036,414</b>	<b>11.93%</b>
RESERVE	4,882,813	-	4,882,813	100.00%	-	0.00%
<b>ADMINISTRATIVE BUDGETED AMOUNT</b>	<b>\$50,440,800</b>	<b>\$20,971,643</b>	<b>\$29,469,157</b>	<b>58.42%</b>	<b>\$19,513,098</b>	<b>7.47%</b>

<b>Administrative Budget Summary</b> <b>Notes</b>	
<b>PERSONNEL (Staffing):</b>	Through half the year, we have spent nearly \$17M, which is approximately 49% percent of the budget, and 4+% higher than the prior year.
	We have nearly 52% of the legal budget remaining.
	We have spent close to 90% of our budget for FBT.
	The legal hearing officer line item is over budget by approximately \$36k, and we have about 26% left to spend.
<b>LEGAL</b>	We are under budget in other line items such as SKO, JBB, and DBG.
<b>AUDITING</b>	ACFR audit was \$215k (30k below budget). We anticipate \$30k for the ongoing proportionate share audit in Q3.
<b>ACTUARIAL, MEDICAL, AND OTHER</b>	All are below budget for the 1st half of the year.
<b>OPERATIONAL TOTAL</b>	Overall under budget, driven by the following: utilities; rent, printing, postage, and travel.

KPPA ADMINISTRATIVE BUDGET FY 2023-2024						
BUDGET-TO-ACTUAL ANALYSIS						
FOR THE SIX MONTHS ENDING DECEMBER 31, 2023, WITH COMPARATIVE TOTALS FOR THE SIX MONTHS ENDING DECEMBER 31, 2022						
Account Name	Budgeted	FY 2024 Expense	Remaining	Percent Remaining	FY 2023 Expense	Percent Difference
<b>PERSONNEL</b>						
<b>Staff</b>						
Salaries/Wages	\$17,900,000	\$8,909,245	\$8,990,755	50.23%	\$8,053,218	10.63%
Wages (Overtime)	285,000	133,960	151,040	53.00%	115,112	16.37%
Emp Paid FICA	1,294,772	639,447	655,325	50.61%	586,903	8.95%
Emp Paid Retirement	12,033,015	5,864,267	6,168,748	51.27%	6,148,378	(4.62)%
Emp Paid Health Ins	2,687,500	1,265,934	1,421,566	52.90%	1,123,415	12.69%
Emp Paid Sick Leave	250,000	40,221	209,779	83.91%	135,844	(70.39)%
Adoption Assistance Benefit	10,000	-	10,000	100.00%	-	0.00%
Escrow for Admin Fees	-	(1,000)	(1,000)	(100.00)%	-	(100.00)%
Workers Compensation	12,000	11,116	884	7.36%	11,116	0.00%
Unemployment	10,000	-	10,000	100.00%	5,534	0.00%
Emp Paid Life Ins	3,000	1,494	1,506	50.20%	1,461	2.26%
Employee Training	25,000	5,511	19,489	77.96%	5,361	2.80%
Tuition Assistance	10,000	-	10,000	100.00%	-	0.00%
Bonds	-	-	-	0.00%	-	0.00%
<b>Staff Subtotal</b>	<b>34,520,287</b>	<b>16,870,195</b>	<b>17,648,092</b>	<b>51.12%</b>	<b>16,186,342</b>	<b>4.22%</b>
<b>LEGAL &amp; AUDITING SERVICES</b>						
Legal Hearing Officers	150,000	111,175	38,825	25.88%	76,516	45.30%
Legal (Stoll, Keenon)	250,000	7,847	242,153	96.86%	51,775	(84.84)%
Frost Brown	300,000	265,426	34,574	11.52%	100,066	165.25%
Reinhart	50,000	-	50,000	100.00%	-	0.00%
Ice Miller	300,000	154,040	145,961	48.65%	81,920	88.04%
Johnson, Bowman, Branco LLC	100,000	37,638	62,362	62.36%	69,895	(46.15)%
Dentons Bingham & Greenebaum	50,000	2,828	47,173	94.35%	33,291	(91.51)%
Legal Expense	10,000	-	10,000	100.00%	23	(100.00)%
Auditing	300,000	214,821	85,179	28.39%	77,808	176.09%
<b>Total Legal &amp; Auditing Services</b>	<b>1,510,000</b>	<b>793,775</b>	<b>716,225</b>	<b>47.43%</b>	<b>491,294</b>	<b>61.57%</b>
<b>CONSULTING SERVICES</b>						
Medical Reviewers	1,800,000	693,145	1,106,855	61.49%	660,075	5.01%
Escrow for Actuary Fees	-	(500)	500	(100.00)%	(28,866)	0.00%
<b>Total Consulting Services</b>	<b>1,800,000</b>	<b>692,645</b>	<b>1,107,355</b>	<b>61.52%</b>	<b>631,209</b>	<b>9.73%</b>
<b>CONTRACTUAL SERVICES</b>						
Miscellaneous Contracts	390,000	125,434	264,566	67.84%	11,700	972.09%
Human Resources Consulting	10,000	-	10,000	100.00%	-	0.00%
Actuarial Services	500,000	190,067	309,933	61.99%	134,300	41.52%
Facility Security Charges	100,000	20,137	79,863	79.86%	21,701	(7.21)%
<b>Contractual Subtotal</b>	<b>1,000,000</b>	<b>335,638</b>	<b>664,362</b>	<b>66.44%</b>	<b>167,701</b>	<b>100.14%</b>
<b>PERSONNEL SUBTOTAL</b>	<b>\$38,830,287</b>	<b>\$18,692,253</b>	<b>\$20,136,034</b>	<b>51.86%</b>	<b>\$17,476,684</b>	<b>6.96%</b>
<b>OPERATIONAL</b>						
Natural Gas	42,000	7,164	34,836	82.94%	10,149	(29.41)%
Electric	133,000	58,606	74,394	55.94%	58,288	0.55%
Rent-Non State Building	56,000	-	56,000	100.00%	25,321	(100.00)%
Building Rental - PPW	1,000,000	480,985	519,015	51.90%	481,016	(0.01)%
Copier Rental	105,000	42,579	62,421	59.45%	40,745	4.50%
Rental Carpool	5,500	2,327	3,173	57.70%	2,144	8.54%
Vehicle/Equip. Maint.	1,000	-	1,000	100.00%	-	0.00%
Postage	420,000	148,193	271,807	64.72%	92,536	60.15%
Freight	200	-	200	100.00%	41	(100.00)%
Printing (State)	15,000	200	14,800	98.67%	795	(74.84)%
Printing (non-state)	85,000	20,231	64,769	76.20%	24,911	(18.79)%
Insurance	10,000	5,090	4,910	49.10%	5,572	(8.65)%
Garbage Collection	6,500	3,391	3,109	47.83%	3,161	7.28%
Conference Expense	45,000	11,177	33,823	75.16%	7,415	50.73%
Conference Exp. Investment	2,000	-	2,000	0.00%	64	(100.00)%
Conference Exp. Audit	3,000	-	3,000	100.00%	-	0.00%

KPPA ADMINISTRATIVE BUDGET 2023-24 BUDGET-TO-ACTUAL ANALYSIS						
FOR THE SIX MONTHS ENDING DECEMBER 31, 2023, WITH COMPARATIVE TOTALS FOR THE SIX MONTHS ENDING DECEMBER 31, 2022						
Account Name	Budgeted	FY 2024 Expense	Remaining	Percent Remaining	FY 2023 Expense	Percent Difference
MARS Usage	50,000	13,550	36,450	72.90%	13,550	0.00%
COVID-19 Expenses	-	-	-	0.00%	-	0.00%
Office Supplies	100,000	23,460	76,540	76.54%	55,804	(57.96)%
Furniture & Office Equipment	12,000	-	12,000	100.00%	204	(100.00)%
Travel (In-State)	15,000	7,080	7,920	52.80%	7,627	(7.17)%
Travel (In-State) Investment	1,000	-	1,000	100.00%	-	0.00%
Travel (In-State) Audit	500	-	500	100.00%	-	0.00%
Travel (Out of State)	79,000	20,700	58,300	73.80%	28,189	(26.57)%
Travel (Out of State) Investment	135,000	14,535	120,465	89.23%	10,578	37.41%
Travel (Out of State) Audit	1,000	-	1,000	100.00%	1,077	(100.00)%
Dues & Subscriptions	69,000	37,372	31,628	45.84%	35,931	4.01%
Dues & Subscriptions Invest	15,000	14,321	679	4.53%	4,177	242.85%
Dues & Subscriptions Audit	1,000	-	1,000	100.00%	100	(100.00)%
Miscellaneous	55,000	17,430	37,570	68.31%	19,556	(10.87)%
Miscellaneous Investment	-	90	(90)	0.00%	-	100.00%
Miscellaneous Audit	-	-	-	0.00%	-	0.00%
COT Charges	40,000	7,622	32,378	80.94%	9,022	(15.52)%
Telephone - Wireless	8,500	4,305	4,195	49.35%	2,556	68.43%
Telephone - Other	105,500	42,947	62,553	59.29%	47,665	(9.90)%
Telephone - Video Conference	11,000	4,834	6,166	56.05%	-	100.00%
Computer Equip./Software	4,080,000	1,291,198	2,788,802	68.35%	1,029,994	25.36%
Comp. Equip./Software Invest	-	-	-	0.00%	-	0.00%
Comp. Equip./Software Audit	20,000	-	20,000	100.00%	24,407	(100.00)%
<b>OPERATIONAL SUBTOTAL</b>	<b>\$6,727,700</b>	<b>\$2,279,390</b>	<b>\$4,448,310</b>	<b>66.12%</b>	<b>\$2,036,415</b>	<b>11.93%</b>
<b>SUB-TOTAL</b>	<b>\$45,557,987</b>	<b>\$20,971,643</b>	<b>\$24,584,344</b>	<b>53.96%</b>	<b>\$19,513,099</b>	<b>7.47%</b>
<b>Reserve</b>	<b>4,882,813</b>	<b>-</b>	<b>4,882,813</b>	<b>100.00%</b>	<b>-</b>	<b>0.00%</b>
<b>TOTAL</b>	<b>\$50,440,800</b>	<b>\$20,971,643</b>	<b>\$29,467,157</b>	<b>58.42%</b>	<b>\$19,513,098</b>	<b>7.47%</b>
<i>Differences due to rounding</i>						

Plan	Budgeted	FY 2024 Expense	% of Total KPPA FY 2024 Expense
CERS Nonhazardous	\$29,825,645	\$12,400,533	59.13%
CERS Hazardous	2,627,966	1,092,623	5.21%
KERS Nonhazardous	15,855,561	6,592,226	31.434%
KERS Hazardous	1,774,003	737,573	3.517%
SPRS	357,625	148,689	0.709%
<b>TOTAL</b>	<b>\$50,440,800</b>	<b>\$20,971,643</b>	

**JP MORGAN CHASE CREDIT EARNINGS AND FEES  
FOR THE FISCAL YEAR ENDING JUNE 30, 2024**

	<b>Earnings</b>	<b>Fees</b>	<b>Net Earnings</b>
July-23	\$3,297	\$(7,049)	\$(3,751)
August-23	4,612	(7,230)	(2,618)
September-23	26,588	(8,157)	18,432
October-23	-	(7,228)	(7,228)
November-23	-	(7,672)	(7,672)
December-23	-	(7,498)	(7,498)
<b>Total</b>	<b>\$34,498</b>	<b>\$(44,834)</b>	<b>\$(10,336)</b>

**JP MORGAN CHASE HARD INTEREST EARNED  
FOR THE FISCAL YEAR ENDING JUNE 30, 2024**

	<b>Clearing Account</b>	<b>CERS</b>	<b>KERS</b>	<b>SPRS</b>	<b>Total</b>
July-23	\$36,566	\$6,578	\$5,007	\$-	\$48,151
August-23	36,787	9,041	6,066	-	51,894
September-23	44,123	10,919	7,794	-	62,836
October-23	20,461	16,034	15,960	260	52,715
November-23	36,941	19,518	11,393	356	68,209
December-23	28,937	19,758	11,661	262	60,618
<b>Total</b>	<b>\$203,816</b>	<b>\$81,849</b>	<b>\$57,881</b>	<b>\$878</b>	<b>\$344,423</b>



## KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director

1260 Louisville Road • Frankfort, Kentucky 40601  
kyret.ky.gov • Phone: 502-696-8800 • Fax: 502-696-8822



Kentucky Public  
Pensions Authority

To: CERS Finance Committee

From: D’Juan Surratt  
Director of Employer Reporting, Compliance and Education

Date: February 19, 2024

Subject: Hazardous Position Classification

AGENCIES ARE REQUESTING HAZARDOUS DUTY COVERAGE FOR THE FOLLOWING POSITIONS:

<b><u>Agency</u></b>	<b><u>Position</u></b>	<b><u>Effective Date</u></b>
Shelby County Suburban Fire District	Career Firefighter	10/1/2023
Walton Fire District/ EMS	Firefighter/ EMT Advanced	4/1/2024
City of Science Hill	Police Officer	6/1/2023
City of Monticello	Recruitment/Retention Coordinator (Fire)	12/1/2023
Zoneton Fire Protection District	Fire Lieutenant	12/1/2023
City of Winchester	Assistant Chief of EMS	4/1/2024
City of Winchester	Assistant Chief of Fire	11/1/2023
City of Winchester	Brigade Chief	4/1/2023
City of Winchester	EMS Training Officer	4/1/2023

Kentucky Public Pensions Authority has reviewed the above requests and determined that they meet the statutory guidelines for Hazardous coverage. Position Questionnaires and Job Descriptions are attached.



County Employees Retirement System

# Investment Budget Update

Quarter Ending: December 31, 2023

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Budget</b> <b>For the six month period ending December 31, 2023</b>									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Investment Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent
<b>CONSULTING SERVICES</b>									
Wilshire Associates	\$ 1,021,799	\$ 1,238,170	\$ 1,225,671	\$ 1,021,175	\$ 838,172	\$ 1,200,000	\$ 563,753	\$ 636,247	47%
Albourne	-	-	-	-	306,750	275,000	135,000	140,000	49%
MercerInsight	-	-	-	-	153,548	165,000	80,000	85,000	48%
<b>SUBTOTAL</b>	<b>1,021,799</b>	<b>1,238,170</b>	<b>1,225,671</b>	<b>1,021,175</b>	<b>1,298,471</b>	<b>1,640,000</b>	<b>778,753</b>	<b>861,247</b>	<b>47%</b>
<b>LEGAL &amp; AUDITING SERVICES</b>									
Faegre Drinker			96,039	202,502	16,428	100,000	3,380	96,620	3%
Intelligent Management Solutions (IMS)	620,001	202,140	155,700	69,884	81,880	350,000	-	350,000	0%
McClain/Goldberg			891	-	-	100,000	-	100,000	0%
Reinhart	317,909	671,269	663,689	619,509	109,508	2,500,000	22,150	2,477,850	1%
Stoll-Keenon-Ogden	10,314	135,353	254,211	463,560	750,438	750,000	79,626	670,374	11%
Haystack			-	-	120,175	100,000	117,409	(17,409)	117%
Umberg Zipser			289,100	498,058	606,701	850,000	378,342	471,658	45%
Swansburg & Smith	-	-	-	-	5,288	50,000	-	50,000	0%
Eddins Domine	-	-	-	-	40,305	50,000	-	50,000	0%
Taft	-	-	-	-	142,720	50,000	1,060	48,940	2%
Miscellaneous				-	-	50,000	3,160	46,840	6%
<b>SUBTOTAL</b>	<b>948,225</b>	<b>1,008,762</b>	<b>1,459,630</b>	<b>1,853,513</b>	<b>1,873,441</b>	<b>4,950,000</b>	<b>605,127</b>	<b>4,344,873</b>	<b>12%</b>
<b>CONTRACTURAL SERVICES</b>									
Bloomberg	68,722	71,810	98,163	102,243	104,153	150,000	55,067	94,933	37%
BNYM Custodial Fees	2,056,390	2,088,475	2,379,838	2,565,169	2,333,981	2,600,000	619,478	1,980,522	24%
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	64,580	85,420	43%
Russell Index Subscription	1,075	1,250	1,000	1,000	750	1,500	500	1,000	33%
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	31,438	28,563	52%
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	32,753	217,247	13%
<b>SUBTOTAL</b>	<b>2,391,713</b>	<b>2,474,036</b>	<b>2,681,251</b>	<b>3,267,008</b>	<b>2,980,769</b>	<b>3,690,020</b>	<b>1,135,855</b>	<b>2,554,165</b>	<b>31%</b>

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Budget</b> <b>For the six month period ending December 31, 2023</b>									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Investment Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent
<b>INACTIVE CONTRACTURAL SERVICES</b>									
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		-	-		-	-		
<b>SUBTOTAL</b>	<b>291,718</b>	<b>119,290</b>	<b>1,233,757</b>	<b>-</b>	<b>250</b>	<b>-</b>		<b>-</b>	
<b>TOTAL</b>	<b>\$ 4,653,455</b>	<b>\$ 4,840,258</b>	<b>\$ 6,600,309</b>	<b>\$ 6,141,696</b>	<b>\$ 6,152,931</b>	<b>\$ 10,280,020</b>	<b>2,519,735</b>	<b>\$ 7,760,285</b>	<b>25%</b>

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending December 31, 2023</b> <b>Pension</b>								
	2024		2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
<b>Core Fixed Income</b>	<b>1,014,583</b>	<b>2,287,704,103</b>	<b>1,412,142</b>	<b>1,982,992,065</b>	<b>1,591,391</b>	<b>2,344,396,966</b>	<b>1,401,242</b>	<b>2,282,848,163</b>
<i>Investment Advisory Fees</i>	989,977		1,073,446		1,558,075		1,375,451	
<i>Performance Fees</i>			313,985				-	
<i>Miscellaneous Fees and Expenses</i>	24,606		24,711		33,316		25,791	
<b>Public Equity</b>	<b>7,003,749</b>	<b>8,229,412,149</b>	<b>6,326,122</b>	<b>6,860,008,005</b>	<b>7,390,244</b>	<b>7,258,279,054</b>	<b>5,850,569</b>	<b>6,295,655,905</b>
<i>Investment Advisory Fees</i>	6,885,398		6,216,244		7,204,226		5,712,166	
<i>Miscellaneous Fees and Expenses</i>	118,350		109,877		186,018		138,403	
<b>Specialty Credit Fixed Income</b>	<b>43,867,219</b>	<b>3,449,111,420</b>	<b>26,763,395</b>	<b>3,169,416,226</b>	<b>25,775,685</b>	<b>3,159,992,882</b>	<b>17,264,718</b>	<b>2,435,764,675</b>
<i>Investment Advisory Fees</i>	9,314,024		8,272,318		8,375,883		7,320,545	
<i>Performance Fees</i>	15,712,746		7,246,973		12,762,781		8,459,198	
<i>Miscellaneous Fees and Expenses</i>	18,840,449		11,244,103		4,637,021		1,484,975	
<b>Real Estate</b>	<b>2,347,363</b>	<b>1,007,031,285</b>	<b>5,120,746</b>	<b>980,167,711</b>	<b>16,451,186</b>	<b>780,082,609</b>	<b>980,198</b>	<b>584,165,093</b>
<i>Investment Advisory Fees</i>	3,803,771		4,590,896		2,401,864		2,324,269	
<i>Performance Fees</i>	(3,707,401)		(380,882)		12,653,860		(2,070,445)	
<i>Miscellaneous Fees and Expenses</i>	2,250,993		910,732		1,395,462		726,374	
<b>Real Return</b>	<b>2,496,799</b>	<b>873,036,117</b>	<b>2,108,571</b>	<b>451,152,401</b>	<b>2,632,576</b>	<b>1,021,821,360</b>	<b>3,216,441</b>	<b>847,105,839</b>
<i>Investment Advisory Fees</i>	2,099,651		1,176,185		2,001,915		1,985,069	
<i>Performance Fees</i>	147,085		493,101		679,897		1,259,862	
<i>Miscellaneous Fees and Expenses</i>	250,063		439,285		(49,236)		(28,490)	
<b>Private Equity</b>	<b>8,028,455</b>	<b>1,162,891,960</b>	<b>(1,217,614)</b>	<b>1,143,362,622</b>	<b>39,968,415</b>	<b>1,262,539,645</b>	<b>24,365,092</b>	<b>1,139,236,934</b>
<i>Investment Advisory Fees</i>	2,925,557		3,652,032		3,928,841		4,294,168	
<i>Performance Fees</i>	2,383,986		(6,838,180)		33,350,556		17,523,541	
<i>Miscellaneous Fees and Expenses</i>	2,718,912		1,968,535		2,689,018		2,547,383	
<b>Administrative Expense/Cash</b>	<b>2,118,142</b>	<b>737,649,280</b>	<b>1,574,490</b>	<b>813,973,145</b>	<b>1,878,932</b>	<b>612,903,688</b>	<b>1,435,169</b>	<b>266,674,138</b>
<b>Total Investment Fees and Expenses</b>	<b>66,876,308</b>	<b>17,746,836,314</b>	<b>42,087,852</b>	<b>15,401,072,174</b>	<b>95,688,429</b>	<b>16,440,016,204</b>	<b>54,513,429</b>	<b>13,851,450,747</b>

\* Absolute Return was absorbed by Real Return in December 2020

\*\* Opportunistic was absorbed by Specialty Credit in December 2021

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending December 31, 2023</b> <b>Insurance</b>								
	2024		2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
<b>Core Fixed Income</b>	<b>342,823</b>	<b>780,518,762</b>	<b>526,658</b>	<b>755,273,150</b>	<b>587,743</b>	<b>855,261,654</b>	<b>568,510</b>	<b>873,074,122</b>
Investment Advisory Fees	334,225		406,870		457,920		558,897	
Performance Fees			112,040		117,337		-	
Miscellaneous Fees and Expenses	8,598		7,748		12,486		9,613	
<b>Public Equity</b>	<b>3,225,651</b>	<b>3,720,705,634</b>	<b>2,916,264</b>	<b>3,159,950,145</b>	<b>3,221,274</b>	<b>3,246,444,061</b>	<b>2,616,659</b>	<b>2,840,620,347</b>
Investment Advisory Fees	3,171,832		2,866,269		3,161,508		2,557,467	
Miscellaneous Fees and Expenses	53,819		49,995		59,766		59,192	
<b>Specialty Credit Fixed Income</b>	<b>19,604,727</b>	<b>1,527,908,553</b>	<b>12,006,819</b>	<b>1,440,474,508</b>	<b>11,449,880</b>	<b>1,449,432,096</b>	<b>7,239,534</b>	<b>1,085,313,532</b>
Investment Advisory Fees	4,026,821		3,715,203		3,748,168		3,373,550	
Performance Fees	7,206,526		3,460,460		5,702,991		3,344,830	
Miscellaneous Fees and Expenses	8,371,380		4,831,156		1,998,721		521,154	
<b>Real Estate</b>	<b>1,223,228</b>	<b>451,520,869</b>	<b>2,141,670</b>	<b>414,400,346</b>	<b>6,801,703</b>	<b>330,413,444</b>	<b>536,259</b>	<b>246,753,396</b>
Investment Advisory Fees	1,719,862		1,913,144		1,021,218		1,015,005	
Performance Fees	(1,461,607)		(161,966)		5,182,012		(795,199)	
Miscellaneous Fees and Expenses	964,973		390,492		598,473		316,453	
<b>Real Return</b>	<b>1,116,868</b>	<b>342,016,500</b>	<b>938,266</b>	<b>175,390,319</b>	<b>1,140,159</b>	<b>432,244,515</b>	<b>1,245,054</b>	<b>361,358,291</b>
Investment Advisory Fees	936,352		530,992		889,226		842,984	
Carried Interest	64,072		201,933		266,344		419,601	
Miscellaneous Fees and Expenses	116,444		205,341		(15,411)		(17,531)	
<b>Private Equity</b>	<b>4,902,486</b>	<b>587,662,239</b>	<b>275,237</b>	<b>573,107,746</b>	<b>22,563,618</b>	<b>595,876,977</b>	<b>16,438,474</b>	<b>548,052,248</b>
Investment Advisory Fees	1,826,381		2,427,153		2,772,848		2,892,530	
Performance Fees	1,279,105		(3,062,207)		18,845,205		12,027,941	
Miscellaneous Fees and Expenses	1,797,000		910,292		945,565		1,518,003	
<b>Administrative Expense/Cash</b>	<b>1,050,278</b>	<b>142,324,349</b>	<b>821,924</b>	<b>223,048,022</b>	<b>963,210</b>	<b>401,003,570</b>	<b>842,635</b>	<b>108,497,980</b>
<b>Total Investment Fees and Expenses</b>	<b>\$ 31,466,061</b>	<b>\$ 7,552,656,905</b>	<b>\$ 19,626,840</b>	<b>\$ 6,741,644,236</b>	<b>\$ 46,727,587</b>	<b>\$ 7,310,676,317</b>	<b>\$ 29,487,125</b>	<b>\$ 6,063,669,916</b>

\* Absolute Return was absorbed by Real Return in December 2020

\*\* Opportunistic was absorbed by Specialty Credit in December 2021



## KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director  
1260 Louisville Road • Frankfort, Kentucky 40601  
kyret.ky.gov • Phone: 502-696-8800 • Fax: 502-696-8822



**TO:** Members of the CERS Board of Trustees

**FROM:** Joint CERS & KRS Retiree Health Plan Committee

**DATE:** March 11, 2024

**SUBJECT:** Joint CERS & KRS Retiree Health Plan Committee Report

The Joint CERS & KRS Retiree Health Plan Committee met on Thursday, February 15, 2024, and reviewed an informational presentation from Humana regarding the following items:

- 2023 Member Satisfaction Results
- Inflation Reduction Act
- CMS Call Notices
- 2024 Stars Outreach

Humana presented the Customer Care Experiences. The members calling customer care was low in 2023 with only 12% having a reason to call compared to previous years. Members ability to get their issue resolved remained high at 61% resolution for a single incident. Members remained highly satisfied with their Customer Representative interactions. Hold times improved in 2023 going up to 93% as compared to 77% in 2022. Humana's Net Promoter Score (NPS) for 2023 was 72.86. NPS above 50 are considered to be excellent.

Humana gave updates on the Inflation Reduction Act (IRA) and 2024 Notices from CMS. The IRA will most likely have an impact to premiums for plan year 2025. The IRA is changing the Medicare Part D annual out of pocket cost for the retirees. The retirees out of pocket cost will be capped at \$2,000 a year and it was \$8,000 a year in 2024. The Centers for Medicare and Medicaid Services (CMS) released the Advanced Rate Notice for 2024. The notice indicates the expected impact of proposed policy changes on the Medicare Advantage (MA) plan payments relative to last year. There is a 60-day comment period. The Final Notice will be released on April 1, 2024.

Humana also presented the information on the 2024 Stars Campaign Calendar of the events that have occurred or will occur during the year. Some of the events include annual checkup reminders, risk of falls prevention, colorectal cancer information, breast cancer information, diabetes eye exam, diabetes kidney disease, and blood glucose levels.

Lastly, Humana stated that negotiations continue with the Baptist Health Medical Group contract. Retirees on the KPPA MA plans continue to access this provider group with no additional out of pocket cost.

KPPA staff presented Open Enrollment (October 1, 2023 – December 31, 2023) statistics. The statistics showed a slight decrease in web enrollments of 7% which was likely due to more members having to complete an application in the previous year's Open Enrollment, due to a plan being removed from the 2023 KEHP offerings. Member email responses remained flat at 798 from 812 the previous year. The number of phone calls increased with 18,846 taken from 16,255 in 2022. Virtual appointments grew more than 200% from the previous year from 23 to 70 and the in-person appointments increase by 16% from the previous year from 57 to 66. KPPA staff attended thirteen (13) in-person Benefit Fairs and Seminars with Humana, the Department of Employee Insurance (DEI) and Retiree Group meetings during October 2023 reaching nearly five hundred (500) retirees. Webinars were offered and posted on the KPPA website for both the non-Medicare and Medicare plans.

All presentations were for informational purposes only and no actions were taken.



## MEMORANDUM

**TO:** County Employees Retirement System Board of Trustees

**From:** Dr. Merl Hackbart, Chair  
Investment Committee

**Date:** March 11, 2024

**Subject:** Summary of Investment Committee Regular and Special Meetings

---

The County Employees Retirement System Investment Committee held two (2) meetings since the last regularly scheduled Board of Trustees Meeting. The first meeting was a special meeting called on January 24, 2024, to consider a new Real Return Investment Manager. The second meeting was a regularly scheduled meeting on February 28, 2024.

1. **The following items were approved by the Investment Committee and are being forwarded to the County Employees Retirement System Board of Trustees for ratification. \***
  - a. **Saba Capital Management --** The Investment Committee approved by unanimous vote and is submitting for ratification by the Board of Trustees, Saba Capital Management as a Real Return Investment Manager for a \$175 million investment, subject to successful contract negotiations.
  - b. **Asset Allocation Recommendation --** The Investment Committee approved by majority vote and is submitting for ratification by the Board of Trustees, the Lower Risk A Asset Allocation option presented by Wilshire and the KPPA Investment Office.

**RECOMMENDATION:** The Investment Committee requests the County Employees Retirement System Board of Trustees ratify the actions taken by the Investment Committee.

2. **During the regular meeting on February 28, 2024, the Committee also heard the following reports.**
  - a. David Lindberg from Wilshire presented a capital market economic overview. He indicated that the markets remained focused on the actions of the Federal Reserve



to determine how soft a landing the economy would encounter. He indicated that sentiment had changed over the last quarter and the market was no longer expecting the Fed to cut rates up to six (3) times over the 2024 calendar year. Recent Fed statements have led many in the market to believe there will only be three (3) rate cuts in the 2024 calendar year. He further stated that the Wilshire perspective differed from others in the market as Wilshire believes interest rate will stay higher longer which would slow economic growth.

David further indicated that the economy was still experiencing an inverted yield curve with the 10-year treasuries yielding 4% while 3-month treasuries were returning 5.5%. He further stated that the equity risk premium continued to be squeezed in the marketplace and was currently around one (1%) percent. The elevated returns available in the core fixed income asset class continued to make the risk associated with equities less attractive.

- b. Steve Willer provided the portfolio performance for the first half of Fiscal Year 2024. Steve indicated that the markets had rebounded in the second quarter based primarily on the expectations of significant rate cuts by the Fed during calendar year 2024. Steve agreed with Wilshire that the number of anticipated rate cuts for the year has been cut in half by many analysts.

The quarter presented nice returns for both CERS and CERS-H pension funds at 6.78% and 6.85% respectively. The Insurance funds nearly mirrored those returns at 6.87% for CERS and 6.71% for CERS-H during the quarter.

Steve further indicated that growth stocks continue to outperform in the second quarter of the fiscal year rising almost twelve (12%) percent. Large cap stocks continued to lead the way. The “Magnificent Seven” tech stocks continued to provide the momentum for the market. It should be noted the P/E ratios for those stocks are more that twice the normal P/E ratio.

- c. The committee asked questions concerning the reported 1-Year underperformance of the Private Equity portfolio relative to benchmark. Staff indicated the relative underperformance was due to the acknowledged mismatch between the investments in the Private Equity portfolio and the benchmark. Additionally, the committee asked several questions about the dollar amount of core fixed income assets that were removed from Lord Abbett and the percentage of that allocation that was being brought in-house for the staff to manage.

County Employees Retirement System

# Investment Office Quarterly Update

Quarter Ending: December 31, 2023

County Employees Retirement System

# Economic and Market Update

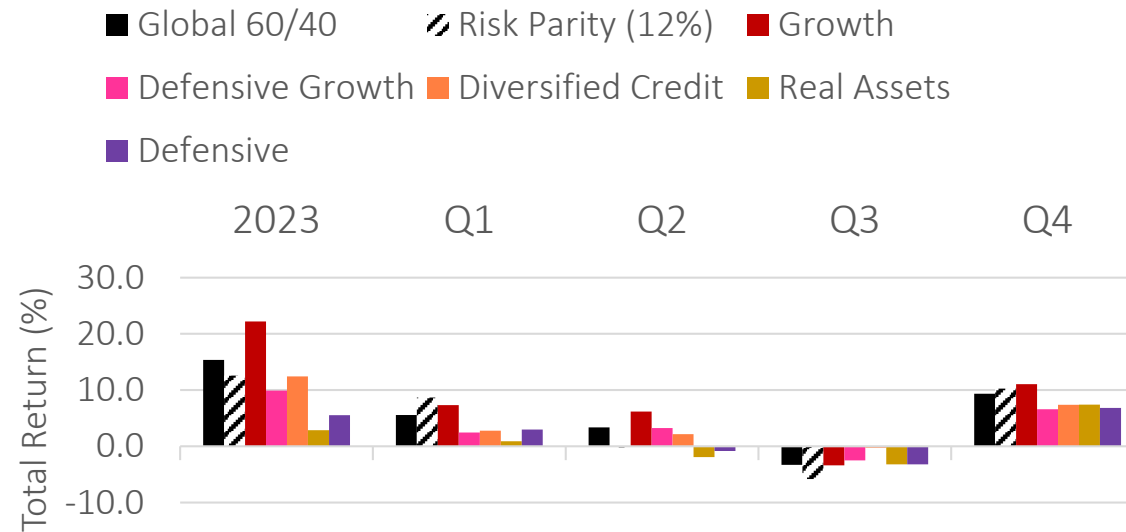
Quarter Ending: December 31, 2023

## December 2023 Asset Class Assumptions

	EQUITY						FIXED INCOME / CREDIT						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)	Real Estate US RES	Global RES	Private RE	Cmdty	Real Assets	US CPI
Compound Retrun (%)	5.00	6.00	6.25	6.35	5.60	8.65	3.80	4.75	4.70	4.15	5.90	8.40	2.85	5.60	5.75	6.30	6.05	6.90	2.25
Arithmetic Return (%)	6.35	7.50	9.20	8.00	6.95	12.35	3.80	4.85	5.15	4.30	6.35	9.15	2.95	7.00	7.00	7.20	7.20	7.65	2.25
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
Cash Yield (%)	1.45	3.10	2.50	2.95	2.00	0.00	3.80	5.10	5.25	4.35	9.20	4.95	3.65	3.90	3.90	2.50	3.80	3.40	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	0.00	5.00	1.40	-1.35	-3.75	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

## Thematic Return Stacks

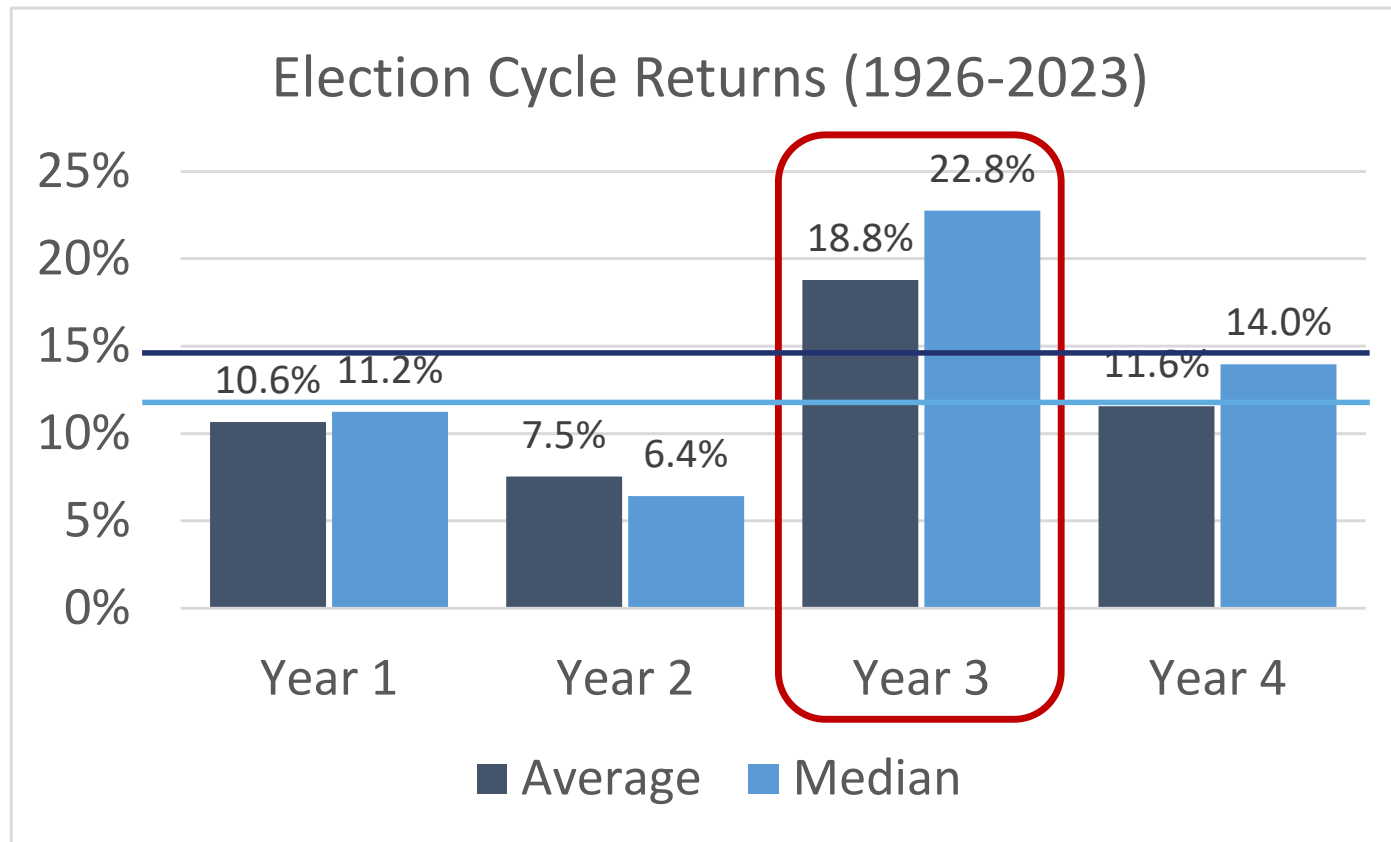
### Asset Allocation & Thematic Returns



	2023	Q1	Q2	Q3	Q4
Global 60/40	15.36	5.56	3.36	(3.31)	9.36
Risk Parity (12%)	12.58	8.66	(0.20)	(5.82)	10.24
Growth	22.20	7.31	6.18	(3.40)	11.03
Defensive Growth	9.89	2.46	3.23	(2.51)	6.58
Diversified Credit	12.42	2.78	2.14	(0.26)	7.36
Real Assets	2.86	0.90	(1.92)	(3.22)	7.39
Defensive	5.53	2.96	(0.84)	(3.23)	6.82

Data Source: Wilshire, Bloomberg

## Election Cycles



Data Source: Wilshire Compass

## Yield Whiplash



Data Source: Bloomberg

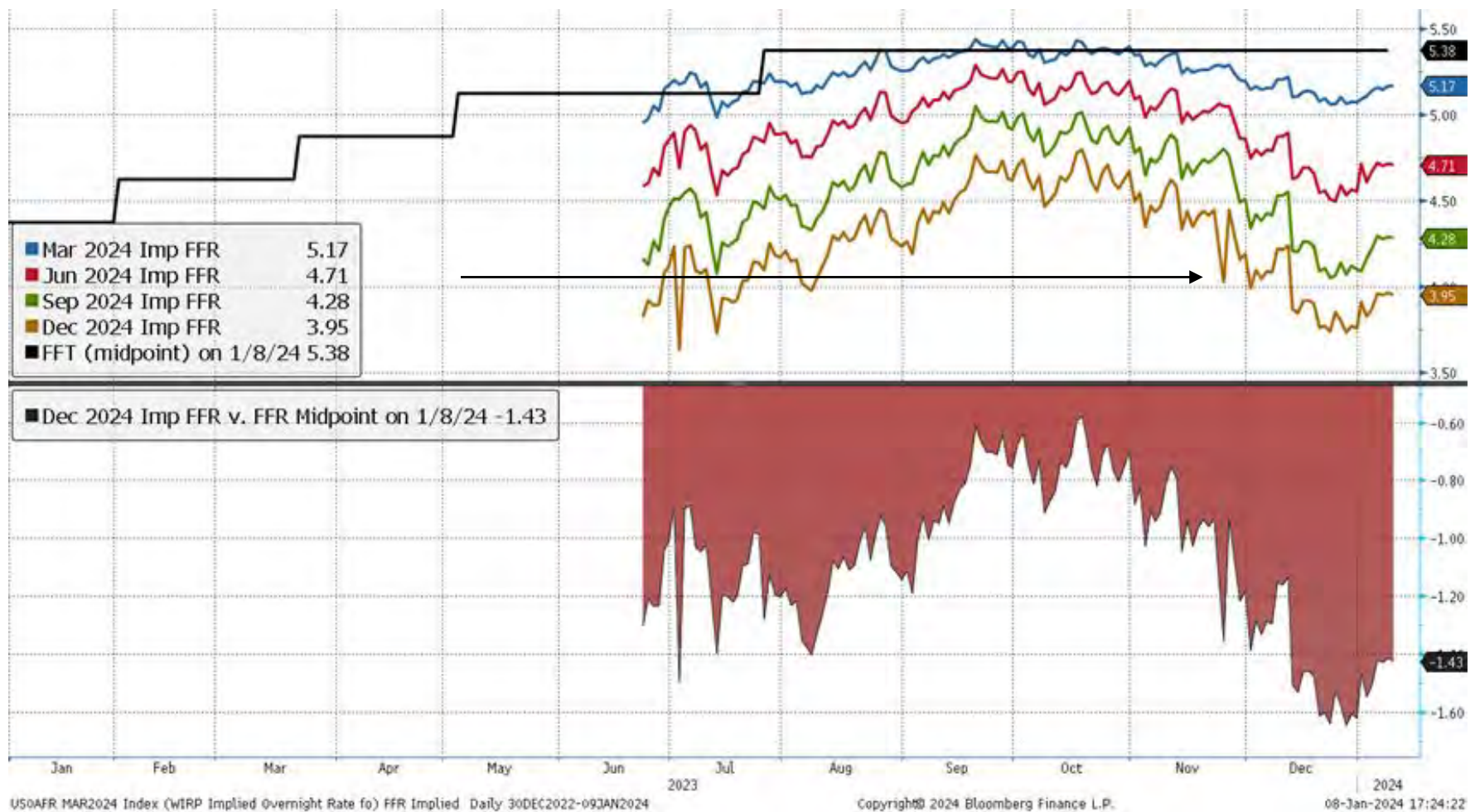
## Fed Pivot: Hinting at “Mission Accomplished”



Data Source: Bloomberg

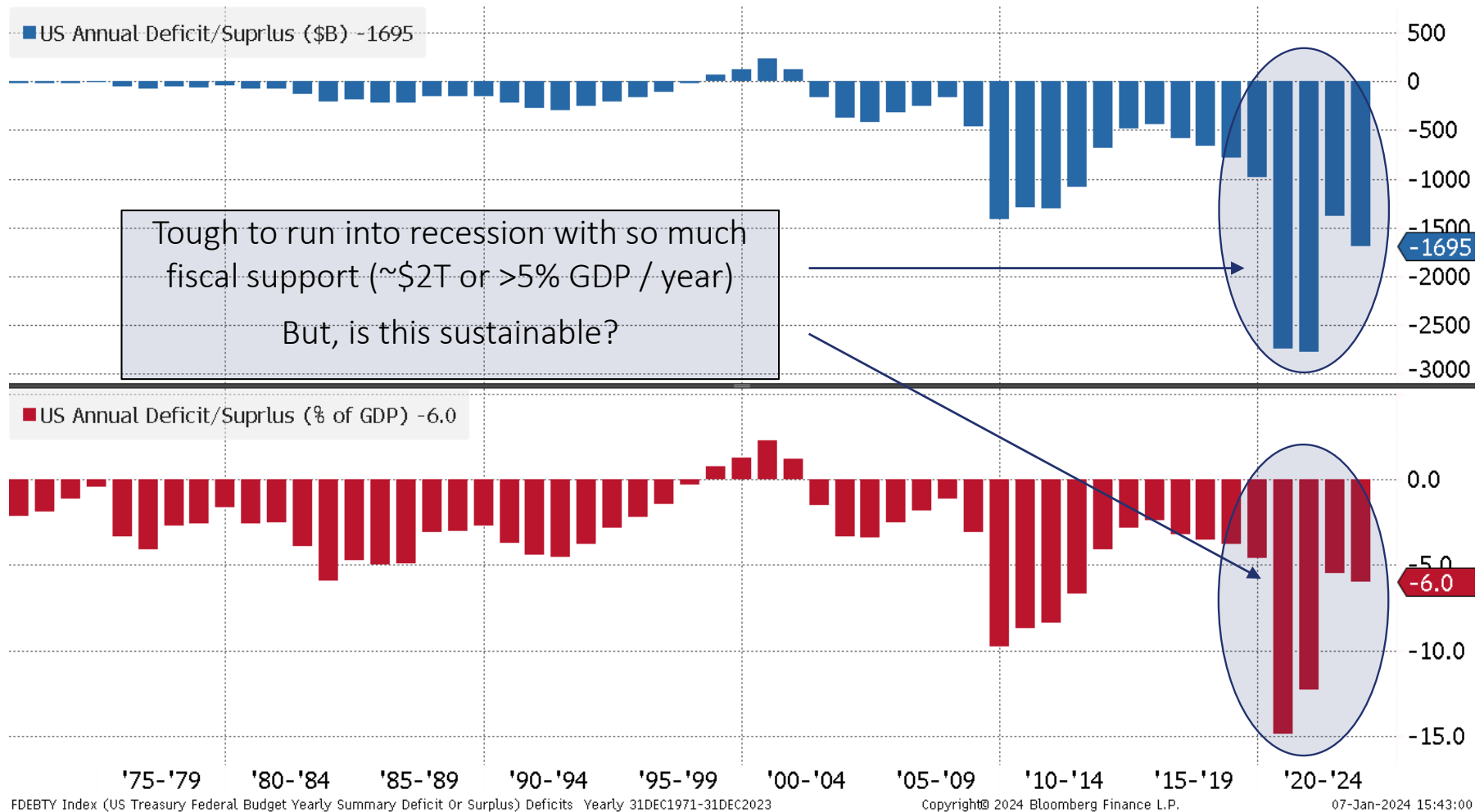


## Markets Expect More in Rate Cuts



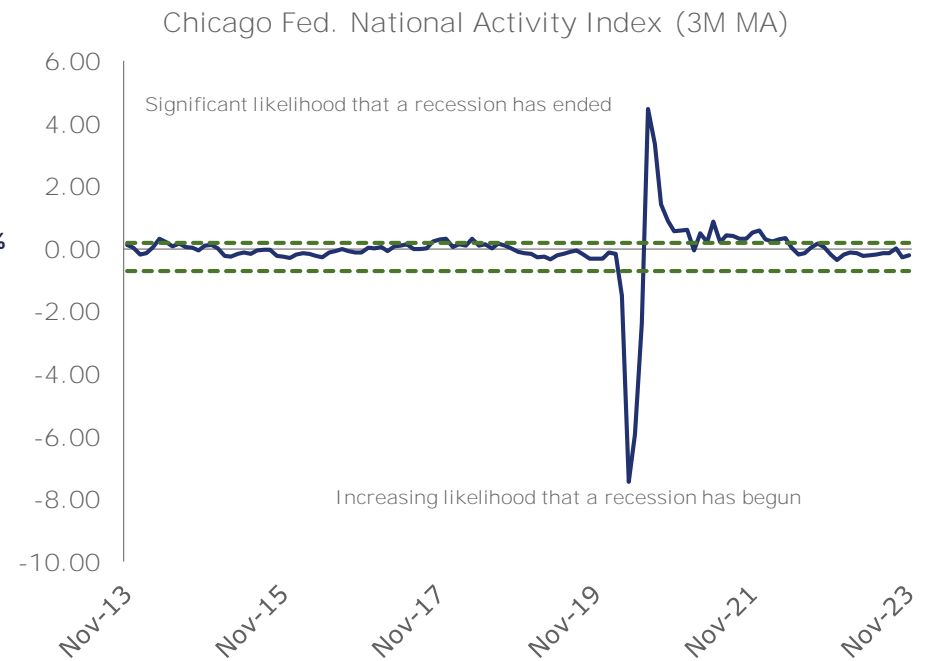
Data Source: Bloomberg

## Recession Risks: How Did We All Get It So Wrong?



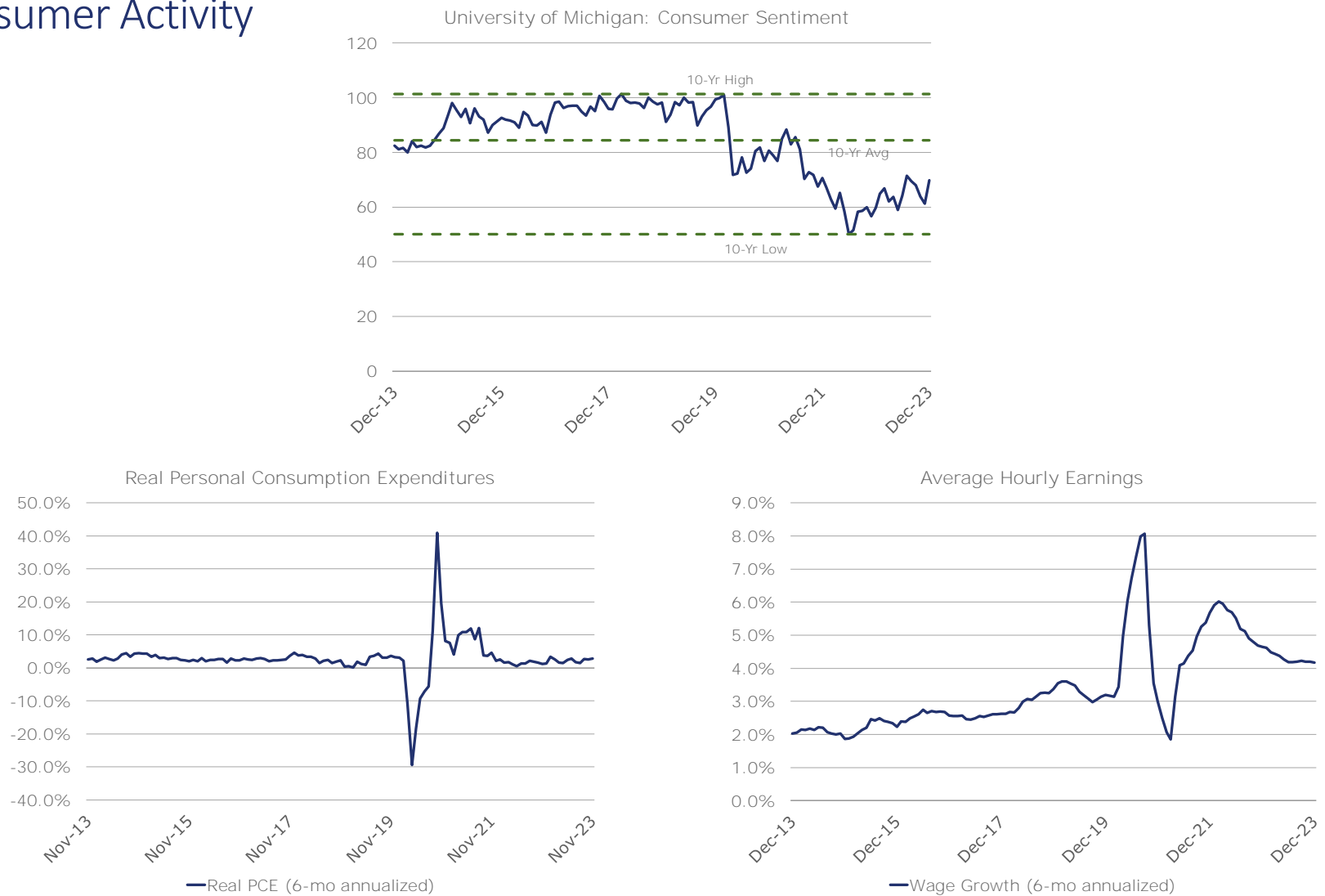
Data Source: Bloomberg

## Economic Growth



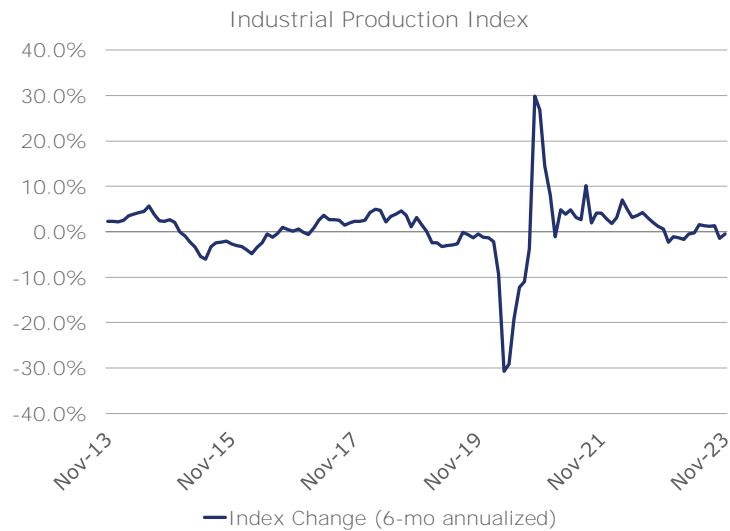
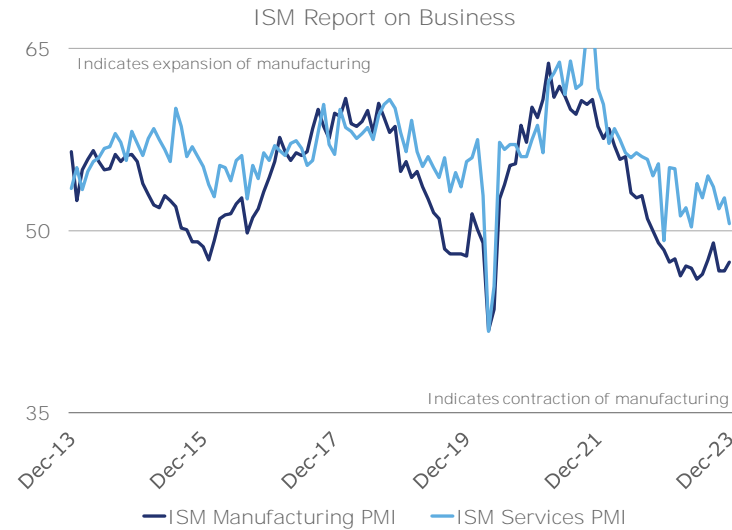
Data Sources: Bloomberg

## Consumer Activity



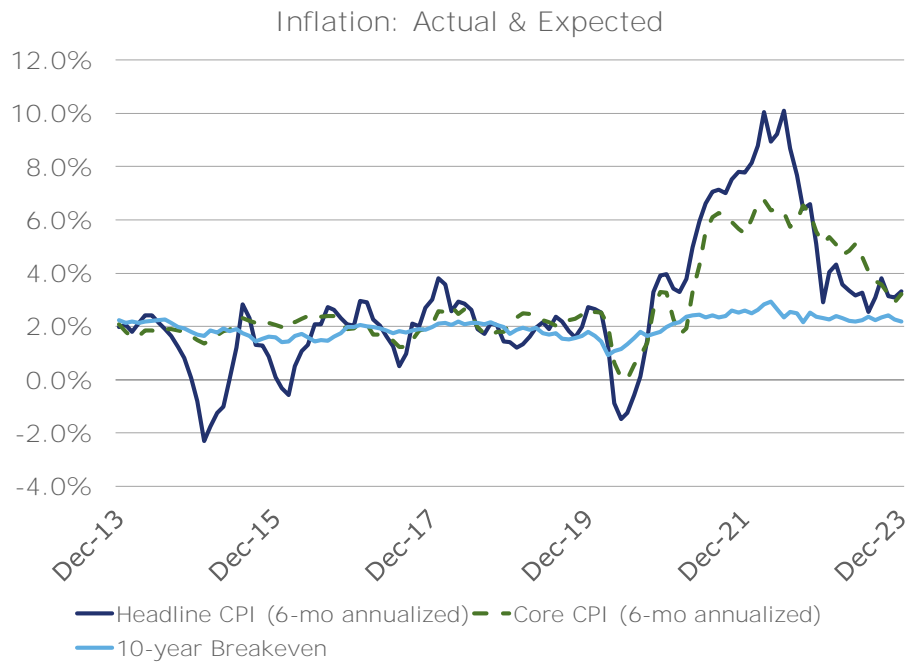
Data Sources: Bloomberg

## Business Activity



Data Sources: Bloomberg

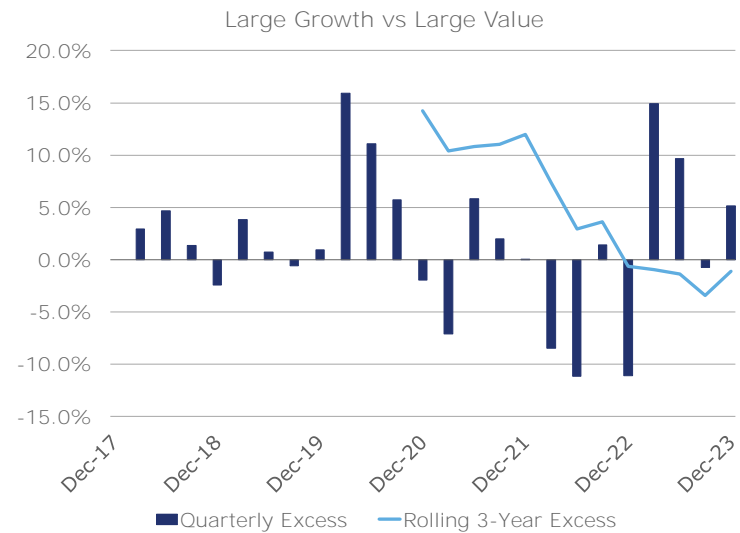
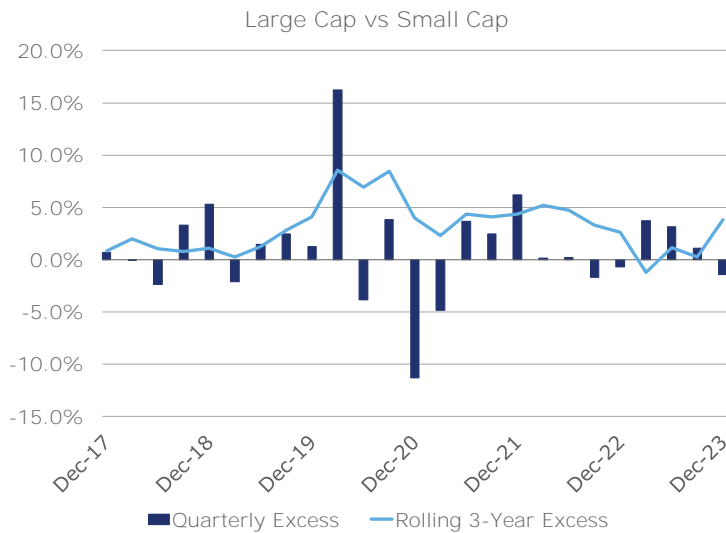
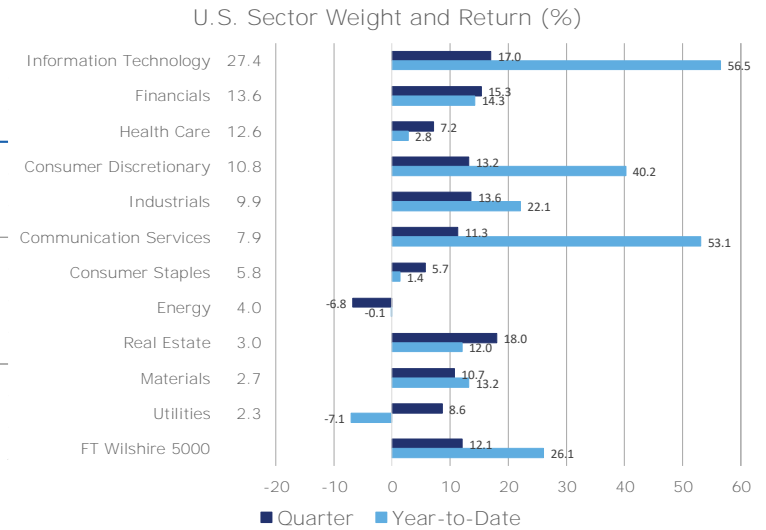
## Inflation and Employment



Data Sources: Bloomberg

## U.S. Equity Market

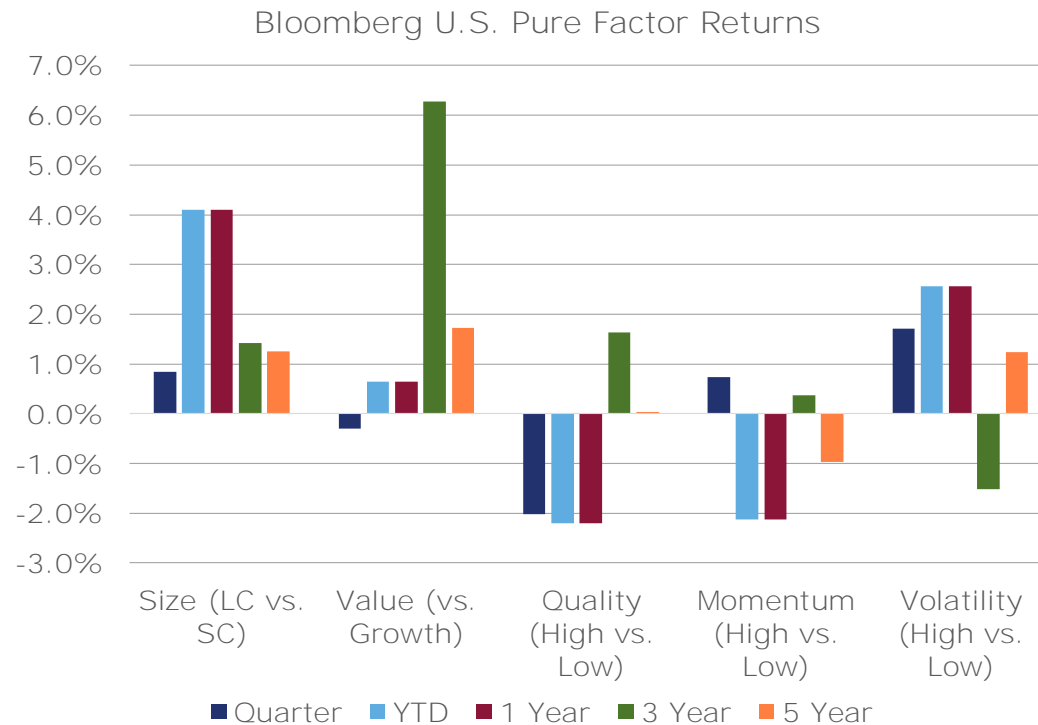
As of 12/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	12.1	26.1	26.1	9.0	15.4	11.7
Wilshire U.S. Large Cap	11.9	27.3	27.3	9.5	15.9	12.2
Wilshire U.S. Small Cap	13.5	19.5	19.5	5.5	12.0	8.7
Wilshire U.S. Large Growth	14.7	46.1	46.1	8.7	19.2	n/a
Wilshire U.S. Large Value	9.1	11.1	11.1	10.0	12.2	n/a
Wilshire U.S. Small Growth	12.9	21.8	21.8	0.6	11.6	n/a
Wilshire U.S. Small Value	14.2	17.2	17.2	10.3	12.1	n/a
Wilshire REIT Index	16.3	16.1	16.1	7.5	7.6	7.7
MSCI USA Min. Vol. Index	7.8	9.8	9.8	6.5	10.3	10.4
FTSE RAFI U.S. 1000 Index	11.2	16.1	16.1	12.3	14.3	10.4



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
- Large cap and high volatility have mostly outperformed this year

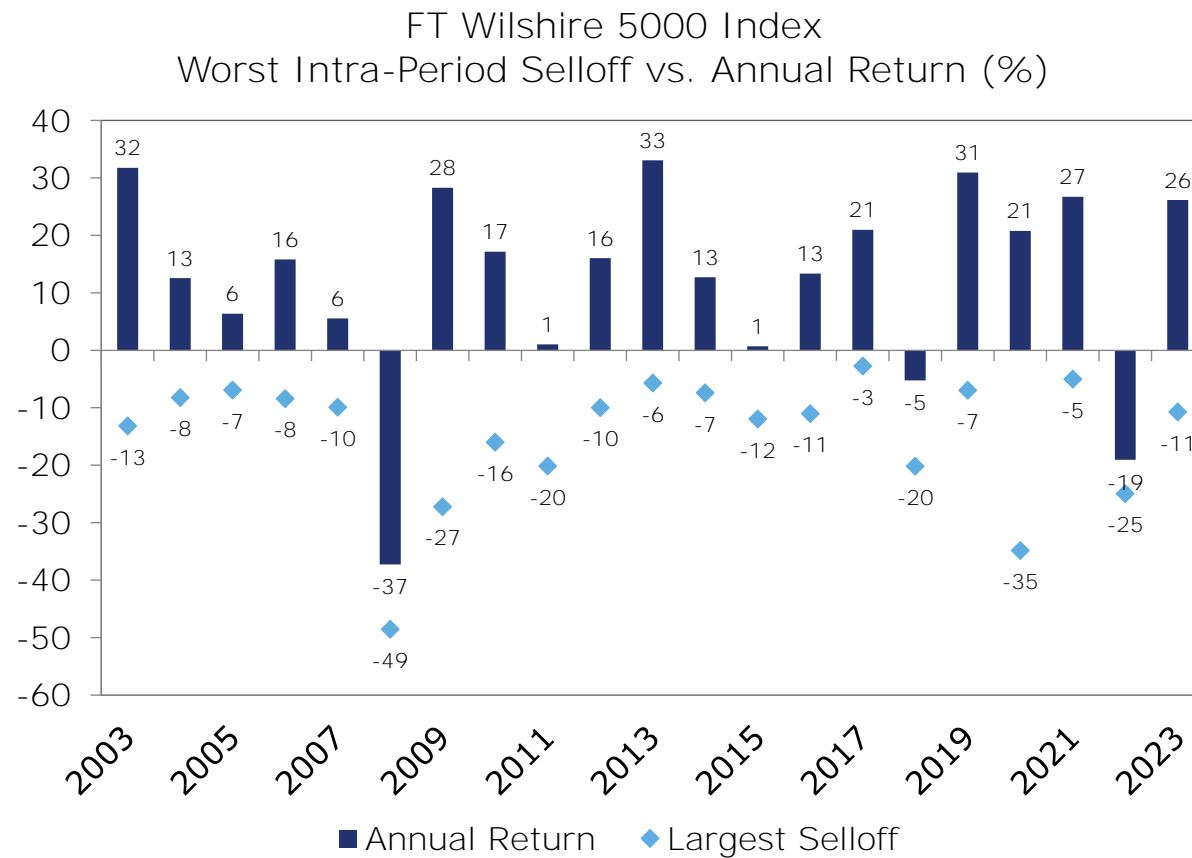


Data Sources: Bloomberg



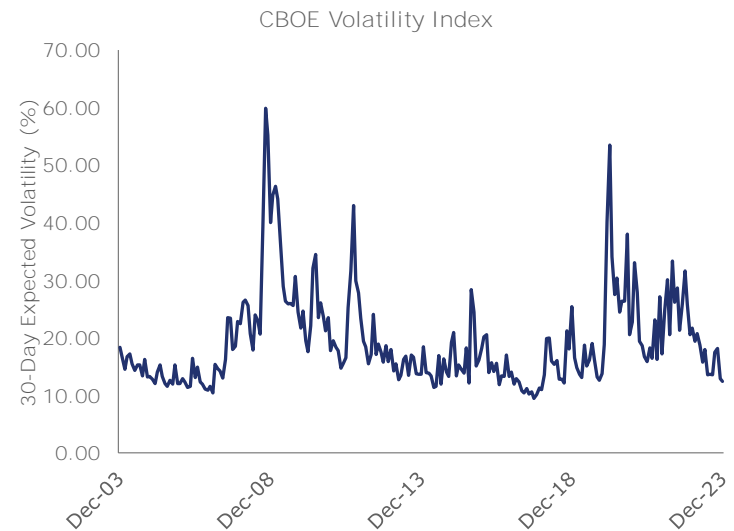
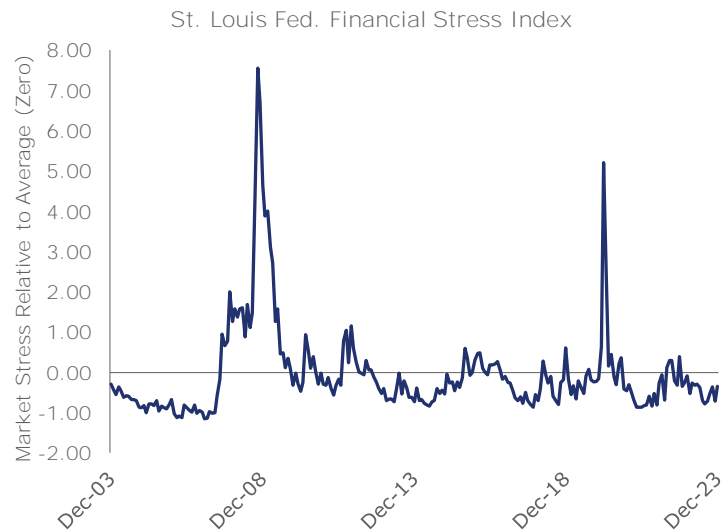
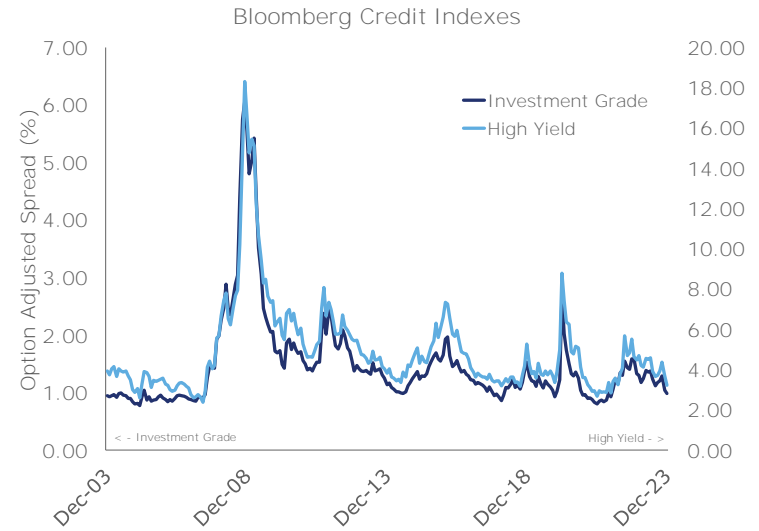
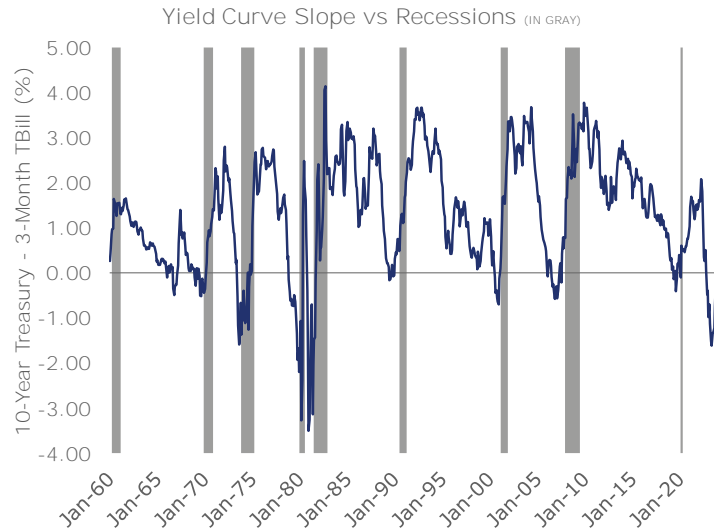
## Annual Equity Market Selloffs

U.S. equity suffered a meaningful selloff in Feb.-Mar. but generally rebounded strongly from 2022



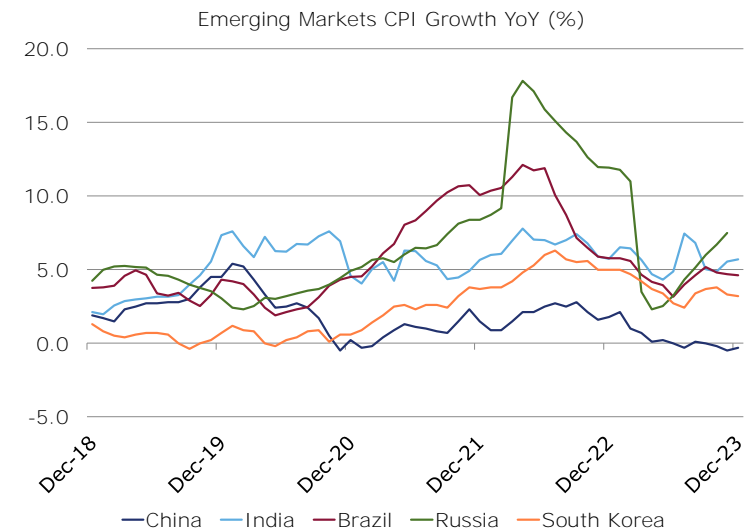
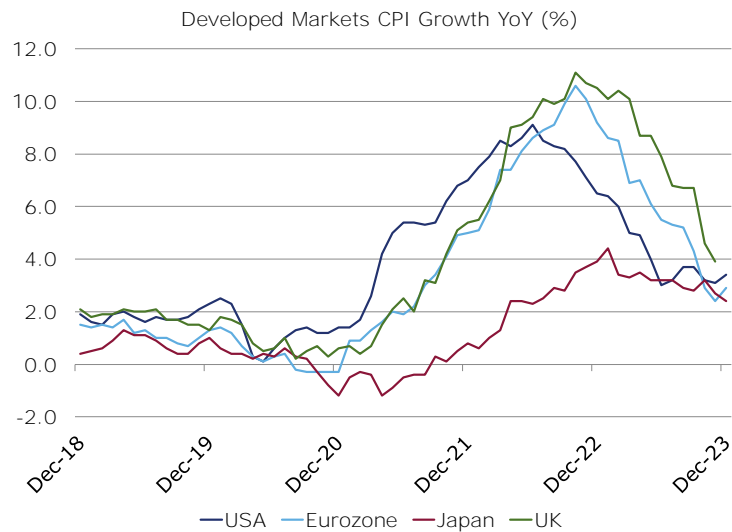
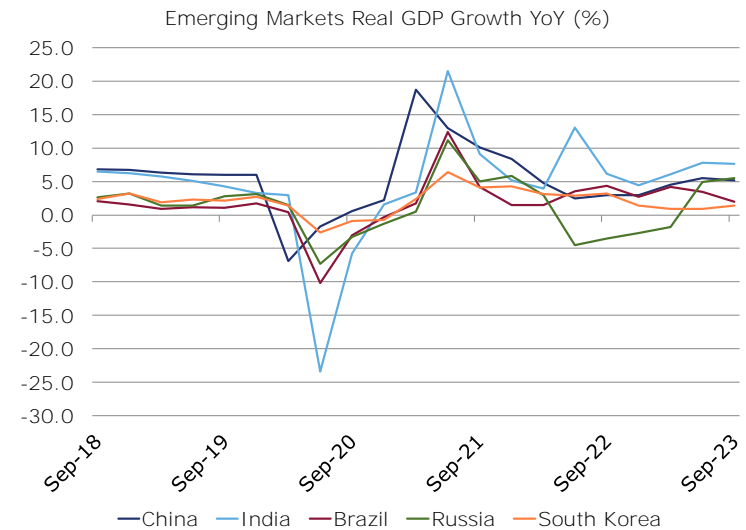
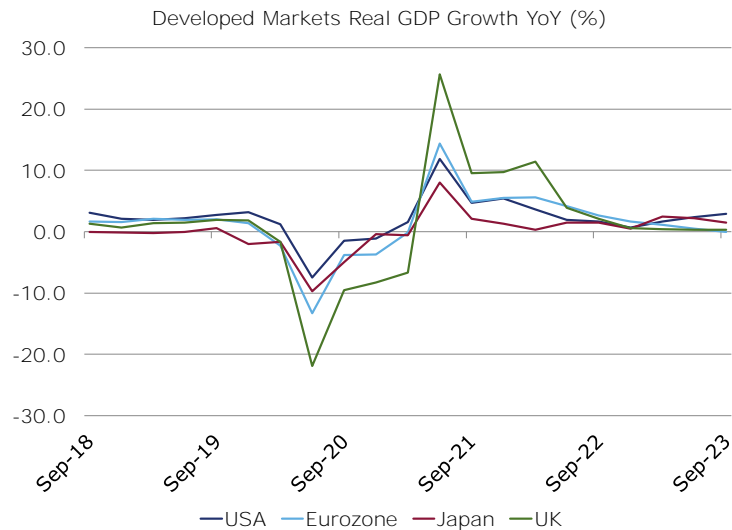
Data Sources: Wilshire Web, Bloomberg

## Risk Monitor



Data Sources: Bloomberg

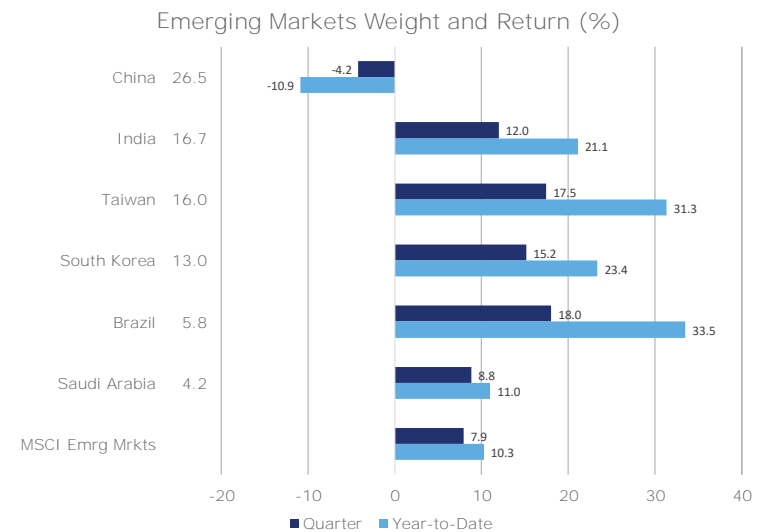
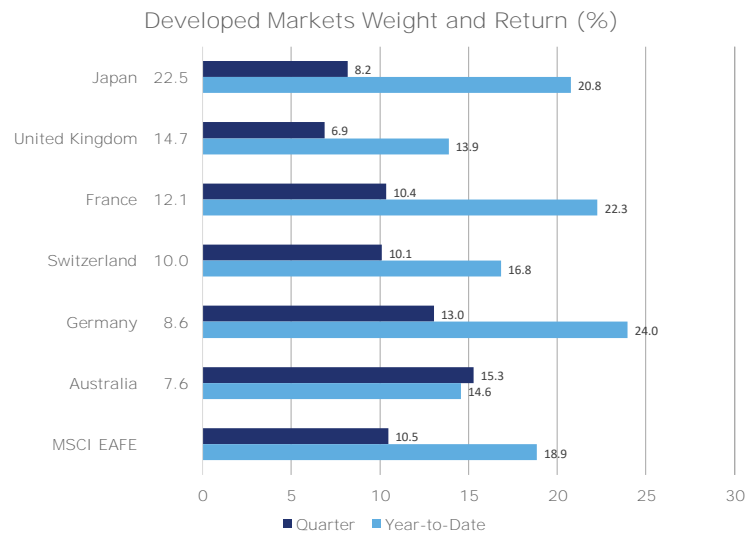
## Non-U.S. Growth and Inflation



Data Sources: bloomberg

## Non-U.S. Equity Market

As of 12/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	9.8	16.2	16.2	2.0	7.6	4.3
MSCI EAFE (\$G)	10.5	18.9	18.9	4.5	8.7	4.8
MSCI Emerging Markets (\$G)	7.9	10.3	10.3	-4.7	4.1	3.0
MSCI Frontier Markets (\$G)	7.6	12.5	12.5	-1.1	1.6	0.9
MSCI ACWI ex-US Growth (\$G)	11.2	14.4	14.4	-2.4	7.8	4.9
MSCI ACWI ex-US Value (\$G)	8.7	18.1	18.1	6.4	7.2	3.8
MSCI ACWI ex-US Small (\$G)	10.2	16.2	16.2	2.0	8.4	5.3
MSCI ACWI Minimum Volatility	6.6	8.4	8.4	3.8	7.1	7.5
MSCI EAFE Minimum Volatility	7.3	12.4	12.4	1.1	4.1	4.7
FTSE RAFI Developed ex-US	9.5	19.0	19.0	7.7	8.8	4.5
MSCI EAFE LC (G)	5.0	16.8	16.8	9.2	10.0	7.1
MSCI Emerging Markets LC (G)	5.6	10.3	10.3	-2.1	5.8	5.6

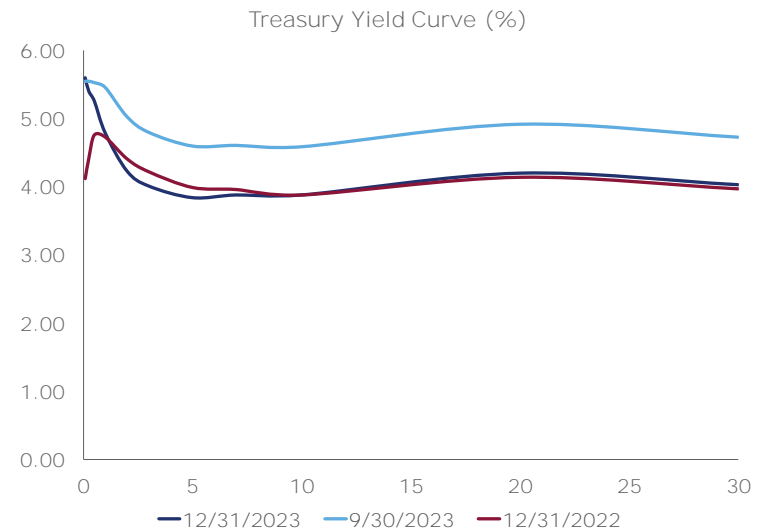
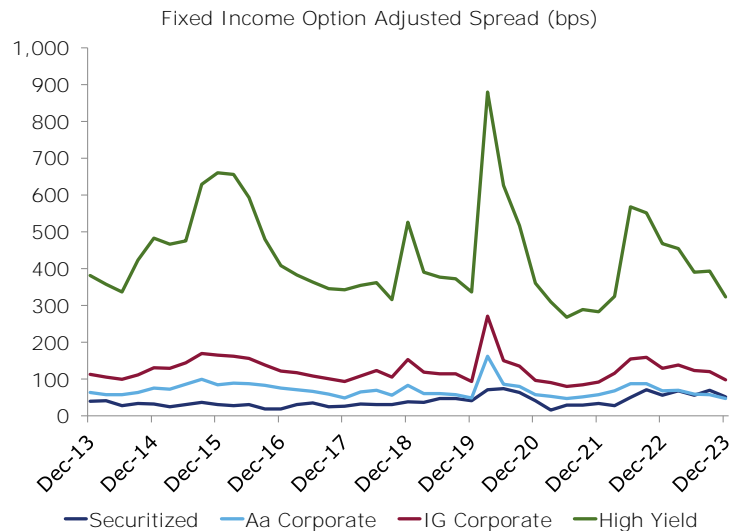


Data Sources: Bloomberg

## U.S. Fixed Income

As of 12/31/2023	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.5	6.2	6.8	5.5	5.5	-3.3	1.1	1.8
Bloomberg Treasury	4.1	6.2	5.7	4.1	4.1	-3.8	0.5	1.3
Bloomberg Gov't-Rel.	4.6	5.3	5.5	5.8	5.8	-2.4	1.4	2.0
Bloomberg Securitized	4.7	5.8	7.3	5.1	5.1	-2.8	0.4	1.4
Bloomberg Corporate	5.1	7.1	8.5	8.5	8.5	-3.3	2.6	3.0
Bloomberg LT Gov't/Credit	4.7	14.3	13.2	7.1	7.1	-8.7	1.1	3.2
Bloomberg LT Treasury	4.1	15.7	12.7	3.1	3.1	-11.4	-1.2	2.3
Bloomberg LT Gov't-Rel.	5.2	11.8	11.2	8.9	8.9	-6.1	1.5	3.5
Bloomberg LT Corporate	5.2	13.1	14.0	10.9	10.9	-6.6	2.9	3.9
Bloomberg U.S. TIPS *	3.9	7.3	4.7	3.9	3.9	-1.0	3.2	2.4
Bloomberg High Yield	7.6	3.2	7.2	13.4	13.4	2.0	5.4	4.6
S&P/LSTA Leveraged Loan	9.4	0.3	2.9	13.3	13.3	5.8	5.8	4.4
Treasury Bills	5.2	0.3	1.4	5.1	5.1	2.1	1.9	1.3

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



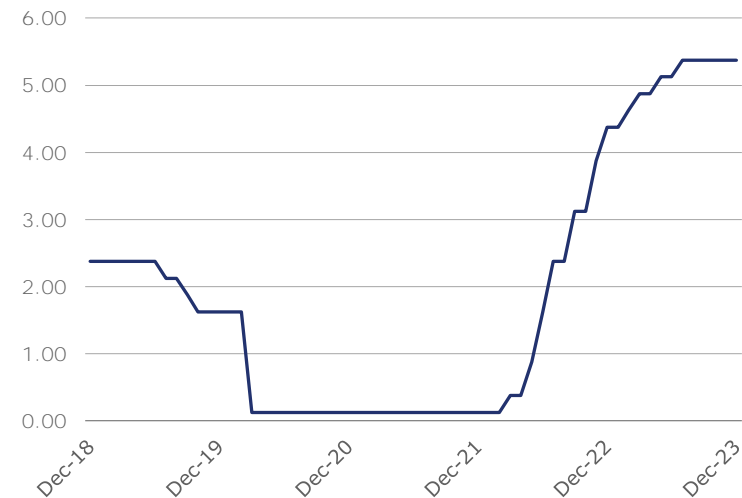
Data Sources: Bloomberg

## Federal Reserve

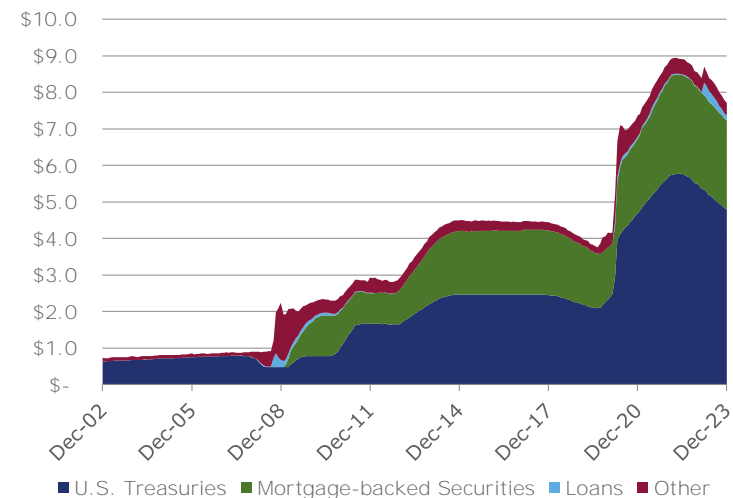
- The Federal Open Market Committee has left their overnight rate unchanged since July of 2023
- QE4 was larger than the 3 phases of quantitative easing – combined – following the global financial crisis
- The Fed's balance sheet has begun to shrink again during the past nine months

	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

Federal Funds Rate (Mid %)



Federal Reserve Balance Sheet (\$T)

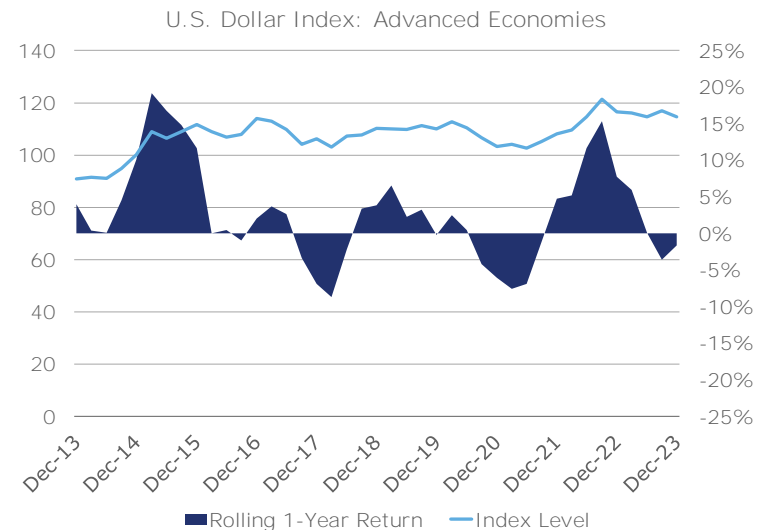
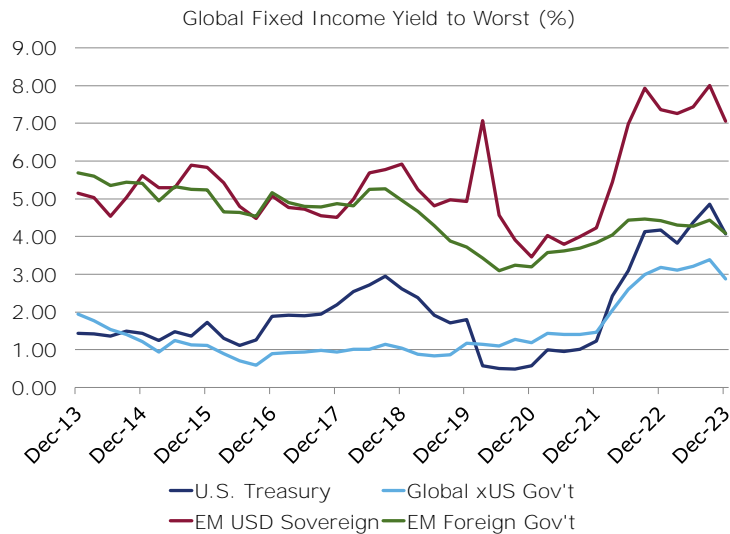


Data Sources: Bloomberg

## Non-U.S. Fixed Income

As of 12/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
<b>Developed Markets</b>						
Bloomberg Global Aggregate xUS	9.2	5.7	5.7	-7.2	-1.6	-0.8
Bloomberg Global Aggregate xUS *	5.4	8.3	8.3	-1.2	1.5	2.8
Bloomberg Global Inflation Linked xUS	11.9	7.4	7.4	-8.7	-1.4	-0.2
Bloomberg Global Inflation Linked xUS *	7.6	5.3	5.3	-4.5	0.4	3.3
<b>Emerging Markets (Hard Currency)</b>						
Bloomberg EM USD Aggregate	8.1	9.1	9.1	-3.1	1.8	3.0
<b>Emerging Markets (Foreign Currency)</b>						
Bloomberg EM Local Currency Gov't	7.0	6.9	6.9	-1.2	2.1	1.3
Bloomberg EM Local Currency Gov't *	3.9	8.6	8.6	1.4	3.1	3.0
Euro vs. Dollar	4.4	3.1	3.1	-3.3	-0.8	-2.2
Yen vs. Dollar	5.9	-7.0	-7.0	-9.9	-4.9	-2.9
Pound vs. Dollar	4.4	5.4	5.4	-2.3	0.0	-2.6

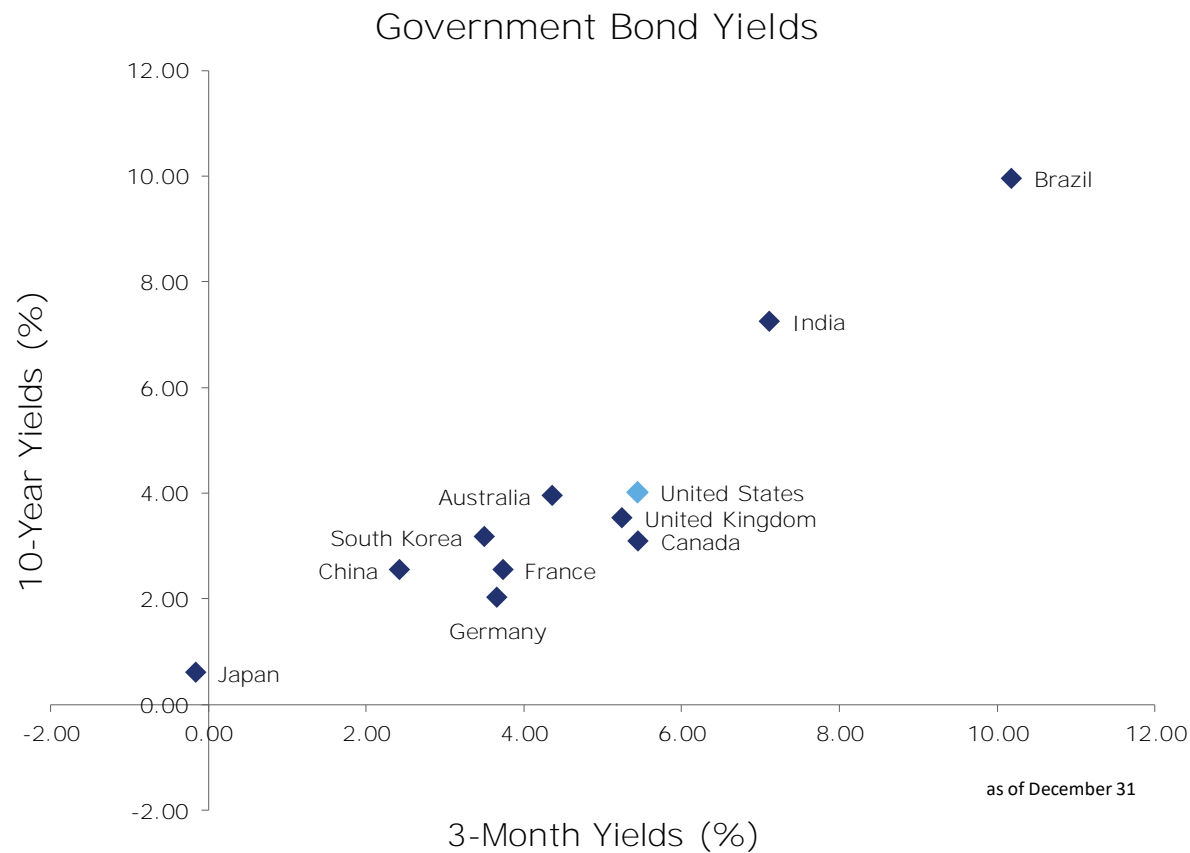
\* Returns are reported in terms of local market investors, which removes currency effects.



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



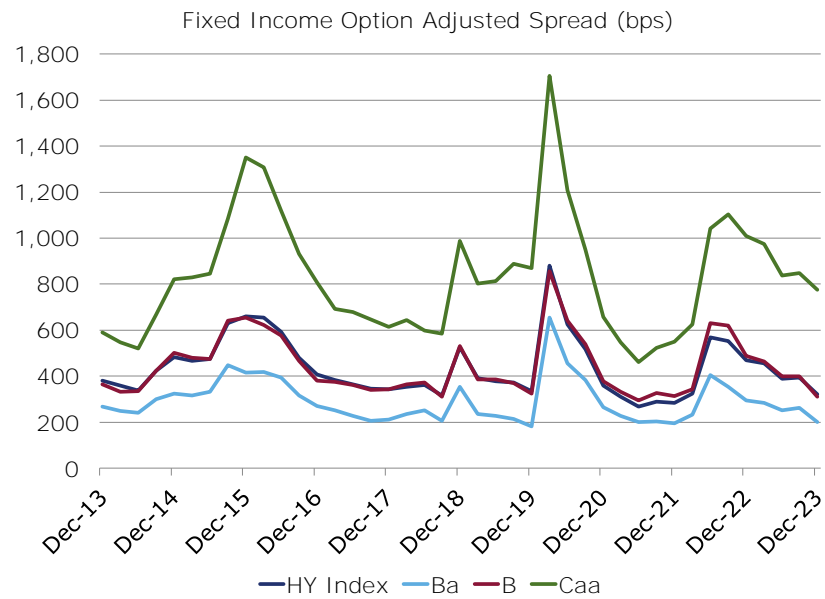
Data Sources: Bloomberg



## High Yield Bond Market

As of 12/31/2023

		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		7.6	7.2	13.4	13.4	2.0	5.4	4.6
S&P LSTA Leveraged Loan		9.4	3.2	13.2	13.2	5.2	5.8	4.0
<b>High Yield Quality Distribution</b>	<b>Weight</b>							
Ba U.S. High Yield	46.1%	6.3	7.4	11.6	11.6	1.4	5.8	5.0
B U.S. High Yield	41.1%	7.5	7.0	13.8	13.8	2.3	5.1	4.2
Caa U.S. High Yield	11.7%	12.1	6.9	19.8	19.8	2.9	4.1	4.0
Ca to D U.S. High Yield	1.1%	15.3	5.1	16.4	16.4	5.5	3.7	-4.0



Data Sources: Bloomberg

## Asset Class Performance

### Asset Class Returns - Best to Worst

2018	2019	2020	2021	2022	2023 YTD	Annualized 5-Year as of 12/23
T-Bills 1.9%	U.S. Equity 31.0%	U.S. Equity 20.8%	REITs 46.2%	Commodities 16.1%	U.S. Equity 26.1%	U.S. Equity 15.4%
Core Bond 0.0%	REITs 25.8%	Emrg Mkts 18.7%	Commodities 27.1%	T-Bills 1.3%	Developed 18.9%	Developed 8.7%
U.S. TIPS -1.3%	Developed 22.7%	U.S. TIPS 11.0%	U.S. Equity 26.7%	High Yield -11.2%	REITs 16.1%	REITs 7.6%
High Yield -2.1%	Emrg Mkts 18.9%	Developed 8.3%	Developed 11.8%	U.S. TIPS -11.8%	High Yield 13.4%	Commodities 6.1%
REITs -4.8%	High Yield 14.3%	Core Bond 7.5%	U.S. TIPS 6.0%	Core Bond -13.0%	Emrg Mkts 10.3%	High Yield 5.4%
U.S. Equity -5.3%	Core Bond 8.7%	High Yield 7.1%	High Yield 5.3%	Developed -14.0%	Core Bond 5.5%	Emrg Mkts 4.1%
Commodities -11.2%	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 3.2%
Developed -13.4%	Commodities 7.7%	Commodities -3.1%	Core Bond -1.5%	Emrg Mkts -19.7%	U.S. TIPS 3.9%	T-Bills 1.9%
Emrg Mkts -14.2%	T-Bills 2.3%	REITs -7.9%	Emrg Mkts -2.2%	REITs -26.8%	Commodities -1.3%	Core Bond 1.1%

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: December 31, 2023

## Pension Portfolios Performance

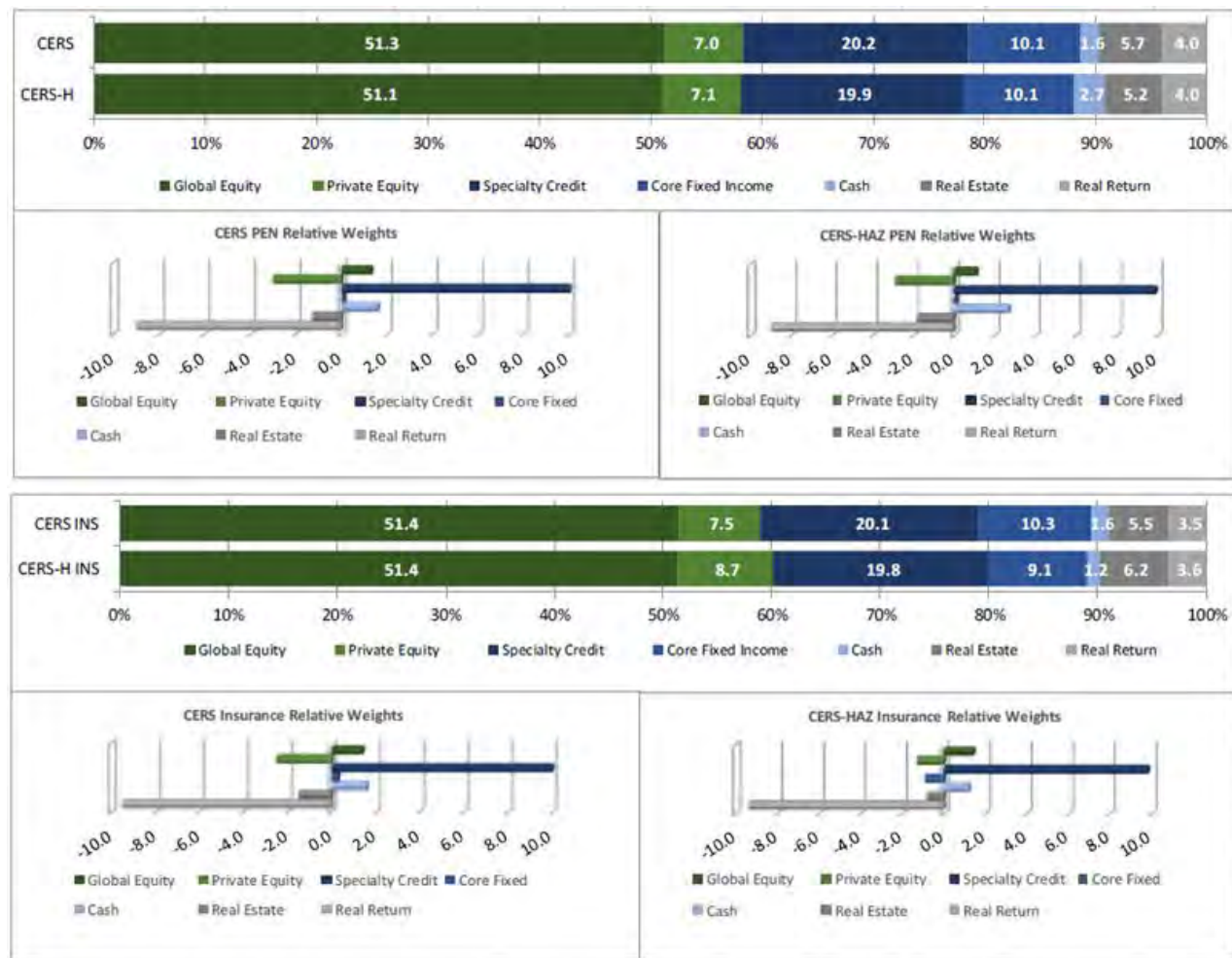
CERS & CERS-HAZ - PENSION FUND PLAN NET RETURNS - 12/31/23											
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
<b>CERS</b>	<b>9,108,214,619.80</b>	<b>3.30</b>	<b>6.78</b>	<b>5.26</b>	<b>13.50</b>	<b>6.25</b>	<b>8.64</b>	<b>6.90</b>	<b>6.65</b>	<b>7.79</b>	<b>8.88</b>
KY Ret. CERS Plan IPS Index		2.48	6.45	5.50	15.21	5.76	8.30	6.61	6.57	7.70	8.89
<b>CERS- H</b>	<b>3,199,189,826.80</b>	<b>3.32</b>	<b>6.85</b>	<b>5.33</b>	<b>13.63</b>	<b>6.20</b>	<b>8.59</b>	<b>6.89</b>	<b>6.65</b>	<b>7.78</b>	<b>8.87</b>
KY Ret. CERS Haz Plan IPS Index		2.48	6.45	5.50	15.21	5.76	8.30	6.61	6.57	7.70	8.89
KPPA PENSION FUND UNIT - NET RETURNS - 12/31/23 - PROXY PLAN ASSET PERFORMANCE											
Structure		Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
<b>PUBLIC EQUITY</b>		<b>5.33</b>	<b>11.17</b>	<b>6.67</b>	<b>21.12</b>	<b>5.06</b>	<b>11.49</b>	<b>7.66</b>	<b>7.30</b>	<b>8.70</b>	<b>10.25</b>
MSCI ACWI		4.80	11.03	7.26	22.20	5.25	11.31	7.66	7.24	8.47	10.11
<b>PRIVATE EQUITY</b>		<b>0.06</b>	<b>0.22</b>	<b>2.93</b>	<b>7.79</b>	<b>15.44</b>	<b>12.40</b>	<b>12.85</b>	<b>11.50</b>		<b>11.68</b>
Russell 3000 + 3%(Qtr Lag)		-4.32	-2.35	6.58	23.46	12.44	12.18	14.51	11.64		11.87
<b>SPECIALTY CREDIT</b>		<b>1.83</b>	<b>3.45</b>	<b>6.19</b>	<b>11.24</b>	<b>6.82</b>	<b>6.77</b>				<b>6.23</b>
50% BB US HY / 50% Morningstar LSTA Lev'd Ln		2.69	5.02	7.07	13.42	3.91	5.62				4.53
<b>CORE FIXED INCOME</b>		<b>3.74</b>	<b>6.62</b>	<b>5.40</b>	<b>7.31</b>	<b>0.50</b>	<b>3.00</b>	<b>2.84</b>			<b>2.79</b>
Bloomberg US Aggregate		3.83	6.82	3.37	5.53	-3.31	1.10	1.81			1.76
<b>CASH</b>		<b>0.46</b>	<b>1.41</b>	<b>2.55</b>	<b>4.53</b>	<b>2.07</b>	<b>1.89</b>	<b>1.41</b>	<b>1.79</b>	<b>2.73</b>	<b>3.34</b>
FTSE Treasury Bill-3 Month		0.47	1.41	2.80	5.26	2.25	1.91	1.26	1.42	2.37	2.96
<b>REAL ESTATE</b>		<b>-1.54</b>	<b>-2.32</b>	<b>-4.89</b>	<b>-10.92</b>	<b>8.10</b>	<b>8.19</b>	<b>9.00</b>	<b>7.77</b>	<b>6.42</b>	<b>6.42</b>
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^		-2.10	-2.10	-4.93	-12.88	6.19	4.72	7.19	6.64	7.45	6.25
<b>REAL RETURN</b>		<b>-1.10</b>	<b>1.53</b>	<b>6.31</b>	<b>11.31</b>	<b>10.87</b>	<b>8.53</b>	<b>5.29</b>			<b>5.14</b>
US CPI +3%		0.05	0.75	2.44	6.14	9.54	7.75	4.34			4.17

## Insurance Portfolios Performance

CERS INS & CERS HAZ INS - INSURANCE FUND - PLAN NET RETURNS - 12/31/23											
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
<b>CERS INS</b>	<b>3,427,603,471.08</b>	<b>3.35</b>	<b>6.87</b>	<b>5.38</b>	<b>13.64</b>	<b>6.32</b>	<b>8.48</b>	<b>6.87</b>	<b>6.49</b>	<b>6.91</b>	<b>7.42</b>
KY Ins. CERS Plan IPS Index		2.48	6.45	5.50	15.21	5.63	8.07	6.59	6.43	7.11	7.61
<b>CERS - H INS</b>	<b>1,661,501,697.63</b>	<b>3.28</b>	<b>6.71</b>	<b>5.30</b>	<b>13.45</b>	<b>6.43</b>	<b>8.54</b>	<b>6.93</b>	<b>6.51</b>	<b>6.93</b>	<b>7.43</b>
KY Ins. CERS Haz Plan IPS Index		2.48	6.45	5.50	15.21	5.63	8.07	6.59	6.43	7.11	7.61
KPPA INSURANCE FUND UNIT - NET RETURNS - 12/31/23 - PROXY PLAN ASSET PERFORMANCE											
Structure		Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
<b>PUBLIC EQUITY</b>		<b>5.35</b>	<b>11.18</b>	<b>6.66</b>	<b>20.98</b>	<b>5.06</b>	<b>11.46</b>	<b>7.72</b>	<b>7.25</b>		<b>8.65</b>
MSCI ACWI		4.80	11.03	7.26	22.20	5.23	11.28	7.66	7.05		8.47
<b>PRIVATE EQUITY</b>		<b>0.58</b>	<b>0.71</b>	<b>3.93</b>	<b>8.77</b>	<b>17.76</b>	<b>12.35</b>	<b>13.96</b>	<b>11.08</b>		<b>10.89</b>
Russell 3000 + 3%(Qtr Lag)		-4.32	-2.35	6.58	23.46	12.44	12.18	14.51	11.34		11.44
<b>SPECIALTY CREDIT</b>		<b>1.79</b>	<b>3.40</b>	<b>6.24</b>	<b>11.35</b>	<b>6.96</b>	<b>6.68</b>				<b>6.11</b>
50% BB US HY / 50% Morningstar LSTA Lev'd Ln		2.69	5.02	7.07	13.42	3.91	5.62				4.53
<b>CORE FIXED INCOME</b>		<b>3.73</b>	<b>6.64</b>	<b>5.29</b>	<b>7.16</b>	<b>0.34</b>	<b>2.81</b>	<b>2.56</b>			<b>2.51</b>
Bloomberg US Aggregate		3.83	6.82	3.37	5.53	-3.31	1.10	1.81			1.76
<b>CASH</b>		<b>0.48</b>	<b>1.42</b>	<b>2.55</b>	<b>4.54</b>	<b>2.05</b>	<b>1.78</b>	<b>1.27</b>	<b>1.63</b>		<b>2.50</b>
FTSE Treasury Bill-3 Month		0.47	1.41	2.80	5.26	2.25	1.91	1.26	1.42		2.41
<b>REAL ESTATE</b>		<b>-1.55</b>	<b>-2.32</b>	<b>-4.73</b>	<b>-11.04</b>	<b>7.87</b>	<b>8.14</b>	<b>8.88</b>			<b>8.90</b>
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^		-2.10	-2.10	-4.93	-12.88	6.19	4.72	7.19			5.60
<b>REAL RETURN</b>		<b>-0.95</b>	<b>1.29</b>	<b>5.53</b>	<b>10.20</b>	<b>9.57</b>	<b>8.12</b>	<b>5.05</b>			<b>4.86</b>
US CPI +3%		0.05	0.75	2.44	6.14	8.78	7.65	4.40			4.21



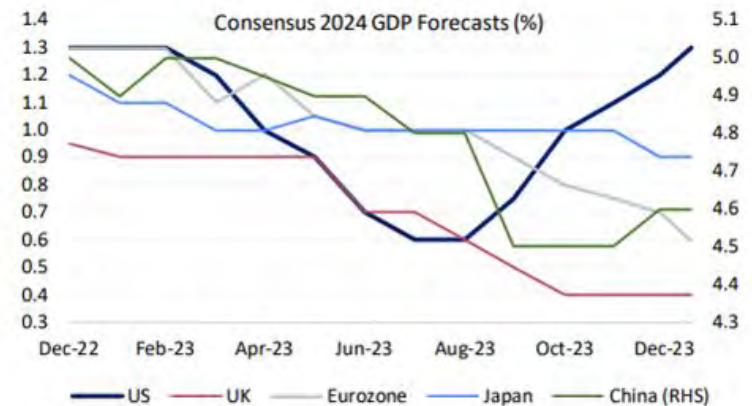
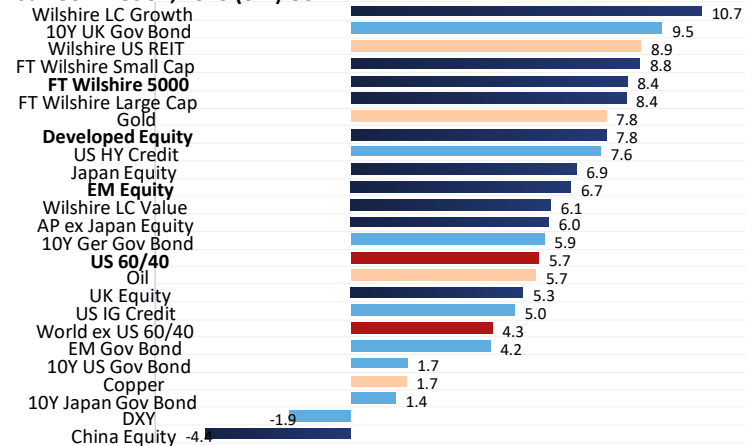
# Allocations



## Performance Highlights

- The CERS and CERS-H Pension portfolios performed well during the quarter with returns of 6.78% and 6.85% respectively outperforming the benchmark's return of 6.45%
- The Insurance portfolios produced similar performance with the CERS portfolio returning 6.87% and the CERS-H portfolio returning 6.71%
- Across portfolios, for the quarter the largest contributors to outperformance were the underweight positioning in Real Return Private Equity as well as the relative outperformance of the Private Equity portfolio
- The most significant detractors of performance were the overweight to Specialty Credit, the proxy for Real Return, as well as relative underperformance in the Specialty Credit portfolio
- Markets across the board rebounded sharply during the quarter on optimism that earlier and larger cuts in interest rates that had previously been anticipated would usher in a "goldilocks" period of steady growth, moderate inflation and easing financial conditions
- 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

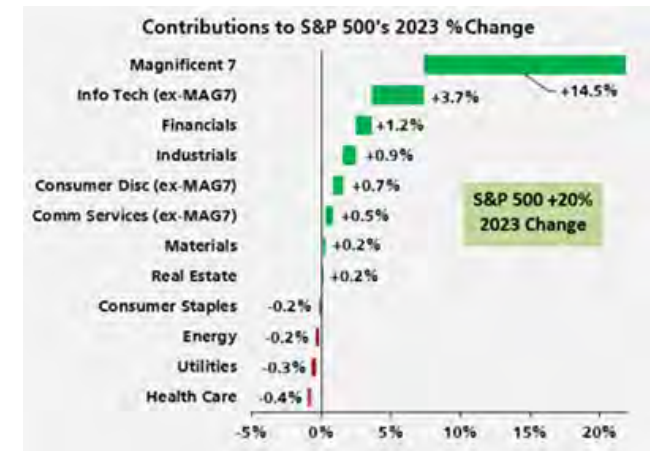
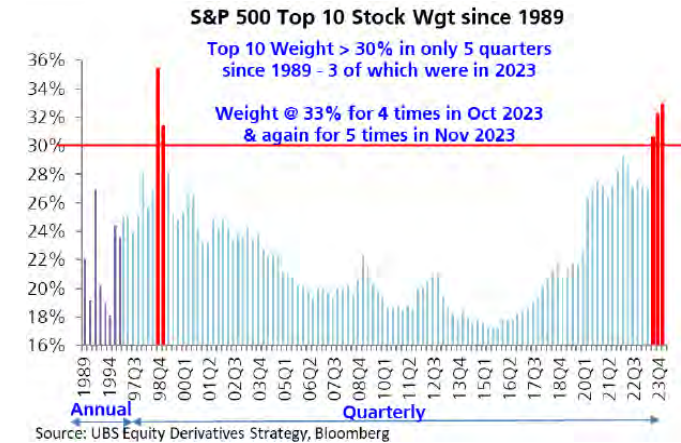
Jun 30 – Dec 31, 2023 (6M) USD TR



# Performance Highlights

## Public Equities

- Public Equity markets experienced a strong rally during the quarter accelerating towards the end of October bolstered by signs of weakening inflation, better-than-expected growth, and a change in central bank posture that hinted at softening rates
  - In the US almost every sector was positive for the quarter with the real estate and information technology sectors posting the best performance while energy was the only sector with negative performance
  - Dispersion within US markets continued to be high with index level performance largely driven by a handful of megacap stocks
  - Smallcap outperformed large-cap during the quarter and growth stocks generally outperformed value with large-cap growth stocks continuing to extend their massive advantage over largecap value stocks
  - NonUS public equity markets produced positive performance during the quarter but failed to keep pace with their US counterparts, especially emerging markets which were the worst performing segment during the quarter



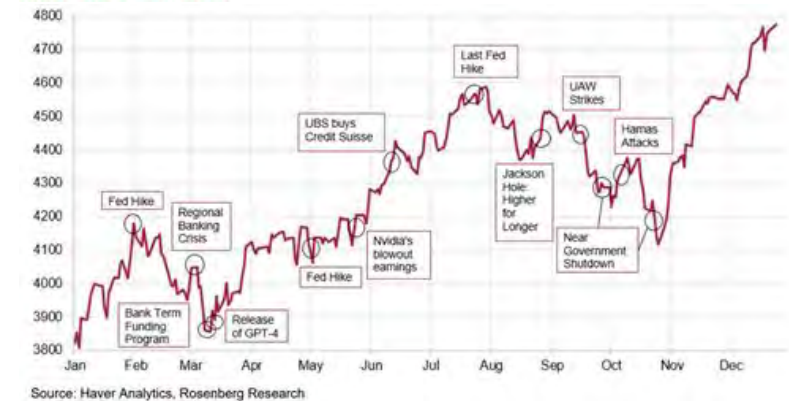


# Performance Highlights

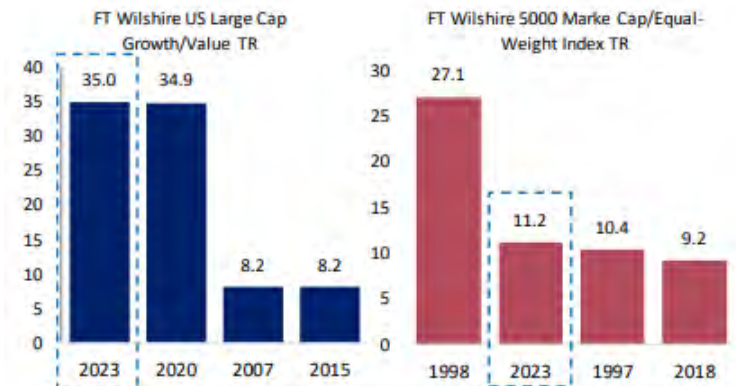
## Public Equities

- The Public Equity portfolio returned 11.17% during the quarter versus its benchmark return of 11.03%, relative outperformance was primarily the result of a slight overweight to US markets combined with good stock selection within the NonUS portion of the portfolio
  - FYTD the Public Equity Portfolio has produced a return of 6.67%, trailing the benchmark which returned 7.26%
- Within the US equity allocation, the portfolio trailed its index by 26bps (11.81% vs 12.07%), primarily resulting from stock selection
  - Stock selection amongst the individual strategies was mixed during the quarter and biased to the downside as the Fed's shifting tone created a market leadership whipsaw which proved challenging to navigate
- The NonUS equity allocation outperformed during the quarter, returning 10.19% versus a benchmark return of 9.81%
  - Outperformance was driven by the strong performance of the growth strategies within the allocation, benefiting from a style tailwind

S&P 500 in 2023



Largest outperformance of Growth relative to Value in over two decades

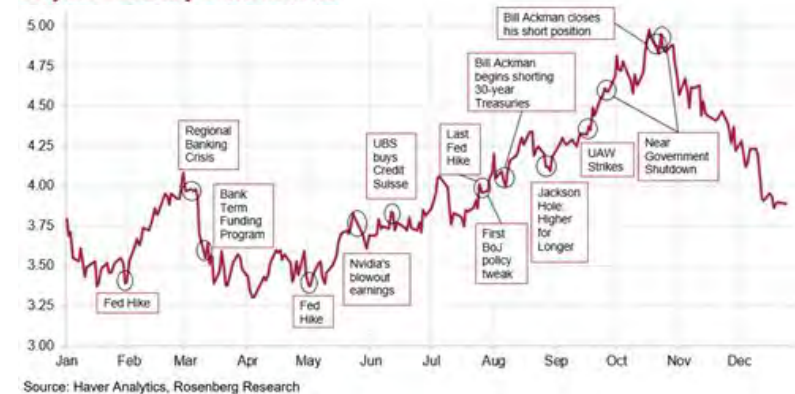


# Performance Highlights

## Core Fixed Income

- Core Fixed Income staged a remarkable recovery in the 2<sup>nd</sup> quarter following the significant selloff experienced during the 1<sup>st</sup> quarter
- The rally in rates that started in November picked up steam to close the year as the FOMC offered a surprising lack of pushback against dovish market expectations at their December meeting with the FED's communication about the likely course of monetary policy becoming decidedly less hawkish causing the yield curve to remain inverted
- The Treasury curve fell across all maturities during the with the 10-year Treasury closing at 3.88%, down 69 basis points and the 10-year real yield falling 52 basis points to 1.71%
- Corporate bonds were the top performing spread sector, outgaining same duration Treasuries by 203 basis points for the quarter

10-year Treasury Yield in 2023



Investment grade credit spreads are at their lowest level since early 2022

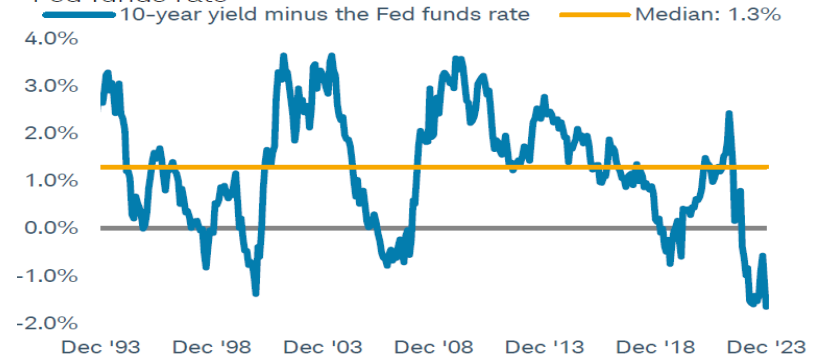


# Performance Highlights

## Core Fixed Income

- The Core Fixed Income Portfolio produced a return of 6.62% for the quarter, slightly underperforming the benchmark's return of 6.82%
- The portfolio's relative underperformance was driven by its shorter duration profile as staff rebalanced the portfolio over several legs during the quarter to extend the overall duration to be inline with the benchmark's duration
- Despite losing ground during the quarter, FYTD the portfolio continued to deliver strong relative performance producing a return of 5.40% and outperforming the Bloomberg Aggregate Index by 203 basis points
- The internally managed Core Portfolio was the strongest performer in the overall Core allocation for the quarter, producing 21 basis points of excess return

Historical spread between the 10-year Treasury yield and Fed funds rate



10yr US Govt. yields back to average for the first time since 2007

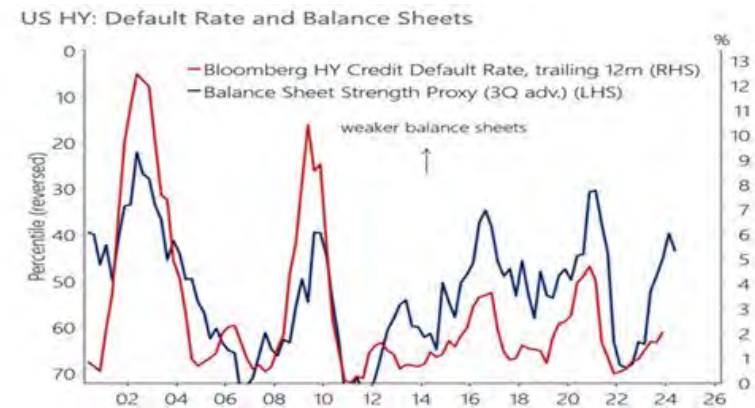
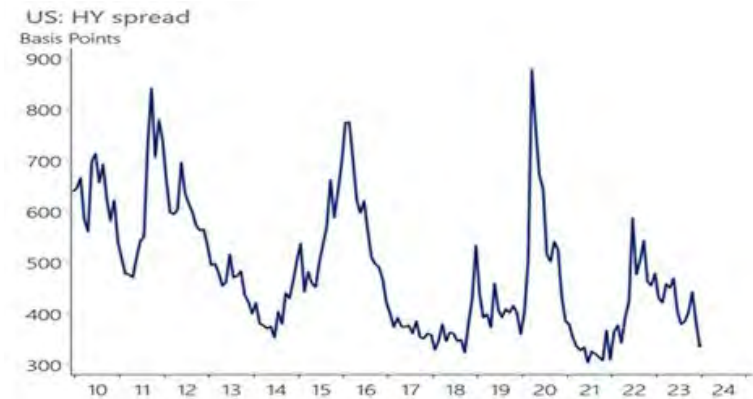


Source : GFD, Deutsche Bank

# Performance Highlights

## Specialty Credit Fixed Income

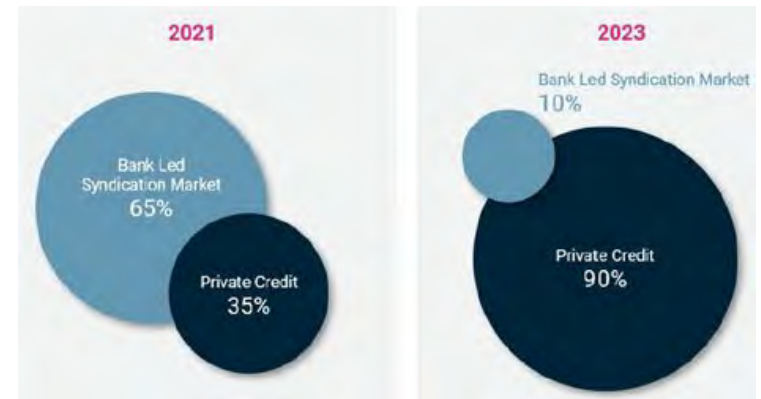
- The Specialty Credit portfolio produced a return of 3.45% for the quarter, trailing the blended benchmark which returned 5.02%. Fiscal Year to Date the portfolio has continued to perform well, returning 6.19% compared to the benchmark's return of 7.07%
- The public High Yield Bond and Private Credit components of the portfolio were all positive contributors to relative performance, mandates with structured credit and mortgage-backed exposures were a drag on overall performance as they failed to keep pace in the rally over the last three months
- Over longer periods the portfolio has contributed significant outperformance, beating the benchmark by 291 and 115 basis point over three- and five-year periods respectively
- Leveraged Loans trailed High Yield Bonds as they benefited less from the rally in rates and failed to keep pace with spread tightening
- The High Yield option adjusted spread (OAS) tightened 71 basis points for the quarter and 67 basis points fiscal year-to-date to 323



# Performance Highlights

## Specialty Credit Fixed Income

- Consistent with the risk on environment, lower quality bonds outperformed with CCCs returning 9.60% FYTD while Bs returned 7.91% and BBs produced returns of 6.94%
- The most recent balance sheet data continued to show modest improvements in High Yield fundamentals, driven by stronger profitability, liquidity positions and default rates remaining subdued
- Private credit markets continued their growth as banks and public lenders have accelerated their move away from the middle market
- Despite the continued growth, structuring and economic terms remain favorable to lenders
- The higher prevailing cost of capital is likely to impact sectors and firms differently which will be an important driver of dispersion, with a more defensive approach to investing, including structural protections, granularity in underwriting and credit selectivity becoming critical

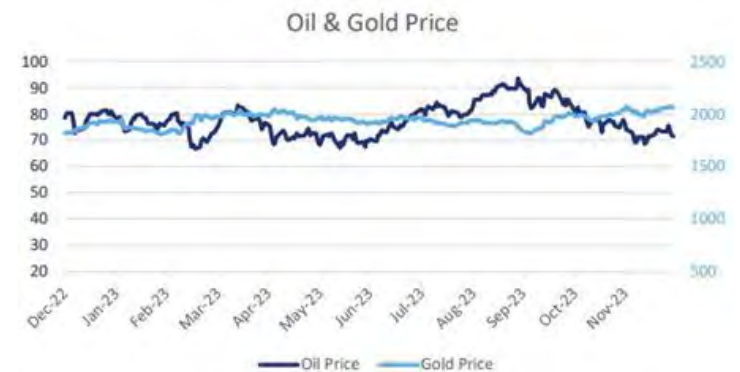
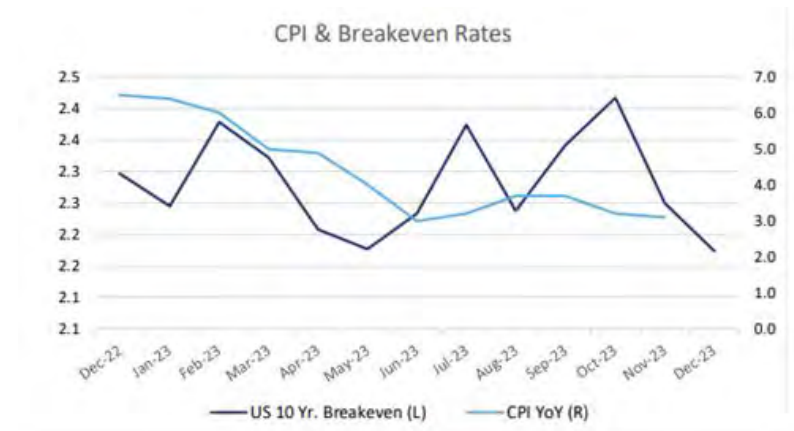




# Performance Highlights

## Real Return- Real Estate

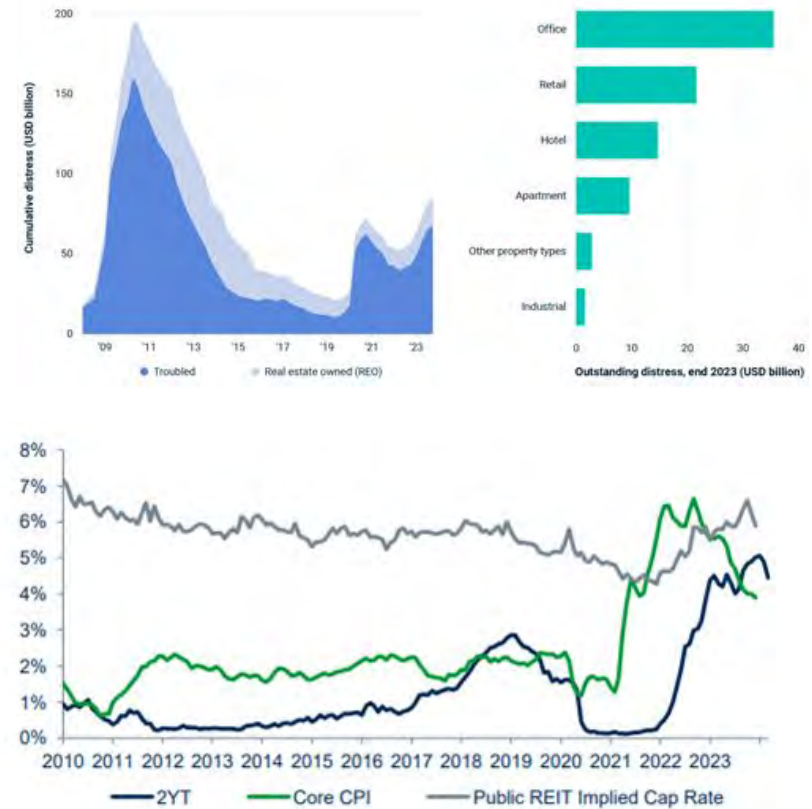
- Real Estate and Real Return performance was mixed during the quarter and through the first six months of the fiscal year but were largely able to end the period well bid with expectations that inflation had been beaten and rates were poised to continue their downward trajectory
- The Real Return portfolio produced a return of 1.53% for the quarter, outperforming the benchmark which produced a return of 0.75%
- FYTD the Real Return Portfolio has significantly outperformed the benchmark, producing a return of 6.31% compared to the benchmark's return of 2.44%
  - Outperformance has been paced by the portfolio's MLP exposure which returned over 12% FYTD as strong cash flows, disciplined capex and consolidation have continued to benefit the industry
- Broad commodities were down for the quarter and FYTD with the Bloomberg Commodities Index falling almost 6% for the first six months of the Fiscal Year and almost 13% during the LTM.
  - Despite declining 21% during the quarter Oil was able to return almost 6% FYTD, Gold rallied 12% during the quarter on rising rate cut optimism reversing 6 months of declines, ending up almost 8% FYTD



# Performance Highlights

## Real Return- Real Estate

- Globally, Real Estate valuations continued to adjust down from their 2022 peaks, as a result of higher inflation, interest rates and volatility
- The pool of distressed U.S. commercial properties grew to USD 85.8 billion by the end of 2023, led by distressed office assets, as weaker prices and higher lending rates challenged the market
- The Real Estate portfolio produced a return of -2.32% for the quarter, modestly underperforming the benchmark's -2.10% return
- Fiscal Year to Date, the Real Estate portfolio has performed inline with the benchmark returning -4.89% compared to the benchmark's performance of -4.93%
- The Real Estate portfolio has been more affected by higher cap rates than declining property-level performance with the portfolio's exposures to industrial, self-storage, student housing, medical office, and senior living continuing to experience positive rent growth and pricing



Source: BLS; Federal Reserve; Green Street. As of December 31, 2023.

# Performance Highlights

## Private Equity

- The Private Equity portfolio produced a return of 0.22% for the quarter, outperforming the benchmark's return of -2.35%
- Performance relative to the benchmark (Russell 3000 + 3% based on a quarter lag) continues to be volatile given the market and timing misalignments
- 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
- 2023 proved to be the worst year for Private Equity deal activity since 2016, with selling activity falling to its lowest point in over a decade
  - Private Equity capital deployment in the US declined by 29.5% YOY
  - Value derived from US exits fell by 26.4% YOY and by 73% from 2021 levels



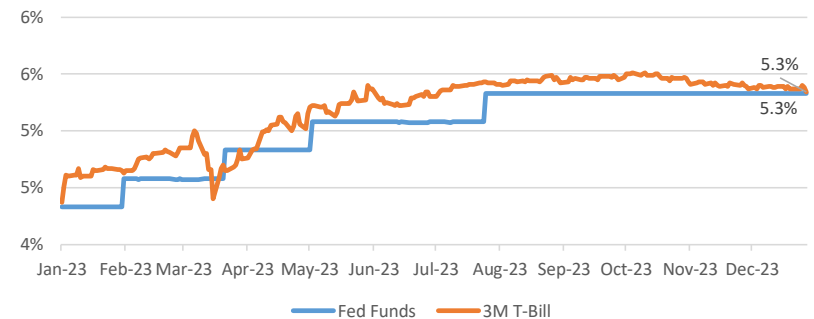


# Performance Highlights

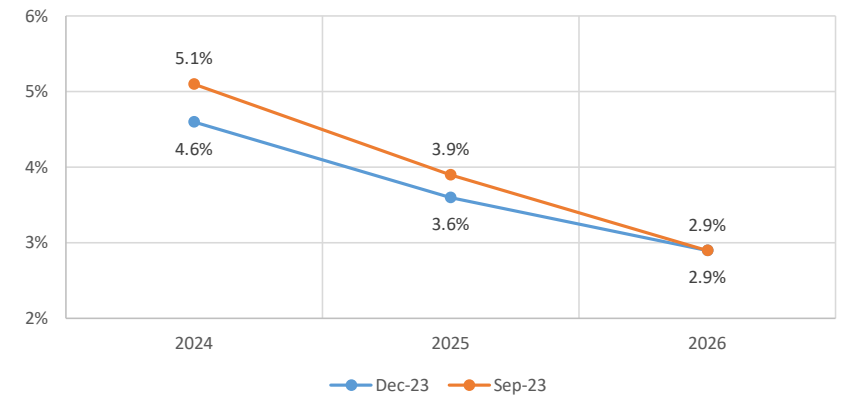
## Liquidity

- After increasing rates four times during the first half of 2023, the FOMC held rates the same during the final quarter of the calendar year
- The 3-month Bill also remained steady since mid-year finishing the quarter at 5.3%. Coincidentally, the same rate for the effective Fed funds rate
- Cash produced a return of 2.55% for the 6-month period ending December 31<sup>st</sup>, slightly underperforming the 3-Month Treasury Bill benchmark which returned 2.80%. The underperformance is due to deposit rates (Fed funds) lagging market rates (T-Bills)
- For the quarter, cash returned 1.41%, matching the benchmark as deposit and market rates compressed over the time period
- With inflation continuing to recede, the Federal Reserve's economic projections for the Federal funds rate changed in December
- Rate projections shifted downward for 2024 and 2025 compared to the September projection
- Chair Powell stated, inflation has eased from its highs, and this has come without significant rise in unemployment

Effective Fed Funds & 3M T-Bill



Federal Funds Rate Projection



## Investment Highlights Fiscal YTD

- Investment activity occurred across asset classes for the first half of the Fiscal Year as managers called committed capital and Staff rebalanced portfolios
  - Across a number of legs Staff was able to rebalanced the Core Fixed Income during the period, moving the duration of the overall portfolio from 3 years short to flat relative to the benchmark index
    - The benchmark for the Loomis portfolio was updated to the Bloomberg US Aggregate Index from the Bloomberg US Intermediate Aggregate Index
    - A total of \$1,925MM was transferred from the Lord Abbett Short Duration Credit portfolio, \$996.5MM to the existing external Core portfolios and \$928MM to the new internally managed Core Portfolio
    - The Lord Abbett account is in wind down, holding a single CMBS security and will be closed and the agreement terminated once the security is sold or matures
  - Specialty Credit managers continued to find compelling opportunities, deploying over \$150MM during the period including the first capital calls for the new Adams Street Fund and Co-Investment vehicle approved in 2023
  - A total of almost \$300MM was called and invested by Real Return managers, the majority of which was the initial investment for Arctos and Maritime Partners, managers approved in 2023
  - Rebalancing and investing activity in Public Equities totaled \$150MM as Staff managed exposures across cap weights and geographies while aligning individual portfolios
- The first Proxy Voting Report was posted to the KPPA website



## MEMORANDUM

To: County Employees Retirement System Investment Committee

From: Steve Willer  
Chief Investment Officer, Office of Investments

Date: February 28, 2024

Subject: Investment Update – Lord Abbett Short Duration Credit Portfolio Termination

---

As per the Investment Policy Statement, this memo serves as notification that following approval from the Investment Committee Chair, KPPA staff terminated the investment management agreement with Lord Abbett for the management of the Short Duration Credit strategy. This termination was the result of the rebalancing of the Core Fixed Income allocation with no performance or firm related concerns. The Lord Abbett strategy was implemented to take advantage of the short maturity anomaly and yield advantage during a period of historically low and flat rates while providing downside protection to a rising rate environment. The strategy performed well, delivering 15bps of excess return to the stated benchmark, the ICE BofA 1-3 Year US Corporate Index, since inception. The portfolios were effectively wound down by the end of December, holding a single remaining security. At that time there was insufficient liquidity in the market to sell the remaining security at a value the manager believed appropriate. No fees will be charged while the manager continues their efforts to sell the security manager or until the security matures.

As Staff has presented to the Investment Committee and the Board, yields in Fixed Income markets have risen notably over the past 2 years from historically low levels which had persisted over the previous decade. As market yields reached our strategic objectives, staff began unwinding the tactical short duration positioning of approximately 3 years in the Core Fixed Income allocation by rebalancing away from the short corporate credit allocation managed by Lord Abbett. This capital was redeployed to the existing Core Fixed Income mandates, the Loomis Sayles Core Disciplined Alpha portfolio and the Nisa Aggregate Bond portfolio and was also used to establish the internally managed passive Core Fixed Income portfolio consistent with the IPS and our strategic mandates. Following completion of the rebalancing the overall duration of the Core Fixed Income allocation is inline with the index and each portfolio represents approximately 1/3 of the total allocation with expected savings of \$1.5MM to 2.0MM per year.

Staff and Wilshire are undertaking a review of the Core Fixed Income portfolio to ensure the appropriate allocation amongst strategies, styles and managers consistent with the allocation's objectives of providing diversification, downside protection, liquidity and excess returns.

Performance					
	Month	YTD	1 Year	3 Year	Since Inception
Kentucky Retirement Systems (Gross)	0.69%	2.53%	1.56%	0.58%	2.01%
Kentucky Retirement Systems (Net)	0.69%	2.47%	1.45%	0.46%	1.89%
ICE BofA 1-3 Year U.S. Corporate Index	0.68%	2.31%	1.68%	-0.28%	1.75%
Excess Return (Net)	0.00%	0.16%	-0.23%	0.74%	0.15%

Performance					
	Month	YTD	1 Year	3 Year	Since Inception
Kentucky Retirement Systems Insurance Portfolio (Gross)	0.66%	2.41%	1.46%	0.63%	2.00%
Kentucky Retirement Systems Insurance Portfolio (Net)	0.65%	2.34%	1.34%	0.52%	1.88%
ICE BofA 1-3 Year U.S. Corporate Index	0.68%	2.31%	1.68%	-0.28%	1.75%
Excess Return (Net)	-0.03%	0.03%	-0.34%	0.79%	0.14%



County Employees Retirement System  
1270 Louisville Road  
Frankfort, KY 40601

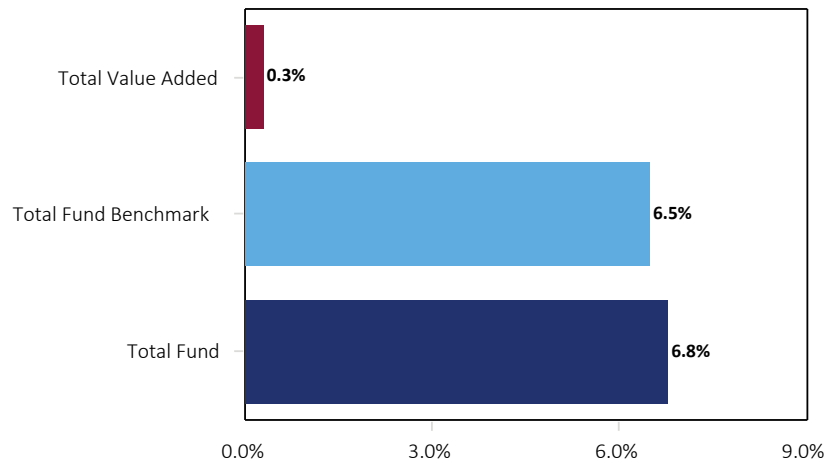
Betty A. Pendergrass, Chair  
Lisle Cheatham, Vice-Chair  
Ed Owens, CEO

# Total Fund Attribution

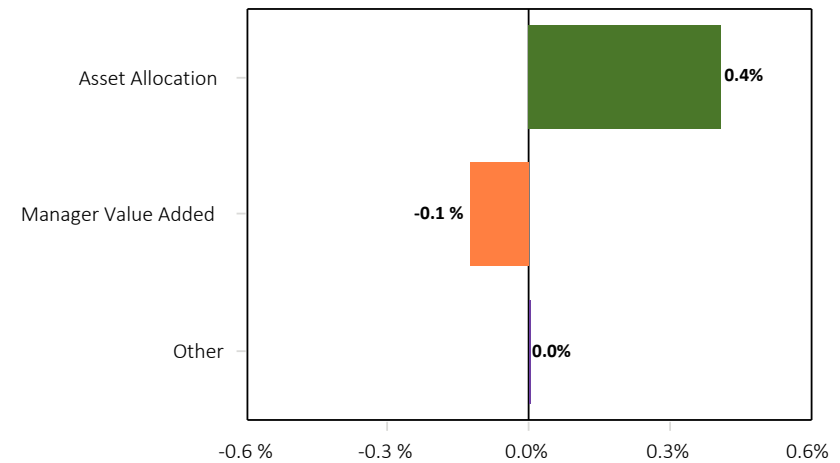
CERS Pension Plan

Periods Ended 1 Quarter Ending December 31, 2023

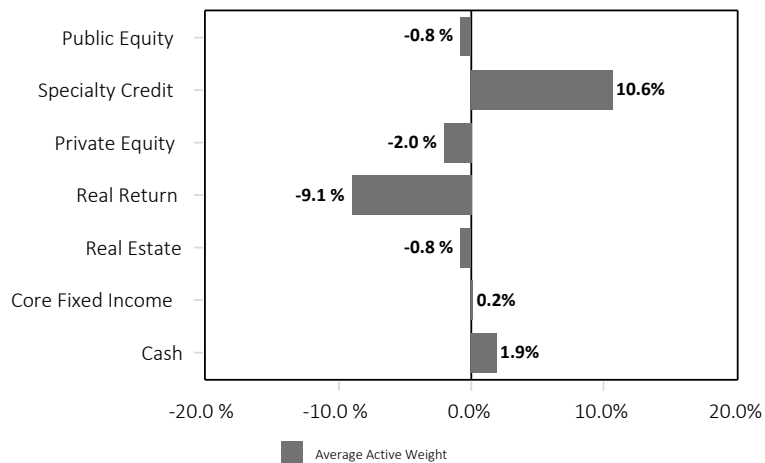
## Total Fund Performance



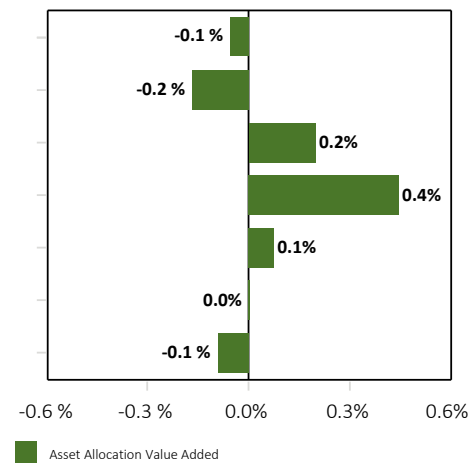
## Total Value Added:0.3%



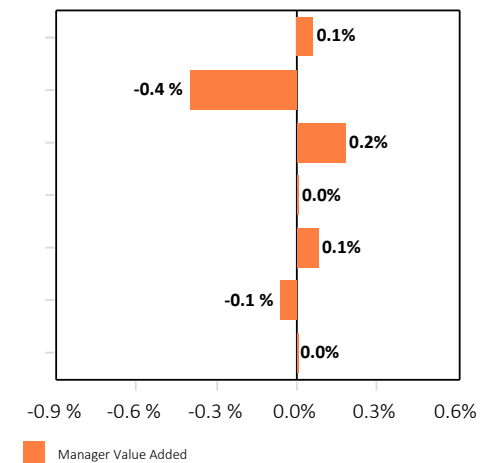
## Total Asset Allocation:0.4%



## Asset Allocation Value Added:0.4%



## Total Manager Value Added:-0.1%

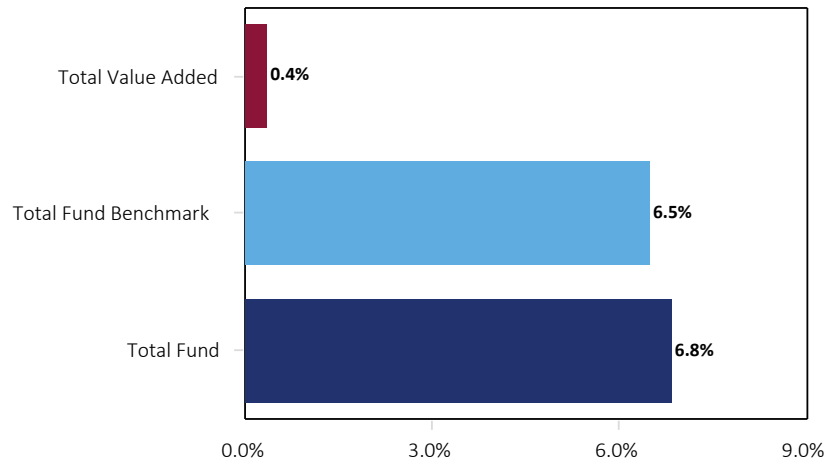


# Total Fund Attribution

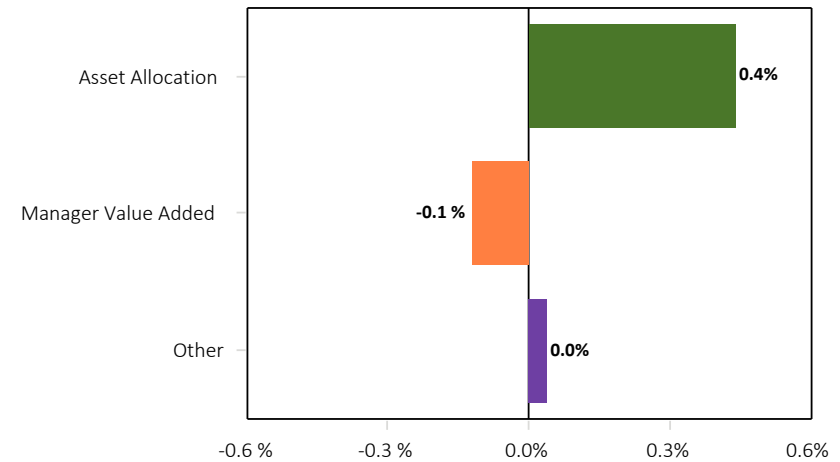
CERS (H) Pension Plan

Periods Ended 1 Quarter Ending December 31, 2023

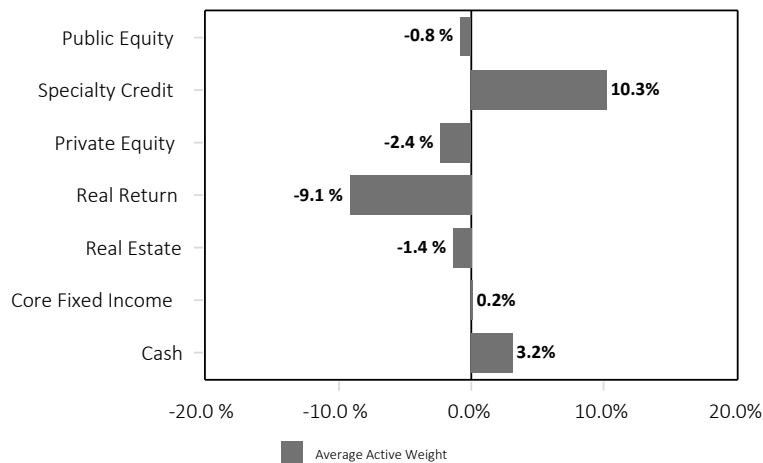
## Total Fund Performance



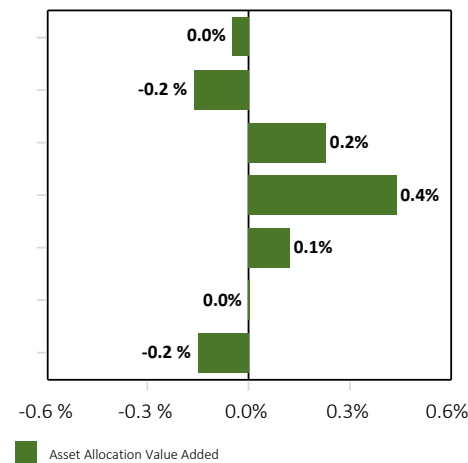
## Total Value Added:0.4%



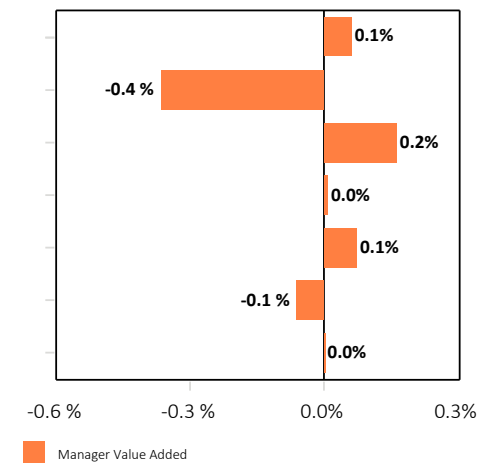
## Total Asset Allocation:0.4%



## Asset Allocation Value Added:0.4%



## Total Manager Value Added:-0.1%

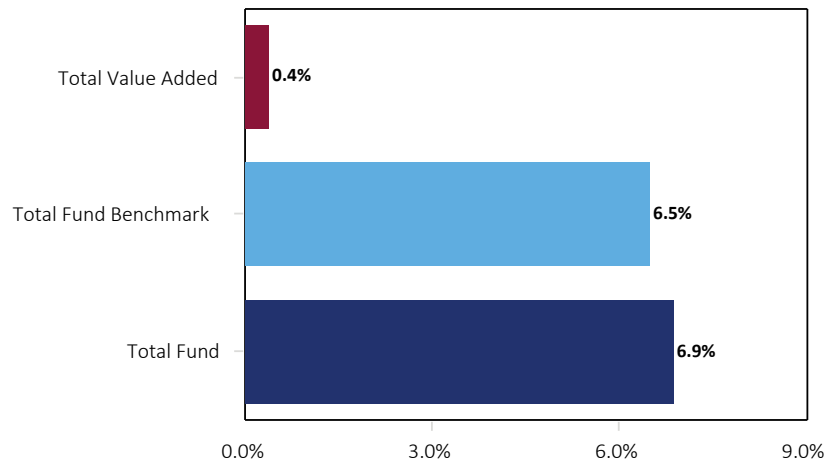


# Total Fund Attribution

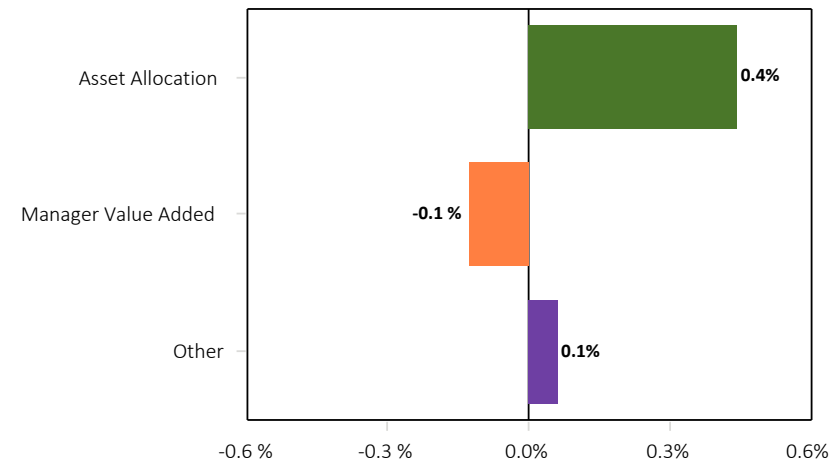
CERS Insurance Plan

Periods Ended 1 Quarter Ending December 31, 2023

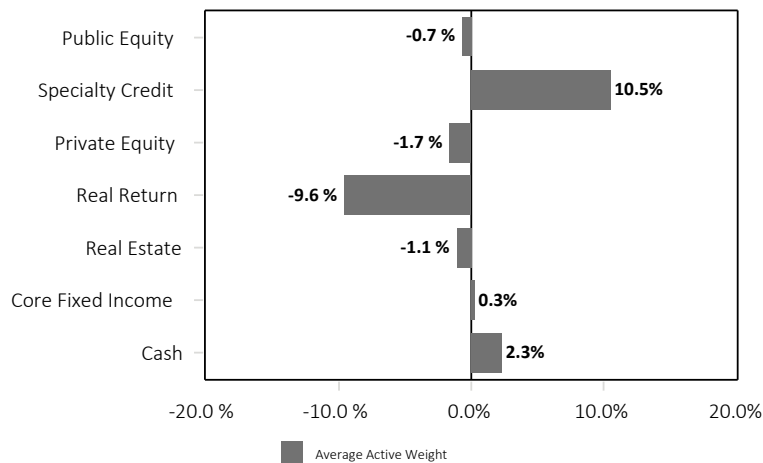
## Total Fund Performance



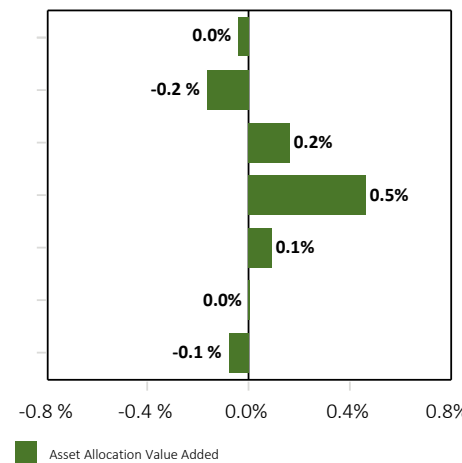
## Total Value Added:0.4%



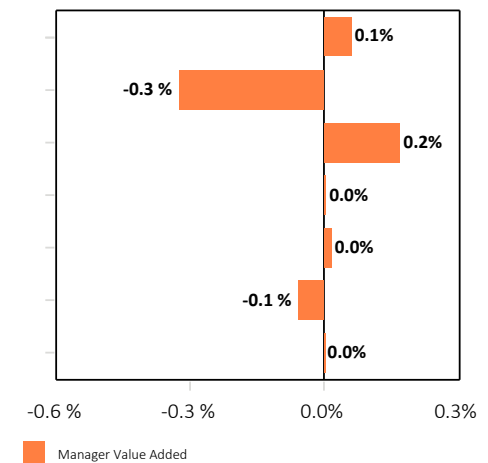
## Total Asset Allocation:0.4%



## Asset Allocation Value Added:0.4%



## Total Manager Value Added:-0.1%

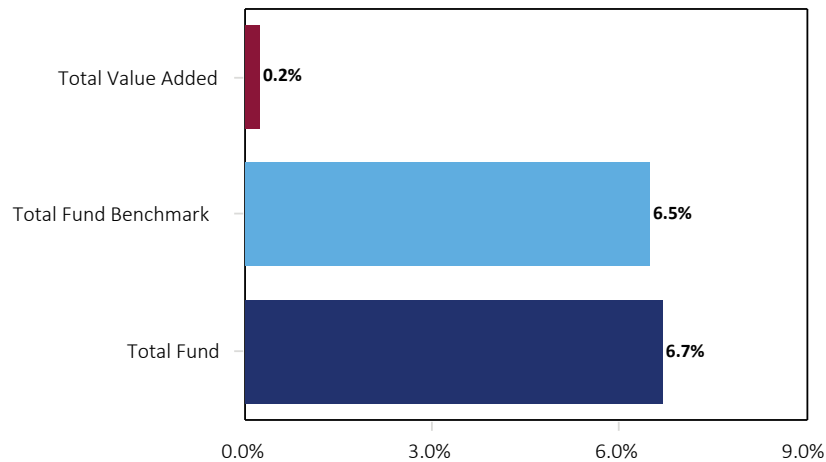


# Total Fund Attribution

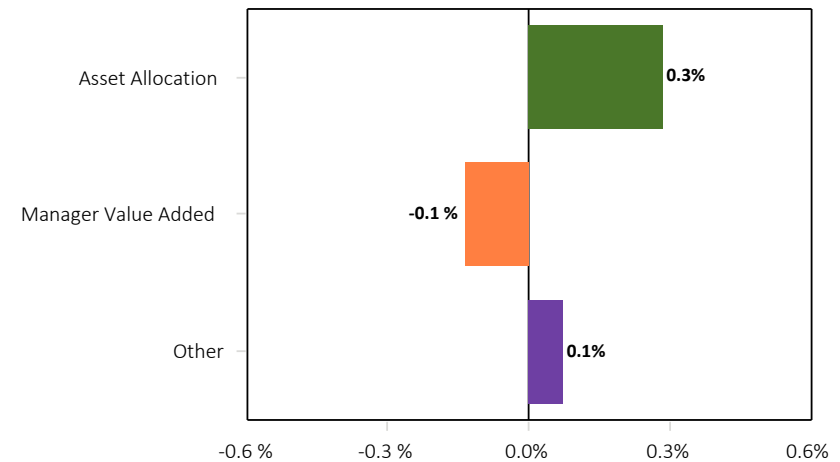
CERS (H) Insurance Plan

Periods Ended 1 Quarter Ending December 31, 2023

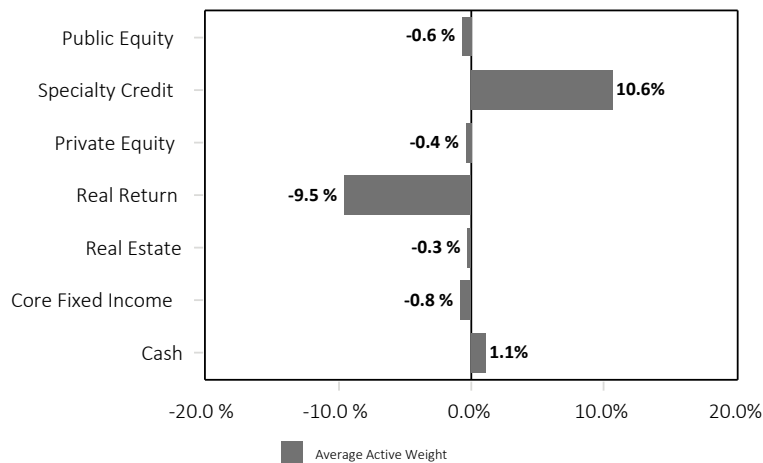
## Total Fund Performance



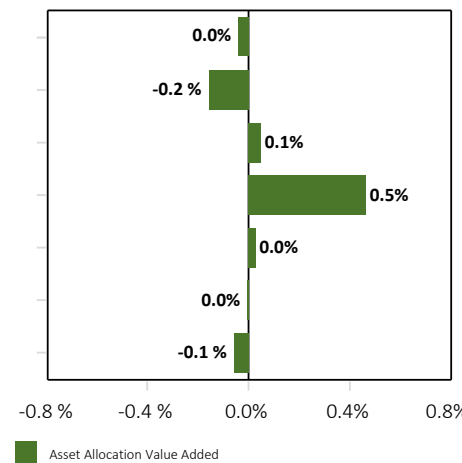
## Total Value Added:0.2%



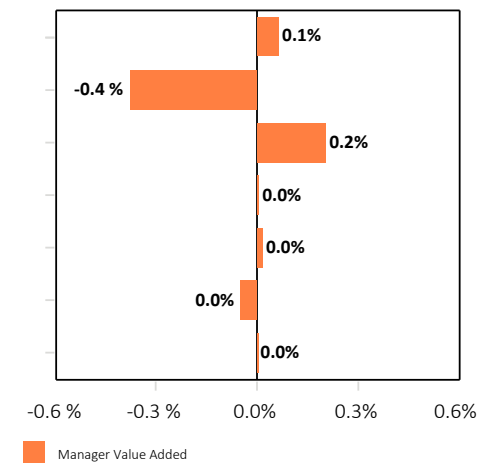
## Total Asset Allocation:0.3%



## Asset Allocation Value Added:0.3%



## Total Manager Value Added:-0.1%



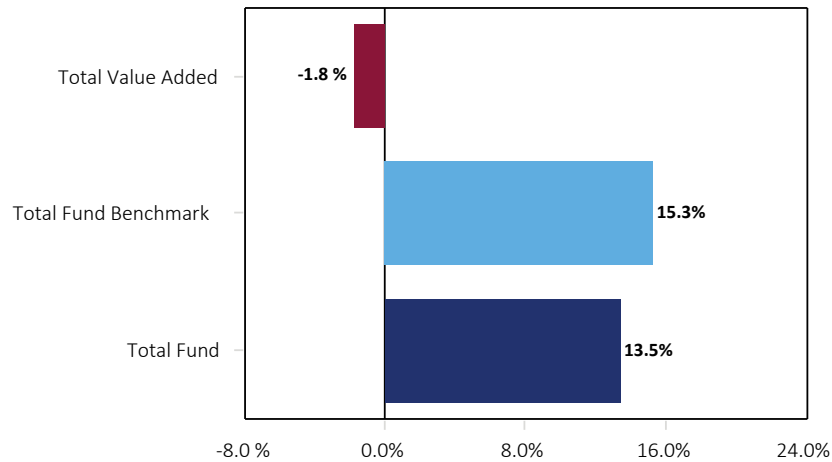


# Total Fund Attribution

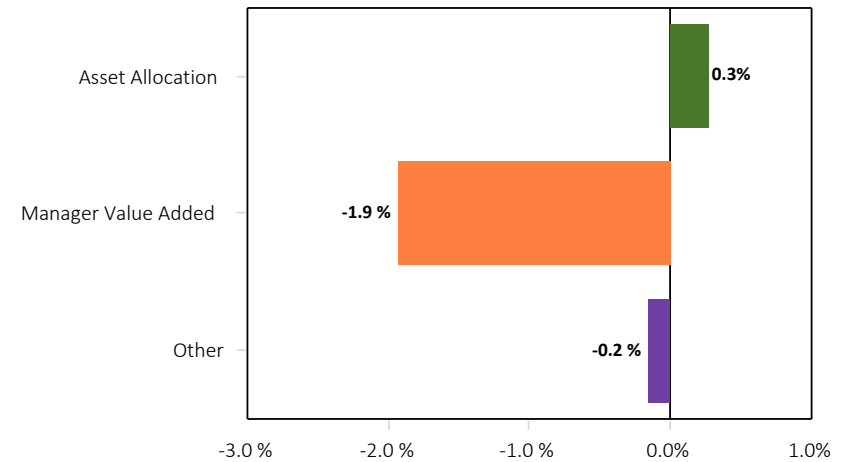
CERS Pension Plan

Periods Ended 1 Year Ending December 31, 2023

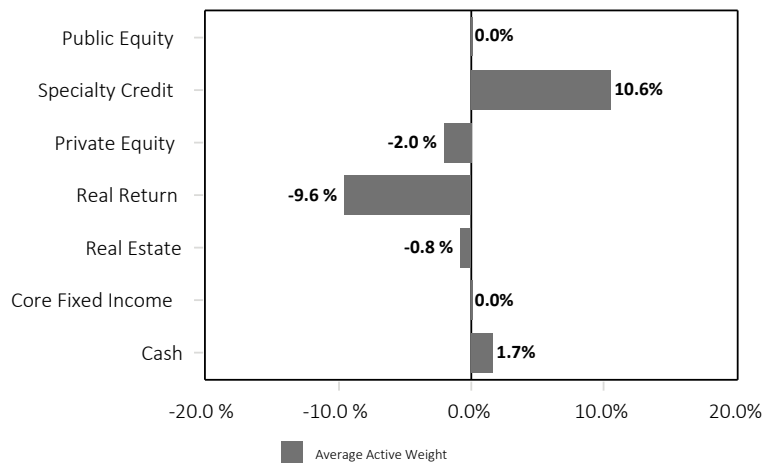
## Total Fund Performance



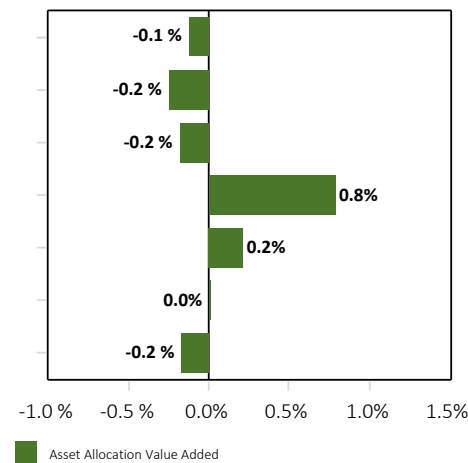
## Total Value Added:-1.8 %



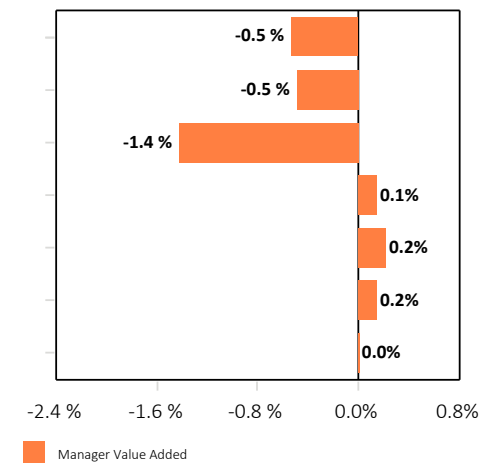
## Total Asset Allocation:0.3%



## Asset Allocation Value Added:0.3%



## Total Manager Value Added:-1.9%

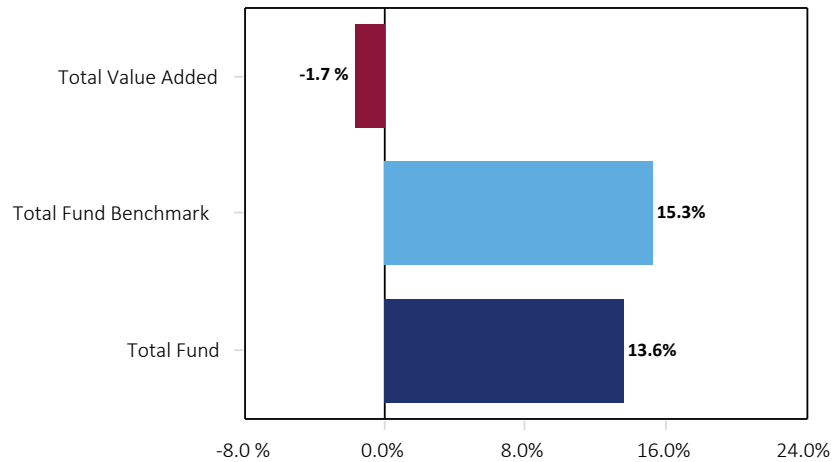


# Total Fund Attribution

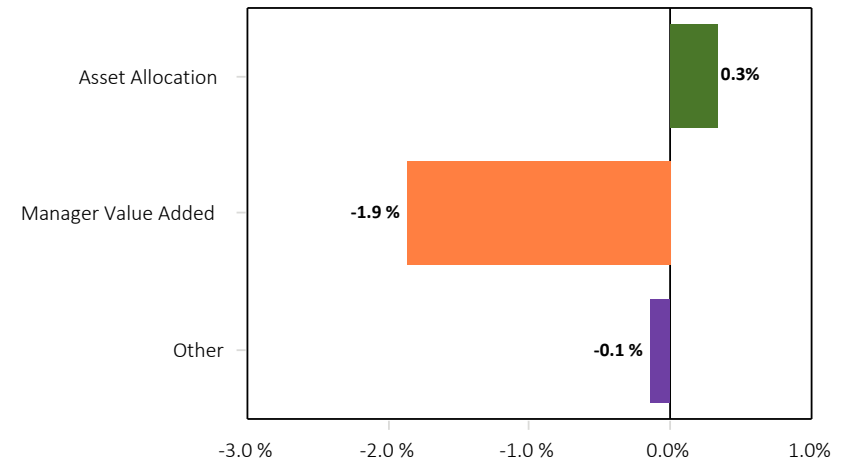
CERS (H) Pension Plan

Periods Ended 1 Year Ending December 31, 2023

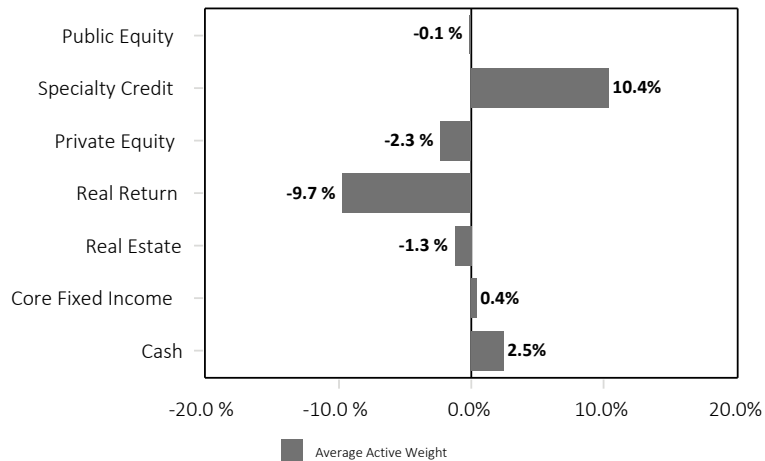
## Total Fund Performance



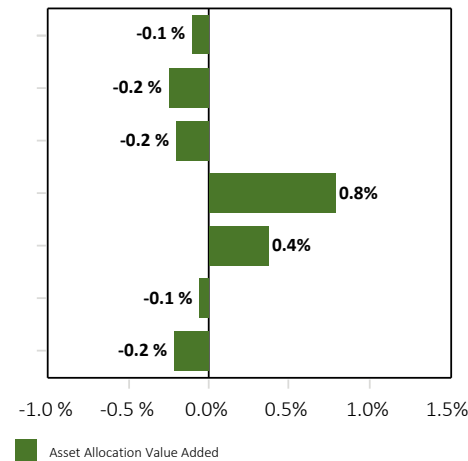
## Total Value Added:-1.7 %



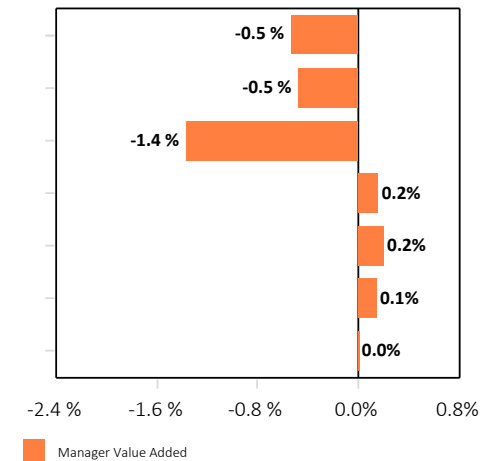
## Total Asset Allocation:0.3%



## Asset Allocation Value Added:0.3%



## Total Manager Value Added:-1.9%

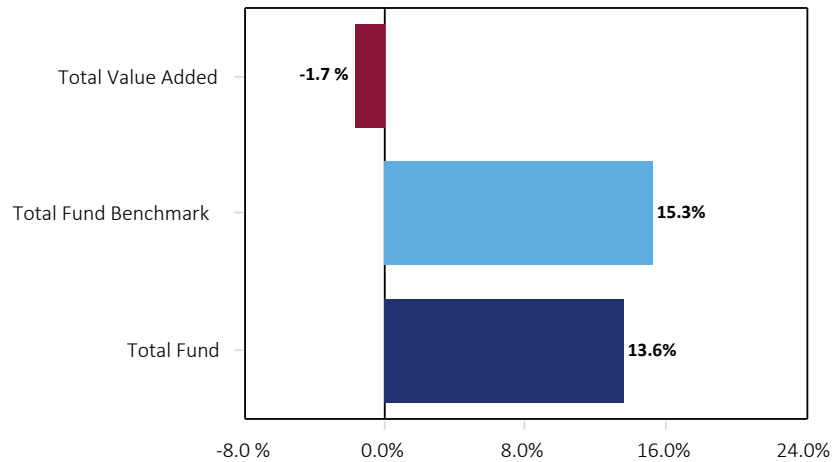


# Total Fund Attribution

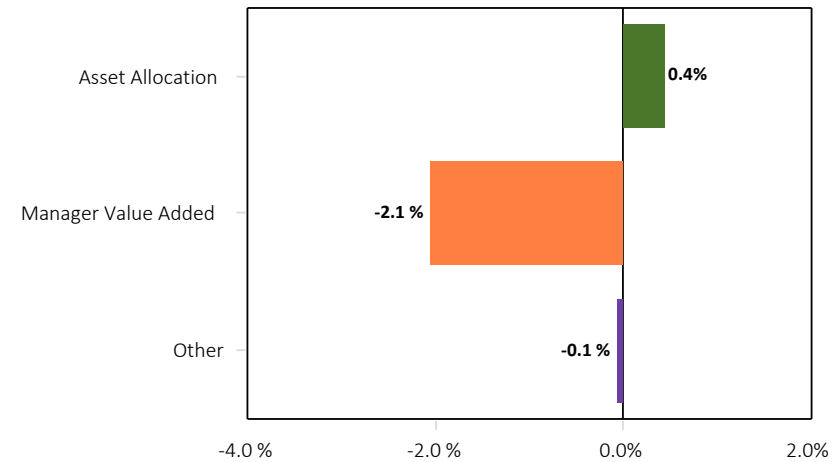
CERS Insurance Plan

Periods Ended 1 Year Ending December 31, 2023

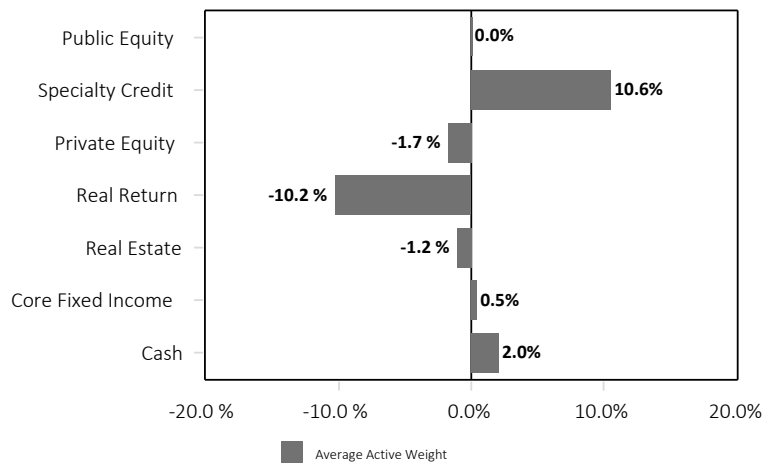
## Total Fund Performance



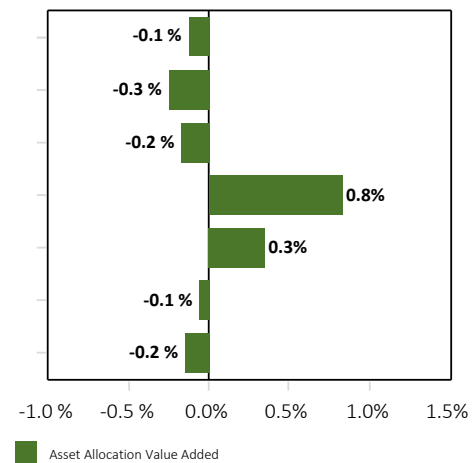
## Total Value Added:-1.7 %



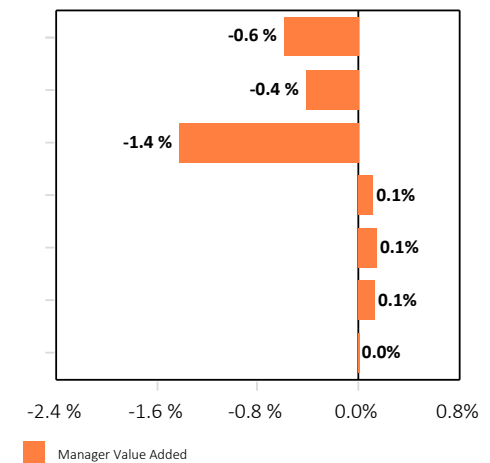
## Total Asset Allocation:0.4%



## Asset Allocation Value Added:0.4%



## Total Manager Value Added:-2.1 %

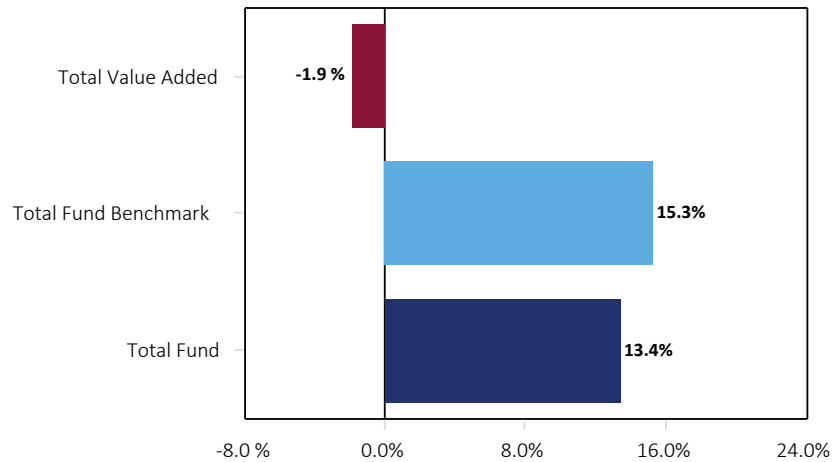


# Total Fund Attribution

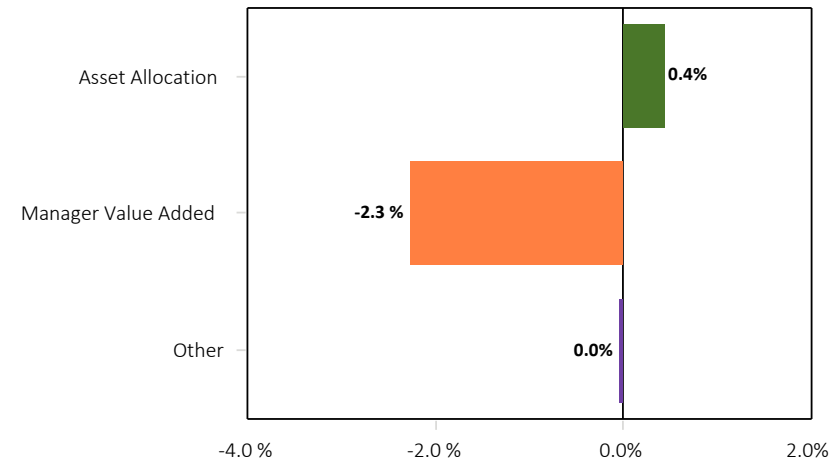
CERS (H) Insurance Plan

Periods Ended 1 Year Ending December 31, 2023

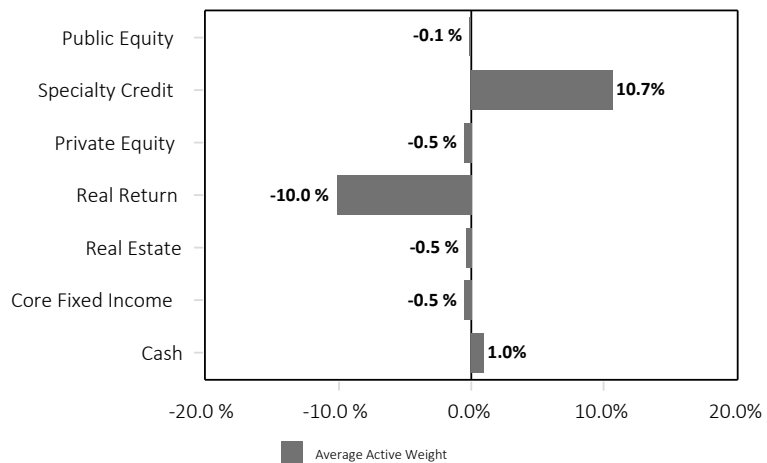
## Total Fund Performance



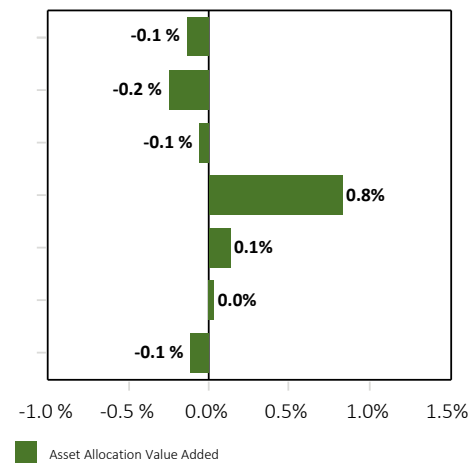
## Total Value Added:-1.9 %



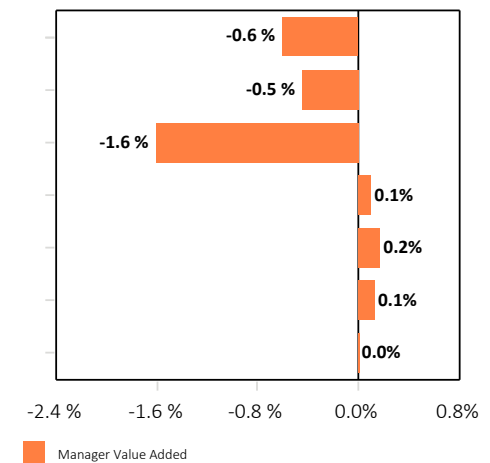
## Total Asset Allocation:0.4%



## Asset Allocation Value Added:0.4%



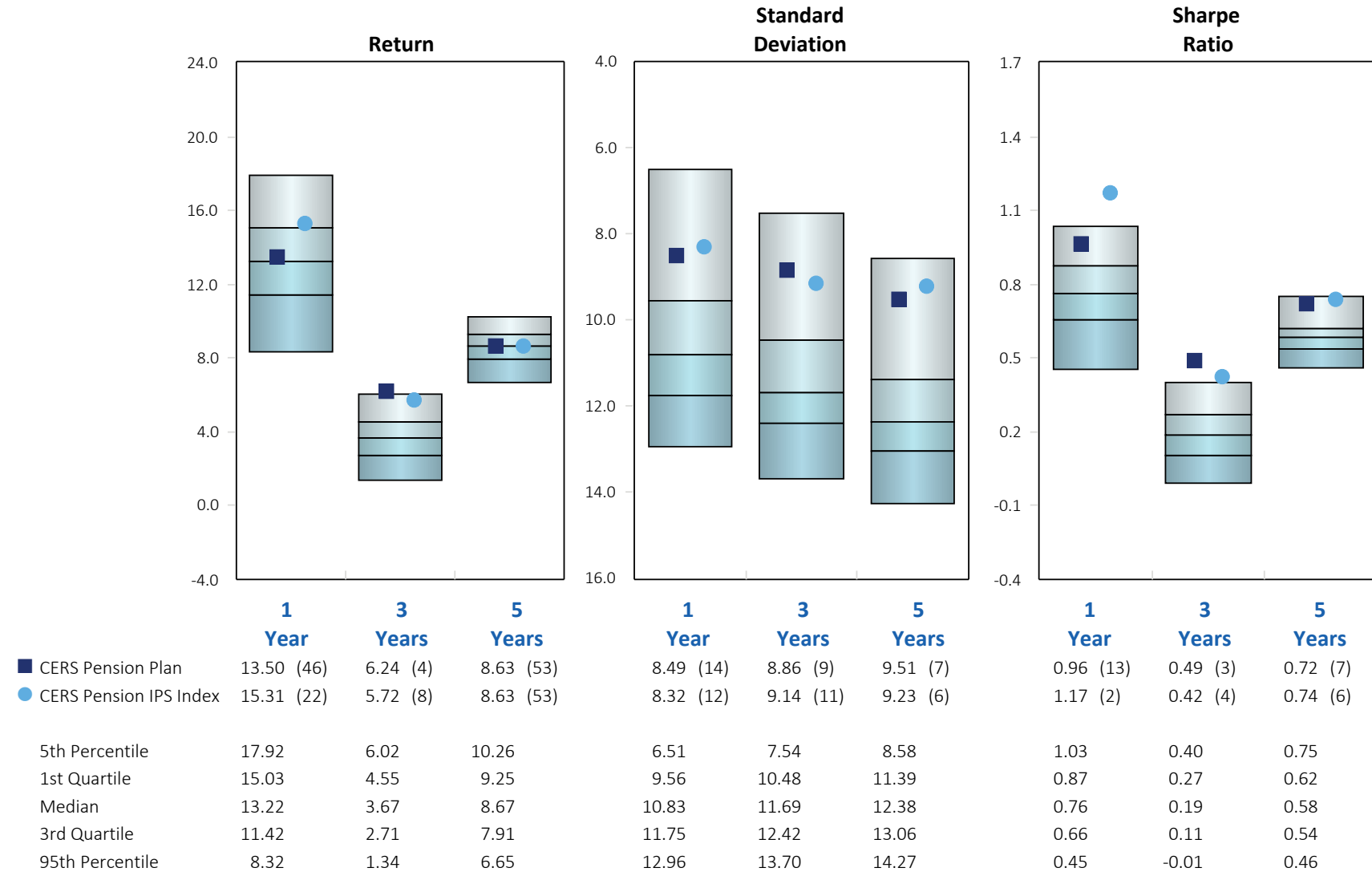
## Total Manager Value Added:-2.3 %



# Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended December 31, 2023

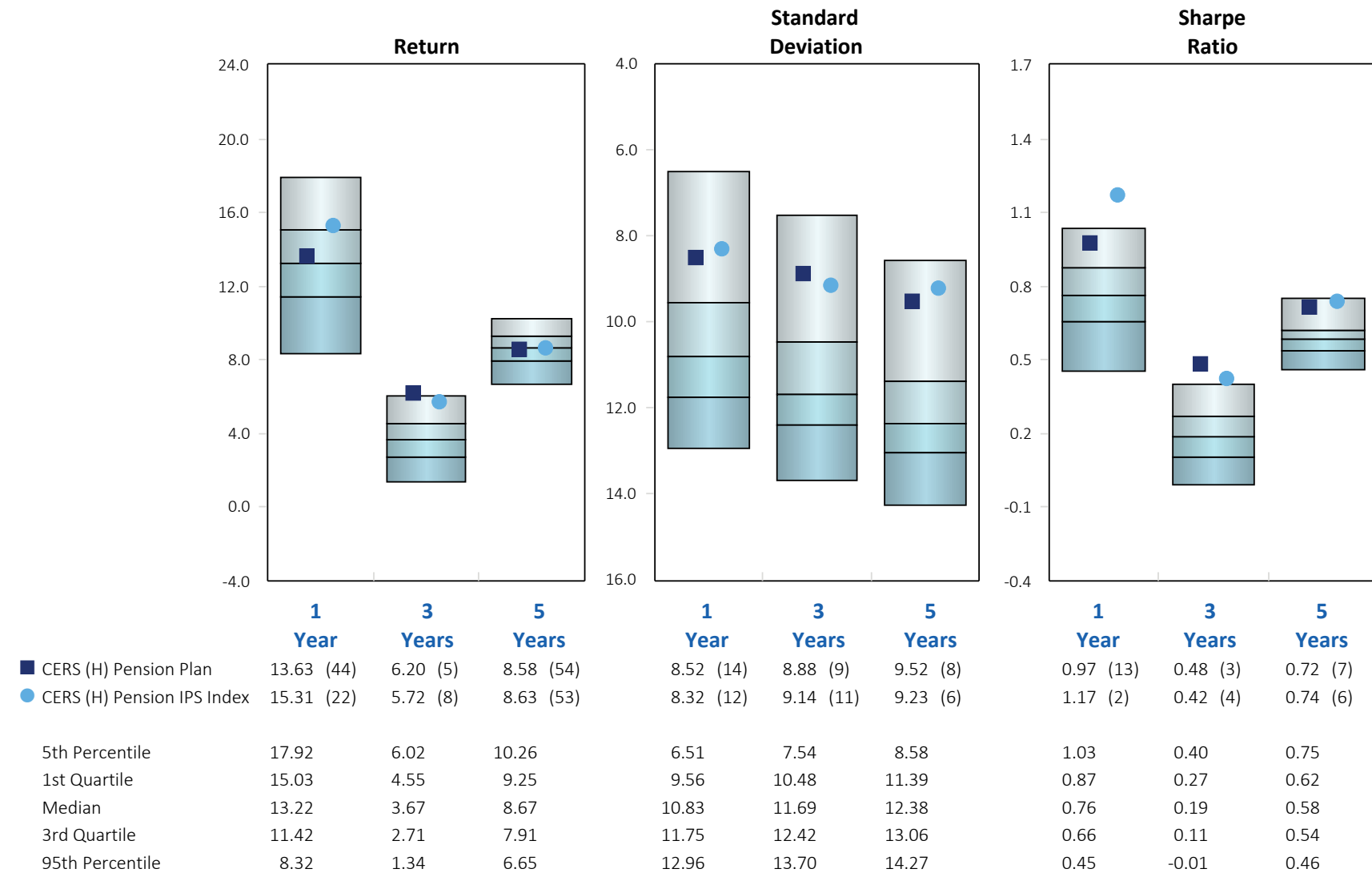


Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

# Plan Sponsor Peer Group Analysis - Multi Statistics

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

Periods Ended December 31, 2023

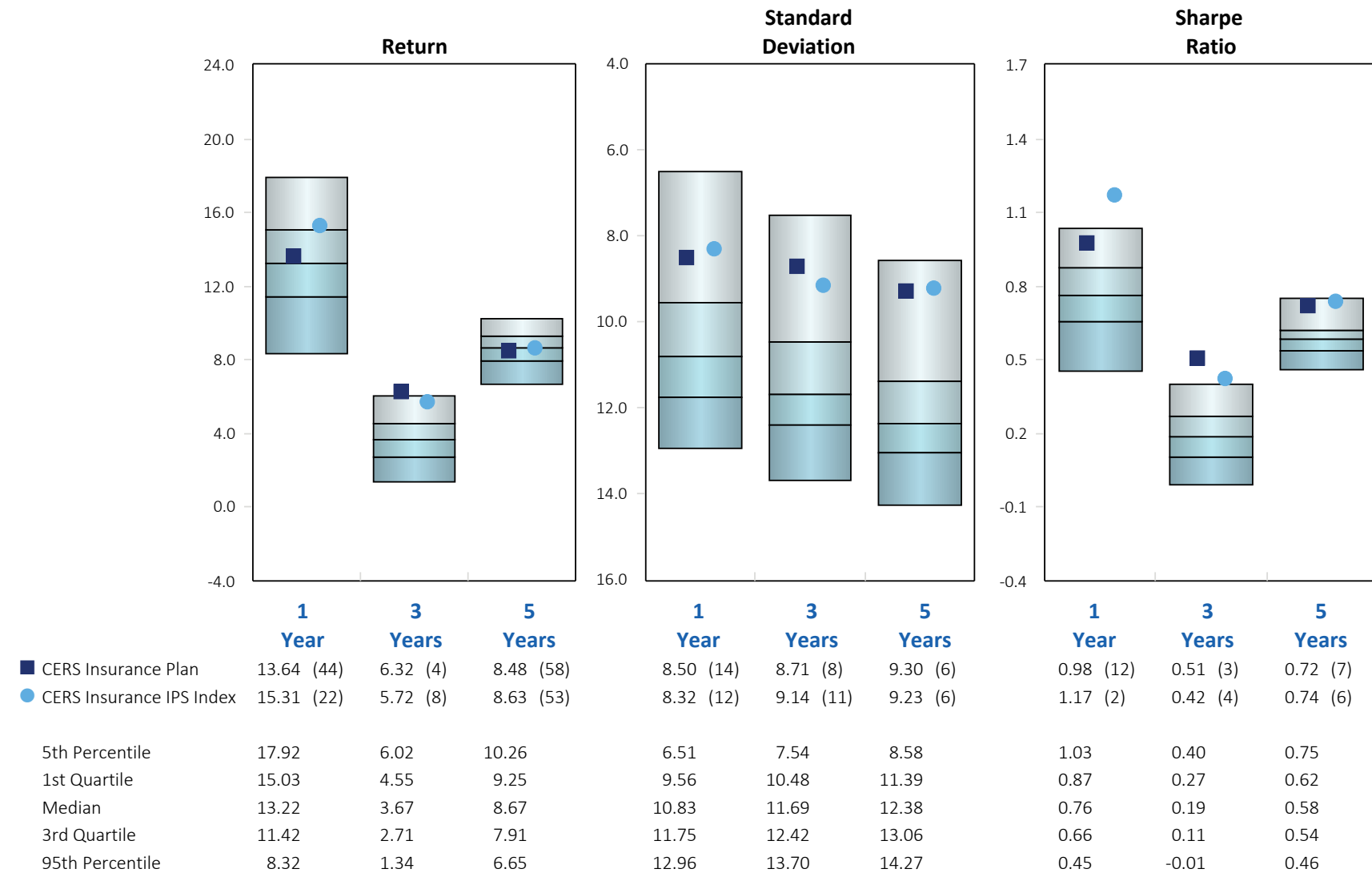


Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

# Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended December 31, 2023

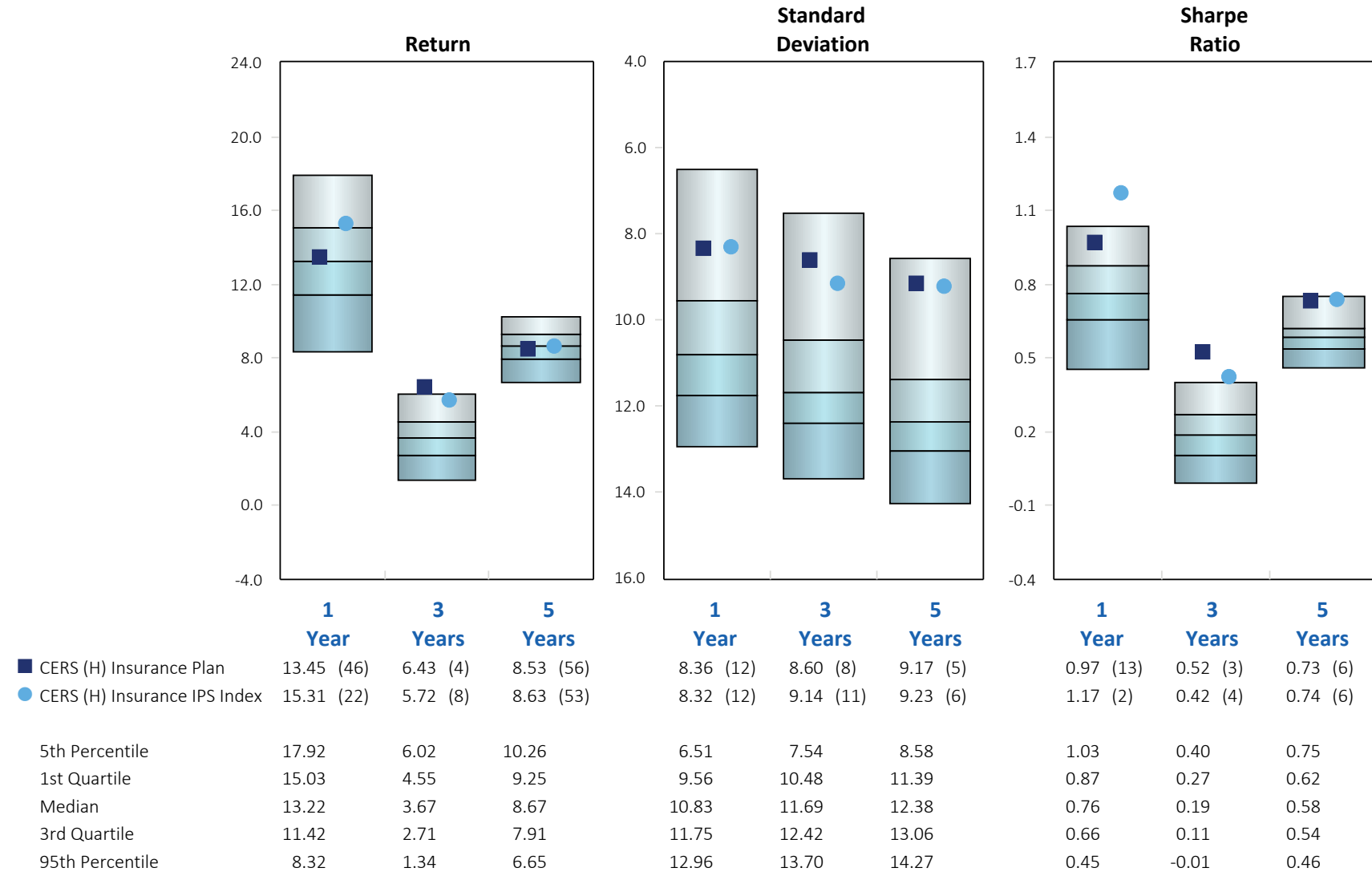


Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

# Plan Sponsor Peer Group Analysis - Multi Statistics

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

Periods Ended December 31, 2023



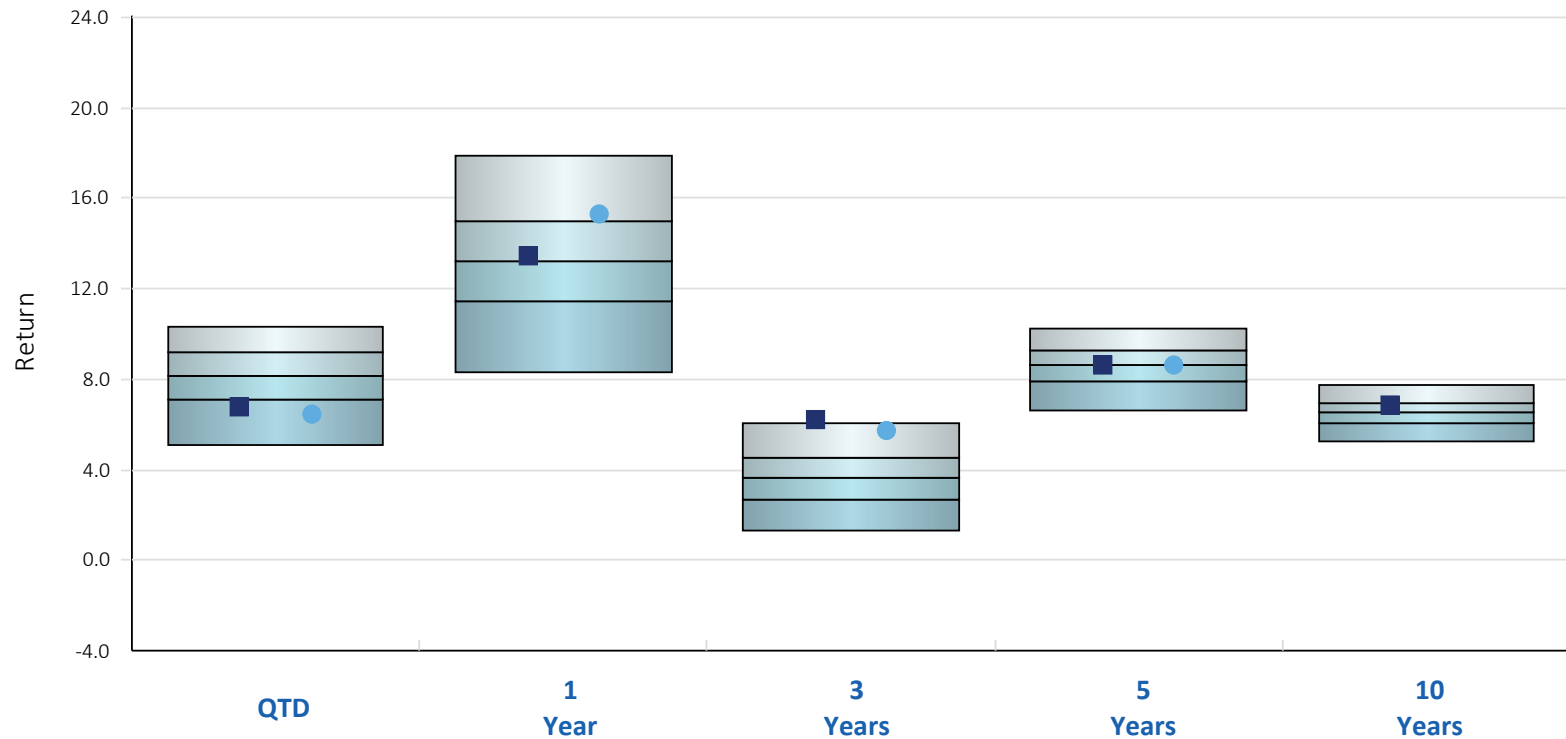
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



# Plan Sponsor Peer Group Analysis

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended December 31, 2023



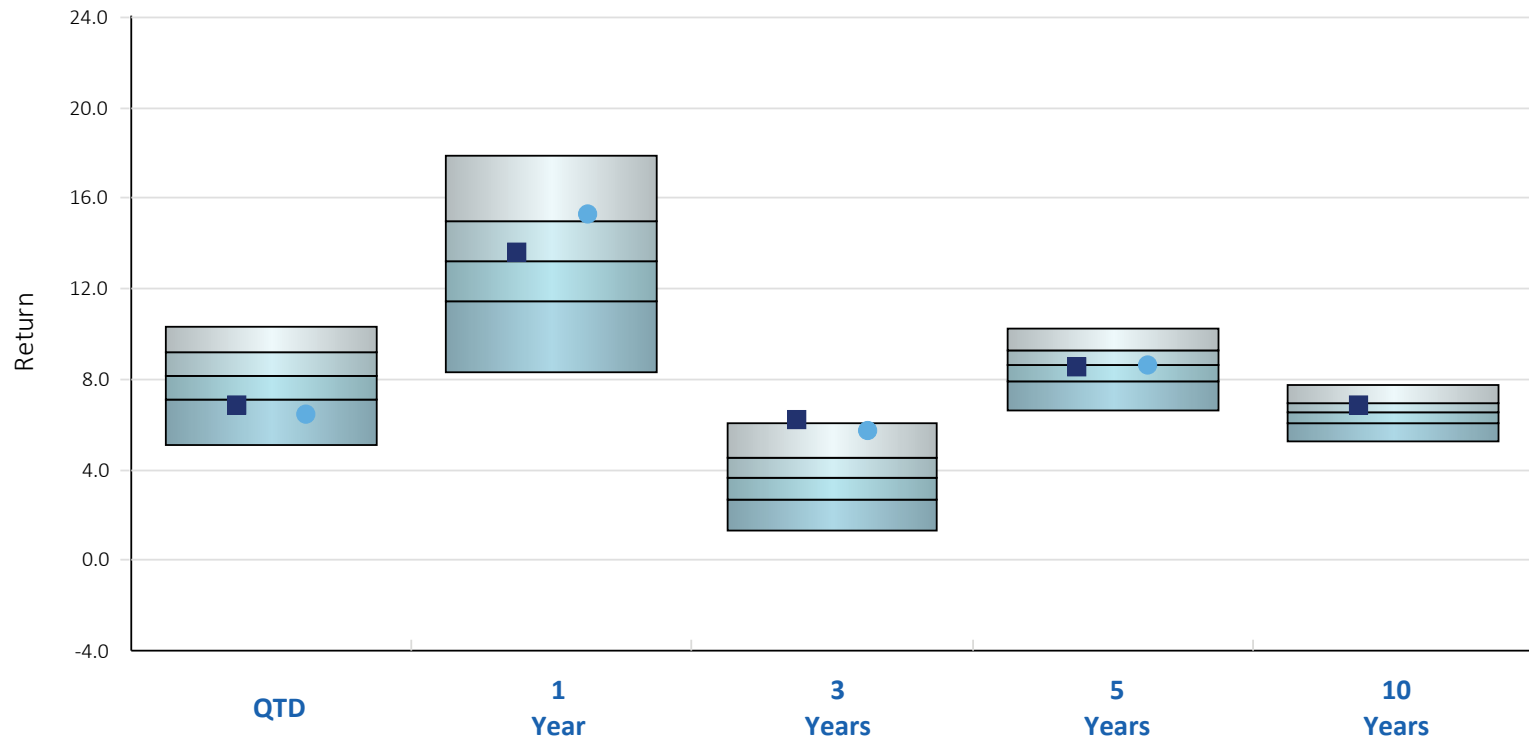
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS Pension Plan	6.78 (81)	13.50 (46)	6.24 (4)	8.63 (53)	6.89 (28)
● CERS Pension IPS Index	6.49 (85)	15.31 (22)	5.72 (8)	8.63 (53)	
5th Percentile	10.28	17.92	6.02	10.26	7.75
1st Quartile	9.16	15.03	4.55	9.25	6.95
Median	8.19	13.22	3.67	8.67	6.53
3rd Quartile	7.10	11.42	2.71	7.91	6.05
95th Percentile	5.08	8.32	1.34	6.65	5.27
Population	632	595	554	537	445

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 December 31, 2023



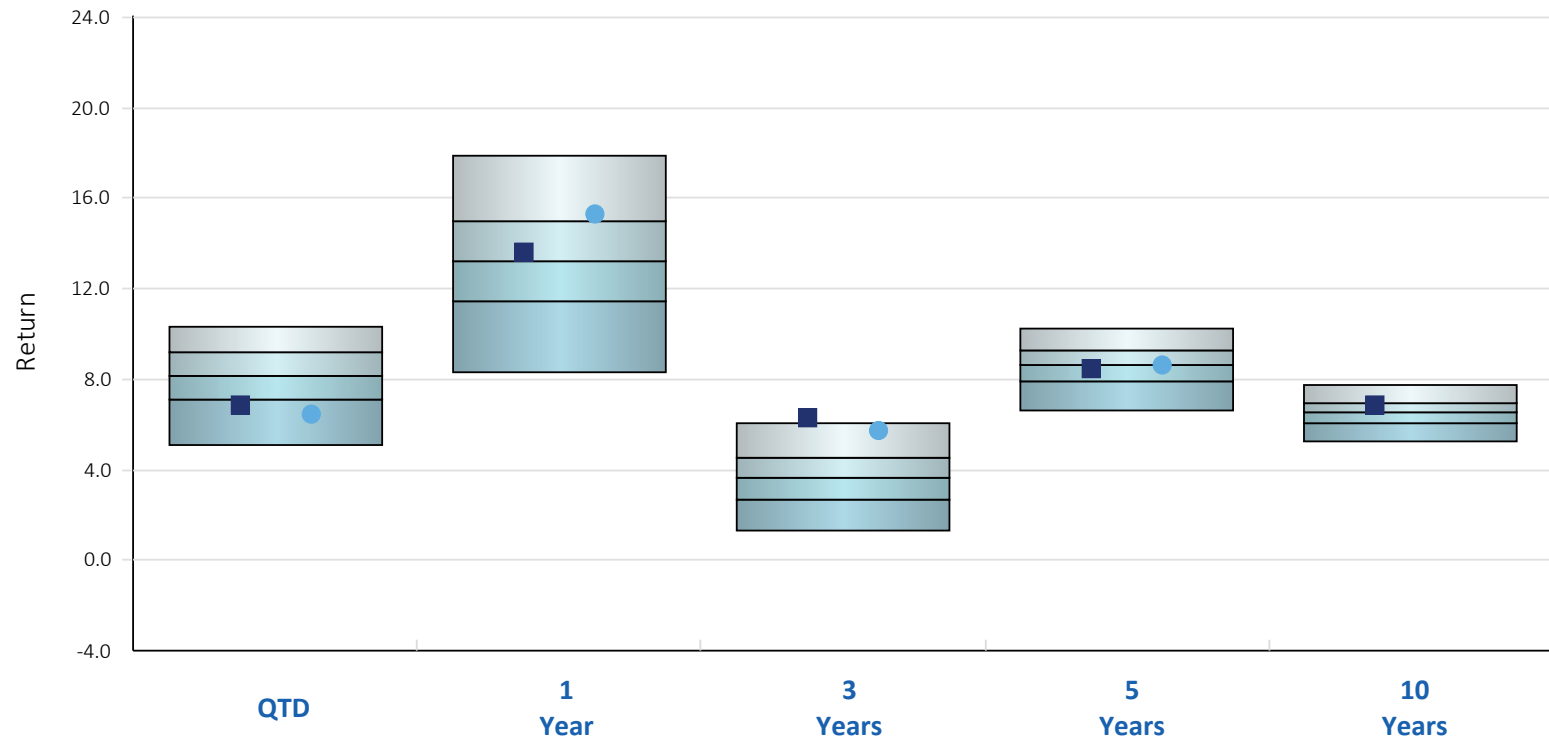
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Pension Plan	6.85 (81)	13.63 (44)	6.20 (5)	8.58 (54)	6.88 (29)
● CERS (H) Pension IPS Index	6.49 (85)	15.31 (22)	5.72 (8)	8.63 (53)	
5th Percentile	10.28	17.92	6.02	10.26	7.75
1st Quartile	9.16	15.03	4.55	9.25	6.95
Median	8.19	13.22	3.67	8.67	6.53
3rd Quartile	7.10	11.42	2.71	7.91	6.05
95th Percentile	5.08	8.32	1.34	6.65	5.27
Population	632	595	554	537	445

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 December 31, 2023



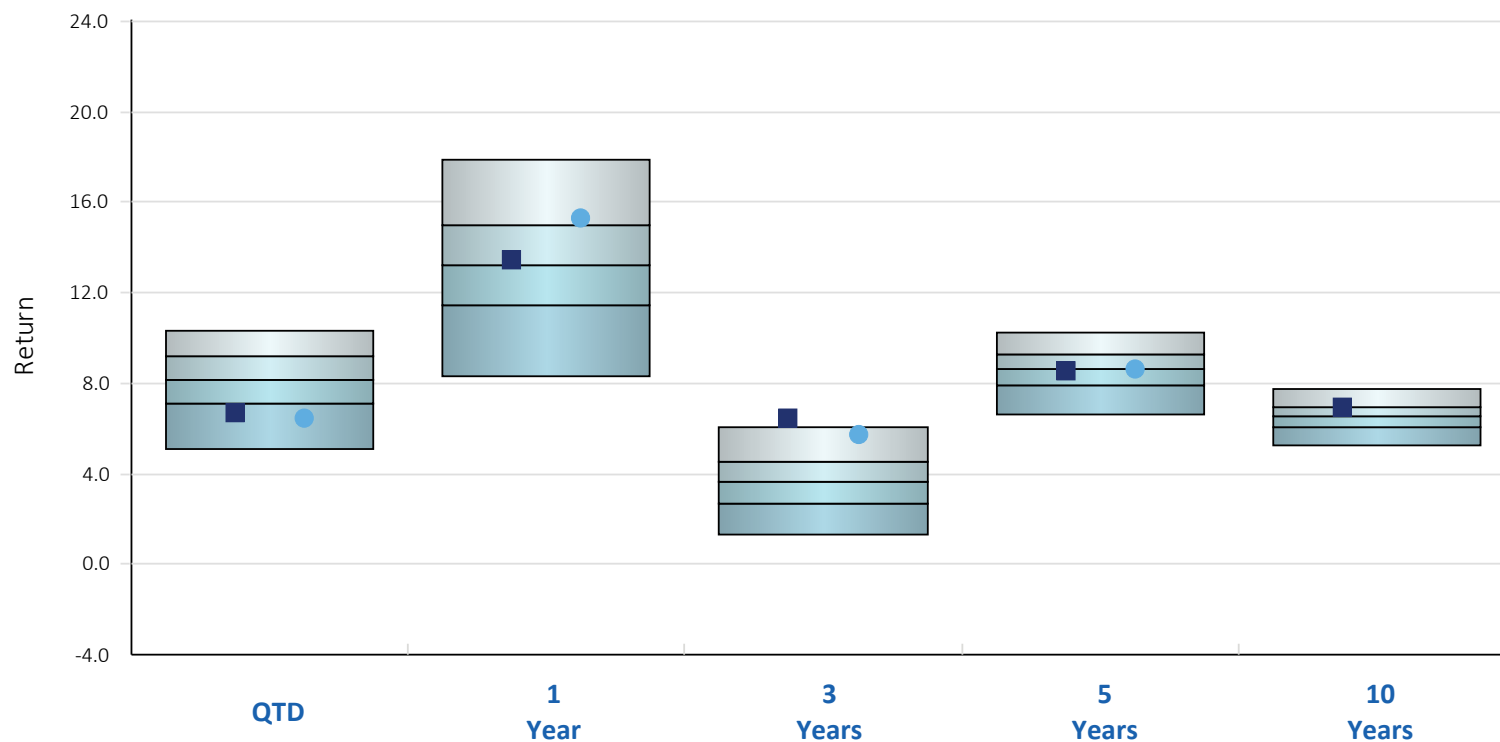
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS Insurance Plan	6.87 (80)	13.64 (44)	6.32 (4)	8.48 (58)	6.87 (30)
● CERS Insurance IPS Index	6.49 (85)	15.31 (22)	5.72 (8)	8.63 (53)	
5th Percentile	10.28	17.92	6.02	10.26	7.75
1st Quartile	9.16	15.03	4.55	9.25	6.95
Median	8.19	13.22	3.67	8.67	6.53
3rd Quartile	7.10	11.42	2.71	7.91	6.05
95th Percentile	5.08	8.32	1.34	6.65	5.27
Population	632	595	554	537	445

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 December 31, 2023



	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Insurance Plan	6.71 (82)	13.45 (46)	6.43 (4)	8.53 (56)	6.93 (26)
● CERS (H) Insurance IPS Index	6.49 (85)	15.31 (22)	5.72 (8)	8.63 (53)	
5th Percentile	10.28	17.92	6.02	10.26	7.75
1st Quartile	9.16	15.03	4.55	9.25	6.95
Median	8.19	13.22	3.67	8.67	6.53
3rd Quartile	7.10	11.42	2.71	7.91	6.05
95th Percentile	5.08	8.32	1.34	6.65	5.27
Population	632	595	554	537	445

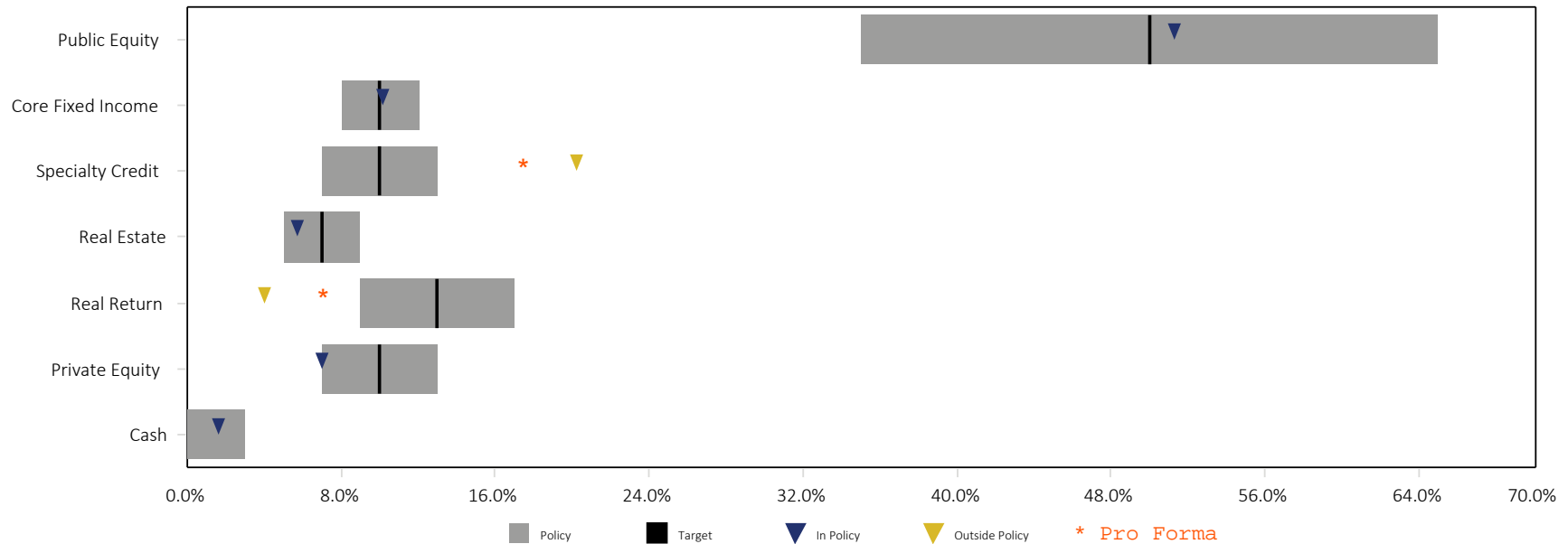
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

# Asset Allocation Compliance

## CERS Pension Plan

Periods Ended As of December 31, 2023

### Executive Summary



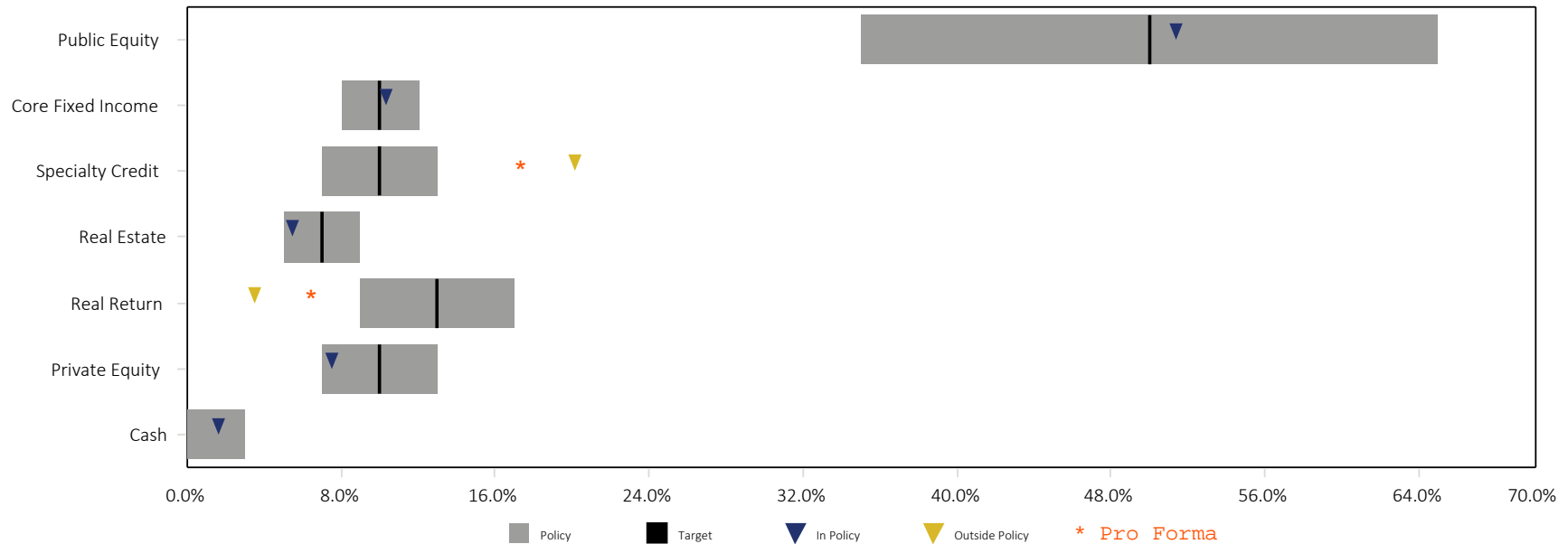
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	4,673,824,560	51.31	35.00	65.00	50.00	-119,717,250
Core Fixed Income	922,172,153	10.12	8.00	12.00	10.00	-11,350,691
Specialty Credit	1,843,339,638	20.24	7.00	13.00	10.00	-932,518,176
Real Estate	521,611,246	5.73	5.00	9.00	7.00	115,963,777
Real Return	362,660,962	3.98	9.00	17.00	13.00	821,406,939
Private Equity	640,614,004	7.03	7.00	13.00	10.00	270,207,458
Cash	143,992,058	1.58	0.00	3.00	0.00	-143,992,058
Total Fund	9,108,214,620	100.00			100.00	

# Asset Allocation Compliance

## CERS Insurance Plan

Periods Ended As of December 31, 2023

### Executive Summary



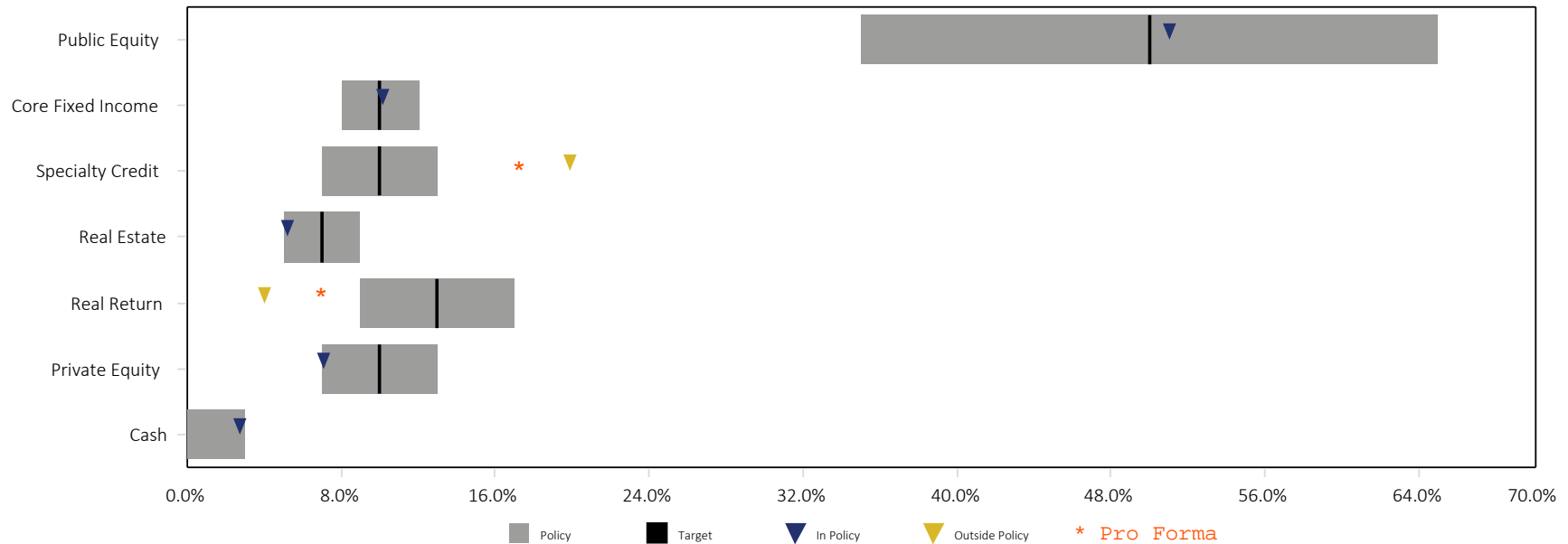
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,762,400,978	51.42	35.00	65.00	50.00	-48,599,242
Core Fixed Income	352,883,322	10.30	8.00	12.00	10.00	-10,122,975
Specialty Credit	690,549,055	20.15	7.00	13.00	10.00	-347,788,708
Real Estate	188,638,589	5.50	5.00	9.00	7.00	51,293,654
Real Return	121,311,894	3.54	9.00	17.00	13.00	324,276,557
Private Equity	257,657,256	7.52	7.00	13.00	10.00	85,103,091
Cash	54,162,377	1.58	0.00	3.00	0.00	-54,162,377
Total Fund	3,427,603,471	100.00			100.00	

# Asset Allocation Compliance

## CERS (H) Pension Plan

Periods Ended As of December 31, 2023

### Executive Summary



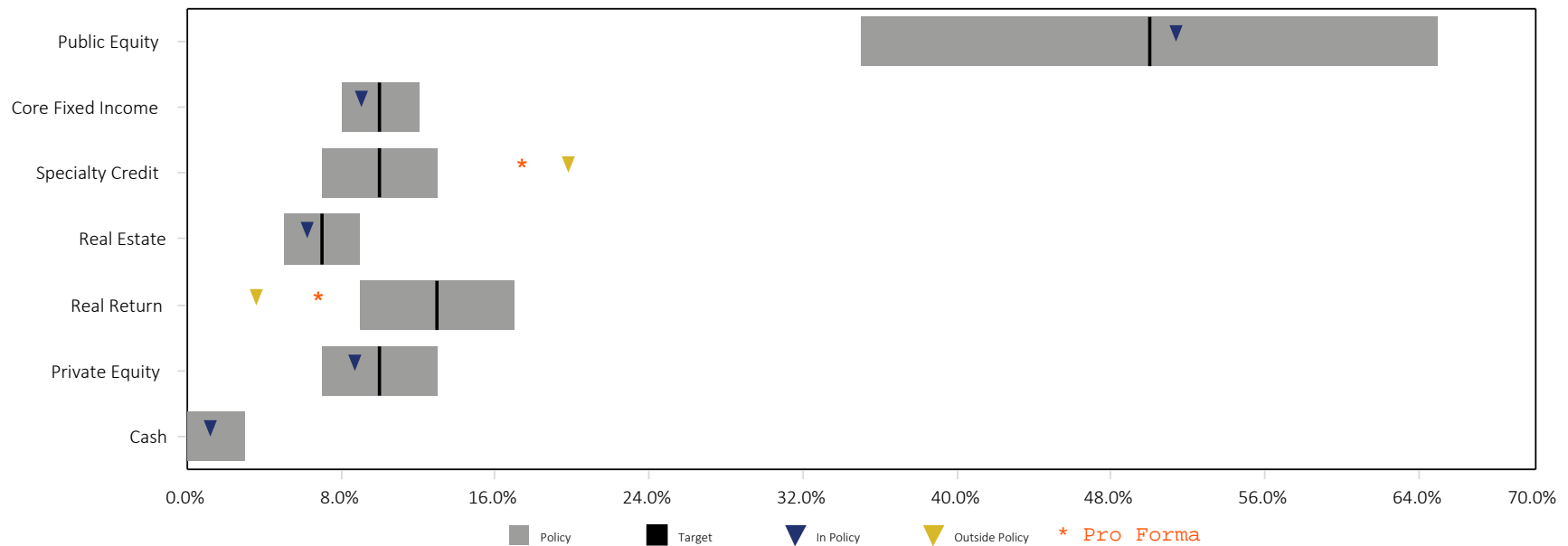
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,633,625,678	51.06	35.00	65.00	50.00	-34,030,765
Core Fixed Income	324,604,644	10.15	8.00	12.00	10.00	-4,685,661
Specialty Credit	635,454,609	19.86	7.00	13.00	10.00	-315,535,627
Real Estate	166,031,122	5.19	5.00	9.00	7.00	57,912,166
Real Return	127,122,645	3.97	9.00	17.00	13.00	288,772,032
Private Equity	226,314,184	7.07	7.00	13.00	10.00	93,604,798
Cash	86,036,944	2.69	0.00	3.00	0.00	-86,036,944
Total Fund	3,199,189,827	100.00			100.00	

# Asset Allocation Compliance

## CERS (H) Insurance Plan

Periods Ended As of December 31, 2023

### Executive Summary



	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	854,175,733	51.41	35.00	65.00	50.00	-23,424,885
Core Fixed Income	150,931,637	9.08	8.00	12.00	10.00	15,218,533
Specialty Credit	329,638,801	19.84	7.00	13.00	10.00	-163,488,632
Real Estate	103,503,236	6.23	5.00	9.00	7.00	12,801,882
Real Return	59,012,357	3.55	9.00	17.00	13.00	156,982,864
Private Equity	144,705,200	8.71	7.00	13.00	10.00	21,444,970
Cash	19,534,733	1.18	0.00	3.00	0.00	-19,534,733
Total Fund	1,661,501,698	100.00			100.00	



# Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2023

	Market Value \$	Performance (%) net of fees									
		QTD	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
<b>CERS Pension Plan</b>	<b>9,108,214,620</b>	<b>6.78</b>	<b>5.26</b>	<b>13.50</b>	<b>6.24</b>	<b>8.63</b>	<b>10.09</b>	<b>6.65</b>	<b>7.79</b>	<b>8.88</b>	<b>4/1/1984</b>
CERS Pension IPS Index		6.49	5.57	15.31	5.72	8.63					
Value Added		0.29	-0.31	-1.81	0.52	0.00					
Assumed Rate 6.25%		1.53	3.08	6.25	6.25	6.25					
Value Added		5.25	2.18	7.25	-0.01	2.38					
<b>CERS Insurance Plan</b>	<b>3,427,603,471</b>	<b>6.87</b>	<b>5.38</b>	<b>13.64</b>	<b>6.32</b>	<b>8.48</b>	<b>7.77</b>	<b>6.48</b>	<b>6.91</b>	<b>7.42</b>	<b>4/1/1987</b>
CERS Insurance IPS Index		6.49	5.57	15.31	5.72	8.63					
Value Added		0.38	-0.19	-1.67	0.60	-0.15					
Assumed Rate 6.50%		1.59	3.20	6.50	6.50	6.50					
Value Added		5.28	2.18	7.14	-0.18	1.98					
<b>CERS (H) Pension Plan</b>	<b>3,199,189,827</b>	<b>6.85</b>	<b>5.33</b>	<b>13.63</b>	<b>6.20</b>	<b>8.58</b>	<b>10.09</b>	<b>6.64</b>	<b>7.78</b>	<b>8.87</b>	<b>4/1/1984</b>
CERS (H) Pension IPS Index		6.49	5.57	15.31	5.72	8.63					
Value Added		0.36	-0.24	-1.68	0.48	-0.05					
Assumed Rate 6.25%		1.53	3.08	6.25	6.25	6.25					
Value Added		5.32	2.25	7.38	-0.05	2.33					
<b>CERS (H) Insurance Plan</b>	<b>1,661,501,698</b>	<b>6.71</b>	<b>5.30</b>	<b>13.45</b>	<b>6.43</b>	<b>8.53</b>	<b>7.77</b>	<b>6.51</b>	<b>6.93</b>	<b>7.43</b>	<b>4/1/1987</b>
CERS (H) Insurance IPS Index		6.49	5.57	15.31	5.72	8.63					
Value Added		0.22	-0.27	-1.86	0.71	-0.10					
Assumed Rate 6.50%		1.59	3.20	6.50	6.50	6.50					
Value Added		5.12	2.10	6.95	-0.07	2.03					

# Asset Allocation & Performance

## Insurance Plan Accounts

Periods Ended December 31, 2023

	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Public Equity</b>	<b>5.35</b>	<b>11.18</b>	<b>6.66</b>	<b>20.97</b>			<b>1.30</b>	<b>12/1/2021</b>
Public Equity Policy Index	4.80	11.03	7.26	22.20			1.78	
Value Added	0.55	0.15	-0.60	-1.23			-0.48	
<b>US Equity Composite</b>	<b>5.52</b>	<b>11.79</b>	<b>7.87</b>	<b>24.10</b>	<b>8.62</b>	<b>14.85</b>	<b>10.03</b>	<b>7/1/1992</b>
Russell 3000 Index	5.30	12.07	8.43	25.96	8.54	15.16	10.24	
Value Added	0.22	-0.28	-0.56	-1.86	0.08	-0.31	-0.21	
<b>S&amp;P 500 Index</b>	<b>4.55</b>	<b>11.66</b>	<b>8.07</b>	<b>26.24</b>	<b>10.00</b>	<b>15.90</b>	<b>8.72</b>	<b>7/1/2001</b>
S&P 500 Index	4.54	11.69	8.04	26.29	10.00	15.69	8.31	
value added	0.01	-0.03	0.03	-0.05	0.00	0.21	0.41	
<b>Scientific Beta</b>	<b>5.12</b>	<b>10.48</b>	<b>7.02</b>	<b>13.44</b>	<b>7.24</b>	<b>11.78</b>	<b>9.98</b>	<b>7/1/2016</b>
S&P 500 Index	4.54	11.69	8.04	26.29	10.00	15.69	13.60	
Value Added	0.58	-1.21	-1.02	-12.85	-2.76	-3.91	-3.62	
<b>River Road FAV</b>	<b>5.07</b>	<b>8.46</b>	<b>6.67</b>	<b>12.08</b>	<b>2.26</b>	<b>8.13</b>	<b>8.92</b>	<b>7/1/2016</b>
Russell 3000 Value Index	5.93	9.83	6.36	11.66	8.81	10.84	9.15	
Value Added	-0.86	-1.37	0.31	0.42	-6.55	-2.71	-0.23	
<b>Westfield Capital</b>	<b>5.66</b>	<b>14.82</b>	<b>12.21</b>	<b>44.08</b>	<b>8.69</b>	<b>19.89</b>	<b>14.25</b>	<b>7/1/2011</b>
Russell 3000 Growth Index	4.77	14.09	10.28	41.21	8.08	18.85	14.84	
Value Added	0.89	0.73	1.93	2.87	0.61	1.04	-0.59	
<b>Internal US Mid Cap</b>	<b>8.78</b>	<b>11.89</b>	<b>7.70</b>	<b>17.89</b>	<b>8.66</b>	<b>13.21</b>	<b>10.05</b>	<b>8/1/2014</b>
S&P MidCap 400 Index	8.72	11.67	6.98	16.44	8.09	12.62	9.54	
Value Added	0.06	0.22	0.72	1.45	0.57	0.59	0.51	
<b>NTGI Structured</b>	<b>10.89</b>	<b>13.63</b>	<b>9.62</b>	<b>17.67</b>	<b>6.58</b>	<b>11.78</b>	<b>10.31</b>	<b>7/1/2011</b>
Russell 2000 Index	12.22	14.03	8.18	16.93	2.22	9.97	8.92	
Value Added	-1.33	-0.40	1.44	0.74	4.36	1.81	1.39	

# Asset Allocation & Performance

## Insurance Plan Accounts

Periods Ended December 31, 2023

	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Next Century Growth</b>	<b>9.03</b>	<b>9.82</b>	<b>-8.68</b>	<b>11.02</b>	<b>1.06</b>		<b>21.00</b>	<b>11/1/2019</b>
Russell Microcap Growth Index	13.68	15.64	1.82	9.11	-8.22		5.39	
Value Added	-4.65	-5.82	-10.50	1.91	9.28		15.61	
<b>Non-US Equity Composite</b>	<b>5.09</b>	<b>10.26</b>	<b>4.87</b>	<b>16.60</b>	<b>1.06</b>	<b>7.82</b>	<b>2.94</b>	<b>4/1/2000</b>
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.03	
Value Added	-0.12	0.45	-1.11	0.98	-0.47	0.63	-0.09	
<b>BlackRock World Ex US</b>	<b>5.47</b>	<b>10.53</b>	<b>5.99</b>	<b>18.16</b>	<b>4.63</b>	<b>8.26</b>	<b>6.82</b>	<b>6/1/2012</b>
MSCI World ex US (11/19)	5.47	10.51	5.97	17.94	4.42	8.12	6.71	
value added	0.00	0.02	0.02	0.22	0.21	0.14	0.11	
<b>American Century</b>	<b>4.63</b>	<b>10.50</b>	<b>-1.34</b>	<b>9.19</b>	<b>-4.18</b>	<b>9.39</b>	<b>5.36</b>	<b>7/1/2014</b>
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.61	
Value Added	-0.58	0.69	-7.32	-6.43	-5.71	2.20	1.75	
<b>Franklin Templeton</b>	<b>7.07</b>	<b>14.65</b>	<b>2.18</b>	<b>13.61</b>	<b>-7.54</b>	<b>5.84</b>	<b>4.23</b>	<b>7/1/2014</b>
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.61	
Value Added	1.86	4.84	-3.80	-2.01	-9.07	-1.35	0.62	
<b>Lazard Asset Mgmt</b>	<b>4.70</b>	<b>10.01</b>	<b>5.00</b>	<b>18.96</b>	<b>2.20</b>	<b>7.57</b>	<b>4.44</b>	<b>7/1/2014</b>
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.61	
Value Added	-0.51	0.20	-0.98	3.34	0.67	0.38	0.83	
<b>LSV Asset Mgmt</b>	<b>4.37</b>	<b>9.13</b>	<b>9.73</b>	<b>21.12</b>	<b>7.45</b>	<b>7.63</b>	<b>4.01</b>	<b>7/1/2014</b>
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.61	
Value Added	-0.84	-0.68	3.75	5.50	5.92	0.44	0.40	
<b>Axiom</b>	<b>4.52</b>	<b>7.27</b>	<b>3.19</b>	<b>10.09</b>			<b>-11.76</b>	<b>12/1/2021</b>
MSCI AC World ex USA Small Cap (Net)	6.35	10.12	8.25	15.66			-1.71	
Value Added	-1.83	-2.85	-5.06	-5.57			-10.05	

# Asset Allocation & Performance

## Insurance Plan Accounts

Periods Ended December 31, 2023

	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>JP Morgan Emerging Markets</b>	<b>4.69</b>	<b>10.15</b>	<b>3.22</b>	<b>7.72</b>	<b>-8.90</b>		<b>1.87</b>	<b>11/1/2019</b>
MSCI Emerging Markets IMI Index	4.02	8.09	5.94	12.13	-3.32		3.42	
Value Added	0.67	2.06	-2.72	-4.41	-5.58		-1.55	
<b>Pzena Emerging Markets</b>	<b>4.36</b>	<b>5.84</b>	<b>7.33</b>	<b>23.13</b>	<b>6.89</b>		<b>8.73</b>	<b>11/1/2019</b>
MSCI Emerging Markets (Net)	3.91	7.86	4.71	9.83	-5.08		2.00	
Value Added	0.45	-2.02	2.62	13.30	11.97		6.73	
<b>Private Equity Composite</b>	<b>0.56</b>	<b>0.70</b>	<b>3.91</b>	<b>8.75</b>	<b>17.77</b>	<b>12.37</b>	<b>10.91</b>	<b>7/1/2002</b>
Russell 3000 +3% 1 Quarter Lag	-4.53	-2.54	6.42	24.07	12.66	12.42	11.73	
Value Added	5.09	3.24	-2.51	-15.32	5.11	-0.05	-0.82	
<b>Core Fixed Income Composite</b>	<b>3.73</b>	<b>6.64</b>	<b>5.30</b>	<b>7.17</b>	<b>0.34</b>	<b>2.82</b>	<b>2.86</b>	<b>10/1/2018</b>
Blmbg. U.S. Aggregate Index	3.83	6.82	3.37	5.53	-3.31	1.10	1.36	
Value Added	-0.10	-0.18	1.93	1.64	3.65	1.72	1.50	
<b>NISA</b>	<b>3.92</b>	<b>6.88</b>	<b>3.87</b>	<b>6.28</b>	<b>-2.96</b>	<b>1.30</b>	<b>2.17</b>	<b>7/1/2011</b>
Blmbg. U.S. Aggregate Index	3.83	6.82	3.37	5.53	-3.31	1.10	2.01	
Value Added	0.09	0.06	0.50	0.75	0.35	0.20	0.16	
<b>Loomis Sayles</b>	<b>3.88</b>	<b>6.81</b>	<b>3.79</b>	<b>5.80</b>	<b>-1.88</b>		<b>1.49</b>	<b>2/1/2019</b>
Blmbg. U.S. Aggregate Index (Since 8/1/23)	3.83	6.82	3.39	6.54	-8.11		0.94	
Value Added	0.05	-0.01	0.40	-0.74	6.23		0.55	
<b>Lord Abbett</b>	<b>0.06</b>	<b>1.79</b>	<b>2.48</b>	<b>4.18</b>	<b>0.39</b>	<b>2.00</b>	<b>2.01</b>	<b>10/1/2018</b>
ICE BofA 1-3 Year U.S. Corporate Index	1.32	3.03	3.97	5.61	0.44	2.16	2.21	
Value Added	-1.26	-1.24	-1.49	-1.43	-0.05	-0.16	-0.20	
<b>Internal Core Fixed Income</b>	<b>3.84</b>	<b>7.02</b>					<b>4.27</b>	<b>9/1/2023</b>
Blmbg. U.S. Aggregate Index	3.83	6.82					4.10	
value added	0.01	0.20					0.17	

# Asset Allocation & Performance

## Insurance Plan Accounts

Periods Ended December 31, 2023

	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Specialty Credit Composite</b>	1.77	3.38	6.23	11.33	6.96	6.82	6.29	10/1/2018
Specialty Credit Policy Index	2.69	5.02	7.07	13.42	3.91	5.62	4.53	
Value Added	-0.92	-1.64	-0.84	-2.09	3.05	1.20	1.76	
<b>Adams St SPC II A</b>	3.74	3.74	7.70	14.96	16.83		15.08	6/1/2020
<b>Adams St SPC II B</b>	3.06	3.06	6.14	11.08	10.56		10.06	6/1/2020
<b>Blue Torch</b>	2.18	2.18	4.99	12.67	11.49		10.42	8/1/2020
<b>BSP Coinvestment</b>	2.83	2.83	5.81	11.55	8.08		7.38	10/1/2019
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76		5.21	
Value Added	1.18	-0.04	-0.62	-1.77	2.32		2.17	
<b>BSP Private Credit</b>	3.26	3.26	5.94	10.63	10.23	7.17	6.47	2/1/2018
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.78	
Value Added	1.61	0.39	-0.49	-2.69	4.47	1.37	1.69	
<b>CapitalSpring</b>	4.33	4.33	27.15	53.06	20.68		18.23	2/1/2020
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76		5.06	
Value Added	2.68	1.46	20.72	39.74	14.92		13.17	
<b>Cerberus Capital Mgmt</b>	0.89	1.54	3.42	7.58	11.81	10.43	9.47	9/1/2014
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.44	
Value Added	-0.76	-1.33	-3.01	-5.74	6.05	4.63	5.03	
<b>Columbia</b>	3.40	7.05	7.51	13.36	2.24	5.57	5.76	11/1/2011
Blmbg. U.S. Corp: High Yield Index	3.73	7.16	7.66	13.45	1.98	5.37	5.68	
Value Added	-0.33	-0.11	-0.15	-0.09	0.26	0.20	0.08	
<b>Manulife Asset Mgmt</b>	2.88	6.02	4.93	9.49	0.71	4.70	3.92	12/1/2011
Policy Index	3.79	6.83	3.76	6.17	-2.97	1.44	1.26	
Value Added	-0.91	-0.81	1.17	3.32	3.68	3.26	2.66	

# Asset Allocation & Performance

## Insurance Plan Accounts

Periods Ended December 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
<b>Marathon Bluegrass</b>	-0.17	0.86	2.89	4.02	4.68	4.21	5.39	1/1/2016
Blmbg. U.S. Corp: High Yield Index	3.73	7.16	7.66	13.45	1.98	5.37	6.06	
Value Added	-3.90	-6.30	-4.77	-9.43	2.70	-1.16	-0.67	
<b>Shenkman Capital</b>	1.90	3.35	5.53	11.73	4.83	5.32	4.25	7/1/2011
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.63	
Value Added	0.25	0.48	-0.90	-1.59	-0.93	-0.48	-0.38	
<b>Waterfall</b>	0.11	0.48	7.13	8.09	7.64	4.83	7.86	7/1/2011
Policy Index	2.57	4.91	6.35	11.64	2.56	4.45	4.21	
Value Added	-2.46	-4.43	0.78	-3.55	5.08	0.38	3.65	
<b>White Oak Yield Spectrum</b>	1.88	1.88	3.44	6.08	6.09	5.85	5.49	3/1/2018
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.82	
Value Added	0.23	-0.99	-2.99	-7.24	0.33	0.05	0.67	
<b>Arrowmark</b>	1.21	4.26	7.89	16.45	12.80	10.71	10.47	6/1/2018
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.88	
Value Added	-0.44	1.39	1.46	3.13	7.04	4.91	5.59	
<b>Cash Composite</b>	0.48	1.43	2.55	4.54	2.05	1.81	2.51	7/1/1992
FTSE 3 Month T-Bill	0.47	1.41	2.80	5.26	2.25	1.91	2.41	
Value Added	0.01	0.02	-0.25	-0.72	-0.20	-0.10	0.10	

# Asset Allocation & Performance

## Insurance Plan Accounts

Periods Ended December 31, 2023

	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Real Estate Composite</b>	-1.55	-2.29	-4.70	-11.01	7.90	7.96	8.68	5/1/2009
NCREIF ODCE NOF 1 Quarter Lag	-2.10	-2.10	-4.93	-12.88	6.19	4.72		
Value Added	0.55	-0.19	0.23	1.87	1.71	3.24		
<b>Baring</b>	-3.23	-0.39	-21.88	-42.49	-12.18	2.80	2.80	1/1/2019
<b>Barings Euro RE II</b>	-16.46	-13.96	-21.26	-41.53	-25.95		-24.80	12/1/2020
<b>Divcowest IV</b>	2.14	2.14	2.07	-1.85	12.45	9.94	16.32	3/1/2014
<b>Fundamental Partners III</b>	-2.45	-2.45	-1.78	2.28	15.09	14.42	12.30	5/1/2017
<b>Greenfield Acq VI</b>	-1.88	-1.88	-2.98	-26.62	-35.32	-39.55	-17.96	12/1/2012
<b>Greenfield Acq VII</b>	2.63	2.63	5.57	-6.28	18.39	15.24	13.58	7/1/2014
<b>Harrison Street</b>	0.00	-1.81	-1.56	-2.58	5.59	5.65	7.28	5/1/2012
<b>Lubert Adler VII</b>	-4.55	-4.55	-11.37	-19.95	-4.27	-4.07	-2.79	7/1/2014
<b>Lubert Adler VII B</b>	-2.93	-2.93	0.70	10.15	24.92	19.60	14.64	7/1/2017
<b>Mesa West IV</b>	-0.67	-0.67	-8.03	-19.08	-3.33	0.55	1.75	3/1/2017
<b>Mesa West Core Lend</b>	-0.34	-0.34	-0.19	-5.12	1.95	3.50	5.20	5/1/2013
<b>Patron Capital</b>	-3.13	-0.20	-9.53	-7.15	2.10	3.59	2.56	8/1/2016
<b>Prologis Targeted US</b>	0.00	-1.44	-5.68	-11.60	18.11	15.38	15.51	10/1/2014
<b>Rubenstein PF II</b>	-21.35	-21.35	-28.79	-55.99	-26.40	-17.21	-2.03	7/1/2013
<b>Stockbridge Sm/Mkts</b>	-2.92	-2.92	-3.96	-13.42	7.32	6.21	7.72	5/1/2014
<b>Walton St RE VI</b>	1.63	1.63	2.67	10.37	12.35	4.40	-10.23	5/1/2009
<b>Walton St RE VII</b>	-7.01	-7.01	-11.37	-17.71	-1.35	-5.30	3.38	7/1/2013

# Asset Allocation & Performance

## Insurance Plan Accounts

Periods Ended December 31, 2023

	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Real Return Composite</b>	-0.95	1.21	5.47	10.14	9.57	8.11	4.86	7/1/2011
US CPI +3%	0.48	1.22	3.07	6.42	8.79	7.20	5.65	
Value Added	-1.43	-0.01	2.40	3.72	0.78	0.91	-0.79	
<b>Tortoise Capital</b>	-2.97	3.36	12.34	21.09	31.49	11.88	10.12	8/1/2009
Alerian MLP Index	-2.17	4.98	15.37	26.56	32.43	12.03	7.80	
Value Added	-0.80	-1.62	-3.03	-5.47	-0.94	-0.15	2.32	
<b>Internal Real Return</b>	-0.43						-0.43	12/1/2023
<b>Arctos Sports II</b>	3.06	3.06	0.41				74.28	5/1/2023
<b>Arctos Sports II Co-Inv</b>	0.00						0.00	11/1/2023
<b>Amerra AGRI Fund II</b>	-4.68	-4.68	0.53	0.23	8.75	8.79	5.95	12/1/2012
<b>Amerra AGRI Holdings</b>	-5.94	-5.94	-3.34	-9.85	-6.32	-3.37	-2.68	8/1/2015
<b>BTG Pactual</b>	0.81	0.81	10.26	14.24	16.66	7.32	-0.33	12/1/2014
<b>IFM Infrastructure</b>	2.70	5.19	4.98	10.14	7.53		5.55	7/1/2019
<b>Magnetar MTP EOF II</b>	-1.11	-1.11	-2.20	15.24	75.37	43.48	25.50	8/1/2015
<b>Oberland Capital</b>	1.58	1.58	4.93	11.95	12.18	13.46	13.49	8/1/2018
<b>Taurus Mine Finance</b>	-4.99	-4.99	-3.69	4.03	24.90	14.32	14.22	4/1/2015
<b>TPF II</b>	-1.54	-1.54	-2.92	-7.87	2.68	4.25	-1.02	10/1/2008
<b>Blackstone Strat Opp</b>	-0.65	-0.65	-1.20	-6.70	-2.73	-5.23	-2.81	8/1/2017
<b>Luxor Capital</b>	-0.13	-0.18	-2.62	-2.81	4.83	-3.73	-0.31	4/1/2014
<b>Myriad Opportunities</b>	0.00	0.00	0.00	-0.30	-24.06	-14.85	-8.37	5/1/2016
<b>Pine River</b>	0.35	0.02	0.16	-7.23	-4.43	3.29	1.55	5/1/2014



## Asset Allocation & Performance

### Insurance Plan Accounts

*Periods Ended December 31, 2023*









	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
PRISMA Capital	0.22	1.32	2.60	4.32	1.03	1.00	2.53	9/1/2011
Tricadia Select	0.00	0.00	0.00	0.00	0.00	0.44	-3.96	9/1/2017
Maritime Partners	0.00	0.00					0.00	10/1/2023












County Employees Retirement System












# Compliance Report



Quarter Ending: December 31, 2023



<b>Compliance Review</b> <b>Period Ended December 31, 2023</b>	<b>Compliance Status</b>	<b>Legend</b>  In Compliance  To be determined  Not In Compliance
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.		
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).*		
Cash holdings do not exceed five percent (5%) of the manager's allocation for any given quarter.**		
The KPPA Investment Staff may passively manage up to twenty (20%) percent of the overall portfolio dedicated to these efficient markets (Public Equiy)		
CERS Pension - 21.4%		
CERSH Pension - 21.0%		
CERS Insurance - 21.3%		
CERSH Insurance - 20.7%		
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.		

<b>Compliance Review</b> <b>Period Ended December 31, 2023</b>	<b>Compliance Status</b>	<b>Legend</b>  In Compliance  To be determined  Not In Compliance
Maximum of thirteen (13%) percent of CERS Pan assets allocated to Private Equity		
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.		
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.		
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.		
The maximum investment in any co-investment vehicle shall not exceed 50 percent of the total capital committed by all partners at the time of the final closing.		
The maximum investment in any single direct co-investment shall not exceed 20 percent of the original partnership commitment.		
Total investment in direct co-investments shall not exceed 20 percent of the asset class portfolio on a cost basis at the time of investment.		
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.		

<b>Compliance Review</b> <b>Period Ended December 31, 2023</b>	<b>Compliance Status</b>	<b>Legend</b>  In Compliance  To be determined  Not In Compliance
The amount of stock held in the domestic or international equity allocation shall not exceed 3% of the outstanding shares of any single corporation.		
Investment in "frontier" markets (those countries not included in the MSCI EM Index) shall not exceed 5% of CERS' international equity assets.		
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.		
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).		
50% of the core fixed income assets must have stated liquidity that is trade date plus three days or better.		
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.		
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.		
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.		

<b>Compliance Review</b> <b>Period Ended December 31, 2023</b>	<b>Compliance Status</b>	<b>Legend</b>  In Compliance  To be determined  Not In Compliance
<b>IPS Asset Allocation Guidelines</b>  CERS Pension - Specialty Credit allocation 20.2% > maximum 13.0% CERS Pension - Real Return allocation 4.0% < minimum 9.0% CERSH Pension - Specialty Credit allocation 19.9% > maximum 13.0% CERSH Pension - Real Return allocation 4.0% < minimum 9.0% CERS Insurance - Specialty Credit allocation 20.1% > maximum 13.0% CERS Insurance - Real Return allocation 3.5% < minimum 9.0% CERSH Insurance - Specialty Credit allocation 19.8% > maximum 13.0% CERSH Insurance - Real Return allocation 3.6% < minimum 9.0%		
<i>* Only applies to external manager and not assets managed by KPPA Investment Staff</i>		
<i>** Excludes cash holdings that are an integral part of a fixed income manager's investment strategy.</i>		

County Employees Retirement System

# Investment Budget Update

Quarter Ending: December 31, 2023

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Budget</b> <b>For the six month period ending December 31, 2023</b>									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Investment Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent
<b>CONSULTING SERVICES</b>									
Wilshire Associates	\$ 1,021,799	\$ 1,238,170	\$ 1,225,671	\$ 1,021,175	\$ 838,172	\$ 1,200,000	\$ 563,753	\$ 636,247	47%
Albourne	-	-	-	-	306,750	275,000	135,000	140,000	49%
MercerInsight	-	-	-	-	153,548	165,000	80,000	85,000	48%
<b>SUBTOTAL</b>	<b>1,021,799</b>	<b>1,238,170</b>	<b>1,225,671</b>	<b>1,021,175</b>	<b>1,298,471</b>	<b>1,640,000</b>	<b>778,753</b>	<b>861,247</b>	<b>47%</b>
<b>LEGAL &amp; AUDITING SERVICES</b>									
Faegre Drinker			96,039	202,502	16,428	100,000	3,380	96,620	3%
Intelligent Management Solutions (IMS)	620,001	202,140	155,700	69,884	81,880	350,000	-	350,000	0%
McClain/Goldberg			891	-	-	100,000	-	100,000	0%
Reinhart	317,909	671,269	663,689	619,509	109,508	2,500,000	22,150	2,477,850	1%
Stoll-Keenon-Ogden	10,314	135,353	254,211	463,560	750,438	750,000	79,626	670,374	11%
Haystack			-	-	120,175	100,000	117,409	(17,409)	117%
Umberg Zipser			289,100	498,058	606,701	850,000	378,342	471,658	45%
Swansburg & Smith	-	-	-	-	5,288	50,000	-	50,000	0%
Eddins Domine	-	-	-	-	40,305	50,000	-	50,000	0%
Taft	-	-	-	-	142,720	50,000	1,060	48,940	2%
Miscellaneous				-	-	50,000	3,160	46,840	6%
<b>SUBTOTAL</b>	<b>948,225</b>	<b>1,008,762</b>	<b>1,459,630</b>	<b>1,853,513</b>	<b>1,873,441</b>	<b>4,950,000</b>	<b>605,127</b>	<b>4,344,873</b>	<b>12%</b>
<b>CONTRACTURAL SERVICES</b>									
Bloomberg	68,722	71,810	98,163	102,243	104,153	150,000	55,067	94,933	37%
BNYM Custodial Fees	2,056,390	2,088,475	2,379,838	2,565,169	2,333,981	2,600,000	619,478	1,980,522	24%
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	64,580	85,420	43%
Russell Index Subscription	1,075	1,250	1,000	1,000	750	1,500	500	1,000	33%
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	31,438	28,563	52%
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	32,753	217,247	13%
<b>SUBTOTAL</b>	<b>2,391,713</b>	<b>2,474,036</b>	<b>2,681,251</b>	<b>3,267,008</b>	<b>2,980,769</b>	<b>3,690,020</b>	<b>1,135,855</b>	<b>2,554,165</b>	<b>31%</b>



<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Budget</b> <b>For the six month period ending December 31, 2023</b>									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Investment Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent
<b>INACTIVE CONTRACTURAL SERVICES</b>									
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		-	-		-	-		
<b>SUBTOTAL</b>	<b>291,718</b>	<b>119,290</b>	<b>1,233,757</b>	<b>-</b>	<b>250</b>	<b>-</b>		<b>-</b>	
<b>TOTAL</b>	<b>\$ 4,653,455</b>	<b>\$ 4,840,258</b>	<b>\$ 6,600,309</b>	<b>\$ 6,141,696</b>	<b>\$ 6,152,931</b>	<b>\$ 10,280,020</b>	<b>2,519,735</b>	<b>\$ 7,760,285</b>	<b>25%</b>

CERS Board Meeting - Investment Committee Report

INVESTMENT BUDGET	
CONSULTING SERVICES	
Wilshire Associates	General Investment Consultanting Services, Manager Research and Due Dilligence, Reporting, Asset Allocation
Albourne	Investment Consultant Research database - Private Markets Manager Research, Private Markets Research, Pension Markets Research
MercerInsight	Investment Consultant Research database - Public Markets Manager Research, Public Markets Research, Pension Markets Research
LEGAL & AUDITING SERVICES	
Faegre Drinker	Delaware litigation counsel
Intelligent Management Solutions (IMS)	IMS is an expert witness in the Bay Hills case.
McClain/Goldberg	Blackstone litigation counsel for the Trustees and Officers
Reinhart	Bay Hills counsel and investment counsel for contract negotiations
Stoll-Keenon-Ogden	Mayberry counsel
Haystack	Conduct Mayberry eDiscovery
Umberg Zipser	PAAMCO-Prisma (California litigation)
Frost Brown Todd	Currently has no investment-related cases
Swansburg & Smith	Reimbursement of Fiduciary Legal Expenses (KKR)
Eddins Domine	Reimbursement of Fiduciary Legal Expenses (KKR)
Taft	Reimbursement of Fiduciary Legal Expenses (Calcaterra Pollack)
CONTRACTURAL SERVICES	
Bloomberg	Bloomberg Professional Services, Data Analytics and Tools, Market Information and News, Research Portal
BNYM Custodial Fees	Full Service Custodial Services, Investment Accounting, Investment Operations, Transaction Services, Performance and Attribution, Reporting
eVestment (Solovis RMS)	Research Management Program organizing internal and 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

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending December 31, 2023</b> <b>Pension</b>								
	2024		2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
<b>Core Fixed Income</b>	<b>1,014,583</b>	<b>2,287,704,103</b>	<b>1,412,142</b>	<b>1,982,992,065</b>	<b>1,591,391</b>	<b>2,344,396,966</b>	<b>1,401,242</b>	<b>2,282,848,163</b>
<i>Investment Advisory Fees</i>	989,977		1,073,446		1,558,075		1,375,451	
<i>Performance Fees</i>			313,985				-	
<i>Miscellaneous Fees and Expenses</i>	24,606		24,711		33,316		25,791	
<b>Public Equity</b>	<b>7,003,749</b>	<b>8,229,412,149</b>	<b>6,326,122</b>	<b>6,860,008,005</b>	<b>7,390,244</b>	<b>7,258,279,054</b>	<b>5,850,569</b>	<b>6,295,655,905</b>
<i>Investment Advisory Fees</i>	6,885,398		6,216,244		7,204,226		5,712,166	
<i>Miscellaneous Fees and Expenses</i>	118,350		109,877		186,018		138,403	
<b>Specialty Credit Fixed Income</b>	<b>43,867,219</b>	<b>3,449,111,420</b>	<b>26,763,395</b>	<b>3,169,416,226</b>	<b>25,775,685</b>	<b>3,159,992,882</b>	<b>17,264,718</b>	<b>2,435,764,675</b>
<i>Investment Advisory Fees</i>	9,314,024		8,272,318		8,375,883		7,320,545	
<i>Performance Fees</i>	15,712,746		7,246,973		12,762,781		8,459,198	
<i>Miscellaneous Fees and Expenses</i>	18,840,449		11,244,103		4,637,021		1,484,975	
<b>Real Estate</b>	<b>2,347,363</b>	<b>1,007,031,285</b>	<b>5,120,746</b>	<b>980,167,711</b>	<b>16,451,186</b>	<b>780,082,609</b>	<b>980,198</b>	<b>584,165,093</b>
<i>Investment Advisory Fees</i>	3,803,771		4,590,896		2,401,864		2,324,269	
<i>Performance Fees</i>	(3,707,401)		(380,882)		12,653,860		(2,070,445)	
<i>Miscellaneous Fees and Expenses</i>	2,250,993		910,732		1,395,462		726,374	
<b>Real Return</b>	<b>2,496,799</b>	<b>873,036,117</b>	<b>2,108,571</b>	<b>451,152,401</b>	<b>2,632,576</b>	<b>1,021,821,360</b>	<b>3,216,441</b>	<b>847,105,839</b>
<i>Investment Advisory Fees</i>	2,099,651		1,176,185		2,001,915		1,985,069	
<i>Performance Fees</i>	147,085		493,101		679,897		1,259,862	
<i>Miscellaneous Fees and Expenses</i>	250,063		439,285		(49,236)		(28,490)	
<b>Private Equity</b>	<b>8,028,455</b>	<b>1,162,891,960</b>	<b>(1,217,614)</b>	<b>1,143,362,622</b>	<b>39,968,415</b>	<b>1,262,539,645</b>	<b>24,365,092</b>	<b>1,139,236,934</b>
<i>Investment Advisory Fees</i>	2,925,557		3,652,032		3,928,841		4,294,168	
<i>Performance Fees</i>	2,383,986		(6,838,180)		33,350,556		17,523,541	
<i>Miscellaneous Fees and Expenses</i>	2,718,912		1,968,535		2,689,018		2,547,383	
<b>Administrative Expense/Cash</b>	<b>2,118,142</b>	<b>737,649,280</b>	<b>1,574,490</b>	<b>813,973,145</b>	<b>1,878,932</b>	<b>612,903,688</b>	<b>1,435,169</b>	<b>266,674,138</b>
<b>Total Investment Fees and Expenses</b>	<b>66,876,308</b>	<b>17,746,836,314</b>	<b>42,087,852</b>	<b>15,401,072,174</b>	<b>95,688,429</b>	<b>16,440,016,204</b>	<b>54,513,429</b>	<b>13,851,450,747</b>

\* Absolute Return was absorbed by Real Return in December 2020

\*\* Opportunistic was absorbed by Specialty Credit in December 2021

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending December 31, 2023</b> <b>Insurance</b>								
	2024		2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
<b>Core Fixed Income</b>	<b>342,823</b>	<b>780,518,762</b>	<b>526,658</b>	<b>755,273,150</b>	<b>587,743</b>	<b>855,261,654</b>	<b>568,510</b>	<b>873,074,122</b>
Investment Advisory Fees	334,225		406,870		457,920		558,897	
Performance Fees			112,040		117,337		-	
Miscellaneous Fees and Expenses	8,598		7,748		12,486		9,613	
<b>Public Equity</b>	<b>3,225,651</b>	<b>3,720,705,634</b>	<b>2,916,264</b>	<b>3,159,950,145</b>	<b>3,221,274</b>	<b>3,246,444,061</b>	<b>2,616,659</b>	<b>2,840,620,347</b>
Investment Advisory Fees	3,171,832		2,866,269		3,161,508		2,557,467	
Miscellaneous Fees and Expenses	53,819		49,995		59,766		59,192	
<b>Specialty Credit Fixed Income</b>	<b>19,604,727</b>	<b>1,527,908,553</b>	<b>12,006,819</b>	<b>1,440,474,508</b>	<b>11,449,880</b>	<b>1,449,432,096</b>	<b>7,239,534</b>	<b>1,085,313,532</b>
Investment Advisory Fees	4,026,821		3,715,203		3,748,168		3,373,550	
Performance Fees	7,206,526		3,460,460		5,702,991		3,344,830	
Miscellaneous Fees and Expenses	8,371,380		4,831,156		1,998,721		521,154	
<b>Real Estate</b>	<b>1,223,228</b>	<b>451,520,869</b>	<b>2,141,670</b>	<b>414,400,346</b>	<b>6,801,703</b>	<b>330,413,444</b>	<b>536,259</b>	<b>246,753,396</b>
Investment Advisory Fees	1,719,862		1,913,144		1,021,218		1,015,005	
Performance Fees	(1,461,607)		(161,966)		5,182,012		(795,199)	
Miscellaneous Fees and Expenses	964,973		390,492		598,473		316,453	
<b>Real Return</b>	<b>1,116,868</b>	<b>342,016,500</b>	<b>938,266</b>	<b>175,390,319</b>	<b>1,140,159</b>	<b>432,244,515</b>	<b>1,245,054</b>	<b>361,358,291</b>
Investment Advisory Fees	936,352		530,992		889,226		842,984	
Carried Interest	64,072		201,933		266,344		419,601	
Miscellaneous Fees and Expenses	116,444		205,341		(15,411)		(17,531)	
<b>Private Equity</b>	<b>4,902,486</b>	<b>587,662,239</b>	<b>275,237</b>	<b>573,107,746</b>	<b>22,563,618</b>	<b>595,876,977</b>	<b>16,438,474</b>	<b>548,052,248</b>
Investment Advisory Fees	1,826,381		2,427,153		2,772,848		2,892,530	
Performance Fees	1,279,105		(3,062,207)		18,845,205		12,027,941	
Miscellaneous Fees and Expenses	1,797,000		910,292		945,565		1,518,003	
<b>Administrative Expense/Cash</b>	<b>1,050,278</b>	<b>142,324,349</b>	<b>821,924</b>	<b>223,048,022</b>	<b>963,210</b>	<b>401,003,570</b>	<b>842,635</b>	<b>108,497,980</b>
<b>Total Investment Fees and Expenses</b>	<b>\$ 31,466,061</b>	<b>\$ 7,552,656,905</b>	<b>\$ 19,626,840</b>	<b>\$ 6,741,644,236</b>	<b>\$ 46,727,587</b>	<b>\$ 7,310,676,317</b>	<b>\$ 29,487,125</b>	<b>\$ 6,063,669,916</b>

\* Absolute Return was absorbed by Real Return in December 2020

\*\* Opportunistic was absorbed by Specialty Credit in December 2021

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending December 31, 2023</b> <b>Pension</b>				
	<b>CERS</b>		<b>CERS Hazardous</b>	
	<b>FYTD Fees</b>	<b>Market Value</b>	<b>FYTD Fees</b>	<b>Market Value</b>
<b>Core Fixed Income</b>	<b>415,852</b>	<b>922,172,153</b>	<b>145,040</b>	<b>324,604,644</b>
<i>Investment Advisory Fees</i>	405,762		141,520	
<i>Performance Fees</i>	10,090		3,520	
<i>Miscellaneous Fees and Expenses</i>				
<b>Public Equity</b>	<b>3,989,052</b>	<b>4,674,544,256</b>	<b>1,399,323</b>	<b>1,633,849,943</b>
<i>Investment Advisory Fees</i>	3,922,336		1,376,271	
<i>Miscellaneous Fees and Expenses</i>	66,716		23,052	
<b>Specialty Credit Fixed Income</b>	<b>24,569,334</b>	<b>1,843,339,638</b>	<b>8,228,270</b>	<b>635,454,609</b>
<i>Investment Advisory Fees</i>	5,079,661		1,720,956	
<i>Performance Fees</i>	8,881,533		2,944,692	
<i>Miscellaneous Fees and Expenses</i>	10,608,140		3,562,622	
<b>Real Estate</b>	<b>2,653,577</b>	<b>520,891,549</b>	<b>1,023,054</b>	<b>165,806,858</b>
<i>Investment Advisory Fees</i>	2,389,484		937,396	
<i>Performance Fees</i>	99,620		53,262	
<i>Miscellaneous Fees and Expenses</i>	164,473		32,396	
<b>Real Return</b>	<b>165,376</b>	<b>362,660,962</b>	<b>(81,519)</b>	<b>127,122,645</b>
<i>Investment Advisory Fees</i>	975,269		174,797	
<i>Performance Fees</i>	(2,081,498)		(658,291)	
<i>Miscellaneous Fees and Expenses</i>	1,271,605		401,975	
<b>Private Equity</b>	<b>4,730,817</b>	<b>640,614,004</b>	<b>1,537,424</b>	<b>226,314,184</b>
<i>Investment Advisory Fees</i>	1,894,780		627,128	
<i>Performance Fees</i>	1,193,318		367,499	
<i>Miscellaneous Fees and Expenses</i>	1,642,719		542,797	
<b>Administrative Expenses/Cash</b>	<b>1,304,131</b>	<b>143,992,058</b>	<b>384,357</b>	<b>86,036,944</b>
<b>Total Investment Mgmt Fees &amp; Expenses</b>	<b>37,828,139</b>	<b>9,108,214,620</b>	<b>12,635,949</b>	<b>3,199,189,827</b>

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending September 30, 2023</b> <b>Insurance</b>				
	<b>CERS</b>		<b>CERS Hazardous</b>	
	<b>FYTD Fees</b>	<b>Market Value</b>	<b>FYTD Fees</b>	<b>Market Value</b>
<b>Core Fixed Income</b>	<b>150,924</b>	<b>352,883,322</b>	<b>66,485</b>	<b>150,931,637</b>
<i>Investment Advisory Fees</i>	147,138		64,822	
<i>Performance Fees</i>	-		-	
<i>Miscellaneous Fees and Expenses</i>	3,786		1,663	
<b>Public Equity</b>	<b>1,487,359</b>	<b>1,762,400,978</b>	<b>736,495</b>	<b>854,175,733</b>
<i>Investment Advisory Fees</i>	1,462,174		724,291	
<i>Miscellaneous Fees and Expenses</i>	25,186		12,204	
<b>Specialty Credit Fixed Income</b>	<b>8,813,731</b>	<b>690,549,055</b>	<b>4,682,230</b>	<b>329,638,801</b>
<i>Investment Advisory Fees</i>	1,796,613		914,001	
<i>Performance Fees</i>	3,237,038		1,757,118	
<i>Miscellaneous Fees and Expenses</i>	3,780,080		2,011,110	
<b>Real Estate</b>	<b>548,341</b>	<b>188,638,589</b>	<b>300,676</b>	<b>103,503,236</b>
<i>Investment Advisory Fees</i>	776,329		425,867	
<i>Performance Fees</i>	(671,141)		(368,343)	
<i>Miscellaneous Fees and Expenses</i>	443,152		243,152	
<b>Real Return</b>	<b>522,906</b>	<b>121,311,894</b>	<b>245,814</b>	<b>59,012,357</b>
<i>Investment Advisory Fees</i>	444,839		204,413	
<i>Performance Fees</i>	25,226		12,814	
<i>Miscellaneous Fees and Expenses</i>	52,841		28,587	
<b>Private Equity</b>	<b>2,174,190</b>	<b>257,657,256</b>	<b>1,217,430</b>	<b>144,705,200</b>
<i>Investment Advisory Fees</i>	841,505		471,645	
<i>Performance Fees</i>	538,900		300,548	
<i>Miscellaneous Fees and Expenses</i>	793,785		445,237	
<b>Administrative Expenses/Cash</b>	<b>484,398</b>	<b>54,162,377</b>	<b>272,659</b>	<b>19,534,733</b>
<b>Total Investment Mgmt Fees &amp; Expenses</b>	<b>\$ 14,181,848</b>	<b>\$ 3,427,603,471</b>	<b>\$ 7,521,789</b>	<b>\$ 1,661,501,698</b>

County Employees Retirement System

# Capital Calls and Distributions

Quarter Ending: December 31, 2023

CERS Board Meeting - Investment Committee Report

**Kentucky Public Pensions Authority  
Capital Calls and Distributions  
For the period October 1, 2023 thru December 31, 2023  
County Employees Retirement System**

<b>Pension Funds Managers</b>	<b>Total Pension Fund Commitment</b>	<b>CERS Commitment</b>	<b>CERS Beginning Valuation</b>	<b>CERS Period Contributions</b>	<b>CERS Period Distributions</b>	<b>CERS Ending Valuation</b>	<b>CERS Haz Commitment</b>	<b>CERS Haz Beginning Valuation</b>	<b>CERS Haz Period Contributions</b>	<b>CERS Haz Period Distributions</b>	<b>CERS Haz Ending Valuation</b>
Adams Street SPC II A1	175,000,000	97,124,912	81,091,109	2,402,341	5,240,262	78,253,188	32,749,407	27,342,993	810,042	1,766,956	26,386,078
Adams Street SPC II B1	175,000,000	97,124,911	79,261,788	3,123,735	2,814,696	79,570,827	32,749,407	26,726,167	1,053,288	949,083	26,830,371
AMERRA Agri Fund II, LP	40,100,000	27,641,371	15,957,868	0	2,992,668	12,965,200	8,727,285	5,038,421	0	944,883	4,093,538
AMERRA-KRS Agri Holding Company, LP	65,000,000	44,805,214	23,073,804	0	1,497,738	21,576,065	14,146,472	7,285,155	0	472,885	6,812,270
Arcano KRS Fund I, L.P.	36,000,000	15,587,717	7,543,455	0	1,714,649	5,828,806	4,852,329	2,348,216	0	533,756	1,814,460
Arctos Sports Partners Fund II	85,000,000	42,000,000	10,803,748	1,354,503	0	12,158,251	18,000,000	4,630,178	580,501	0	5,210,679
Ares Special Situations Fund IV, L.P.	26,192,000	17,935,797	12,901,084	0	0	12,901,084	6,121,833	4,403,389	0	0	4,403,389
Barings Euro Real Estate II	164,316,688	92,444,570	13,024,116	3,888,015	0	17,606,239	29,231,933	4,118,361	1,229,431	0	5,567,275
Barings Real Estate European Value Add I SCSp	115,988,250	65,254,991	8,871,638	1,415,260	0	10,683,066	20,634,305	2,805,304	447,520	0	3,378,097
Bay Hills Capital I, L.P.	67,500,000	29,226,970	2,253,720	0	0	2,253,720	9,098,116	701,565	0	0	701,565
Bay Hills Capital III, L.P.	51,250,000	35,095,051	36,158,030	0	0	36,158,030	11,978,618	12,341,433	0	0	12,341,433
Bay Hills Emerging Partners II LP	45,000,000	19,484,647	42,509,357	0	0	42,509,357	6,065,411	13,232,815	0	0	13,232,815
Bay Hills Emerging Partners II-B LP	45,000,000	19,484,647	28,358,486	0	0	28,358,486	6,065,411	8,827,764	0	0	8,827,764
BDCM Opportunity Fund IV, L.P.	35,580,000	24,364,524	42,283,616	0	2,179,696	40,103,920	8,316,082	14,432,213	0	743,972	13,688,241
Blackstone Capital Partners V, L.P.	47,174,735	20,426,290	10,362	0	0	10,362	6,358,537	3,226	0	0	3,226
Blackstone Capital Partners VI, L.P.	60,000,000	38,220,311	12,820,730	0	1,561,177	11,259,553	18,479,695	6,198,881	0	754,836	5,444,045
Blue Torch Credit Opportunities Fund II LP	140,000,000	77,659,705	74,905,957	8,229,610	0	83,135,567	26,221,374	25,291,586	2,778,683	0	28,070,268
BSP Co-Invest Vehicle K LP	37,262,028	21,962,420	22,958,894	0	617,365	22,341,529	7,274,035	7,604,072	0	204,474	7,399,598
BSP Private Credit Fund	100,000,000	58,940,485	54,954,054	0	1,803,973	53,150,081	19,521,309	18,200,988	0	597,482	17,603,505
BTG Pactual Brazil Timberland Fund I	34,500,000	23,847,150	19,775,272	0	3,653,973	16,121,300	7,642,335	6,337,414	0	1,170,995	5,166,420
Camelot Opportunities Fund, L.P.	23,400,000	10,132,016	2,919,833	0	0	2,919,833	3,154,014	908,920	0	0	908,920
Cerberus KRS Levered Loan Opportunities Fund, L.P.	140,000,000	82,516,679	111,656,721	0	0	112,927,969	27,329,832	36,981,123	0	0	37,402,165
Ceres Farms	100,000,000										
Columbia Capital Equity Partners IV, L.P.	27,000,000	11,690,788	1,594,119	0	0	1,594,119	3,639,247	496,236	0	0	496,236
Crestview Partners II, L.P.	67,500,000	29,226,970	12,668,086	0	2,037,511	10,630,575	9,098,116	3,943,471	0	634,260	3,309,211
Crestview Partners III, L.P.	39,000,000	26,706,479	20,002,945	3,391,998	233,022	23,161,921	9,115,436	6,827,391	1,157,754	79,535	7,905,610
CS Adjacent Investment Partners Parallel LP	140,000,000	82,516,679	44,075,471	24,449,248	2,419,963	66,104,755	27,329,832	14,597,960	8,097,682	801,501	21,894,142
CVC European Equity Partners VI, L.P.	24,214,778	16,581,832	14,339,155	158,345	317,876	14,793,552	5,659,699	4,894,230	54,046	108,497	5,049,325
DAG Ventures II, L.P.	27,000,000	11,690,788	900,970	0	0	900,970	3,639,247	280,465	0	0	280,465
DAG Ventures III, L.P.	27,000,000	11,690,788	137,136	0	30,015	107,121	3,639,247	42,689	0	9,344	33,346
DAG Ventures IV, L.P.	90,000,000	38,969,294	9,051,750	0	0	9,051,750	12,130,822	2,817,736	0	0	2,817,736
DAG Ventures V, L.P.	8,000,000	5,096,042	9,262	0	0	9,262	2,463,959	4,478	0	0	4,478
DCM VI, L.P.	13,500,000	5,845,394	1,164,092	0	0	1,164,092	1,819,623	362,372	0	0	362,372
DivcoWest Fund IV	20,800,000	14,568,740	719,696	0	0	719,696	4,539,761	224,264	0	0	224,264
Fundamental Partners III LP	70,000,000	39,382,001	33,469,167	0	991,490	32,477,677	12,452,997	10,583,298	0	313,520	10,269,779
Green Equity Investors V, L.P.	90,000,000	38,969,294	450,586	0	0	450,586	12,130,822	140,264	0	0	140,264
Green Equity Investors VI, L.P.	32,000,000	20,384,166	21,685,731	0	1,005,140	20,680,591	9,855,837	10,485,150	0	485,990	9,999,160
Green Equity Investors VII LP	25,000,000	17,900,000	20,425,158	0	1,447,136	18,978,022	5,575,000	6,361,467	0	450,714	5,910,753
Greenfield Acquisition Partners VII, L.P.	27,800,000	19,471,678	1,367,904	0	0	1,367,904	6,067,572	426,253	0	0	426,253
H.I.G. BioVentures II, L.P.	13,500,000	8,599,570	4,412,176	0	0	4,412,176	4,157,931	2,133,307	0	0	2,133,307
H.I.G. Capital Partner V, L.P.	13,100,000	8,970,638	5,596,357	0	474,938	5,121,418	3,061,852	1,910,144	0	162,106	1,748,039
H.I.G. Ventures II, L.P.	18,000,000	7,793,859	1,181,579	0	0	1,181,579	2,426,164	367,816	0	0	367,816
H&F Spock I LP	3,250,153	1,407,291	4,534,600	0	0	4,534,600	438,078	1,411,584	0	0	1,411,584
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	19,446,902	-4,106	40,810	19,401,986	4,460,000	6,056,787	-1,279	12,710	6,042,798
Horsley Bridge International Fund V, L.P.	45,000,000	19,484,647	37,851,161	0	1,235,585	36,615,576	6,065,411	11,782,756	0	384,627	11,398,129
IFM US Infrastructure Debt Fund	70,000,000	39,669,146	40,766,227	2,903,788	2,903,788	41,726,345	13,660,943	14,038,747	999,983	999,983	14,369,385



CERS Board Meeting - Investment Committee Report

Kentucky Public Pensions Authority  
Capital Calls and Distributions  
For the period October 1, 2023 thru December 31, 2023  
County Employees Retirement System

Pension Funds Managers	Total Pension Fund Commitment	CERS Commitment	CERS Beginning Valuation	CERS Period Contributions	CERS Period Distributions	CERS Ending Valuation	CERS Haz Commitment	CERS Haz Beginning Valuation	CERS Haz Period Contributions	CERS Haz Period Distributions	CERS Haz Ending Valuation
Institutional Venture Partners XII, L.P.	27,000,000	11,690,788	2,214	0	0	2,214	3,639,247	689	0	0	689
Kayne Anderson Energy Fund VII LP	50,000,000	35,800,000	22,528,913	55,145	2,785,222	19,743,691	11,150,000	7,016,687	17,175	867,464	6,149,223
KCP IV Co-Invest	13,101,149	8,971,424	1,547,512	0	0	1,614,602	3,062,120	528,196	0	0	551,095
Keyhaven Capital Partners Fund III, L.P.	27,872,740	12,068,678	3,733,114	0	0	3,894,956	3,756,880	1,162,088	0	0	1,212,468
Keyhaven Capital Partners IV LP	13,101,149	8,971,424	8,425,890	35,237	0	8,826,595	3,062,120	2,875,919	12,027	0	3,012,687
Levine Leichtman Capital Partners V, L.P.	46,000,000	31,499,949	11,029,532	0	10,038,217	991,291	10,751,540	3,764,592	0	3,426,237	338,347
Levine Leichtman Capital Partners VI LP	37,500,000	26,849,987	40,197,728	0	1,207,138	38,990,589	8,362,509	12,519,702	0	375,967	12,143,735
Lubert Adler VII	34,750,000	24,338,900	10,922,921	0	0	10,922,921	7,585,925	3,404,446	0	0	3,404,446
Lubert-Adler Real Estate Fund VII-B LP	36,750,000	20,675,550	5,792,401	0	0	5,792,401	6,537,824	1,831,617	0	0	1,831,617
Magentar MTP Energy Opportunities Fund II LLC	37,500,000	26,265,000	94,967	0	0	94,967	8,186,251	29,599	0	0	29,599
Maritime Partners LP	175,000,000	87,500,000		66,890,284	1,413,079		35,000,000		26,756,114	565,231	
MatlinPatterson Global Opportunities Partners II	45,000,000	19,484,647	158,725	0	131,672	27,052	6,065,411	49,410	0	40,988	8,421
Merit Mezzanine Fund IV, L.P.	27,000,000	11,690,788	173,373	0	175,472	65,477,206	3,639,247	53,970	0	54,623	26,190,882
Mesa West Core Lending Fund, LP	57,500,000	36,357,250	35,984,247	352,502	352,502	35,984,247	11,459,750	11,342,180	111,108	111,108	11,342,180
Mesa West Real Estate Income Fund IV LP	36,000,000	15,587,717	6,406,784	0	0	6,406,784	4,852,329	1,994,379	0	0	1,994,379
MiddleGround Partners I LP	50,000,000	35,875,000	64,483,108	17,974,578	50,245,367	32,212,319	11,200,000	20,131,312	5,611,575	15,686,358	10,056,529
MiddleGround Partners II LP	50,000,000	27,301,556	31,571,850	-1,117,679	1,871,531	28,588,156	9,256,264	10,704,056	-378,936	634,520	9,692,470
MiddleGround Partners II-X LP	25,000,000	13,650,778	16,641,653	-547,684	935,766	15,160,937	4,628,132	5,642,152	-185,686	317,260	5,140,133
Mill Road Capital I, L.P.	27,000,000	11,690,788	755,421	0	0	755,421	3,639,247	235,156	0	0	235,156
New Mountain Partners III, L.P.	32,337,197	14,001,752	577,033	0	0	577,033	4,358,631	179,626	0	0	179,626
New Mountain Partners IV, L.P.	32,800,000	22,460,833	7,553,240	712,710	2,105,962	6,159,989	7,666,315	2,578,067	243,262	718,805	2,102,523
New State Capital Partners Fund III LP	17,500,000	9,555,545	2,712,215	0	0	2,712,215	3,239,692	919,544	0	0	919,544
Oak Hill Capital Partners II, L.P.	67,500,000	29,226,970	67,348	0	81,439	0	9,098,116	20,965	0	25,351	0
Oberland Capital Healthcare LP	3,450,000	2,475,375	4,442,369	0	121,861	4,320,508	772,800	1,386,885	0	38,044	1,348,841
Patron Capital V LP	39,767,400	22,373,140	8,821,150	0	404,042	8,779,733	7,074,619	2,789,339	0	127,762	2,776,243
Riverside Capital Appreciation Fund VI, L.P.	35,500,000	25,961,146	8,525,158	336,995	3,066	8,859,086	7,227,806	2,373,477	93,822	854	2,466,445
Rubenstein Properties Fund II	20,800,000	14,568,738	5,830,499	0	0	5,830,499	4,539,767	1,816,843	0	0	1,816,843
Secondary Opportunities Fund III, L.P.	25,000,000	19,411,552	3,945,132	0	105,638	3,839,494	5,588,448	1,135,776	0	30,413	1,105,363
Strategic Value Special Situations Fund IV LP	43,300,000	31,067,750	39,306,004	0	3,750,927	35,555,077	9,699,200	12,271,143	0	1,171,021	11,100,122
Strategic Value Special Situations Fund V LP	70,000,000	38,222,178	23,116,516	926,888	0	24,043,404	12,958,769	7,837,377	314,250	0	8,151,627
Taurus Mining Finance Fund LLC	45,100,000	30,883,643	2,243,663	0	153,779	2,089,885	10,541,186	765,806	0	52,488	713,318
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.	27,791,804	19,031,313	9,355,013	73,582	0	9,834,652	6,495,754	3,193,046	25,115	0	3,356,756
VantagePoint Venture Partners 2006, L.P.	27,000,000	11,690,788	2,339,331	0	481,388	1,857,944	3,639,247	728,215	0	149,852	578,363
VantagePoint Venture Partners IV, L.P.	36,000,000	15,587,717	27,242	0	0	27,242	4,852,329	8,480	0	0	8,480
Vista Equity Partners III, L.P.	45,000,000	19,484,647	866,892	0	0	866,892	6,065,411	269,856	0	0	269,856
Vista Equity Partners IV, L.P.	27,000,000	17,199,140	12,362,037	0	0	12,362,037	8,315,863	5,977,101	0	0	5,977,101
Vista Equity Partners VI LP	25,000,000	17,900,000	19,422,781	54,713	115,422	19,362,072	5,575,000	6,049,274	17,041	35,948	6,030,366
Walton Street Real Estate Fund VI, LP	36,000,000	17,056,796	7,627,959	0	362,013	7,265,945	6,030,018	2,696,681	0	127,981	2,568,700
Walton Street Real Estate Fund VII, LP	38,120,000	26,700,008	4,935,086	0	626,656	4,308,430	8,319,997	1,537,824	0	195,272	1,342,551
Warburg, Pincus Private Equity IX, L.P.	50,000,000	21,649,608	24,609	0	0	24,609	6,739,345	7,660	0	0	7,660
Warburg, Pincus Private Equity X, L.P.	38,750,000	16,778,446	307,202	0	0	307,202	5,222,993	95,630	0	0	95,630
Wayzata Opportunities Fund III, L.P.	35,500,000	25,961,146	2,748,493	0	150,462	2,598,031	7,227,806	765,204	0	41,890	723,314
White Oak Yield Spectrum Parallel Fund LP	170,000	100,199	0	0	0	81,897,382	33,186	0	0	0	27,124,719

CERS Board Meeting - Investment Committee Report

**Kentucky Public Pensions Authority  
Capital Calls and Distributions  
For the period October 1, 2023 thru December 31, 2023  
County Employees Retirement System**

<b>Insurance Funds Managers</b>	<b>Total Insurance Fund Commitment</b>	<b>CERS Commitment</b>	<b>CERS Beginning Valuation</b>	<b>CERS Period Contributions</b>	<b>CERS Period Distributions</b>	<b>CERS Ending Valuation</b>	<b>CERS Haz Commitment</b>	<b>CERS Haz Beginning Valuation</b>	<b>CERS Haz Period Contributions</b>	<b>CERS Haz Period Distributions</b>	<b>CERS Haz Ending Valuation</b>
Adams Street SPC II A1	75,000,000	34,007,112	28,393,070	841,151	1,834,814	27,399,407	17,965,829	14,999,952	444,377	969,325	14,475,004
Adams Street SPC II B1	75,000,000	34,007,113	27,752,555	1,093,738	985,532	27,860,762	17,965,828	14,661,570	577,817	520,653	14,718,734
AMERRA Agri Fund II, LP	16,200,000	7,502,182	4,323,763	0	810,859	3,512,903	4,141,562	2,386,923	0	447,633	1,939,290
AMERRA-KRS Agri Holding Company, LP	35,000,000	16,208,417	8,347,016	0	541,811	7,805,205	8,947,820	4,607,951	0	299,106	4,308,846
Arcano KRS Fund I, L.P.	4,000,000	1,611,501	779,863	0	177,265	602,598	862,625	417,455	0	94,889	322,567
Arctos Sports Partners Fund II	40,000,000	20,500,000	5,273,260	661,125	0	5,934,385	7,000,000	1,800,625	225,750	0	2,026,375
Ares Special Situations Fund IV, L.P.	13,808,000	7,867,793	5,659,244	0	0	5,659,244	4,255,629	3,061,042	0	0	3,061,042
Barings Euro Real Estate II	70,421,438	32,337,527	4,555,895	1,360,045	0	6,158,742	17,746,199	2,500,185	746,366	0	3,379,796
Barings Real Estate European Value Add I SCSp	49,709,250	22,826,489	3,103,339	495,064	0	3,736,985	12,526,728	1,703,051	271,681	0	2,050,784
Bay Hills Capital I, L.P.	75,000,000	30,215,638	232,996	0	0	232,996	16,174,225	124,721	0	0	124,721
Bay Hills Capital III, L.P.	48,750,000	27,777,730	25,739,773	0	0	25,739,773	15,024,764	13,922,448	0	0	13,922,448
Bay Hills Emerging Partners II LP	5,000,000	2,014,376	4,394,733	0	0	4,394,733	1,078,282	2,352,470	0	0	2,352,470
Bay Hills Emerging Partners II-B LP	5,000,000	2,070,000	3,012,734	0	0	3,012,734	1,250,000	1,819,284	0	0	1,819,284
BDCM Opportunity Fund IV, L.P.	24,420,000	13,914,506	24,148,052	0	1,244,818	22,903,234	7,526,253	13,061,503	0	673,313	12,388,190
Blackstone Capital Partners V, L.P.	12,414,403	5,001,455	2,443	0	0	2,443	2,677,245	1,308	0	0	1,308
Blackstone Capital Partners VI, L.P.	40,000,000	21,919,994	7,352,907	0	895,362	6,457,546	13,120,008	4,401,014	0	535,910	3,865,104
Blue Torch Credit Opportunities Fund II LP	60,000,000	27,169,450	26,206,045	2,879,151	0	29,085,195	14,281,092	13,774,696	1,513,369	0	15,288,066
BSP Co-Invest Vehicle K LP	17,252,566	7,709,915	7,995,694	0	215,576	7,780,118	4,204,913	4,360,775	0	117,573	4,243,202
BSP Private Credit Fund	50,000,000	22,344,255	20,833,004	0	683,883	20,149,120	12,186,342	11,362,120	0	372,983	10,989,136
BTG Pactual Brazil Timberland Fund I	15,500,000	7,016,381	5,818,341	0	1,075,083	4,743,258	3,855,131	3,196,871	0	590,701	2,606,170
Camelot Opportunities Fund, L.P.	2,600,000	1,047,475	301,858	0	0	301,858	560,706	161,583	0	0	161,583
Cerberus KRS Levered Loan Opportunities Fund, L.P.	60,000,000	26,813,106	36,281,920	0	0	36,695,001	14,623,610	19,787,810	0	0	20,013,100
Ceres Farms	50,000,000	0	0	0	0	0	0	0	0	0	0
Columbia Capital Equity Partners IV, L.P.	3,000,000	1,208,626	164,805	0	0	164,805	646,969	88,219	0	0	88,219
Crestview Partners II, L.P.	7,500,000	3,021,564	1,309,652	0	210,646	1,099,006	1,617,422	701,048	0	112,757	588,290
Crestview Partners III, L.P.	21,000,000	11,965,793	8,962,281	1,519,779	104,406	10,377,654	6,472,206	4,847,629	822,037	56,472	5,613,194
CS Adjacent Investment Partners Parallel LP	60,000,000	26,813,106	14,321,957	7,944,579	786,347	21,480,189	14,623,610	7,811,057	4,332,897	428,866	11,715,088
CVC European Equity Partners VI, L.P.	13,366,486	7,616,218	6,304,557	69,620	139,762	6,504,344	4,119,555	3,410,087	37,657	75,596	3,518,151
DAG Ventures II, L.P.	3,000,000	1,208,626	93,141	0	0	93,141	646,969	49,858	0	0	49,858
DAG Ventures III, L.P.	3,000,000	1,208,626	14,172	0	3,103	11,069	646,969	7,586	0	1,661	5,925
DAG Ventures IV, L.P.	10,000,000	4,028,752	935,794	0	0	935,794	2,156,563	500,924	0	0	500,924
DAG Ventures V, L.P.	7,000,000	3,835,999	6,967	0	0	6,967	2,296,001	4,170	0	0	4,170
DCM VI, L.P.	1,500,000	604,313	120,347	0	0	120,347	323,484	64,421	0	0	64,421
DivcoWest Fund IV	9,200,000	4,244,869	209,699	0	0	209,699	2,306,449	113,940	0	0	113,940
Fundamental Partners III LP	30,000,000	13,776,001	11,707,669	0	346,828	11,360,840	7,559,998	6,424,938	0	190,333	6,234,606
Green Equity Investors V, L.P.	10,000,000	4,028,752	46,583	0	0	46,583	2,156,563	24,935	0	0	24,935
Green Equity Investors VI, L.P.	28,000,000	15,343,995	16,323,742	0	756,609	15,567,133	9,184,005	9,770,424	0	452,861	9,317,563
Green Equity Investors VII LP	25,000,000	10,349,999	11,810,076	0	836,751	10,973,325	6,250,000	7,131,690	0	505,285	6,626,405
Greenfield Acquisition Partners VII, L.P.	12,200,000	5,628,527	395,410	0	0	395,410	3,058,186	214,841	0	0	214,841
H.I.G. BioVentures II, L.P.	11,500,000	6,301,998	3,233,362	0	0	3,233,362	3,772,002	1,935,299	0	0	1,935,299
H.I.G. Capital Partner V, L.P.	6,900,000	3,931,617	2,452,750	0	208,154	2,244,596	2,126,582	1,326,674	0	112,589	1,214,085
H.I.G. Ventures II, L.P.	2,000,000	805,750	122,155	0	0	122,155	431,313	65,389	0	0	65,389
H&F Spock I LP	1,794,672	723,029	1,582,197	0	0	1,582,197	387,032	846,939	0	0	846,939
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	11,244,437	-2,374	23,597	11,218,466	5,000,000	6,790,120	-1,434	14,249	6,774,437
Horsley Bridge International Fund V, L.P.	5,000,000	2,014,376	3,913,146	0	127,738	3,785,408	1,078,282	2,094,680	0	68,377	2,026,303
IFM US Infrastructure Debt Fund	30,000,000	13,890,494	14,274,647	1,016,786	1,016,786	14,610,840	7,156,853	7,354,781	523,883	523,883	7,527,999

**Kentucky Public Pensions Authority**  
**Capital Calls and Distributions**  
**For the period October 1, 2023 thru December 31, 2023**  
**County Employees Retirement System**

<b>Insurance Funds Managers</b>	<b>Total Insurance Fund Commitment</b>	<b>CERS Commitment</b>	<b>CERS Beginning Valuation</b>	<b>CERS Period Contributions</b>	<b>CERS Period Distributions</b>	<b>CERS Ending Valuation</b>	<b>CERS Haz Commitment</b>	<b>CERS Haz Beginning Valuation</b>	<b>CERS Haz Period Contributions</b>	<b>CERS Haz Period Distributions</b>	<b>CERS Haz Ending Valuation</b>
Institutional Venture Partners XII, L.P.	3,000,000	1,208,626	229	0	0	229	646,969	122	0	0	122
Keyne Anderson Energy Fund VII LP	50,000,000	20,699,998	13,026,494	31,885	1,610,450	11,416,044	12,500,001	7,866,241	19,255	972,494	6,893,747
KCP IV Co-Invest	8,991,851	5,123,553	883,780	0	0	922,094	2,771,292	478,030	0	0	498,754
Keyhaven Capital Partners Fund III, L.P.	3,093,020	1,246,101	385,940	0	0	402,671	667,029	206,591	0	0	215,547
Keyhaven Capital Partners IV LP	8,991,851	5,123,553	4,812,001	20,124	0	5,040,843	2,771,292	2,602,776	10,885	0	2,726,554
Levine Leichtman Capital Partners V, L.P.	24,000,000	13,675,190	4,788,293	0	4,357,929	430,354	7,396,807	2,589,951	0	2,357,171	232,775
Levine Leichtman Capital Partners VI LP	37,500,000	15,525,007	23,253,242	0	697,983	22,555,259	9,374,983	14,041,782	0	421,486	13,620,295
Lubert Adler VII	15,250,000	7,036,350	3,157,804	0	0	3,157,804	3,823,174	1,715,781	0	0	1,715,781
Lubert-Adler Real Estate Fund VII-B LP	15,750,000	7,232,401	2,026,208	0	0	2,026,208	3,968,999	1,111,943	0	0	1,111,943
Magentar MTP Energy Opportunities Fund II LLC	12,500,000	5,764,587	20,843	0	0	20,843	3,188,762	11,530	0	0	11,530
Maritime Partners LP	75,000,000	37,500,000	0	28,667,265	605,605	28,061,660	15,000,000	0	11,466,906	242,242	11,224,664
MatlinPatterson Global Opportunities Partners II	5,000,000	2,014,376	16,409	0	13,612	2,797	1,078,282	8,784	0	7,287	1,497
Merit Mezzanine Fund IV, L.P.	3,000,000	1,208,626	17,924	0	18,141	0	646,969	9,595	0	9,711	0
Mesa West Core Lending Fund, LP	29,600,000	13,790,640	20,193,710	197,826	197,826	20,193,710	7,619,040	11,156,602	109,295	109,295	11,156,602
Mesa West Real Estate Income Fund IV LP	14,000,000	6,428,800	2,642,332	0	0	2,642,332	3,527,999	1,450,060	0	0	1,450,060
MiddleGround Partners I LP	25,000,000	3,750,000	6,740,396	1,878,876	5,252,129	3,367,142	1,999,999	3,594,876	1,002,067	2,801,135	1,795,808
MiddleGround Partners II LP	25,000,000	11,262,207	13,023,753	-542,144	690,940	11,792,924	5,794,817	6,701,196	-278,953	355,514	6,067,890
MiddleGround Partners II-X LP	12,500,000	5,631,103	6,864,872	-225,926	386,014	6,254,059	2,897,408	3,532,227	-116,247	198,618	3,217,942
Mill Road Capital I, L.P.	3,000,000	1,208,626	78,097	0	0	78,097	646,969	41,805	0	0	41,805
New Mountain Partners II, L.P.	5,000,000	2,014,376	16	0	0	16	1,078,282	9	0	0	9
New Mountain Partners III, L.P.	7,186,045	2,895,079	119,310	0	0	119,310	1,549,716	63,866	0	0	63,866
New Mountain Partners IV, L.P.	17,200,000	9,800,553	3,295,774	310,984	918,915	2,687,842	5,301,045	1,782,659	168,209	497,034	1,453,833
New State Capital Partners Fund III LP	7,500,000	3,378,662	958,990	0	0	958,990	1,738,445	493,435	0	0	493,435
Oak Hill Capital Partners II, L.P.	7,500,000	3,021,564	6,963	0	8,419	0	1,617,422	3,727	0	4,507	0
Oberland Capital Healthcare LP	15,500,000	4,840,652	868,715	0	23,830	844,885	2,631,898	472,327	0	12,957	459,370
Patron Capital V LP	15,465,100	7,101,574	2,800,019	0	128,249	2,786,875	3,897,204	1,536,595	0	70,381	1,529,382
Riverside Capital Appreciation Fund VI, L.P.	18,712,500	10,748,972	3,529,729	139,529	1,269	3,667,988	5,705,349	1,873,512	74,059	674	1,946,898
Rubenstein Properties Fund II	9,200,000	4,244,871	1,698,824	0	0	1,698,824	2,306,445	923,054	0	0	923,054
Secondary Opportunities Fund III, L.P.	75,000,000	34,884,827	7,089,864	0	189,845	6,900,019	18,849,301	3,830,862	0	102,579	3,728,284
Strategic Value Special Situations Fund IV LP	21,700,000	6,776,910	8,573,935	0	818,202	7,755,733	3,684,660	4,661,717	0	444,863	4,216,854
Strategic Value Special Situations Fund V LP	30,000,000	13,514,648	8,173,563	327,730	0	8,501,293	6,953,780	4,205,597	168,629	0	4,374,226
Taurus Mining Finance Fund LLC	19,900,000	11,339,013	823,767	0	56,460	767,306	6,133,188	445,569	0	30,539	415,030
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.	14,298,590	8,147,331	4,103,227	32,274	0	4,313,602	4,406,829	2,219,404	17,457	0	2,333,195
VantagePoint Venture Partners 2006, L.P.	3,000,000	1,208,626	241,847	0	49,767	192,080	646,969	129,459	0	26,640	102,819
VantagePoint Venture Partners IV, L.P.	4,000,000	1,611,501	2,817	0	0	2,817	862,625	1,508	0	0	1,508
Vista Equity Partners III, L.P.	5,000,000	2,014,376	89,624	0	0	89,624	1,078,282	47,975	0	0	47,975
Vista Equity Partners IV, L.P.	23,000,000	12,603,996	9,059,236	0	0	9,059,236	7,544,005	5,422,321	0	0	5,422,321
Vista Equity Partners VI LP	25,000,000	10,349,999	11,230,490	31,636	66,738	11,195,387	6,250,000	6,781,698	19,104	40,301	6,760,500
Walton Street Real Estate Fund VI, LP	4,000,000	1,712,019	765,631	0	36,336	729,295	917,457	410,295	0	19,472	390,823
Walton Street Real Estate Fund VII, LP	16,755,000	7,730,005	1,428,772	0	181,425	1,247,347	4,199,996	776,305	0	98,575	677,730
Warburg, Pincus Private Equity IX, L.P.	10,000,000	4,028,752	4,579	0	0	4,579	2,156,563	2,451	0	0	2,451
Warburg, Pincus Private Equity X, L.P.	7,500,000	3,021,564	55,299	0	0	55,299	1,617,422	29,601	0	0	29,601
Wayzata Opportunities Fund III, L.P.	18,712,500	10,748,972	1,137,988	0	62,297	1,075,691	5,705,349	604,022	0	33,066	570,956
White Oak Yield Spectrum Parallel Fund LP	50,000,000	22,344,255	29,870,554	0	647,064	29,223,490	12,186,342	16,291,112	0	352,902	15,938,210

Kentucky Public Pensions Authority

## CERS & CERS-Hazardous Unit Holdings

Quarter Ending: December 31, 2023

CERS Board Meeting - Investment Committee Report

Kentucky Public Pensions Authority								
Pension: CERS & CERS-H Unit Holdings								
Quarter Ended December 31, 2023								
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	45,227,403.959	7,292,179,469.240	9,090,530,179.090	1,798,350,709.850	16,151,870.596	2,597,736,300.770	3,194,445,613.330	596,709,312.560
KRS ABSOLUTE RETURN UNIT	464,367.131	57,931,755.67	58,584,380.79	652,625.12	147,094.799	18,417,087.57	18,557,423.95	140,336.38
KRS ADAMS STREET A1 UNIT	475,181.620	72,487,744.87	75,428,743.73	2,940,998.86	160,225.798	24,442,036.56	25,433,708.18	991,671.62
KRS ADAMS STREET B1 UNIT	568,752.701	75,952,072.33	77,277,564.15	1,325,491.82	191,776.895	25,610,167.30	26,057,109.32	446,942.02
KRS ADAMS STREET III A1 UNIT	428.473	42,847.30	42,847.30	0.00	156.976	15,697.63	15,697.60	-0.03
KRS ADAMS STREET III B1 UNIT	428.473	42,847.30	42,847.30	0.00	156.976	15,697.63	15,697.60	-0.03
KRS AMERRA AGRI UNIT	271,024.308	26,456,551.05	22,939,276.82	-3,517,274.23	85,571.242	8,353,197.55	7,242,680.27	-1,110,517.28
KRS AMERRA UNIT	66,690.677	10,160,398.22	13,649,792.14	3,489,393.92	21,056.427	3,207,971.60	4,309,685.62	1,101,714.02
KRS ARCTOS SPORTS II UNIT	119,730.422	16,283,685.30	20,245,857.49	3,962,172.19	51,313.038	7,006,016.38	8,676,796.07	1,670,779.69
KRS ARROWMARK UNIT	1,387,072.461	184,581,300.82	319,496,043.03	134,914,742.21	458,544.662	61,019,434.21	105,620,441.02	44,601,006.81
KRS BLACKROCK UNIT	2,925,438.069	333,554,728.27	533,233,934.41	199,679,206.14	1,024,153.712	122,563,627.76	186,677,516.46	64,113,888.70
KRS BLUE TORCH UNIT	483,961.906	81,827,524.64	81,358,468.21	-469,056.43	163,407.083	27,628,614.16	27,470,240.53	-158,373.63
KRS BNYM CUSTODY FEE UNIT	-330,408.266	-330,408.27	-330,408.27	0.00	-115,705.414	-115,705.41	-115,705.41	0.00
KRS BTG UNIT	162,323.547	9,621,602.95	15,988,438.09	6,366,835.14	52,020.095	3,083,450.03	5,123,841.14	2,040,391.11
KRS CASH UNIT	1,332,045.344	133,182,444.24	137,915,047.68	4,732,603.44	816,196.891	82,895,492.01	84,506,006.98	1,610,514.97
KRS DB PRIVATE EQ UNIT	14,017.547	5,175,466.39	3,928,992.60	-1,246,473.79	4,035.553	1,489,980.72	1,131,129.28	-358,851.44
KRS DIVCOWEST IV UNIT	1,339.798	0.00	704,584.86	704,584.86	417.494	0.00	219,555.45	219,555.45
KRS DOMESTIC EQUITY UNIT	2,845,599.454	641,813,765.92	817,543,628.41	175,729,862.49	1,035,896.481	236,567,711.06	297,614,116.64	61,046,405.58
KRS GLOBAL FIXED UNIT	1,294,177.960	192,090,373.26	182,395,461.29	-9,694,911.97	505,234.827	73,074,599.73	71,205,461.83	-1,869,137.90
KRS GREENFIELD UNIT	1,396.112	572,201.47	13,294.47	-558,907.00	435.043	178,304.13	4,142.69	-174,161.44
KRS GREENFIELD VII UNIT	4,427.832	1,214,271.53	1,332,888.39	118,616.86	1,379.758	378,378.97	415,341.73	36,962.76
KRS HARRISON UNIT	639,390.832	124,039,427.55	142,716,225.55	18,676,798.00	199,992.765	38,800,683.99	44,639,696.30	5,839,012.31
KRS IFM INFRAST DEBT UNIT	267,825.438	43,401,523.94	40,629,421.32	-2,772,102.62	92,231.578	14,946,271.21	13,991,634.51	-954,636.70
KRS INTERNAL EQUITY UNIT	5,735,491.753	1,357,381,322.47	2,006,006,823.67	648,625,501.20	1,974,811.028	476,541,075.82	690,696,555.43	214,155,479.61
KRS INTERNAL PRIVATE EQUITY	-	-	-	-	126,241.912	12,750,000.00	12,719,013.02	-30,986.98
KRS INTERNATIONAL EQUITY UNIT	7,299,919.848	1,159,021,045.90	1,316,854,214.84	157,833,168.94	2,542,151.374	407,100,813.75	458,586,234.00	51,485,420.25
KRS L-A VII UNIT	142,596.532	15,110,377.74	11,443,255.33	-3,667,122.41	44,444.354	4,709,588.48	3,566,623.14	-1,142,965.34
KRS LIQUID CORE FIXED UNIT	6,995,641.253	897,181,026.80	922,264,991.94	25,083,965.14	2,462,466.068	315,221,910.39	324,637,322.90	9,415,412.51
KRS LIQUID HY FI UNIT	1,171,987.900	210,396,790.63	198,791,365.21	-11,605,425.42	459,898.482	82,284,057.12	78,007,500.84	-4,276,556.28
KRS MAGNETAR MTP UNIT	113.929	97,494.40	70,403.09	-27,091.31	36.025	30,829.20	22,261.86	-8,567.34
KRS MARITIME PARTNERS UNIT	654,772.056	65,477,205.64	65,477,205.60	-0.04	261,908.822	26,190,882.23	26,190,882.20	-0.03
KRS MESA WEST CORE UNIT	205,495.934	40,012,311.36	36,106,008.58	-3,906,302.78	64,772.004	12,611,820.76	11,380,558.66	-1,231,262.10
KRS MESA WEST IV UNIT	105,087.787	10,989,639.58	8,380,399.18	-2,609,240.40	33,229.849	3,475,038.38	2,649,969.20	-825,069.18
KRS MULTI SECTOR CREDIT FI	1,492,072.539	176,267,268.38	250,770,705.36	74,503,436.98	490,250.072	57,911,018.01	82,395,696.69	24,484,678.68
KRS OBERLAND UNIT	52,782.627	3,396,276.38	4,253,131.98	856,855.60	16,478.469	1,060,299.54	1,327,806.28	267,506.74
KRS PE 2010 UNIT	511,329.737	131,259,173.95	159,676,221.76	28,417,047.81	159,172.760	40,860,844.32	49,705,900.29	8,845,055.97
KRS PE 2011 UNIT	153,031.423	33,427,536.68	51,279,842.64	17,852,305.96	73,991.391	16,160,918.11	24,794,037.81	8,633,119.70
KRS PE 2012 A UNIT	6,977.987	2,845,569.92	3,837,845.51	992,275.59	1,942.729	792,229.48	1,068,487.77	276,258.29
KRS PE 2012 B UNIT	65,680.522	9,037,603.83	11,489,921.75	2,452,317.92	18,286.019	2,516,146.29	3,198,892.47	682,746.18
KRS PE 2013 UNIT	193,996.745	49,836,646.31	73,316,859.07	23,480,212.76	66,214.828	17,000,882.48	25,024,457.05	8,023,574.57
KRS PE 2014 UNIT	229,875.670	19,380,384.33	39,053,068.17	19,672,683.84	78,460.997	6,614,901.24	13,329,564.91	6,714,663.67
KRS PE 2015 UNIT	145,283.327	18,149,702.38	49,598,530.12	31,448,827.74	49,587.999	6,194,843.87	16,928,934.06	10,734,090.19
KRS PE 2016 UNIT	300,243.683	26,163,119.23	76,026,241.72	49,863,122.49	93,511.656	8,148,569.64	23,678,565.66	15,529,996.02
KRS PE 2017 UNIT	198,209.225	22,305,372.17	36,546,338.00	14,240,965.83	61,732.854	6,947,074.81	11,382,465.92	4,435,391.11
KRS PE 2018 UNIT	199,950.553	33,924,175.48	34,456,243.70	532,068.22	62,423.588	10,590,962.36	10,757,071.33	166,108.97
KRS PE 2019 UNIT	158,718.585	3,041,211.48	32,483,638.60	29,442,427.12	49,551.168	949,450.72	10,141,233.51	9,191,782.79
KRS PE 2021 UNIT	544,179.390	55,615,834.65	66,818,990.08	11,203,155.43	184,497.471	18,855,880.30	22,654,174.18	3,798,293.88
KRS PERIMETER PARK UNIT	16,232.813	2,200,034.97	1,682,488.55	-517,546.42	17,672.730	2,395,186.73	1,831,732.18	-563,454.55
KRS POST-2015 REAL ESTATE UNIT	612,359.123	60,962,913.79	80,939,600.13	19,976,686.34	193,634.316	19,279,560.63	25,593,942.38	6,314,381.75
KRS PRIVATE CREDIT FI UNIT	1,565,499.155	315,872,214.03	328,919,426.96	13,047,212.93	518,499.165	104,611,460.43	108,939,342.24	4,327,881.81
KRS PROLOGIS UNIT	741,098.600	91,672,838.64	169,960,907.94	78,288,069.30	234,343.128	28,987,909.52	53,743,416.60	24,755,507.08
KRS REAL RETURN UNIT	581,699.442	87,389,259.64	118,998,770.82	31,609,511.18	200,320.999	29,944,284.73	40,979,844.45	11,035,559.72
KRS RUBENSTEIN PF II UNIT	72,479.805	12,516,917.95	7,412,765.22	-5,104,152.73	22,585.445	3,900,397.83	2,309,893.10	-1,590,504.73
KRS SHENKMAN UNIT	827,134.489	141,521,311.97	141,806,722.58	285,410.61	278,793.840	47,658,953.48	47,797,354.91	138,401.43
KRS STOCKBRIDGE UNIT	280,090.753	53,100,801.73	58,893,106.28	5,792,304.55	89,313.398	16,932,415.71	18,779,425.54	1,847,009.83
KRS TAURUS UNIT	6,569.889	217,705.62	2,205,217.79	1,987,512.17	2,242.430	74,306.55	752,683.42	678,376.87
KRS TPF II UNIT	351.766	3,984,996.54	34,923.55	-3,950,072.99	117.591	1,332,137.14	11,674.51	-1,320,462.63
KRS WALTON VI UNIT	37,111.482	6,874,871.25	7,145,301.53	270,430.28	13,119.868	2,430,443.16	2,526,048.76	95,605.60
KRS WALTON VII UNIT	30,571.455	9,289,862.00	4,651,470.94	-4,638,391.06	9,526.379	2,894,815.78	1,449,446.06	-1,445,369.72
KRS WATERFALL UNIT	897,554.343	156,156,526.67	167,739,901.14	11,583,374.47	300,046.709	52,195,676.99	56,074,382.24	3,878,705.25

CERS Board Meeting - Investment Committee Report

Kentucky Public Pensions Authority									
Insurance: CERS & CERS-H Unit Holdings									
Quarter Ended December 31, 2023									
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	18,775,097.815	2,747,729,884.620	3,423,326,346.430	675,596,461.810	8,974,339.062	1,306,210,246.820	1,659,243,856.800	353,033,609.980	
KR3 ARROWMARK UNIT	554,115.798	74,519,658.76	129,005,693.75	54,486,034.99	301,875.792	40,597,611.82	70,280,789.89	29,683,178.07	
KRS INS PE 2014 UNIT	102,197.468	8,653,444.86	17,377,159.45	8,723,714.59	55,277.830	4,680,580.89	9,399,172.84	4,718,591.95	
KRS INS ABSOLUTE RETURN UNIT	151,068.332	15,635,488.48	19,072,411.51	3,436,923.03	84,638.610	8,955,075.34	10,685,643.89	1,730,568.55	
KRS INS ADAMS STREET A1 UNIT	166,379.094	25,380,709.10	26,410,462.34	1,029,753.24	87,897.449	13,408,532.69	13,952,547.83	544,015.14	
KRS INS ADAMS STREET B1 UNIT	199,114.316	26,593,699.51	27,057,803.69	464,104.18	105,191.337	14,049,350.05	14,294,534.94	245,184.89	
KRS INS ADAMS STREET III A1	176.485	17,648.52	17,648.50	-0.02	90.056	9,005.62	9,005.60	-0.02	
KRS INS ADAMS STREET III B1	176.485	17,648.52	17,648.50	-0.02	90.056	9,005.62	9,005.60	-0.02	
KRS INS AMERRA AGRI UNIT	98,034.777	9,570,735.74	8,298,351.14	-1,272,384.60	54,119.873	5,283,502.75	4,581,085.65	-702,417.10	
KRS INS AMERRA UNIT	17,994.413	2,752,946.22	3,698,392.69	945,446.47	9,933.776	1,519,757.79	2,041,689.53	521,931.74	
KRS INS ARCTOS SPORTS II UNIT	58,439.838	7,949,104.13	9,881,906.38	1,932,802.25	19,955.065	2,724,562.22	3,374,309.22	649,747.00	
KRS INS BLACKROCK UNIT	3,012,626.063	151,682,365.33	218,615,072.45	66,932,707.12	1,497,643.560	73,617,115.10	108,678,424.91	35,061,309.81	
KRS INS BLUE TORCH UNIT	169,315.339	28,627,572.27	28,463,472.96	-164,099.31	88,997.305	15,047,527.05	14,961,269.31	-86,257.74	
KRS INS BNYM CUSTODY FEE UNIT	-175,682.837	-175,682.84	-175,682.84	0.00	-85,578.910	-85,578.91	-85,578.91	0.00	
KRS INS BTG UNIT	47,759.328	2,830,897.20	4,704,166.96	1,873,269.76	26,241.228	1,555,428.69	2,584,691.26	1,029,262.57	
KRS INS CASH UNIT	579,618.978	62,139,935.56	61,747,365.00	-392,570.56	127,473.021	13,941,049.13	13,579,823.05	-361,226.08	
KRS INS DB PRIVATE EQ UNIT	25,211.823	10,080,822.82	7,060,859.56	-3,019,963.26	13,622.690	5,446,963.52	3,815,190.23	-1,631,773.29	
KRS INS DVCOWEST IV UNIT	388.165	0.00	205,296.03	205,296.03	210.909	0.00	111,547.36	111,547.36	
KRS INS DOMESTIC EQUITY UNIT	1,077,479.779	238,189,668.92	309,853,714.29	71,664,045.37	547,953.374	119,600,544.17	157,576,403.29	37,975,859.12	
KRS INS GLOBAL FIXED UNIT	415,073.721	59,535,520.13	57,358,214.00	-2,177,306.13	180,252.661	26,837,281.87	24,908,757.60	-1,928,524.27	
KRS INS GREENFIELD UNIT	406.081	165,654.10	3,848.68	-161,805.42	220.639	90,006.68	2,091.13	-87,915.55	
KRS INS GREENFIELD VII UNIT	1,279.863	524,538.89	385,288.25	-139,250.64	695.397	285,000.79	209,341.38	-75,659.41	
KRS INS HARRISON UNIT	244,840.322	47,175,650.69	53,490,659.10	6,315,008.41	133,920.349	25,798,214.98	29,257,794.12	3,459,579.14	
KRS INS IFM INFRAST DEBT UNIT	94,964.510	15,197,419.52	14,226,743.02	-970,676.50	48,928.929	7,830,223.80	7,330,099.42	-500,124.38	
KRS INS INTERNAL EQUITY UNIT	2,146,606.268	517,984,255.32	751,816,377.95	233,832,122.63	1,004,154.548	234,404,155.98	351,689,942.60	117,285,786.62	
KRS INS INTL EQ UNIT	2,703,662.320	425,650,937.52	481,940,131.83	56,289,194.31	1,324,798.033	205,369,761.87	236,151,287.81	30,781,525.94	
KRS INS L-A-VII UNIT	41,214.677	4,368,393.12	3,308,231.85	-1,060,161.27	22,393.841	2,373,550.05	1,797,515.44	-576,034.61	
KRS INS LIQUID CORE FIXED UNIT	2,707,471.908	342,823,750.41	352,912,884.93	10,089,134.52	1,158,012.126	148,059,232.00	150,944,280.89	2,885,048.89	
KRS INS LIQUID HY FI UNIT	517,405.258	87,838,567.74	87,678,947.61	-159,620.13	175,841.834	30,526,680.17	29,797,971.15	-728,709.02	
KRS INS MAGNETAR MTP	33.855	29,186.97	21,075.62	-8,111.35	18.727	16,142.78	11,658.05	-4,484.73	
KRS INS MARITIME PARTNERS UNIT	280,616.595	28,061,659.52	28,061,659.50	-0.02	112,246.638	11,224,663.79	11,224,663.80	0.01	
KRS INS MESA WEST CORE UNIT	117,798.214	22,622,110.90	20,262,031.64	-2,360,079.26	65,081.046	12,499,534.39	11,194,348.10	-1,305,186.29	
KRS INS MESA WEST IV UNIT	34,504.073	3,469,143.26	2,660,065.73	-809,077.53	18,935.158	1,903,799.85	1,459,791.86	-444,007.99	
KRS INS MULTI SECTOR CREDIT FI	531,206.774	61,972,055.76	87,886,274.44	25,914,218.68	290,366.710	33,829,852.31	48,040,141.08	14,210,288.77	
KRS INS OBERLAND UNIT	9,994.386	664,150.22	831,708.90	167,558.68	5,434.022	361,102.57	452,206.31	91,103.74	
KRS INS PE 2010 UNIT	58,956.510	15,503,163.05	18,044,850.26	2,541,687.21	31,559.016	8,298,627.03	9,659,284.75	1,360,657.72	
KRS INS PE 2011 UNIT	105,832.138	22,362,121.27	36,280,237.12	13,918,115.85	63,344.842	13,385,073.59	21,715,198.54	8,330,124.95	
KRS INS PE 2012 A UNIT	2,213.500	815,384.81	1,221,389.78	406,004.97	1,197.264	441,034.31	660,639.72	219,605.41	
KRS INS PE 2012 B UNIT	27,067.528	3,698,619.91	4,757,260.66	1,058,640.75	14,366.926	1,962,834.36	2,525,062.94	562,228.58	
KRS INS PE 2013 UNIT	111,976.420	24,940,864.83	42,031,417.28	17,090,552.45	60,567.196	13,490,328.19	22,734,474.71	9,244,146.52	
KRS INS PE 2015 UNIT	83,503.370	10,522,766.71	28,325,575.28	17,802,808.57	45,166.357	5,691,685.58	15,321,094.77	9,629,409.19	
KRS INS PE 2016 UNIT	173,611.255	17,046,200.27	43,959,303.97	26,913,103.70	104,837.728	10,293,601.67	26,545,476.86	16,251,875.19	
KRS INS PE 2017 UNIT	115,230.599	15,645,310.75	21,118,554.90	5,473,244.15	69,583.541	9,447,630.88	12,752,722.31	3,305,091.43	
KRS INS PE 2018 UNIT	42,391.443	4,371,838.19	7,516,041.63	3,144,203.44	23,048.568	2,377,003.23	4,086,532.20	1,709,528.97	
KRS INS PE 2019 UNIT	13,973.370	209,468.96	3,395,503.23	3,186,034.27	7,452.461	111,717.68	1,810,934.33	1,699,216.65	
KRS INS PE 2021 UNIT	212,058.396	21,968,626.24	26,074,316.76	4,105,690.52	109,111.791	11,303,660.76	13,416,188.44	2,112,527.68	
KRS INS POST-2015 REAL ESTATE	212,788.643	21,005,535.69	28,015,892.75	7,010,357.06	116,774.223	11,529,262.99	15,374,571.04	3,845,308.05	
KRS INS PRIVATE CREDIT FI UNIT	546,510.134	108,819,670.13	112,735,930.87	3,916,260.74	298,061.368	59,342,439.99	61,485,091.83	2,142,651.84	
KRS INS PROLOGIS UNIT	150,318.422	30,186,660.14	54,863,834.57	24,677,174.43	82,491.818	16,565,851.32	30,108,202.28	13,542,350.96	
KRS INS REAL RETURN UNIT	154,802.578	23,439,219.09	31,768,760.45	8,329,541.36	79,776.147	12,122,920.23	16,371,751.27	4,248,831.04	
KRS INS RUBENSTEIN PF II UNIT	21,246.598	3,647,035.90	2,159,845.74	-1,487,190.16	11,544.310	1,981,609.63	1,173,549.23	-808,060.40	
KRS INS SHENKMAN UNIT	327,684.976	55,782,521.52	55,849,147.16	66,625.64	121,413.013	20,716,691.46	20,693,085.51	-23,605.95	
KRS INS STOCKBRIDGE UNIT	117,767.220	22,698,334.58	24,655,371.62	1,957,037.04	64,874.850	12,503,912.86	13,581,992.81	1,078,079.95	
KRS INS TAURUS UNIT	2,407.420	201,142.59	809,649.61	608,507.02	1,302.155	115,383.62	437,933.26	322,549.64	
KRS INS TPF II UNIT	37.089	82,233.00	3,681.96	-78,551.04	19.666	43,603.44	1,952.32	-41,651.12	
KRS INS WALTON VI UNIT	3,747.298	690,042.06	717,185.67	27,143.61	2,008.147	369,785.83	384,334.06	14,548.23	
KRS INS WALTON VII UNIT	8,850.842	2,685,591.02	1,346,662.48	-1,338,928.54	4,808.988	1,459,178.86	731,691.26	-727,487.60	
KRS INS WATERFALL UNIT	350,629.597	58,857,876.74	63,520,047.27	4,662,170.53	184,095.008	30,887,171.89	33,350,646.13	2,463,474.24	

Kentucky Public Pensions Authority

# Security Litigation Report

Quarter Ending: December 31, 2023

---

Claims Filed during the Quarter (pg 3):

**17**

Proceeds Received during the Quarter (pg 4):

**\$77,286.43**

---

<b>Kentucky Retirement Systems</b>	
<b>Quarterly Securities Litigation Report</b>	
Quarter Ended 12/31/23	
<b>Total Claims Filed</b>	
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	31
<b>Total Filed</b>	<b>1,705</b>
<b>Proceeds Received</b>	
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	\$172,961
<b>Total Proceeds</b>	<b>\$60,645,908</b>



CERS Board Meeting - Investment Committee Report

Class Action Name	TNT Status Code	Status as of Date	Class Period Start Date	Class Period End Date	Class Account Id	Claimed Account Name
RYANAIR HOLDINGS PLC, Securities Litigation	FILED	10/13/2023	5/30/2017	9/28/2018	956779	KRS INS AMERICAN CENTURY
RYANAIR HOLDINGS PLC, Securities Litigation	FILED	10/13/2023	5/30/2017	9/28/2018	956626	KRS LAZARD ASSET MGMT
RYANAIR HOLDINGS PLC, Securities Litigation	FILED	10/13/2023	5/30/2017	9/28/2018	956802	KRS INS LAZARD ASSET MGMT
RYANAIR HOLDINGS PLC, Securities Litigation	FILED	10/13/2023	5/30/2017	9/28/2018	956623	KRS AMERICAN CENTURY
MAXAR TECHNOLOGIES INC Securities Litigation	FILED	10/18/2023	5/9/2018	10/30/2018	956765	KRS INS NTGI STRUCTURED
MAXAR TECHNOLOGIES INC Securities Litigation	FILED	10/18/2023	5/9/2018	10/30/2018	956588	KRS NTGI STRUCTURED
COMMUNITY HEALTH SYSTEMS, INC., Securities Litigation	FILED	10/24/2023	2/21/2017	2/27/2018	956765	KRS INS NTGI STRUCTURED
COMMUNITY HEALTH SYSTEMS, INC., Securities Litigation	FILED	10/24/2023	2/21/2017	2/27/2018	956588	KRS NTGI STRUCTURED
BIOMARIN PHARMACEUTICAL INC, Securities Litigation	FILED	10/27/2023	3/3/2020	8/18/2020	140454	KRS ABEL NOSER TRANSITION
BIOMARIN PHARMACEUTICAL INC, Securities Litigation	FILED	10/27/2023	3/3/2020	8/18/2020	956772	KRS INS KRS INTERNAL EQUITY
BIOMARIN PHARMACEUTICAL INC, Securities Litigation	FILED	10/27/2023	3/3/2020	8/18/2020	140455	KRS INS ABEL NOSER TRANSITION
BIOMARIN PHARMACEUTICAL INC, Securities Litigation	FILED	10/27/2023	3/3/2020	8/18/2020	956596	KRS KRS INTERNAL EQUITY
Imperial Metals Corporation Securities Litigation	FILED	11/3/2023	8/15/2011	8/4/2014	KR2F3007002	COLUMBIA
Imperial Metals Corporation Securities Litigation	FILED	11/3/2023	8/15/2011	8/4/2014	KR3F3007002	COLUMBIA
AAC HOLDINGS, INC., Securities Litigation	FILED	11/22/2023	3/8/2017	4/15/2019	956588	KRS NTGI STRUCTURED
AAC HOLDINGS, INC., Securities Litigation	FILED	11/22/2023	3/8/2017	4/15/2019	956765	KRS INS NTGI STRUCTURED
PRECIGEN INC., Securities Litigation	FILED	11/23/2023	5/10/2017	9/25/2020	956588	KRS NTGI STRUCTURED
PRECIGEN INC., Securities Litigation	FILED	11/23/2023	5/10/2017	9/25/2020	956765	KRS INS NTGI STRUCTURED
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956588	KRS NTGI STRUCTURED
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956773	KRS INS TRANSITION
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956598	KRS TRANSITION
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956765	KRS INS NTGI STRUCTURED
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956592	KRS RIVER ROAD
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956769	KRS INS RIVER ROAD
PROASSURANCE CORPORATION Securities Litigation	FILED	11/28/2023	8/8/2018	5/7/2020	956765	KRS INS NTGI STRUCTURED
PROASSURANCE CORPORATION Securities Litigation	FILED	11/28/2023	8/8/2018	5/7/2020	956588	KRS NTGI STRUCTURED
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956596	KRS KRS INTERNAL EQUITY
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956592	KRS RIVER ROAD
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956769	KRS INS RIVER ROAD
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956597	KRS RIVER ROAD FAV
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	909181	KRS INS RIVER ROAD FAV
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956772	KRS INS KRS INTERNAL EQUITY
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956599	KRS S P 500 INDEX
MagnaChip Semiconductor Corporation and Margaret Hye-Ryoung Sakai, CPA, FAIR FUND	FILED	12/4/2023	2/1/2012	2/12/2015	KR2F1002002	NTGI STRUCTURED
MagnaChip Semiconductor Corporation and Margaret Hye-Ryoung Sakai, CPA, FAIR FUND	FILED	12/4/2023	2/1/2012	2/12/2015	KR3F1002002	NTGI STRUCTURED
WELLS FARGO & COMPANY Securities Litigation	FILED	12/4/2023	2/2/2018	3/12/2020	956772	KRS INS KRS INTERNAL EQUITY
WELLS FARGO & COMPANY Securities Litigation	FILED	12/4/2023	2/2/2018	3/12/2020	956596	KRS KRS INTERNAL EQUITY
WELLS FARGO & COMPANY Securities Litigation	FILED	12/4/2023	2/2/2018	3/12/2020	956774	KRS INS S P 500 INDEX
WELLS FARGO & COMPANY Securities Litigation	FILED	12/4/2023	2/2/2018	3/12/2020	956599	KRS S P 500 INDEX
JAGGED PEAK ENERGY INC, Securities Litigation	FILED	12/8/2023	12/19/2016	7/26/2017	956765	KRS INS NTGI STRUCTURED
ALEXION PHARMACEUTICALS, INC. Securities Litigation	FILED	12/13/2023	1/30/2014	5/26/2017	956599	KRS S P 500 INDEX
ALEXION PHARMACEUTICALS, INC. Securities Litigation	FILED	12/13/2023	1/30/2014	5/26/2017	KR3F1011002	KRS INTERNAL EQUITY
ALEXION PHARMACEUTICALS, INC. Securities Litigation	FILED	12/13/2023	1/30/2014	5/26/2017	KR2F1009002	INVESCO
SHATTUCK LABS, INC., et al., Securities Litigation	FILED	12/18/2023	9/18/2020	11/8/2021	956765	KRS INS NTGI STRUCTURED
SHATTUCK LABS, INC., et al., Securities Litigation	FILED	12/18/2023	9/18/2020	11/8/2021	956588	KRS NTGI STRUCTURED
OCLARO INC Securities Litigation	FILED	12/19/2023	3/12/2018	12/11/2018	956588	KRS NTGI STRUCTURED
OCLARO INC Securities Litigation	FILED	12/19/2023	3/12/2018	12/11/2018	956765	KRS INS NTGI STRUCTURED
CELSIUS HOLDINGS INC Securities Litigation	FILED	12/25/2023	8/12/2021	3/1/2022	956765	KRS INS NTGI STRUCTURED
CELSIUS HOLDINGS INC Securities Litigation	FILED	12/25/2023	8/12/2021	3/1/2022	956588	KRS NTGI STRUCTURED



**Transaction Detail**  
**Reported By Transaction Category**

Report ID: IACS0008

Base Currency: USD

Status: REVISED

KR2G00000000 - TOTAL FUND

9/30/2023 - 12/31/2023

Trans Code	Shares/Par	Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id	Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
Transaction No./Client Ref No.			Reported Date				
CLASS ACTIONS							
CASH & CASH EQUIVALENTS							
U.S. DOLLAR							
CD	0.000	22365COVETRUS, INC., Securitie	10/2/2023	0.000000	3,549.51	3,549.51	3,549.51
	NA9123459	s Litigation Distribution 1ST		0.000000	3,549.51	3,549.51	3,549.51
		20231002S000730 / 000000006064	10/2/2023			Gain/Loss Local Amounts: 3,549.51 Long	
		KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 3,549.51 Long	
CD	0.000	21022PERRIGO COMPANY PLC. (201	10/5/2023	0.000000	12.75	12.75	12.75
	NA9123459	9) Distribution 2ND DISTRIBUTI		0.000000	12.75	12.75	12.75
		20231005S000180 / 000000000000	10/5/2023			Gain/Loss Local Amounts: 12.75 Long	
		KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Amounts: 12.75 Long	
CD	0.000	13-CV-1620-JPOITT EDUCATIONAL	10/10/2023	0.000000	123.56	123.56	123.56
	NA9123459	SERVICES, INC. (2013) Distribu		0.000000	123.56	123.56	123.56
		20231010S000220 / 000000000081	10/10/2023			Gain/Loss Local Amounts: 123.56 Long	
		KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 123.56 Long	
CD	0.000	14-CV-09662 (JSR)PETROBRAS - P	10/12/2023	0.000000	5,411.26	5,411.26	5,411.26
	NA9123459	ETROLEO BRASILEIRO S.A (2014)		0.000000	5,411.26	5,411.26	5,411.26
		20231012S000010 / 0000000009312	10/12/2023			Gain/Loss Local Amounts: 5,411.26 Long	
		KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Amounts: 5,411.26 Long	
CD	0.000	16-CV-00212-JPO-JLCTHE BANK OF	10/16/2023	0.000000	14.13	14.13	14.13
	NA9123459	NEW YORK MELLON ADR FX Distri		0.000000	14.13	14.13	14.13
		20231016S000010 / 000000000012	10/16/2023			Gain/Loss Local Amounts: 14.13 Long	
		KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Amounts: 14.13 Long	
CD	0.000	16-CV-00212-JPO-JLCTHE BANK OF	10/16/2023	0.000000	42.65	42.65	42.65
	NA9123459	NEW YORK MELLON ADR FX Distri		0.000000	42.65	42.65	42.65
		20231016S000090 / 000000000012	10/16/2023			Gain/Loss Local Amounts: 42.65 Long	
		KR2F10120002 : RIVER ROAD FAV				Gain/Loss Base Amounts: 42.65 Long	



**Transaction Detail**  
**Reported By Transaction Category**

Report ID: IACS0008

Base Currency: USD

Status: REVISED

KR2G00000000 - TOTAL FUND

9/30/2023 - 12/31/2023

Trans Code	Shares/Par	Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id	Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
		Transaction No./Client Ref No.	Reported Date				
CD	0.000	20584CITI SPONSORED AMERICAN D	10/24/2023	0.000000	8.88	8.88	8.88
	NA9123459	EPOSITARY RECEIPTS (CITIBANK N		0.000000	8.88	8.88	8.88
		20231024S000010 / 000000000009	10/24/2023			Gain/Loss Local Amounts: 8.88 Long	
		KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Amounts: 8.88 Long	
CD	0.000	20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	16,120.72	16,120.72	16,120.72
	NA9123459	urities Litigation Distributio		0.000000	16,120.72	16,120.72	16,120.72
		20231030S000010 / 000000000000	10/30/2023			Gain/Loss Local Amounts: 16,120.72 Long	
		KR2F10120002 : RIVER ROAD FAV				Gain/Loss Base Amounts: 16,120.72 Long	
CD	0.000	20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	317.18	317.18	317.18
	NA9123459	urities Litigation Distributio		0.000000	317.18	317.18	317.18
		20231030S000070 / 000000000000	10/30/2023			Gain/Loss Local Amounts: 317.18 Long	
		KR2F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Amounts: 317.18 Long	
CD	0.000	16-CV-00212-JPO-JLCTHE BANK OF	10/30/2023	0.000000	41.92	41.92	41.92
	NA9123459	NEW YORK MELLON ADR FX Distri		0.000000	41.92	41.92	41.92
		20231030S000070 / 000000000012	10/30/2023			Gain/Loss Local Amounts: 41.92 Long	
		KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Amounts: 41.92 Long	
CD	0.000	20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	17.62	17.62	17.62
	NA9123459	urities Litigation Distributio		0.000000	17.62	17.62	17.62
		20231030S000090 / 000000000000	10/30/2023			Gain/Loss Local Amounts: 17.62 Long	
		KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Amounts: 17.62 Long	
CD	0.000	17049Cognizant Technology Solu	11/2/2023	0.000000	5,297.63	5,297.63	5,297.63
	NA9123459	tions Corporation Distribution		0.000000	5,297.63	5,297.63	5,297.63
		20231102S000100 / 000000000000	11/2/2023			Gain/Loss Local Amounts: 5,297.63 Long	
		KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Amounts: 5,297.63 Long	
CD	0.000	17733OVASCIENCE, INC., Securit	11/9/2023	0.000000	429.76	429.76	429.76
	NA9123459	ies Litigation Distribution 1S		0.000000	429.76	429.76	429.76
		20231109S000300 / 000000000000	11/9/2023			Gain/Loss Local Amounts: 429.76 Long	
		KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 429.76 Long	



**Transaction Detail**  
**Reported By Transaction Category**

Report ID: IACS0008

Base Currency: USD

Status: REVISED

KR2G00000000 - TOTAL FUND

9/30/2023 - 12/31/2023

Trans Code	Shares/Par	Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id	Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
Transaction No./Client Ref No.			Reported Date				
CD	0.000	115-cv-00374-LYDell, Inc. (201	11/30/2023	0.000000	183.80	183.80	183.80
	NA9123459	4) Distribution 2ND DISTRIBUTI		0.000000	183.80	183.80	183.80
		20231130S000020 / 000000000000	11/30/2023			Gain/Loss Local Amounts: 183.80 Long	
		KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Amounts: 183.80 Long	
CD	0.000	WAMU TIA SETTLEMENT (2012)	12/1/2023	0.000000	147.42	147.42	147.42
	NA9123459	AS PER DOCUMENT		0.000000	147.42	147.42	147.42
		20231207A000010	12/1/2023			Gain/Loss Local Amounts: 147.42 Long	
		KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Amounts: 147.42 Long	
CD	0.000	ITT EDUCATIONAL SERVICES INC	12/1/2023	0.000000	48.56	48.56	48.56
	NA9123459	AS PER DOCUMENT		0.000000	48.56	48.56	48.56
		20231207A000380	12/1/2023			Gain/Loss Local Amounts: 48.56 Long	
		KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 48.56 Long	
CD	0.000	24000GTT Communications, Inc.	12/11/2023	0.000000	81.15	81.15	81.15
	NA9123459	(2021) Distribution 2ND DISTRI		0.000000	81.15	81.15	81.15
		20231211S000500 / 000000000009	12/11/2023			Gain/Loss Local Amounts: 81.15 Long	
		KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 81.15 Long	
CD	0.000	24874HRG GROUP Securities Liti	12/28/2023	0.000000	909.26	909.26	909.26
	NA9123459	gation Distribution 1ST DISTRI		0.000000	909.26	909.26	909.26
		20231228S000830 / 000000000001	12/28/2023			Gain/Loss Local Amounts: 909.26 Long	
		KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 909.26 Long	
<b>TOTAL U.S. DOLLAR CASH &amp; CASH EQUIVALENTS:</b>				<b>32,757.76</b>	<b>32,757.76</b>	<b>32,757.76</b>	<b>32,757.76</b>
<b>TOTAL CASH &amp; CASH EQUIVALENTS CLASS ACTIONS:</b>				<b>32,757.76</b>	<b>32,757.76</b>	<b>32,757.76</b>	<b>32,757.76</b>
<b>TOTAL CLASS ACTIONS:</b>				<b>32,757.76</b>	<b>32,757.76</b>	<b>32,757.76</b>	<b>32,757.76</b>
<b>TOTAL TRANSACTIONS BASE:</b>				<b>32,757.76</b>	<b>32,757.76</b>	<b>32,757.76</b>	<b>32,757.76</b>



**Transaction Detail**  
**Reported By Transaction Category**

Report ID: IACS0008

Base Currency: USD

Status: REVISED

KR3G00000000 - TOTAL FUND

9/30/2023 - 12/31/2023

Trans Code	Shares/Par	Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id	Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
Transaction No./Client Ref No.			Reported Date				
CLASS ACTIONS							
CASH & CASH EQUIVALENTS							
U.S. DOLLAR							
CD	0.000	22365COVETRUS, INC., Securitie	10/2/2023	0.000000	1,572.57	1,572.57	1,572.57
	NA9123459	s Litigation Distribution 1ST		0.000000	1,572.57	1,572.57	1,572.57
		20231002S000590 / 000000006064	10/2/2023				Gain/Loss Local Amounts: 1,572.57 Long
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 1,572.57 Long
CD	0.000	21022PERRIGO COMPANY PLC. (201	10/5/2023	0.000000	14.14	14.14	14.14
	NA9123459	9) Distribution 2ND DISTRIBUTI		0.000000	14.14	14.14	14.14
		20231005S000180 / 000000000000	10/5/2023				Gain/Loss Local Amounts: 14.14 Long
		KR3F19020002 : S&P 500 INDEX					Gain/Loss Base Amounts: 14.14 Long
CD	0.000	13-CV-1620-JPOITT EDUCATIONAL	10/10/2023	0.000000	45.03	45.03	45.03
	NA9123459	SERVICES, INC. (2013) Distribu		0.000000	45.03	45.03	45.03
		20231010S000210 / 000000000081	10/10/2023				Gain/Loss Local Amounts: 45.03 Long
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 45.03 Long
CD	0.000	14-CV-09662 (JSR)PETROBRAS - P	10/12/2023	0.000000	2,624.83	2,624.83	2,624.83
	NA9123459	ETROLEO BRASILEIRO S.A (2014)		0.000000	2,624.83	2,624.83	2,624.83
		20231012S000010 / 0000000009312	10/12/2023				Gain/Loss Local Amounts: 2,624.83 Long
		KR3F29010002 : NON-US TRANS ACCT					Gain/Loss Base Amounts: 2,624.83 Long
CD	0.000	16-CV-00212-JPO-JLC THE BANK OF	10/16/2023	0.000000	5.18	5.18	5.18
	NA9123459	NEW YORK MELLON ADR FX Distri		0.000000	5.18	5.18	5.18
		20231016S000010 / 000000000012	10/16/2023				Gain/Loss Local Amounts: 5.18 Long
		KR3F90010002 : CASH ACCOUNT KR3					Gain/Loss Base Amounts: 5.18 Long
CD	0.000	16-CV-00212-JPO-JLC THE BANK OF	10/16/2023	0.000000	17.54	17.54	17.54
	NA9123459	NEW YORK MELLON ADR FX Distri		0.000000	17.54	17.54	17.54
		20231016S000020 / 000000000012	10/16/2023				Gain/Loss Local Amounts: 17.54 Long
		KR3F90010002 : CASH ACCOUNT KR3					Gain/Loss Base Amounts: 17.54 Long



**Transaction Detail**  
**Reported By Transaction Category**

Report ID: IACS0008

Base Currency: USD

Status: REVISED

KR3G00000000 - TOTAL FUND

9/30/2023 - 12/31/2023

Trans Code	Shares/Par	Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id	Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
		Transaction No./Client Ref No.	Reported Date				
CD	0.000	19486TEVA PHARMACEUTICAL INDUS	10/16/2023	0.000000	667.62	667.62	667.62
	NA9123459	TRIES LIMITED Securities Litig		0.000000	667.62	667.62	667.62
		20231016S000030 / 000000000000	10/16/2023				
		KR3F90010002 : CASH ACCOUNT KR3					
						Gain/Loss Local Amounts: 667.62 Long	Gain/Loss Base Amounts: 667.62 Long
CD	0.000	20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	7,150.05	7,150.05	7,150.05
	NA9123459	urities Litigation Distributio		0.000000	7,150.05	7,150.05	7,150.05
		20231030S000010 / 000000000000	10/30/2023				
		KR3F10120002 : RIVER ROAD FAV					
						Gain/Loss Local Amounts: 7,150.05 Long	Gain/Loss Base Amounts: 7,150.05 Long
CD	0.000	20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	123.27	123.27	123.27
	NA9123459	urities Litigation Distributio		0.000000	123.27	123.27	123.27
		20231030S000070 / 000000000000	10/30/2023				
		KR3F10110002 : KRS INTERNAL EQUITY					
						Gain/Loss Local Amounts: 123.27 Long	Gain/Loss Base Amounts: 123.27 Long
CD	0.000	20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	34.68	34.68	34.68
	NA9123459	urities Litigation Distributio		0.000000	34.68	34.68	34.68
		20231030S000090 / 000000000000	10/30/2023				
		KR3F19020002 : S&P 500 INDEX					
						Gain/Loss Local Amounts: 34.68 Long	Gain/Loss Base Amounts: 34.68 Long
CD	0.000	17049Cognizant Technology Solu	11/2/2023	0.000000	2,733.79	2,733.79	2,733.79
	NA9123459	tions Corporation Distribution		0.000000	2,733.79	2,733.79	2,733.79
		20231102S000090 / 000000000000	11/2/2023				
		KR3F10110002 : KRS INTERNAL EQUITY					
						Gain/Loss Local Amounts: 2,733.79 Long	Gain/Loss Base Amounts: 2,733.79 Long
CD	0.000	17733OVASCIENCE, INC., Securit	11/9/2023	0.000000	184.18	184.18	184.18
	NA9123459	ies Litigation Distribution 1S		0.000000	184.18	184.18	184.18
		20231109S000330 / 000000000000	11/9/2023				
		KR3F10020002 : NTGI STRUCTURED					
						Gain/Loss Local Amounts: 184.18 Long	Gain/Loss Base Amounts: 184.18 Long
CD	0.000	20274NIELSEN HOLDINGS PLC, Sec	11/28/2023	0.000000	1,041.58	1,041.58	1,041.58
	NA9123459	urities Litigation Distributio		0.000000	1,041.58	1,041.58	1,041.58
		20231128S000030 / 000000000000	11/28/2023				
		KR3F90010002 : CASH ACCOUNT KR3					
						Gain/Loss Local Amounts: 1,041.58 Long	Gain/Loss Base Amounts: 1,041.58 Long



**Transaction Detail**  
**Reported By Transaction Category**

Report ID: IACS0008

Base Currency: USD

Status: REVISED

KR3G00000000 - TOTAL FUND

9/30/2023 - 12/31/2023

Trans Code	Shares/Par	Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id	Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
Transaction No./Client Ref No.			Reported Date				
CD	0.000	22310PROPETRO HOLDING CORP., S	12/8/2023	0.000000	964.04	964.04	964.04
	NA9123459	ecurities Litigation Distribut		0.000000	964.04	964.04	964.04
		20231208S000330 / 000000000001	12/8/2023			Gain/Loss Local Amounts: 964.04 Long	
		KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 964.04 Long	
CD	0.000	24000GTT Communications, Inc.	12/11/2023	0.000000	35.79	35.79	35.79
	NA9123459	(2021) Distribution 2ND DISTRI		0.000000	35.79	35.79	35.79
		20231211S000440 / 000000000009	12/11/2023			Gain/Loss Local Amounts: 35.79 Long	
		KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 35.79 Long	
CD	0.000	24874HRG GROUP Securities Liti	12/12/2023	0.000000	405.21	405.21	405.21
	NA9123459	gation Distribution 1ST DISTRI		0.000000	405.21	405.21	405.21
		20231212S000220 / 000000000001	12/12/2023			Gain/Loss Local Amounts: 405.21 Long	
		KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 405.21 Long	
CD	0.000	22275VENATOR MATERIALS PLC, Se	12/14/2023	0.000000	26,848.85	26,848.85	26,848.85
	NA9123459	curities Litigation Distributi		0.000000	26,848.85	26,848.85	26,848.85
		20231214S000010 / 000000000001	12/14/2023			Gain/Loss Local Amounts: 26,848.85 Long	
		KR3F90010002 : CASH ACCOUNT KR3				Gain/Loss Base Amounts: 26,848.85 Long	
CD	0.000	412-CV-01332 (HARMON, J.)HOUST	12/22/2023	0.000000	60.32	60.32	60.32
	NA9123459	ON AMERICAN ENERGY CORP Distri		0.000000	60.32	60.32	60.32
		20231222S000340 / 0000000000081	12/22/2023			Gain/Loss Local Amounts: 60.32 Long	
		KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 60.32 Long	

<b>TOTAL U.S. DOLLAR CASH &amp; CASH EQUIVALENTS:</b>	<b>44,528.67</b>	<b>44,528.67</b>	<b>44,528.67</b>
	<b>44,528.67</b>	<b>44,528.67</b>	<b>44,528.67</b>
<b>TOTAL CASH &amp; CASH EQUIVALENTS CLASS ACTIONS:</b>	<b>44,528.67</b>	<b>44,528.67</b>	<b>44,528.67</b>
<b>TOTAL CLASS ACTIONS:</b>	<b>44,528.67</b>	<b>44,528.67</b>	<b>44,528.67</b>
<b>TOTAL TRANSACTIONS BASE:</b>	<b>44,528.67</b>	<b>44,528.67</b>	<b>44,528.67</b>

Kentucky Public Pensions Authority

# Internal Asset Holdings Report & Internal Asset Transaction Report

Quarter Ending: December 31, 2023

**Reports can be found:**

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



Kentucky Public Pensions Authority

# Commissions Report

Quarter Ending: December 31, 2023

**Reports can be found:**

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

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Budget</b> <b>For the six month period ending December 31, 2023</b>									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Investment Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent
<b>CONSULTING SERVICES</b>									
Wilshire Associates	\$ 1,021,799	\$ 1,238,170	\$ 1,225,671	\$ 1,021,175	\$ 838,172	\$ 1,200,000	\$ 563,753	\$ 636,247	47%
Albourne	-	-	-	-	306,750	275,000	135,000	140,000	49%
MercerInsight	-	-	-	-	153,548	165,000	80,000	85,000	48%
<b>SUBTOTAL</b>	<b>1,021,799</b>	<b>1,238,170</b>	<b>1,225,671</b>	<b>1,021,175</b>	<b>1,298,471</b>	<b>1,640,000</b>	<b>778,753</b>	<b>861,247</b>	<b>47%</b>
<b>LEGAL &amp; AUDITING SERVICES</b>									
Faegre Drinker			96,039	202,502	16,428	100,000	3,380	96,620	3%
Intelligent Management Solutions (IMS)	620,001	202,140	155,700	69,884	81,880	350,000	-	350,000	0%
McClain/Goldberg			891	-	-	100,000	-	100,000	0%
Reinhart	317,909	671,269	663,689	619,509	109,508	2,500,000	22,150	2,477,850	1%
Stoll-Keenon-Ogden	10,314	135,353	254,211	463,560	750,438	750,000	79,626	670,374	11%
Haystack			-	-	120,175	100,000	117,409	(17,409)	117%
Umberg Zipser			289,100	498,058	606,701	850,000	378,342	471,658	45%
Swansburg & Smith	-	-	-	-	5,288	50,000	-	50,000	0%
Eddins Domine	-	-	-	-	40,305	50,000	-	50,000	0%
Taft	-	-	-	-	142,720	50,000	1,060	48,940	2%
Miscellaneous				-	-	50,000	3,160	46,840	6%
<b>SUBTOTAL</b>	<b>948,225</b>	<b>1,008,762</b>	<b>1,459,630</b>	<b>1,853,513</b>	<b>1,873,441</b>	<b>4,950,000</b>	<b>605,127</b>	<b>4,344,873</b>	<b>12%</b>
<b>CONTRACTURAL SERVICES</b>									
Bloomberg	68,722	71,810	98,163	102,243	104,153	150,000	55,067	94,933	37%
BNYM Custodial Fees	2,056,390	2,088,475	2,379,838	2,565,169	2,333,981	2,600,000	619,478	1,980,522	24%
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	64,580	85,420	43%
Russell Index Subscription	1,075	1,250	1,000	1,000	750	1,500	500	1,000	33%
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	31,438	28,563	52%
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	32,753	217,247	13%
<b>SUBTOTAL</b>	<b>2,391,713</b>	<b>2,474,036</b>	<b>2,681,251</b>	<b>3,267,008</b>	<b>2,980,769</b>	<b>3,690,020</b>	<b>1,135,855</b>	<b>2,554,165</b>	<b>31%</b>

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Budget</b> <b>For the six month period ending December 31, 2023</b>									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Investment Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent
<b>INACTIVE CONTRACTURAL SERVICES</b>									
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		-	-		-	-		
<b>SUBTOTAL</b>	<b>291,718</b>	<b>119,290</b>	<b>1,233,757</b>	<b>-</b>	<b>250</b>	<b>-</b>		<b>-</b>	
<b>TOTAL</b>	<b>\$ 4,653,455</b>	<b>\$ 4,840,258</b>	<b>\$ 6,600,309</b>	<b>\$ 6,141,696</b>	<b>\$ 6,152,931</b>	<b>\$ 10,280,020</b>	<b>2,519,735</b>	<b>\$ 7,760,285</b>	<b>25%</b>

CERS Board Meeting - Investment Committee Report

<b>INVESTMENT BUDGET</b>	
<b>CONSULTING SERVICES</b>	
Wilshire Associates	General Investment Consultanting Services, Manager Research and Due Dilligence, Reporting, Asset Allocation
Albourne	Investment Consultant Research database - Private Markets Manager Research, Private Markets Research, Pension Markets Research
MercerInsight	Investment Consultant Research database - Public Markets Manager Research, Public Markets Research, Pension Markets Research
<b>LEGAL &amp; AUDITING SERVICES</b>	
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)
<b>CONTRACTURAL SERVICES</b>	
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

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending December 31, 2023</b> <b>Pension</b>								
	2024		2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
<b>Core Fixed Income</b>	<b>1,014,583</b>	<b>2,287,704,103</b>	<b>1,412,142</b>	<b>1,982,992,065</b>	<b>1,591,391</b>	<b>2,344,396,966</b>	<b>1,401,242</b>	<b>2,282,848,163</b>
<i>Investment Advisory Fees</i>	989,977		1,073,446		1,558,075		1,375,451	
<i>Performance Fees</i>			313,985				-	
<i>Miscellaneous Fees and Expenses</i>	24,606		24,711		33,316		25,791	
<b>Public Equity</b>	<b>7,003,749</b>	<b>8,229,412,149</b>	<b>6,326,122</b>	<b>6,860,008,005</b>	<b>7,390,244</b>	<b>7,258,279,054</b>	<b>5,850,569</b>	<b>6,295,655,905</b>
<i>Investment Advisory Fees</i>	6,885,398		6,216,244		7,204,226		5,712,166	
<i>Miscellaneous Fees and Expenses</i>	118,350		109,877		186,018		138,403	
<b>Specialty Credit Fixed Income</b>	<b>43,867,219</b>	<b>3,449,111,420</b>	<b>26,763,395</b>	<b>3,169,416,226</b>	<b>25,775,685</b>	<b>3,159,992,882</b>	<b>17,264,718</b>	<b>2,435,764,675</b>
<i>Investment Advisory Fees</i>	9,314,024		8,272,318		8,375,883		7,320,545	
<i>Performance Fees</i>	15,712,746		7,246,973		12,762,781		8,459,198	
<i>Miscellaneous Fees and Expenses</i>	18,840,449		11,244,103		4,637,021		1,484,975	
<b>Real Estate</b>	<b>2,347,363</b>	<b>1,007,031,285</b>	<b>5,120,746</b>	<b>980,167,711</b>	<b>16,451,186</b>	<b>780,082,609</b>	<b>980,198</b>	<b>584,165,093</b>
<i>Investment Advisory Fees</i>	3,803,771		4,590,896		2,401,864		2,324,269	
<i>Performance Fees</i>	(3,707,401)		(380,882)		12,653,860		(2,070,445)	
<i>Miscellaneous Fees and Expenses</i>	2,250,993		910,732		1,395,462		726,374	
<b>Real Return</b>	<b>2,496,799</b>	<b>873,036,117</b>	<b>2,108,571</b>	<b>451,152,401</b>	<b>2,632,576</b>	<b>1,021,821,360</b>	<b>3,216,441</b>	<b>847,105,839</b>
<i>Investment Advisory Fees</i>	2,099,651		1,176,185		2,001,915		1,985,069	
<i>Performance Fees</i>	147,085		493,101		679,897		1,259,862	
<i>Miscellaneous Fees and Expenses</i>	250,063		439,285		(49,236)		(28,490)	
<b>Private Equity</b>	<b>8,028,455</b>	<b>1,162,891,960</b>	<b>(1,217,614)</b>	<b>1,143,362,622</b>	<b>39,968,415</b>	<b>1,262,539,645</b>	<b>24,365,092</b>	<b>1,139,236,934</b>
<i>Investment Advisory Fees</i>	2,925,557		3,652,032		3,928,841		4,294,168	
<i>Performance Fees</i>	2,383,986		(6,838,180)		33,350,556		17,523,541	
<i>Miscellaneous Fees and Expenses</i>	2,718,912		1,968,535		2,689,018		2,547,383	
<b>Administrative Expense/Cash</b>	<b>2,118,142</b>	<b>737,649,280</b>	<b>1,574,490</b>	<b>813,973,145</b>	<b>1,878,932</b>	<b>612,903,688</b>	<b>1,435,169</b>	<b>266,674,138</b>
<b>Total Investment Fees and Expenses</b>	<b>66,876,308</b>	<b>17,746,836,314</b>	<b>42,087,852</b>	<b>15,401,072,174</b>	<b>95,688,429</b>	<b>16,440,016,204</b>	<b>54,513,429</b>	<b>13,851,450,747</b>

\* Absolute Return was absorbed by Real Return in December 2020

\*\* Opportunistic was absorbed by Specialty Credit in December 2021

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending December 31, 2023</b> <b>Insurance</b>								
	2024		2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
<b>Core Fixed Income</b>	<b>342,823</b>	<b>780,518,762</b>	<b>526,658</b>	<b>755,273,150</b>	<b>587,743</b>	<b>855,261,654</b>	<b>568,510</b>	<b>873,074,122</b>
Investment Advisory Fees	334,225		406,870		457,920		558,897	
Performance Fees			112,040		117,337		-	
Miscellaneous Fees and Expenses	8,598		7,748		12,486		9,613	
<b>Public Equity</b>	<b>3,225,651</b>	<b>3,720,705,634</b>	<b>2,916,264</b>	<b>3,159,950,145</b>	<b>3,221,274</b>	<b>3,246,444,061</b>	<b>2,616,659</b>	<b>2,840,620,347</b>
Investment Advisory Fees	3,171,832		2,866,269		3,161,508		2,557,467	
Miscellaneous Fees and Expenses	53,819		49,995		59,766		59,192	
<b>Specialty Credit Fixed Income</b>	<b>19,604,727</b>	<b>1,527,908,553</b>	<b>12,006,819</b>	<b>1,440,474,508</b>	<b>11,449,880</b>	<b>1,449,432,096</b>	<b>7,239,534</b>	<b>1,085,313,532</b>
Investment Advisory Fees	4,026,821		3,715,203		3,748,168		3,373,550	
Performance Fees	7,206,526		3,460,460		5,702,991		3,344,830	
Miscellaneous Fees and Expenses	8,371,380		4,831,156		1,998,721		521,154	
<b>Real Estate</b>	<b>1,223,228</b>	<b>451,520,869</b>	<b>2,141,670</b>	<b>414,400,346</b>	<b>6,801,703</b>	<b>330,413,444</b>	<b>536,259</b>	<b>246,753,396</b>
Investment Advisory Fees	1,719,862		1,913,144		1,021,218		1,015,005	
Performance Fees	(1,461,607)		(161,966)		5,182,012		(795,199)	
Miscellaneous Fees and Expenses	964,973		390,492		598,473		316,453	
<b>Real Return</b>	<b>1,116,868</b>	<b>342,016,500</b>	<b>938,266</b>	<b>175,390,319</b>	<b>1,140,159</b>	<b>432,244,515</b>	<b>1,245,054</b>	<b>361,358,291</b>
Investment Advisory Fees	936,352		530,992		889,226		842,984	
Carried Interest	64,072		201,933		266,344		419,601	
Miscellaneous Fees and Expenses	116,444		205,341		(15,411)		(17,531)	
<b>Private Equity</b>	<b>4,902,486</b>	<b>587,662,239</b>	<b>275,237</b>	<b>573,107,746</b>	<b>22,563,618</b>	<b>595,876,977</b>	<b>16,438,474</b>	<b>548,052,248</b>
Investment Advisory Fees	1,826,381		2,427,153		2,772,848		2,892,530	
Performance Fees	1,279,105		(3,062,207)		18,845,205		12,027,941	
Miscellaneous Fees and Expenses	1,797,000		910,292		945,565		1,518,003	
<b>Administrative Expense/Cash</b>	<b>1,050,278</b>	<b>142,324,349</b>	<b>821,924</b>	<b>223,048,022</b>	<b>963,210</b>	<b>401,003,570</b>	<b>842,635</b>	<b>108,497,980</b>
<b>Total Investment Fees and Expenses</b>	<b>\$ 31,466,061</b>	<b>\$ 7,552,656,905</b>	<b>\$ 19,626,840</b>	<b>\$ 6,741,644,236</b>	<b>\$ 46,727,587</b>	<b>\$ 7,310,676,317</b>	<b>\$ 29,487,125</b>	<b>\$ 6,063,669,916</b>

\* Absolute Return was absorbed by Real Return in December 2020

\*\* Opportunistic was absorbed by Specialty Credit in December 2021

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending December 31, 2023</b> <b>Pension</b>				
	<b>CERS</b>		<b>CERS Hazardous</b>	
	<b>FYTD Fees</b>	<b>Market Value</b>	<b>FYTD Fees</b>	<b>Market Value</b>
<b>Core Fixed Income</b>	<b>415,852</b>	<b>922,172,153</b>	<b>145,040</b>	<b>324,604,644</b>
<i>Investment Advisory Fees</i>	405,762		141,520	
<i>Performance Fees</i>	10,090		3,520	
<i>Miscellaneous Fees and Expenses</i>				
<b>Public Equity</b>	<b>3,989,052</b>	<b>4,674,544,256</b>	<b>1,399,323</b>	<b>1,633,849,943</b>
<i>Investment Advisory Fees</i>	3,922,336		1,376,271	
<i>Miscellaneous Fees and Expenses</i>	66,716		23,052	
<b>Specialty Credit Fixed Income</b>	<b>24,569,334</b>	<b>1,843,339,638</b>	<b>8,228,270</b>	<b>635,454,609</b>
<i>Investment Advisory Fees</i>	5,079,661		1,720,956	
<i>Performance Fees</i>	8,881,533		2,944,692	
<i>Miscellaneous Fees and Expenses</i>	10,608,140		3,562,622	
<b>Real Estate</b>	<b>2,653,577</b>	<b>520,891,549</b>	<b>1,023,054</b>	<b>165,806,858</b>
<i>Investment Advisory Fees</i>	2,389,484		937,396	
<i>Performance Fees</i>	99,620		53,262	
<i>Miscellaneous Fees and Expenses</i>	164,473		32,396	
<b>Real Return</b>	<b>165,376</b>	<b>362,660,962</b>	<b>(81,519)</b>	<b>127,122,645</b>
<i>Investment Advisory Fees</i>	975,269		174,797	
<i>Performance Fees</i>	(2,081,498)		(658,291)	
<i>Miscellaneous Fees and Expenses</i>	1,271,605		401,975	
<b>Private Equity</b>	<b>4,730,817</b>	<b>640,614,004</b>	<b>1,537,424</b>	<b>226,314,184</b>
<i>Investment Advisory Fees</i>	1,894,780		627,128	
<i>Performance Fees</i>	1,193,318		367,499	
<i>Miscellaneous Fees and Expenses</i>	1,642,719		542,797	
<b>Administrative Expenses/Cash</b>	<b>1,304,131</b>	<b>143,992,058</b>	<b>384,357</b>	<b>86,036,944</b>
<b>Total Investment Mgmt Fees &amp; Expenses</b>	<b>37,828,139</b>	<b>9,108,214,620</b>	<b>12,635,949</b>	<b>3,199,189,827</b>

<b>KENTUCKY PUBLIC PENSIONS AUTHORITY</b> <b>Investment Fees and Expenses</b> <b>For the six month period ending September 30, 2023</b> <b>Insurance</b>				
	<b>CERS</b>		<b>CERS Hazardous</b>	
	<b>FYTD Fees</b>	<b>Market Value</b>	<b>FYTD Fees</b>	<b>Market Value</b>
<b>Core Fixed Income</b>	<b>150,924</b>	<b>352,883,322</b>	<b>66,485</b>	<b>150,931,637</b>
<i>Investment Advisory Fees</i>	147,138		64,822	
<i>Performance Fees</i>	-		-	
<i>Miscellaneous Fees and Expenses</i>	3,786		1,663	
<b>Public Equity</b>	<b>1,487,359</b>	<b>1,762,400,978</b>	<b>736,495</b>	<b>854,175,733</b>
<i>Investment Advisory Fees</i>	1,462,174		724,291	
<i>Miscellaneous Fees and Expenses</i>	25,186		12,204	
<b>Specialty Credit Fixed Income</b>	<b>8,813,731</b>	<b>690,549,055</b>	<b>4,682,230</b>	<b>329,638,801</b>
<i>Investment Advisory Fees</i>	1,796,613		914,001	
<i>Performance Fees</i>	3,237,038		1,757,118	
<i>Miscellaneous Fees and Expenses</i>	3,780,080		2,011,110	
<b>Real Estate</b>	<b>548,341</b>	<b>188,638,589</b>	<b>300,676</b>	<b>103,503,236</b>
<i>Investment Advisory Fees</i>	776,329		425,867	
<i>Performance Fees</i>	(671,141)		(368,343)	
<i>Miscellaneous Fees and Expenses</i>	443,152		243,152	
<b>Real Return</b>	<b>522,906</b>	<b>121,311,894</b>	<b>245,814</b>	<b>59,012,357</b>
<i>Investment Advisory Fees</i>	444,839		204,413	
<i>Performance Fees</i>	25,226		12,814	
<i>Miscellaneous Fees and Expenses</i>	52,841		28,587	
<b>Private Equity</b>	<b>2,174,190</b>	<b>257,657,256</b>	<b>1,217,430</b>	<b>144,705,200</b>
<i>Investment Advisory Fees</i>	841,505		471,645	
<i>Performance Fees</i>	538,900		300,548	
<i>Miscellaneous Fees and Expenses</i>	793,785		445,237	
<b>Administrative Expenses/Cash</b>	<b>484,398</b>	<b>54,162,377</b>	<b>272,659</b>	<b>19,534,733</b>
<b>Total Investment Mgmt Fees &amp; Expenses</b>	<b>\$ 14,181,848</b>	<b>\$ 3,427,603,471</b>	<b>\$ 7,521,789</b>	<b>\$ 1,661,501,698</b>





# Real Return / Saba Capital Executive Summary

## March 11, 2024

## The Need for Additional Real Return Managers

- Over the last several years, the CERS portfolios have maintained a structural underweight to the Real Return asset class based on lack of compelling relative risk/return opportunities
- Prior to the approval of Arctos (sports), Ceres (farmland), and Maritime Partners (barge leasing) last year, there were only 2 active managers in Real Return. The rest are legacy/runoff assets
- The breadth of potential Real Return investments warrants greater diversification amongst managers and investment strategies than traditional asset classes, increasing the number of managers

CERS Real Return  
Current vs Pro Forma Weights<sup>1</sup> and Targets<sup>2</sup>

	12/22 IPS Target	3/1/24 Actual Weight	Pro Forma Weight	2/28/24 IC Approved Target	2/28/24 IC Approved Range
CERS - Pension	13%	4.0%	6.3%	8%	5 - 11%
CERS Haz - Pension	13%	4.0%	6.7%	8%	5 - 11%
CERS - Insurance	13%	3.6%	6.2%	8%	5 - 11%
CERS Haz - Insurance	13%	3.6%	5.7%	8%	5 - 11%

<sup>1</sup> Pro forma weights reflect Ceres, Maritime Partners, and Saba fully invested and Arctos II 90% called

<sup>2</sup> Pro forma range and target are from recent asset/liability study and March 2024 recommended asset allocation changes



## Real Return Investment Process

- Sourcing: Ongoing, continuous (not point-in-time) review of Real Return investment opportunities
  - First met with Saba at a conference in January 2020
  - Other recently evaluated strategies include dedicated commodities and listed infrastructure
  
- What Staff looks for in Real Return:
  - Favorable standalone risk-adjusted returns
  - Benefits from inflation
  - Earns yield (often from contractual cash flow streams) and provides cashflows
  - Diversifies portfolio - lower correlation with KPPA's public equity and fixed income exposure
  - Differentiated sources and drivers of return – Not growth dependent
  
- Peer universe comparison:
  - Evaluated 9 other closed-end fund managers / strategies
  - Other strategies subscale for KPPA or non-activist



# Saba Overview and Investment Rationale

## Saba Capital

- Founded 2009, \$4.7 billion assets under management
- Active investor in closed-end funds since 2013, with influence over 90 corporate actions that closed the fund's discount to net asset value
- Additional strategies include multi-strategy relative value and tail hedging

## Rationale

- Earn attractive return from closure of discounts as well as yield from pass-through of income and capital gains – better liquidity profile than many Real Return alternatives
- Unique investment opportunity with compelling economics and complementary to existing investments
- Low return correlations to the current Real Return investments and the broader overall portfolio – less growth centric
- Differentiated source of return, asymmetric payoff profile, favorable stand-alone risk adjusted return
- Opportunistic to take advantage of historically large discounts



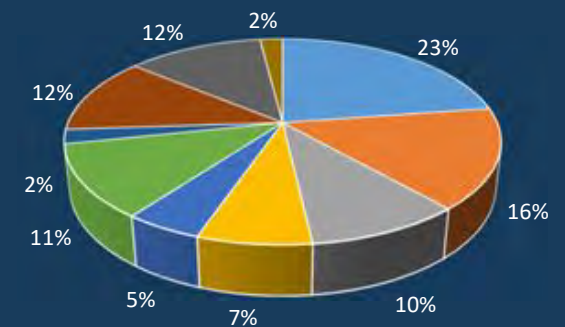
## Recommendation and Impact

- After due diligence, including reference calls and an onsite visit, KPPA Investment Staff is recommending a \$175 million investment in Saba Capital's closed-end fund strategy to be shared among all CERS Plans pending successful investment management agreement negotiations

### Portfolio Impact

- Additional 1.0 – 1.1% allocation moves portfolios closer to Real Return target weights
- Capital expected to be called and invested quickly, within 1-3 months
- Funded by sale of proxy assets and cash
- Further detail available in presentation that follows

Fully Called Real Return Allocation



- Tortoise - Midstream Energy
- Maritime Partners - Barge Leasing
- Prisma - Cash tied up litigation
- IFM - Infrastructure Debt
- AMERRA - Agriculture - in runoff
- Arctos Partners - Sports Franchise
- BTG Pactual - Brazilian Timber - in runoff
- Ceres Farms - Farmland
- Saba Capital - Closed-end Funds
- Other Runoff Strategies



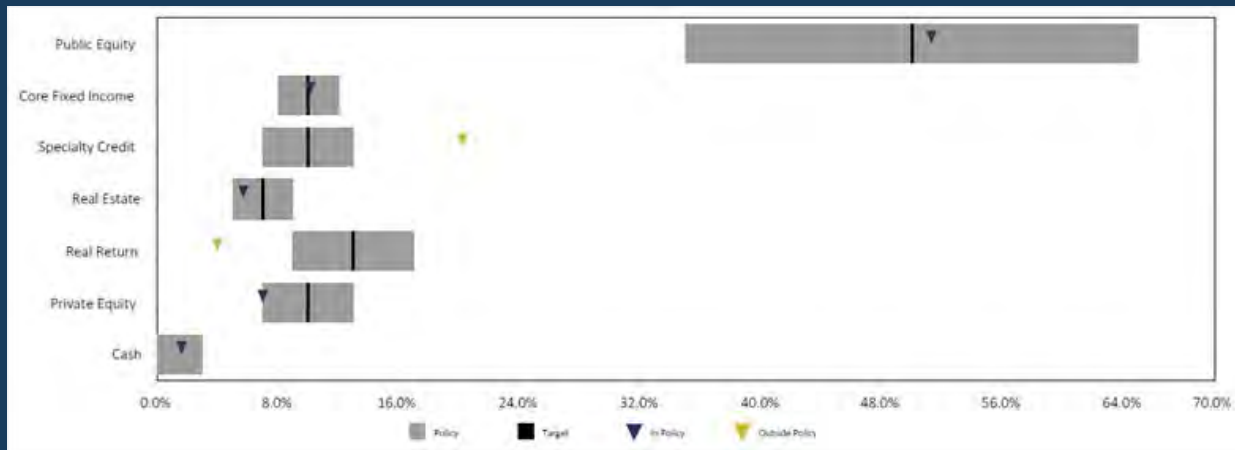


# **CERS Investment Committee**

## **Real Return / Saba Capital Follow Up**

## Real Return Today

- Over the last several years, the CERS portfolios have maintained a structural underweight to the Real Return asset class based on lack of compelling risk/return opportunities
- This underweight was exacerbated with the increase in the Real Return allocation target and subsequent termination of the Putnam Dynamic Asset Allocation strategy (+3.5% allocation)



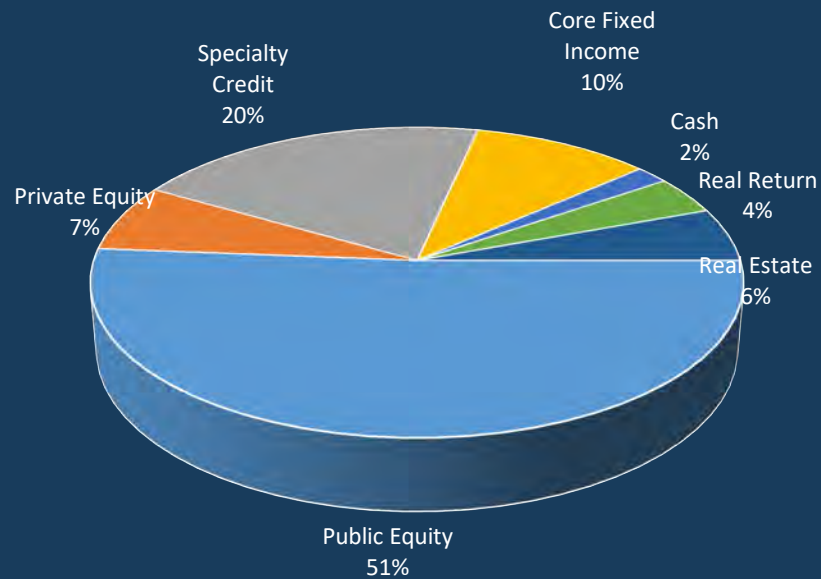
CERS Real Return - Target vs Actual Weights  
2017-23

Year	Actual	Target	+ / -
2017	9%	15%	-6%
2018	9%	15%	-6%
2019	9%	15%	-6%
2020	7%	10%	-3%
2021	6%	13%	-7%
2022	3%	13%	-10%
2023	4%	13%	-9%

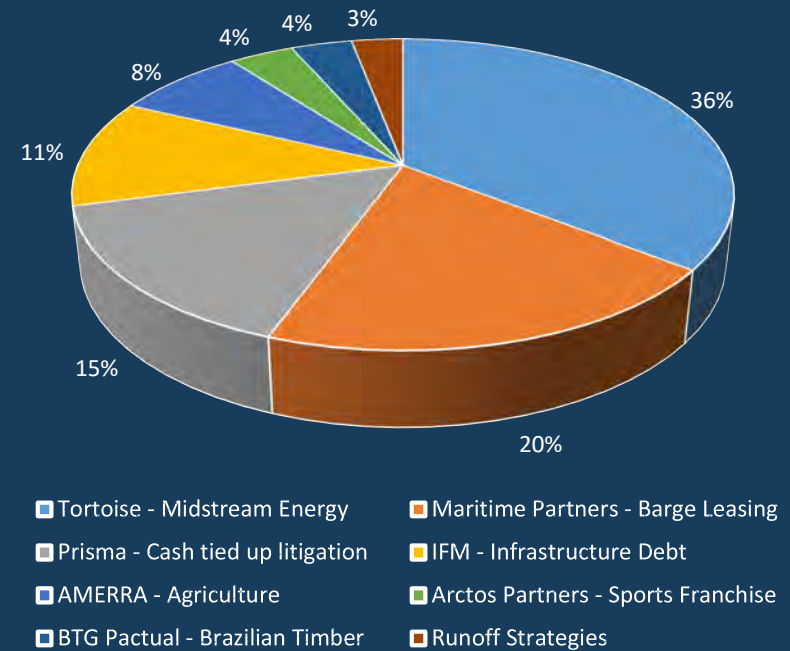


# Real Return Allocation Today

## Actual Current Asset Allocation



## Current Real Return Allocation

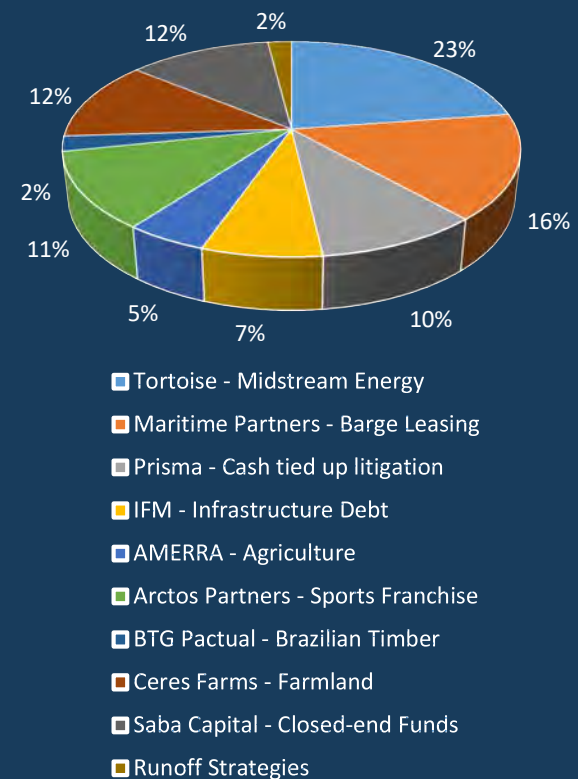




## Saba - Impact and Rationale

- Additional 1.0 – 1.1% closer to Real Return target weight within 1-3 months
- Funded by sale of proxy assets and cash on hand
- Earn attractive return from closure of discounts as well as yield from pass-through of income and capital gains – better liquidity profile than many Real Return alternatives
- Unique investment opportunity with compelling economics and complementary to existing investments
- Low return correlations to the current Real Return investments and the broader overall portfolio – less growth centric
- Differentiated source of return, asymmetric payoff profile, favorable stand-alone risk adjusted return

Fully Called Real Return Allocation



## Closed-End Funds Strategy

Why is this Real Return?

Good fit with what Staff looks for in this asset class:

- **Favorable standalone risk-adjusted returns**
- **Benefits from inflation**
- **Earns yield (often from contractual cash flow streams)**
  - Significant dividends and income, especially on a 15%+ discounted basis
  - Mitigates market volatility
- **Lower correlation with KPPA's public equity and fixed income exposure**
  - Appreciation from closing a CEF's discount to NAV is uncorrelated with market movements



## Real Return / Private Markets Investment Process

- CIO, Investment Staff and Consultant are responsible for overseeing Private Markets portfolio, including Real Return
  - Sourcing: Ongoing (not point-in-time) review of staff and consultant contacts, consultant databases, networking, reading, peer references, and inbound approaches.
  - Due Diligence: CIO and Investment Staff are responsible for evaluating managers' strategy, team, processes, and investments
    - Includes investor and other reference calls
    - Consultants / databases utilized as needed
  - Each investment opportunity is evaluated against:
  - (1) comparable investment managers / strategies
  - (2) other available investments and their risk / return characteristics



## Other Real Return Assets / Strategies Considered (not exhaustive)



Life settlements



Railcar leasing



Listed infrastructure



Mining finance



Farmland



Aircraft leasing



Insurance



Litigation finance



Drug royalties



Commodities



Timberland



Music royalties



Power  
generation



Crypto



Gold



TIPS



GP stakes



## Other Real Return Assets / Strategies Considered - Examples

- Dedicated Commodities



- Universe screened down to eight strategies/managers, with due diligence conducted on five
- Significantly trending markets with clustered performance profiles, boom-bust cycle behavior
- High overall volatility with performance that often lags over longer periods
- Significant inflation beta, but rising correlations with public equities as investor base evolves
- High correlation amongst constituents
- Smaller opportunity set, often relying on trading strategies to generate significant returns
- Less compelling risk-adjusted returns compared to currently available alternatives
- Continuing to monitor and evaluate as potential future investment opportunity

- Listed Infrastructure / Real Return



- Small universe: only 4 infrastructure ETFs with > \$1 billion of assets
- Expensive: those 4 infrastructure ETFs charge between 0.30 – 0.50% for “index” exposure
- High portfolio concentration: Exxon (23%) and Chevron (18%) comprise more than 40% of XLE (Energy Select Sector SPDR Fund - \$35B assets)
  - Top 5 and 10 positions are 58% and 76% of portfolio, respectively
- Some duplicative exposure with CERS’s current MLP holdings through Tortoise



# What are Closed-End Funds (CEFs)?

## Closed-End Funds:

- Trade publicly like a stock
- Raise capital 1 time through an initial public offering (IPO)
  - Proceeds used to buy securities that fit the CEF's advertised strategy
- Are "closed-end" because capital does NOT regularly flow in or out with share purchases and sales
- Do not face reinvestment risk (from inflows) or redemption risk (from outflows)
  - Can invest in more illiquid securities (e.g. municipal bonds, international stocks, private companies)
  - Can add leverage by issuing debt or preferred securities, subject to regulatory limits (33-50%)
- Trade only among market participants - not the fund or asset manager
  - Price determined by market and is a function of supply / demand
    - Often deviates from net asset value (NAV) of the fund's holdings



Example: This box has \$100 of assets inside, but its trading price could be \$93 or \$105 depending on whether more investors wanted to buy or sell shares of the box.

## US Closed-End Funds Landscape

- \$252 billion of assets
- 441 funds
- 91 closed-end fund sponsors
- Owned by 3.8 million households
  - Provide a steady stream of income
  - Provide intra-day liquidity and access to less liquid investments

### Large CEF Managers



Source: Investment Company Institute



# US Closed-End Funds Landscape

CEFs tend to trade at discounts...



...and offer meaningful yields



Source: Investment Company Institute





# Closed-End Funds – Why Now?

CEFs are trading at historically wide discounts...



...and still offer meaningful yields

Fund	Discount	Yield
ABRDN HEALTHCARE INVESTORS	-15.9%	11.0%
BLACKROCK INNOV & GRW TR	-15.3%	6.5%
BLACKROCK HLTH SCI TRM TR	-14.8%	6.7%
BLACKROCK SCI & TECH TRM TR	-21.5%	6.6%
THE GLOBAL SMALLER COS TRUST	-14.3%	1.6%
BLACKROCK RESOURCES & COMM	-14.6%	7.2%
PGIM SHRT DURAT HI YLD	-13.6%	8.5%
ABRDN LIFE SCIENCES INVESTOR	-16.2%	11.1%
ADAMS DIVERSIFIED EQUITY	-14.3%	0.9%
BNY MELLON STRATEGIC MUNI	-15.0%	3.8%

## Closed-End Funds

Why Saba?

Other CEF strategies mostly subscale, non-activist, or not dedicated funds

Firm	Too Small	Not Activist	Too Diversified	Not Standalone
1607 Capital	X	X	X	
Allspring	X	X	X	
Amplify	X	X	X	
Bulldog	X		X	
Cohen & Steers	X	X	X	
Cornerstone	X	X	X	X
Matisse	X	X	X	
RiverNorth	X	X	X	X
Saba (CEFS)	X		X	

## Saba - Expenses and Litigation

- Total expected expense ratio: 0.25 - 0.35%
  - Legal expenses less than 0.10% of the strategy's assets under management
  - Legal expenses likely to decrease after winning multiple favorable judgments in 2023
  - Saba's legal fees often reimbursed as part of judgments, with the asset manager itself paying expenses (not the closed-end fund)
- Litigation used to enforce shareholder rights
  - Aligned with retail shareholders
    - ✓ Comprise majority of closed-end fund holders
    - ✓ Benefit from Saba's success in closing funds' discounts to NAV

## Saba - Litigation Wins

- 2023 Wins
  - Eaton Vance – 1/25/2023

**Massachusetts Court Rules that Eaton Vance and its Fund Trustees Violated Federal Law by Stripping Shareholders' Voting Rights**

- Nuveen – 12/1/2023

**U.S. Court of Appeals for the Second Circuit Upholds that Nuveen-Advised Closed-End Funds Violated the Investment Company Act of 1940**

*Trustees Terence J. Toth, Jack B. Evans, William C. Hunter, Albin F. Moschner, John K. Nelson, Judith M. Stockdale, Carole E. Stone, Margaret L. Wolff, Robert L. Young and Matthew Thornton, III Violated Federal Law*

- BlackRock, Tortoise / Ecofin, Adams, Royce, FS – 12/7/2023

**U.S. District Court for the Southern District of New York Rules That Certain Closed-End Funds, Including Funds Advised by BlackRock, Violated the Investment Company Act of 1940**

*BlackRock Illegally Stripped Votes at its Closed-End Funds' 2023 Annual Meetings*



## Saba – Pending Litigation – Top Defendants

- Saba has won a judgment against these managers, and the cases are currently being appealed

The BlackRock logo, featuring the company name in a bold, black, sans-serif font.The Franklin Templeton logo, which includes a small circular portrait of Benjamin Franklin to the left of the company name in a serif font.The Tortoise logo, featuring a circular icon with a stylized 'T' and the word 'Tortoise' in a sans-serif font.The Adams Funds logo, consisting of the words 'ADAMS' and 'FUNDS' in white, bold, sans-serif capital letters on a red rectangular background.The TortoiseEcofin logo, featuring a stylized 'TE' in a green circle followed by the word 'TortoiseEcofin' in a sans-serif font.The FS Investments logo, featuring a large, stylized 'FS' in black on a white background, with 'FS INVESTMENTS®' in a smaller font below it.

## Saba – Pending Litigation

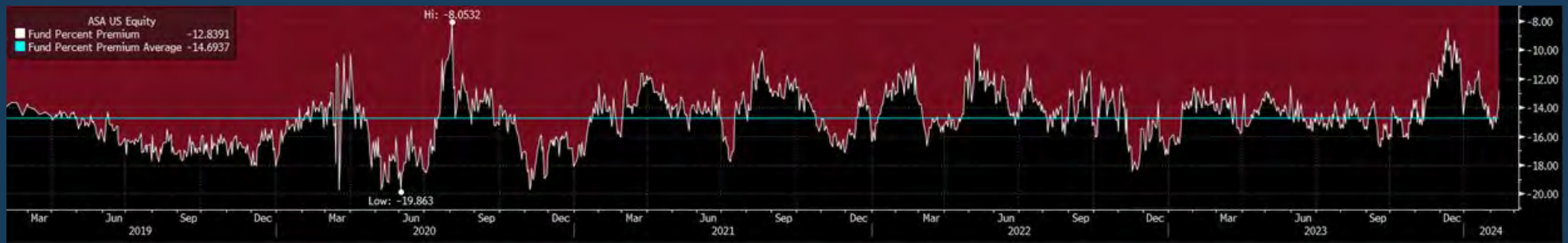
- New lawsuit: ASA – 1/31/2024



### Saba Capital Files Lawsuit Against ASA Gold and Precious Metals and its Board of Directors Over Unlawful Shareholder Rights Plan

*ASA's Adoption of a Discriminatory "Poison Pill" Harms Shareholders and Represents a Violation of the Investment Company Act of 1940*

- Without activism, discounts can persist indefinitely!
  - 2/8/2019 discount to NAV: 13.7%
  - 2/8/2024 discount to NAV: 14.7%

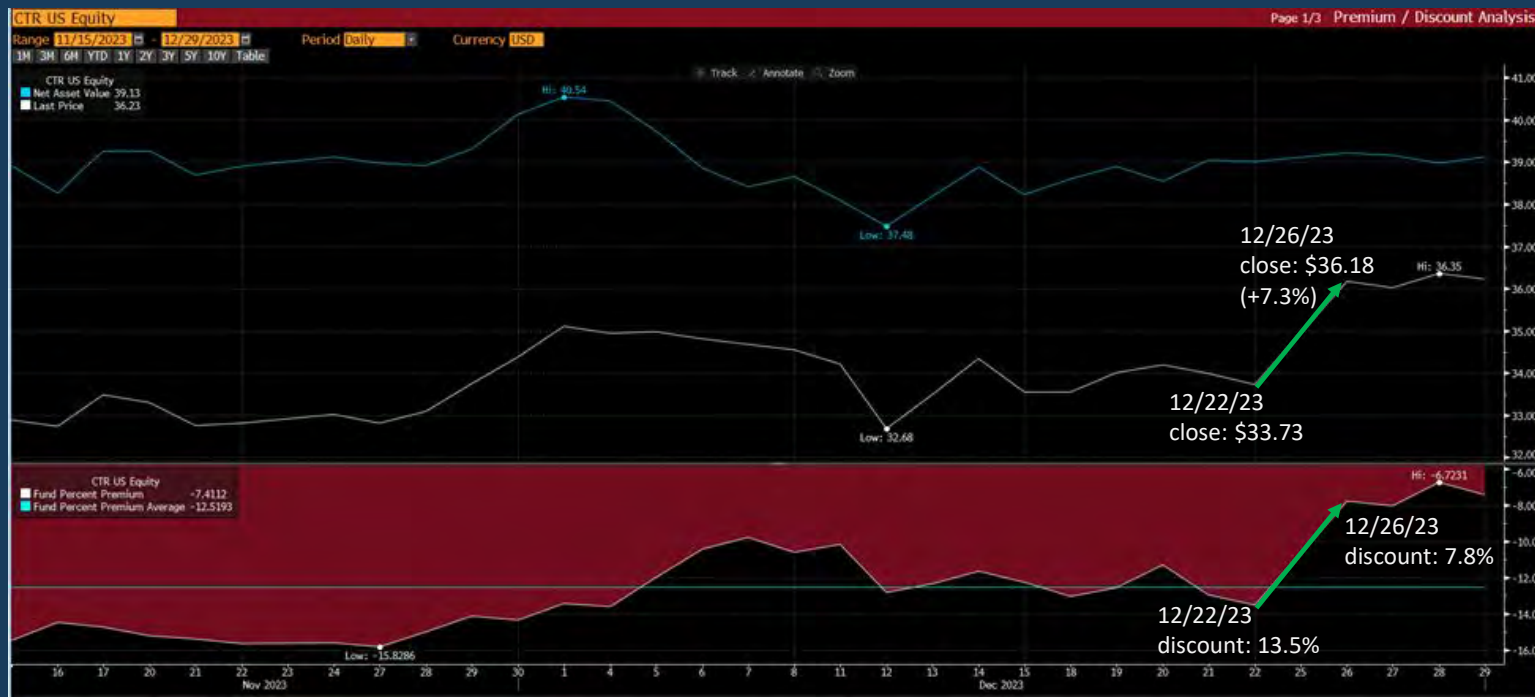


# Saba – Agreement to Close Discounts

- ClearBridge (Franklin Templeton) – December 26, 2023

## Saba Capital Reaches Agreement with Certain ClearBridge Funds

ClearBridge MLP and Midstream Fund, ClearBridge MLP and Midstream Total Return Fund, and ClearBridge Energy Midstream Opportunity Fund to Each Commence Cash Tender Offers for 50% of Their Shares at 100% of NAV







# **CERS Investment Committee**

## **Real Return Recommendation – Saba Capital**

January 24, 2024



# Top Candidate Characteristics – Saba Capital

## Closed-End Funds Separately Managed Account *\$175 Million Recommendation*

Saba Capital Management (“Saba”) is a New York-based investment firm founded in 2009 focused on relative value and arbitrage strategies. The firm was founded by Boaz Weinstein, who was previously co-head of the Global Credit Trading business at Deutsche Bank. Saba utilizes its credit analysis and trading background to arbitrage dislocations and hedge risk across capital structures and markets.

Since 2013, the firm has been investing in listed closed-end funds and investment trusts that trade at sizable discounts to net asset value (NAV). Saba selectively pursues activism and legal judgments to unlock shareholder value and monetize the discount to NAV.

During 2023, Saba won legal judgments or helped closed discounts related to funds managed by BlackRock, Brookfield, Franklin Templeton, and Goldman Sachs, among others.

This investment would provide exposure to listed equity and fixed income securities at a discount, including meaningful exposure to real assets through the energy, utilities, materials, and infrastructure sectors.

### Due Diligence Summary

#### Date of First KPPA Meeting

1/28/2020 (Conference)

#### Subsequent Meetings

3/3/2023 (Call), 4/24/2023 (Call), 6/26/2023 (Call),  
8/2/2023 (Onsite – NYC), 8/22/2023 (Call),  
10/11/2023 (Virtual), 10/31/2023 (Call)  
12/7/2023 (Call)

#### Date of Operational Due Diligence Report

6/28/2023

#### Date of Consultant Manager Report

7/7/2023

#### Reference Calls with Prospective, Current, Former, and Non-Investors

7/26/2023, 8/8/2023, 9/6/2023,  
9/11/2023, 9/26/2023,  
12/14/2023, 12/18/2023

#### Legal Negotiation Initiated

8/18/2023

#### Comparable Strategies Reviewed

10 (closed end funds)



## Executive Summary

Saba | Capital

**Saba is a registered investment advisor focused on relative value strategies. The Firm seeks to profit from dislocations between credit and equity instruments and deliver convex returns, particularly in volatile markets.**

**Saba has \$4.7 billion in AUM and 51 employees, including 15 investment professionals.<sup>1</sup>**

- Saba was founded in 2009 by Boaz Weinstein, who was previously co-head of the Global Credit Trading business at Deutsche Bank, where he managed a team of approximately 650 people. Boaz is known for pioneering a number of credit relative value and capital structure investing strategies.
- Boaz's 28 years of experience in relative value credit strategies deeply informs Saba's investment philosophy.
- Saba's investment team has been at the forefront of hedging tail risk and arbitraging dislocations between bonds, loans, structured credit, and derivatives across capital structures and term structures.
- Saba uses a rigorous investment process that combines quantitative models with fundamental and technical analysis.
- Saba began investing in investment trusts/closed-end funds in 2013 and is the industry leader in activism and relative value trading, currently managing a ~\$5.1 billion<sup>2</sup> portfolio.
- Saba pursues activism where corporate actions may be an effective tool to unlock shareholder value and monetize the discount to NAV.
- Saba has a diverse institutional investor base, including funds of funds, pensions, foundations, endowments, family offices and HNW individuals.

<sup>1</sup>As of 1/1/2024. <sup>2</sup>Long exposure of closed-end funds owned firm-wide as of 12/31/2023. Nothing here is a guarantee or assurance of successful or profitable outcomes.

## Firm Overview

Saba | Capital

**Founded in 2009, Saba manages \$4.7 billion in several Funds:**

- Multi-Strategy Relative Value (Flagship)
- Tail Hedge
- Closed-End Fund Arbitrage

**SABA CAPITAL MANAGEMENT, L.P.**

Founded in 2009

**FLAGSHIP<sup>1</sup>**

Launched: 4/2009

Strategy AUM: \$1,580mm

**TAIL HEDGE**

Launched: 4/2011

Strategy AUM: \$1,510mm

**CLOSED-END FUND  
ARBITRAGE<sup>2</sup>**

Launched: 10/2015

Strategy AUM: \$1,030mm

**EXCHANGE LISTED  
(Tickers: CEFS, BRW)**

Launched: 3/2017, 6/2021

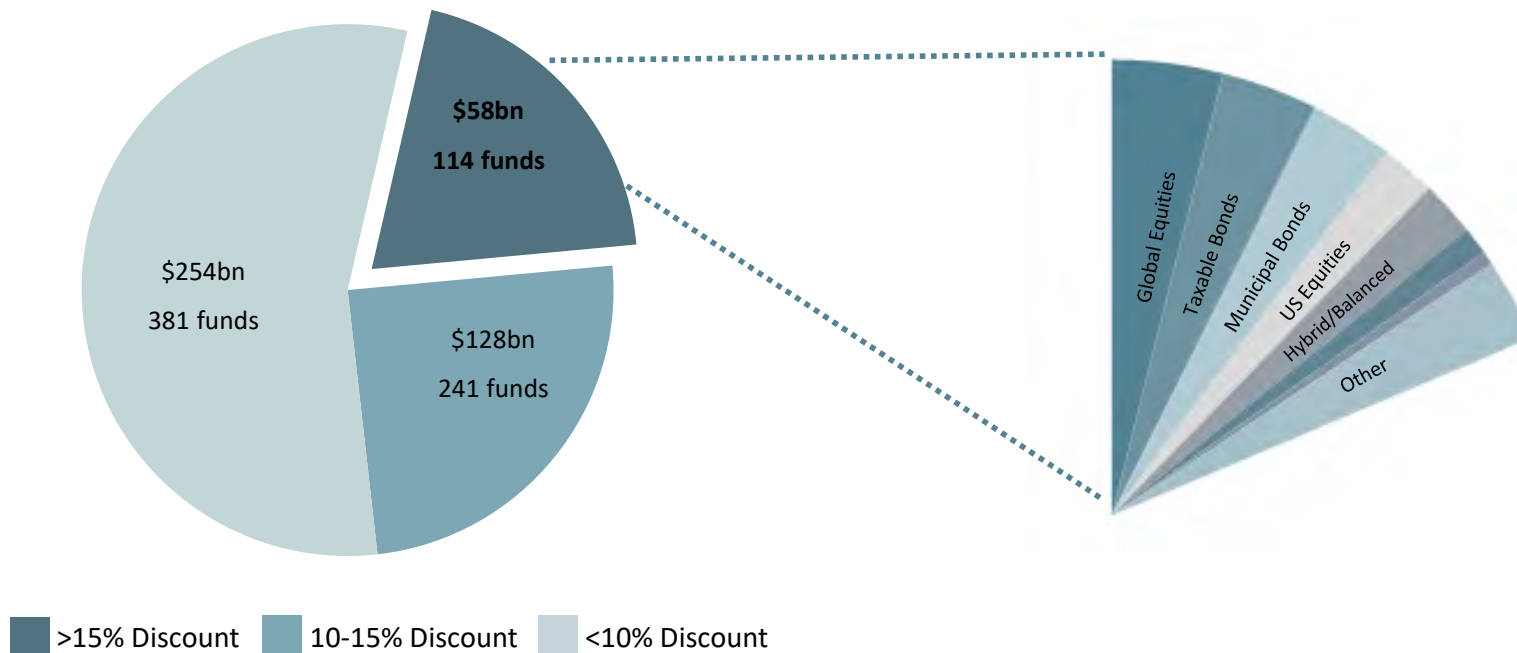
Strategy AUM: \$515mm

<sup>1</sup>Includes funds of one for Flagship as well as funds and accounts for sub-strategies not currently available for investment.<sup>2</sup>Strategy AUM includes AUM for Saba's sub-advised Fund, The Saba Closed-End Funds ETF (CEFS).  
AUM estimated as of 1/1/2024.

Current Closed-End Fund Universe<sup>1</sup>

- The closed-end fund universe is substantial with over \$440 billion AUM across 735+ funds globally
- Currently, at least \$58 billion market value of CEFs trade at a discount to NAV greater than 15%
  - The opportunity to own assets at double digit discounts is diversified across equities, corporate credit, municipal bonds and more

## Closed-End Fund Universe



<sup>1</sup>Includes all active listed closed-end funds in USD, GBP, AUD and CAD, excluding interval funds and funds where asset class is Private Equity or Real Estate and for which current and historical data is available on Bloomberg. As of 11/30/2023. Sources: Saba, Bloomberg, Bloomberg Fund Screening Tool (FSRC). Statements about the investment universe or pipeline are not a guarantee that certain investments will be available, or that such investments will be profitable.

## Bloomberg 2023 Global Activism Review

Saba | Capital

By All Campaigns

## Top Activists of 2023

By \$1b+ Only

Activist	Total Campaigns	Activist	\$1b+ Campaigns
<b>Saba Capital Management</b>	<b>64</b>	Elliott Investment Management	15
Elliott Investment Management	17	Dalton Investments LLC	7
Nippon Active Value Fund	12	Starboard Value LP	7
Dalton Investments LLC	10	ValueAct Capital Management	7
Murakami Funds	10	<b>Saba / Align / Ancora (tie)</b>	<b>6</b>
Oasis Management	10	Inclusive Capital	5

Investment Companies  
& EMEA REITs  
Sales Desk Note  
21<sup>st</sup> June 2023



## From Jefferies market communication on the UK CEF market

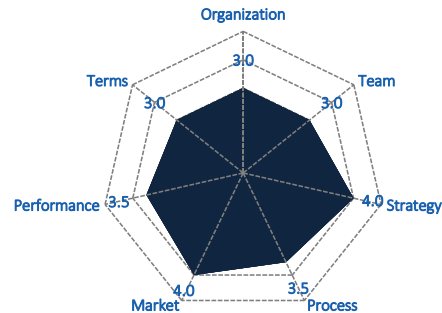
*“The investment trusts sector has become fat on cheap money and it needs to adapt. There are also too many funds. Many are obsolete because they could be equally well managed in an open-ended wrapper. Many are sub-scale and trade at permanent discounts. But that doesn’t mean that there aren’t many good ones run by first-class management teams which have sufficient scale and liquidity not only to survive but thrive. **Activist capital is probably required to catalyse the creative destruction necessary to shift the sector into a healthier position better tailored to the buy-side’s needs.**”*

Source: Bloomberg. For Fiscal Year 2023. League table rankings may vary between quarterly/year-end publications and data found on the Bloomberg Professional Service. While Saba believes that the information from Bloomberg L.P. and its suppliers was obtained from reliable sources, it cannot guarantee its accuracy. Information contained herein is not a rating or endorsement by any third party.

# Saba Closed End Fund Strategy

## Preliminary Diligence

<b>Investment Type</b>	Primary
<b>Firm AUM (M)</b>	\$4,700
<b>Strategy AUM (M)</b>	\$1,030
<b>Firm Inception</b>	2009
<b>Fund Inception</b>	2015
<b>Asset Class</b>	Multi-Asset
<b>Sector</b>	Closed End Fund Arbitrage
<b>Geographic Focus</b>	Global
<b>Subscriptions</b>	Monthly
<b>Redemptions</b>	Quarterly
<b>Notice</b>	65 days
<b>Lock-Up</b>	None
<b>Gate</b>	25% quarterly
<b>Management Fee</b>	0.75%
<b>Performance Fee</b>	25%
<b>Preferred Return</b>	1.5x iShares iBoxx High Yield Corporate Bond ETF Class USD Inc



Past performance is not indicative of future results.

Firm Overview	Track Record			
<p>Saba Capital ("Saba" or "the Firm") is an alternative asset manager focused on relative value strategies. As of December 2023, the Firm employs 51 individuals and is headquartered in New York. The Firm was founded in 2009 by Boaz Weinstein as a lift-out of the Deutsche Bank proprietary credit trading group. Saba manages nearly \$5 billion across four core strategies: the flagship multi-strategy hedge fund, tail hedging, closed-end fund arbitrage, and SPACs. The closed end fund arbitrage strategy is managed by Partner and Portfolio Manager Paul Kazarian, who joined the Firm in 2013 from RBC, where he served as a Director in the Global Arbitrage and Trading Group.</p>	Oct 2015 – Dec 2023	Saba CEF Opps 1 Onshore LP	HFRI Relative Value Index	Bloomberg US High Yield
	Ann. Return	10.19%	4.22%	5.61%
	Ann. Volatility	14.91%	4.66%	8.03%
	Correlation	-	0.86	0.89
	Beta	-	2.76	1.65
	Alpha	-	-1.44%	0.92%
Source: Saba Capital, Bloomberg, HFRI. Saba performance calculated using equivalent fee structure of proposed SMA.				
Investment Strategy	Investment Merits			
<p>Saba's Closed End Fund Arbitrage strategy is offered to investors through separate accounts, funds of one, and several commingled vehicles – most notably, Saba Capital CEF Opportunities 1 – in both a long-only and market neutral approach. The strategy focuses on the purchase of shares/interests in closed end funds and investment trusts at significant discounts to NAV to capture incremental yield relative to the underlying instruments, which include bonds, loans, and equity securities. Discounts are often driven by differences in cost structures and liquidity, retail flows, changes in regulations, and market dislocations.</p> <p>Investments are intended to generate positive returns through positive performance of the underlying and narrowing of the discount. Additionally, Saba looks to pursue an activist approach in special situations where corporate actions (liquidation, tendering, open-ending) can drive value and monetize the discount. The strategy generally holds 40-80 closed-end funds and will generally be a long-only/long-biased portfolio, though Saba has discretion to hedge as deemed necessary.</p>	<ul style="list-style-type: none"> <li>Employee-owned firm with experienced and tenured senior team</li> <li>Experienced manager and industry leader in CEF activism</li> <li>Favorable market dynamics</li> <li>Meaningful track record across a number of market environments</li> </ul>			
	Investment Concerns			
	<ul style="list-style-type: none"> <li>Concentrated ownership structure</li> <li>Lean dedicated team to the CEF arbitrage strategy</li> <li>Regulatory risk as it pertains to UK Investment Trusts</li> <li>Mark-to-market risk during periods of market stress</li> </ul>			
	Key Investment Personnel			
	Name	Title	Experience	
	Paul Kazarian	Portfolio Manager	RBC, Merrill Lynch	
	Boaz Weinstein	Founder, CIO	Deutsche Bank	
	Pierre Weinstein	Portfolio Manager	Deutsche Bank, Soc Gen	



## KENTUCKY PUBLIC PENSIONS AUTHORITY



### INVESTMENTS

---

To: CERS Investment Committee

From: Anthony Chiu, Deputy CIO

Date: January 24, 2024

Subject: Investment Recommendation – Saba Capital Closed-End Funds strategy

---

KPPA Investment Staff is proposing a separate account investment with Saba Capital Management (“Saba” or the “Firm”). Based in New York, Saba is pursuing a value and activist strategy targeting listed closed-end funds (“CEF” or “CEFs”) that are trading at significant (>15%) discounts to their net asset value (“NAV”).

Currently there are more than 735 closed-end funds globally with \$440 billion of assets under management. These funds are retail investment products that are sold (not bought) through the wealth management channel and largely consist of portfolios of listed securities. Equity and fixed income funds each comprise around 40% of the market, with the rest in real assets funds that hold companies in sectors such as utilities, energy, materials, and infrastructure.

As a result of the asset allocation that took effect in 2022, KPPA’s target portfolio weight for Real Return was increased to either 10% or 13%, depending on the underlying plan. After a sizable Putnam mandate was terminated in 2022, KPPA’s plans each had around a 2-3% allocation to Real Return. This proposed investment would help the plans continue moving toward target weights and be fully invested during the first half of 2024.

In identifying this investment opportunity, KPPA staff utilized a competitive search process in accordance with the Investment Policy Statement and Investment Procurement Policy in its search for strategies that provide favorable stand-alone risk-adjusted returns, low correlations to the existing portfolio, and a propensity for positive real returns across the cycle.

#### **Business / People:**

Saba was founded in 2009 by Boaz Weinstein to focus on relative value and arbitrage strategies. Boaz was previously co-head of Global Credit Trading at Deutsche Bank, where he worked for 11 years and led a team of over 600 people. Saba Capital was a liftout of the proprietary credit trading group that Boaz started and utilizes its credit analysis and trading background to arbitrage dislocations and hedge risk across capital structures and markets. At the beginning of 2024, Saba had \$4.7 billion of assets under management and a team of 51, including 15 investment professionals.

Saba’s flagship fund allocates flexibly across market opportunities. In the firm’s early years, it was perhaps most famous for the “London whale” trade, in which Saba noticed and took advantage of a market anomaly in the credit default swaps market that turned out to be the result of a JPMorgan trader’s outsized “hedging” positions.

Saba began trading CEFs in 2013 shortly after Paul Kazarian joined from RBC Capital Markets, where he had worked in proprietary trading and bond ETF arbitrage for 6 years. While Boaz is Saba’s Chief Investment Officer, Paul has primary responsibility for CEFs and is the key person on this strategy. Paul is solely dedicated to CEFs and makes day-to-day decisions with close oversight from Boaz.

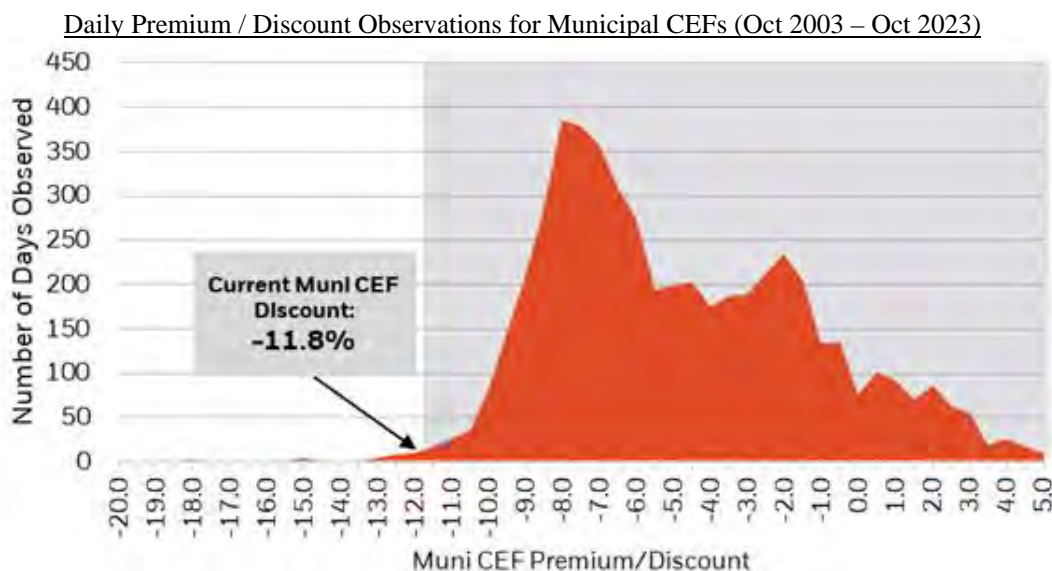


Pierre Weinstein (no relation) has worked with Boaz since 2005 at Deutsche Bank, where he managed the equity derivatives, international convertible bond and SPAC arbitrage strategies. He joined Saba at launch in 2009 and worked on CEFs more when Saba was first getting involved. Pierre spends a large majority of his time on convert and volatility arbitrage but still contributes to the CEF strategy as well.

### Investment Process and Portfolio:

Because CEFs are sold and not bought, they do not have a naturally consistent source of demand. As a result, when investors look to sell, a discount is typically required to clear the market. Since the underlying assets of CEFs are often listed and straightforward to value, the 10-year median discount for CEFs is 7% as of November 2023.

However, market and investor sentiment can significantly influence the discount toward the 13-15% levels that start to interest Saba. The Federal Reserve's interest rate hikes and 2022's market rout have helped push CEF discounts to historically wide levels. For example, in October 2023 municipal CEF discounts were near the widest levels seen over the past 20 years, as shown below.



Sources: BlackRock, Morningstar

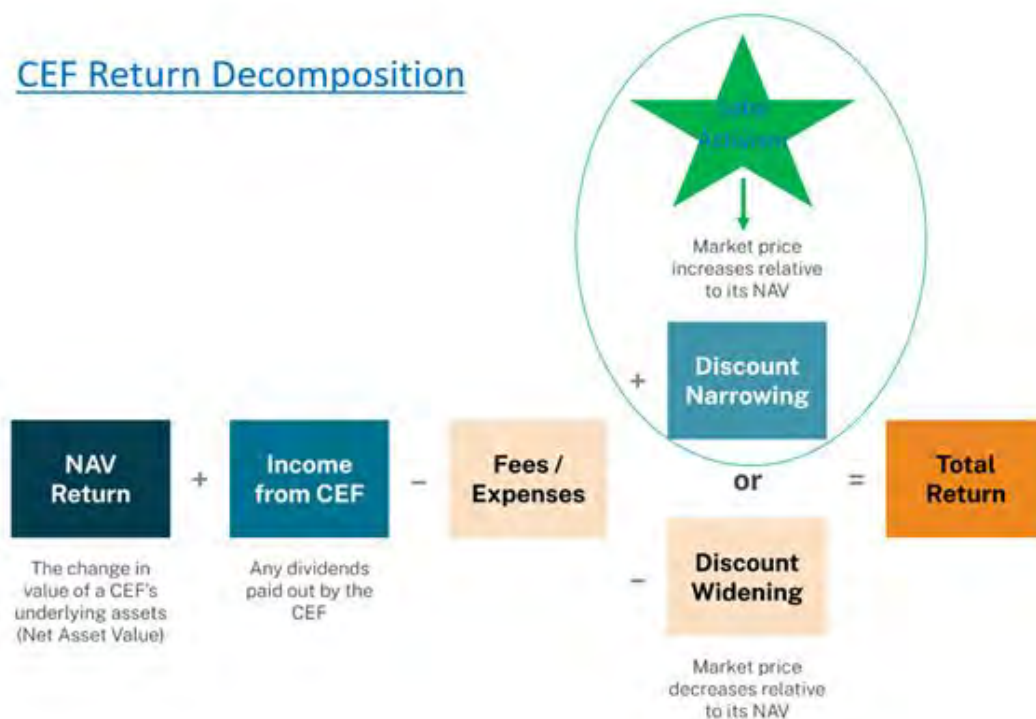
Saba first started investing in CEFs in 2013 and currently has over \$5 billion of long exposure across the firm in what on the surface appears to be a thinly traded market. However, a combination of steady daily buying and block trades has allowed Saba to accumulate meaningful positions in dozens of CEFs.

While buying assets inexpensively can be a good investment strategy, discounts can also persist indefinitely, especially if maintaining the status quo serves the interest of the asset manager. In the case of closed-end funds, the fund manager can instantly close the discount if they choose. Tendering for shares, merging with an open-end fund, or simply liquidating the underlying assets will do the job – but also reduce the manager's fee income. So that is unlikely without a catalyst.

Thus, the second part of Saba's strategy is activism. Saba has taken 92 corporate actions since 2015 that have resulted in a partial or full monetization of the discount to NAV. Since January 2021, Saba was the lead activist on 28 of the 29 corporate actions it undertook and currently has 13Ds filed (>5% ownership) in 53 different closed-end funds.

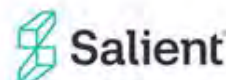


## CEF Return Decomposition



An example of Saba catalyzing action is Salient Midstream & MLP Fund (SMM), which traded at a 19% discount at the beginning of November 2021 when Saba filed their initial 13D. Saba nominated Paul and Pierre for SMM board membership at Salient's annual meeting in late June 2022. The following week the fund's trading was halted and Salient agreed to merge SMM into Salient MLP & Energy Infrastructure Fund (SMLPX), its open-end mutual fund. As shown below, about 2/3 of the discount was closed immediately when the merger was announced, with the remainder occurring when the merger closed.

## SALIENT MIDSTREAM & MLP FUND ANNOUNCES PLANNED REORGANIZATION



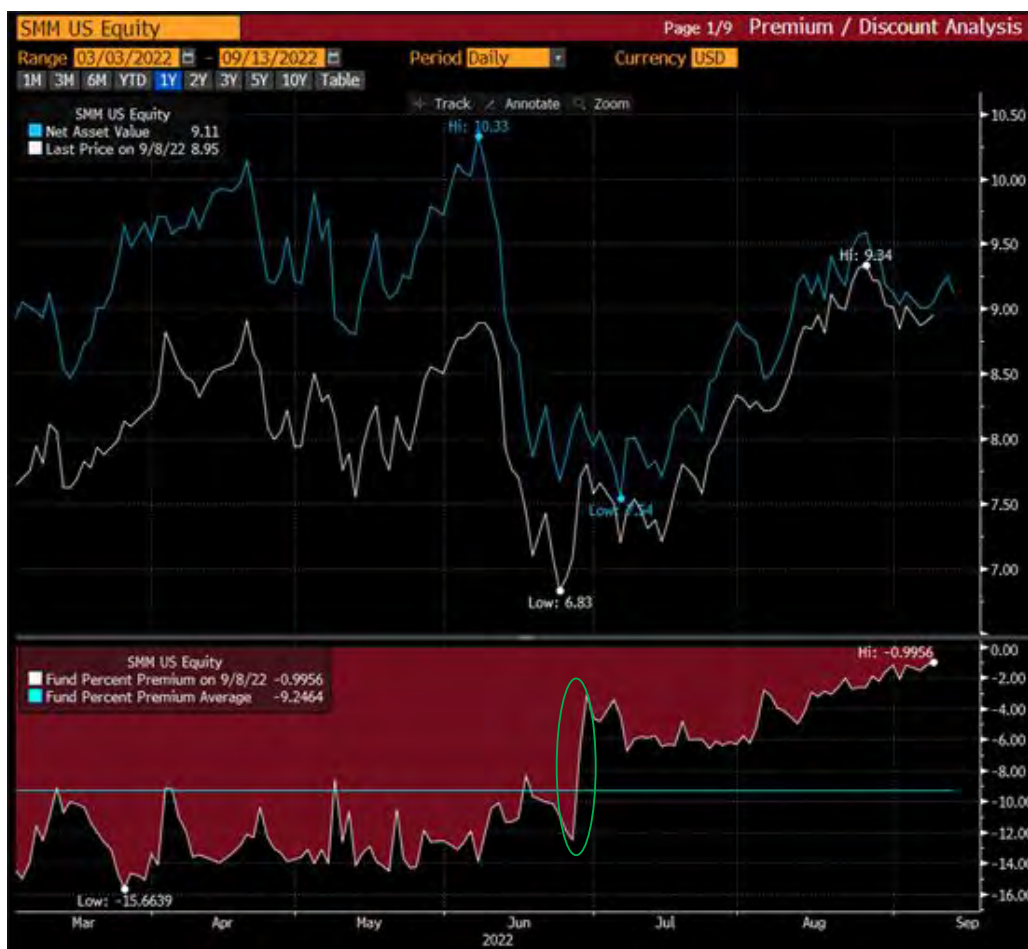
NEWS PROVIDED BY  
Salient Partners, L.P. →  
28 Jun, 2022, 12:26 ET

SHARE THIS ARTICLE



HOUSTON, June 28, 2022 /PRNewswire/ -- Salient Midstream & MLP Fund (the "Fund") (NYSE: **SMM**) announced today that its Board of Trustees determined to reorganize SMM into Salient MLP & Energy Infrastructure Fund ("SMLPX") (the reorganization of SMM into SMLPX is the "Reorganization"). SMLPX is an open-end fund that is a series of Salient MF Trust with approximately \$849 million in net assets and is also managed by Salient Capital Advisors, LLC, the investment adviser of SMM, using a similar investment strategy.

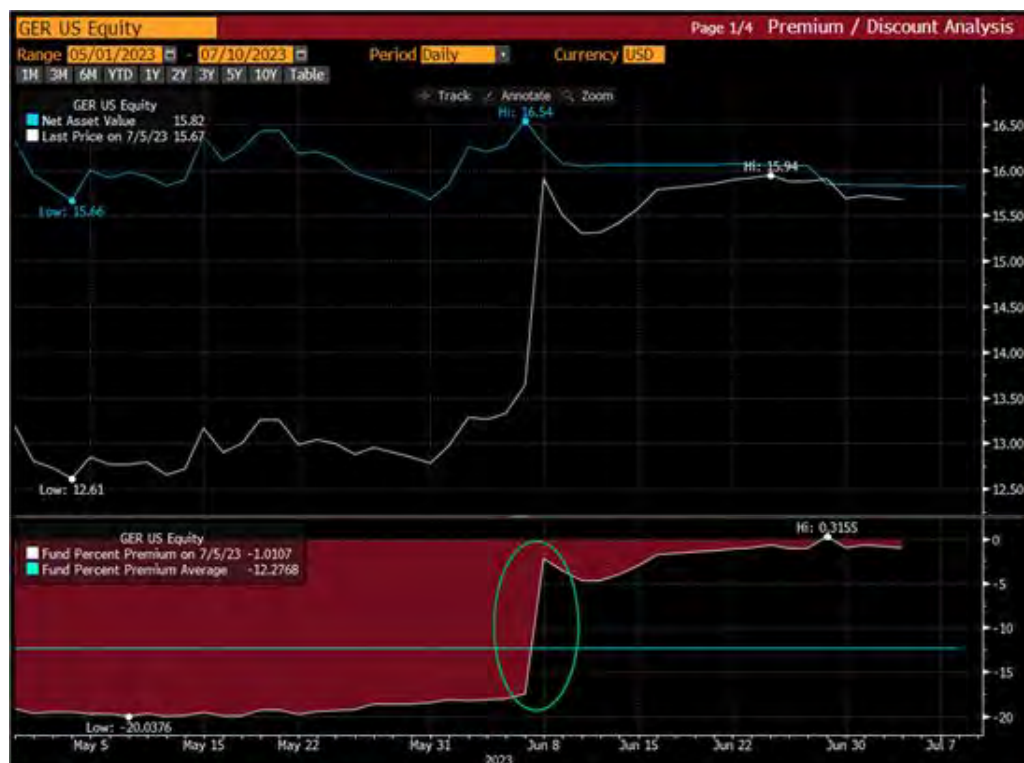
After careful consideration of a variety of factors and alternatives, the Board of Trustees determined that it would be in the best interest of shareholders to merge SMM into SMLPX.



With Saba's growing activity and success, CEF managers that find Saba as a top holder of their funds have occasionally been proactive in improving shareholder value. For example, Saba initiated a position in the Goldman Sachs MLP and Energy Renaissance fund (GER) in 1Q 2022 and became the fund's largest holder by the end of 1Q 2023. But before Saba even engaged, Goldman announced in early June that it was liquidating the fund, which instantly closed the fund's 20% discount to NAV.

### Goldman Sachs Asset Management Announces Liquidation of Goldman Sachs MLP and Energy Renaissance Fund

New York, NY, June 7, 2023 — Goldman Sachs Asset Management ("GSAM"), investment adviser for the Goldman Sachs MLP and Energy Renaissance Fund (the "Fund") (NYSE: GER), announced today that the Fund's Board of Trustees, at the recommendation of GSAM, has approved a plan of liquidation and dissolution (the "Plan") for the Fund. Under the Plan, which is effective today, the Fund will begin the process of liquidating portfolio assets and unwinding its affairs in an orderly fashion over time. The Plan is not subject to shareholder approval.



Many CEF managers have been less cooperative, which has led to a significant amount of litigation. Saba has sued and recently won judgments against managers including BlackRock, Eaton Vance, and Nuveen that have implemented provisions that limit Saba's shareholder voting rights.

Saba believes their activist trades typically span 1 to 1.25 years from inception to exit. However, with litigation some campaigns could stretch to 2 years or more – and could end up with a legal loss at the end. Additionally, the sentiment dynamics mentioned above that are a feature of the CEF landscape could cause additional discount widening, volatility, and negative returns in the short to medium term.

However, we believe Saba's approach of finding assets at discount and creating value through activism is likely to continue having success, and today's historically wide discounts provide an attractive entry point. Saba seems to share that belief as well, with its flagship fund having increased its exposure to CEFs from 9% at the end of 2021 to 46% at the end of November 2023.

#### Performance:

Fund	1 yr	3 yr	5 yr	Since Inception	Inception Date
Saba CEF Opportunities 1	17.8%	7.3%	12.3%	10.7%	Oct-15
60/40 Portfolio	17.7%	4.7%	10.0%	8.9%	
S&P Real Assets Index	7.8%	3.9%	5.9%	5.1%	

Source: Bloomberg, Saba Capital as of 12/31/2023

Since inception in October 2015, Saba's closed-end fund strategy has outpaced a blended equity and fixed income portfolio (which comprises the majority of the CEF universe) as well as a real assets benchmark.

**Conclusion:** Given the attractive economics and compelling market opportunity, Staff is recommending an investment of \$175 million to be shared among all CERS plans pending successful investment management agreement negotiations. When fully funded, this would represent an additional ~1.0-1.1% of plan assets (depending on fluctuations in market value). It is anticipated this investment would be funded by existing cash or the unwinding of proxy positions based on the specific needs of each plan.

Investment and Terms Summary

**Type of Investment:** Real Return

**Structure:** Separate Account

**Liquidity:** Agreement can be terminated by either side with 90 days' notice. For withdrawals, we can get up to 25% of our account quarterly with 65 days' notice.

**Management Fee:** 0.75%

**Performance Fee:** 25% of profits above a blended benchmark of 50% [S&P Global Mid Small Cap Index](#) and the [SPDR Nuveen Bloomberg Municipal Bond ETF](#)

**Purpose:** Provide CERS with exposure to listed real asset, fixed income, and equity securities at a discount. Earn yield and monetize closed-end fund discounts through successful shareholder activism and litigation.

**Risks:** Volatility, Liquidity, Key Person, Legal

**Exp. Net Return:** 8% - 12%

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



## MEMORANDUM

**DATE:** March 4, 2024

**TO:** CERS Board of Trustees

**FROM:** Betty Pendergrass, Chair *BAP*

**SUBJECT:** CERS Investment History

---

There were several questions during the Investment Committee's discussion of a new asset allocation for CERS. The attached schedules provide a historical analysis for some of the questions about asset allocation. I focused primarily on the CERS non-hazardous plan to keep the analysis concise. The Hazardous plan is just as important but has generally been invested using the same strategy as the non-hazardous plan with similar results.

1. The CERS Historical Actuarial Summary schedule outlines both the funded status of the plan, the discount rate assumption, and actual investment earnings. Investment yields have declined since the 2016 shift away from public equity to private credit assets.
2. KPPA Historical Investment Earnings (by asset class) highlights both yields and costs, along with asset allocation targets. There appears to be a significant shift in reporting management fees in the Summary Annual Financial Report between 2020 and 2021. This schedule was intended to highlight the costs of the lower yields in alternative asset classes.
3. CERS Cash Flow Analysis is intended to outline how investment earnings contribute to funding the difference between contribution inflows and benefit outflows.
4. The Analysis of State Retirement Systems compares key characteristics of the CERS plan with other statewide plans. Missouri, Delaware, Michigan, and Rhode Island data only includes the statewide cost-sharing plan for local governments. Maine, Idaho, and Oklahoma reflects data for statewide plans that include both state and local employees, while the Maine plan also includes teachers.
5. The CERS Investment Portfolio Model schedule includes additional information with the Wilshire proposal. Columns for current actual yields, current allocation and Wilshire's projected 30-year yield were added to consolidate several key issues to one schedule. This schedule has been added to the Asset Allocation tab.

If you have any questions, please give me a call.

# CERS Board Meeting - Investment Committee Report

## CERS Historical Actuarial Summary

Note: To simplify the summary, the data is only the nonhazardous pension information. Investment asset allocation for the hazardous and nonhazardouse system are basically the same and the discount rates have also been the same for both plans.

FYE 6/30	Discount Rate Assumption	Total Actuarial Accrued Liability (in millions)	Actuarial Value of Assets (1) (in millions)	Funded Status	Investment Market Value (in millions)	Actual Investment Earnings		
						10-yr returns	20-yr returns	Since Inception
1990	N/A	\$ 1,432.3	\$ 1,270	88.68%	N/A	N/A	N/A	N/A
1991	N/A	\$ 1,654.3	\$ 1,396	84.40%	N/A	N/A	N/A	N/A
1992	N/A	\$ 1,862.0	\$ 1,735	93.18%	N/A	N/A	N/A	N/A
1993	N/A	\$ 2,080.0	\$ 1,986	95.47%	N/A	N/A	N/A	N/A
1994	N/A	\$ 2,330.3	\$ 2,173.3	93.26%	N/A	N/A	N/A	N/A
1995	N/A	\$ 2,603.6	\$ 2,454.1	94.26%	N/A	N/A	N/A	N/A
1996	N/A	\$ 2,778.3	\$ 2,880.0	103.66%	N/A	N/A	N/A	N/A
1997	N/A	\$ 3,144.9	\$ 3,514.0	111.74%	N/A	N/A	N/A	N/A
1998	N/A	\$ 3,529.9	\$ 4,273.2	121.06%	N/A	N/A	N/A	N/A
1999	N/A	\$ 3,955.1	\$ 5,196.9	131.40%	N/A	N/A	N/A	N/A
2000	8.25%	\$ 4,453.2	\$ 6,729.6	151.12%	N/A	13.33%	N/A	N/A
2001	8.25%	\$ 4,900.1	\$ 6,910.5	141.03%	N/A	11.81%	N/A	N/A
2002	8.25%	\$ 5,492.6	\$ 6,883.3	125.32%	\$ 4,127	10.10%	N/A	N/A
2003	8.25%	\$ 4,417.6	\$ 5,286.6	119.67%	\$ 4,175	9.30%	N/A	N/A
2004	8.25%	\$ 4,936.4	\$ 5,187.8	105.09%	\$ 4,613	10.59%	11.30%	N/A
2005	8.25%	\$ 5,385.2	\$ 5,059.2	93.95%	\$ 4,894	9.65%	10.40%	N/A
2006	7.75%	\$ 6,179.6	\$ 5,162.9	83.55%	\$ 5,191	8.88%	9.76%	N/A
2007	7.75%	\$ 6,659.4	\$ 5,467.8	82.11%	\$ 5,813	8.08%	9.91%	N/A
2008	7.75%	\$ 7,304.2	\$ 5,731.5	78.47%	\$ 5,432	5.60%	9.61%	N/A
2009	7.75%	\$ 7,912.9	\$ 5,650.8	71.41%	\$ 4,331	2.25%	7.91%	N/A
2010	7.75%	\$ 8,459.0	\$ 5,546.8	65.57%	\$ 4,820	3.11%	8.10%	N/A
2011	7.75%	\$ 8,918.1	\$ 5,629.6	63.13%	\$ 5,577	5.49%	8.60%	N/A
2012	7.75%	\$ 9,139.6	\$ 5,547.2	60.69%	\$ 5,373	5.99%	8.01%	9.36% *
2013	7.75%	\$ 9,378.9	\$ 5,637.1	60.10%	\$ 5,781	6.60%	8.60%	9.40% *
2014	7.75%	\$ 9,772.5	\$ 6,117.1	62.60%	\$ 6,507	6.78%	8.01% *(2)	9.60% *
2015	7.50%	\$ 10,740.3	\$ 6,474.8	60.29%	\$ 6,417	6.05%	7.94% *(2)	9.35% *
2016	7.50%	\$ 11,076.5	\$ 6,535.3	59.00%	\$ 6,106	5.01%	6.94% *(2)	9.02%
2017	6.25%	\$ 12,803.5	\$ 6,764.9	52.84%	\$ 6,687	4.88%	6.47% (2)	9.27%
2018	6.25%	\$ 13,191.5	\$ 7,019.0	53.21%	\$ 7,019	6.22%	5.91% (2)	9.15%
2019	6.25%	\$ 14,356.1	\$ 7,049.6	49.11%	\$ 7,160	8.86%	5.50% (2)	9.05%
2020	6.25%	\$ 14,610.9	\$ 7,220.6	49.42%	\$ 7,027	7.37%	5.22% (2)	8.82%
2021	6.25%	\$ 14,894.9	\$ 7,715.9	51.80%	\$ 8,566	7.98%	N/A (2)	9.24%
2022	6.25%	\$ 15,674.2	\$ 8,148.9	51.99%	\$ 7,964	7.32%	6.64% (2)	8.82%
2023	6.50%	\$ 15,296.0	\$ 8,571.0	56.03%	\$ 8,694	7.27%	6.93% (2)	8.88%

(1) Actuarial asset value includes a 5-yr smoothing of investment gains/losses

\* KRS Total Fund--separation by system was not reported

(2) From monthly June reports, except 2021 which was not generated

Sources: Annual Actuarial Valuation reports and Annual Comprehensive Financial Reports



# CERS Board Meeting - Investment Committee Report

## KPPA Historical Investment Earnings<sup>1</sup> By Asset Class

Asset Class	2023			2022			2021			2020			2019		
	Returns <sup>2</sup>	% of total	Mgt Fees	Returns <sup>2</sup>	% of total	Mgt Fees	Returns <sup>2</sup>	% of total	Mgt Fees	Returns <sup>2</sup>	% of total	Mgt Fees	Returns <sup>2</sup>	% of total	Mgt Fees
			(in Millions)			(in Millions)			(in Millions)			(in Millions)			(in Millions)
Public Equity	10.2	45.9	\$ 23.80	9.9	41.9	\$ 13.80	10.9	44.0%	\$ 12.40	8.3%	39.2%	\$ 4.70	8.6%	39.6%	\$ 5.40
Private Equity	11.8	6.9	\$ 10.70	12.8	8.6	\$ 59.80	12	7.8%	\$ 58.80	9.3%	9.1%	\$ -	10.7%	10.4%	\$ 15.40
Core Fixed Income	2.4	12.9	\$ 4.30	1.8	14.2	\$ 2.70	3.6	15.1%	\$ 2.60	3.2%	18.3%	\$ 1.50	3.0%	15.5%	\$ 1.20
Specialty Credit	5.7	19.4	\$ 67.70	2.5	20.9	\$ 51.10	6.5	16.8%	\$ 39.80	3.4%	16.4%	\$ 6.30	6.0%	15.2%	\$ 8.00
Cash	3.3	6.2	\$ 3.90	2.9	4.8	\$ 4.30	3.4	3.3%	\$ 4.20	2.6%	2.5%	\$ 1.70	2.6%	4.4%	\$ 1.50
Real Return	4.8	2.9	\$ 6.10	3.9	3.7	\$ 4.90	3.5	6.5%	\$ 8.30	2.4%	5.8%	\$ 1.90	3.6%	8.6%	\$ 3.30
Real Estate	6.6	5.8	\$ 7.10	6.8	5.9	\$ 34.90	8.7	3.9%	\$ 9.20	9.3%	4.4%	\$ 5.30	9.2%	3.6%	\$ 6.90
Absolute return										2.8%	1.3%	\$ -	3.6%	1.7%	\$ 1.20
Opportunistic								2.6%	\$ 4.20	3.7%	3.0%	\$ 1.30	10.6%	1.1%	\$ 0.50
Total Assets	8.8	100%	\$ 123.60	8.9	100%	\$ 171.50	8.8	100.0%	\$ 139.50	7.2%	100%	\$ 22.70	7.4%	100%	\$ 43.40
Total Illiquid Assets		23.9%			26.8%			23.4%			24.5%			25.9%	

Source: Summary Annual Financial Reports

<sup>1</sup> Historical investment information by asset class for CERS has never been calculated

<sup>2</sup> Since inception yields

CERS Board Meeting - Investment Committee Report

CERS Cash Flow Analysis  
CERS NonHazardous

Describe	(in thousands)									
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Member Contributions	\$ 147,815	\$ 186,683	\$ 165,730	\$ 169,099	\$ 159,215	\$ 162,914	\$ 152,775	\$ 135,326	\$ 47,166	\$ 42,631
Employer Contributions <sup>3</sup>	645,940	606,772	472,196	475,311	393,302	355,473	331,493	282,767	107,515	115,240
Total Contributions	793,755	793,455	637,926	644,410	552,517	518,387	484,268	418,093	154,681	157,871
Benefit payments	894,351	858,261	826,749	795,960	766,221	726,568	687,460	651,247	200,134	189,635
Refunds	23,263	19,789	13,862	14,918	14,387	14,608	14,430	13,754	3,111	2,665
Admin Expenses	24,128	22,670	21,767	22,304	21,659	19,592	19,691	19,385	1,289	1,721
Total Expenses	941,742	900,720	862,378	833,182	802,267	760,768	721,581	684,386	204,534	194,021
Net Contributions/Expenses	(147,987)	(107,265)	(224,452)	(188,772)	(249,750)	(242,381)	(237,313)	(266,293)	(49,853)	(36,150)
Investment Earnings <sup>1</sup>										
Interest/dividends	239,709	239,643	218,068	162,986	168,631	154,008	184,728	117,432	51,237	54,124
Less investment expense	(52,170)	(45,454)	(36,271)	(29,426)	(30,717)	(32,464)	48,166	(49,107)	(14,387)	(8,221)
Less performance fees	(10,465)	(58,431)	(46,853)	(943)	(19,351)	(22,254)				
Net investment cash flow <sup>2</sup>	177,074	135,758	134,944	132,617	118,563	99,290	232,894	68,325	36,850	45,903
Net Cash Flow	\$ 29,087	\$ 28,493	\$ (89,508)	\$ (56,155)	\$ (131,187)	\$ (143,091)	\$ (4,419)	\$ (197,968)	\$ (13,003)	\$ 9,753
Net realized/unrealized gains/(losses)	\$ 877,122	\$ (398,122)	\$ 1,866,588	\$ 85,793	\$ 443,434	\$ 631,226	\$ 688,184	\$ (111,343)	\$ (256)	\$ 241,913

Source: ACFR Statement of Changes

<sup>1</sup> Does not include securities lending transactions

<sup>2</sup> Does not include realized investment gains

<sup>3</sup> Does not include employer pay credit for Tier 3



# CERS Board Meeting - Investment Committee Report

## ANALYSIS OF STATE RETIREMENT SYSTEMS STATEWIDE PLANS FOR STATE EMPLOYEES

STATE	Statewide Plan Characteristics				Investment Portfolio							Actuarial Information	
	Plan Net Position (in millions)	Employer Contribution Rate	# of Members	Average Benefit	Stocks	Bonds	Private Equity	Specialty Credit	Alternatives	Cash & Liquidity	20-year Actual Yield	Defined Benefit Funded Status	Discount Rate
Kentucky CERS NH	\$ 8,613	23.3%	255,055	\$ 12,284	51.3%	10.1%	7.0%	20.2%	9.8%	1.6%	6.65%	56.1%	6.50%
Kentucky Teachers	\$ 24,245	3.355% - 34.835'	198,143	\$ 40,697	60.4%	13.0%	8.0%	**	17.7%	0.9%	7.45%	58.60%	7.10%
Missouri (LAGERS)	\$ 10,394	14.70%	75,833	\$ 15,540	19.1%	24.2%	17.4%	8.3%	22.7%	8.3%	8.00%	95.10%	7.00%
Delaware (Local Gov NonHaz)	\$ 93,957	5.55%	1,117	\$ 11,567	49.7%	25.2%	**	**	19.3%	5.8%	7.40% (3)	97.80%	7.00%
Rhode Island (MERS)	\$ 2,166	12.68%	11,047	\$ 16,180	38.6%	10.5%	18.9%	**	32.0%	**	7.75% (1)	86.70%	7.00%
Michigan (MERS Agent plan)	\$ 10,980	16.90%	96,979	\$ 23,181	50.3%	22.6%	6.3%		20.0%	0.9%	6.49% (1)	78.00%	7.00%
Maine (statewide local & state, includes teachers)	\$ 3,855	5.6% - 14.7%	37,114	\$ 19,159	30.0%	15.0%	12.5%	10.0%	32.5%	0.0%	7.40%	92.34%	6.50%
Idaho (local and state)	\$ 20,710	13.26%	135,272	\$ 23,411	51.9%	22.4%	7.1%	3.2%	14.2%	1.2%	7.90% (1)	83.80%	6.35%
Oklahoma (local and state)	\$ 9,987	11.5% - 16.5%	72,331	\$ 18,691	70.0%	29.6%	0.0%	0.0%	0.1%	0.3%	6.20% (2)	95.91%	6.50%

\*\*PERS did not split out this category

(1) 10-year return

(2) 5-year return

(3) 15-year return

CERS Board Meeting - Investment Committee Report

CERS Investment Portfolio Model  
Investment Committee 02/28/2024

Asset Class	Current ITD Yields* (12/31/2023)	Current Allocation*	Current Target	Optimization Constraints	Lower Risk A	Optimization Constraints	Lower Risk B	Wilshire 30-yr Yield Projections
Public Equity	10.25%	51.30%	50.00%	45% - 80%	45.00%	40% - 80%	40.00%	7.15%
Private Equity	11.68%	7.00%	10.00%	0% - 10%	8.00%	0% - 10%	7.50%	9.95%
Total Equity		58.30%	60.00%		53.00%		47.50%	
Core Fixed Income	2.79%	10.10%	10.00%	10% - 50%	10.00%	10% - 50%	15.50%	4.80%
Specialty Credit	6.23%	20.20%	10.00%	0% - 25%	23.00%	0% - 20%	20.00%	7.40%
Cash	3.34%	1.60%	0.00%	2% - 5%	2.00%	2% - 5%	2.00%	3.55%
Total Fixed Income		31.90%	20.00%		35.00%		37.50%	
Real Estate	6.42%	5.70%	7.00%	5% - 10%	5.00%	5% - 10%	5.00%	6.95%
Real Return	5.14%	4.00%	13.00%	0% - 10%	7.00%	0% - 10%	10.00%	7.35%
Total Inflation Protected		9.70%	20.00%		12.00%		15.00%	
Total Assets	8.88%	99.90%	100.00%		100.00%		100.00%	
Total Illiquid Assets		24.80%	28.50%	0% - 35%	28.00%	0% - 35%	27.50%	
Expected Return - 10 years* (%)		6.90	6.95		6.95		6.86	
Expected Return - 30 years* (%)		7.79	7.65		7.53		7.4	
Standard Deviation of Return (%)		9.51	12.82		11.73		10.88	
+ / (-) in Expected Return - 10 years (bps)					0		(9)	
+ / (-) in Expected Return - 30 years (bps)					(12)		(25)	
+ / (-) in SD Return (bps)					(109)		(194)	
Sharpe Ratio**		0.72	0.24		0.26		0.28	

\* Current allocation reflects actual returns as of December 31, 2023

\*\* Standard deviation & Sharpe ratio for current allocation is only 5 years

**Wilshire**



# County Employees Retirement System – CERS

Asset Allocation Analysis

November 2023

## Contents

Background & Overview

Asset Allocation Approach

Asset Allocation Inputs

Asset Liability Projections

Observations & Recommendations

Appendix

Wilshire

# Background & Overview

wilshire.com | ©2023 Wilshire Advisors LLC

## Background & Overview

- The asset allocation decision is the most important decision an investor can make
  - The asset allocation decision drives 90% of return variability among portfolios
- Wilshire recommends revisiting the asset allocation decision every three to five years, or sooner, as market conditions warrant
  - KRS (pre-separation) last reviewed asset allocation in February of 2022; The last full asset-liability study was conducted in November 2020
  - In order to meet the then 6.25% discount rate, given the capital market assumptions at the time, increased exposure to public equities were approved by reducing allocations to fixed income and diversifying asset classes.
- The market environment in 2023 is much different than that of 2020, largely driven by a regime change that resulted in significantly higher interest rates allowing fixed income to once again play a prominent role in client portfolios
- What have we done to date regarding the study?
  - Worked with staff to confirm policies to model as a component of a mean-variance analysis
  - Collected most recent CERS actuarial data

## Opportunity

CERS has the opportunity to look forward and reduce risk in a meaningful way without compromising returns

- Fixed income assets provide utility again
- Forward-looking returns on equities are subdued due to high valuations and recent strong returns
- Expected returns for several policy options are comfortably above CERS' actuarial assumed return of 6.50%

### Focus of the 2023 Asset Liability Study

- Review liability characteristics and model various asset policies to complement CERS' liability structure
- Consider alternative strategic asset allocation policies that can reduce risk, as measured by expected volatility and the portfolio's economic factor exposures to growth and inflationary environments, while maintaining similar expected returns as the current asset allocation policy
  - Improve ability to withstand market drawdowns
  - Back off additional growth exposure/risk previously needing to be underwritten to reach return hurdles

Wilshire

# Observations & Recommendation



## Observations and Recommendations

Wilshire recommends that The Board adopt one of the two lower risk policies set forth in this presentation based on The Board's desired risk profile

### Overview of Recommended Policies

#### Lower Risk A

- Public Equity constrained to minimum of 45%
- Slight reduction in Private Equity to 8%
- Increased allocation to Specialty Credit (23%)
- Modest cash allocation of 2%
- Core Fixed Income remains at 10%
- Same expected return as Current Policy (6.95%)
- Lower Expected Risk by just over 1%
- Sharpe Ratio of .26

#### Lower Risk B

- Public Equity constrained to minimum of 40%
- Slight reduction in Private Equity to 7.5%
- Increased allocation to Specialty Credit (20%\*)
- Modest cash allocation of 2%
- Increased Core Fixed Income Allocation to 15.5%
- Slightly reduced expected return when compared to Current Policy (6.86%, or 9 bps less)
- Lower Expected Risk by 1.94%
- Sharpe Ratio of .28

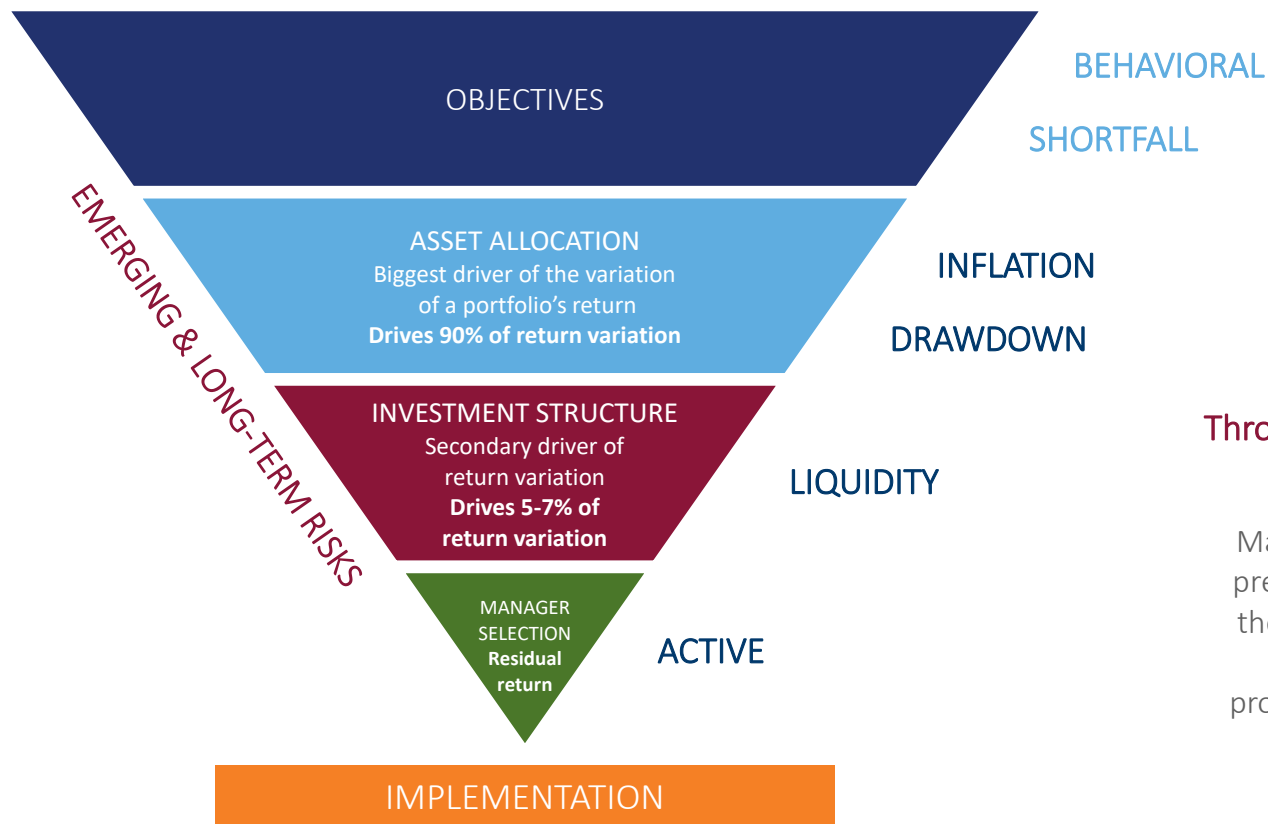
\* Lower Risk B used a maximum of 20% to Specialty Credit

Wilshire

# Asset Allocation Approach

wilshire.com | ©2023 Wilshire Advisors LLC

## Focus on Decisions That are Most Impactful



### Address Key Risks Throughout the Investment Process

Many of the six key risks are present at multiple points in the investment process, but each distinct step in the process is focused on one or two primary risks.

## Risk Assessment Framework

Wilshire's multi-dimensional view of risk integrates organizational and investment considerations into a comprehensive framework for evaluating strategic decisions.

**Shortfall:** Support distributions and long-term growth

**Behavioral:** Instill strong governance

**Drawdown:** Limit portfolio losses

**Inflation:** Preserve long-term purchasing power

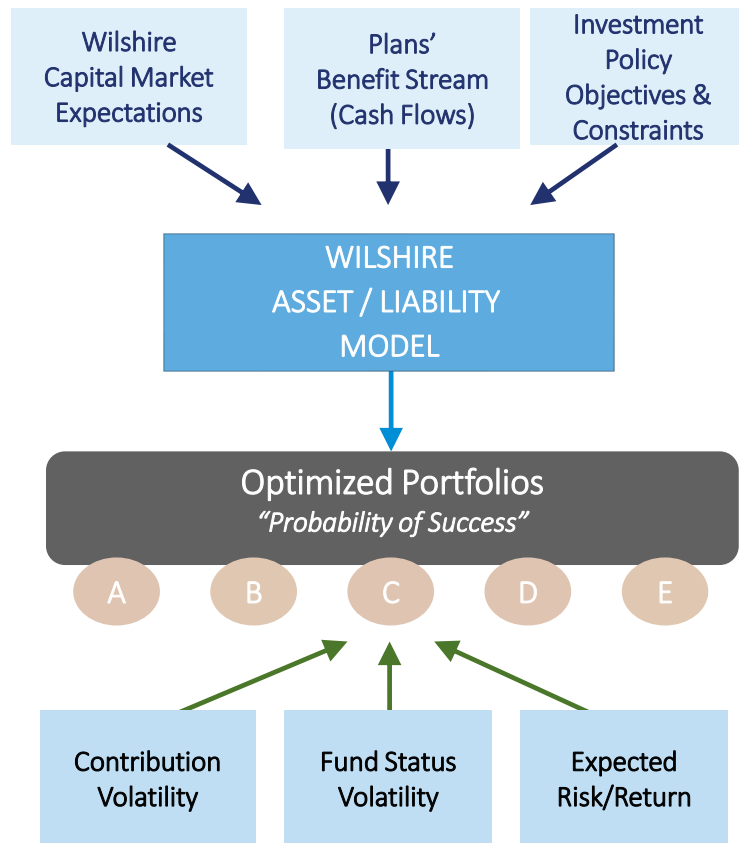
**Liquidity:** Balance near-term needs, long-term opportunities

**Active:** Ensure unique exposures

**Emerging & Long-Term:** Environmental, Social & Governance risks, such as externalities, intangibles and reputation may be linked to various risk lenses



## Asset Allocation Process



- The mission of a defined benefit plan is to fund benefits promised to participants
- The role of asset allocation is to manage risk in order to fulfill that core mission
  - **Maximize safety** of promised benefits
  - **Minimize cost** of funding these benefits
- Wilshire's Asset Liability Model provides methodology for selecting a target portfolio that considers both goals
- Rigorously developed capital market assumptions for risk and return (see appendix)
- Given that short-term volatility is also important, we identify the impact of the asset allocation decision on funded ratios, annual contribution requirements, and other metrics
- Strategic asset allocation is not a guide to outperforming in every market ... but it should provide a roadmap for success over a market cycle

Wilshire

# Asset Allocation Inputs

wilshire.com | ©2023 Wilshire Advisors LLC



Wilshire

# CERS NON-HAZARDOUS RETIREMENT PLAN

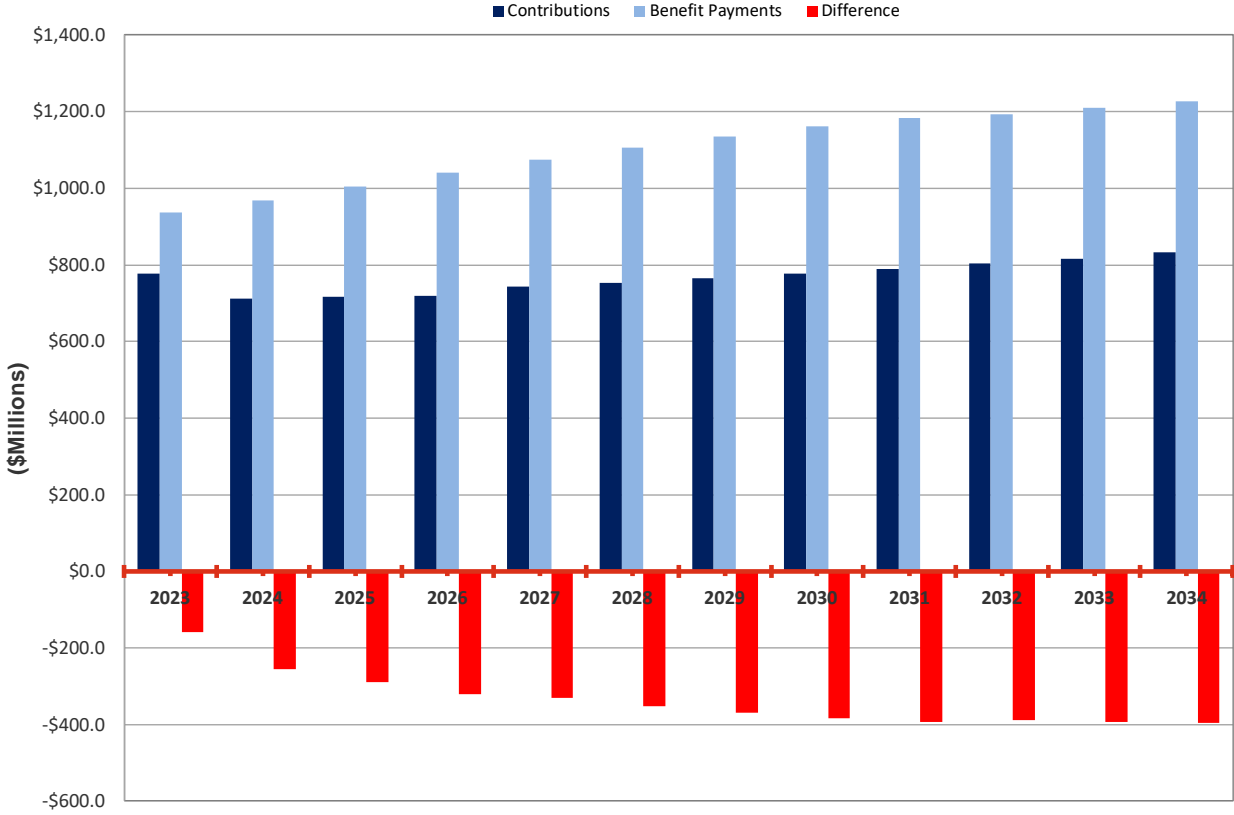
## Plan Status

	June 30, 2022	June 30, 2023
<b>Asset and Liability Data (\$ - Millions)</b>		
1. Actuarial Accrued Liability (AAL)	15,674.0	15,111.0
2. <u>Market Value of Assets (MVA)</u>	<u>7,963.6</u>	<u>8,693.8</u>
3. AAL MVA Funded Status (Unfunded Liability) (1. - 2.)	7,710.4	6,417.2
4. <u>AAL MVA Funded Ratio (2. / 1.)</u>	<u>50.8%</u>	<u>57.5%</u>
5. Actuarial Value of Assets (AVA)	8,149.0	8,570.1
6. AAL AVA Funded Status (Unfunded Liability) (1. - 5.)	7,525.0	6,540.9
7. <u>AAL AVA Funded Ratio (5. / 1.)</u>	<u>52.0%</u>	<u>56.7%</u>
<b>Economic Assumptions</b>		
Discount Rate	6.25%	6.50%

- June 30, 2022, data was provided in the actuarial valuation report by the plan actuary.
- June 30, 2023, data was projected by Wilshire using data from the report and additional metrics provided by the actuary.



Projected Cashflow



• *Benefit payments and contributions (both employer and member) were provided by plan actuary.*

Wilshire

# CERS HAZARDOUS RETIREMENT PLAN

wilshire.com | ©2023 Wilshire Advisors LLC

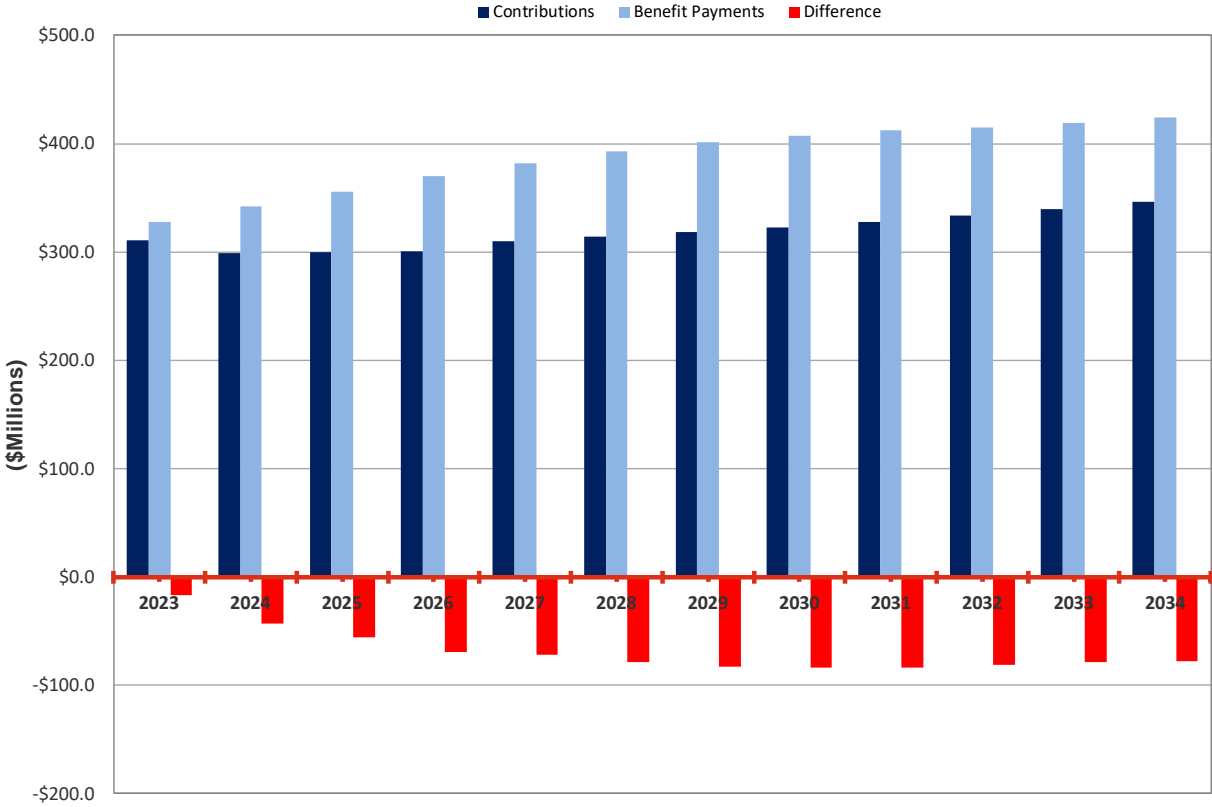
16

## Plan Status

	June 30, 2022	June 30, 2023
<b>Asset and Liability Data (\$ - Millions)</b>		
1. Actuarial Accrued Liability (AAL)	5,861.7	5,747.0
<u>2. Market Value of Assets (MVA)</u>	<u>2,718.2</u>	<u>3,006.3</u>
3. AAL MVA Funded Status (Unfunded Liability) (1. - 2.)	3,143.5	2,740.7
<u>4. AAL MVA Funded Ratio (2. / 1.)</u>	<u>46.4%</u>	<u>52.3%</u>
5. Actuarial Value of Assets (AVA)	2,788.7	2,983.7
6. AAL AVA Funded Status (Unfunded Liability) (1. - 5.)	3,073.0	2,763.3
<u>7. AAL AVA Funded Ratio (5. / 1.)</u>	<u>47.6%</u>	<u>51.9%</u>
<b>Economic Assumptions</b>		
Discount Rate	6.25%	6.50%

- June 30, 2022, data was provided in the actuarial valuation report by the plan actuary.
- June 30, 2023, data was projected by Wilshire using data from the report and additional metrics provided by the actuary.

Projected Cashflow



• Benefit payments and contributions (both employer and member) were provided by plan actuary.



Wilshire

# CERS NON-HAZARDOUS INSURANCE PLAN

wilshire.com | ©2023 Wilshire Advisors LLC

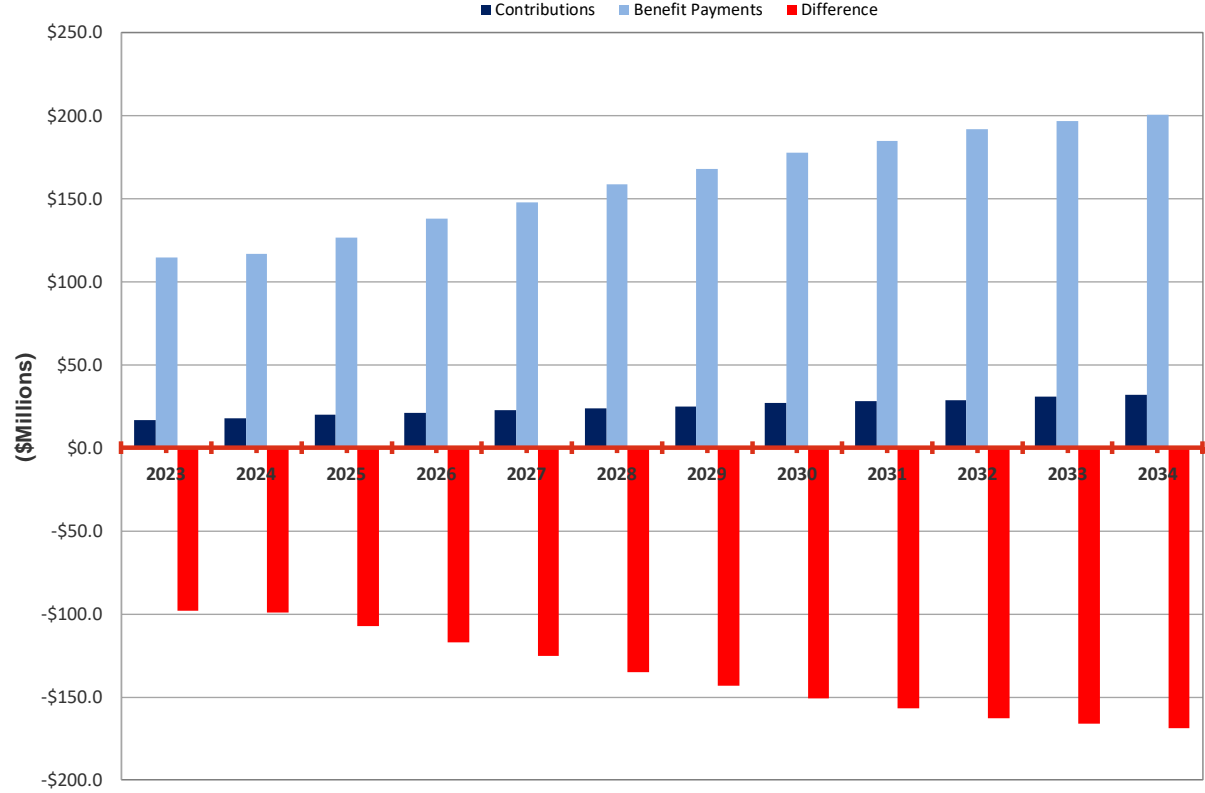
19

## Plan Status

	June 30, 2022	June 30, 2023
<b>Asset and Liability Data (\$ - Millions)</b>		
1. Actuarial Accrued Liability (AAL)	2,392.0	2,350.0
<u>2. Market Value of Assets (MVA)</u>	<u>3,080.0</u>	<u>3,274.9</u>
3. AAL MVA Funded Status (Unfunded Liability) (1. - 2.)	(688.0)	(924.9)
<u>4. AAL MVA Funded Ratio (2. / 1.)</u>	<u>128.8%</u>	<u>139.4%</u>
5. Actuarial Value of Assets (AVA)	3,160.1	3,277.4
6. AAL AVA Funded Status (Unfunded Liability) (1. - 5.)	(768.1)	(927.4)
<u>7. AAL AVA Funded Ratio (5. / 1.)</u>	<u>132.1%</u>	<u>139.5%</u>
<b>Economic Assumptions</b>		
Discount Rate	6.25%	6.50%

- June 30, 2022, data was provided in the actuarial valuation report by the plan actuary.
- June 30, 2023, data was projected by Wilshire using data from the report and additional metrics provided by the actuary.

Projected Cashflow



• Benefit payments and contributions (both employer and member) were provided by plan actuary.



Wilshire

# CERS HAZARDOUS INSURANCE PLAN

wilshire.com | ©2023 Wilshire Advisors LLC

22

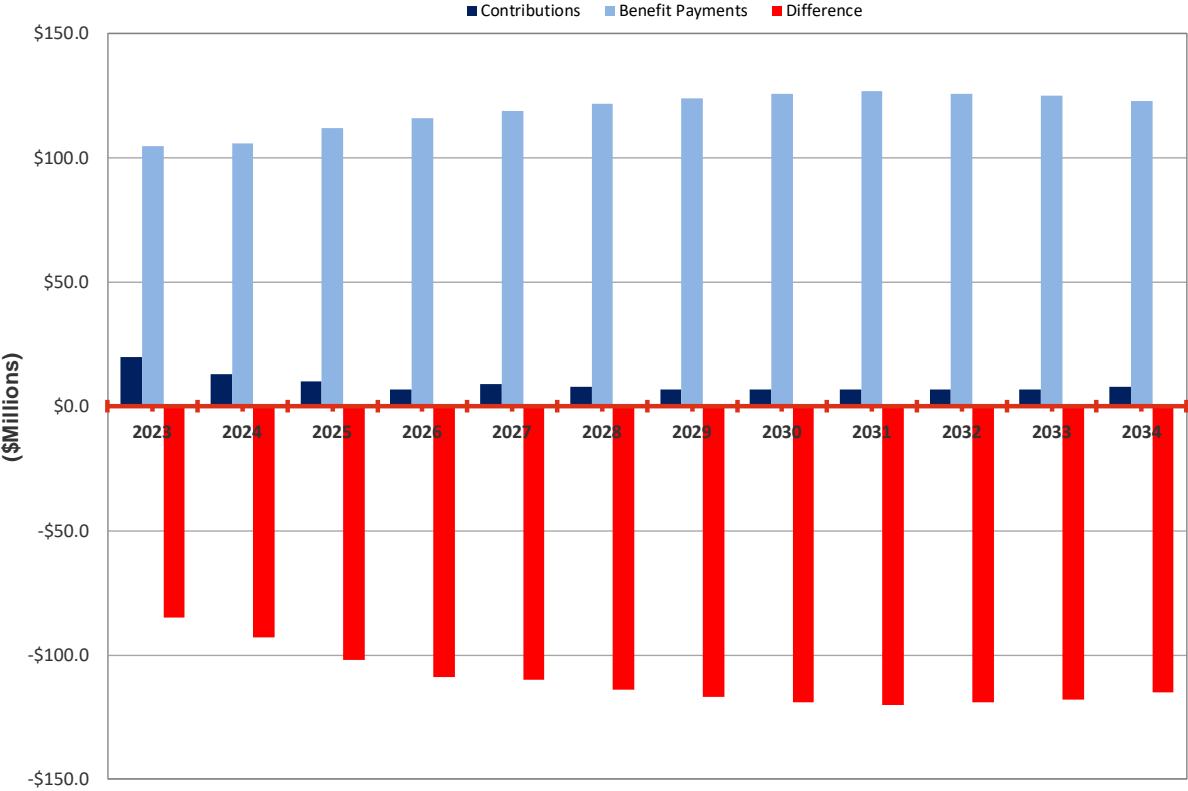


## Plan Status

	June 30, 2022	June 30, 2023
<b>Asset and Liability Data (\$ - Millions)</b>		
1. Actuarial Accrued Liability (AAL)	1,538.1	1,506.0
<u>2. Market Value of Assets (MVA)</u>	<u>1,522.7</u>	<u>1,606.0</u>
3. AAL MVA Funded Status (Unfunded Liability) (1. - 2.)	15.5	(100.0)
<u>4. AAL MVA Funded Ratio (2. / 1.)</u>	<u>99.0%</u>	<u>106.6%</u>
5. Actuarial Value of Assets (AVA)	1,553.8	1,579.8
6. AAL AVA Funded Status (Unfunded Liability) (1. - 5.)	(15.6)	(73.8)
<u>7. AAL AVA Funded Ratio (5. / 1.)</u>	<u>101.0%</u>	<u>104.9%</u>
<b>Economic Assumptions</b>		
Discount Rate	6.25%	6.50%

- June 30, 2022, data was provided in the actuarial valuation report by the plan actuary.
- June 30, 2023, data was projected by Wilshire using data from the report and additional metrics provided by the actuary.

Projected Cashflow



• Benefit payments and contributions (both employer and member) were provided by plan actuary.

Wilshire

BOTH PLANS

wilshire.com | ©2023 Wilshire Advisors LLC

25

## Plan Status – As of June 30, 2023

	CERS Non-Hazardous Pension	CERS Hazardous Pension	CERS Non-Hazardous Insurance	CERS Hazardous Insurance
<b>Asset and Liability Data (\$ - Millions)</b>				
1. Actuarial Accrued Liability (AAL)	15,111.0	5,747.0	2,350.0	1,506.0
<u>2. Market Value of Assets (MVA)</u>	<u>8,693.8</u>	<u>3,006.3</u>	<u>3,274.9</u>	<u>1,606.0</u>
3. AAL MVA Funded Status (Unfunded Liability) (1. - 2.)	6,417.2	2,740.7	(924.9)	(100.0)
<u>4. AAL MVA Funded Ratio (2. / 1.)</u>	<u>57.5%</u>	<u>52.3%</u>	<u>139.4%</u>	<u>106.6%</u>
5. Actuarial Value of Assets (AVA)	8,570.1	2,983.7	3,277.4	1,579.8
6. AAL AVA Funded Status (Unfunded Liability) (1. - 5.)	6,540.9	2,763.3	(927.4)	(73.8)
<u>7. AAL AVA Funded Ratio (5. / 1.)</u>	<u>56.7%</u>	<u>51.9%</u>	<u>139.5%</u>	<u>104.9%</u>
<b>Economic Assumptions</b>				
Discount Rate	6.50%	6.50%	6.50%	6.50%

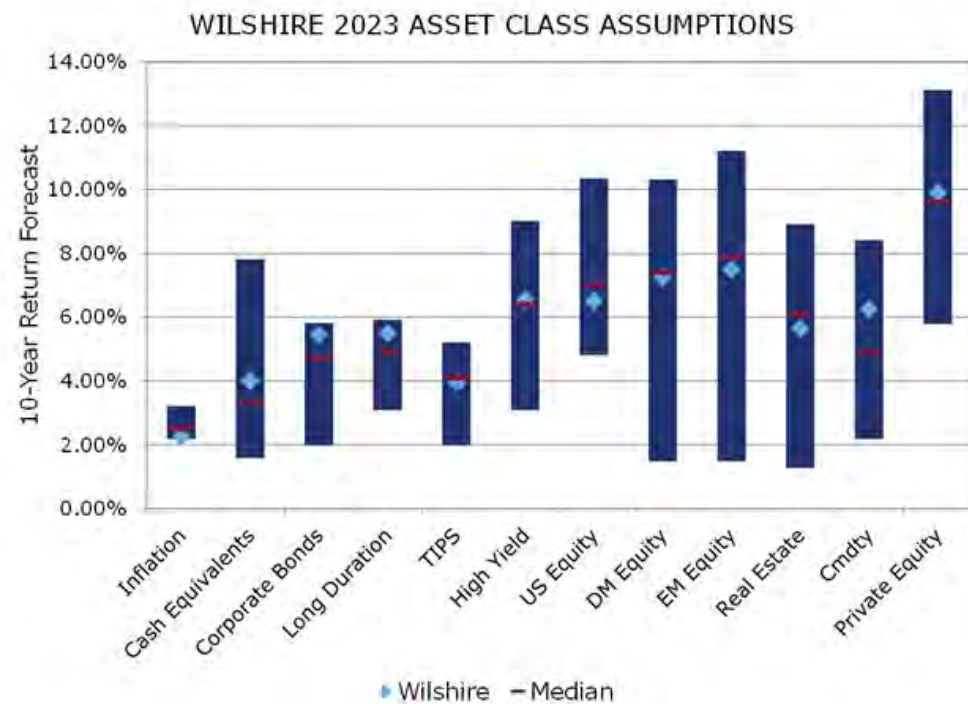
- June 30, 2023, data was projected by Wilshire using data from the report and additional metrics provided by the actuary.

## Self Assessment

Wilshire participates in an annual survey of other industry service providers to compare our capital market assumptions against others.

The chart to the right shows the distribution of expected returns over 10 years from the participants with Wilshire's ranking represented by the blue diamond.

## Wilshire's CMAs vs. Peers



## Capital Market Assumptions – KPPA Bucketing

Wilshire's Capital Market Assumptions as of **June 30, 2023**

Wilshire's asset class return, risk and correlation assumptions are developed on multi-year forward looking expected rates of return and historical risk and correlation, adjusted to incorporate recent trends

Public market return expectations represent a passive investment in the asset class (beta). They do not reflect value added from active management (alpha).

Asset Classes	Expected Return 10 Years	Expected Return 30 Years	Risk	Cash Yield	Factor Exposure Growth	Factor Exposure Inflation	Liquidity Market Level	Liquidity Stressed Metric
Public Equity	6.15	7.15	17.10	2.05	8.00	-1.30	90	0
Private Equity	9.15	9.95	27.80	0.00	13.35	-3.80	0	0
Core Fixed Income	4.85	4.80	4.70	4.95	-0.95	-2.50	100	85
Specialty Credit	7.40	7.40	9.05	9.70	3.50	-0.50	30	0
Cash	3.85	3.55	0.75	3.85	0.00	0.00	100	100
Real Estate	6.00	6.95	13.95	2.30	3.70	1.00	0	0
Real Return	6.85	7.35	10.65	3.60	2.15	5.80	0	0

## Capital Market Assumptions – Wilshire Bucketing

### Wilshire's Capital Market Assumptions as of June 30, 2023

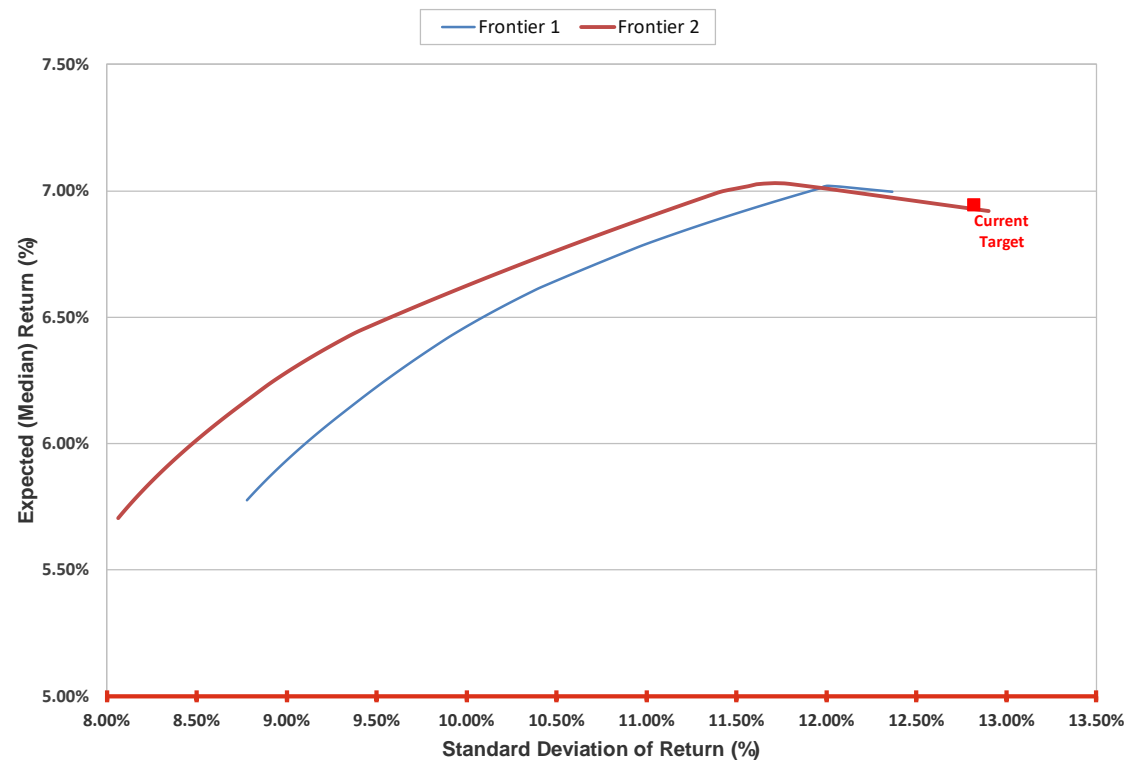
Wilshire's asset class return, risk and correlation assumptions are developed on multi-year forward looking expected rates of return and historical risk and correlation, adjusted to incorporate recent trends

Public market return expectations represent a passive investment in the asset class (beta). They do not reflect value added from active management (alpha).

Asset Classes	Expected Return 10 Years	Expected Return 30 Years	Risk	Cash Yield	Factor Exposure Growth	Factor Exposure Inflation	Liquidity Market Level	Liquidity Stressed Metric	
Public Equity	6.15	7.15	17.10	2.05	8.00	-1.30	90	0	<ul style="list-style-type: none"> <li>Growth – Assets with significant growth factor exposure, high expected returns and high risk</li> <li>Defensive Growth – Assets with positive growth factor exposure with moderate risk</li> <li>Defensive/Rate Sensitive – Assets whose value/return is sensitive to changes in interest rates</li> <li>Real Assets/Inflation Sensitive – Assets whose value/return is sensitive to inflation</li> </ul>
Private Equity	9.15	9.95	27.80	0.00	13.35	-3.80	0	0	
Specialty Credit	7.40	7.40	9.05	9.70	3.50	-0.50	30	0	
Core Fixed Income	4.85	4.80	4.70	4.95	-0.95	-2.50	100	85	
Cash	3.85	3.55	0.75	3.85	0.00	0.00	100	100	
Real Estate	6.00	6.95	13.95	2.30	3.70	1.00	0	0	
Real Return	6.85	7.35	10.65	3.60	2.15	5.80	0	0	

## Asset Only Efficient Frontier

Given the asset classes and constraints, opportunities to enhance portfolio efficiency do exist





## Portfolios Modeled – KPPA Bucketing

Asset Class	Current Target	Optimization Constraints	Lower Risk A	Optimization Constraints	Lower Risk B
Public Equity	50.00%	45% - 80%	45.00%	40% - 80%	40.00%
Private Equity	10.00%	0% - 10% <sup>1</sup>	8.00%	0% - 10% <sup>1</sup>	7.50%
<b>Total Equity</b>	<b>60.00%</b>		<b>53.00%</b>		<b>47.50%</b>
Core Fixed Income	10.00%	10% - 50%	10.00%	10% - 50%	15.50%
Specialty Credit	10.00%	0% - 25% <sup>1</sup>	23.00%	0% - 20% <sup>1</sup>	20.00%
Cash	0.00%	2% - 5%	2.00%	2% - 5%	2.00%
<b>Total Fixed Income</b>	<b>20.00%</b>		<b>35.00%</b>		<b>37.50%</b>
Real Estate	7.00%	5% - 10% <sup>1</sup>	5.00%	5% - 10% <sup>1</sup>	5.00%
Real Return	13.00%	0% - 10% <sup>1</sup>	7.00%	0% - 10% <sup>1</sup>	10.00%
<b>Total Inflation Protected</b>	<b>20.00%</b>		<b>12.00%</b>		<b>15.00%</b>
<b>Total Assets</b>	<b>100.0%</b>		<b>100.0%</b>		<b>100.0%</b>
<b>Total Illiquid Assets<sup>1</sup></b>	<b>28.50%</b>	0% - 35%	<b>28.00%</b>	0% - 35%	<b>27.50%</b>
<b>Expected Return - 10 Years (%)</b>	<b>6.95</b>		<b>6.95</b>		<b>6.86</b>
<b>Expected Return - 30 Years (%)</b>	<b>7.65</b>		<b>7.53</b>		<b>7.40</b>
<b>Standard Deviation of Return (%)</b>	<b>12.82</b>		<b>11.73</b>		<b>10.88</b>
<b>+ / (-) in Expected Return - 10 Years (bps)</b>			<b>0</b>		<b>(9)</b>
<b>+ / (-) in Expected Return - 30 Years (bps)</b>			<b>(12)</b>		<b>(25)</b>
<b>+ / (-) in SD of Return (bps)</b>			<b>(109)</b>		<b>(194)</b>
<b>Sharpe Ratio</b>	<b>0.24</b>		<b>0.26</b>		<b>0.28</b>

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

## Portfolios Modeled – KPPA Bucketing

Asset Class	Current Target	Lower Risk A	Lower Risk B
<b>Total Equity</b>	60.00%	53.00%	47.50%
<b>Total Fixed Income</b>	20.00%	35.00%	37.50%
<b><u>Total Inflation Protected</u></b>	<u>20.00%</u>	<u>12.00%</u>	<u>15.00%</u>
<b>Total Assets</b>	100.0%	100.0%	100.0%
<b>Expected Return - 10 Years (%)</b>	6.95	6.95	6.86
<b>Expected Return - 30 Years (%)</b>	7.65	7.53	7.40
<b>Standard Deviation of Return (%)</b>	12.82	11.73	10.88
<b>Contribution to Asset Volatility (%):</b>			
<b>Equity</b>	82.8	78.9	76.0
<b>Fixed Income</b>	5.5	13.3	13.5
<b>Inflation Protected</b>	11.7	7.8	10.5
<b>Cash Yield</b>	3.1	4.1	4.1
<b>Growth Factor</b>	6.1	5.7	5.2
<b>Inflation Factor</b>	-0.5	-0.8	-0.7
<b>Liquidity</b>			
<b>Market</b>	58.0	59.4	59.5
<b>Stressed</b>	8.5	10.5	15.2

## Portfolios Modeled – Wilshire Bucketing

Asset Class	Current Target	Optimization Constraints	Lower Risk A	Optimization Constraints	Lower Risk B
Public Equity	50.00%	45% - 80%	45.00%	40% - 80%	40.00%
Private Equity	<u>10.00%</u>	0% - 10% <sup>1</sup>	<u>8.00%</u>	0% - 10% <sup>1</sup>	<u>7.50%</u>
<b>Total Growth Assets</b>	<b>60.00%</b>		<b>53.00%</b>		<b>47.50%</b>
Specialty Credit	<u>10.00%</u>	0% - 25% <sup>1</sup>	<u>23.00%</u>	0% - 20% <sup>1</sup>	<u>20.00%</u>
<b>Total Defensive Growth Assets</b>	<b>10.00%</b>		<b>23.00%</b>		<b>20.00%</b>
Core Fixed Income	10.00%	10% - 50%	10.00%	10% - 50%	15.50%
Cash	<u>0.00%</u>	2% - 5%	<u>2.00%</u>	2% - 5%	<u>2.00%</u>
<b>Total Defensive / Rate Sensitive Assets</b>	<b>10.00%</b>		<b>12.00%</b>		<b>17.50%</b>
Real Estate	7.00%	5% - 10% <sup>1</sup>	5.00%	5% - 10% <sup>1</sup>	5.00%
Real Return	<u>13.00%</u>	0% - 10% <sup>1</sup>	<u>7.00%</u>	0% - 10% <sup>1</sup>	<u>10.00%</u>
<b>Total RA / Inflation Sensitive Assets</b>	<b>20.00%</b>		<b>12.00%</b>		<b>15.00%</b>
<b>Total Assets</b>	<b>100.0%</b>		<b>100.0%</b>		<b>100.0%</b>
<b>Total Illiquid Assets <sup>1</sup></b>	<b>28.50%</b>	<b>0% - 35%</b>	<b>28.00%</b>	<b>0% - 35%</b>	<b>27.50%</b>
<b>Expected Return - 10 Years (%)</b>	<b>6.95</b>		<b>6.95</b>		<b>6.86</b>
<b>Expected Return - 30 Years (%)</b>	<b>7.65</b>		<b>7.53</b>		<b>7.40</b>
<b>Standard Deviation of Return (%)</b>	<b>12.82</b>		<b>11.73</b>		<b>10.88</b>
<b>+/(-) in Expected Return - 10 Years (bps)</b>			<b>0</b>		<b>(9)</b>
<b>+/(-) in Expected Return - 30 Years (bps)</b>			<b>(12)</b>		<b>(25)</b>
<b>+/(-) in SD of Return (bps)</b>			<b>(109)</b>		<b>(194)</b>
<b>Sharpe Ratio</b>	<b>0.24</b>		<b>0.26</b>		<b>0.28</b>

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

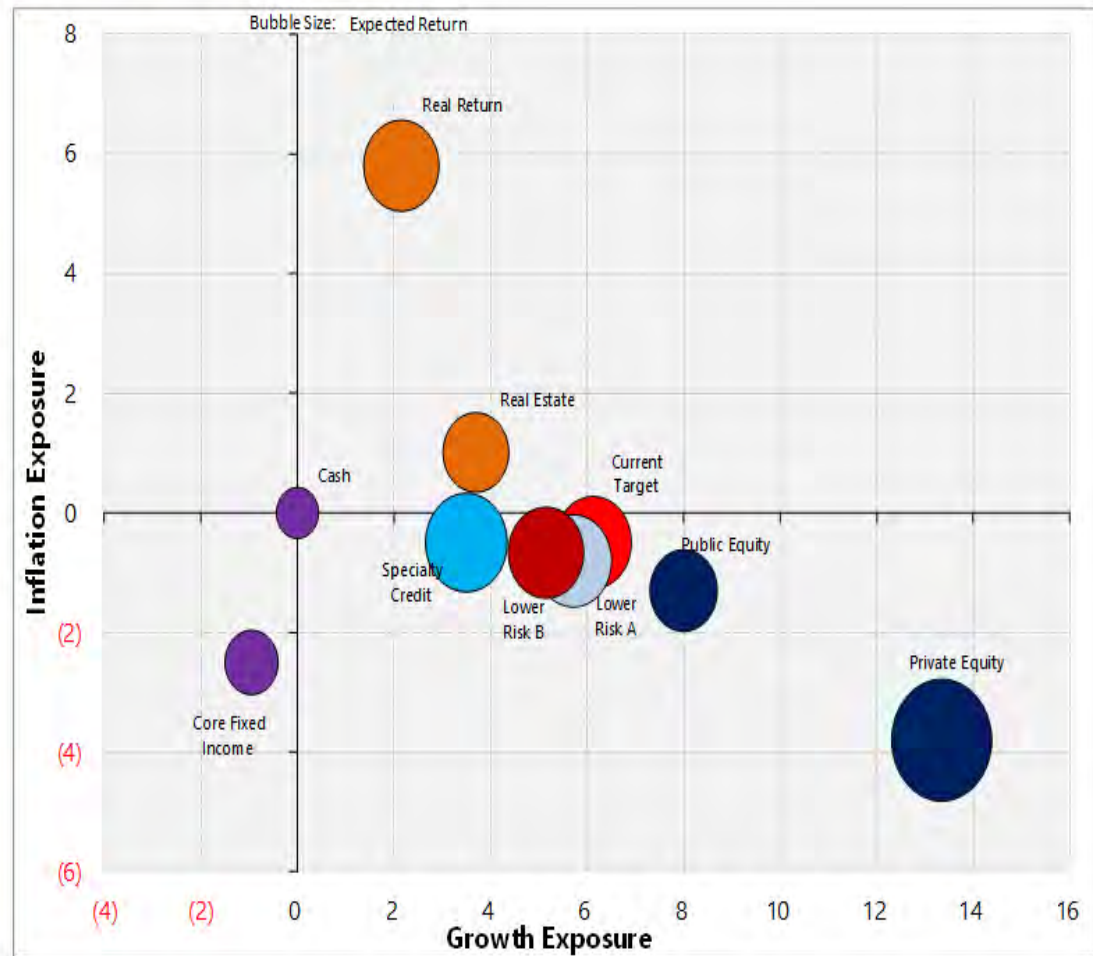
## Portfolios Modeled – Wilshire Bucketing

Asset Class	Current Target	Lower Risk A	Lower Risk B
<b>Total Growth Assets</b>	60.00%	53.00%	47.50%
<b>Total Defensive Growth Assets</b>	10.00%	23.00%	20.00%
<b>Total Defensive / Rate Sensitive Assets</b>	10.00%	12.00%	17.50%
<b>Total RA / Inflation Sensitive Assets</b>	20.00%	12.00%	15.00%
<b>Total Assets</b>	100.0%	100.0%	100.0%
<b>Total Illiquid Assets <sup>1</sup></b>	28.50%	28.00%	27.50%
<b>Expected Return - 10 Years (%)</b>	6.95	6.95	6.86
<b>Expected Return - 30 Years (%)</b>	7.65	7.53	7.40
<b>Standard Deviation of Return (%)</b>	12.82	11.73	10.88
<b>Contribution to Asset Volatility (%):</b>			
<b>Growth</b>	82.8	78.9	76.0
<b>Defensive Growth</b>	4.5	12.2	11.5
<b>Defensive/Rate Sensitive</b>	1.0	1.1	2.0
<b>RA/Inflation Sensitive</b>	11.7	7.8	10.5
<b>Cash Yield</b>	3.1	4.1	4.1
<b>Growth Factor</b>	6.1	5.7	5.2
<b>Inflation Factor</b>	-0.5	-0.8	-0.7
<b>Liquidity</b>			
<b>Market</b>	58.0	59.4	59.5
<b>Stressed</b>	8.5	10.5	15.2

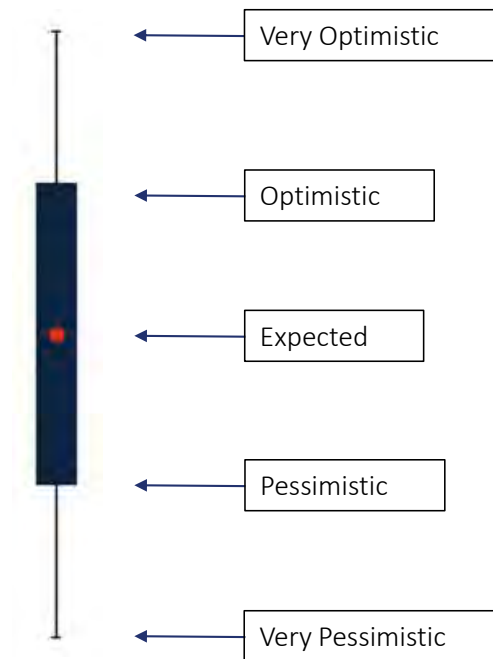
## Economic Factor Exposure – Asset Classes

Concentrated factor tilts can represent portfolio vulnerability (e.g., reliance on growth markets)

To the extent possible, a portfolio with factor neutrality is desirable for weathering unexpected future market environments



## Box and Whisker Graphs



In each year of the simulation, there are 5,000 independent economic trial results.

**Expected:** 50% of the potential scenarios result in higher than this value and 50% results in lower

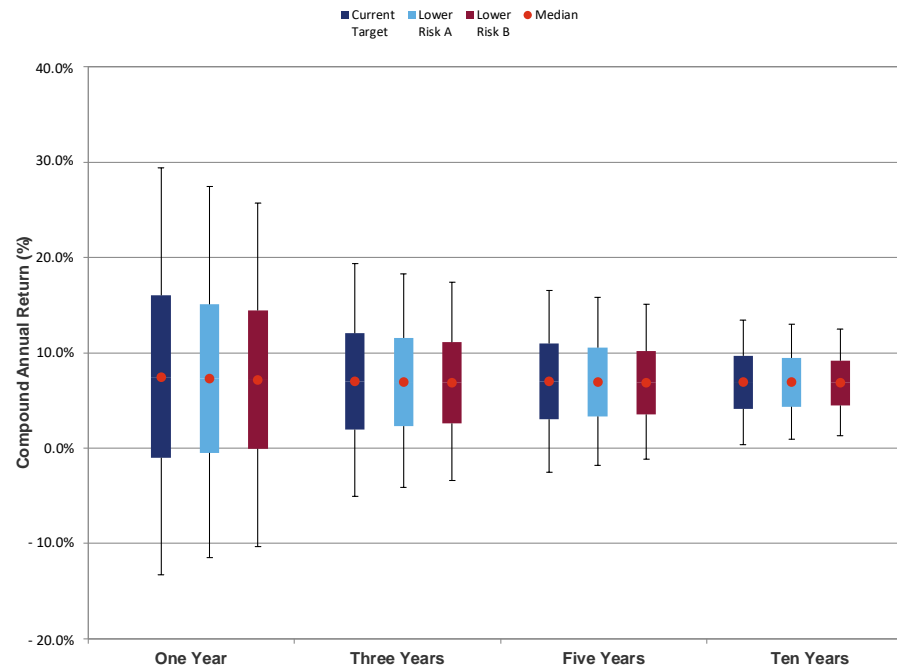
**Very optimistic:** Only 5% of the scenarios result in higher than this value and 95% result in lower

**Optimistic:** Only 25% of the scenarios result in higher than this value and 75% result in lower

**Pessimistic:** 75% of the scenarios results in higher than this value and 25% result in lower

**Very pessimistic:** 95% of the scenarios result in higher than this value and 5% result in lower

## Distribution of Returns\*



(%)	One Year			Three Years			Five Years			Ten Years		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Optimistic	29.39	27.43	25.73	19.37	18.30	17.39	16.57	15.82	15.11	13.47	12.98	12.46
Optimistic	16.03	15.07	14.44	12.06	11.52	11.11	11.00	10.54	10.21	9.68	9.47	9.19
Median (Expected)	7.45	7.28	7.13	6.98	6.94	6.83	6.99	6.94	6.85	6.94	6.95	6.86
Pessimistic	-1.02	-0.54	-0.09	1.98	2.33	2.62	3.01	3.33	3.52	4.12	4.36	4.48
Very Pessimistic	-13.32	-11.49	-10.33	-5.09	-4.13	-3.42	-2.52	-1.81	-1.17	0.33	0.95	1.30

\*For periods longer than one year, returns are compound annual.

Wilshire

# Asset Liability Projections

wilshire.com | ©2023 Wilshire Advisors LLC



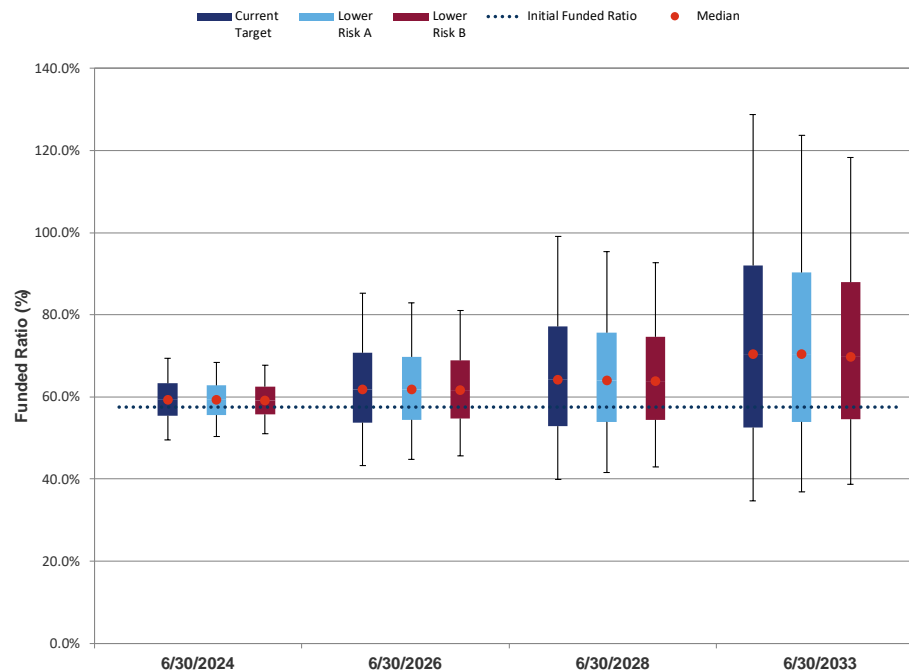
Wilshire

# CERS RETIREMENT PLAN

wilshire.com | ©2023 Wilshire Advisors LLC

39

## AAL MVA Funded Ratio



### Shortfall Risk:

The potential for the current policy to have a lower median funded ratio than the alternative policies.

### Drawdown Risk:

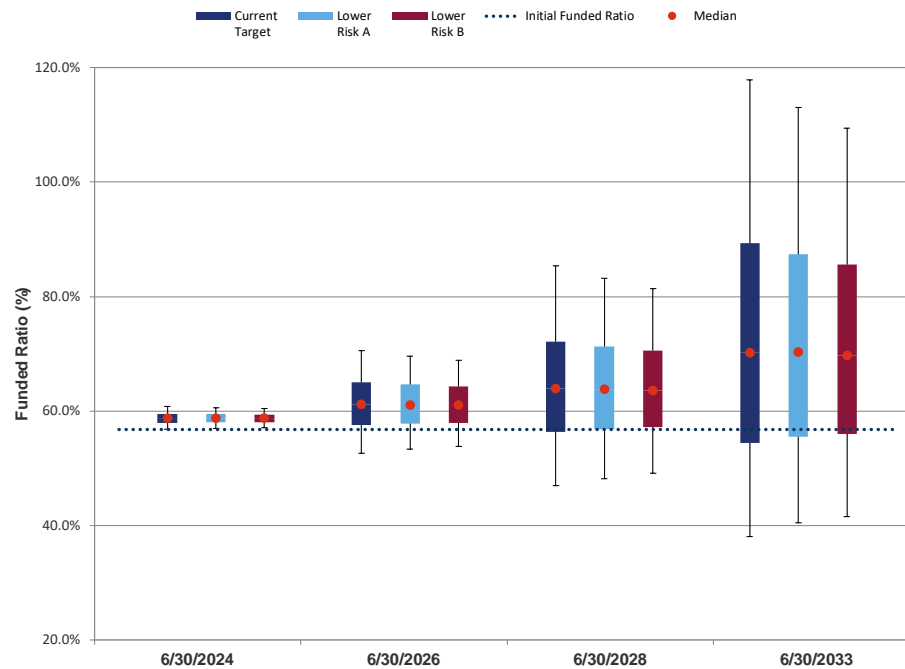
The potential for the current policy to have a lower “very pessimistic” funded ratio than the alternative policies.

Initial Funded Ratio = 57.5%

(%)	6/30/2024			6/30/2026			6/30/2028			6/30/2033		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Optimistic	69.35	68.46	67.70	85.22	82.85	81.11	99.02	95.36	92.65	128.82	123.66	118.32
Optimistic	63.28	62.84	62.55	70.75	69.73	68.95	77.24	75.66	74.60	91.97	90.25	87.91
<b>Median (Expected)</b>	<b>59.33</b>	<b>59.25</b>	<b>59.18</b>	<b>61.84</b>	<b>61.76</b>	<b>61.61</b>	<b>64.14</b>	<b>64.07</b>	<b>63.87</b>	<b>70.44</b>	<b>70.40</b>	<b>69.73</b>
Pessimistic	55.37	55.59	55.81	53.82	54.39	54.72	52.96	53.91	54.37	52.63	53.85	54.54
Very Pessimistic	49.53	50.40	50.96	43.33	44.73	45.64	39.94	41.64	42.87	34.69	36.96	38.68

*One Year Simulation  
(6/30/2024) reflects  
8/31/2023 Fiscal  
Year to Date Return  
of 0.61%.*

## AAL AVA Funded Ratio



### Shortfall Risk:

The potential for the current policy to have a lower median funded ratio than the alternative policies.

### Drawdown Risk:

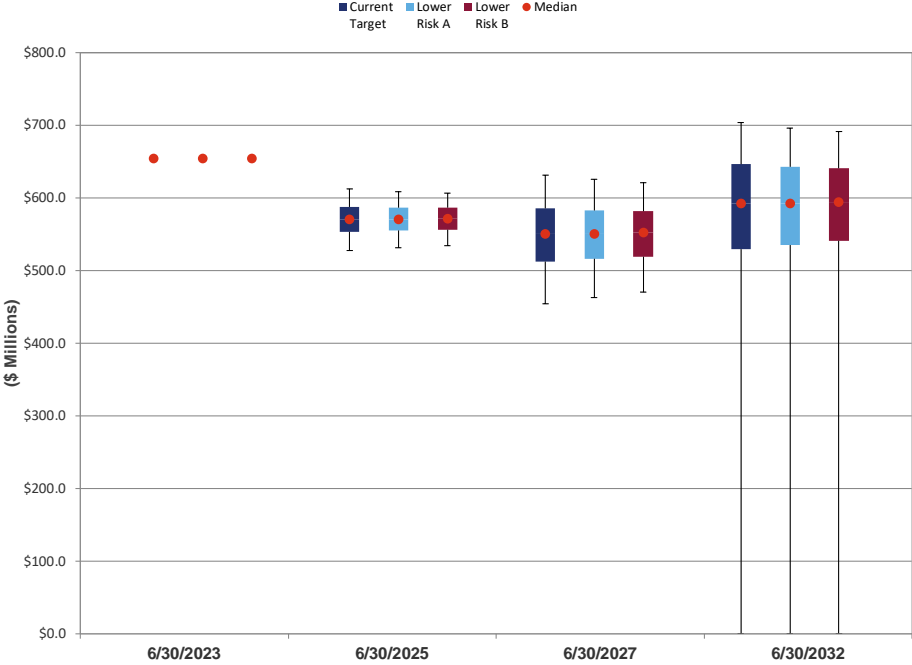
The potential for the current policy to have a lower “very pessimistic” funded ratio than the alternative policies.

Initial Funded Ratio = 56.7%

(%)	6/30/2024			6/30/2026			6/30/2028			6/30/2033		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Optimistic	60.74	60.56	60.41	70.53	69.59	68.88	85.41	83.21	81.42	117.87	113.08	109.42
Optimistic	59.53	59.44	59.38	65.00	64.61	64.25	72.16	71.25	70.53	89.33	87.39	85.56
<b>Median (Expected)</b>	<b>58.74</b>	<b>58.72</b>	<b>58.71</b>	<b>61.18</b>	<b>61.09</b>	<b>61.02</b>	<b>63.88</b>	<b>63.81</b>	<b>63.61</b>	<b>70.20</b>	<b>70.31</b>	<b>69.68</b>
Pessimistic	57.94	57.99	58.03	57.51	57.76	57.93	56.34	56.80	57.13	54.36	55.48	55.99
Very Pessimistic	56.78	56.95	57.06	52.62	53.32	53.83	46.95	48.16	49.06	38.01	40.39	41.53

*One Year Simulation  
(6/30/2024) reflects  
8/31/2023 Fiscal  
Year to Date Return  
of 0.61%.*

Employer Contributions



Shortfall Risk:

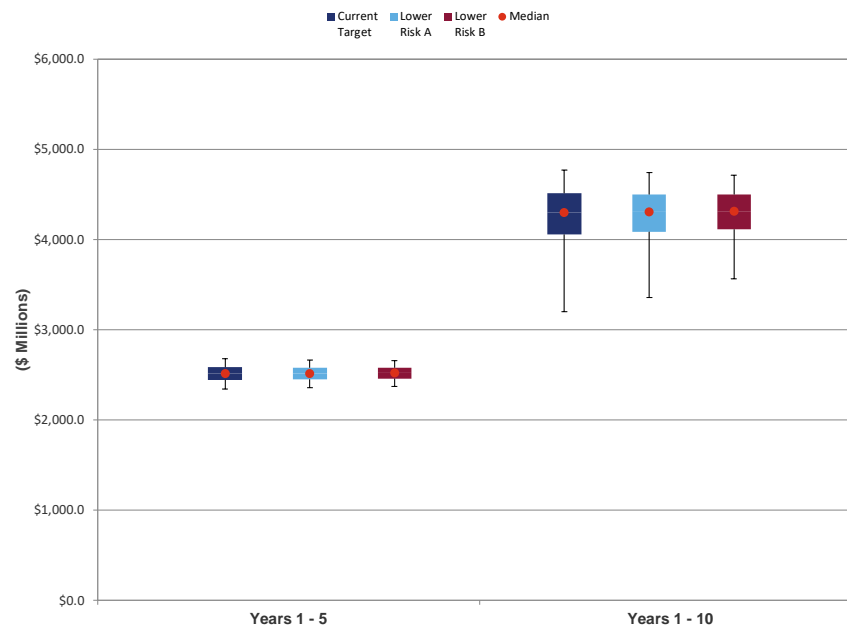
The potential for the current policy to have higher median contributions than the alternative policies.

Drawdown Risk:

The potential for the current policy to have higher “very pessimistic” contributions than the alternative policies.

	6/30/2023			6/30/2025			6/30/2027			6/30/2032		
(\$ Millions)	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	653.7	653.7	653.7	611.7	608.1	606.0	631.6	625.2	620.5	703.6	696.2	691.1
Pessimistic	653.7	653.7	653.7	587.8	586.8	585.9	585.3	583.0	581.5	646.5	642.7	640.7
Median (Expected)	653.7	653.7	653.7	570.2	570.6	570.9	550.3	550.6	551.7	592.3	592.4	594.0
Optimistic	653.7	653.7	653.7	552.9	554.6	556.1	512.0	515.7	519.2	529.0	535.0	540.9
Very Optimistic	653.7	653.7	653.7	527.4	531.2	534.4	453.6	462.4	470.1	0.0	0.0	0.0

## Present Value of Contributions



(\$ Millions)	Years 1 - 5			Years 1 - 10		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	2,673.2	2,660.2	2,651.6	4,772.3	4,737.6	4,715.4
Pessimistic	2,581.3	2,576.5	2,574.2	4,515.4	4,500.9	4,495.1
<b>Median (Expected)</b>	<b>2,513.7</b>	<b>2,514.8</b>	<b>2,516.6</b>	<b>4,300.0</b>	<b>4,303.3</b>	<b>4,309.5</b>
Optimistic	2,443.1	2,450.6	2,457.0	4,056.3	4,087.2	4,111.1
Very Optimistic	2,340.6	2,356.4	2,371.0	3,201.5	3,353.2	3,562.9

### Shortfall Risk:

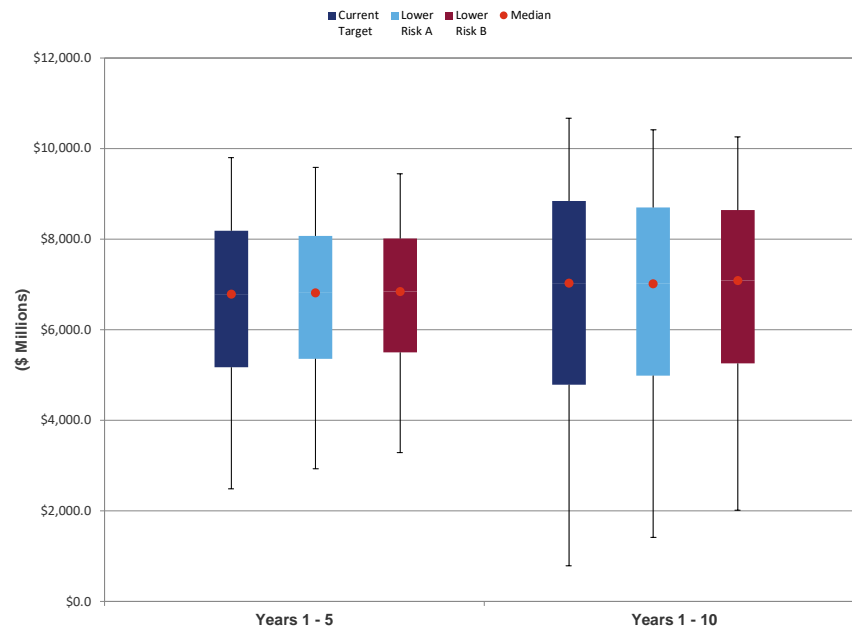
The potential for the current allocation to have higher median present value of contributions than the alternative policies.

### Drawdown Risk:

The potential for the current allocation to have higher “very pessimistic” present value of contributions than the alternative policies.

**EROA = 6.50%**

## MVA Economic Cost



(\$ Millions)	Years 1 - 5			Years 1 - 10		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	9,794.1	9,583.5	9,437.1	10,664.5	10,413.2	10,250.9
Pessimistic	8,179.2	8,065.9	8,006.3	8,833.6	8,690.6	8,640.9
<b>Median (Expected)</b>	<b>6,787.7</b>	<b>6,806.3</b>	<b>6,836.1</b>	<b>7,023.6</b>	<b>7,015.5</b>	<b>7,076.7</b>
Optimistic	5,168.7	5,354.6	5,496.6	4,783.2	4,983.2	5,247.3
Very Optimistic	2,488.0	2,920.4	3,288.4	783.4	1,403.5	2,005.5

### Shortfall Risk:

The potential for the current allocation to have a higher median economic cost than the alternative policies.

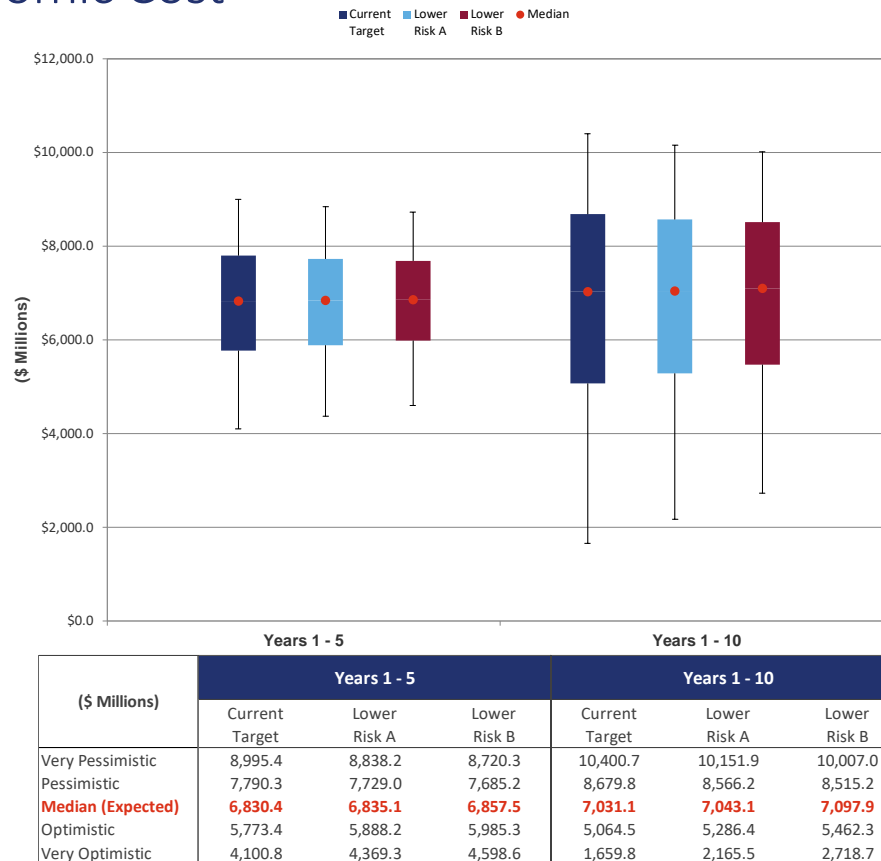
### Drawdown Risk:

The potential for the current allocation to have a higher “very pessimistic” economic cost than the alternative policies.

**EROA = 6.50%**

Economic Cost is defined as the present value of contributions plus contributions necessary to fully fund the plan at the end of the projection period.

## AVA Economic Cost



### Shortfall Risk:

The potential for the current allocation to have a higher median economic cost than the alternative policies.

### Drawdown Risk:

The potential for the current allocation to have a higher “very pessimistic” economic cost than the alternative policies.

**EROA = 6.50%**

Economic Cost is defined as the present value of contributions plus contributions necessary to fully fund the plan at the end of the projection period.



Wilshire

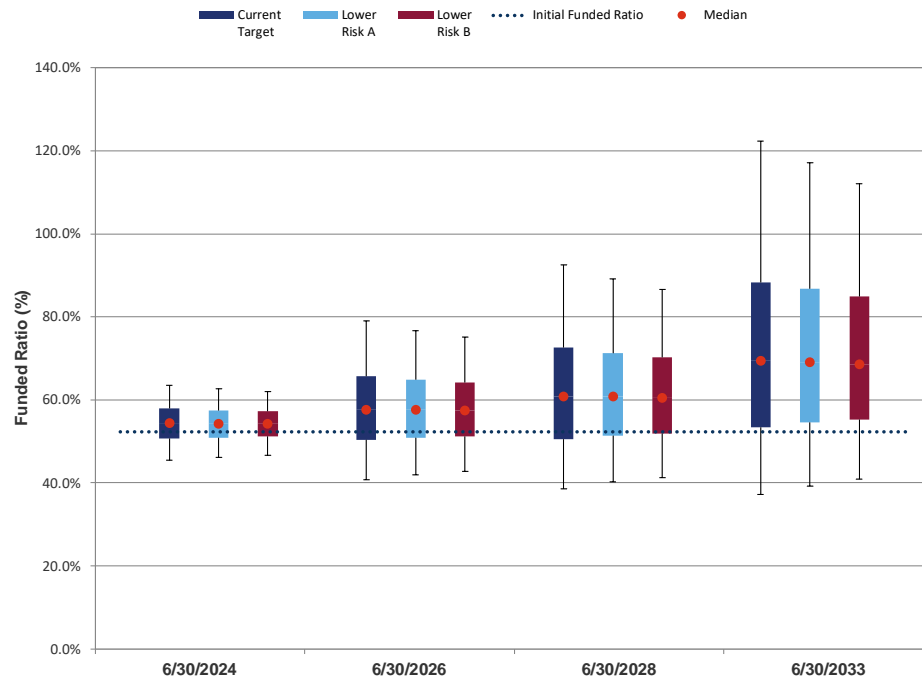
# CERS HAZARDOUS RETIREMENT PLAN

wilshire.com | ©2023 Wilshire Advisors LLC

46



## AAL MVA Funded Ratio



### Shortfall Risk:

The potential for the current policy to have a lower median funded ratio than the alternative policies.

### Drawdown Risk:

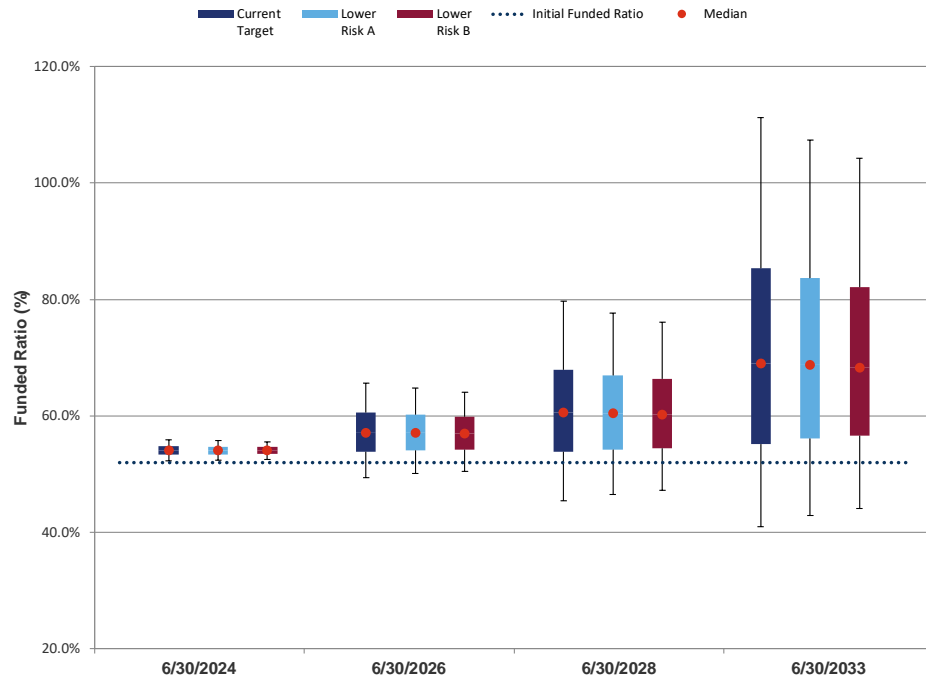
The potential for the current policy to have a lower “very pessimistic” funded ratio than the alternative policies.

Initial Funded Ratio = 52.3%

(%)	6/30/2024			6/30/2026			6/30/2028			6/30/2033		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Optimistic	63.44	62.63	61.94	78.98	76.71	75.18	92.47	89.10	86.59	122.36	117.13	112.12
Optimistic	57.92	57.52	57.26	65.78	64.82	64.13	72.63	71.21	70.23	88.28	86.82	84.89
<b>Median (Expected)</b>	<b>54.33</b>	<b>54.26</b>	<b>54.19</b>	<b>57.69</b>	<b>57.54</b>	<b>57.41</b>	<b>60.79</b>	<b>60.74</b>	<b>60.50</b>	<b>69.35</b>	<b>69.04</b>	<b>68.51</b>
Pessimistic	50.73	50.93	51.13	50.30	50.87	51.14	50.54	51.43	51.82	53.34	54.62	55.19
Very Pessimistic	45.42	46.21	46.72	40.73	42.01	42.85	38.61	40.22	41.20	37.21	39.24	40.96

*One Year Simulation  
(6/30/2024) reflects  
8/31/2023 Fiscal  
Year to Date Return  
of 0.62%.*

## AAL AVA Funded Ratio



### Shortfall Risk:

The potential for the current policy to have a lower median funded ratio than the alternative policies.

### Drawdown Risk:

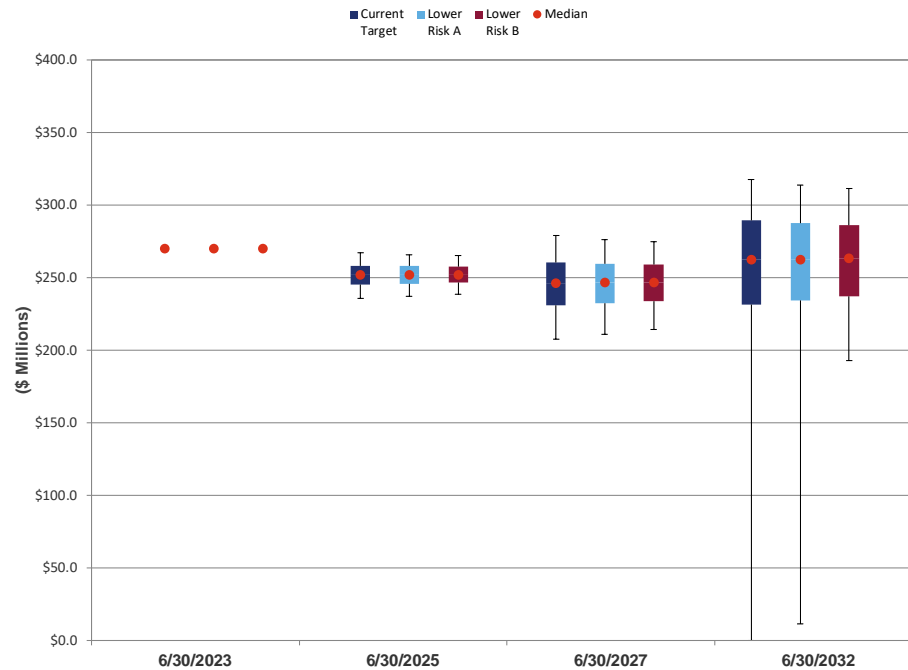
The potential for the current policy to have a lower “very pessimistic” funded ratio than the alternative policies.

Initial Funded Ratio = 51.9%

	6/30/2024			6/30/2026			6/30/2028			6/30/2033		
(%)	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Optimistic	55.85	55.69	55.55	65.55	64.71	64.07	79.67	77.71	76.11	111.23	107.41	104.21
Optimistic	54.75	54.67	54.61	60.54	60.19	59.89	67.92	67.00	66.37	85.31	83.72	82.09
<b>Median (Expected)</b>	<b>54.03</b>	<b>54.01</b>	<b>54.00</b>	<b>57.10</b>	<b>57.03</b>	<b>56.96</b>	<b>60.50</b>	<b>60.41</b>	<b>60.23</b>	<b>68.98</b>	<b>68.78</b>	<b>68.31</b>
Pessimistic	53.31	53.35	53.39	53.78	54.02	54.17	53.77	54.22	54.43	55.19	56.12	56.61
Very Pessimistic	52.25	52.40	52.51	49.36	50.02	50.47	45.36	46.43	47.20	40.88	42.84	44.06

*One Year Simulation  
(6/30/2024) reflects  
8/31/2023 Fiscal  
Year to Date Return  
of 0.62%.*

## Employer Contributions



### Shortfall Risk:

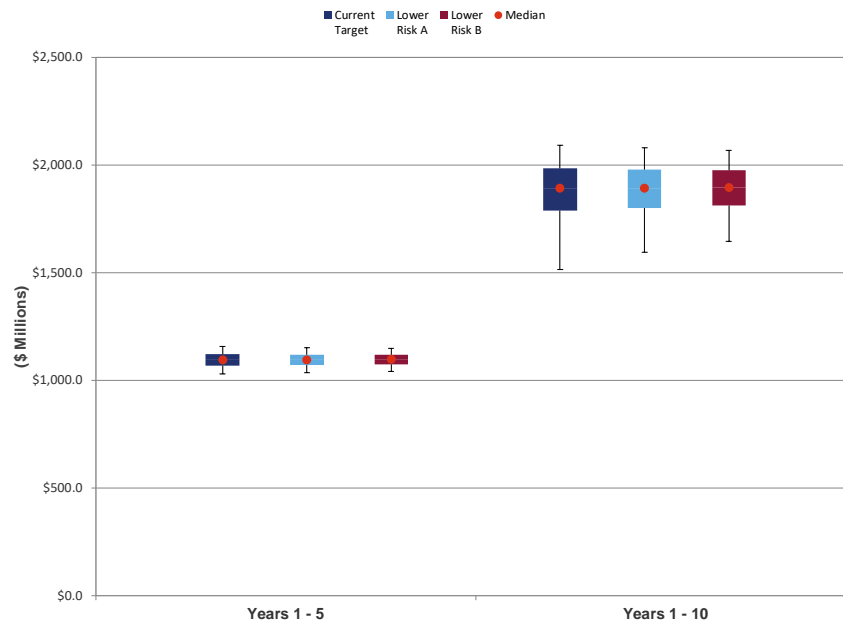
The potential for the current policy to have higher median contributions than the alternative policies.

### Drawdown Risk:

The potential for the current policy to have higher “very pessimistic” contributions than the alternative policies.

(\$ Millions)	6/30/2023			6/30/2025			6/30/2027			6/30/2032		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	269.9	269.9	269.9	267.0	265.7	264.9	278.7	276.1	274.7	317.5	313.7	311.4
Pessimistic	269.9	269.9	269.9	258.1	257.7	257.5	260.3	259.3	258.7	289.4	287.4	286.2
<b>Median (Expected)</b>	<b>269.9</b>	<b>269.9</b>	<b>269.9</b>	<b>251.6</b>	<b>251.7</b>	<b>251.8</b>	<b>246.2</b>	<b>246.3</b>	<b>246.7</b>	<b>262.1</b>	<b>262.4</b>	<b>263.3</b>
Optimistic	269.9	269.9	269.9	245.2	245.8	246.4	230.9	232.4	233.8	231.1	234.0	237.0
Very Optimistic	269.9	269.9	269.9	235.7	237.1	238.3	207.5	211.0	214.1	0.0	11.5	192.7

## Present Value of Contributions



(\$ Millions)	Years 1 - 5			Years 1 - 10		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	1,156.2	1,151.1	1,147.9	2,091.2	2,078.1	2,068.0
Pessimistic	1,120.8	1,119.2	1,118.1	1,983.5	1,977.0	1,974.4
<b>Median (Expected)</b>	<b>1,094.9</b>	<b>1,095.2</b>	<b>1,096.0</b>	<b>1,891.5</b>	<b>1,892.8</b>	<b>1,895.5</b>
Optimistic	1,067.4	1,070.4	1,072.9	1,789.4	1,799.9	1,810.4
Very Optimistic	1,027.9	1,034.0	1,039.9	1,515.2	1,593.7	1,644.7

### Shortfall Risk:

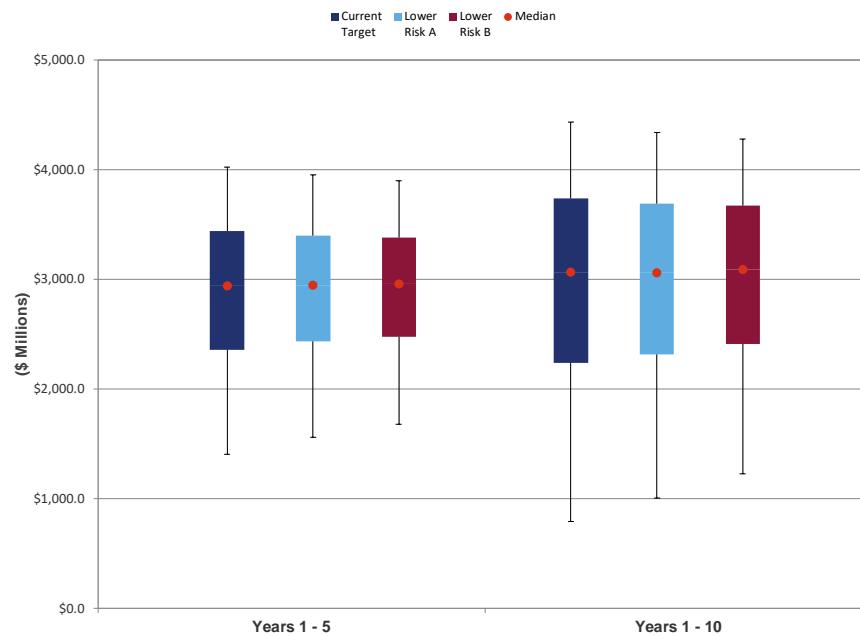
The potential for the current allocation to have higher median present value of contributions than the alternative policies.

### Drawdown Risk:

The potential for the current allocation to have higher “very pessimistic” present value of contributions than the alternative policies.

**EROA = 6.50%**

## MVA Economic Cost



(\$ Millions)	Years 1 - 5			Years 1 - 10		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	4,020.0	3,952.7	3,895.7	4,430.8	4,339.2	4,280.0
Pessimistic	3,440.7	3,398.4	3,380.0	3,736.4	3,687.6	3,668.5
<b>Median (Expected)</b>	<b>2,939.3</b>	<b>2,945.6</b>	<b>2,957.7</b>	<b>3,065.0</b>	<b>3,056.0</b>	<b>3,086.3</b>
Optimistic	2,357.3	2,432.3	2,477.0	2,236.1	2,313.2	2,410.5
Very Optimistic	1,400.8	1,555.9	1,679.2	791.2	1,005.6	1,222.2

### Shortfall Risk:

The potential for the current allocation to have a higher median economic cost than the alternative policies.

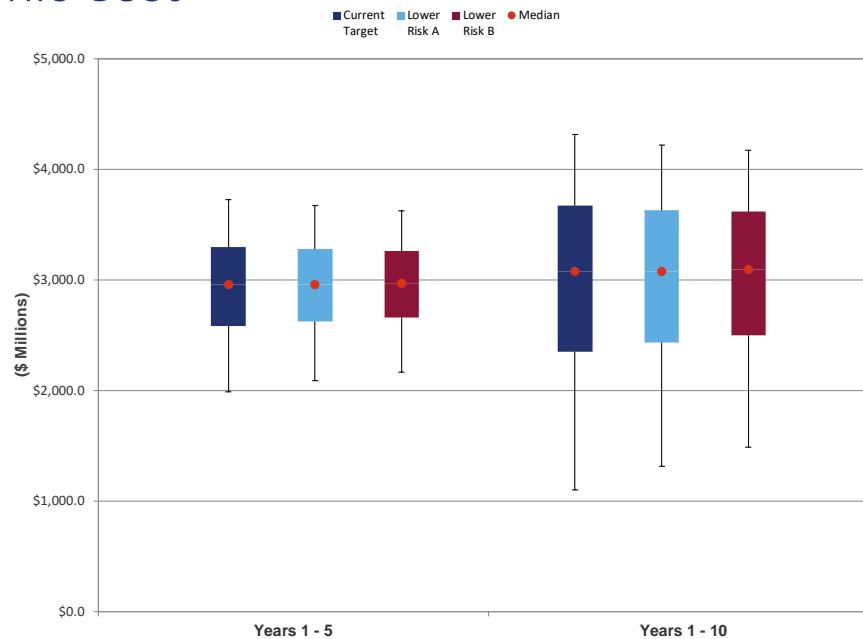
### Drawdown Risk:

The potential for the current allocation to have a higher “very pessimistic” economic cost than the alternative policies.

**EROA = 6.50%**

Economic Cost is defined as the present value of contributions plus contributions necessary to fully fund the plan at the end of the projection period.

## AVA Economic Cost



(\$ Millions)	Years 1 - 5			Years 1 - 10		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	3,722.1	3,668.1	3,625.5	4,312.9	4,219.4	4,172.9
Pessimistic	3,296.0	3,275.5	3,260.1	3,671.0	3,631.2	3,614.7
<b>Median (Expected)</b>	<b>2,954.6</b>	<b>2,958.2</b>	<b>2,966.3</b>	<b>3,076.9</b>	<b>3,077.2</b>	<b>3,095.5</b>
Optimistic	2,582.8	2,624.2	2,657.5	2,352.2	2,435.0	2,500.3
Very Optimistic	1,988.5	2,084.7	2,164.2	1,099.8	1,312.3	1,489.2

### Shortfall Risk:

The potential for the current allocation to have a higher median economic cost than the alternative policies.

### Drawdown Risk:

The potential for the current allocation to have a higher “very pessimistic” economic cost than the alternative policies.

**EROA = 6.50%**

Economic Cost is defined as the present value of contributions plus contributions necessary to fully fund the plan at the end of the projection period.

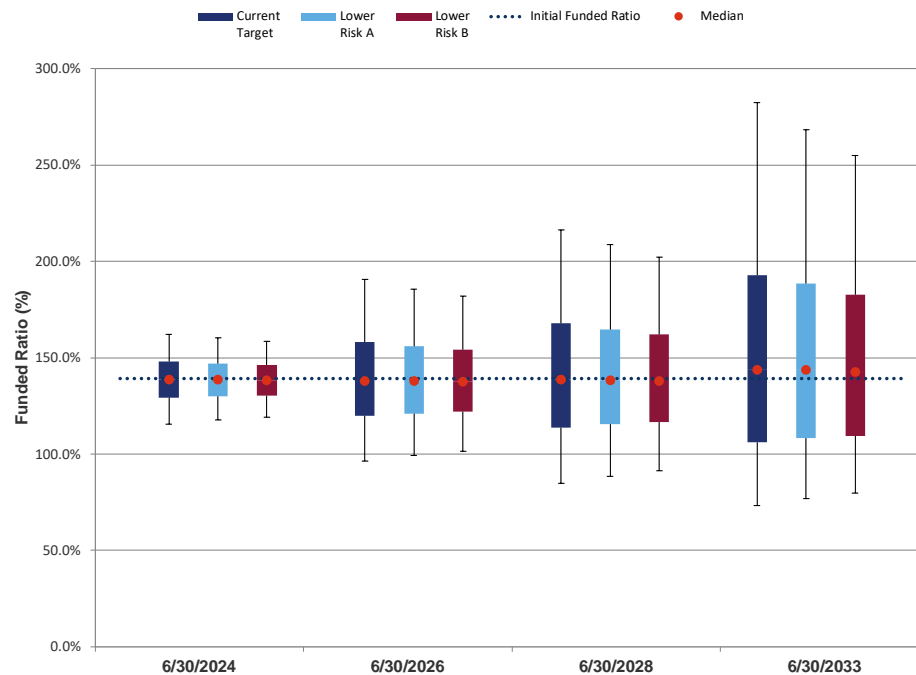
Wilshire

# CERS NON-HAZARDOUS INSURANCE PLAN

wilshire.com | ©2023 Wilshire Advisors LLC

53

## AAL MVA Funded Ratio



### Shortfall Risk:

The potential for the current policy to have a lower median funded ratio than the alternative policies.

### Drawdown Risk:

The potential for the current policy to have a lower “very pessimistic” funded ratio than the alternative policies.

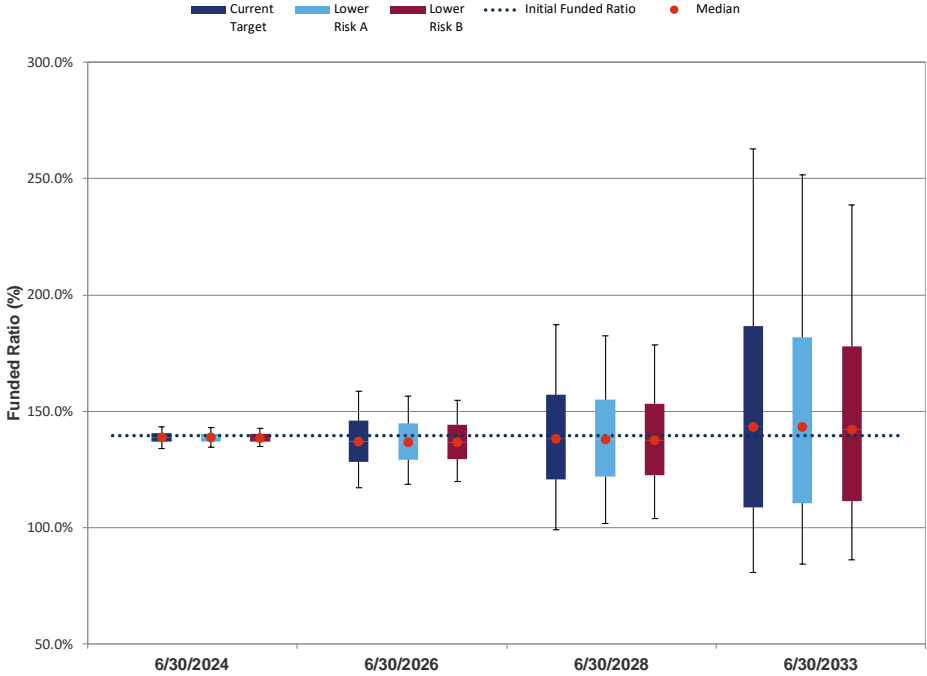
Initial Funded Ratio = 139.4%

	6/30/2024			6/30/2026			6/30/2028			6/30/2033		
(%)	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Optimistic	162.26	160.19	158.38	190.73	185.45	181.84	216.36	208.77	202.25	282.50	268.38	254.98
Optimistic	147.99	146.95	146.27	158.18	155.93	154.11	167.98	164.52	161.97	192.94	188.45	182.74
<b>Median (Expected)</b>	<b>138.68</b>	<b>138.49</b>	<b>138.33</b>	<b>137.97</b>	<b>137.84</b>	<b>137.38</b>	<b>138.64</b>	<b>138.35</b>	<b>137.79</b>	<b>143.59</b>	<b>143.57</b>	<b>142.43</b>
Pessimistic	129.37	129.90	130.40	119.81	121.06	121.84	113.59	115.68	116.76	106.17	108.25	109.37
Very Pessimistic	115.63	117.69	118.99	96.31	99.23	101.45	84.97	88.51	91.30	73.23	76.93	79.78

One Year Simulation  
(6/30/2024) reflects  
8/31/2023 Fiscal  
Year to Date Return  
of 0.63%.



AAL AVA Funded Ratio



(%)	6/30/2024			6/30/2026			6/30/2028			6/30/2033		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Optimistic	143.36	142.95	142.59	158.59	156.54	154.75	187.33	182.47	178.37	262.76	251.50	238.70
Optimistic	140.51	140.30	140.16	145.83	144.86	144.11	157.05	154.96	153.27	186.50	181.94	177.97
Median (Expected)	138.65	138.61	138.58	136.88	136.68	136.49	137.99	137.86	137.44	143.30	143.26	142.04
Pessimistic	136.78	136.89	136.99	128.33	128.96	129.31	120.59	121.79	122.50	108.63	110.35	111.36
Very Pessimistic	134.04	134.45	134.71	117.00	118.51	119.75	98.87	101.83	103.91	80.57	84.30	85.93

Shortfall Risk:

The potential for the current policy to have a lower median funded ratio than the alternative policies.

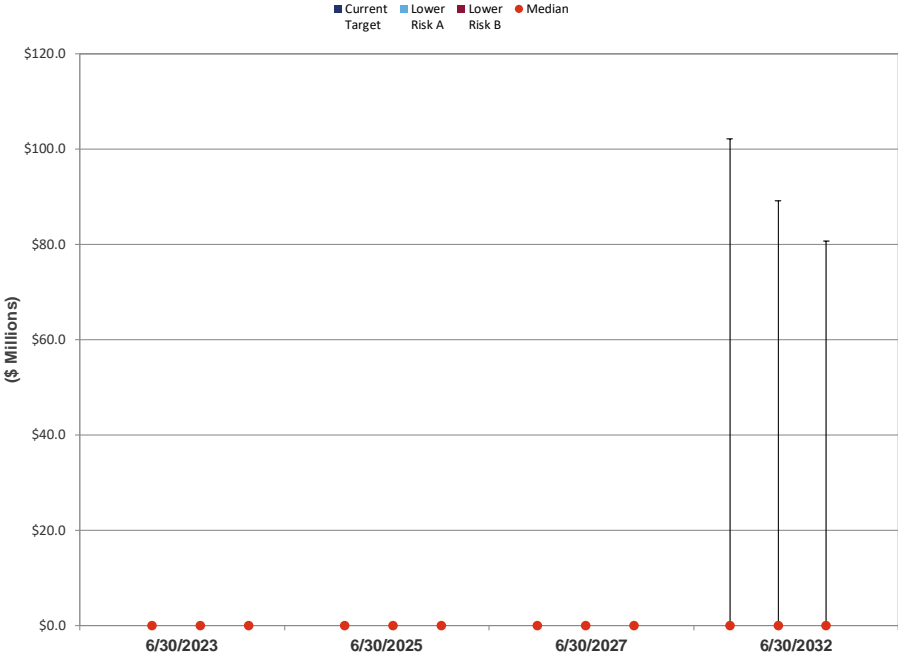
Drawdown Risk:

The potential for the current policy to have a lower “very pessimistic” funded ratio than the alternative policies.

Initial Funded Ratio = 139.5%

One Year Simulation  
(6/30/2024) reflects  
8/31/2023 Fiscal  
Year to Date Return  
of 0.63%.

Employer Contributions



Shortfall Risk:

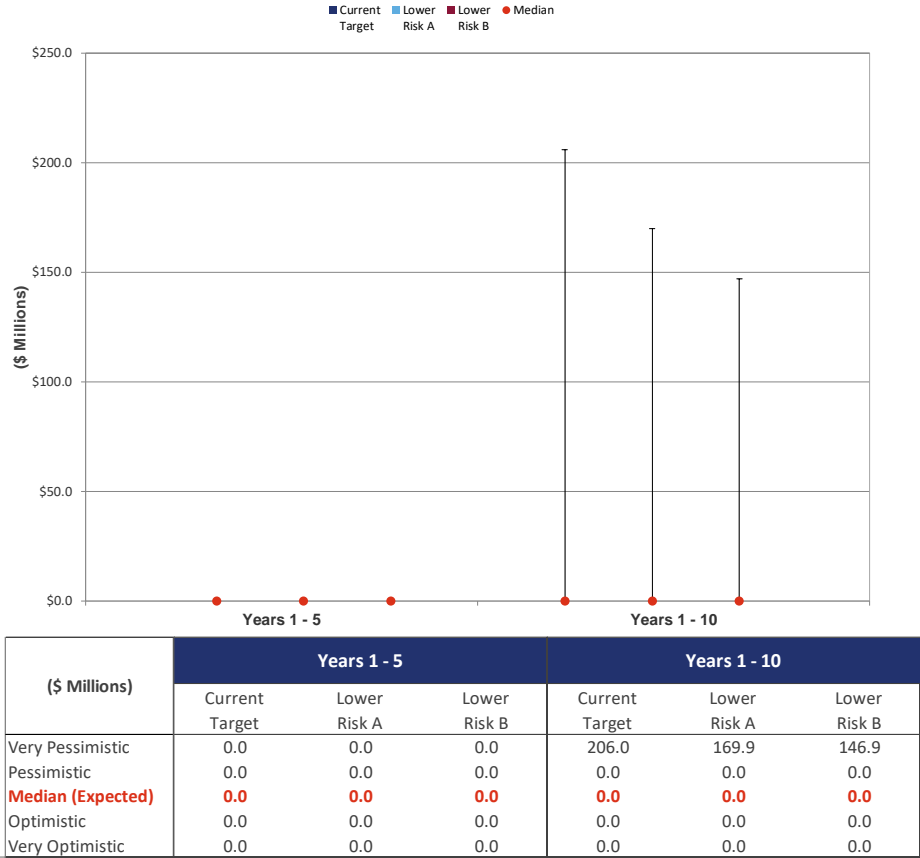
The potential for the current policy to have higher median contributions than the alternative policies.

Drawdown Risk:

The potential for the current policy to have higher “very pessimistic” contributions than the alternative policies.

(\$ Millions)	6/30/2023			6/30/2025			6/30/2027			6/30/2032		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	102.1	89.1	80.6
Pessimistic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Median (Expected)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Optimistic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Very Optimistic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Present Value of Contributions



Shortfall Risk:

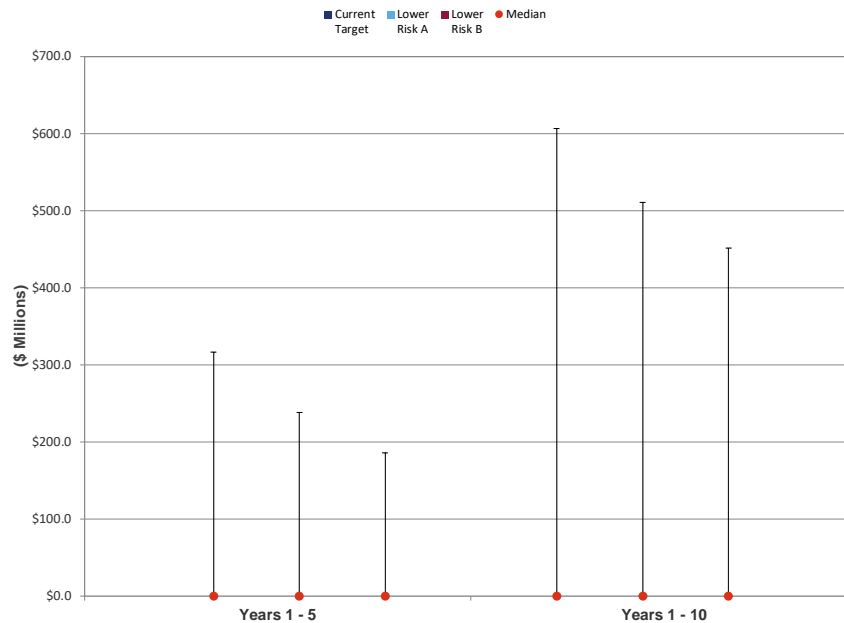
The potential for the current allocation to have higher median present value of contributions than the alternative policies.

Drawdown Risk:

The potential for the current allocation to have higher “very pessimistic” present value of contributions than the alternative policies.

EROA = 6.50%

## MVA Economic Cost



(\$ Millions)	Years 1 - 5			Years 1 - 10		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	316.1	238.3	185.2	606.4	510.7	451.1
Pessimistic	0.0	0.0	0.0	0.0	0.0	0.0
<b>Median (Expected)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Optimistic	0.0	0.0	0.0	0.0	0.0	0.0
Very Optimistic	0.0	0.0	0.0	0.0	0.0	0.0

### Shortfall Risk:

The potential for the current allocation to have a higher median economic cost than the alternative policies.

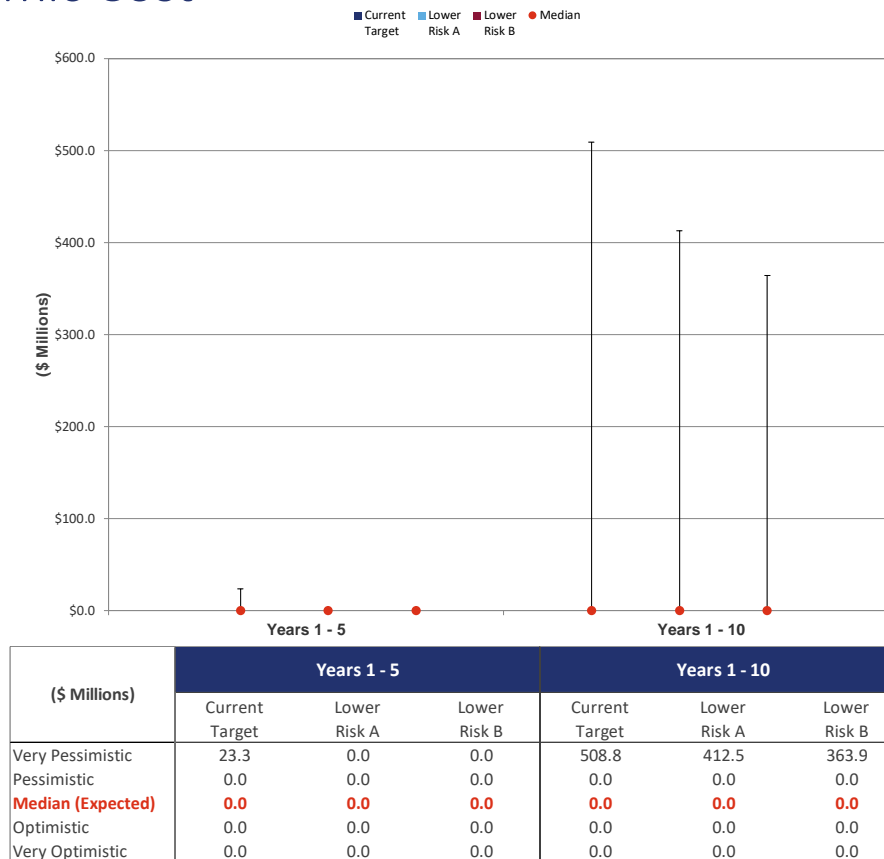
### Drawdown Risk:

The potential for the current allocation to have a higher “very pessimistic” economic cost than the alternative policies.

**EROA = 6.50%**

Economic Cost is defined as the present value of contributions plus contributions necessary to fully fund the plan at the end of the projection period.

## AVA Economic Cost



### Shortfall Risk:

The potential for the current allocation to have a higher median economic cost than the alternative policies.

### Drawdown Risk:

The potential for the current allocation to have a higher “very pessimistic” economic cost than the alternative policies.

**EROA = 6.50%**

Economic Cost is defined as the present value of contributions plus contributions necessary to fully fund the plan at the end of the projection period.

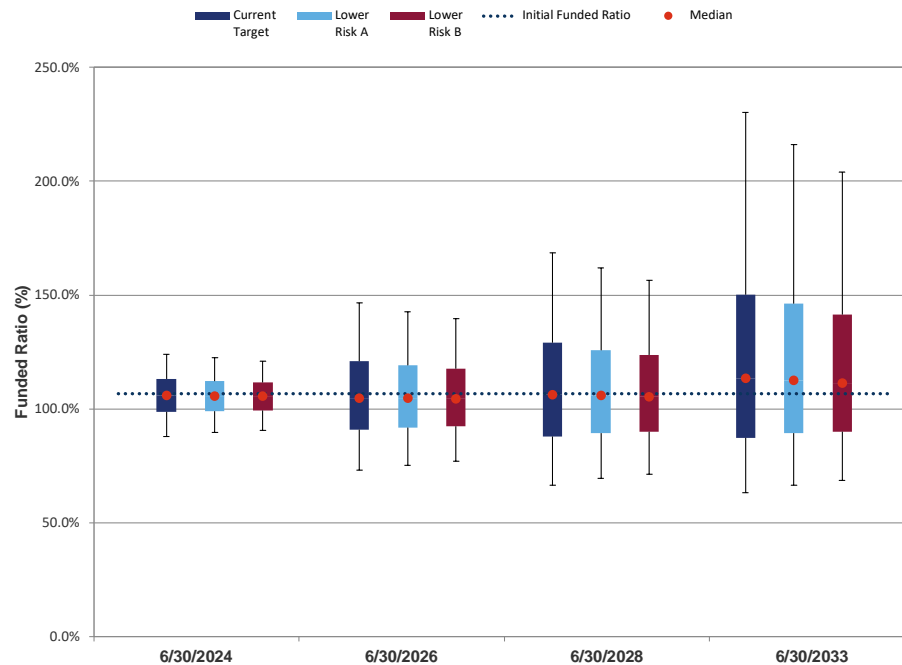
Wilshire

# CERS HAZARDOUS INSURANCE PLAN

wilshire.com | ©2023 Wilshire Advisors LLC

60

## AAL MVA Funded Ratio



### Shortfall Risk:

The potential for the current policy to have a lower median funded ratio than the alternative policies.

### Drawdown Risk:

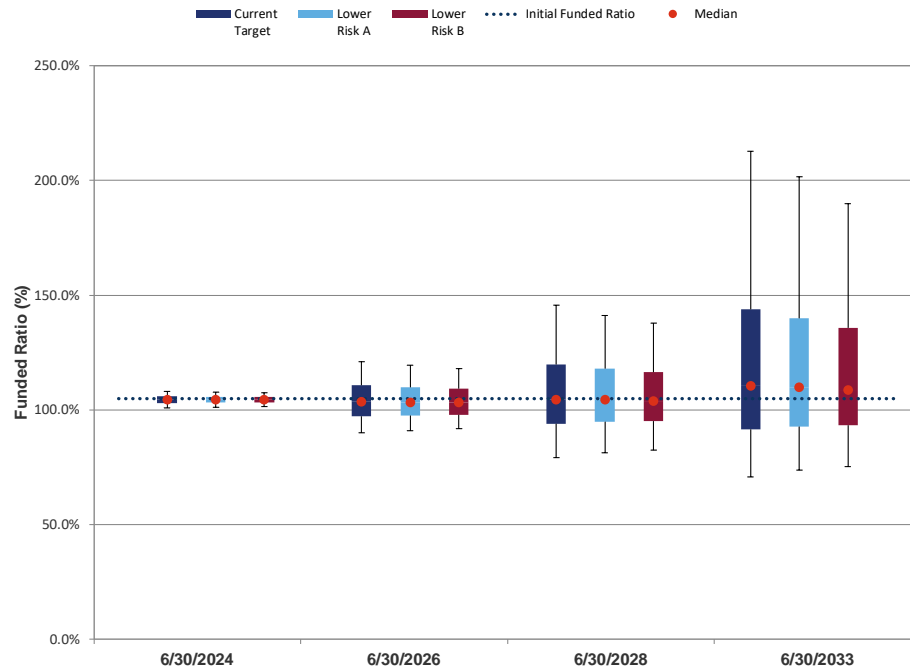
The potential for the current policy to have a lower “very pessimistic” funded ratio than the alternative policies.

Initial Funded Ratio = 106.6%

*One Year Simulation  
(6/30/2024) reflects  
8/31/2023 Fiscal  
Year to Date Return  
of 0.62%.*

(%)	6/30/2024			6/30/2026			6/30/2028			6/30/2033		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Optimistic	124.11	122.50	121.10	146.50	142.70	139.57	168.44	161.83	156.36	230.13	216.06	204.05
Optimistic	113.02	112.22	111.69	120.83	119.00	117.59	128.96	125.80	123.70	150.18	146.27	141.32
<b>Median (Expected)</b>	<b>105.80</b>	<b>105.65</b>	<b>105.53</b>	<b>104.84</b>	<b>104.79</b>	<b>104.32</b>	<b>106.21</b>	<b>106.03</b>	<b>105.36</b>	<b>113.55</b>	<b>112.66</b>	<b>111.36</b>
Pessimistic	98.58	98.99	99.38	90.88	91.78	92.30	87.81	89.21	89.90	87.31	89.47	89.96
Very Pessimistic	87.93	89.52	90.53	73.07	75.30	76.86	66.31	69.50	71.20	63.09	66.48	68.71

## AAL AVA Funded Ratio



### Shortfall Risk:

The potential for the current policy to have a lower median funded ratio than the alternative policies.

### Drawdown Risk:

The potential for the current policy to have a lower “very pessimistic” funded ratio than the alternative policies.

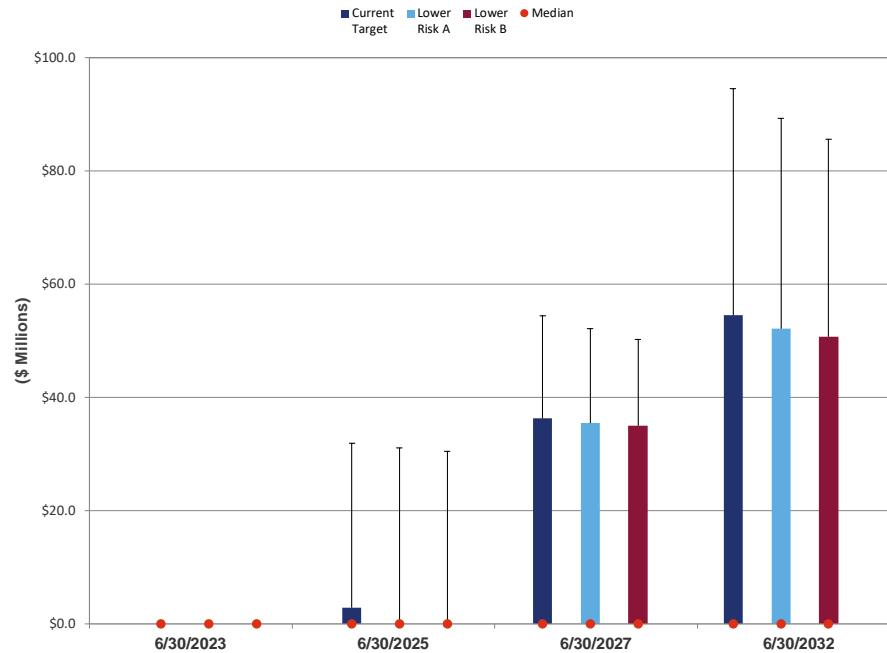
Initial Funded Ratio = 104.9%

*One Year Simulation  
(6/30/2024) reflects  
8/31/2023 Fiscal  
Year to Date Return  
of 0.62%.*

(%)	6/30/2024			6/30/2026			6/30/2028			6/30/2033		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Optimistic	108.12	107.80	107.52	121.00	119.37	117.90	145.66	141.07	137.87	212.82	201.75	189.97
Optimistic	105.90	105.74	105.63	110.66	109.93	109.29	119.74	117.86	116.32	143.85	139.92	135.78
Median (Expected)	104.46	104.43	104.40	103.42	103.21	103.06	104.53	104.25	103.86	110.54	109.78	108.58
Pessimistic	103.01	103.09	103.17	97.21	97.55	97.70	93.88	94.62	94.98	91.33	92.55	93.28
Very Pessimistic	100.88	101.20	101.40	89.87	90.90	91.69	79.11	81.06	82.31	70.52	73.58	75.27



## Employer Contributions



### Shortfall Risk:

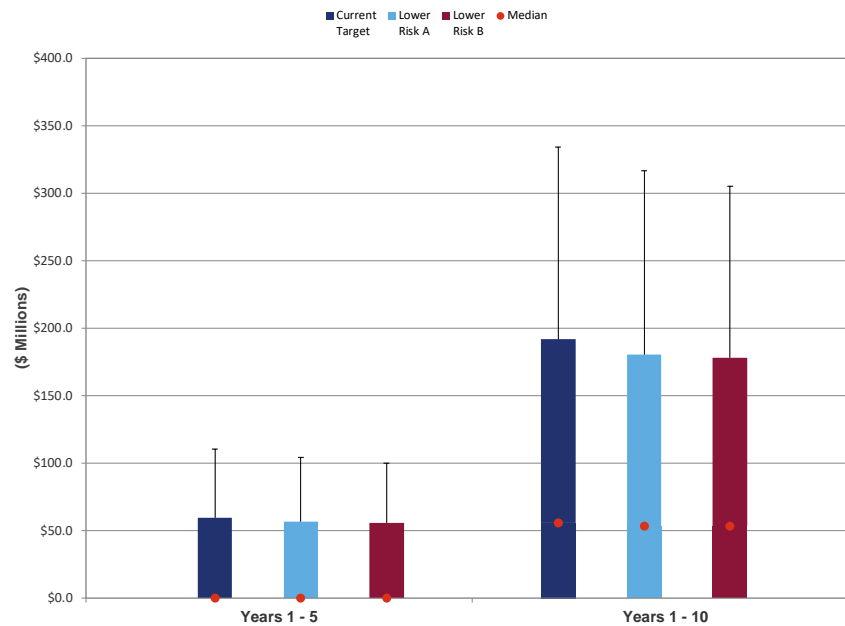
The potential for the current policy to have higher median contributions than the alternative policies.

### Drawdown Risk:

The potential for the current policy to have higher “very pessimistic” contributions than the alternative policies.

(\$ Millions)	6/30/2023			6/30/2025			6/30/2027			6/30/2032		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	0.0	0.0	0.0	31.9	31.1	30.5	54.4	52.1	50.1	94.5	89.3	85.6
Pessimistic	0.0	0.0	0.0	2.8	0.0	0.0	36.3	35.5	35.0	54.5	52.1	50.7
Median (Expected)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Optimistic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Very Optimistic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## Present Value of Contributions



(\$ Millions)	Years 1 - 5			Years 1 - 10		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	110.2	104.0	99.9	334.3	316.6	304.9
Pessimistic	59.2	56.6	55.4	191.8	180.6	177.8
<b>Median (Expected)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>55.4</b>	<b>53.0</b>	<b>53.2</b>
Optimistic	0.0	0.0	0.0	0.0	0.0	0.0
Very Optimistic	0.0	0.0	0.0	0.0	0.0	0.0

### Shortfall Risk:

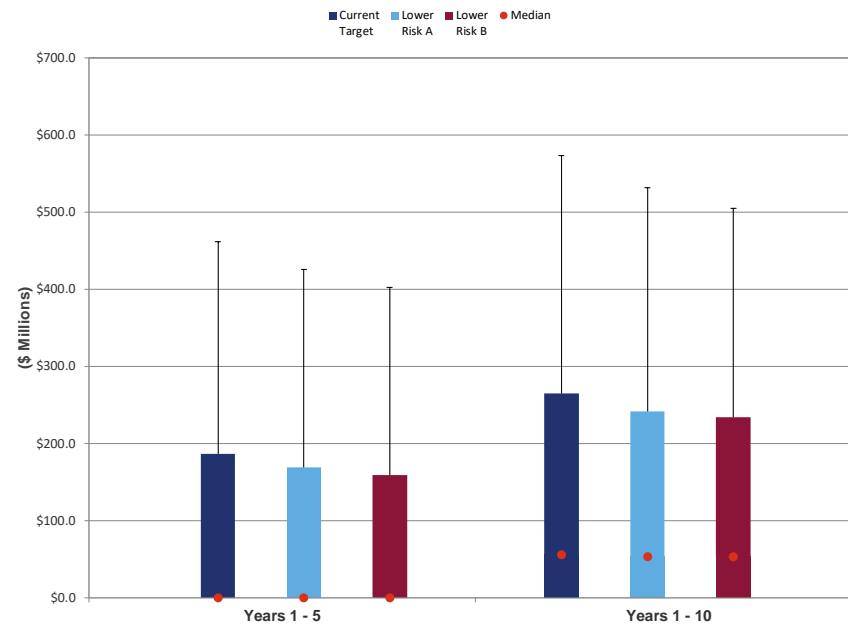
The potential for the current allocation to have higher median present value of contributions than the alternative policies.

### Drawdown Risk:

The potential for the current allocation to have higher “very pessimistic” present value of contributions than the alternative policies.

**EROA = 6.50%**

## MVA Economic Cost



(\$ Millions)	Years 1 - 5			Years 1 - 10		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	461.2	425.5	402.2	573.2	531.8	504.5
Pessimistic	186.6	169.0	159.2	264.4	241.5	234.2
<b>Median (Expected)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>55.4</b>	<b>53.0</b>	<b>53.2</b>
Optimistic	0.0	0.0	0.0	0.0	0.0	0.0
Very Optimistic	0.0	0.0	0.0	0.0	0.0	0.0

### Shortfall Risk:

The potential for the current allocation to have a higher median economic cost than the alternative policies.

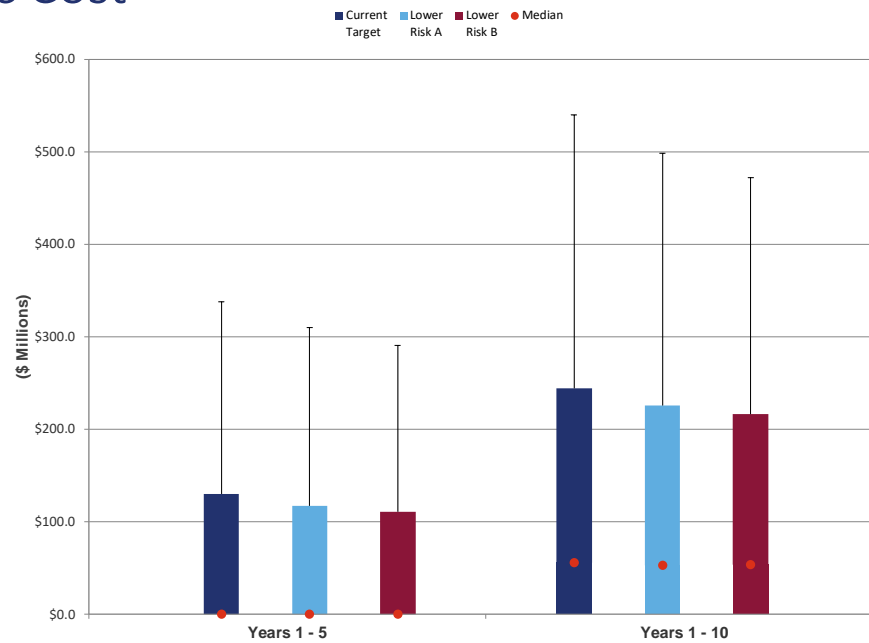
### Drawdown Risk:

The potential for the current allocation to have a higher “very pessimistic” economic cost than the alternative policies.

**EROA = 6.50%**

Economic Cost is defined as the present value of contributions plus contributions necessary to fully fund the plan at the end of the projection period.

## AVA Economic Cost



(\$ Millions)	Years 1 - 5			Years 1 - 10		
	Current Target	Lower Risk A	Lower Risk B	Current Target	Lower Risk A	Lower Risk B
Very Pessimistic	337.8	309.6	290.2	539.5	498.5	471.9
Pessimistic	129.6	116.7	110.5	244.4	225.7	216.1
<b>Median (Expected)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>55.4</b>	<b>53.0</b>	<b>53.2</b>
Optimistic	0.0	0.0	0.0	0.0	0.0	0.0
Very Optimistic	0.0	0.0	0.0	0.0	0.0	0.0

### Shortfall Risk:

The potential for the current allocation to have a higher median economic cost than the alternative policies.

### Drawdown Risk:

The potential for the current allocation to have a higher “very pessimistic” economic cost than the alternative policies.

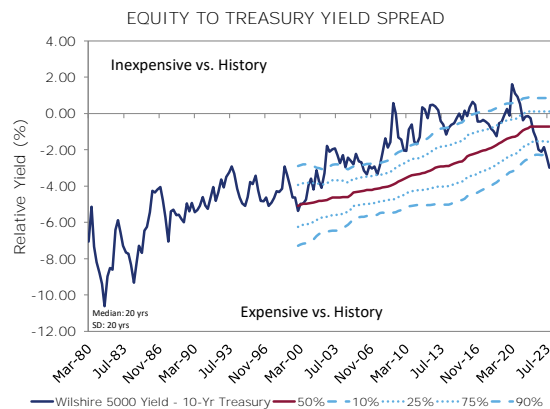
**EROA = 6.50%**

Economic Cost is defined as the present value of contributions plus contributions necessary to fully fund the plan at the end of the projection period.

# Appendix – Market Valuations

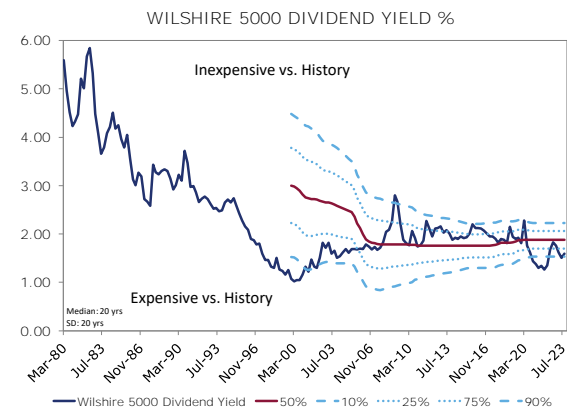
## US Equity Market Valuation Observations

**Expensive:** Equity yields have moved into the 90<sup>th</sup> percentile when compared to Treasury Yields



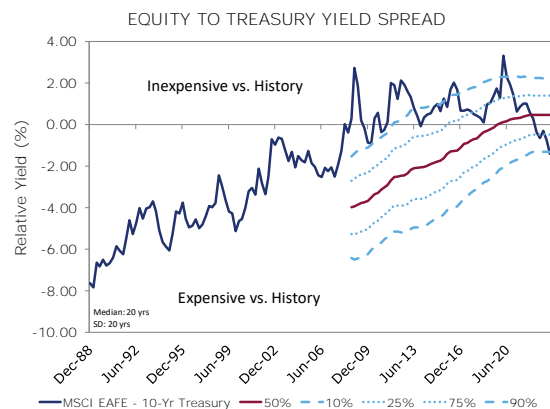
Data Source: Wilshire Atlas

**Expensive:** Dividend yields under 2% have are well below median and near 90<sup>th</sup> percentile levels

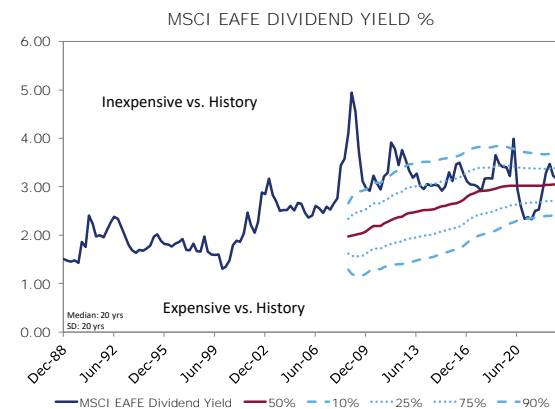


## Developed Equity Market Valuation Observations

**Expensive:** Developed Market yields have moved into the 90<sup>th</sup> percentile when compared to Treasury Yields



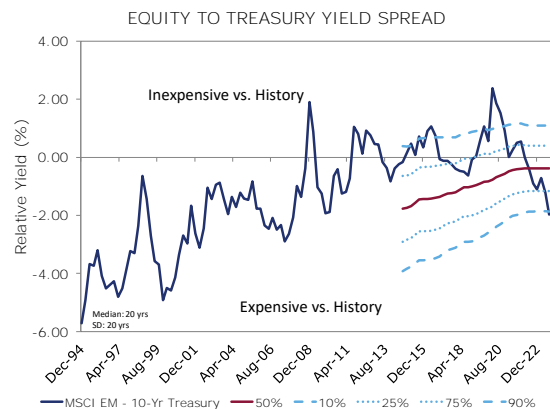
**Median:** Dividend yields around 3% are close to median historical levels



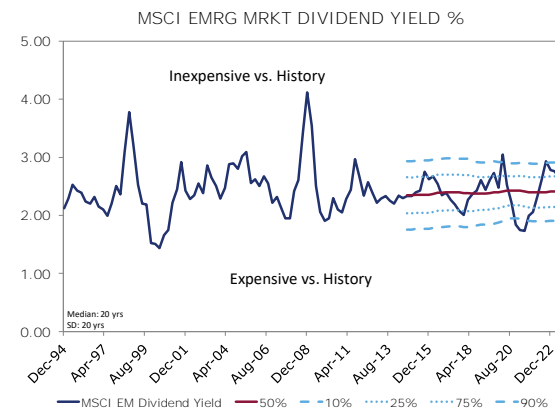
Data Source: Wilshire Atlas

## Emerging Market Equity Valuation Observations

**Expensive:** Emerging Market yields have moved into the 90<sup>th</sup> percentile when compared to Treasury Yields



**Inexpensive:** Dividend yields around 2.5% are slightly above median historical levels



Data Source: Wilshire Atlas



## Equity Valuations: Stocks are Expensive, Even if you Assume EPS of \$248 in 2024

		US 10 Year Treasury Yield (%)														
		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50
US Equity 2024 EPS (\$)	275	28%	21%	16%	11%	6%	2%	-2%	-6%	-9%	-12%	-15%	-18%	-20%	-23%	-25%
	270	25%	19%	14%	9%	4%	0%	-4%	-7%	-11%	-14%	-17%	-19%	-22%	-24%	-26%
	265	23%	17%	12%	7%	2%	-2%	-5%	-9%	-12%	-15%	-18%	-21%	-23%	-26%	-28%
	260	21%	15%	10%	5%	0%	-4%	-7%	-11%	-14%	-17%	-20%	-22%	-25%	-27%	-29%
	250	16%	10%	5%	1%	-3%	-7%	-11%	-14%	-17%	-20%	-23%	-25%	-28%	-30%	-32%
	245	14%	8%	3%	-1%	-5%	-9%	-13%	-16%	-19%	-22%	-24%	-27%	-29%	-31%	-33%
	240	11%	6%	1%	-3%	-7%	-11%	-14%	-18%	-21%	-23%	-26%	-28%	-30%	-33%	-35%
	235	9%	4%	-1%	-5%	-9%	-13%	-16%	-19%	-22%	-25%	-27%	-30%	-32%	-34%	-36%
	230	7%	2%	-3%	-7%	-11%	-15%	-18%	-21%	-24%	-26%	-29%	-31%	-33%	-35%	-37%
	225	4%	-1%	-5%	-9%	-13%	-17%	-20%	-23%	-25%	-28%	-30%	-33%	-35%	-37%	-39%
	220	2%	-3%	-7%	-11%	-15%	-18%	-22%	-24%	-27%	-30%	-32%	-34%	-36%	-38%	-40%
	215	0%	-5%	-9%	-13%	-17%	-20%	-23%	-26%	-29%	-31%	-34%	-36%	-38%	-40%	-41%
	210	-3%	-7%	-11%	-15%	-19%	-22%	-25%	-28%	-30%	-33%	-35%	-37%	-39%	-41%	-43%
	205	-5%	-9%	-14%	-17%	-21%	-24%	-27%	-30%	-32%	-34%	-37%	-39%	-41%	-42%	-44%
	200	-7%	-12%	-16%	-19%	-23%	-26%	-29%	-31%	-34%	-36%	-38%	-40%	-42%	-44%	-45%
	195	-10%	-14%	-18%	-21%	-25%	-28%	-30%	-33%	-35%	-38%	-40%	-42%	-43%	-45%	-47%
	190	-12%	-16%	-20%	-23%	-27%	-30%	-32%	-35%	-37%	-39%	-41%	-43%	-45%	-47%	-48%
185	-14%	-18%	-22%	-25%	-29%	-31%	-34%	-36%	-39%	-41%	-43%	-45%	-46%	-48%	-50%	
180	-17%	-21%	-24%	-27%	-30%	-33%	-36%	-38%	-40%	-42%	-44%	-46%	-48%	-49%	-51%	

Data Source: Wilshire, Bloomberg

## Cross Asset Class Valuation

- In reviewing Equity markets vs. Interest Rate Sensitive asset classes, valuations are at historical lows
- US Markets are also facing valuation headwinds vs. Developed and Emerging Markets

As of September 30, 2023	ASSET CLASS RELATIONSHIP RELATIVE TO EACH OF THE FOLLOWING:									
	Inflation	Cash	Treasury	Core Bonds	High Yield	REITs	MLPs	U.S. Stocks	Non-U.S. Dev.	Emrg Mrkt
Cash	100%		98%	97%	78%	99%	92%	100%	99%	100%
Treasury	98%	2%		73%	60%	96%	79%	99%	97%	98%
Core Bonds	96%	3%	27%		55%	97%	74%	98%	97%	97%
High Yield	70%	22%	40%	45%		76%	59%	75%	71%	74%
REITs	50%	1%	4%	3%	24%		41%	76%	60%	56%
MLPs	59%	8%	21%	26%	41%	59%		69%	58%	59%
U.S. Stocks	26%	0%	1%	2%	25%	24%	31%		9%	7%
Non-U.S. Dev.	43%	1%	3%	3%	29%	40%	42%	91%		34%
Emrg Mrkt	49%	0%	2%	3%	26%	44%	41%	93%	66%	

Data Source: Bloomberg, Wilshire Atlas

## Appendix – Correlation Matrix

## Capital Market Assumptions

- Wilshire's Capital Market Assumptions as of **June 30, 2023**
- Wilshire's asset class return, risk and correlation assumptions are developed on multi-year forward looking expected rates of return and historical risk and correlation, adjusted to incorporate recent trends
- Public market return expectations represent a passive investment in the asset class (beta). They do not reflect value added from active management (alpha).

	Public Equity	Private Equity	Specialty Credit	Core Fixed Income	Cash	Real Estate	Real Return
Return - 10-Year (%)	6.15	9.15	7.40	4.85	3.85	6.00	6.85
Return - 30-Year (%)	7.15	9.95	7.40	4.80	3.55	6.95	7.35
Risk (%)	17.10	27.80	9.05	4.70	0.75	13.95	10.65
Correlations							
Public Equity	1.00						
Private Equity	0.74	1.00					
Specialty Credit	0.57	0.31	1.00				
Core Fixed Income	0.20	0.31	0.15	1.00			
Cash	-0.06	0.00	-0.09	0.18	1.00		
Real Estate	0.54	0.52	0.63	0.19	-0.05	1.00	
Real Return	0.50	0.44	0.58	0.15	0.01	0.49	1.00



Wilshire

## Appendix – Asset Allocation Ranges

## Allowable Asset Allocation Ranges

Wilshire's Asset Allocation Committee (WAAC) maintains standard asset allocation parameters which reflect generally observed market practices for institutional asset owners. While Wilshire expects most client portfolios will fall within these asset allocation ranges. Wilshire recognizes and occasionally recommends portfolio allocations that may diverge from these general ranges based on a client's particular circumstances, goals or needs.

Asset Segment	Corporate DB	Public DB	E&F
Total Equity (Public+Private)		0% - 80%	
Private Equity (Aggregate)	0% - 15%	0% - 20%	0% - 30%
Fixed Income (Core/High-quality - Liquid IG)	10% - 100%	10% - 50%	
Other Fixed Income/Credit (Aggregate)		0% - 25%	
Private/Illiquid Credit (Aggregate)		0% - 15%	
High Yield		0% - 10%	
Other: EMD, Loans, Convertibles		0% - 7.5%	
Total Real Assets (Public + Private)		0% - 25%	
Total Real Estate (Public + Private)		0% - 25%	
RA Other: Commodities, Gold, Infra, GLI, MLPs, O&G, Timber		0% - 5%	
Marketable Alternatives (Aggregate)	0% - 12.5%		0% - 20%
Cash		0% - 5%	
Leverage		0% - 20%	
Total Private/Illiquid	0% - 25%	0% - 35%	0% - 50%

These thresholds were informed by allocation information from Greenwich Associates, and Wilshire Advisors, LLC, universe data and will be reviewed for reasonableness from time to time.

*\*Last Updated 12/2021*

## Appendix – Efficient Frontier

## Efficient Frontier 1 Portfolios – KPPA Bucketing

“Lower Risk A”  
is close to  
Portfolio 8.

Asset Class	Current Target	Optimization Constraints	Minimum Risk	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Maximum Risk
Public Equity	50.00%	45% - 80%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	48.00%
Private Equity	10.00%	0% - 10% <sup>1</sup>	0.00%	0.00%	0.00%	0.00%	0.00%	2.00%	4.50%	7.00%	9.50%	10.00%
<b>Total Equity</b>	<b>60.00%</b>		<b>45.00%</b>	<b>45.00%</b>	<b>45.00%</b>	<b>45.00%</b>	<b>45.00%</b>	<b>47.00%</b>	<b>49.50%</b>	<b>52.00%</b>	<b>54.50%</b>	<b>58.00%</b>
Core Fixed Income	10.00%	10% - 50%	45.00%	34.50%	29.50%	21.50%	13.50%	11.00%	10.00%	10.00%	10.00%	10.00%
Specialty Credit	10.00%	0% - 25% <sup>1</sup>	0.00%	10.50%	18.50%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
Cash	0.00%	2% - 5%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
<b>Total Fixed Income</b>	<b>20.00%</b>		<b>50.00%</b>	<b>50.00%</b>	<b>50.00%</b>	<b>48.50%</b>	<b>40.50%</b>	<b>38.00%</b>	<b>37.00%</b>	<b>37.00%</b>	<b>37.00%</b>	<b>37.00%</b>
Real Estate	7.00%	5% - 10% <sup>1</sup>	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Real Return	13.00%	0% - 10% <sup>1</sup>	0.00%	0.00%	0.00%	1.50%	9.50%	10.00%	8.50%	6.00%	3.50%	0.00%
<b>Total Inflation Protected</b>	<b>20.00%</b>		<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>6.50%</b>	<b>14.50%</b>	<b>15.00%</b>	<b>13.50%</b>	<b>11.00%</b>	<b>8.50%</b>	<b>5.00%</b>
<b>Total Assets</b>	<b>100.0%</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Expected Return - 10 Years (%)</b>	<b>6.95</b>		<b>5.77</b>	<b>6.04</b>	<b>6.26</b>	<b>6.45</b>	<b>6.60</b>	<b>6.72</b>	<b>6.84</b>	<b>6.92</b>	<b>7.01</b>	<b>7.00</b>
<b>Standard Deviation of Return (%)</b>	<b>12.82</b>		<b>8.78</b>	<b>9.17</b>	<b>9.57</b>	<b>9.96</b>	<b>10.36</b>	<b>10.76</b>	<b>11.19</b>	<b>11.56</b>	<b>11.96</b>	<b>12.37</b>
<b>+ / (-) in Expected Return - 10 Years (bps)</b>			<b>(118)</b>	<b>(91)</b>	<b>(69)</b>	<b>(50)</b>	<b>(35)</b>	<b>(23)</b>	<b>(11)</b>	<b>(3)</b>	<b>6</b>	<b>5</b>
<b>+ / (-) in SD of Return (bps)</b>			<b>(404)</b>	<b>(365)</b>	<b>(325)</b>	<b>(286)</b>	<b>(246)</b>	<b>(206)</b>	<b>(163)</b>	<b>(126)</b>	<b>(86)</b>	<b>(45)</b>
<b>Sharpe Ratio</b>	<b>0.24</b>		<b>0.22</b>	<b>0.24</b>	<b>0.25</b>	<b>0.26</b>	<b>0.27</b>	<b>0.27</b>	<b>0.27</b>	<b>0.27</b>	<b>0.26</b>	<b>0.25</b>

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



## Efficient Frontier 1 Portfolios – Wilshire Bucketing

“Lower Risk A”  
is close to  
Portfolio 8.

Asset Class	Current Target	Optimization Constraints	Minimum Risk	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Maximum Risk
Public Equity	50.00%	45% - 80%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	48.00%
Private Equity	10.00%	0% - 10% <sup>1</sup>	0.00%	0.00%	0.00%	0.00%	0.00%	2.00%	4.50%	7.00%	9.50%	10.00%
<b>Total Growth Assets</b>	<b>60.00%</b>		<b>45.00%</b>	<b>45.00%</b>	<b>45.00%</b>	<b>45.00%</b>	<b>45.00%</b>	<b>47.00%</b>	<b>49.50%</b>	<b>52.00%</b>	<b>54.50%</b>	<b>58.00%</b>
Specialty Credit	10.00%	0% - 25% <sup>1</sup>	0.00%	10.50%	18.50%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
<b>Total Defensive Growth Assets</b>	<b>10.00%</b>		<b>0.00%</b>	<b>10.50%</b>	<b>18.50%</b>	<b>25.00%</b>	<b>25.00%</b>	<b>25.00%</b>	<b>25.00%</b>	<b>25.00%</b>	<b>25.00%</b>	<b>25.00%</b>
Core Fixed Income	10.00%	10% - 50%	45.00%	34.50%	29.50%	21.50%	13.50%	11.00%	10.00%	10.00%	10.00%	10.00%
Cash	0.00%	2% - 5%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
<b>Total Defensive / Rate Sensitive Assets</b>	<b>10.00%</b>		<b>50.00%</b>	<b>39.50%</b>	<b>31.50%</b>	<b>23.50%</b>	<b>15.50%</b>	<b>13.00%</b>	<b>12.00%</b>	<b>12.00%</b>	<b>12.00%</b>	<b>12.00%</b>
Real Estate	7.00%	5% - 10% <sup>1</sup>	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Real Return	13.00%	0% - 10% <sup>1</sup>	0.00%	0.00%	0.00%	1.50%	9.50%	10.00%	8.50%	6.00%	3.50%	0.00%
<b>Total RA / Inflation Sensitive Assets</b>	<b>20.00%</b>		<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>6.50%</b>	<b>14.50%</b>	<b>15.00%</b>	<b>13.50%</b>	<b>11.00%</b>	<b>8.50%</b>	<b>5.00%</b>
<b>Total Assets</b>	<b>100.0%</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Expected Return - 10 Years (%)</b>	<b>6.95</b>		<b>5.77</b>	<b>6.04</b>	<b>6.26</b>	<b>6.45</b>	<b>6.60</b>	<b>6.72</b>	<b>6.84</b>	<b>6.92</b>	<b>7.01</b>	<b>7.00</b>
<b>Standard Deviation of Return (%)</b>	<b>12.82</b>		<b>8.78</b>	<b>9.17</b>	<b>9.57</b>	<b>9.96</b>	<b>10.36</b>	<b>10.76</b>	<b>11.19</b>	<b>11.56</b>	<b>11.96</b>	<b>12.37</b>
<b>+ / (-) in Expected Return - 10 Years (bps)</b>			<b>(118)</b>	<b>(91)</b>	<b>(69)</b>	<b>(50)</b>	<b>(35)</b>	<b>(23)</b>	<b>(11)</b>	<b>(3)</b>	<b>6</b>	<b>5</b>
<b>+ / (-) in SD of Return (bps)</b>			<b>(404)</b>	<b>(365)</b>	<b>(325)</b>	<b>(286)</b>	<b>(246)</b>	<b>(206)</b>	<b>(163)</b>	<b>(126)</b>	<b>(86)</b>	<b>(45)</b>
<b>Sharpe Ratio</b>	<b>0.24</b>		<b>0.22</b>	<b>0.24</b>	<b>0.25</b>	<b>0.26</b>	<b>0.27</b>	<b>0.27</b>	<b>0.27</b>	<b>0.27</b>	<b>0.26</b>	<b>0.25</b>

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

## Efficient Frontier 2 Portfolios – KPPA Bucketing

“Lower Risk B”  
is close to  
Portfolio 6.

Asset Class	Current Target	Optimization Constraints	Minimum Risk	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Maximum Risk
Public Equity	50.00%	40% - 80%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	42.00%	42.00%	53.00%
Private Equity	10.00%	0% - 10% <sup>1</sup>	0.00%	0.00%	0.00%	1.50%	4.00%	7.00%	9.50%	10.00%	10.00%	10.00%
<b>Total Equity</b>	<b>60.00%</b>		<b>40.00%</b>	<b>40.00%</b>	<b>40.00%</b>	<b>41.50%</b>	<b>44.00%</b>	<b>47.00%</b>	<b>49.50%</b>	<b>52.00%</b>	<b>52.00%</b>	<b>63.00%</b>
Core Fixed Income	10.00%	10% - 50%	50.00%	35.50%	27.50%	21.50%	19.00%	16.00%	13.50%	10.00%	10.00%	10.00%
Specialty Credit	10.00%	0% - 20% <sup>1</sup>	0.00%	14.50%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Cash	0.00%	2% - 5%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
<b>Total Fixed Income</b>	<b>20.00%</b>		<b>55.00%</b>	<b>55.00%</b>	<b>49.50%</b>	<b>43.50%</b>	<b>41.00%</b>	<b>38.00%</b>	<b>35.50%</b>	<b>32.00%</b>	<b>32.00%</b>	<b>32.00%</b>
Real Estate	7.00%	5% - 10% <sup>1</sup>	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	6.00%	6.00%	5.00%
Real Return	13.00%	0% - 10% <sup>1</sup>	0.00%	0.00%	5.50%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	0.00%
<b>Total Inflation Protected</b>	<b>20.00%</b>		<b>5.00%</b>	<b>5.00%</b>	<b>10.50%</b>	<b>15.00%</b>	<b>15.00%</b>	<b>15.00%</b>	<b>15.00%</b>	<b>16.00%</b>	<b>16.00%</b>	<b>5.00%</b>
<b>Total Assets</b>	<b>100.0%</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Expected Return - 10 Years (%)</b>	<b>6.95</b>		<b>5.70</b>	<b>6.07</b>	<b>6.35</b>	<b>6.52</b>	<b>6.68</b>	<b>6.83</b>	<b>6.96</b>	<b>7.03</b>	<b>7.03</b>	<b>6.92</b>
<b>Standard Deviation of Return (%)</b>	<b>12.82</b>		<b>8.06</b>	<b>8.60</b>	<b>9.15</b>	<b>9.66</b>	<b>10.19</b>	<b>10.75</b>	<b>11.28</b>	<b>11.80</b>	<b>11.80</b>	<b>12.90</b>
<b>+ / (-) in Expected Return - 10 Years (bps)</b>			<b>(125)</b>	<b>(88)</b>	<b>(60)</b>	<b>(43)</b>	<b>(27)</b>	<b>(12)</b>	<b>1</b>	<b>8</b>	<b>8</b>	<b>(3)</b>
<b>+ / (-) in SD of Return (bps)</b>			<b>(476)</b>	<b>(422)</b>	<b>(367)</b>	<b>(316)</b>	<b>(263)</b>	<b>(207)</b>	<b>(154)</b>	<b>(102)</b>	<b>(102)</b>	<b>8</b>
<b>Sharpe Ratio</b>	<b>0.24</b>		<b>0.23</b>	<b>0.26</b>	<b>0.27</b>	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>	<b>0.27</b>	<b>0.27</b>	<b>0.24</b>

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

## Efficient Frontier 2 Portfolios – Wilshire Bucketing

"Lower Risk B"  
is close to  
Portfolio 6.

Asset Class	Current Target	Optimization Constraints	Minimum Risk	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Maximum Risk
Public Equity	50.00%	40% - 80%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	42.00%	42.00%	53.00%
Private Equity	10.00%	0% - 10% <sup>1</sup>	0.00%	0.00%	0.00%	1.50%	4.00%	7.00%	9.50%	10.00%	10.00%	10.00%
<b>Total Growth Assets</b>	<b>60.00%</b>		<b>40.00%</b>	<b>40.00%</b>	<b>40.00%</b>	<b>41.50%</b>	<b>44.00%</b>	<b>47.00%</b>	<b>49.50%</b>	<b>52.00%</b>	<b>52.00%</b>	<b>63.00%</b>
Specialty Credit	10.00%	0% - 20% <sup>1</sup>	0.00%	14.50%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
<b>Total Defensive Growth Assets</b>	<b>10.00%</b>		<b>0.00%</b>	<b>14.50%</b>	<b>20.00%</b>	<b>20.00%</b>	<b>20.00%</b>	<b>20.00%</b>	<b>20.00%</b>	<b>20.00%</b>	<b>20.00%</b>	<b>20.00%</b>
Core Fixed Income	10.00%	10% - 50%	50.00%	35.50%	27.50%	21.50%	19.00%	16.00%	13.50%	10.00%	10.00%	10.00%
Cash	0.00%	2% - 5%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
<b>Total Defensive / Rate Sensitive Assets</b>	<b>10.00%</b>		<b>55.00%</b>	<b>40.50%</b>	<b>29.50%</b>	<b>23.50%</b>	<b>21.00%</b>	<b>18.00%</b>	<b>15.50%</b>	<b>12.00%</b>	<b>12.00%</b>	<b>12.00%</b>
Real Estate	7.00%	5% - 10% <sup>1</sup>	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	6.00%	6.00%	5.00%
Real Return	13.00%	0% - 10% <sup>1</sup>	0.00%	0.00%	5.50%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	0.00%
<b>Total RA / Inflation Sensitive Assets</b>	<b>20.00%</b>		<b>5.00%</b>	<b>5.00%</b>	<b>10.50%</b>	<b>15.00%</b>	<b>15.00%</b>	<b>15.00%</b>	<b>15.00%</b>	<b>16.00%</b>	<b>16.00%</b>	<b>5.00%</b>
<b>Total Assets</b>	<b>100.0%</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Expected Return - 10 Years (%)</b>	<b>6.95</b>		<b>5.70</b>	<b>6.07</b>	<b>6.35</b>	<b>6.52</b>	<b>6.68</b>	<b>6.83</b>	<b>6.96</b>	<b>7.03</b>	<b>7.03</b>	<b>6.92</b>
<b>Standard Deviation of Return (%)</b>	<b>12.82</b>		<b>8.06</b>	<b>8.60</b>	<b>9.15</b>	<b>9.66</b>	<b>10.19</b>	<b>10.75</b>	<b>11.28</b>	<b>11.80</b>	<b>11.80</b>	<b>12.90</b>
<b>+ / (-) in Expected Return - 10 Years (bps)</b>			<b>(125)</b>	<b>(88)</b>	<b>(60)</b>	<b>(43)</b>	<b>(27)</b>	<b>(12)</b>	<b>1</b>	<b>8</b>	<b>8</b>	<b>(3)</b>
<b>+ / (-) in SD of Return (bps)</b>			<b>(476)</b>	<b>(422)</b>	<b>(367)</b>	<b>(316)</b>	<b>(263)</b>	<b>(207)</b>	<b>(154)</b>	<b>(102)</b>	<b>(102)</b>	<b>8</b>
<b>Sharpe Ratio</b>	<b>0.24</b>		<b>0.23</b>	<b>0.26</b>	<b>0.27</b>	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>	<b>0.27</b>	<b>0.27</b>	<b>0.24</b>

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

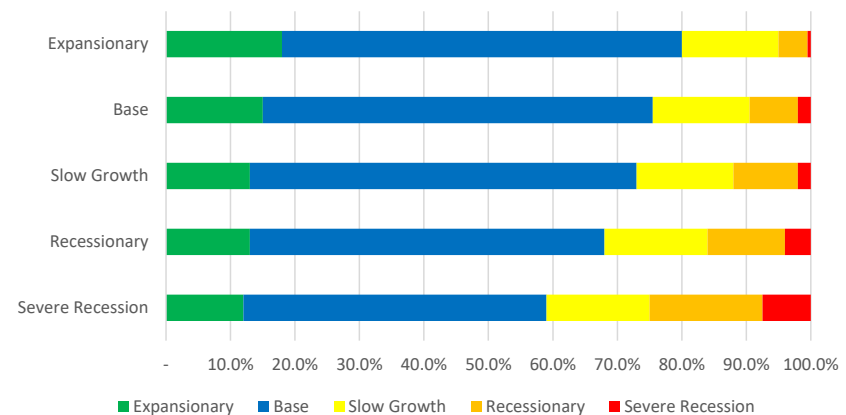
## Appendix – Regimes

## Efficient Frontier Portfolios

Managing drawdown risk –  
the “uncertainty around  
the uncertainty”

- Most simulation models assume returns are log-normally distributed
- Though reasonable in most years, left-tail events occur more frequently than predicted
- A regime switching model can help us pre-experience uncomfortable return paths that fall outside a normal distribution’s field of view

	expansionary	base	slow growth	recessionary	severe recession
expansionary	18.0%	62.0%	15.0%	4.5%	0.5%
base	15.0%	60.5%	15.0%	7.5%	2.0%
slow growth	13.0%	60.0%	15.0%	10.0%	2.0%
recessionary	13.0%	55.0%	16.0%	12.0%	4.0%
severe recession	12.0%	47.0%	16.0%	17.5%	7.5%



## Stress Testing: Regime Assumptions

- In below trend and worse environments, the portfolio's return expectations is materially lower and the volatility is materially higher
- Volatility in the below trend and worse environments are left-skewed, i.e. negative-skewed

	US Stocks	Dev xUS Stocks	EM Stocks	Prvt Mkts	Cash	Core Bonds	LT Bonds	US TIPS	HY	US RES	Private RE	Commodities	Current Target
<b>Expansionary/Above Trend Growth</b>													
Return (%)	10.50	11.50	11.75	16.50	4.10	4.35	4.30	3.55	8.20	10.75	11.00	9.10	10.97
Risk (%)	12.00	13.00	21.00	22.15	0.75	5.20	10.85	6.50	8.00	13.50	10.90	16.00	9.54
<b>Baseline/Trend Growth</b>													
Return (%)	5.50	6.50	6.75	9.00	3.85	4.85	4.80	4.05	6.20	5.75	6.00	6.10	6.95
Risk (%)	17.00	18.00	26.00	29.65	0.75	4.70	9.85	6.00	10.00	17.50	13.90	16.00	12.82
<b>Slow Growth/Below Trend</b>													
Return (%)	3.50	4.50	4.75	6.00	3.85	5.85	6.30	4.55	5.20	3.75	4.00	5.10	5.51
Risk (%)	22.00	23.00	31.00	37.15	0.75	5.70	11.85	7.50	12.00	21.50	16.90	18.00	16.75
<b>Recessionary/Negative Growth</b>													
Return (%)	(4.50)	(3.50)	(3.25)	(6.00)	3.35	6.85	7.80	6.55	1.20	(4.25)	(4.00)	2.10	(0.94)
Risk (%)	27.00	28.00	36.00	44.65	0.75	6.70	13.85	9.00	15.00	27.50	21.90	21.00	20.78
<b>Severe Recession/Deflation</b>													
Return (%)	(44.50)	(43.50)	(43.25)	(41.00)	2.85	14.85	19.80	16.55	(13.80)	(44.25)	(34.00)	(1.90)	(28.90)
Risk (%)	42.00	43.00	51.00	54.65	0.75	14.70	29.85	21.00	20.00	42.50	33.90	26.00	31.04

## Stress Testing: Regime Descriptions

### Regime Descriptions

- **Expansionary/Above Trend Growth** – Regime when the economy is coming out of a recession or the economy is running above long-run capacity. Wilshire does not project the economy to remain in this regime over longer periods.
- **Baseline/Trend Growth** – The long term expected state of the economy. Wilshire's capital market assumptions are based on this regime.
- **Slow Growth/Below Trend** – Regime when the economy is running at less than full capacity.
- **Recessionary/Negative Growth** – Regime when the economy has below zero growth. Wilshire expects the economy would be in a recession.
- **Severe Recession/Deflation** – Regime when the economy defined by significantly negative growth. Wilshire does not project the economy to remain in this regime over longer periods.

Wilshire

## Appendix – Economic Factor Exposures

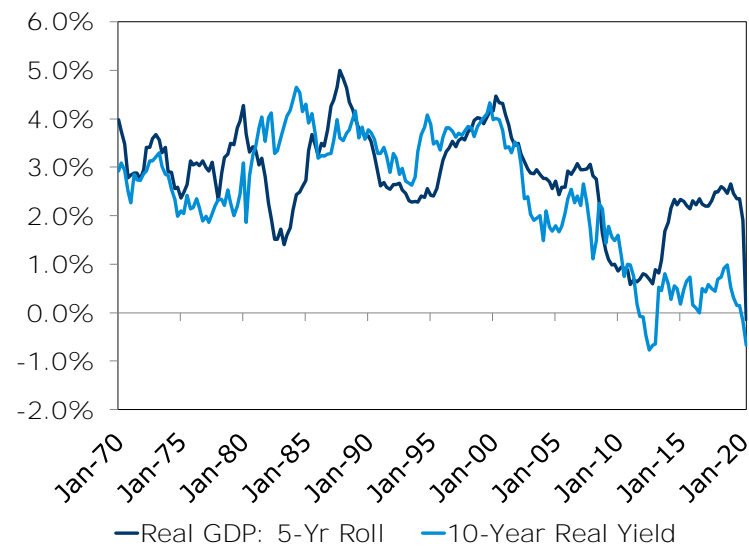


## Why Introduce Factors?

- **Risk Assessment:** Including factors within the asset allocation process provides an opportunity to measure asset class (and portfolio) exposures to key economic factors
- **Economic Efficiency:** If the underlying economic activity that drives asset performance can be identified, perhaps it can be used to assist in building economically-efficient portfolios
- **Portfolio Stability:** Macroeconomic risk factors – when separated from the valuation component inherent in investment pricing – may exhibit more stable correlations and, therefore, can better inform the allocation process

## Growth Proxy

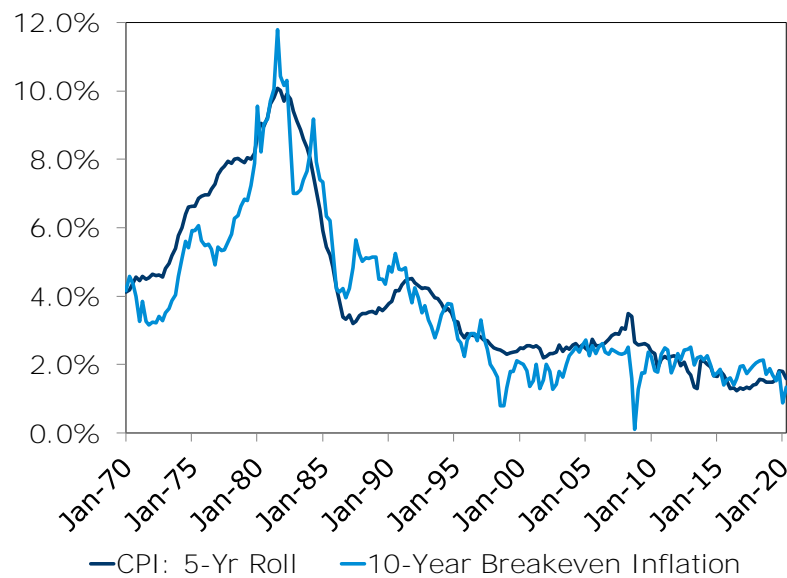
- Interest rates contain information and can reflect economic factors
- Nominal yields aggregate two important and distinct sources of economic information – real yields and expected inflation
- Disaggregating these factors should prove beneficial in developing a set of factors with improved explanatory power



Data Source: Federal Reserve, Bridgewater

## Inflation Proxy

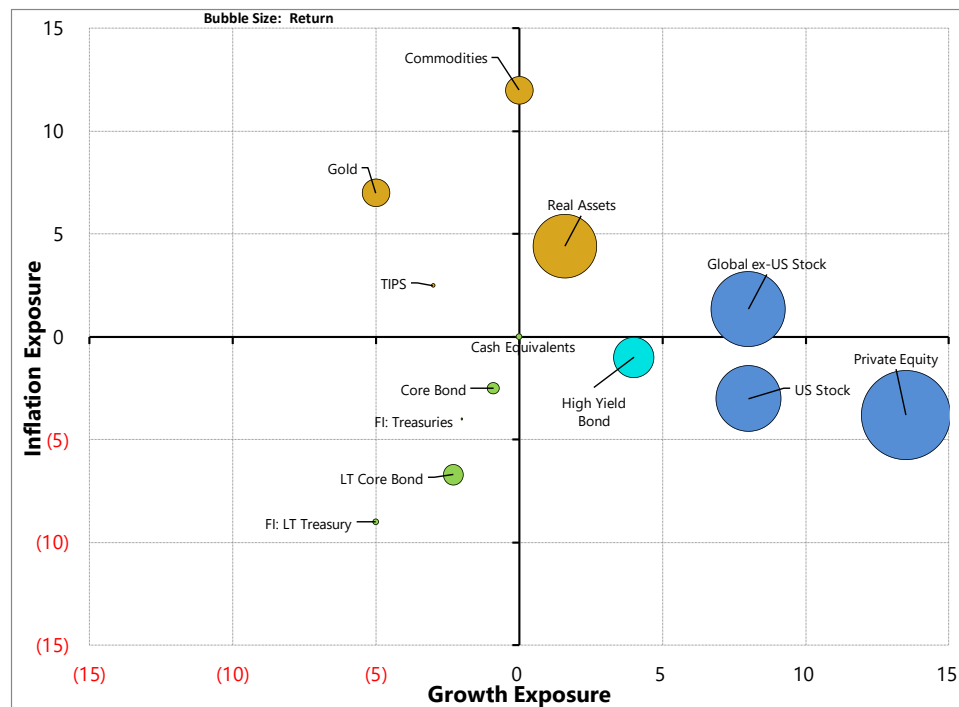
- Breakeven inflation is the market's expectation for inflation
- Tends to follow closely with actual, recent inflation and can act as a timely signal of trends in consumer prices



Data Source: Federal Reserve, Bridgewater

## Wilshire's Approach

- Employ a 2-factor regression model (growth and inflation) to formulate factor assumptions
- Growth proxy is enhanced by high yield bond spreads to better capture shifts in growth forecasts



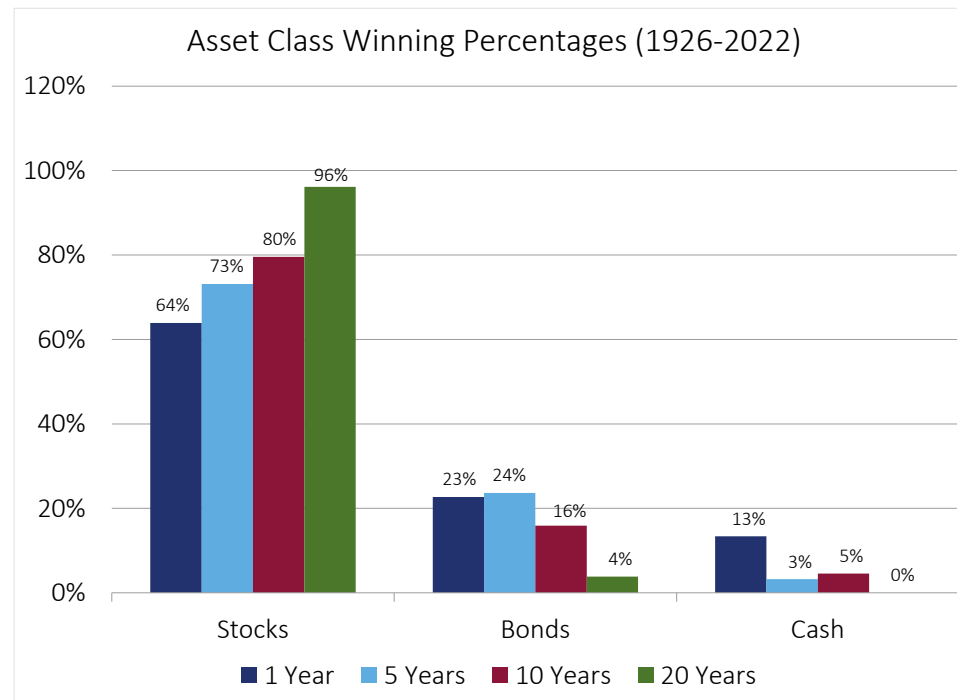
## Appendix – Liquidity

## Liquidity Risk: What Are The Consequences?

Default/Insolvency is the most severe outcome from having insufficient liquidity, but...

There are many other, more likely, disruptive impacts that a lack of liquidity can impose on an investment portfolio

- Liquidity breaches can rob an investor of their biggest advantage: a long-term investment horizon
- The timing and price of such sales dictated by liquidity needs rather than by explicit investment rationale
- Can destroy portfolio value and effectively strip a portfolio from its ability to recover from market sell-offs



## Wilshire Liquidity Metric

Wilshire's Liquidity Metric framework has two levels:

- **Market Level of Liquidity**
- **Stressed Level of Liquidity**

### Market Level of Liquidity

- Quantified on scale from 0% (low liquidity) to 100% (high liquidity)
- Designed to capture general notion of marketable versus private/off-market transactions
  - Marketable asset classes typically reflect a 90% or 100%
  - Private asset classes reflect 0%
- Goal is to reflect the tradability of assets, which is helpful in connecting these values back to our definitional framework (i.e., to quantify the differences between Convertible Liquidity and Delayed Liquidity)

## Wilshire Liquidity Metric

Wilshire's Liquidity Metric framework has two levels:

- **Market Level of Liquidity**
- **Stressed Level of Liquidity**

### Stressed Liquidity Metric

Includes a penalty process to reflect the loss in practical liquidity due to asset class volatility and sensitivity to particular economic environments

Penalty components:

1. **Growth Penalty:**
  - Impacts asset classes with vulnerability to slowing growth
  - Recognizes the hit to liquidity that can occur during growth related bear markets
2. **Inflation Penalty:**
  - Impacts asset classes with vulnerability to rising inflation
  - Recognizes the hit to liquidity that can occur during inflation driven bear markets
3. **Volatility Penalty:**
  - Impacts higher volatility asset classes
  - Recognizes the hit to liquidity that can occur from any form of volatility



## Wilshire Stressed Liquidity Metric

### Stressed Level of Liquidity Metric

Asset Class	Market Liquidity	Liquidity Penalty Components			Applied Penalty	Stressed Liquidity
		Growth	Inflation	Volatility		
US Equity	100	50		24	50	0
Dev ex-US Equity	100	50		26	50	0
EM Equity	90	50		40	50	0
Private Equity	0	50		40	0	0
Cash Equivalents	100				0	100
Core Bonds	100		8		8	86
High Yield Bonds	80	40		10	40	0
US Real Estate Securities	90	50		24	50	0
Private Real Estate	0	50		18	0	0
Commodities	90			20	20	55

Applied Penalty =  $\text{Min}(\text{Max}(\text{Growth} + \text{Inflation}, \text{Volatility}), \text{Market Liquidity})$

Stressed Liquidity \* =  $\text{Market Liquidity} - (1.75 \times \text{Applied Penalty})$

\* If less than 20, Stressed Liquidity is assumed to be 0

## Important Information

Wilshire is a global financial services firm providing diverse services to various types of investors and intermediaries. Wilshire's products, services, investment approach and advice may differ between clients and all of Wilshire's products and services may not be available to all clients. For more information regarding Wilshire's services, please see Wilshire's ADV Part 2 available at [www.wilshire.com/ADV](http://www.wilshire.com/ADV).

Wilshire believes that the information obtained from third party sources contained herein is reliable, but has not undertaken to verify such information. Wilshire gives no representations or warranties as to the accuracy of such information, and accepts no responsibility or liability (including for indirect, consequential or incidental damages) for any error, omission or inaccuracy in such information and for results obtained from its use.

This material may include estimates, projections, assumptions and other "forward-looking statements." Forward-looking statements represent Wilshire's current beliefs and opinions in respect of potential future events. These statements are not guarantees of future performance and undue reliance should not be placed on them. Such forward-looking statements necessarily involve known and unknown risks and uncertainties, which may cause actual events, performance and financial results to differ materially from any projections. Forward-looking statements speak only as of the date on which they are made and are subject to change without notice. Wilshire undertakes no obligation to update or revise any forward-looking statements.

Wilshire Advisors, LLC (Wilshire) is an investment advisor registered with the SEC. Wilshire® is a registered service mark.

Copyright © 2023 Wilshire. All rights reserved.

COUNTY EMPLOYEES' RETIREMENT SYSTEM  
BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION

[Revised: ~~September~~ ~~November 14, 2022~~ 8, 2023]

**Section 1.1 GENERAL ADMINISTRATION.**

This Statement of Bylaws and Committee Organization of the Board of Trustees of the County Employees Retirement System (CERS) is adopted pursuant to the authority of KRS 78.782(2). State and Federal law shall control any inconsistency that exists or may exist between the law and this Statement of Bylaws and Committee Organization.

a. Definitions.

1. AAC: "AAC" refers to the Joint CERS and Kentucky Retirement Systems Administrative Appeals Committee.
2. Board: "The CERS Board" refers to the CERS Board of Trustees of the County Employees Retirement System.
3. Board Year: The CERS Board Year shall be from April 1 of each calendar year through March 31 of the following year.
4. Bylaws: "Bylaws" refers to the Statement of Bylaws and Committee Organization.
5. CEO: "CEO" refers to CERS Chief Executive Officer, as outlined in KRS 78.782(9) & (10).
6. CIO: "CIO" refers to KPPA Executive Director Office of Investments.
7. DAC: "DAC" refers to the Joint CERS and Kentucky Retirement Systems Disability Appeals Committee.
8. KPPA: "KPPA" refers to the Kentucky Public Pensions Authority.
9. KRS: "KRS" refers to the Kentucky Revised Statutes.
10. Committee member: "Committee member" or "member" used in relation to a Committee refers to a member of the CERS Board of Trustees of the County Employee Retirement System serving on its Standing or ad hoc Committees.
11. Member: "Member" or "members" used in relation to individuals participating in a system (or System) administered by the Kentucky Public Pensions Authority refers to individuals who are active members (i.e., currently participating as an employee), inactive members (i.e., formerly participated as an employee, but is not currently participating as an employee, has not retired, and has not taken a refund), or retired.
12. Retirement Office: "Retirement Office" refers to the offices of the KPPA located at 1260 Louisville Road, Frankfort, Kentucky 40601.
13. Take action on: "Take action on" used in relation to the Board refers a motion being made, seconded, and voted upon by the Board in compliance with Robert's Rules of Order. [RONR (11th ed., as amended)].
14. Trustee: "Trustee" refers to a member of the Board of Trustees of the County Employees Retirement System.

b. Quorum; Parliamentary Authority.

1. CERS Board of Trustees: As required by KRS 78.782(8)(c), a majority of the trustees shall constitute a quorum and all actions taken by the CERS Board shall be by affirmative vote of a majority of the trustees present.
2. Committees of the CERS Board of Trustees: A majority of the trustees on any Committee of the Board appointed pursuant to Sections 2.1-2.5 of these Bylaws shall constitute a quorum of

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September ~~14, 2022~~ 13, 2023]

- the Committee and all actions taken by the Committee shall be by affirmative vote of a majority of the Committee trustees present.
3. The most recent edition of Robert's Rules of Order shall be the parliamentary authority. [RONR (11th ed., as amended)], except that if any Committee of the Board is comprised of five (5) or more trustees, the Committee shall not constitute a quorum of the Board and the Board shall be required to action on all preliminary decision made by the Committee, unless otherwise specified by these Bylaws.
  - c. Meetings. Meetings of the CERS Board and its Committees shall be conducted consistent with the Open Meetings Act, KRS 61.805 to 61.850. The Open Meetings Act shall control if any inconsistency exists between the Open Meetings Act and these Bylaws.
  - d. Annual Meeting. The annual meeting of the CERS Board shall be held on the third Wednesday of April of each Board Year.
  - e. Regular Meetings. Regular meetings of the Board shall be held on the third Wednesday of March, April, June, and September, the first Wednesday of November, and the 1<sup>st</sup> Monday of December at times selected by the Board Chair, in the third month of each calendar year quarter. The CERS Board shall adopt the official Regular Meeting calendar no later than December 31 of the previous year.
  - e.f. Trustee Training. In addition to the regular Board of Trustees meetings, the Board Chair may schedule Trustee Training sessions for the third Wednesday of January, July, and October.
  - f.g. Special Meetings.
    1. Special meetings of the Board shall be held upon the call of the Chair of the CERS Board or the CERS CEO.
    2. Special meetings of a Standing or ad hoc Committee of the CERS Board of Trustees shall be held upon the call of the CERS Committee Chair or the CERS CEO.
    3. A trustee may request that the CERS CEO, Chair of the CERS Board (in the case of a special meeting of the CERS Board), or CERS Committee Chair (in the case of a special meeting of a Committee) call a special meeting by email or other written means. Upon receipt of email or other written requests to call a special meeting from a majority of the trustees, the CERS CEO, CERS Board Chair, or CERS Committee Chair shall call the requested special meeting.
  - g. Notice of Meetings.
    1. Regular Meetings. Notice of a regular meeting of the CERS Board shall be posted at least seven (7) days (inclusive of weekends and holidays) before the meeting is scheduled. The notice of a regular meeting shall include the date, time, and location of the meeting, and the agenda for the meeting. The agenda shall be determined under the direction of and approval by the Chair of the CERS Board. Changes or revisions to the agenda may be proposed by the CERS CEO or a trustee; provided such proposal shall be delivered to the CERS Chair for approval not less than ninety-six (96) hours before the meeting is scheduled; and further provided that nothing in this sentence shall deprive a trustee from introducing new items of business during a regular meeting. Approved changes or revisions to the agenda shall be posted not less than seventy-two (72) hours before the meeting is scheduled.
    2. Special Meetings. When circumstances warrant a special meeting of the CERS Board or of a Committee, notice shall be posted as soon as reasonably possible, but not less than twenty-four (24) hours before the meeting is scheduled. The notice of a special meeting shall include the date, time, and location of the special meeting and the agenda for the meeting. Discussions and action at the meeting shall be limited to items listed on the agenda in the notice.
  - h. Change in Meeting Dates. Any regular or special meeting of the CERS Board may be changed by following the procedure prescribed in these Bylaws for calling special meetings.

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September 14, 2022]

---

- i. Records of Proceedings. All official acts of the CERS Board shall be recorded in the minutes of the regular or special meeting at which the action was approved or adopted. The CERS CEO shall cause the minutes to be transcribed and presented for approval or amendment at the next regular or special meeting. An electronic copy (certified by the Chair of the CERS Board and CERS CEO) shall be on file in the Retirement Office for public inspection and posted to the KPPA website hosted for CERS. Electronic copies are maintained on the KPPA Website for Board and Committee actions. Copies that have been archived from the website are available on request.
- j. Chair and Vice-Chair of the CERS Board. The CERS Board shall elect a Chair and a Vice-Chair at each annual meeting to hold office for the ensuing CERS Board Year or until their successors are elected. The CERS Chair shall not serve more than four (4) consecutive years as Chair or Vice-Chair of the CERS Board. The CERS Vice-Chair shall not serve more than four (4) consecutive years as Chair or Vice-Chair of the CERS Board. A trustee who has served four (4) consecutive years as Chair or Vice-Chair of the CERS Board may be elected Chair or Vice-Chair of the CERS Board after an absence of two (2) years from both positions.
- k. CERS Committees. The CERS Board may create CERS Committees with such powers and duties as established by the CERS Board. The Chair of the CERS Board, unless otherwise stipulated or determined by the CERS Board, shall appoint the members of each CERS Standing or CERS Ad Hoc Committee, and such appointments shall be recorded in the minutes of the current or next-following regular or special CERS Board meeting. CERS Committee members shall serve concurrently with the appointing Chair.
- l. Conflicts of Interest.
  - 1. CERS Trustees shall file a statement of financial disclosure with the Executive Branch Ethics Commission within thirty (30) days of taking office.
  - 2. CERS Trustees shall also file a statement of financial disclosure by April 15 of each calendar year, and within thirty (30) days following departure from office as a CERS Trustee, or as otherwise provided by law.
  - 3. CERS Trustees shall also file a written conflict of interest statement as required pursuant to the County Employees Retirement System' Conflict of Interest.
- m. Confidentiality. CERS Trustees shall file a written confidentiality statement as required by the CERS Confidentiality Policy.
- n. Travel Policy Guidelines.
  - 1. All travel for official business of the County Employees Retirement System must be done in accordance with the requirements of and be consistent with KRS Chapter 45A and the County Employees Retirement System Board of Trustees Per Diem and Reimbursement Policy.
  - 2. No more than four (4) CERS Trustees may be passengers in the same common carrier. A Maximum of one (1) executive staff of the County Employees Retirement System may be passengers in the same common carrier.
  - 3. To avoid an accidental violation of Kentucky Open Meetings Laws, other than for CERS scheduled meetings, no more than four (4) CERS Trustees may attend the same off-site conference, training, etc., at the same time. The CERS CEO shall review Trustee travel requests to coordinate attendance and avoid noncompliance with Kentucky Open Meetings Laws.
- n. Election Policy Guidelines. All elections for elected trustees of the CERS Board must be conducted in accordance with the provisions of KRS 78.782(4), 105 KAR 1:445 and the County Employees Retirement System Board of Trustees Election Policy and Procedures adopted by the CERS Board.
- o. Violations of Board Policies and Guidelines. If a complaint is made that a CERS Trustee violated these Bylaws or any policy approved by the CERS Board, the CERS Board shall follow the procedure

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September ~~14, 2022~~ 13, 2023]

---

found in the CERS Conflict of Interest or the CERS Confidentiality Policy in investigating the complaint.

**Section 1.2 CERS BOARD RESPONSIBILITIES.**

- a. The CERS Board shall make and maintain Bylaws.
- b. The CERS Board shall appoint a CEO and fix the CERS CEO's compensation.
- c. The CERS Board shall appoint a General Counsel and fix the CERS General Counsel's compensation.
- d. The CERS Board shall adopt a Personnel Management policy to outline the job descriptions, qualifications, education, and skills for both the CEO and the General Counsel. This policy should also describe recruitment strategies, performance evaluations, and succession planning for these two positions.
- e. The CERS Board may act on contracts for rental of office space, and professional services, including, but not limited to, the auditor, legal counsel, in accordance with the requirements of the Commonwealth of Kentucky Model Procurement Act (KRS Chapter 45A).
- f. The CERS Board shall consider and take action on changes to administrative regulations proposed by the staff of the CERS and KPPA.
- g. The CERS Board shall take action on the audited financial statements.
- h. The CERS Board shall consider and take action on the recommendations of all of its Committees, except that:
  1. AAC and DAC shall have the authority to act upon the recommendations and reports of the hearing officer on behalf of the CERS Board in accordance with KRS Chapter 13B, and
  2. Pursuant to KRS 78.790(1)(b)(2), The CERS Board's Investment Committee shall have the authority to act on behalf of the CERS Board on all investment-related matters, though the CERS Board shall be kept informed of all such matters and shall be responsible for providing oversight on all investment-related matters in compliance with the fiduciary responsibilities of the CERS Board, state and federal law, and the CERS Board's Bylaws and Policies. All investment policies shall be adopted by the CERS Board and the CERS Investment Committee shall implement those policies.
- i. The CERS Board shall work with an actuary, who shall be a Fellow of the Conference of Consulting Actuaries or a member of the American Academy of Actuaries. KPPA will select and contract with the actuary pursuant to KRS 78.782(2) which allows the Board to carry out its obligations in accordance with KRS 78.784. The Board shall consider and take action on the recommendations of its actuary, including, but not limited to, determining the recommended contribution rates for employers in accordance with KRS 78.510 to 78.852.
- j. The CERS Board shall adopt contribution rates toward medical insurance premiums.
- k. The CERS Board shall provide oversight concerning programs and services for County Employees Retirement System members, beneficiaries, recipients, and participating employers.
- l. Legislative Issues. The Board will review and recommend statutory changes to the General Assembly related to the administration of benefits and compliance with federal law and determine which changes are in the best interests of the CERS plans. The Board will also review legislation proposed by the General Assembly that is likely to have significant impact on the funded status, existing member benefits, or system administration for any of the CERS plans.
- m. The CERS Board shall select candidates for each trustee ballot as provided in KRS 78.782(4), and 105 KAR 1:445.

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
[As Adopted: September 14, 2022]

---

- n. The CERS Board shall establish a formal trustee education program for all trustees of the CERS Board, pursuant to the requirements of KRS 78.782(17) and 105 KAR 1:440, and ensure that CEO organizes process for this trustee education to occur.
- o. The CERS Board shall collaborate with KPPA on Business Continuity and Disaster Recovery to ensure that CERS records and operations are adequately protected and that critical business operations will continue efficiently. The CERS Board may rely on policies and procedures developed by KPPA to address Business Continuity and Disaster Recovery issues. The CERS Board Chair shall act as temporary CERS CEO in the event the CERS CEO is not available to perform duties outlined in these Bylaws.
- p. The CERS Board, and individual trustees, should ordinarily refer all news media inquiries to the CERS CEO and/or the CERS Board Chair, and should not speak on behalf of the CERS Board or County Employees Retirement System with the news media. However, nothing in this subsection is intended to prevent individual trustees from speaking to the media concerning their actions, opinions, and decisions as individual Trustees. The Board designates the Executive Director of the KPPA, or his designee as the custodian of records for the CERS.

**Section 1.3 CHIEF EXECUTIVE OFFICER RESPONSIBILITIES.**

- a. The CERS CEO shall ensure that all Board and/or Committee meeting materials are distributed to Trustees at least one week in advance of the meeting to allow Trustees ample time to review documents. The CERS CEO will collaborate with the KPPA Executive Director to identify materials that will be relevant to Board or Committee discussions and assist with compilation of those materials for distribution.
- b. The CERS CEO shall develop a biennial budget and necessary budget amendments for approval by CERS Board. The CERS CEO will coordinate approved budget requests with the KPPA Executive Director to ensure that CERS budget requests are integrated with the KPPA budget request for submission to the Governor's office. The CERS CEO (or designee) shall present a budget-to-actual expenditure analysis to the CERS Board at each regular quarterly meeting of the CERS Board.
- c. The CERS CEO shall be responsible for working with the KPPA Executive Director to ensuring compliance with meeting notice and open records legal and regulatory requirements. The CERS CEO shall also be responsible (in collaboration with KPPA staff) for compiling all relevant materials for consideration by the CERS Board or its Committees and strive to distribute materials to Trustees at least one week prior to the Board or Committee meeting. All materials must be distributed to Trustees in a timely fashion to ensure adequate time for Trustees to review and analyze information prior to the Board or Committee meeting.
- d. The CERS CEO shall coordinate with KPPA staff to ensure that information and record management is comprehensive and efficient, and shall ensure that a disaster recovery plan, continuity of operations plan, and policies to ensure cyber security are developed and maintained.
- e. The CERS CEO shall be responsible for implementing a formal trustee education program for all trustees of the CERS Board, pursuant to the requirements of KRS 78.782(17).
- f. The CERS CEO shall develop recommendations for improvements and revisions of CERS Board policies and submit such revisions for CERS Board approval. CERS CEO shall ensure that approved policies are implemented in conformance with statutes, regulations, and CERS Board policies.
- g. The CERS CEO shall collaborate with CERS General Counsel and KPPA Legal staff to monitor litigation affecting CERS plans. CERS CEO and CERS General Counsel shall report significant developments to the CERS Board.

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION

[As Adopted: September ~~14, 2022~~ 13, 2023]

---

- h. The CERS CEO shall be responsible for oversight of CERS investment management to ensure that CERS investments are made in a manner consistent with policies promulgated by the CERS Investment Committee and approved by the CERS Board. In carrying out such responsibilities, the CERS CEO will monitor CERS investment policy compliance, investment performance, and ensure timely reporting to the CERS Board of oversight and monitoring concerns and actions.
- i. The CERS CEO will ensure that the KPPA Legislation Status Chart is provided to CERS Trustees and will schedule meetings based on an assessment of the impact of proposed legislation. The CERS CEO and CERS General Counsel may also prepare draft changes to Kentucky Revised Statutes based on CERS Board or an ad-hoc CERS Legislative Committee recommendations, as well as housekeeping revisions to address technical issues and present them to Committee members prior to the date of a meeting. CERS CEO and General Counsel will research the impact of proposed changes and report the results to the Committee. CERS CEO and General Counsel will also make preliminary contacts with legislators, employers and interest groups to assist in formulating legislation to accommodate all interested parties. CERS CEO, General Counsel, and CERS Board Chair will work with the General Assembly, Legislative Research Commission, the Governor's Office, KPPA, and interest groups to advocate for passage of the Board's legislative proposals, or advocate for other interests supported by the Board.
- j. The CERS CEO shall act as legislative liaison, and represent the CERS Board at legislative hearings and other legislative meetings. CERS CEO and General Counsel will review proposed legislation that is likely to impact CERS plan or administrative management and advise the CERS Board about pending legislation.
- k. The CERS CEO shall provide technical assistance to the members of the General Assembly, Governor's office, and state and local government officials, as well as members, recipients, and beneficiaries of the County Employees Retirement System.
- l. The CERS CEO shall recommend legislative or regulatory changes and propose draft language. These recommendations shall be presented to the CERS Board for review and approval.
- o. The CERS CEO shall implement any statutory or regulatory changes and take appropriate action to conform to federal law. CERS CEO shall also collaborate with KPPA Executive Director to monitor implementation of any changes designated as KPPA's responsibilities.
- m. The CERS CEO shall sign all documents necessary to promulgate or amend an administrative regulation on behalf of the CERS Board as the head of the County Employees Retirement System in accordance with KRS 13A.220.
- n. The CERS CEO shall communicate with the mass media and other agencies, entities or institutions, and CERS stakeholders, including responding to correspondence or inquiries addressed to the CERS Board.
- o. The CERS CEO shall develop written procedures for completing the responsibilities outlined in these Bylaws. The CERS CEO shall collaborate with the KPPA administrative staff to coordinate key operational provisions specific to CERS, including but not limited to access codes for CERS Board files, equipment, and software maintained by the CERS CEO, key Trustee and vendor contact information, or other organizational information in the event that the CERS CEO is not available to perform the duties outlined in these Bylaws.
- p. The CERS CEO shall collaborate with the KPPA Executive Director on issues related to benefits administration and to coordinate reciprocal benefits with the other state administered retirement systems in Kentucky.
- q. In the case of emergency conditions that threaten the functioning of the County Employees Retirement System, the preservation or protection County Employees Retirement System' property or assets, vital data, or the health and safety of any person, and where a quorum of the CERS Board is unavailable, the



COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September 14, 2022]

---

CERS CEO may take actions necessary to prevent or mitigate the threat, even if a vote of the CERS Board would otherwise be necessary to take such action. When a quorum of the CERS Board becomes available, any such actions taken by the CERS CEO shall be reviewed and ratified as necessary.

**Section 2.1 STANDING COMMITTEES.**

The CERS Board shall have the Standing Committees specified in Section 2.2, each of them to have the duties and responsibilities as therein set forth, together with such other duties and responsibilities as the CERS Board may by resolution determine. In each CERS Board Year, the Chair, elected at the annual meeting, shall appoint trustees to Committees as specified in Section 2.2, unless otherwise determined by the CERS Board. Each CERS Committee shall have a Chair and the CERS Board Chair shall appoint the Chair of each Committee, unless otherwise determined by the CERS Board. A CERS Committee may (but is not required to) elect a Vice-Chair from among its CERS Committee members by a majority vote of the Committee. A Vice-Chair so elected shall preside at meetings of the CERS Committee in the absence or inability to act of the Committee Chair. Any trustee may attend any meeting of any Committee of which he or she is not a Committee member, but shall not have a vote.

**Section 2.2 STANDING COMMITTEES; DUTIES AND RESPONSIBILITIES.**

The Standing Committees of the CERS Board are, and shall have respective duties and responsibilities, as follows:

- a. Actuarial Committee. The CERS Actuarial Committee shall include (i) one (1) trustee with retirement administration experience appointed by the Governor pursuant to KRS 78.782(2)(b)(1-3); (ii) one (1) trustee elected by members of the County Employees Retirement System; and (iii) one (1) trustee with investment experience appointed by the Governor pursuant to KRS 78.782(2)(b)(4-6).
  1. Committee Responsibilities.
    - A. The Committee will meet ~~semi-annually~~ on the second Wednesday of February and April and the fourth Wednesday of October, with authority to convene additional meetings, as circumstances require. ~~The regular meetings shall be held in the first quarter and the fourth quarter of the calendar year.~~ Additional meetings may be convened in conjunction with experience studies or significant changes to federal or state statutory guidance for CERS.
    - B. The CERS Actuarial Committee will review and evaluate actuarial assumptions, funding methods and tables proposed by the actuary (including without limitation all economic, mortality, disability, etc., assumptions) for each plan within County Employees Retirement System that affect: (i) the annual determination of the actuarial valuation of assets and liabilities of the System within the meaning of KRS 78.784; (ii) the factors that apply to amounts payable to members (e.g., early commencement, commutation, repayment, etc.); and (iii) the actuarially recommended contribution rate for employers required under KRS 78, except as otherwise determined by law or regulation,
    - C. The CERS Actuarial Committee will report its findings and recommendations of each such review or evaluation to the CERS Board for the CERS Board to determine appropriate implementation and action.
- b. Administrative Appeals Committee. The CERS Board shall collaborate with the Kentucky Retirement System Board to develop a timely disability and administrative appeals process. The CERS Board and the KRS Board will coordinate the Administrative Appeals process with one AAC for each Board. These AAC's may be combined with the DACs (Section 2.2(d), in compliance KRS 61.645(16) and KRS 78.782(16). Consistent with the provisions of KRS Chapter 13B, the AACs

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September ~~14, 2022~~ 13, 2023]

---

shall meet in alternate months, as needed, to act in matters of administrative appeals. Each Committee shall consist of three (3) members; however, the members appointed to one committee may also serve from time to time on the other Committee. One of the AAC shall consist of two (2) CERS Trustees and one (1) Kentucky Retirement Systems trustee. The other AAC shall consist of one (1) CERS Trustee and two (2) Kentucky Retirement Systems trustees. The AACs shall ensure that the laws governing CERS are administered impartially and uniformly, and that the actions of the CERS resulting in the appeal were correct and fair under the applicable statutes and regulations.

1. AAC Responsibilities: In matters of administrative appeals; the Committee members shall consider the administrative record, including the recommended order and any exceptions filed in compliance with KRS 13B.120. The AAC shall act on behalf of the entire CERS Board as the agency head in making a final order of the CERS Board in accordance with KRS 13B.120. The Committee may adopt the hearing officer's recommended order; or it may reject or modify, in whole or in part, the recommended order; or it may remand the matter, in whole or in part, to the hearing officer for further proceedings as appropriate; or it may act on cases properly remanded by a court of competent jurisdiction. The Committee may also recommend legislative changes to improve the administration of the benefits. Any recommended legislative changes shall be referred to the CERS CEO for study and development for the CERS review and approval.
2. KPPA Executive Director Office of Benefits Responsibilities. The Executive Director, KPPA Office of Benefits or designated staff, in coordination with KPPA Legal Staff, will coordinate meeting dates and determine which cases will be reviewed by each AAC. Designated staff will compile the administrative records and distribute the files to the Committee members prior to each meeting. KPPA Legal Staff may provide legal or technical advice to the Committee,
- c. Finance Committee. The Committee shall consist of not less than three (3) and not more than four (4) members and will act on behalf of the CERS Board in fulfilling its oversight responsibilities for the financial reporting process, the system of internal control, the internal and external audit processes, and the process for monitoring compliance with laws, regulations, and the applicable codes of conduct.
  1. Committee Responsibilities.
    - A. The Finance Committee will meet quarterly, with authority to convene additional meetings, as circumstances require. The regular quarterly meetings shall be held on the third Monday of February, May, and August, and the fourth Monday of November at ~~those~~ times selected by the Finance Committee Chair.
    - B. The Finance Committee shall have the authority to review reports by the KPPA Internal Audit Administration and to recommend appropriate policies and procedures to KPPA.
    - C. The Finance Committee shall review the job descriptions for the employees whose names have been certified by the applicable authority to meet the criteria of KRS 61.592 and 105 KAR 1:130 for hazardous duty, and also those employees who have been so certified who are not, or who no longer are, working in a hazardous duty position. Upon review and approval, the Finance Committee shall forward the results and its recommendations for the appropriate classification as hazardous or nonhazardous duty to the CERS Board for approval and ratification.
  2. The Finance Committee shall review interim financial reports and budget-to-actual comparisons for administrative budgets. Financial reports shall include, but are not limited to, statement of net position, statement of changes in net financial position, cash flow reports, accounts receivable, and collection activity reports for each plan (pension and insurance, nonhazardous and hazardous).

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September 14, 2022]

---

3. The Finance Committee may request internal audits to analyze specific issues relevant to CERS plan management, investment performance, or administration.
4. Audit Charters. The KPPA Division of Internal Audit Charter are hereby incorporated by reference.
5. Budget. The Finance Committee shall review the County Employees Retirement System's biennial administrative budget and necessary budget amendments.
- d. Disability Appeals Committee. The CERS Board shall collaborate with the Kentucky Retirement System Board to develop a timely disability and administrative appeals process. The CERS Board and the KRS Board will coordinate the Disability Appeals process with one DAC for each Board. These DAC's may be combined with the AACs (Section 2.2(b), in compliance KRS 61.645(16) and KRS 78.782(16). Consistent with the provisions of KRS Chapter 13B, the DACs shall meet in alternate months, as needed, to act in matters of administrative appeals. Each Committee shall consist of three (3) members; however, the members appointed to one committee may also serve from time to time on the other Committee. One of the DAC shall consist of two (2) CERS Trustees and one (1) Kentucky Retirement Systems trustee. The other DAC shall consist of one (1) CERS Trustee and two (2) Kentucky Retirement Systems trustees. The DACs shall ensure that the laws governing CERS are administered impartially and uniformly, and that the actions of the CERS resulting in the appeal were correct and fair under the applicable statutes and regulations.
  1. Committee Responsibilities. In matters of disability appeals, the Committee members shall consider the administrative record, including the recommended order and any exceptions filed in compliance with KRS 13B.120. The Committee shall act on behalf of the entire CERS Board as the agency head in making a final order of the CERS Board in accordance with KRS 13B.120. The Committee may adopt the hearing officer's recommended order; or it may reject or modify, in whole or in part, the recommended order; or it may remand the matter, in whole or in part, to the hearing officer for further proceedings as appropriate; or it may act on cases properly remanded by a court of competent jurisdiction. The Committee may also recommend legislative changes to improve the administration of the benefits. Any recommended legislative changes shall be referred to the CERS CEO for study and development for the CERS Board review and approval.
  2. KPPA Executive Director Office of Benefits Responsibilities. The Executive Director, KPPA Office of Benefits, or designated staff, in coordination with KPPA Office of Legal Services staff, will coordinate meeting dates and determine which cases will be reviewed. Designated staff will compile the administrative records and distribute the files to the Committee members prior to each meeting. Staff may provide legal or technical advice to the Committee.
- e. Investment Committee. The Committee shall consist of ~~five-four (45)~~ members, as follows: the three (3) trustees appointed by the Governor pursuant to KRS 78.782(2)(b)(4-6) (investment experience), and one (1) trustees appointed by the CERS Board Chair, ~~and one (1) Trustee elected by the membership (KRS 78.782(4) or one (1) Trustee appointed by the Governor pursuant to KRS 78.782(2)(b)(1-3) (retirement administration).~~
  1. Committee Responsibilities.
    - A. Pursuant to KRS 78.790, the CERS Investment Committee shall have authority to implement the investment policies adopted by the Board, including without limitation the CERS Board's Statement of Investment Policy (pensions and health), and to act on behalf of the CERS Board on all investment-related matters, and to acquire, sell, safeguard, monitor, and manage the assets and securities of the several funds.
    - B. The CERS Investment Committee will meet at least quarterly to review reports from investment staff, investment consultants, and investment managers with authority to

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September ~~14, 2022~~ 13, 2023]

---

- convene additional meetings as circumstances require. The regular quarterly meetings shall be held on the fourth Wednesday of February, May, and August and the fourth Tuesday of November at ~~those~~ times selected by the Investment Committee Chair.
- C. The CERS Investment Committee will monitor investment performance and management practices and make reports and recommendations to the CERS Board. The CERS Investment Committee will approve the selection and termination of service providers. The CERS Investment Committee will evaluate whether the Investment Policy, the investment activities, and management controls and processes continue to be consistent with meeting the County Employees Retirement System's financial and plan management goals, and perform other duties specified in the Statement of investment Policy.
  - D. The Investment Committee may also recommend legislative changes to the CERS CEO and CERS Board to improve the administration of investment related matters.
2. Collaboration with KPPA Executive Director, Office of Investments (CIO).
    - A. The CIO shall administer the assets of the County Employees Retirement System consistent with the policies, guidelines, and limits established by the law, the CERS Investment Committee and the CERS Statement of Investment Policy.
    - B. The CERS CEO will collaborate with the KPPA CIO to develop and monitor investment management and investment performance reporting for the CERS Investment Committee and CERS Board.
    - C. The KPPA CIO and CERS CEO shall provide members of the CERS Investment Committee with assessments of service providers and performance reports.
    - D. The KPPA CIO and CERS CEO shall identify issues for consideration by the CERS Investment Committee and prepare recommendations regarding those issues.
    - E. The CIO and CERS CEO shall recommend changes to the Investment Committee regarding service providers, statutes, policies or guidelines, as needed, to maintain a productive relationship between the investment program and its goals.
    - F. The CIO and/or CERS CEO shall communicate with the mass media and other agencies, entities, or institutions regarding investment related issues.
  3. CERS Investment Policy. The "CERS Investment Policy Statement: Pension Funds," the "CERS Investment Policy Statement: Insurance," and the "CERS Investment Procurement Policy" are hereby incorporated by reference.
- f. **Joint Kentucky Retirement Systems and CERS Retiree Health Plan Committee.** The Committee shall consist of four (4) Trustees, including two (2) Trustees appointed from the CERS Board by the CERS Chair and two (2) Trustees appointed from the Kentucky Retirement Systems Board by the Kentucky Retirement Systems' Chair. The Committee shall elect a Chair and Vice Chair and shall assist the CERS and KRS Boards in providing a group hospital and medical insurance plan for present and future recipients of a retirement allowance from the systems administered by County Employees Retirement Systems as required by KRS 61.702.
    1. **Committee Responsibilities.**
      - A. The Committee will meet quarterly to review reports from KPPA staff and retiree health insurance consultants with authority to convene additional meetings, as circumstances require. The regular quarterly meetings shall be held at those times selected by the Joint Retiree Health Plan Committee Chair.
      - B. The Committee will monitor retiree health insurance matters and make reports and recommendations to the CERS and KRS Boards. The Committee will evaluate retiree health insurance issues and obligations set forth in state and federal law. The Committee may, as deemed necessary, evaluate health insurance companies, health maintenance organizations,

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September 14, 2022]

self-insurance proposals, and other ways of providing a group hospital and medical insurance plan for retired members as provided in KRS 61.702.

- C. The Committee may negotiate and recommend appropriate contracts for execution by the CERS & KRS Boards, in accordance with the requirements of the Commonwealth of Kentucky Model Procurement Act (KRS 45A). The Committee may solicit reports and actuarial analyses in order to analyze issues regarding retiree health insurance. The Committee may also recommend legislative changes to improve the administration of retiree health insurance related matters. Any recommended legislative changes shall be referred to the CEO for study and development.

2. **KPPA Executive Director Responsibilities.** The KPPA Executive Director and designated staff will maintain and provide the Committee with necessary information to execute its responsibilities. The KPPA Executive Director or designated staff will provide advice regarding state and federal laws and regulations. KPPA Administrative Staff will identify issues for consideration by the Committee and prepare recommendations regarding those issues.

~~g. **Joint Kentucky Retirement Systems and CERS Audit Committee.** The Committee shall consist of four (4) Trustees, including two (2) Trustees appointed from the CERS Board by the CERS Chair and two (2) Trustees appointed from the Kentucky Retirement Systems Board by the Kentucky Retirement Systems' Chair. The Committee shall elect a Chair and Vice Chair. The Committee will act on behalf of the Board in fulfilling its oversight responsibilities for the system of internal control, the internal and external audit processes, and the process for monitoring compliance with laws, regulations and the code of conduct.~~

~~0. **Committee Responsibilities.** The Committee will meet quarterly, with authority to convene additional meetings, as circumstance require. The regular quarterly meetings shall be held at those times selected by the Joint Audit Committee Chair.~~

~~— The Committee shall have the authority to review reports by the Internal Auditor and to recommend appropriate policies and procedures. Additional responsibilities are enumerated in the Audit Committee Charter.~~

~~— The Committee shall have the authority to receive communications and audit reports from the KPPA external auditor and recommend actions to the KRS & CERS Boards and KPPA for improving internal controls, financial reporting, and management.~~

~~0. **Internal Auditor Responsibilities.** The KPPA Internal Auditor will be responsible for the planning, implementation, and reporting of audits and internal audit plans. The Internal Auditor will also be responsible for the functional control and audit activities in the relation to the objectives of the KPPA Division of Internal Audit. Additional responsibilities are enumerated in the KPPA Division of Internal Audit Charter.~~

~~0. **Audit Charters.** The Audit Committee Charter and the KPPA Division of Internal Audit Charter are hereby incorporated by reference.~~

~~m.g.~~ **Personnel Committee.** The CERS Personnel Committee shall include three members appointed from the CERS Board by the CERS Chair. Members should have relevant experience for personnel management and/or legal expertise for personnel laws and regulations.

1. **Committee Responsibilities.** The Committee will meet semi-annually, with authority to convene additional meetings, as circumstances require. The regular meetings shall be held on the second Tuesday of January and June at a time selected by the Committee Chair. determined by the Board of Trustees no later than the December Board of Trustees meeting of the previous calendar year. Special meetings may be convened in conjunction with the need to evaluate, advise, coach or reprimand any CERS employee or professional services contract provider.

COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September ~~14, 2022~~ 13, 2023]

A. The CERS Personnel Committee will recommend to the full Board of Trustees the appropriate number of employees and professional service contract providers to be employed by CERS. The CERS Personnel Committee will establish job descriptions and performance goals for all CERS employees and professional service contract providers. The Committee will evaluate the job performance of all CERS employees and make recommendations to the full Board of Trustees concerning employee compensation, retention, and potential disciplinary action, if needed.

B. The Personnel Committee will work closely with the KPPA Human Resources Department to identify and implement best practices for employee development and training opportunities. The Personnel Committee will endeavor not to replicate services currently provided by KPPA Human Resources Department which are made available to CERS employees and professional services contract providers.

C. The CERS Personnel Committee will report its findings and recommendations of each such review or evaluation to the CERS Board for the CERS Board of Trustees to determine appropriate implementation and action.

~~— Legislative Committee. The CERS Legislative Committee shall include three members with relevant experience for developing pension management policies and related legislation appointed by the CERS Chair. The Committee shall elect a Chair and Vice Chair.~~

~~— Committee Responsibilities. The Legislative Committee shall meet at least annually to review legislative proposals under consideration by the General Assembly, with authority to convene special meetings as necessary. Regular meetings shall be held on the 4<sup>th</sup> Monday of July and August at a time selected by the Committee Chair.~~

~~— The Committee shall review pension legislation proposed in the General Assembly that affects CERS and may develop a recommended position on the legislation to be adopted by the CERS Board of Trustees.~~

~~— The Committee may develop recommended legislative changes for submission to the Public Pension Oversight Board (PPOB). These recommendations should be approved by the CERS Board of Trustees prior to submission to PPOB.~~

~~— The CERS CEO shall review pension related legislation on the General Assembly docket and provide feedback to the CERS Legislative Committee for consideration. The CEO may also recommend Special Meetings of the Committee to consider critical legislation in a timely manner.~~

~~n.h.~~ In addition to the duties and responsibilities described in this Section 2.2, each Standing Committee may develop appropriate additional policies and proposals to be ratified by the CERS Board.

### **Section 2.3 DELEGATIONS OF AUTHORITY BY THE CERS BOARD.**

Delegation of Authority. Except as may be prohibited by or inconsistent with law, the CERS Board may delegate to any CERS Standing Committee of the Board any power, authority, duty, or responsibility conferred on the Board by law. In the case of any such delegation, the decision or action of the CERS Committee within the scope of its delegated authority shall constitute the decision or action of the CERS Board. The CERS Board may at any time rescind the delegated authority as a whole or in part, except that a rescission of authority with respect to quasi-judicial matters delegated to a CERS Committee shall not operate to affect the proceedings or the final action of any such matter pending before the Committee when the CERS Board acts to rescind. This exception is designed to preclude the CERS Board from using its authority to rescind a delegation to interfere with the process or outcome of a quasi-judicial proceeding then in progress before a CERS Committee which had properly commenced the proceeding within the scope of its authority.



COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF TRUSTEES  
STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION  
 [As Adopted: September 14, 2022]

---

**Section 2.4 AD HOC COMMITTEES.**

In addition to the CERS Standing Committees specified in Section 2.2, the Chair or the CERS Board may at any time establish an ad hoc Committee of the CERS Board and fix its duties and responsibilities for any purpose which, in the judgment of the CERS Chair or the CERS Board, is better served by a temporary rather than CERS Standing Committee. Each such Committee shall consist of such number of members as the CERS Chair shall determine, and the CERS Chair shall also then appoint the CERS Chair and designate the other members of the CERS Committee, unless otherwise determined by the CERS Board.

**Section 2.5 KPPA COMMITTEES**

**The CERS Board of Trustees shall collaborate with Committees established by the Kentucky Public Pensions Authority to develop administrative and benefit management policies as necessary for the County Employees Retirement System.**

**Section 2.6 LIMITATIONS ON AUTHORITY.**

No CERS Committee shall have any power or authority, nor shall the CERS Board delegate to itself, power or authority, as to any of the following:

- a. The amendment or repeal of any CERS Board resolution.
- b. Action on other matters committed by CERS Board resolution or by Kentucky law (including the common law of trusts respecting the delegation or the non-delegation of fiduciary responsibilities) to the CERS Board under terms or provisions that make such action non-delegable.

**Section 2.76 AMENDMENT OF BYLAWS.**

These Bylaws may be amended by presenting the proposed amendments at any regular or special meeting of the CERS Board of Trustees. Proposed amendments shall also be presented at a subsequent regular or special meeting of the CERS Board of Trustees. The subsequent meeting shall be scheduled no less than 48 hours after the meeting to first present the proposed amendments. Proposed amendments shall be posted on the KPPA website between the first and second presentation of the recommendations. Approval of proposed amendments to Bylaws requires a vote of a majority of the entire membership of the CERS Board for approval.

**Section 3.0 CERTIFICATION OF STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION.**

We, the Chair of the CERS Board of Trustees and the Chief Executive Officer of the County Employees Retirement System, do certify that this Statement of Bylaws and Committee Organization was approved and adopted by the CERS Board of Trustees on the 14th 8th day, of ~~September 2022~~ November, 2023.

\_\_\_\_\_  
 Chair, Board of Trustees

Date \_\_\_\_\_

\_\_\_\_\_  
 CERS Chief Executive Officer

Date \_\_\_\_\_



**County Employees Retirement System  
Board of Trustees  
Trustee Election Policy**

Last Approval Date: **March 11, 2024**

**I. Introduction**

Adoption of Board Election Policy

Pursuant to the provisions of Kentucky Revised Statutes (KRS) 78.782, the Board of Trustees (Board) of the County Employees Retirement System (System) is permitted to adopt procedures necessary to conduct the business of the System as needed. State and federal law shall control if any inconsistency exists between the law and this policy.

Statement of Board Election Policy

The Board is composed of nine Trustees who shall be selected as follows:

1. Three (3) elected from members of the County Employees Retirement System.
  - a. Two (2) elected individuals shall have a majority of service credit earned in a nonhazardous position.
  - b. One (1) elected individual shall have a majority of service credit earned in a hazardous position.
2. Six (6) appointed by the Governor.
  - a. Three (3) Trustees with retirement experience.
    - i. One (1) appointed from a list of three (3) applicants submitted by the Kentucky League of Cities.
    - ii. One (1) appointed from a list of three (3) applicants submitted by the Kentucky Association of Counties.
    - iii. One (1) appointed from a list of three (3) applicants submitted by the Kentucky School Boards Association.
  - b. Three (3) Trustees with investment experience.
    - i. One (1) appointed from a list of three (3) applicants submitted by the Kentucky League of Cities.
    - ii. One (1) appointed from a list of three (3) applicants submitted by the Kentucky Association of Counties.
    - iii. One (1) Trustee appointed from a list of three (3) applicants submitted by the Kentucky School Boards Association.

KRS 78.782 (3) through (6) provides the basic statutory requirements for the election of the elected Trustees of the Board. The Board recognizes the need to establish consistent procedures for the implementation of these statutory provisions requiring the election of certain Trustees.

Purpose

The purpose of this Board Election Policy (Policy) is to establish procedures to implement KRS 78.782 and 105 Kentucky Administrative Regulation 1:445, Electronic ballots in Trustee elections.



## II. Definitions

The following definitions and terms used in this Policy shall be applicable whenever used herein:

1. "Application" means the form adopted by the Board to be used by members seeking to be nominated and placed on the Official Ballot as a candidate. The application can be submitted through the Kentucky Public Pensions Authority (KPPA) website using DocuSign. It may also be submitted to the KPPA either electronically at [trustee.election@kyret.ky.gov](mailto:trustee.election@kyret.ky.gov) or at the Frankfort retirement office by a member.
2. "Ballot" or "Official Ballot" means a voting instrument, either electronic or paper, that includes the candidates for election as a Board Trustee and the following information for each of the candidates:
  - a. Name;
  - b. Recent photograph;
  - c. City and county of residence;
  - d. The System's current employing agency and position title or the System's employing agency from which the candidate last worked or retired and the position title of the last position held;
  - e. Education including schools and/or universities attended and degrees earned;
  - f. Any professional licenses or certifications held by the candidate; and
  - g. Any organization of which the candidate is a member that is listed on the candidate's application or résumé.

The ballot shall contain the website address where each candidate's application, cover letter, picture, and résumé shall be available for viewing. Candidates' position on the ballot shall be determined by random lottery, performed and certified by a representative from the KPPA Division of Internal Audit. Identifying information for each eligible voter shall be protected by bar code or other means. The ballot shall include the ability to write-in candidates.

3. "Candidate" means a potential candidate who has been nominated and placed on the Official Ballot by the current Board or by petition from the membership of the System.
4. "Constitutionally eligible individual" means a potential candidate who does not have a conflict of interest on the basis of holding a constitutionally elected or appointed position pursuant to KRS 78.782 and Kentucky Constitution Section 165.
5. "Cover Letter" means a document submitted to the KPPA either electronically at [trustee.election@kyret.ky.gov](mailto:trustee.election@kyret.ky.gov) or at the Frankfort retirement office by a member, which details the member's qualifications for serving as a Trustee to the Board.
6. "Eligible voter" means any person who was a member of the System on or before December 31 of the year preceding the election year and who has provided the KPPA at the Frankfort retirement office with a valid email or physical address as set forth in KRS 78.782.
7. "Member" shall mean individuals of the System, whether that individual is active (i.e., currently employed), inactive (i.e., formerly employed, but not retired and has not taken an account refund) or retired.
8. "Petition" means a document submitted by a potential candidate requesting to be nominated and placed on the Official Ballot by the members of the System. A petition shall meet the following standards or, if it fails to meet the following standards, shall be deemed invalid and the requesting individual shall not be a potential candidate qualified for nomination and placement on the Official

**Commented [CK(1):** The KPPA Trustee Election team has been meeting to discuss the upcoming CERS election. One team member suggested rotating the order of candidates on the ballot so that if voters default to just voting for the top three individuals, then no candidate would be at a disadvantage. Neither the statute or regulation specify how to determine the order of candidates on the ballot.

Would the Board like to revise the wording of this section to allow for rotating the order of candidates on ballots?

Ballot as a candidate:

- a. The petition shall contain the name, the last four digits of Social Security number, and signature of not less than one-tenth of the number of members voting in the last election for the System. Each member may only be counted once on the petition.
  - b. A potential candidate seeking nomination by petition shall submit a fully completed application, cover letter, résumé, picture, and a release for a criminal background check at the same time the petition is submitted to the KPPA at the Frankfort retirement office.
9. "Picture" means a photograph that will be included on the KPPA website and on the Official Ballot. The picture should be in color and at least size 5x7. The picture should be submitted in an electronic format to [trustee.election@kyret.ky.gov](mailto:trustee.election@kyret.ky.gov).
10. "Plurality of votes" means a majority of votes cast in the election on a Valid Ballot.
11. "Potential candidate" means a member who is seeking nomination as a candidate by the current Board or by valid petition from the membership of the System and who meets the following criteria:
- a. Is a member of the System;
  - b. Has fully completed and submitted an application, cover letter, résumé, picture, and a release for a criminal background check by the required deadline;
  - c. Is a constitutionally eligible individual;
  - d. Is not statutorily prohibited from being a Trustee by virtue of the term limits in KRS 78.782 (3);
  - e. Is not a current or former employee of the System, Kentucky Retirement Systems, or KPPA; and
  - f. Is not in violation of any provision of KRS 11A.020 or 11A.040 by a court of competent jurisdiction or any other statute.
12. "Résumé" means a document submitted to the KPPA either electronically at [trustee.election@kyret.ky.gov](mailto:trustee.election@kyret.ky.gov) or at the Frankfort retirement office by a member, which shall include the member's name, address, phone number, e-mail address, educational background, and professional employment history. Employment history must include dates of employment, job title, employer name and address, and type of business. Résumé may also include any certifications and relevant memberships not included on the application.
13. "Term of Office" means the period of membership on the Board, which shall begin on April 1 of the year elected or appointed and shall end on March 31 four years thereafter.
14. "Valid Ballot" means a current version of the electronic or paper ballot provided to an eligible voter that has been marked to show the voter's choice of at least one (1), but not more than the maximum number of eligible candidates for the number of vacancies being filled.
- a. Electronic ballots shall be cast on or before March 1.
  - b. Paper ballots shall contain the signature of the voter and be postmarked to the System in care of a predetermined post office box number at a United States Post Office on or before March 1.

Any ballot that does not meet these standards shall be deemed an invalid ballot and shall not be counted. In addition, if multiple ballots are submitted by one (1) individual, only the first received ballot will be considered valid and will be counted; all subsequent ballots shall be invalid and will not be counted.

15. "Write-in candidate" means an individual whose full name (first, middle, and last name) was written in the space provided on at least one Valid Ballot. Should a write-in candidate receive a

**Commented [CK(2):** The statute does not appear to provide guidance on what must be provided for write-in candidates. There was discussion in the past that it may be preferable to only require the first and last name of the write-in candidate, as the middle name may not be known.

plurality of votes, a representative from the KPPA Division of Internal Audit will ensure the write-in candidate meets all the following criteria. If the criteria are not met, the write-in candidate will not be allowed to serve as Trustee:

- a. Is a member of the System;
- b. Is a constitutionally eligible individual;
- c. Is not statutorily prohibited from being a Trustee by virtue of the term limits in KRS 78.782 (3);
- d. Is not a current or former employee of the System, Kentucky Retirement Systems, or KPPA; and
- e. Is not in violation of any provision of KRS 11A.020 or 11A.040 by a court of competent jurisdiction or any other statute.

### **III. Requests for Candidates**

1. The KPPA shall notify the membership that applications are being accepted from members who would like to be considered for nomination by the Board as a candidate for the position of Trustee. The notice shall include information, or direct the membership on how to find information, regarding the qualifications necessary for candidacy as well as the due dates for applications and other required documents.
2. A member seeking nomination by the Board must submit a completed application, cover letter, résumé, picture, and a release for a criminal background check to the KPPA by July 31 of the year prior to the expiration of a term of office.
3. If a member requesting nomination by the Board is currently employed or holds any other office, the member's personal information will be forwarded to the Office of the Attorney General of Kentucky to determine whether the member is a constitutionally eligible individual.
  - a. If the member is not a constitutionally eligible individual, the member shall be notified of his or her ineligibility, and that he or she will not be listed as a potential candidate for nomination by the Board, unless the member agrees to resign from the position causing the constitutional ineligibility. This resignation would only be required if the member were to be declared a winner of the election.
  - b. The Board also shall be notified if the member seeking to be listed as a potential candidate for nomination by the Board is determined not to be a constitutionally eligible individual.
4. Any information requested by a potential candidate and approved by designated KPPA staff to be provided to the potential candidate shall be forwarded to all other potential candidates, providing the information does not violate the confidentiality requirements specified in KRS 61.661 or any other binding law.

### **IV. Nomination by the Board**

1. The System's Chief Executive Officer or designee shall provide written notice to the Board of election procedures at the first quarterly meeting in the Board year preceding the expiration of the term of office.
2. The Board shall nominate no more than three (3) candidates for each position to be elected. No more than six (6) candidates can be nominated who have a majority of service in a non-hazardous position and no more than three (3) candidates can be nominated that have a majority of service in a hazardous position. Therefore, the ballot shall contain no more than nine (9) names. This nomination shall take place no less than six (6) months prior to the expiration of the current elected

Trustee's term of office. Prior to making the nominations, the current Trustees will be given a list of all potential candidates seeking nomination by the Board.

3. From the list provided, each Trustee may vote for up to three (3) potential candidates but must vote for at least one (1) potential candidate per open position. Voting will occur in a roll call manner so that each current Trustee verbally confirms his or her nomination(s). Current Trustees may vote for up to a maximum of nine (9) candidates but must vote for at least three (3) candidates.
4. After voting under Paragraph three (3) of this section is completed, a representative from the KPPA Division of Internal Audit will review the number of votes received by each potential candidate. The potential candidates that receive the highest number of votes will be placed on the Official Ballot. No more than the maximum allowed nominated candidates under Paragraph two (2) of this section will be placed on the Official Ballot.
5. If multiple potential candidates receive the same number of votes under Paragraph three (3) of this section resulting in more than the maximum allowed nominated candidates under Paragraph two (2) of this section, another vote will be taken only of those potential candidates receiving a tying vote for the last spot(s) on the Official Ballot. Trustees will vote for up to one (1) potential candidate per remaining spot to be filled on the Official Ballot. After the additional vote is taken, the potential candidate(s) receiving the highest number of votes will be placed on the Official Ballot. The voting shall continue in this manner until the ties are broken resulting in no more than the maximum number of allowed nominated candidates under Paragraph two (2) of this section.
6. If voting under Paragraphs three (3) and/or five (5) of this section results in fewer than the maximum number of allowed potential candidates being nominated to the Official Ballot under Paragraph two (2), the Trustees must take one (1) of the following actions by affirmative majority vote:
  - a. Allow only those potential candidates with the highest number of votes under Paragraphs three (3) and/or five (5) to be placed on the Official Ballot, or
  - b. From the original list of potential candidates, vote in accordance with Paragraph five (5) of this section for potential candidates who have not received sufficient votes under Paragraphs three (3) or five (5) to be placed on the ballot until the maximum number of potential candidates under Paragraph two (2) are nominated to be on the Official Ballot.
7. The KPPA will publish the candidates nominated by the Board on the KPPA website. Deadlines as set out below shall be provided on the website.

## **V. Nomination by Petition**

1. After the candidates are nominated by the Board, a member may also seek nomination by petition from members of the System. The petition nomination process will be published on the KPPA website.
2. To be nominated as a candidate on the Official Ballot, a member seeking nomination by petition from the membership of the System must submit a petition complying with the requirements as set out in the definitions above and adhere to the following requirements:
  - a. The petition may only contain the name of one (1) potential candidate.
  - b. The petition shall be delivered to the KPPA at the Frankfort retirement office no later than November 30 of the year prior to the expiration of a term of office.
3. The names and social security numbers on all petitions received will be verified by designated KPPA staff and certified by a representative from the KPPA Division of Internal Audit. The

certification of additional candidates shall become part of the official minutes of the Board.

4. If a member submitting a petition is currently employed or holds any other office, the member's personal information will be forwarded to the Office of the Attorney General of Kentucky to determine whether the member is a constitutionally eligible individual.
  - a. If the member is not a constitutionally eligible individual, the member shall be notified of his or her ineligibility, and that he or she does not qualify as a potential candidate for nomination by petition, unless the member agrees to resign from the position causing the constitutional ineligibility. This resignation would only be required if the member were to be declared a winner of the election.
  - b. The Board also shall be notified if the member seeking to qualify as a potential candidate for nomination by petition is determined not to be a constitutionally eligible individual.
5. Any information requested by a potential candidate and approved by designated KPPA staff to be provided to the potential candidate shall be forwarded to all other potential candidates, providing the information does not violate the confidentiality requirements specified in KRS 61.661 or any other binding law.

## **VI. Election by the Membership**

1. An Official Ballot, complying with the requirements as set out in the definitions above, shall be prepared no later than three (3) months prior to the expiration of the term of office in question.
  - a. Electronic ballots shall include instructions on voting for a candidate, including write-in candidates. The deadline by which electronic votes must be cast shall be included on the electronic ballots.
  - b. Paper ballots shall include instructions for voting for a candidate, including write-in candidates, and for marking and returning the ballots. The postmark deadline for the paper ballots shall be printed on the ballots. Paper ballots shall be addressed to the System in care of a predetermined post office box number at a United States Post Office.
2. The KPPA Executive Director or designee shall initiate a bid for a contracted firm to administer the election (hereafter referred to as the "Election Services Vendor") using the procurement procedures then in place. The bid shall outline vendor security requirements, the technical requirements for both electronic and paper ballots (including paper ballot printing specifications), and the required election timeline.
3. The Election Services Vendor shall obtain the post office box for receipt of paper ballots. Access to this post office box shall be limited to the Election Services Vendor. An agreement shall be made between KPPA and the Election Services Vendor concerning the location of the postal box and the Business Reply Permit Number that shall be used.
4. All eligible voters will be provided with an electronic ballot or mailed a paper ballot on or before January 20.
5. Only one (1) ballot will be provided to an eligible voter. Ballots will be distributed as follows:
  - a. Electronic ballots for the election of Trustees shall be distributed via email addresses on file at KPPA.
  - b. Paper ballots for the election of Trustees shall be distributed via the United States Postal Service to each voter that does not have a valid email address on file at KPPA or to each eligible voter that requests a paper ballot by November 30 of the year prior to the expiration of a term of office.

6. Duplicate ballots will not be produced.
  - a. If an eligible voter fails to receive a ballot (paper or electronic) because of an act or omission of the System or the KPPA and makes the System or the KPPA aware of this before the voting has closed, a representative from the KPPA Division of Internal Audit shall work with the Election Services Vendor to provide a replacement ballot. If the System or the KPPA is made aware of the situation on or before one (1) week prior to the postmark deadline, the eligible voter may request either a paper or electronic ballot. If the System or the KPPA is made aware of the situation with less than a week before for the postmark deadline, only an electronic ballot will be provided to the eligible voter.
  - b. If a paper ballot is returned to the Election Services Vendor, the System, or KPPA with an invalid address, but a corrected address is received from the United States Postal Service on or before one (1) week prior to the postmark deadline, a representative from the KPPA Division of Internal Audit may work with the Election Services Vendor to mail a subsequent paper ballot to the eligible voter at the corrected address.
7. The Election Services Vendor shall count each ballot. In so doing, the Election Services Vendor shall review the validity of the ballot in accordance with the definition above. All votes via valid ballots shall be counted for the candidate(s) marked. During the process of the count, all ballots shall be in the exclusive control of the Election Services Vendor, with proper security to ensure that no one other than the Election Services Vendor has access to the ballots.
8. Official ballots returned to the System or KPPA will be processed in accordance with 105 KAR 1:445 Sections 4, 6.
9. After counting all valid ballots, the Election Services Vendor shall certify in writing the results of the election to the Chair of the Board in care of the System's Chief Executive Officer and the KPPA Executive Director on or before March 15 of the year in which a term of office expires.
10. The two (2) candidates with a majority of service in a non-hazardous duty position and the one (1) candidate with a majority of service in a hazardous position receiving a plurality of the votes shall be designated as the winners. Winning candidates shall begin their term of office as Trustee on April 1 and shall be sworn in at the annual meeting of the Board.
11. Once ballots have been counted and the election is deemed final, the Election Services Vendor shall destroy all ballots and provide a certificate to that effect to the System's Chief Executive Officer and the KPPA Executive Director.

## **VII. Filling a Vacancy**

1. Any vacancy that may occur in a Trustee position other than an elected Trustee position, except by the expiration of the term, shall be filled in the same manner that provides for the selection of that non-elected Trustee position under KRS 78.782.
2. Any vacancy, which may occur in an elected position, other than by the expiration of the term, shall be filled within ninety (90) days by appointment by a majority vote of the remaining elected Trustees.
  - a. The KPPA shall notify the membership that applications are being accepted from members who would like to be considered for appointed to the position of Trustee.
  - b. A member seeking appointment by the Board must submit a completed application, cover letter, résumé, picture, and release for criminal background check to the KPPA at the Frankfort retirement office no later than sixty (60) days after the vacancy occurs. The

- specific due date will be listed in the provided notice.
- c. If the member requesting appointment by the Board is currently employed or holds any other office, the member's personal information will be forwarded to the Office of the Attorney General of Kentucky to determine whether the member is a constitutionally eligible individual.
    - i. If a member is not a constitutionally eligible individual, the member shall be notified of ineligibility, and that he or she will not be considered for appointment to the vacant position, unless the member agrees to resign from the position causing the constitutional ineligibility. This resignation would only be required if the member were appointed to the position of Trustee.
    - ii. The Board shall also be notified if a member seeking appointment is determined not to be a constitutionally eligible individual.
  3. Each current elected Trustee may make one (1) nomination for the vacancy of the elected position, which will allow for a maximum of two nominees.
  4. All individuals nominated by the current elected Trustees shall meet the requirements of a potential candidate as defined above.
  5. The remaining elected Trustees shall then vote on a nominee to fill the vacancy using the voting procedure set forth above in Nomination by the Board section, paragraphs 3, 4, 5, and 6.
  6. Any such vacancies shall only be filled for the expiration of the unexpired term.

#### **VIII. Procurement of the Election Services Vendor**

1. When procuring an Election Services Vendor, the request for proposal (RFP) shall indicate that the selected vendor will sign the KPPA's Business Associate and Confidentiality Agreements as well as provide a summary of security policies and standard security procedures related to ensuring election integrity. The RFP must include specific security details to which the vendor must adhere. The security details should include, but not be limited to, the following topics:
  - a. Technology systems, network, and application software used to process sensitive information.
  - b. Vendor risk and threat management responsibilities.
  - c. Software License Agreements.
  - d. Service Level Agreement and Support.
2. The team that drafts the RFP and evaluates the bid proposals should include KPPA employees from the Divisions of ~~Internal Audit~~, Communications and Enterprise and Technology Services. A representative from the Division of Internal Audit may serve as a Technical Advisor to the evaluation team. The KPPA Executive Management team and Office of Legal Services as well as the System's Chief Executive Officer and General Counsel should be consulted as needed.

#### **IX. ETHICS**

Ethics in the election process shall conform to the Executive Branch Code of Ethics as set forth in KRS Chapter 11A.

**X. CERTIFICATION**

We, the Chair of the County Employees Retirement System Board, the Chief Executive Officer of the County Employees Retirement System, and the Executive Director of KPPA do hereby certify that this Board Election Policy was adopted by the Board on this the 11th day of March, 2024.

---

Betty Pendergrass, Board Chair County Employees Retirement System Board of Trustees	Date
--	------

---

Edward Owens III, Chief Executive Officer County Employees Retirement System	Date
---	------

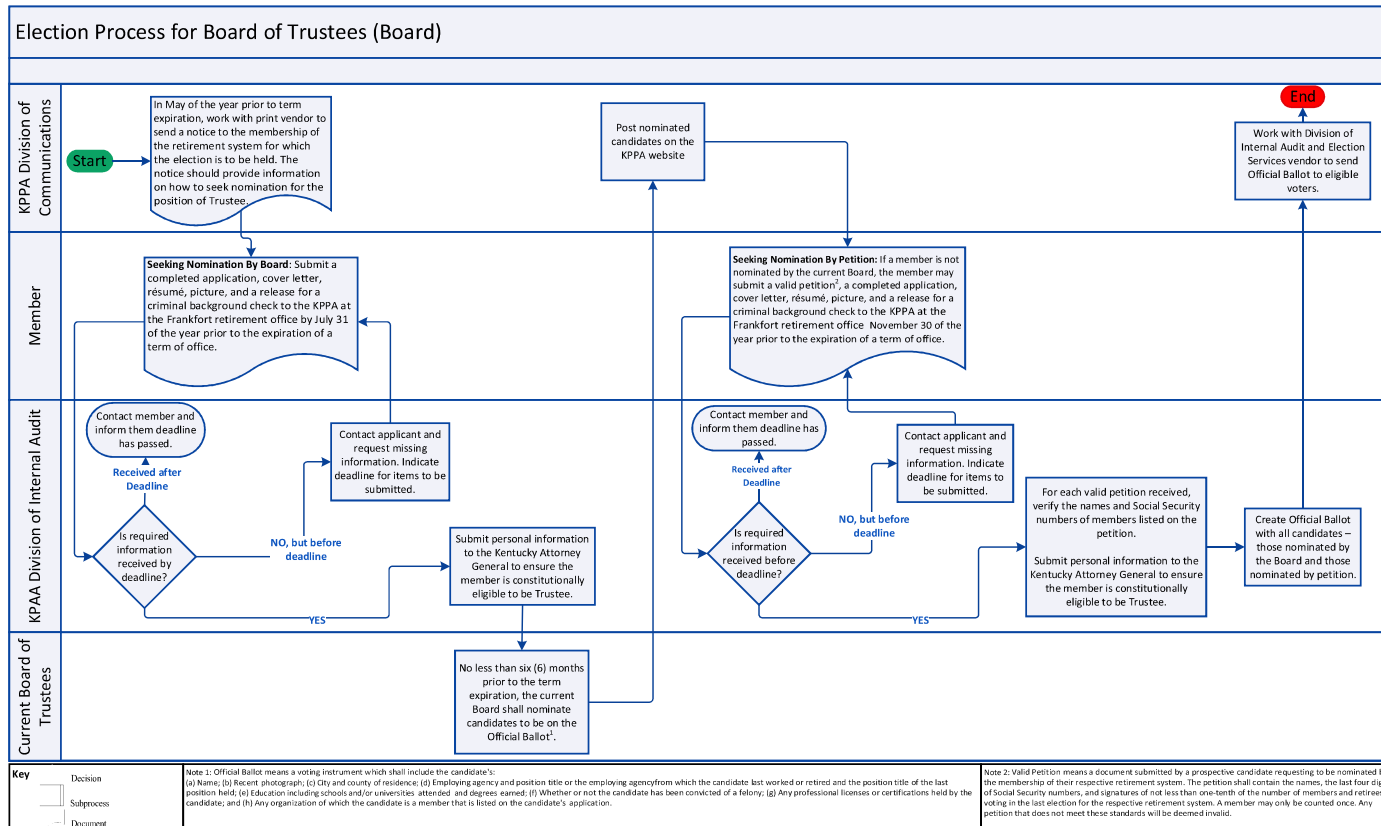
---

David Eager, Executive Director Kentucky Public Pensions Authority	Date
---	------

History:      Original Approval Date: March 16, 2022  
                 Amended: March 11, 2024



## Exhibit A



## MEMORANDUM

TO: Ed Owens, CEO County Employees Retirement System

FROM: Jillian Hall, Staff Attorney III, Non-Advocacy Division, Office of Legal Services  
Jessica Beaubien, Policy Specialist, Non-Advocacy Division, Office of Legal Services

DATE: February 14, 2024

RE: Board of Trustees of the County Employees Retirement System (“Board”) approval for KPPA staff to file an amended administrative regulation, 105 KAR 1:120, Participation of County Employees Retirement System Employers, with the Office of the Regulations Compiler at the Legislative Research Commission (“Regulations Compiler”)

---

### **Purpose of amended administrative regulation:**

This memo is informational only and does not contain any legal advice.

Kentucky Revised Statutes 78.782(9)(d) authorizes the Board to promulgate and amend administrative regulations “not inconsistent with the provisions of KRS 78.510 to 78.852” that are “necessary or proper in order to carry out the provisions of KRS 78.510 to 78.852.” 105 KAR 1:120, Participation of County Employees Retirement System Employers, is consistent with and necessary to carry out these provisions of the Kentucky Revised Statutes.

This administrative regulation establishes the procedures and requirements for employer participation in the County Employees Retirement System (CERS). This amendment:

- Updates the language throughout the regulation to be consistent with the language used in all Kentucky Public Pensions Authority, County Employees Retirement System, and Kentucky Retirement Systems regulations, and the definitions found in 105 KAR 1:001.
- Details have been added about existing requirements for prospective employers, inactive employers, and employers who are splitting, separating, forming a new entity, or merging.
- Incorporates by reference several required forms.

### **Staff Recommendation:**

The Office of Legal Services requests that the Board review the attached materials and recommend filing 105 KAR 1:120, Participation of County Employees Retirement System Employers, with the Regulations Compiler.

### **List of attached materials:**

1. 105 KAR 1:120, Participation of County Employees Retirement System Employers.
2. 105 KAR 1:001, Definitions for 105 KAR Chapter 1 (This is a draft amendment that KPPA anticipates filing alongside 105 KAR 1:120).
3. Form 2010, Election or Rejection of Participation.
4. Form 7071, Employer Self Service Employer Administrator Account Creation Request.
5. Form 7075, Employer Contact.

6. Form 7250, Verification of Payments Outside Regular Wages.
7. Form 7280, Employer Certification of Installment Purchase of Service.
8. Form 7851, Data Use and Reporting Agreement.



# 105 KAR 1:120

Participation of County Employees Retirement System Employers

# Terminology

- Language throughout the regulation has been updated to be consistent with the language used in all Kentucky Public Pensions Authority, County Employees Retirement System, and Kentucky Employee Retirement Systems regulations, and the definitions found in 105 KAR 1:001.
- Words defined in Section 1 of this regulation are specific to this regulation.



# Terminology (cont'd)

## ○ Important distinctions for this regulation:

- **Agency** means the Kentucky Public Pensions Authority (KPPA).
  - Previously, “agency” was used in 105 KAR 1:120 to refer to a prospective employer or CERS participating employer.
  - In the amended version of 105 KAR 1:120, “prospective employer” or “employer” are used to indicate an entity that is interested in participating in or does participate in CERS; “agency” is used to refer to the KPPA.
- **Board** means the Board of Trustees of the County Employees Retirement System.
  - Previously, “board” was used in 105 KAR 1:120 in reference to the Board of Trustees of the Kentucky Retirement Systems.
  - In the amended version of 105 KAR 1:120, “board” is used to refer to the Board of Trustees of the County Employees Retirement System.
- **System** means the County Employees Retirement System (CERS).
  - “Systems” is used throughout the amended version of 105 KAR 1:120 to describe the retirement system in which the prospective employer has applied to participate or in which the employer already participates.

# Amendments

Specifics about the existing requirements for a prospective employer to participate in the system have been added.

Existing requirements for an employer who is splitting, separating, forming a new entity, or merging have been added.

Details about the existing requirements for an inactive employer have been added. Additionally, there is a new requirement for inactive employers to annually notify the KPPA whether they remain inactive.

Added several forms incorporated by reference to allow enforcement of the use of these forms.



**Thank You**



1 FINANCE AND ADMINISTRATION CABINET

2 Kentucky Public Pensions Authority

3 County Employees Retirement System

4 (Amendment)

5 105 KAR 1:120. Participation of County Employees Retirement System employers~~[agencies]~~.

6 RELATES TO: KRS ~~78.510–78.990~~~~[78.510(3), 78.530, 78.532, 78.535, 78.780]~~, 26 USC  
7 414(d), 29 USC 1002(32)

8 STATUTORY AUTHORITY: KRS ~~[61.645(9)(e)]~~, 78.510(3), 78.782~~[78.780]~~

9 NECESSITY, FUNCTION, AND CONFORMITY: KRS~~[61.645(9)(g)]~~ ~~authorizes the Board of~~  
10 ~~Trustees of Kentucky Retirement Systems to promulgate administrative regulations necessary~~  
11 ~~or proper in order to carry out the provisions of KRS 61.515 to 61.705, 16.510 to 16.652, and~~  
12 ~~78.520 to 78.852. KRS]~~ 78.510(3) authorizes the Board of Trustees of the County Employees  
13 Retirement System~~[board]~~ to determine the eligibility of a prospective employer~~[agency]~~ to  
14 participate in the County Employees Retirement System (CERS)~~[, or CERS]~~. KRS  
15 78.782~~[78.780]~~ authorizes the Board of Trustees of the County Employees Retirement System  
16 to promulgate administrative regulations not inconsistent with the provisions of KRS 78.510 to  
17 78.852 that are necessary or proper to carry out the provisions of KRS 78.510 to 78.852.~~[board~~  
18 ~~to govern and control CERS in the same manner in which it administers the Kentucky Employee~~  
19 ~~Retirement System]~~ This administrative regulation establishes the procedures and requirements  
20 for employer participation in CERS.

Section 1. Definitions.

~~(1) ["Alternate plan" means the plan under which an employer purchases service credit for its employees by paying an actuarial cost of the service in a lump sum or by annual installments.~~

~~(2)] "Board" is defined by KRS 78.510(2).~~

(2) "Inactive employer" means a participating employer that ceases to have any employees in a regular full-time position participating in the system.

(3) "Merged employer" means one or more participating employers that have merged with one or more participating or non-participating employers into a new single entity or operating under the name of one of the participating or non-participating employers that are part of the merger.

(4) "New or separate employer" means:

(a) A participating employer that forms, becomes, or is bought out by a non-participating employer; or

(b) A participating employer that dissolves or becomes an inactive employer, and another distinct entity is formed and assumes responsibility for a portion or all of the business.

(5) "Non-participating employer" means:

(a) An entity that does not participate in the system; or

(b) An entity that applied for participation in the system and:

1. Is pending a determination of participation;

2. Withdrew its application; or

3. Was denied or failed to complete the requirements to be approved for participation.

(6) "Split or separated employer" means a participating employer that divides into two (2) or more distinct entities.

1 ~~(7)~~~~(3) "CERS" or "system"~~ "System" is defined by KRS 78.510(1).

2 Section 2. Participation in the system.

3 (1) For a prospective employer to participate in the system, the prospective employer  
4 shall~~[An agency may participate in CERS if the board determines that the agency]:~~

5 (a) Meet~~[Meets]~~ the definition of county in KRS 78.510~~(3)~~;

6 (b) Be~~[Is]~~ qualified to establish and maintain a governmental plan as defined in 26 USC  
7 414(d) and 29 USC 1002(32);

8 (c) Have an irrevocable contract with the Kentucky Personnel Cabinet for health insurance  
9 coverage for its employees in accordance with KRS 78.530(1)(b)~~;~~~~[Satisfactorily completes the~~  
10 ~~trial period established in subsection (2) of this section; (d) Submits all forms and documents~~  
11 ~~necessary for participation in CERS by day fifteen (15) of the month prior to the effective date of~~  
12 ~~participation; and]~~

13 (d) Comply~~[Complies]~~ with:

14 1. KRS 78.510 through 78.852; and

15 2. Title 105 of the Kentucky Administrative Regulations;

16 (e) Complete the requirements of Sections 3–5 of this administrative regulation; and

17 (f) Receive board approval in accordance with Section 6 of this administrative regulation.

18 Section 3. Determining prospective employer's qualification to participate.

19 (1) A prospective employer shall submit a resolution or ordinance by its controlling board  
20 authorizing participation in the system as provided by KRS 78.530(1) within twelve (12) months  
21 of the date the resolution or ordinance was passed.

1       (2) No later than the end of day ninety (90) calendar days from the date the resolution or  
2 ordinance indicated in subsection (1) of this section is submitted, the prospective employer shall  
3 submit:

4       (a) Its Articles of Incorporation, bylaws, ordinance, or other document establishing or  
5 creating the prospective employer;

6       (b) Its current fiscal year budget;

7       (c) Its health insurance contract as described in Section 2(1)(c) of this administrative  
8 regulation;

9       (d) A valid Form 2010, Election or Rejection of Participation, completed by all current  
10 employees;

11       (e) A valid Form 7075, Employer Contact Information;

12       (f) A valid Form 7250, Verification of Payments Outside Regular Wages;

13       (g) A valid Form 7280, Employer Certification of Installment Purchase of Service;

14       (h) A valid Form 7851, Data Use Agreement;

15       (i) A valid Form 7071, Employer Self Service Employer Administrator Account Creation  
16 Request; and

17       (j) If requested by the agency, a letter from the U.S. Internal Revenue Service or U.S.  
18 Department of Labor that states the entity sufficiently meets the governmental requirements to  
19 participate in a qualified governmental retirement plan.

20       (3)(a) Once the requirements of subsections (1)–(2) of this section are received by the  
21 agency, the agency shall review the documentation and determine if the prospective employer  
22 meets the requirements for participation in the system.

(b) If a prospective employer meets the requirements for participation in the system, the agency shall initiate a trial period of participation for the prospective employer in accordance with Section 4 of this administrative regulation.

Section 4. Trial period.

(1) The prospective employer~~[(2) Prior to board approval of an agency that has elected to participate in CERS, the agency]~~ shall serve a three (3) month trial period which shall begin on the first day of the month following the completion to the requirements as provided in Sections 2-3 of this administrative regulation.

(2) During the trial period, the prospective employer~~[- during which it]~~ shall:

(a) Submit all reports required by KRS 78.625 in accordance with 105 KAR 1:140;

(b) Remit applicable employer, employee, and health insurance contributions in accordance with 105 KAR 1:140; and

(c) Require employee participation in accordance with KRS 78.530, 78.531, 78.535, and 78.540. ~~[(a) Report contributions; and (b) Comply with the provisions of applicable statutes and administrative regulations governing: 1. Employee participation; and 2. Reporting of contributions.]~~

Section 5. Submission to the board. Once the requirements of Sections 2-4 of this administrative regulation are complete, the agency shall provide the board the prospective employer's:

(1) Trial period results;

(2) Current fiscal year's budget; and

(3) Resolution or ordinance authorizing participation in the system.

Section 6. Board review.

(1) The prospective employer shall obtain authorization to participate from the board as provided by KRS 78.510(3).

~~(2)(3)~~ The board may deny participation if it determines that a prospective employer~~[(a) An agency]~~ has failed to comply with the provisions of Sections 2-4 of this administrative regulation~~[subsection (1) of this section;]~~ or if the prospective employer's~~[(b) Its]~~ participation will have:

1. An adverse impact on the tax qualification of the system~~[CERS]~~, pursuant to 26 USC 414(d) or any other applicable federal law and administrative regulation; or

2. A significant adverse impact on the actuarial soundness of the system~~[CERS]~~.

~~(4)(a)(3)(a)~~ If the board denies a prospective employer's~~[an agency's]~~ request to participate in the system~~[CERS]~~, it shall refund to the prospective employer~~[agency]~~ and its employees the contributions paid by them to the system~~[CERS]~~ during the prospective employer's~~[agency's]~~ trial period.

(b) If the board approves the prospective employer's request to participate in the system, the~~[Section 3. The]~~ effective date of participation shall be the first day of the trial period as indicated in Section 4 of this administrative regulation.~~[(1) The month during which the order required by KRS 78.530(1) is adopted; or (2) Any month subsequent to the month during which the order required by KRS 78.530(1) was adopted.]~~

#### Section 7. Alternate participation plan.~~[Section 4.]~~

(1) If a prospective employer~~[an agency]~~ wishes to participate under the alternate participation plan pursuant to KRS 78.530(3), it shall request the board~~[Kentucky Retirement Systems]~~ to conduct an actuarial study to determine the cost of purchasing past service for eligible employees prior to adoption of a resolution or ordinance by its controlling board

~~authorizing participation in the system[an order to participate. Section 5. An agency shall designate a person to be responsible for compliance with applicable statutes and the reporting requirements established in: (1) 105 KAR 1:130; (2) 105 KAR 1:140; (3) 105 KAR 1:150; (4) 105 KAR 1:160; (5) 105 KAR 1:170; (6) 105 KAR 1:210; and (7) 105 KAR 1:250. Section 6].~~

(2) The annual installment to amortize the cost of the employees' service under the alternate participation plan shall not be less than ten (10) percent of the total annual payroll for nonhazardous employees and fifteen (15) percent of the total annual payroll for hazardous employees included in the alternate participation plan. The payment shall be due each year on the first day of the month in which participation began.

Section 8. Continued participation. Pursuant to KRS 78.530(2), once an employer begins participating in the system, the employer shall continue to participate as long as it remains qualified unless:

(1) The board requires the employer to involuntarily cease participation in accordance with KRS 78.535(2)(b); or

(2) A voluntary cessation is allowed pursuant to KRS 78.535(2)(a).

Section 9. Split, separated, or new entity.

(1) Prior to beginning the formal process and not less than six (6) months prior to the effective date of splitting, separating, or becoming a new entity, a participating employer shall submit a written notification of its intended split, separation, or formation of a new entity. The written notification shall be submitted on the participating employer's official letterhead.

(2) Once the agency is notified of the split, separation, or formation of a new entity, or becomes aware through any means, the agency shall determine whether:

(a) A new or separate employer has been created; or

1 (b) Split or separated employers have been created.

2 (3)(a) A split, separated, or new employer shall participate in the system if, by the end of  
3 day fifteen (15) calendar days from the date of the split, separation, or formation of a new entity,  
4 all the requirements prescribed in Section 3(2) of this administrative regulation are submitted.

5 (b) The participation date shall be:

6 1. The first day of the month following the date all the required documentation was received,  
7 if received by the fifteenth day of the month; or

8 2. The first day of the month following the month after the date all the required  
9 documentation was received, if received after the fifteenth day of the month.

10 (c) The split, separated, or new employer shall comply with KRS 78.510 through 78.852  
11 and Title 105 of the Kentucky Administrative Regulations as of the participation date.

12 (d) If the split, separated, or new employer fails to complete the requirements of paragraph  
13 (a) of this subsection, then the split, separated, or new employer shall only participate if it takes  
14 all steps to participate in the system in accordance with KRS 78.530 and this administrative  
15 regulation.

16 (4) If there is a lapse in participation between the date the employer split, separated, or  
17 became a new entity and when it began participating, an employee who worked during the  
18 lapsed time may purchase service credit for that time by paying a delayed contribution payment  
19 if he or she elected to participate on a valid Form 2010, Election or Rejection of Participation, at  
20 the time the split, separated, or new entity began participating. The service shall not be included:

21 (a) In the member's total service for purposes of determining benefits under KRS 78.5536;  
22 or



1 (b) Toward retirement eligibility for members with a participation date on or after August 1,  
2 2004, in accordance with KRS 61.552(10)(c), and 78.545.

3 Section 10. Merged employer.

4 (1) Prior to beginning the formal process and not less than six (6) months prior to the  
5 effective date of merging, a participating employer shall submit a written notification of its  
6 intended merger. The written notification shall be submitted on the participating employer's  
7 official letterhead.

8 (2) Once the agency is notified of the merger, or becomes aware by other means, the  
9 agency shall determine whether two (2) or more participating employers, or one (1) or more  
10 participating employer and one (1) or more non-participating employer have become a merged  
11 employer.

12 (3) Once the merger is complete, the merged employer shall comply with KRS 78.510  
13 through 78.852 and Title 105 of the Kentucky Administrative Regulations.

14 Section 11. Inactive Employers.

15 (1)(a)1. If an employer becomes an inactive employer, the employer shall submit a written  
16 notification on its official letterhead stating that the employer is an inactive employer.

17 2. Each year by the end of day on the last day of the month of the fiscal year, an inactive  
18 employer shall submit a written notification on its official letterhead stating that it remains an  
19 inactive employer, or stating that the employer is no longer an inactive employer as applicable.

20 (b) If an employer ceases to become an inactive employer, the employer shall:

21 1. Submit a written notification on its official letterhead stating that the employer is no longer  
22 an inactive employer by the end of day thirty (30) calendar days from having a participating  
23 employee; and

1        2. Begin reporting a participating employee the month after he or she becomes a  
2 participating employee.

3        (d) The agency shall determine whether a participating employer is an inactive employer.

4        (2) Employers shall comply with KRS 78.510 through 78.852 and Title 105 of the Kentucky  
5 Administrative Regulations, regardless of the employer's status as an inactive employer.

6        (3) The agency shall periodically audit inactive employers to determine if they remain  
7 inactive employers.

8        Section 12. Incorporation by Reference.

9        (1) The following forms are incorporated by reference:

10       (a) Form 2010, "Election or Rejection of Participation", updated March 2024;

11       (b) Form 7071, "Employer Self Service Employer Administrator Account Creation  
12 Request", updated March 2024;

13       (c) Form 7075, "Employer Contact Information", updated March 2024;

14       (d) Form 7250, "Verification of Payments Outside Regular Wages", updated March 2024;

15       (e) Form 7280, "Employer Certification of Installment Purchase of Service", updated  
16 March 2024; and

17       (f) Form 7851, "Data Use Agreement", updated March 2024.

18       (2) This material may be inspected, copied, or obtained, subject to applicable copyright law,  
19 at the Kentucky Public Pensions Authority, 1260 Louisville Road, Frankfort, Kentucky 40601,  
20 Monday through Friday, from 8 a.m. to 4:30 p.m. This material is also available on the Kentucky  
21 Public Pensions Authority's Web site at [kyret.ky.gov](http://kyret.ky.gov).

22       (18 Ky.R. 920; 1320; eff. 11-8-1991; 19 Ky.R. 2087; 2399; eff. 5-10-1993; 21 Ky.R. 1516;  
23 eff. 2-8-1995; 29 Ky.R. 757; 1244; eff. 11-12-2002; TAm eff. 3-4-2019; Crt eff. 3-5-2019.)

APPROVED:

\_\_\_\_\_  
Ed Owens, CEO  
County Employees Retirement System

\_\_\_\_\_  
DATE

**PUBLIC HEARING AND PUBLIC COMMENT PERIOD:** A public hearing to allow for public comment on this administrative regulation shall be held on Tuesday, June 25, 2024, at 10:00 a.m. Eastern Time at the Kentucky Public Pensions Authority (KPPA), 1270 Louisville Road, Frankfort, Kentucky 40601. Individuals interested in presenting a public comment at this hearing shall notify this agency in writing no later than five workdays prior to the hearing of their intent to attend. If no notification of intent to attend the hearing was received by that date, the hearing may be cancelled. A transcript of the public hearing will not be made unless a written request for a transcript is made.

If you do not wish to be heard at the public hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted until June 30, 2024. Send written notification of intent to be heard at the public hearing or written comments on the proposed administrative regulation to the contact person.

KPPA shall file a response with the Regulations Compiler to any public comments received, whether at the public comment hearing or in writing, via a Statement of Consideration no later than the 15th day of the month following the end of the public comment period, or upon filing a written request for extension, no later than the 15th day of the second month following the end of the public comment period.

**CONTACT PERSON:** Jessica Beaubien, Policy Specialist, Kentucky Public Pensions Authority, 1260 Louisville Road, Frankfort, KY 40601, email [Legal.Non-Advocacy@kyret.ky.gov](mailto:Legal.Non-Advocacy@kyret.ky.gov), telephone (502) 696-8800 ext. 8570, facsimile (502) 696-8615.

## REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Regulation number: 105 KAR 1:120

Contact person: Jessica Beaubien

Phone number: 502-696-8800 ext. 8570

Email: [Legal.Non-Advocacy@kyret.ky.gov](mailto:Legal.Non-Advocacy@kyret.ky.gov)

(1) Provide a brief summary of:

(a) What this administrative regulation does: This administrative regulation establishes the procedures and requirements for employer participation in CERS.

(b) The necessity of this administrative regulation: This administrative regulation is necessary to allow the Kentucky Public Pensions Authority to effectively administer KRS 78.510 to 78.852.

(c) How this administrative regulation conforms to the content of the authorizing statutes: KRS 61.505(1)(g) authorizes the Kentucky Public Pensions Authority to promulgate all administrative regulations on behalf of the County Employees Retirement System that are consistent with KRS 78.510 to 78.852. KRS 78.510(3) authorizes the Board of Trustees of the County Employees Retirement System to determine the eligibility of an employer to participate in the County Employees Retirement System (CERS). KRS 78.782 authorizes the Board of Trustees of the County Employees Retirement System necessary or proper in order to carry out the provisions of 78.510 to 78.852.

(d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: This administrative regulation assists with the effective administration of the statutes by establishing the procedures and requirements for employer participation in CERS.

(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:

(a) How the amendment will change this existing administrative regulation: This amendment adds details of the employer procedures and requirements for participation in CERS.

(b) The necessity of the amendment to this administrative regulation: This amendment is necessary to effectively determine the eligibility of an employer to participate in the County Employees Retirement System (CERS) and to ensure the employer is fully aware of the procedures and requirements to participate.

(c) How the amendment conforms to the content of the authorizing statutes: KRS 61.505(1)(g) authorizes the Kentucky Public Pensions Authority to promulgate all administrative regulations on behalf of the County Employees Retirement System that are consistent with KRS 78.510 to 78.852. KRS 78.510(3) authorizes the Board of Trustees of the County Employees Retirement System to determine the eligibility of an employer to participate in the County Employees Retirement System (CERS). KRS 78.782 authorizes the Board of Trustees of the County Employees Retirement System necessary or proper in order to carry out the provisions of 78.510 to 78.852.

(d) How the amendment will assist in the effective administration of the statutes: This amendment assists with the effective administration of the statutes by adding needed details about the procedures and requirements for participation in CERS.

(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation: One (1) entity that provides day-to-day operations for the County Employees Retirement System: Kentucky Public Pensions Authority. It is unknown how many new employers will go through the process to participate in the County Employees Retirement System.

(4) Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an amendment, including:

(a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment: The Kentucky Public Pensions Authority must administer the process and approval of employees to participate in the County Employees Retirement System. The Board of Trustees for the County Employees Retirement System must approve employer participation in the County Employees Retirement System. Potential employers seeking to participate in the County Employees Retirement System must comply with the steps outlines in this regulation.

(b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3): The cost of compliance with this administrative regulation for the Kentucky Public Pensions Authority, the County Employees Retirement System and the Board of Trustees for the County Employees Retirement System should be negligible, as this administrative regulation is already being administered as written.

(c) As a result of compliance, what benefits will accrue to the entities identified in question (3): The benefits for the entities identified should be negligible, as this administrative regulation is already being administered as written.

(5) Provide an estimate of how much it will cost to implement this administrative regulation:

(a) Initially: The costs associated with the implementation of this amendment should be negligible.

(b) On a continuing basis: The continuing costs associated with this amendment should be negligible.

(6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation: Administrative expenses of the Kentucky Public Pensions Authority are paid from the Retirement Allowance Account (trust and agency funds).

(7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment: There is no increase in fees or funding required.

(8) State whether or not this administrative regulation establishes any fees or directly or indirectly increases any fees: This administrative regulation does not establish any fees or directly or indirectly increase any fees.

(9) TIERING: Is tiering applied? (Explain why or why not) Tiering is not applied. All entities are subject to the same processes and procedures.

## FISCAL NOTE

Regulation number: 105 KAR 1:120  
 Contact person: Jessica Beaubien  
 Phone number: 502-696-8800 ext. 8570  
 Email: [Legal.Non-Advocacy@kyret.ky.gov](mailto:Legal.Non-Advocacy@kyret.ky.gov)

(1) What units, parts, or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation? This administrative regulation impacts the Kentucky Public Pensions Authority and the County Employees Retirement System. It may also impact local government employers seeking to participate in the County Employees Retirement System.

(2) Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation. KRS 61.505(1)(g), 78.510(3), and 78.782.

(3) Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect. This administrative regulation will not affect revenues of a state or local government agency.

(a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year? None.

(b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years? None.

(c) How much will it cost to administer this program for the first year? The cost to Kentucky Public Pensions Authority to administer this administrative regulation should be negligible because this administrative regulation is already being administered as written.

(d) How much will it cost to administer this program for subsequent years? The cost to Kentucky Public Pensions Authority to administer this administrative regulation should be negligible because this administrative regulation is already being administered as written.

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-): None.

Expenditures (+/-): Negligible.

Other Explanation: The fiscal impact of this administrative regulation should be negligible because this administrative regulation is already being administered as written.

(4) Estimate the effect of this administrative regulation on the expenditures and cost savings of regulated entities for the first full year the administrative regulation is to be in effect.

(a) How much cost savings will this administrative regulation generate for the regulated entities for the first year? None.

(b) How much cost savings will this administrative regulation generate for the regulated entities for subsequent years? None.

(c) How much will it cost the regulated entities for the first year? Negligible.

(d) How much will it cost the regulated entities for subsequent years? Negligible.

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Cost Savings(+/-): None.

Expenditures (+/-):Negligible.

Other Explanation: The fiscal impact of this administrative regulation should be negligible because this administrative regulation is already being administered as written.

(5) Explain whether this administrative regulation will have a major economic impact, as defined below. "Major economic impact" means an overall negative or adverse economic impact from an administrative regulation of five hundred thousand dollars (\$500,000) or more on state or local government or regulated entities, in aggregate, as determined by the promulgating administrative bodies. [KRS 13A.010(13)]. This administrative regulation will not have a "major economic impact" because this administrative regulation is already being administered as written.



## SUMMARY OF MATERIAL INCORPORATED BY REFERENCE

Form 2010, Election or Rejection of Participation is a 1-page form that was updated to add a statutory reference and a legal certification statement.

Form 7071, Employer Self Service Employer Administrator Account Creation Request is a 1-page form that has updated language to clarify the details of what the Employer Administrator can do and not do within the Employer Self Service Web site.

Form 7075, Employer Contact Information is a 1-page form that was updated to add a statutory reference and a legal certification statement and signature line.

Form 7250, Verification of Payments Outside Regular Wages is a 1-page form that was updated to add a legal certification statement.

Form 7280, Employer Certification of Installment Purchase of Service is a 1-page form that was updated to correct statutory references and add a legal certification statement.

Form 7851, Data Use Agreement is a 4-page form that was updated to modernize the language and uses of the agreement. References to this regulation and the applicable statutes have replaced previous duplicated language, and language that was originally intended as introducing employers to the Employer Self Service Web site has been removed.

1 FINANCE AND ADMINISTRATION CABINET

2 Kentucky Public Pensions Authority

3 (Amendment)

4 105 KAR 1:001. Definitions for 105 KAR Chapter 1.

5 RELATES TO: KRS 16.505-16.652, 61.510-61.705, 78.510-78.852

6 STATUTORY AUTHORITY: KRS 61.505(1)(g)

7 NECESSITY, FUNCTION, AND CONFORMITY: KRS 61.505(1)(g) authorizes the  
8 Kentucky Public Pension Authority on behalf of the Kentucky Retirement Systems and the  
9 County Employees Retirement System to promulgate administrative regulations that are  
10 consistent with the provisions of KRS 16.505 to 16.652, 61.505, 61.510 to 61.705, and 78.510  
11 to 78.852. This administrative regulation establishes definitions for 105 KAR Chapter 1.

12 Section 1. Definitions. The following definitions shall apply to 105 KAR Chapter 1 unless  
13 otherwise required by context or otherwise defined in a specific administrative regulation:

14 (1) "AAC" means:

15 (a) Prior to April 1, 2021, the Administrative Appeals Committee of the Board of Trustees  
16 of the Kentucky Retirement Systems.

17 (b) Beginning April 1, 2021, the separate or joint Administrative Appeals Committees of  
18 the Board of Trustees of the Kentucky Retirement Systems and the Board of Trustees of the  
19 County Employees Retirement System in accordance with KRS 61.645(16) and 78.782(16).

20 (2) "Accumulated account balance" is defined by KRS 16.505(40), 61.510(41), and  
21 78.510(38).

22 (3) "Accumulated contributions" is defined by KRS 16.505(7), 61.510(12), and 78.510(12).

(4) "Accumulated employer credit" is defined by KRS 16.505(39), 61.510(40), and 78.510(37).

(5) "Act in line of duty" or "in line of duty" is defined by KRS 16.505(19) and 78.510(48).

(6) "Active member" means a member who is participating in the systems.

(7) "Actuarial equivalent" is defined by KRS 16.505(13), 61.510(17), and 78.510(17).

(8) "Agency" means:

(a) Prior to April 1, 2021, the Kentucky Retirement Systems, which administered the State Police Retirement System, the Kentucky Employees Retirement System, and the County Employees Retirement System; and

(b) Beginning April 1, 2021, the Kentucky Public Pensions Authority, which is authorized to carry out the day-to-day administrative needs of the Kentucky Retirement Systems (comprised of the State Police Retirement System and the Kentucky Employees Retirement System) and the County Employees Retirement System.

(9) "Agency reporting official" is defined by KRS 78.510(20).

(10) "Alternate payee" is defined by KRS 16.505(38), 61.510(39), and 78.510(36).

(11) "Authorized leave of absence" is defined by KRS 16.505(14).

(12) "Beneficiary" is defined by KRS 16.505(25), 61.510(26), and 78.510(25).

(13) "Boards" means the Board of Trustees of the Kentucky Retirement Systems and the Board of Trustees of the County Employees Retirement System.

(14) "Bona fide promotion or career advancement" is defined by KRS 61.598(1) and 78.545(22).

(15) "Career threshold" is defined by KRS 61.702(4)(e).9.a. and 78.5536(4)(e)9.a.

(16) "County" is defined by KRS 78.510(3).

(17) "Creditable compensation" is defined by KRS 16.505(8), 61.510(13), and 78.510(13).

1 (18) "Current rate of pay" is defined by KRS 16.505(24), 61.510(25), and 78.510(24).

2 (19) "Current service" is defined by KRS 16.505(4), 61.510(10), and 78.510(10).

3 (20) "DAC" means:

4 (a) Prior to April 1, 2021, the Disability Appeals Committee of the Board of Trustees of the  
5 Kentucky Retirement Systems.

6 (b) Beginning April 1, 2021, the separate or joint Disability Appeals Committees of the  
7 Board of Trustees of the Kentucky Retirement Systems and the Board of Trustees of the  
8 County Employees Retirement System in accordance with KRS 61.665(4) and 78.545(11).

9 (21) "Department" is defined by KRS 61.510(3).

10 (22) "Dependent child" is defined by KRS 16.505(17) and 78.510(49).

11 (23) "Disability retirement date" is defined by KRS 16.505(16), 61.590(5)(b), and  
12 78.510(51).

13 (24) "Duty-related injury" is defined by KRS 61.621(2) and 78.545(20).

14 (25) "Early retirement date" is defined by KRS 16.505(20), 61.590(5)(c), and 78.545(4).

15 (26) "Employee" is defined by KRS 61.510(5) and 78.510(6).

16 (27) "Employer" is defined by KRS 16.505(3), 61.510(6), and 78.510(7).

17 (28) "Employer's effective cessation date" is defined by KRS 61.522(1)(c) and  
18 78.535(1)(c).

19 (29) "End of day" means:

20 (a) 11:59 p.m. Eastern Time, on the date referenced; and

21 (b) If the date referenced falls on a Saturday, Sunday, a public holiday listed in KRS  
22 2.110, a day on which the retirement office is actually and legally closed, or any other state or  
23 federal holiday that disrupts mail service, then the time period shall be met if the application,  
24 documentation, form, notice, or other requested or required information is filed or submitted no

1 later than 11:59 p.m. Eastern Time on the next business day following the weekend, holiday,  
 2 or date of closure.

3 (30) "Examiner" means the medical examiners as provided in KRS 61.665 and  
 4 78.545(11).

5 (31) "File" means a form or document has been received at the retirement office by mail,  
 6 fax, secure email, in-person delivery, or via Self Service on the Web site maintained by the  
 7 agency (if available).

8 (32) "Final compensation" is defined by KRS 16.505(9), 61.510(14), and 78.510(14).

9 (33) "Final rate of pay" is defined by KRS 16.505(10), 61.510(15), and 78.510(15).

10 (34) "Fiscal year" is defined by KRS 16.505(32), 61.510(19), and 78.510(19).

11 (35) "Full-time student" means a person:

12 (a) Enrolled in a postsecondary program of study that meets the full-time student  
 13 requirements of the institution in which he or she is enrolled;

14 (b) Enrolled in a continuing education or training program that meets the full-time  
 15 requirements of the program or institution in which he or she is enrolled; or

16 (c) Enrolled in high school or a GED program that meets the full-time student requirements  
 17 of the program or institution in which he or she is enrolled.

18 ~~(36)~~[35] "Gainful employment" means work in any capacity that is, or may be, performed  
 19 with regularity and is, or may be, usually done for pay, whether or not pay is received,  
 20 including seasonal, volunteer, part-time, and on-call work.

21 ~~(37)~~[36] "Grandfathered service" is defined by KRS 61.552(9)(b) and 78.545(7).

22 ~~(38)~~[37] "Hazardous disability" is defined by KRS 16.505(23) and 78.510(47).

23 ~~(39)~~[38] "Hazardous position" means a regular full-time officer as defined by 16.505(22),  
 24 or a "hazardous position" as defined by 61.592(1)(a), 78.510(42), and 78.5520(1).

(40) "Hazardous service" means the number of years and months of employment as an employee in a hazardous position.

(41)[39] "Hospital and medical insurance plan" is defined by KRS 61.702(1)(a) and 78.5536(1)(a).

(42)[40] "In line of duty" or "act in line of duty" is defined by KRS 16.505(19) and 78.510(48).

(43)[41] "Inactive member" means a member who is not participating in the system.

(44)[42] "Increment" is defined by KRS 61.510(29) and 78.510(44).

(45)[43] "Instructional staff" is defined by KRS 61.510(48).

(46)[44] "Invalid," if used in reference to a form, means that the form does not meet the requirements to be valid, and shall not be processed by the agency.

(47)[45] "Last day of paid employment" is defined by KRS 16.505(30), 61.510(32), and 78.510(45).

(48)[46] "Level percentage of payroll amortization method" is defined by KRS 61.510(28) and 78.510(43).

(49)[47] "Medical information" as used in KRS 61.610, 61.615, 61.665, 78.5526 and 78.5528:

(a) Means reports of examinations or treatments; medical signs that are anatomical, physiological, or psychological abnormalities that can be observed; psychiatric signs that are medically demonstrable phenomena indicating specific abnormalities of behavior, affect, thought, memory, orientation, or contact with reality; or laboratory findings that are anatomical, physiological, or psychological phenomena that can be shown by medically acceptable laboratory diagnostic techniques, including chemical tests, electrocardiograms, electroencephalograms, X-rays, and psychological tests; and

(b) Does not mean written statements from medical providers alone unless accompanied by supporting contemporaneous records as established in paragraph (a) of this subsection.

(50)[48] "Member" is defined by KRS 16.505(21), 61.510(8), and 78.510(8).

(51)[49] "Membership date" is defined by KRS 16.505(35), 61.510(36), and 78.510(33).

(52)[50] "Month" is defined by KRS 16.505(34), 61.510(35), and 78.510(32).

(53)[54] "Monthly average pay" is defined by KRS 16.505(41), 61.510(45), and 78.510(52).

(54)[52] "Monthly contribution rate" means the maximum contribution the systems will pay toward the premium of a retired member based on:

(a) The amount determined by the boards as provided in KRS 61.702(1)(b), 61.702(4)(b)-(d), 78.5536(1)(b), and 78.5536(4)(b)-(d) for a retired member who began participating in the systems on or before June 30, 2003; or

(b) The amount per month earned by the retired member based on years of service as provided in KRS 61.702(4)(e) and 78.5536(4)(e) for a retired member who began participating in the systems on or after July 1, 2003.~~[is defined by KRS 61.702(1)(b) and 78.5536(1)(b)].~~

(55)[53] "Nominal fee" is defined by KRS 61.510(43) and 78.510(40).

(56)[54] "Non-core services independent contractor" is defined by KRS 61.5991(9).

(57)[55] "Nonhazardous position" is defined by KRS 61.510(44) and 78.510(41).

(58) "Nonparticipating position" means any position of employment with a participating employer other than a regular full-time position or a regular full-time officer position.

(59)[56] "Normal retirement age" means the age at which the member meets the requirements for his or her normal retirement date.

(60)[57] "Normal retirement date" is defined by KRS 16.505(15), 61.510(18), 61.590(5)(a), and 78.510(18).

1        (61)[58] "Objective medical evidence" is defined by KRS 16.505(31), 61.510(33), and  
2        78.510(46).

3        (62)[59] "Officers and employees of the General Assembly" is defined by KRS  
4        61.510(20).

5        (63)[60] "Optional allowance" is defined by KRS 16.505(18).

6        (64)[64] "Participant" is defined by KRS 16.505(36), 61.510(37), and 78.510(34).

7        (65)[62] "Participating" is defined by KRS 16.505(33), 61.510(34), and 78.510(31).

8        (66)[63] "Participating employer" means any employer that participates in one (1) of the  
9        systems operated by the agency.

10       (67) "Participating position" means a regular full-time position, a regular full-time officer  
11       position, or other positions that meet the requirements of KRS 61.680(6)(a) and 78.545.

12       (68)[64] "Participation date" means the earlier of "membership date" as defined in this  
13       section or the date on which the member began participating in another state-administered  
14       retirement system if the member has not retired or taken a refund from the other state-  
15       administered retirement system.

16       (69)[65] "Past service" is defined by KRS 61.552(5)(a) and 78.545(7).

17       (70)[66] "Person" means a natural person.

18       (71)[67] "Premium" means the monthly dollar cost required to provide hospital and  
19       medical insurance plan coverage for a recipient, a recipient's spouse, or a disabled or  
20       dependent child.

21       (72)[68] "Prior service" is defined by KRS 16.505(5), 61.510(11), and 78.510(11).

22       (73)[69] "Provide," if used in reference to a form or other document, means the agency  
23       makes a form or document available on its Web site (if appropriate) or by mail, fax, secure  
24       email, or via Self Service on the Web site maintained by the agency (if available).



(74)[70] "Qualified domestic relations order" is defined by KRS 16.505(37), 61.510(38), and 78.510(35).

(75)[74] "Recipient" is defined by KRS 16.505(26), 61.510(27), and 78.510(26).

(76)[72] "Reemployment" means the retired member's first date of employment with a participating employer following his or her most recent retirement date.

(77)[73] "Regular full-time officers" is defined by KRS 16.505(22).

(78)[74] "Regular full-time position" is defined by KRS 61.510(21) and 78.510(21).

(79)[75] "Retired member" is defined by KRS 16.505(11), 61.510(24), and 78.510(23).

(80)[76] "Retirement allowance" is defined by KRS 16.505(12), 61.510(16), and 78.510(16).

(81) "Retirement date" means a member's effective retirement date as described in KRS 61.590(5) and 78.545(4).

(82)[77] "Retirement office" is defined by KRS 16.505(28), 61.510(31), and 78.510(29).

(83)[78] "School board" is defined by KRS 78.510(4).

(84)[79] "School term or year" is defined by KRS 78.510(28).

(85) "Self-Service Web site" means the secure Member Self-Service or Retiree Self-Service agency Web site.

(86)[80] "Service" is defined by KRS 16.505(6), 61.510(9), and 78.510(9).

(87)[84] "State" means the Commonwealth of Kentucky.

(88) "State-administered retirement system" means the retirement systems with reciprocity as described in KRS 61.680.

(89) "Submit" means the required form, documentation, report, or payment has been received by the retirement office via mail, fax, electronic mail, the Self-Service Web site, the

1 Employer Self-Service Web site, or other mode specifically detailed in an administrative  
2 regulation.

3 (90)[82] "Systems" means the State Police Retirement System (KRS 16.505 to 16.652),  
4 the Kentucky Employees Retirement System (KRS 61.510 to 61.705), and the County  
5 Employees Retirement System (KRS 78.510 to 78.852).

6 (91)[83] "Total and permanent disability" is defined by KRS 16.582(1)(a) and  
7 78.5524(1)(a)1.

8 (92)[84] "Valid," if used in reference to a form, means that all required sections of a form  
9 are filled out, the form has been fully executed by the required person or the person's legal  
10 representative, and all supporting documentation required by the form is included with the  
11 form.

12 (93)[85] "Volunteer" is defined by KRS 61.510(42) and 78.510(39).

13 (18 Ky.R. 1692; 2195; eff. 1-10-1992; 22 Ky.R. 1325; 3-7-1996; 31 Ky.R. 785; 1049; eff.  
14 1-4-2005; 33 Ky.R. 2-2-2007; 44 Ky.R. 258; eff. 11-3-2017; 49 Ky.R. 1535, 1899; eff. 7-5-  
15 2023.)

APPROVED:

\_\_\_\_\_  
DAVID L. EAGER,  
EXECUTIVE DIRECTOR  
KENTUCKY PUBLIC PENSIONS AUTHORITY

\_\_\_\_\_  
DATE

**PUBLIC HEARING AND PUBLIC COMMENT PERIOD:** A public hearing to allow for public comment on this administrative regulation shall be held on Tuesday, June 25, 2024, at 10:00 a.m. Eastern Time at the Kentucky Public Pensions Authority (KPPA), 1270 Louisville Road, Frankfort, Kentucky 40601. Individuals interested in presenting a public comment at this hearing shall notify this agency in writing no later than five workdays prior to the hearing of their intent to attend. If no notification of intent to attend the hearing was received by that date, the hearing may be cancelled. A transcript of the public hearing will not be made unless a written request for a transcript is made.

If you do not wish to be heard at the public hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted until June 30, 2024. Send written notification of intent to be heard at the public hearing or written comments on the proposed administrative regulation to the contact person.

KPPA shall file a response with the Regulations Compiler to any public comments received, whether at the public comment hearing or in writing, via a Statement of Consideration no later than the 15<sup>th</sup> day of the month following the end of the public comment period, or upon filing a written request for extension, no later than the 15<sup>th</sup> day of the second month following the end of the public comment period.

**CONTACT PERSON:** Jessica Beaubien, Policy Specialist, Kentucky Public Pensions Authority, 1260 Louisville Road, Frankfort, KY 40601, email [Legal.Non-Advocacy@kyret.ky.gov](mailto:Legal.Non-Advocacy@kyret.ky.gov), telephone (502) 696-8800 ext. 8570, facsimile (502) 696-8615.

## REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Regulation number: 105 KAR 1:001  
Contact person: Jessica Beaubien  
Phone number: 502-696-8800 ext. 8570  
Email: [Legal.Non-Advocacy@kyret.ky.gov](mailto:Legal.Non-Advocacy@kyret.ky.gov)

- (1) Provide a brief summary of:
  - (a) What this administrative regulation does: This administrative regulation establishes definitions for Title 105 of the Kentucky Administrative Regulations.
  - (b) The necessity of this administrative regulation: This administrative regulation is necessary to establish the definitions for Title 105 of the Kentucky Administrative Regulations.
  - (c) How this administrative regulation conforms to the content of the authorizing statutes: This administrative regulation conforms to the authorizing statute by establishing definitions for Title 105 of the Kentucky Administrative Regulations, which contains administrative regulations for the Kentucky Public Pensions Authority and the systems for which it provides operations.
  - (d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: This administrative regulation will assist in the effective administration of the statutes by establishing definitions for the administrative regulations in Title 105 of the Kentucky Administrative Regulations.
- (2) If this is an amendment to an existing administrative regulation, provide a brief summary of:
  - (a) How the amendment will change this existing administrative regulation: This amendment adds several new definitions.
  - (b) The necessity of the amendment to this administrative regulation: These additional definitions are needed to assist in the effective administration of statutes by establishing them as definitions for the administrative regulations in Title 105 of the Kentucky Administrative Regulations.
  - (c) How the amendment conforms to the content of the authorizing statutes: This amendment conforms to the authorizing statute by adding definitions for Title 105 of the Kentucky Administrative Regulations, which contains administrative regulations for the Kentucky Public Pensions Authority and the systems for which it provides operations.
  - (d) How the amendment will assist in the effective administration of the statutes: This amendment will assist in the effective administration of the statutes by adding definitions for the administrative regulations in Title 105 of the Kentucky Administrative Regulations.
- (3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation: This administrative regulation may affect over 420,000 members of the systems for which the Kentucky Public Pensions Authority provides operations as well as their spouses, dependent children, and beneficiaries. Additionally, this administrative regulation may affect 1,452 employers that participate in the State Police Retirement System, the Kentucky Employees Retirement System, and the County Employees Retirement System. Finally, this administrative regulation will affect the Kentucky Public Pensions Authority and the three (3) systems for which it provides operations, the State Police Retirement System, the Kentucky Employees Retirement System, and the County Employees Retirement System.

(4) Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an amendment, including:

(a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment: None.

(b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3): This regulation will not cost any additional funds.

(c) As a result of compliance, what benefits will accrue to the entities identified in question (3): This administrative regulation will assist all entities identified in question (3) with understanding the administrative regulations in Title 105 of the Kentucky Administrative Regulations.

(5) Provide an estimate of how much it will cost to implement this administrative regulation:

(a) Initially: None.

(b) On a continuing basis: None.

(6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation: There is no funding needed.

(7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment: There is no increase in fees or funding required.

(8) State whether or not this administrative regulation establishes any fees or directly or indirectly increases any fees: This administrative regulation does not establish any fees or directly or indirectly increase any fees.

(9) TIERING: Is tiering applied? (Explain why or why not) Tiering is not applied. All entities have the same requirements.

## FISCAL NOTE

Regulation number: 105 KAR 1:001

Contact person: Jessica Beaubien

Phone number: 502-696-8800 ext. 8570

Email: Legal.Non-Advocacy@kyret.ky.gov

(1) What units, parts, or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation? 1,452 employers that participate in the State Police Retirement System, the Kentucky Employees Retirement System, and the County Employees Retirement System may be impacted by this administrative regulation.

(2) Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation. KRS 61.505(1)(g).

(3) Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect. None.

(a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year? None.

(b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years? None.

(c) How much will it cost to administer this program for the first year? None.

(d) How much will it cost to administer this program for subsequent years? None.

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-): None.

Expenditures (+/-): None.

Other Explanation: There is no fiscal impact associated with this administrative regulation.

(4) Estimate the effect of this administrative regulation on the expenditures and cost savings of regulated entities for the first full year the administrative regulation is to be in effect.

(a) How much cost savings will this administrative regulation generate for the regulated entities for the first year? None.

(b) How much cost savings will this administrative regulation generate for the regulated entities for subsequent years? None.

(c) How much will it cost the regulated entities for the first year? None.

(d) How much will it cost the regulated entities for subsequent years? None.

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Cost Savings(+/-): None.

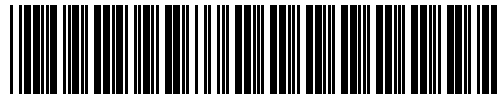
Expenditures (+/-): None.

Other Explanation: There is no fiscal impact associated with this administrative regulation.

(5) Explain whether this administrative regulation will have a major economic impact, as defined below. *"Major economic impact" means an overall negative or adverse economic impact from an administrative regulation of five hundred thousand dollars (\$500,000) or more on state or local government or regulated entities, in aggregate, as determined by the promulgating administrative bodies. [KRS 13A.010(13)].* This administrative regulation will not have a major economic impact.



Perimeter Park West • 1260 Louisville Rd. • Frankfort KY 40601-6124  
Phone: (502) 696-8800 • Fax: (502) 696-8822 • [kyret.ky.gov](http://kyret.ky.gov)



**Form 2010**  
Revised 03/2024

## Employee Information

Name:

Social Security Number:

I, \_\_\_\_\_, occupying a regular full-time position with \_\_\_\_\_

Name \_\_\_\_\_

as a

*Employer Name*

---

*Position Title*

**Elect**

☐ **Reject**

membership in the County Employees Retirement System pursuant to the provisions of KRS 78.540(1).

Notice: Persons who elect to participate under this subsection may purchase service credit for any prior months by paying a delayed contribution payment. The service shall not be included in the member's total service for purposes of determining benefits under KRS 61.702 and 78.5536.

## Certification

I hereby certify that the information provided on this form is correct and accurate. I acknowledge that I have full understanding that any person who provides a false statement, report, or representation to a governmental entity such as KPPA is subject to the penalty of perjury in accordance with KRS 523.010, et seq. I further acknowledge that if I knowingly submit or cause to be submitted a false or fraudulent claim for the payment or receipt of benefit, I may be liable for repayment of benefits I was not entitled to receive, but also liable for civil payments, legal fees, and costs.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Witness: \_\_\_\_\_

Date: \_\_\_\_\_


**KENTUCKY PUBLIC PENSIONS AUTHORITY**

 1260 Louisville Road • Frankfort, KY 40601  
 Phone: (502) 696-8800 • Fax: (502) 696-8822 • kyret.ky.gov

Print Form


**Form 7071**

03/2024

**Employer Self Service Employer Administrator  
Account Creation Request**

This form must be fully completed. Failure to provide all information may cause a delay in processing and/or rejection of your request. If you have any questions regarding this form, please contact our office at (888) 696-8810.

**Employer Information**

Employer:	Employer Code:
-----------	----------------

**Employer Administrator Information**

Please provide the following information for the individual who will act as an Employer Administrator for Kentucky Public Pensions Authority's Employer Self Service (ESS) site. The Employer Administrator is the individual selected by each employer to administer the users of the ESS site for that particular employer. This person is responsible for setting up new users and maintaining those user accounts, including the assignment of security roles which control access to information from KPPA.

Name:	Phone:
E-mail Address:	

**Certification**

We acknowledge that this request will establish an Employer Administrator, and will allow the Employer Administrator to:

- Set up new users for the Employer Self Service site,
- Manage those users by assigning or changing security roles,
- Delete users,
- Reset PINs and reset passwords,
- Perform other duties as assigned by the employer, and
- Have unrestricted access to all employer information on the Employer Self Service site.

The designated Employer Administrator will not:

- Share his or her password,
- Allow another person to access his or her account, or
- Use another person's account.

We understand that the unauthorized or improper use of this system may subject us personally and/or our employer to one or more of the following: account cancellation, civil penalties, or criminal penalties.

Employer Administrator Signature: \_\_\_\_\_

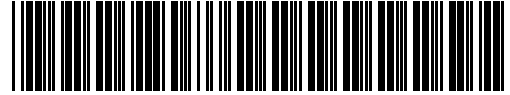
Date: \_\_\_\_\_

Agency Head Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Kentucky Public Pensions Authority**

Perimeter Park West • 1260 Louisville Rd. • Frankfort KY 40601-6124  
 Phone: (502) 696-8800 • Fax: (502) 696-8822 • [kyret.ky.gov](http://kyret.ky.gov)

[Print Form](#)


**Form 7075**  
 Revised 03/2024

**Employer Contact Information**

Please complete the following information and fax this form to KPPA at (502) 696-8822.

**Employer Information**

Employer Name:		Employer Code:	
Mailing Address:	City:	State:	Zip Code:
If the mailing address is a PO Box, please provide the physical location address below.			
Address:	City:	State:	Zip Code:

**Agency Head**

Name:		
Phone (with extension):	Fax:	E-mail:

**Agency Reporting Official as defined by KRS 78.510(20)**

The individual named as reporting official for the agency is responsible for completing the monthly report.

Name:		
Phone (with extension):	Fax:	E-mail:

**Certification**

I hereby certify that the information provided on this form is correct and accurate. I acknowledge that I have full understanding that any person who provides a false statement, report, or representation to a governmental entity such as KPPA is subject to the penalty of perjury in accordance with KRS 523.010, et seq.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

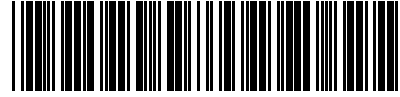
Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_


**KENTUCKY PUBLIC PENSIONS AUTHORITY**

 1260 Louisville Road • Frankfort, KY 40601  
 Phone: (502) 696-8800 • Fax: (502) 696-8822 • kyret.ky.gov

Print Form


**FORM 7250**  
 Revised 03/2024

**Verification of Payments Outside Regular Wages**
**Employer Information**

Employer Name:		Employer Code:	
Address:	City:	State:	Zip Code:
Reporting Official:			

**Please complete the following questions regarding the payment of wages outside regular earnings.**

 Does your agency pay employees any monies outside their regular salary, excluding overtime (i.e., Christmas bonus, incentive pays, profit sharing, etc.)? ☐ Yes ☐ No

**If yes, please provide further information about these payments below.**

What is the exact name of the payment? \_\_\_\_\_

Is this payment guaranteed in an employee's regular salary? \_\_\_\_\_

When are the payments awarded? \_\_\_\_\_

Are the payments built into personnel policy, or are they at the discretion of the employer? \_\_\_\_\_

Are these payments currently reported to Kentucky Public Pensions Authority? \_\_\_\_\_

If yes, what Payment Reason have you been designating for these funds? \_\_\_\_\_

Please attach any available documentation regarding these payments including any applicable personnel policies. Please contact your Employer Reporting, Compliance and Education representative with any questions at 1-888-696-8810.

**Certification**

I hereby certify that the information completed on this form is true and accurate. I acknowledge that I have full understanding that any person who provides a false statement, report, or representation to a governmental entity such as KPPA is subject to penalty of perjury in accordance with KRS 523.010, et seq. I further acknowledge that if I knowingly submit or cause to be submitted a false or fraudulent claim for the payment or receipt of benefit, the employer I represent, and I (personally) may be liable for restitution of the benefits for which the member was not eligible to receive, civil payments, legal fees, and costs.

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**KENTUCKY PUBLIC PENSIONS AUTHORITY**

1260 Louisville Road • Frankfort, KY 40601  
 Phone: (502) 696-8800 • Fax: (502) 696-8822 • [kyret.ky.gov](http://kyret.ky.gov)

**Form 7280**  
 Revised 03/2024

**Employer Certification for Installment Purchase of Service****Employer Information**

Employer Name:	KRS Employer Code:
----------------	--------------------

**Certification and Acknowledgment**

The undersigned hereby certifies that the agency shall comply with the contribution reporting requirements of KRS 16.645, 61.552(9), 78.545, 105 KAR 1:150, and applicable federal law concerning any agency employee purchasing service credit under an installment purchase of service agreement with Kentucky Public Pensions Authority.

The undersigned acknowledges that the agency's failure to comply with the contribution reporting requirements of KRS 16.645, 61.552(9), 78.545, 105 KAR 1:150, and applicable federal law may result in the agency's termination from participation in the retirement systems administered by Kentucky Public Pensions Authority.

The undersigned hereby certifies that the agency has authorized all of its employees participating with Kentucky Public Pensions Authority to participate in the installment purchase of service program administered by Kentucky Public Pensions Authority.

The undersigned acknowledges a full understanding that any person who provides a false statement, report, or representation to a governmental entity such as KPPA is subject to the penalty of perjury in accordance with KRS 523.010, et seq.

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**KENTUCKY PUBLIC PENSIONS AUTHORITY**  
 1260 Louisville Road • Frankfort, KY 40601  
 Phone: (502) 696-8800 • Fax: (502) 696-8822 • kyret.ky.gov



**Form 7851**  
 January 2024

## Data Use and Reporting Agreement

Pursuant to 105 KAR 1:140, \_\_\_\_\_ (“Employer”) is required to  
Employer Name

submit reports and other information electronically to the Kentucky Public Pensions Authority (“KPPA”) using the secure KPPA Employer Self Service website (“Website”) or through the KPPA Secure Email Portal (“Portal”). Employer is also required to submit contributions and other payments. Reports, information, and payments must be submitted in accordance with this Agreement and Applicable Law.

Employer will be submitting certain Personal Information (PI) through the Website or Portal that should be transmitted securely in order to protect the privacy and security of the PI. Such PI must only be transmitted through the Website or Portal in accordance with this Agreement and Applicable Law.

### Article I - Definitions

Employer agrees that the following terms when used in this document shall have the meaning stated below:

- (a) **Agency Head** shall mean the chief executive, official, or administrative officer with whom the ultimate legal authority of the Employer is vested.
- (b) **Applicable Law** shall mean applicable federal, state, and local statutes; court opinions and orders; regulations; local rules; and policy requirements.
- (c) **Creditable Compensation** shall have the same meaning as the definition of creditable compensation in KRS 61.510 and 78.510.
- (d) **Employer** shall mean the organization listed in the blank space provided at the top of this document.
- (e) **Individual** shall mean a natural person.
- (f) **KAR** shall mean the Kentucky Administrative Regulations.
- (g) **KRS** shall mean the Kentucky Revised Statutes.
- (h) **Personal Information (PI)** means an Individual’s first name or first initial and last name in combination with the Individual’s:
  - (1) social security number;
  - (2) driver’s license number;
  - (3) personal identification number permitting access to the Individual’s account; or
  - (4) medical information.

- (i) **Portal** means the KPPA Secure Email Portal.
- (j) **Reporting Official** shall mean the person designated by the participating employer who shall be responsible for forwarding all employer and employee contributions and a record of the contributions to the system and for performing other administrative duties pursuant to the provisions of KRS 16.505-16.652, 61.510-61.705, and/or 78.510-78.852.
- (k) **Systems** shall mean the Kentucky Employees Retirement System, the State Police Retirement System, and the County Employees Retirement System.
- (l) **Website** means the Kentucky Public Pensions Authority's Employer Self Service Website.

## Article II - General Terms

2.1. Interpretation of Provisions. In the event of an inconsistency between the provisions of this Agreement and state or federal law, the state or federal law shall prevail. In the event of inconsistency between the provision of this Agreement and the terms of 105 KAR 1:140, 105 KAR 1:140 shall prevail.

2.2. Incorporation by Reference. The provisions of 105 KAR 1:140 and the Employer Reporting Manual are incorporated herein by reference. By signing this Agreement, Employer acknowledges that the Reporting Official, Agency Head, and all other employees with any responsibility for reporting of retirement contributions and payments have read and understood 105 KAR 1:140 and the Employer Reporting Manual.

## Article III - Obligations and Activities of Employer

Employer agrees to and acknowledges the following:

3.1. Employer Acknowledgement of Understanding. The Reporting Official, Agency Head, and all other employees with any responsibility for reporting of retirement contributions and payments have read and understood 105 KAR 1:140 and the Employer Reporting Manual.

3.2. Employer Obligation to Securely Transmit and Receive PI. Employer shall submit PI through the Website or Portal in order to protect the privacy and security of the PI, and shall handle all PI received from KPPA in accordance with this Agreement and Applicable Law. KPPA is not responsible for the failure of Employer's employees, representatives, agents, contractors, or subcontractors to comply with Applicable Law in accessing, transmitting, receiving, or maintaining PI, including PI received from KPPA.

3.3. Employer's Responsibility for Authorized Users. Employer shall be solely responsible for ensuring that only authorized users access the Website, the Portal, or PI either through the Employer or by use of any password, identifier or log-on received obtained, directly or indirectly, lawfully or unlawfully, from Employer or any of Employer's employees, representatives, agents, contractors, or subcontractors, and all such acts and omissions shall be deemed to be the acts and omissions of the Employer. KPPA shall not be responsible for the failure of Employer's employees, representatives, agents, contractors, or subcontractors to comply with this Agreement and Applicable Law in accessing, transmitting, receiving, or maintaining PI, including PI received from KPPA.

Each Employer shall certify:

- (a) That its authorized users shall only access the Website and the Portal and use, disclose, and transmit PI for purposes that are consistent with this Agreement and Applicable Law;
- (b) That its authorized users have agreed to hold any passwords, or other means for accessing the Website and the Portal in a confidential manner and to release them to no other individual; and
- (c) That it has restricted access to the Website, the Portal, and PI and PHI only to the authorized users that Employer's Employer Administrator has identified pursuant to this Agreement and 105 KAR 1:140.

3.4. Agents, Contractors, and Subcontractors. Employer agrees to ensure that any agent, including a contractor or subcontractor, to whom it provides access to PI received from KPPA, agrees in writing to the same restrictions and conditions that apply through this Agreement to Employer with respect to such PI. Such written agreement shall also require the agent to implement reasonable and appropriate administrative, physical, and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of PI received from KPPA in accordance with this Agreement and Applicable Law.

3.5. Training. Employer shall provide appropriate training to its employees, representatives, agents, contractors, or subcontractors in security, privacy, and confidentiality requirements and prohibitions relating to PI under this Agreement.

3.6. Timely Submission of Reports, Contributions, and Payments. Employer shall timely submit all reports, contributions, and payments required by KRS 16.505-16.652, 61.510-61.705, and/or 78.510-78.852 and 105 KAR 1:140.

3.7. Effect of Failure to Timely Submit Reports, Contributions, and Payments. If Employer refuses or fails to timely submit all reports, contributions, and payments required by KRS 16.505-16.652, 61.510-61.705, and/or 78.510-78.852 and 105 KAR 1:140. KPPA may use any legal remedy available to it to compel Employer to submit such reports, contributions, and payments and may apply interest and penalties to the untimely reports, contributions, and payments to the extent authorized by Applicable Law.

3.8. Availability of Records or Information. Employer shall make records or information available to KPPA in accordance with KRS 16.645, 61.505, 61.675, 61.685, 78.545, and 78.625, in a time and manner designated by KPPA, for purposes of determining Employer's compliance with this Agreement and Applicable Law.

3.9. Effect of Refusal to Provide Required Information. If Employer refuses to provide the KPPA access to records or information requested in accordance with KRS 16.645, 61.505, 61.675, 61.685, 78.545, and 78.625 or does not respond to a request for information or records by the KPPA made in accordance with in accordance with KRS 16.645, 61.505, 61.675, 61.685, 78.545, and 78.625, KPPA may use any legal remedy available to KPPA to enforce KRS 16.505-16.652, 61.510-61.705, and/or 78.510-78.852 and 105 KAR 1:140.

3.10. Notification of Claims. Employer shall notify KPPA within forty-eight (48) hours upon notification or receipt of any civil or criminal claims, demands, causes of action, lawsuits, or governmental enforcement actions arising out of or related to this Agreement or the PI received from



KPPA, regardless of whether KPPA and/or Employer are named as parties in such claims, demands, causes of action, lawsuits, or enforcement actions.

3.11. Assistance in Litigation or Administrative Proceedings. Employer shall make its employees, representatives, agents, contractors, or subcontractors, available to KPPA to testify as witnesses, or otherwise, in the event of litigation or administrative proceedings being commenced against KPPA or its trustees, officers, or employees based upon a claimed violation of Applicable Law, except where Employer or its employee, representative, agent, contractor, or subcontractor is named as an adverse party.

#### **Article IV - KPPA Obligations**

4.1. Indemnification. To the extent allowed by law, Employer shall reimburse KPPA for any expenses, losses, damages, legal fees, attorney fees, or costs arising out of or related to any civil or criminal claims, demands, causes of action, lawsuits, or governmental enforcement actions, whether brought by a third party or asserted by Employer, arising out of or related to Employer's actual or alleged acts and omissions (or those of its employees, representatives, agents, contractors, or subcontractors) associated with Employer under this Agreement.

5.1. Notice to Employer. KPPA shall notify Employer of the web address of the Website and shall notify Employer if the web address changes.

5.2. Invoices. KPPA shall submit an invoice to Employer for any contributions, other payments, interest, or penalties owed to KPPA that were not submitted contemporaneously with the monthly detail and summary reports. KPPA may offset funds owed by the Employer to the systems with funds owed to Employer by the systems.

#### **Employer Signature**

I hereby certify that the information completed on this form is true and accurate. I acknowledge that I have full understanding that any person who provides a false statement, report, or representation to a governmental entity such as KPPA is subject to penalty of perjury in accordance with KRS 523.010, et seq.

Name of Employer: \_\_\_\_\_

Agency Head or Reporting Official Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



**MIKE O'CONNELL**  
**JEFFERSON COUNTY ATTORNEY**

**CIVIL DIVISION**  
**200 S. FIFTH STREET, 300N**  
**FIRST TRUST CENTRE**  
**LOUISVILLE, KY 40202**

**(502) 574-6333**

Jeff Derouen  
First Assistant

Sarah J. Martin  
Director

December 20, 2023

Betty Pendergrass, Chair  
CERS Board  
Kentucky Public Pensions Authority  
1260 Louisville Road  
Frankfort, KY 40601

RE: Waiver of Penalties for Louisville/Jefferson County Metro Government (Reporting Months  
November 2022-July 2023)

Chair Pendergrass:

Louisville/Jefferson County Metro Government ("Metro") requests the CERS Board to waive the late reporting penalties for the reporting months November 2022-July 2023 based on the following grounds:

- (1) The initial delay in reporting was outside of Metro's control, as there were implementation problems with the new KPPA integration. The integration was necessitated due to the fact that Metro switched from using Oracle and PeopleSoft to Workday for finance, HR, planning and spending-related tasks. The implementation problem was exacerbated by the fact that KPPA could not accept historical data in order to test the integration. For example, the file for December 2021 could not be run in August 2022, as the system compares what is submitted to the most recent month. As a result, such a historical comparison would generate numerous errors due solely to the passage of time between the two reporting months, rather than a true error. That meant that Metro could only start testing the KPPA integration in September 2022 once the data from August 2022 was compiled in the new file. Further, KPPA's testing system was not always available for testing during September 2022, which delayed Metro's ability to test and adjust the new file.
- (2) Metro did not have reporting delays prior to the new KPPA integration being implemented and has not had reporting delays since the reporting was caught up. Metro is still trying to work with KPPA to have the reporting become more of an automated process going forward.
- (3) Metro was in constant communication and cooperation with D'Juan Surratt, Director, Employer Reporting, Compliance and Education and his division, both on the front end in advising him of Metro's intent to migrate to a new system and sending test files and during this whole process of resolving the reporting issues.
- (4) Part of the delay in catching up was a result of an alleged KPPA policy or practice where only one reporting month was allowed to be filed per month, which created a situation where Metro was never going to catch up on its reporting as long as that practice continued. Only after Mr. Surratt allowed multiple months to be filed in August, 2023 was Metro able to catch back up, evidencing that the enforcement of the policy or practice was arbitrary and unreasonable under the circumstances.

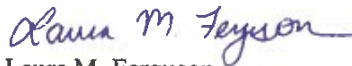
- (5) The amount of the fines imposed, more than \$760,000, is excessive, an unreasonable and disproportionate penalty and arbitrary, especially given the other factors mentioned above.

Metro appreciates Mr. Surratt and his office's cooperation with Metro in helping Metro get caught up in the reporting. Metro also appreciates that office previously waiving the penalty for Reporting Month October 2022.

However, Mr. Surratt has informed Metro that no other late reporting penalties will be waived. As a result, Metro asks that its request for a waiver be presented to the CERS Board for a decision, as that body has authority to take action pursuant to KRS 78.782(9)(d). Metro is prepared to attend a meeting on that request, so that Metro representatives can answer any questions the Board members may have. Please advise us of the date Metro's request will be considered by the CERS Board.

Please let me know if you have any questions.

Respectfully,



Laura M. Ferguson  
Assistant County Attorney – Civil Division  
**Office of Mike O'Connell - Jefferson County  
Attorney**  
First Trust Centre  
200 S. Fifth Street, Suite 300N  
Louisville, KY 40202

cc: David Eager, Executive Director  
Michael W. Board, Executive Director, Office of Legal Services  
Ed Owens III, CEO, CERS  
D'Juan Surratt, Director, Employer Reporting, Compliance and Education  
Angela Dunn, Chief Financial Office, OMB



February 6, 2024

Laura M. Ferguson  
Assistant County Attorney – Civil Division  
Office of Mike O’Connell – Jefferson County Attorney  
First Trust Centre  
200 S. Fifth Street, Suite 300N  
Louisville, KY 40202

RE: Request to Waive Penalties for Louisville/Jefferson County Metro Government (Reporting Months November 2022 – July 2023)

Dear Ms. Ferguson:

The County Employees Retirement System (CERS) Board of Trustees is in receipt of your letter dated December 20, 2023, requesting a waiver of the late reporting penalties incurred by Louisville/Jefferson County Metro Government. The CERS Chair, Ms. Betty Pendergrass, has recused from this matter as a former employee of Louisville/Jefferson County Metro Government. This matter will be introduced to the Board by the CERS Vice Chair, Lisle Cheatham, at the next regularly scheduled CERS Board meeting on March 11, 2024, at 2 PM ET.

At that meeting, your letter of December 20, 2023, will be addressed as an agenda item for Board consideration. A formal response to the merits of your letter will follow the March 11, 2024, CERS Board meeting. Currently, the CERS Board is not requesting your presence at the March 11, 2024, meeting. However, as it is a public meeting you may attend at Building A at 1260 Louisville Road, Frankfort, Kentucky 40601, or you may view the meeting on the Kentucky Public Pensions Authority Facebook page.

Please do not hesitate to contact me with any questions. I can be reached at 502-696-8642 or at [Ed.Owens@kyret.ky.gov](mailto:Ed.Owens@kyret.ky.gov).

Sincerely,

Ed Owens, III  
Chief Executive Officer  
County Employees Retirement System

County Employees Retirement System  
1270 Louisville Road  
Frankfort, KY 40601

Betty A Pendergrass, Chair  
Lisle Cheatham, Vice-Chair  
Ed Owens, CEO