



**County Employees Retirement System
Board of Trustees – Regular Quarterly Meeting
June 14, 2023, at 2:00 pm ET (1:00 pm CT)
Live Video Conference/Facebook Live**

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* -- April 6, 2023; April 19, 2023; May 9, 2023 | Betty Pendergrass |
| 6. | Personnel Committee Report | Jim Tony Fulkerson |
| | a. Personnel manual | |
| | b. CEO Mid-Year Evaluation | |
| | c. Renewal of CEO contract* | |
| 7. | Finance Committee Report | Bill O'Mara |
| | a. Hazardous duty requests* | D'Juan Surratt |
| | b. Quarterly financial reports | Mike Lamb |
| | c. Administrative Budget – Hybrid percentage and CERS Allocation* | Mike Lamb |
| 8. | KPPA Audit Committee Report | Bill O'Mara |
| | a. Implementation of HB587* | Bill O'Mara |
| | b. Internal Audit projects* | Kristen Coffey |
| 9. | Joint Health Plan Committee Report | Jerry Powell |
| | a. Account management review | Jerry Powell |
| | b. Medicare Secondary Payer Act Reimbursement update | Jerry Powell |
| 10. | Investment Committee Report | Dr. Merl Hackbart |
| | a. Investment Office quarterly update | Steve Willer |
| | b. Investment administrative budget | Steve Willer |
| 11. | Administrative | Betty Pendergrass |
| | a. Bylaw amendments* | Betty Pendergrass |
| | b. 2024 Meeting Calendar* | Ed Owens, III |
| | c. CEO Report | David Eager |
| | d. KPPA Update | |
| 12. | Closed Session* | Eric Branco |
| 13. | Adjourn | Betty Pendergrass |

*Board May Take Action

**MINUTES OF MEETING
COUNTY EMPLOYEES RETIREMENT SYSTEM
AND
KENTUCKY RETIREMENT SYSTEMS
BOARD OF TRUSTEES SPECIAL CALLED MEETING
HEALTHCARE EDUCATION
APRIL 6, 2023, AT 10:00 A.M. ET
VIA LIVE VIDEO TELECONFERENCE**

At the Special Called meeting of the County Employees Retirement System (CERS) Board of Trustees and the Kentucky Retirement Systems (KRS) Board of Trustees held on April 6, 2023, the following CERS Trustees were present: Betty Pendergrass (Chair), Dr. Patricia Carver, George Cheatham, Michael Foster, JT Fulkerson, Dr. Merl Hackbart, Dr. Martin Milkman, William O'Mara, and Jerry Powell. The following KRS Trustees were present: Lynn Hampton (Chair), Ramsey Bova, Dr. Crystal Miller. Staff members present were CERS CEO Ed Owens, III, KRS CEO John Chilton, David Eager, Rebecca Adkins, Erin Surratt, Michael Lamb, Victoria Hale, Carrie Bass, Connie Pettyjohn, Abby Sutherland, Katie Park, Glenna Frasher and Sherry Rankin. Others present included Tracey Garrison, Larry Loew, and Dr. Rae Godsey with Humana.

Ms. Pendergrass called to order the Special Called Meeting of the CERS Board of Trustees.

Ms. Hampton called to order the Special Called Meeting of the KRS Board of Trustees.

Ms. Bass read the Legal Public Statement.

Ms. Rankin called Roll for the CERS and KRS Boards of Trustees. No quorum was present for the KRS Board of Trustees.

There being no **Public Comment** submitted, Ms. Pendergrass introduced agenda item **Group Medicare 101 - Trustee Education Session** (Video 00:11:25 to 01:02:15). Ms. Tracey Garrison and Mr. Larry Loew with Humana provided an in-depth informational presentation covering Group Medicare and the services that Humana provides to KPPA and its Members.

Ms. Pendergrass introduced agenda item **KPPA Staff Healthcare Education Session** (Video 01:02:16 to 01:48:10). Ms. Connie Pettyjohn presented information on the Kentucky Employee Health Plan (KEHP), Medicare Advantage (MA), KEHP (non-Medicare eligible), and MA

(Medicare eligible) plans. Ms. Pettyjohn briefly explained the process in which a vendor and plans are selected. Lastly, she presented a detailed Q&A document which answers common benefit questions and provides notable benefit information. Ms. Pettyjohn answered several questions asked by the CERS and KRS Boards of Trustees

Ms. Pendergrass opened the floor for a motion to **adjourn** the Special Called Meeting of the CERS Board of Trustees. Mr. Powell made a motion to adjourn the meeting and was seconded by Dr. Carver. The motion passed unanimously.

There being no quorum, Ms. Hampton **adjourned** the Special Called Meeting of the KRS Board of Trustees.

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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 April 6, 2023, were approved on June 14, 2023.

Chair of the Board of Trustees

I have reviewed the Minutes of the April 6, 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
APRIL 19, 2023, AT 2:00 P.M. ET
VIA LIVE VIDEO TELECONFERENCE**

At the Annual Meeting of the County Employees Retirement System Board of Trustees held on April 19, 2023, the following members were present: Betty Pendergrass (Chair), Dr. Patricia Carver, George Cheatham, Michael Foster, JT Fulkerson, Dr. Merl Hackbart, Dr. Martin Milkman, William O'Mara, and Jerry Powell. Staff members present were CERS CEO Ed Owens, III, KRS CEO John Chilton, David Eager, Rebecca Adkins, Erin Surratt, Michael Lamb, Connie Davis, Michael Board, Leigh Ann Davis, Victoria Hale, D'Juan Surratt, Kristen Coffey, Steve Willer, Anthony Chiu, Brian Caldwell, Jared Crawford, Ashley Gabbard, Katie Park, Glenna Frasher and Sherry Rankin. Others present included Danny White with GRS, David Lindberg and Chris Tessman with Wilshire Advisors LLC., Eric Branco with Johnson Bowman Branco, LLP., and David Palay and Ryan Stippich with Reinhart.

Ms. Pendergrass called the meeting to order.

Mr. Board read the Opening Statement.

Ms. Rankin took Roll Call.

Ms. Pendergrass took a moment to honor those lost during the tragic events of April 10, 2023, at Old National Bank in Louisville, Kentucky. She shared that former KRS Trustee and Chairman, Tommy Elliott, was among the victims. Ms. Pendergrass expressed appreciation for CERS first responders and employees who serve the families and communities across the Commonwealth. The families of those lost and injured are in the prayers of the CERS Board of Trustees, said Ms. Pendergrass.

There being no **Public Comment** received, Ms. Pendergrass introduced agenda item ***Approval of Minutes – March 9, 2023 (Video 00:05:16 to 00:05:48)***. Mr. Powell made a motion to approve the minutes as presented and was seconded by Dr. Hackbart. The motion passed unanimously.

Ms. Pendergrass introduced agenda item ***Election of Officers*** (Video 00:05:49 to 00:08:36).

Ms. Pendergrass requested nominations for CERS Chair. Mr. Powell nominated Dr. Merl Hackbart for the role of CERS Chair. Dr. Hackbart declined and Mr. Powell withdrew his nomination. Mr. Fulkerson nominated Ms. Betty Pendergrass for the role of CERS Chair. Mr. Foster made a motion to cease nominations and approve Ms. Pendergrass as Chair of CERS for the next year. The motion was seconded by Mr. Powell and passed unanimously. Ms. Pendergrass thanked the CERS Board of Trustees for their support.

Ms. Pendergrass requested nominations for CERS Vice-Chair. Mr. Powell nominated Mr. George Cheatham for the role of CERS Vice-Chair. Dr. Milkman made a motion to close nominations and approve Mr. Cheatham as Vice-Chair of CERS for the next year. The motion was seconded by Mr. Powell and passed unanimously.

Ms. Pendergrass stated that there would be no change to the Committee Assignments for the next year.

Ms. Pendergrass requested that agenda item ***PPW Board of Directors Election*** (Video 00:08:37 to 00:14:33) be discussed next. Ms. Pendergrass asked Mr. Powell if he was willing to continue to serve on the PPW Board of Directors. Mr. Powell stated that he was willing.

Dr. Milkman made a motion to submit the name of Jerry Powell as the CERS Representative for the upcoming PPW Board of Directors ballot and election. The motion was seconded by Mr. Cheatham and passed unanimously.

Mr. Powell advised that KPPA CIO Steve Willer is the authorized CERS proxy. He explained that Mr. Willer will take the names submitted by CERS and KRS to the PPW Board of Directors at their annual meeting. Once the Board is established there will be an election for positions within PPW, said Mr. Powell.

Ms. Rebecca Adkins advised that the PPW meetings are broadcast on Facebook Live via the PPW Facebook page. Mr. Powell requested that all Trustees be provided with a link to the PPW Facebook page for ease of access.

Mr. Powell announced that the PPW Annual Shareholders' Meeting is scheduled for Tuesday, May 9th at 10:00 a.m. and the PPW Meeting will follow at 10:30 a.m.

Ms. Pendergrass introduced agenda item **Administrative** (Video 00:14:34 to 00:20:18). Mr. Eric Branco with Johnson Bowman Branco, LLP, provided an overview of the CERS General Counsel contract. He stated that no changes have been made to the current contract other than dates. Mr. Powell asked that the printed name of the Authorized Agent be added on the signature page of the contract. Mr. Powell made a motion to approve the contract renewal for the General Counsel as presented. Mr. O'Mara seconded the motion and the motion passed unanimously.

Mr. Branco reviewed the updated CERS Board Meeting Public Participation Policy with the CERS Board of Trustees. Mr. Fulkerson made a motion to approve the CERS Public Comment Policy as presented. Mr. Powell seconded the motion and the motion passed unanimously.

Ms. Pendergrass advised that agenda topic, Strategic Plan, would be discussed at a future meeting.

Ms. Pendergrass introduced agenda item **Actuarial Committee** (Video 00:20:19 to 00:28:25). Mr. Foster provided a summary of the April 12, 2023, Actuarial Committee Special Called Meeting. The meeting focused on whether to recommend as assumed rate increase to the CERS Board for the Nonhazardous Pension Fund and Hazardous Pension Fund. The Committee suggested that the CERS Board of Trustees review the material provided by Wilshire Advisors prior to any action. Therefore, a Special Called Meeting of the CERS Board of Trustees was scheduled for Tuesday, May 9th at 1:00 p.m. EST to further discuss and review updated information from Wilshire Advisors and GRS.

****Mr. Jim Tony Fulkerson exited the meeting prior to the beginning of Closed Session due to a conflict of interest****

****Ms. Victoria Hale exited the meeting prior to the beginning of Closed Session due to a conflict of interest in the first matter being discussed****

Ms. Pendergrass introduced agenda item **Closed Session** (Video 00:28:26 to 00:29:29). Mr. Foster made a motion and was seconded by Dr. Milkman to enter closed session for the purpose of litigation. The motion 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.

****Ms. Victoria Hale reentered after discussions of the first matter ceased and participated in the remainder of the Closed Session****

Coming back into open session, Ms. Pendergrass stated that the Board would be taking no action as the result of the closed session discussions and opened the floor for adjournment. Dr. Milkman made a motion and 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 April 19, 2023, except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

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CERTIFICATION

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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 April 19, 2023, were approved on June 14, 2023.

Chair of the Board of Trustees

I have reviewed the Minutes of the April 19, 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 SPECIAL CALLED MEETING
MAY 9, 2023, AT 1:00 P.M. ET
VIA LIVE VIDEO TELECONFERENCE**

At the Special Called Meeting of the County Employees Retirement System Board of Trustees held on May 9, 2023, 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, KRS CEO John Chilton, David Eager, Michael Lamb, Michael Board, Victoria Hale, Leigh Ann Davis, Connie Davis, Steve Willer, Brian Caldwell, Ashley Gabbard, Katie Park, Phillip Cook, and Sherry Rankin. Others present included Janie Shaw and Danny White with GRS, David Lindberg and Chris Tessman with Wilshire Advisors LLC., and Joe Bowman and Eric Branco with Johnson Bowman Branco, LLP.

Ms. Pendergrass called the meeting to order.

Mr. Board read the Opening Statement.

Ms. Rankin took Roll Call.

There being no ***Public Comment*** received, Ms. Pendergrass introduced agenda item ***Actuarial Assumptions*** (*Video 00:09:15 to 01:53:18*) and reported that the CERS Actuarial Committee had forwarded this matter to the CERS Board for discussion. Mr. Foster presented a memo written by Ms. Pendergrass which outlined several questions that have been raised regarding the strategy for managing the actuarial valuation. The memo also included a historical summary of actual investment returns, funded status, and actuarial discount rates. Mr. Foster opened the floor for questions and discussion. KPPA CIO Mr. Steve Willer advised that March investment performance had been finalized. He provided a brief investment update and reported that performance was positive across portfolios. Next, Mr. David Lindberg and Chris Tessman with Wilshire Advisors presented the Capital Market Return Assumptions Update. Mr. Cheatham requested that Mr. Lindberg further explain the efficient frontier. Lastly, Mr. Danny White and Ms. Janie Shaw with GRS reviewed the CERS 2022 Experience Study. Ms. Shaw reviewed the

economic and demographic assumption recommendations, investment return assumption and the fiscal impact of these assumptions.

Ms. Pendergrass requested a motion to adopt the demographic assumptions as recommended by GRS for the 2023 Study. Mr. Foster made a motion and was seconded by Mr. Cheatham. The motion passed unanimously.

Ms. Pendergrass requested a motion on leaving the discount rate the same or increasing it from 6.25% to 6.50%. Dr. Hackbart asked if action was required. Ms. Pendergrass stated that if the CERS Board of Trustees did not act, there would be no change to the discount rate. Mr. Cheatham made a motion to increase the discount rate to 6.50%. Mr. Foster seconded the motion. Mr. O'Mara and Dr. Milkman expressed opposition to the increase. A roll call vote was taken; five (5) ayes; three (3) nays; and one (1) absent. Therefore, the motion was adopted.

Ms. Pendergrass introduced agenda item ***Closed Session*** (*Video 01:53:19 to 01:53:20*) – None.

Mr. O'Mara asked if it was necessary to have a vote for CERS Hazardous separate from Nonhazardous. Mr. Cheatham clarified that his motion was intended to be for both as well as the Tier 3. Further, Ms. Pendergrass stated that traditionally the discount rates have been the same for both.

Mr. Powell made a motion and seconded by Dr. Milkman 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 May 9, 2023, except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

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CERTIFICATION

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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 May 9, 2023, were approved on June 14, 2023.

Chair of the Board of Trustees

I have reviewed the Minutes of the May 9, 2023, 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: June 14, 2023

SUBJECT: Summary of CERS Personnel Committee Meeting

The County Employees Retirement System (CERS) Personnel Committee held Special Called meetings on January 10, 2023 & June 5, 2023.

- 1. The following items were approved by the CERS Personnel Committee and are being forwarded to the CERS Board of Trustees for ratification***
 - a. **CERS Personnel Manual** -The CERS Personnel Committee unanimously approved the CERS Personnel Manual during its January 10, 2023 meeting.
 - b. **CERS CEO Mid-year Evaluation** - The CERS CEO's mid-year performance was reviewed and discussed with Mr. Ed Owens during the Special Called CERS Personnel Committee meeting on June 5, 2023. Adjustments to performance goals were discussed.
 - c. **Renewal of CERS CEO Contract** – The personal service contract renewal for CERS CEO, Ed Owens, was discussed for FY 2024 & FY 2025. The CERS Personnel Committee recommends renewal of a two-year contract with an annual salary of \$165,000.

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

***Board of Trustees Action Required**



**COUNTY EMPLOYEES RETIREMENT SYSTEM
PERSONNEL POLICY AND PROCEDURES**

June 14, 2023

In accordance with Kentucky Revised Statutes 78.782, the Board of Trustees (Board) of the County Employees Retirement System (CERS) is authorized to adopt procedures necessary to conduct the business of the retirement system as needed.

This will confirm that, in accordance with the provisions of KRS 78.782, the Board of Trustees of the County Employees Retirement System adopts the County Employees Retirement System Personnel Policy and Procedures during its regular quarterly meeting held on XXXXXX with an effective date of XXXXXX.

Chair of the Board of Trustees
County Employees Retirement System

Date

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SECTION 1
GENERAL INFORMATION

(1) Administration of Policies

The personnel administration of County Employees Retirement Systems shall be governed by the Policies adopted by the Board of Trustees of the County Employees Retirement System in accordance with KRS 78.782.

(2) Applicability of the Policies

The Policies are applicable to all appointed employees of the County Employees Retirement Systems unless specific exceptions are clearly indicated.

SECTION 2
CODE OF CONDUCT

SECTION 2.01 General

- (1)** Employees of the County Employees Retirement Systems must manage personal and business affairs so as to avoid any violation of the Executive Branch Code of Ethics. Employees of the County Employees Retirement System must manage personal and business affairs so as to fulfill the duty owed to the general public of the Commonwealth of Kentucky and the members, retirees, and beneficiaries of the retirement systems administered by the County Employees Retirement System.

SECTION 3
DUTIES AND QUALIFICATIONS

SECTION 3.01 General

SECTION 3.02 CEO Position Description and Summary of Duties

- (1)** 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.

- (2) 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.
- (3) The CERS CEO shall be responsible for working with the KPPA Executive Director to ensure 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.
- (4) 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.
- (5) 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).
- (6) 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.
- (7) 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.
- (8) 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.

- (9) 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.
- (10) 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.
- (11) 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.
- (12) 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.
- (13) 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.
- (14) 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.
- (15) 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.

- (16) The CERS CEO shall develop written procedures for completing the responsibilities outlined in the 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 this manual and the Bylaws.
- (17) 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.
- (18) 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 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 3.03 CERS CEO Qualifications, Education and Experience

- (1) Qualifications of the CERS CEO may include the following however, these are not the minimum qualifications, but outlines the types of qualifications and experience that the CERS Board will consider to evaluate candidates. Candidates should describe their specific expertise, training, or experience with any of these areas in their proposal.
 - Bachelor's degree in the fields of Accounting, Public Administration, Finance, Law, or a field related to governmental management or governing board administration.
 - Professional certifications in finance, accounting, pension, or investment management, such as a CPA, CMA, CFA, Accredited Fiduciary, Certified Retirement Administrator, or a related profession.
 - Significant management experience with governing board organization, pension administration, financial services, legislative analysis, educational development, and/or governmental management operations.
 - Understanding of the fiduciary role of Trustees and a CEO for management of a public employee retirement system.
 - Knowledge of federal and Kentucky laws and regulations governing open meetings, open records, ethics, public pension systems, governmental accounting, auditing, finance, retirement benefits administration, actuarial science and institutional investing.

- Experience communicating with stakeholders, legislators, and the media in a governmental environment.

SECTION 3.04 General Counsel Position Description and Summary of Duties

- (1) Summary of Duties – The CERS General Counsel serves as the primary legal advisor to the CERS Board of Trustees and CERS Chief Executive Officer and assists with the collaboration with the KPPA Legal staff.
- (2) Legal Analysis – The CERS General Counsel provides legal analysis of issues relating to the CERS Board of Trustees and provides legal and policy advice. Attends and participates in meetings where legal analysis and judgment is critical to planning and decision-making. Provides advice and consultation to other legal staff within the organization. Develops and participates in training programs. Drafts legal policy and makes recommendations. Coordinates with KPPA General Counsel on administrative issues affecting the CERS plan administration or CERS Board of Trustees.
- (3) Legal Representation – The CERS General Counsel represents CERS in all phases of civil litigation and coordinates legal services with KPPA Legal as well as outside legal counsel.
- (4) Contract Reviews – The CERS General Counsel drafts and reviews CERS Board of Trustees contracts and CERS Board of Trustees business procedures for legal sufficiency. Drafts and/or reviews major agreements between the organization and other entities, both public and private. Prepares reports for the Board. Responds to member inquiries. Handles more significant legal issues before CERS.

SECTION 3.05 General Counsel Qualifications, Education and Experience

- (1) Qualifications of the CERS General Counsel may include the following however, these are not the minimum qualifications, but outlines the types of qualifications and experience that the CERS Board will consider to evaluate candidates. Candidates should describe their specific expertise, training, or experience with any of these areas in their proposal.
 - Juris Doctor from an accredited law school and license to practice law in the Commonwealth of Kentucky upon hire.
 - Broad and extensive experience of five or more years in the practice of law relating to retirement systems, employee benefits, investments and financial markets, or a closely related field.
 - Previous General Counsel experience, and/or law firm experience in advising public pension plans will be view favorably.
 - Litigation experience will be viewed favorably.

- Knowledge of federal laws, Kentucky laws, tax laws, and regulations pertaining to issues that confront public pension plans (i.e. including, but not limited to, tax compliance, SEC, and/or fiduciary duties)
- Knowledge of the principles and practice of administrative law.
- General familiarity with Kentucky state government processes and procedures.
- Experience working for and with a governing Board; understanding the appropriate roles and responsibilities of the Board and the General Counsel.
- Experience working with stakeholders, elected officials, and the media in the governmental environment.

SECTION 4 RECRUITMENT STRATEGIES

SECTION 4.01 General

- (1) KRS 78.782 (9) (a) Indicates that the board of trustees shall appoint or contract for the services of a chief executive officer and general counsel and fix the compensation and other terms of employment for these positions without limitation of the provisions of KRS Chapters 18A and 45A and KRS 64.640. The chief executive officer shall serve as the legislative and executive adviser to the board. The general counsel shall serve as legal adviser to the board. The chief executive officer and general counsel shall work with the executive director of the Kentucky Public Pensions Authority to carry out the provisions of KRS 78.510 to 78.852. The executive director of the Kentucky Public Pensions Authority shall be the chief administrative officer of the board. As such, it is critical to ensure that these positions remain filled.

SECTION 4.02 Strategies

- (1) Executive level recruiting for both the CEO and the general counsel position may use a third-party search firm or a national search firm. In order to use a search firm to recruit these positions, an RFP will need to be issued in accordance with the Kentucky Model Procurement Code (45A).
- (2) The Board may also choose to post job listings on the following sites:
 - Commonwealth of Kentucky's MyPurpose job website
 - Commonwealth of Kentucky's LinkedIn Recruiting website
 - NASRA's website
 - Pensions & Investments (P&I) website and print
 - Kentucky League of Cities website
 - KACo's website
 - KY School Board Association (KSBA) website

SECTION 5
PERFORMANCE APPRAISALS

SECTION 5.01 General

- (1) It is the intent of the CERS Personnel Committee to annually conduct a performance appraisal for the CERS CEO and General Counsel, to evaluate assigned job duties and related competencies.

SECTION 5.02 Performance Appraisal Guidelines

- (1) Performance Appraisals shall be conducted with the following guidelines.
 - (a) A performance plan will be established no later than January 31st of each calendar year. The plan will outline assigned job tasks and expectations for January – December.
 - (b) A mid-year interim review will be completed by July 31st of each calendar year to evaluate the performance performed from January – June.
 - (c) A year-end review will be conducted no later than January 31st of the following calendar year to review the performance from July – December.
 - (d) The CEO and General Counsel will be offered the opportunity to complete a self-review prior to the mid-year and year-end performance review.
 - (e) The final review will be completed by the CERS Personnel Committee and a final rating assigned.

SECTION 6
SUCCESSION PLANNING

SECTION 6.01 General

- (1) Upon the vacancy of the County Employees Retirement System chief executive officer position, the Board shall appoint or contract for the services of an interim chief executive officer until such time as the board appoints or contracts for the services of a permanent chief executive officer.



<u>CEO JOB TASKS AND EXPECTATIONS</u>		
<u>Describe</u>	<u>Due Date</u>	<u>Date Completed</u>
Administration		
• Coordinate with Shawn Sparks and Chris Clair to develop PR structure for CERS communications	03/2023	
• 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	08/2023	
• Serve on Ad Hoc Budget Planning Committee Work Group		
• Coordinate with General Counsel regarding litigation		
• Assist Committee Chair with meeting agenda, packet, and scheduling	Ongoing	
• CERS Strategic Planning	06/30/2023	
○ Assist Committees with developing goals and measurement tools	05/31/2023	
○ Consolidate Committee plans to organize Board Strategic Plan	05/31/2023	
○ Develop communications to distribute CERS Strategic plan to key stakeholders (Separation workgroup, KLC, KACo, KSBA & General Assembly)	06/15/2023	
○ Establish data collection system to develop measurement process and reporting to Board for quarterly meetings	09/30/2023	

CEO JOB TASKS AND EXPECTATIONS		
<u>Describe</u>	<u>Due Date</u>	<u>Date Completed</u>
Trustee Education		
• Develop a catalog of Trustee Education courses, including recorded sessions that were presented live	08/2023	
• Organize CERS-sponsored education sessions 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	3/2/2023, 6/7/2023, 9/6/2023, & 11/27/2023	
Legislative		
• Contact PPOB chairs to coordinate CERS presentations for regular PPOB meetings	4/2023	
• 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	10/31/2023	
• Coordinate bill review with Legislative Working Group during General Assembly regular and special sessions	Jan – April 2023	
• 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	04/30/2023	
• Restore Investment Reporting		
○ Quarterly Performance	ASAP	
○ Quarterly Compliance	ASAP	
○ Analyze management fees for external investment managers	05/17/2023	

<u>CEO JOB TASKS AND EXPECTATIONS</u>		
<u>Describe</u>	<u>Due Date</u>	<u>Completed</u>
Actuarial		
<ul style="list-style-type: none"> Assist Committee Chair with meeting agenda, packet, scheduling, and summary for CERS Board 	Ongoing	
<ul style="list-style-type: none"> Research options for using Pension Obligation Bonds to retire the unfunded liability – Research current guidance from NCPERS, GFOA, rating agencies 	08/2023	
<ul style="list-style-type: none"> Evaluate discount rate for actuarial valuations 	04/2023	
Develop Peer Group Research		
<ul style="list-style-type: none"> Identify peer public pension plans 	04/2023	
<ul style="list-style-type: none"> Research NASRA info for small plans 	04/2023	
<ul style="list-style-type: none"> Check contacts on NCPERS conference attendee lists for potential peer public plans 	04/2023	

*Finance section was removed

PERSONAL SERVICE CONTRACT (Amended June 2023)

**FOR CHIEF EXECUTIVE OFFICER BETWEEN
COUNTY EMPLOYEES' RETIREMENT SYSTEM**

AND

EDWARD OWENS, III



This Personal Service Contract ("PSC") is entered into by and between the County Employees Retirement System ("System" or "CERS") and Edward Owens, III ("Employee") to establish a contract for the Chief Executive Officer ("CEO") of the County Employees Retirement System.

No solicitation under the Kentucky Model Procurement Code was issued for these services. Employee's appointment to this position was determined under the statutory authority of CERS. Per Kentucky Revised Statutes Section 78.782(9)(a), "The board of trustees shall appoint or contract for the services of a chief executive officer...and fix the compensation & other terms of employment...without limitation of the provisions of KRS Chapters 18A, 45A and KRS 64.640."

This PSC is effective 07/01/2021 and expires 06/30/2025~~3~~. The Board of Trustees of the County Employees Retirement System reserves the right to renew this agreement per the authority granted to them in KRS 78.782 and by House Bill 9, which passed in the 2021 Regular Legislative Session.

CERS and Employee agree to the following:

I. Scope of Agreement

Services required

Employment Duties, Contract Term and Application of Personnel Policies.

1. Duties.

The Board of Trustees ("Board") of the County Employees Retirement System agrees to employ Edward Owens, III ("Employee") as Chief Executive Officer in a full-time exempt capacity. Employee will report to the Board of CERS and shall perform his duties and discharge his responsibilities competently, carefully and faithfully as required herein and in the CERS Policies, as applicable. Per Kentucky Revised Statutes Section 78.782(9)(a) the CEO "shall serve as the legislative and executive adviser to the board...The chief executive officer...shall work with the executive director of the Kentucky Public Pensions Authority ("KPPA") to carry out the provisions of KRS 78.510 to 78.852." Employee's general duties are described in the CERS Chief Executive Officer Position Description (attached hereto as "Exhibit A"), as amended from time to time by CERS, and shall also include such other duties as are assigned to the Employee by the Board, and as may be listed in the CERS Board Bylaws. Employee will devote his time and best efforts

to the affairs of CERS and shall complete all assigned tasks to the satisfaction of the Board and within any prescribed timeframe.

2. Contract Term.

The term of Employee's PSC with CERS shall be for the period from July 1, 2021 through June 30, 202~~5~~³ (the "Contract Term"), unless earlier terminated pursuant to this Agreement. Nothing in this Agreement shall be construed to create any commitment, guarantee, agreement or understanding of any kind that CERS shall continue to employ Employee after the end of the Contract Term. Employee's performance shall be reviewed by the CERS Board, or a subcommittee thereof, upon the completion of one (1) year of employment.

3. Policies.

The Employee is subject to the Commonwealth of Kentucky Employee Handbook, any Personnel Policies, Conflict of Interest Policies, Confidentiality Policies or any other personnel related policies, statutes and regulations which apply to CERS or Commonwealth of Kentucky employees, except to the extent his unclassified position is exempted therefrom in any statute, or exempted as set forth in this Agreement.

4. Compensation.

A. Salary.

CERS shall pay Employee, as compensation for the performance of his obligations under this Agreement, an annual salary of ~~\$124,800~~165,000. Employee understands that no variable or performance linked compensation is envisioned during the term of this agreement. The salary shall be paid in such periodic installments as KPPA and the Commonwealth pays their employees.

B. Benefits.

Employee is to work in a full-time capacity on a 37.5-hour work week, as defined in the Commonwealth of Kentucky Employee Handbook ("Employee Handbook"). Except as set forth below, CERS shall provide Employee, for the duration of his employment, with all benefits received by other full-time employees of KPPA and the Commonwealth of Kentucky.

(i) Employee and CERS agree that Employee is not to participate in the Kentucky Employees Retirement System non-hazardous retirement plan. Instead, and as a retirement benefit, Employee, being eligible to participate in The Kentucky Public Employees' Deferred Compensation Authority (hereinafter KDC), shall be paid by CERS the following:

(a) CERS shall contribute to the CERS Board of Trustees 401(a) Plan, on behalf of the Employee, Two Dollars (\$2) for every One Dollar (\$1) contributed by the Employee of the first 7% of the Employee's salary to either the KDC 401k Pre-

Tax Plan, or 401(k) ROTH After-Tax plan. Employee will be 100% vested in these benefits.

(b) To make up for unpaid CERS contributions, CERS will make a one-time payment of \$21,112 for calendar years 2021 and 2022.

If Employee works in excess of 37.5 hours in a work week, he shall receive compensatory leave time, on an hour for hour basis, for all hours worked in excess of 37.5 hours, in the same manner as provided for all other exempt employees in a policy making position, as set forth in the Employee Handbook. As with all other leave Employee accrues, unless for an unexpected or emergency purpose, he is to request advance leave approval for the use of compensatory leave. If Employee needs to be absent for an emergency or unexpected reason, Employee shall contact the CERS Chair as soon as practicable.

It is understood and agreed by Employee that the annual salary and benefits set forth above shall not be changed during the Contract Term (unless the Commonwealth of Kentucky amends the benefits received by its full-time employees).

5. Early Termination of Employment.

A. Termination for Cause.

CERS may immediately terminate Employee's employment with CERS at any time prior to the end of the Contract Term for "Cause" as defined below. The decision to terminate the Employee for Cause shall require a majority vote of the full CERS Board. The existence of Cause shall be determined in the sole and absolute discretion of the CERS Board.

(i) Definition and Determination of "Cause."

(a) As used herein, "Cause" shall include but not be limited to the following:

(I) Failure or neglect by Employee to satisfactorily perform the duties of the Employee's position.

(II) Failure of the Employee to obey lawful orders or to comply with lawful directives to him.

(III) Misconduct in connection with the performance of any of his duties, including but not limited to misappropriations of funds or property of CERS, misrepresentations to CERS or any regulatory authority, the violation of any laws, regulations or policies to which CERS is subject or the Employee's position is subject, violation of a provision of the Kentucky Executive Branch Code of Ethics or any policies of the County Employees Retirement System.

(IV) Commission by Employee of an act involving moral turpitude, dishonesty, theft, unethical business conduct, or conduct that impairs or injures the reputation of, or harms, CERS.

(V) The performance of any act as CEO outside the authority of the CEO.

(VI) Failure to cooperate fully in any investigation by CERS or by any regulatory or law enforcement authority that may properly investigate the CERS.

(VII) Disclosure of any confidential or proprietary information.

(VIII) Use or abuse of alcohol or drugs which interferes with the Employee's performance of his duties.

(ii) CERS shall provide Employee with written notice of termination for Cause citing the specific reasons for the termination. The Employee is non-classified and therefore Employee does not have the right to appeal any termination in any manner to a neutral decision maker. Consequently, Employee shall have no rights to the Grievance and Appeal Procedures set forth in the Commonwealth of Kentucky Employee Handbook and shall have no right of appeal to the Kentucky Personnel Board. The Employee's only rights of recourse are set forth in this Agreement.

If Employee's employment with CERS is terminated for Cause prior to the end of the Contract Term, Employee shall receive his contractual compensation, as set forth herein, through the date of termination, and Employee shall not be entitled to compensation for the remaining term of employment under this Agreement.

B. Termination Without Cause.

The Board may terminate Employee's employment with CERS prior to the end of the Contract Term at any time without Cause by providing written notice of the same. If Employee's employment with CERS is terminated prior to the end of the Contract Term for reasons other than Cause, the Employee shall be entitled to three (3) months of the contractual compensation or the amount of the contractual compensation remaining through the end of the Contract Term, whichever is less. This amount shall be payable to Employee in one lump-sum payment within thirty (30) calendar days of termination; provided, however, CERS shall not be required to make any such payment until, upon the request of and in form acceptable to CERS, Employee executes and delivers a full and complete release of CERS, CERS' Board, and CERS' and KPPA's employees, individually and in their official capacities, for any and all claims and potential claims of any nature, employment related or otherwise, whether arising by statute, contract or common law, that Employee could assert against CERS or KPPA, such release to be

in a form satisfactory to CERS and its counsel.

In the event of termination without Cause, the only obligation for compensation to Employee shall be as stated in this subparagraph, and Employee shall not be entitled to compensation for the remaining term of employment under this Agreement.

C. Voluntary Termination.

Employee shall have the right to terminate his employment with CERS voluntarily, at any time, by giving at least sixty (60) days' written notice to the Chair of the CERS Board. Under the terms of a voluntary termination, Employee is entitled to his contractual compensation, as set forth herein, through the date of resignation.

6. Miscellaneous.

A. Notices.

Any notice or other communication required or which may be given to any party hereunder shall be in writing and shall be delivered personally, or sent by certified, registered or express mail, postage prepaid, and shall be deemed given when so delivered personally, or if mailed, five days after the date of mailing to the respective party as follows:

To CERS: County Employees Retirement System
Attention: CERS Board Chair
1260 Louisville Road
Frankfort, KY 40601

To Employee: Edward Owens, III
[insert address]

B. Successors and Assigns.

This Agreement shall inure to the benefit of and be binding upon CERS and its successors and assigns, and Employee and his heirs and personal representatives, but Employee's rights hereunder are personal to him and shall not be subject to voluntary or involuntary alienation, assignment or transfer. For the purposes of this Agreement, the term "successors and assigns" shall mean any person, firm, corporation, or other entity which at any time, whether by change in law, merger, purchase or otherwise, shall manage or acquire all, or substantially all, of the assets or business of CERS.

C. Governing Law.

This Agreement shall be governed by, and construed in accordance with, the laws of the Commonwealth of Kentucky.

D. Entire Agreement.

This Agreement is the entire and exclusive agreement between Employee and CERS with regard to the subject matter hereof and supersedes all previous oral and written

agreements or understandings, and all contemporaneous oral and written negotiations, commitments, understandings and communications between the parties, relating to the subject matter of this Agreement. Either CERS or Employee may terminate the employment relationship at any time for any reason pursuant to the terms of this Agreement. Nothing in this Agreement is intended, nor should be construed, to limit or modify this mutual right. This Agreement was negotiated between the Employee and representatives of the CERS Board.

E. Waivers and Amendments.

This Agreement may be amended, modified, superseded, cancelled, renewed or extended, and the terms and conditions hereof may be waived, only by a written instrument signed by the Chair of the CERS Board of Trustees and Employee or, in the case of a waiver, by the party waiving compliance. No delay on the part of the CERS Board or Employee in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any waiver on the part of the CERS Board or Employee of any right, power or privilege hereunder, or any single or partial exercise of any right, power or privilege hereunder, preclude any other or further exercise thereof or the exercise of any other right, power or privilege hereunder. The rights and remedies herein provided are cumulative and are not exclusive of any rights or remedies that the CERS Board or Employee may otherwise have at law or in equity, except as expressly excluded herein.

F. Severability.

The invalidity or unenforceability of any particular provision of this Agreement shall not affect the other provisions hereof.

G. Counterparts.

This Agreement may be executed in two (2) or more Counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

H. Headings.

The headings in this Agreement are for reference purposes only and shall not in any way affect the meaning, construction or interpretation of this Agreement. Any rule of construction to the effect that ambiguities are to be resolved against the drafting party does not apply in interpreting this Agreement. The language in all parts of this Agreement is to be construed according to its fair meaning, and not strictly for or against any party hereto.

I. Jurisdiction.

CERS and Employee hereby irrevocably consent and submit to the jurisdiction of (A) the Circuit Court of Franklin County, Commonwealth of Kentucky or (B) the United States District Court sitting in and for the district which includes the City of Frankfort, Commonwealth of Kentucky in any dispute, action, claim or proceeding arising out of or relating to this Agreement, and irrevocably agree that any and all claims arising out of or relating to this Agreement shall be heard and determined in these Courts, without regard to the principle of conflicts of law.

J. Conflict-of-Interest Laws and Principles.

The Employee certifies that he is legally entitled to enter into this Agreement with CERS, and by holding and performing this Agreement, he will not be violating any Conflict of Interest Statute or Policy, or KRS 11A.040 of the Executive Branch Code of Ethics.

K. Survival.

This Agreement shall survive the termination of Employee's Employment with CERS.

II. Contract Components and Order of Precedence

CERS' appointment of the Employee as its Chief Executive Officer shall create a valid contract between the Parties consisting of the following:

1. Any written Agreement between the Parties.
2. Any Addenda to the Agreement.

In the event of any conflict between or among the provisions contained in the Agreement, the order of precedence shall be as enumerated above.

III. Pricing

1. Salary.

CERS shall pay Employee, as compensation for the performance of his obligations under this Agreement, a base annual salary of \$124,800 and benefits as determined and set forth herein. Employee understands that no variable or performance linked compensation may be paid during the term of this agreement. Any and all changes to this Agreement must be processed in the same manner as the original Agreement. The salary shall be paid in such periodic installments as KPPA and the Commonwealth of Kentucky pays their employees.

IV. Invoicing

1. Payment.

Payment is processed through the Commonwealth of Kentucky's KHRIS system. In order to assist CERS in determining its future need for a full-time or part-time CEO, Employee shall accurately track and record any and all time (hours and quarter of hour fractions thereof) spent performing any duty, however minor the time may seem (e.g. 5 minutes responding to an e-mail x 3 e-mails = 0.25 hours to be reported), relating to this Agreement. Any time worked up to 15 minutes shall be reported as 0.25 hours. Any time worked between 16 minutes and 30 minutes shall be reported as .50 hours. Any time worked between 31 minutes and 45 minutes, shall be reported as .75 hours. Any time worked between 46 minutes and 1 hour shall be reported as 1.0 hours.

2. Travel Expenses.

CERS shall reimburse the Employee for travel expenses in accordance with the state regulations established by the Kentucky Finance and Administration Cabinet and in compliance with Kentucky Revised Statutes and Kentucky Administrative Regulations upon receipt of approved documentation. Employee shall receive pre-authorization from the CERS Board Chair before travelling or attending any educational sessions (including virtual trainings) on behalf of CERS.

3. Other Expenses.

The Employee shall be reimbursed for no other expenses of any kind, unless and except as specifically authorized within the specifications of this Agreement or authorized in advance and in writing by the Chair of the CERS Board.

If reimbursement of such expenses is authorized, the reimbursement shall be only on an out-of-pocket basis. Request for payment of same shall be processed upon receipt from the Employee of valid, itemized statements submitted periodically for payment at the time any expenses are due. The Employee shall maintain supporting documents that substantiate every claim for expenses and shall furnish the same if requested by CERS.

[REMAINDER OF THE PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, CERS has caused this Agreement to be subscribed on its behalf by its duly authorized agent, and Employee has caused this Agreement to be subscribed on his behalf, as of the 16th day, July, 2021. By affixing signatures below, the parties verify that they are authorized to enter into this Agreement and that they accept and consent to be bound by the terms and conditions stated herein. In addition, the parties agree that (i) electronic approvals may serve as electronic signatures; and (ii) this Agreement may be executed in any number of counterparts, each of which when executed and delivered shall constitute a duplicate original, but all counterparts together shall constitute a single contract.

CERS:

Employee:

COUNTY EMPLOYEES RETIREMENT SYSTEM

EDWARD OWENS, III

By: _____
Name: Betty Pendergrass
Title: CERS Board Chair
Date: _____

By: _____
Name: Edward Owens, III
Title: CERS Chief Executive Officer
Date: _____

APPROVED AS TO FORM AND LEGALITY:
CERS General Counsel

By: _____
Name: Eric Branco
Title: CERS General Counsel, Johnson, Bowman, Branco, LLP
Date: _____

EXHIBIT A



Position Description Chief Executive Officer CERS Board of Trustees

SUMMARY OF DUTIES

Responsible for all functions relating to efficient operations of the CERS Board of Trustees, develops policies and procedures; collaborates with KPPA Administrative staff; serves as legislative liaison; and develops a strategic plan for governance of CERS.

CERS BOARD MISSION

Develop core mission statement and organize Board's strategic planning. Develops collaborative team strategy with KRS and KPPA Board and staff. Develop relationships with key stakeholders. Recommend policy revisions to improve costs, efficiency, and effectiveness. Recommend communications improvements for members and stakeholders. Furnishes written reports, as requested by the CERS Board.

INVESTMENT OVERSIGHT

Coordinate with KPPA CIO and investment staff to oversee CERS investment portfolio. Review monthly investment performance reporting and collaborate with CERS investment consultant(s) to monitor investment strategy. Ensure that materials and advisor communications are organized for CERS investment Committee and Board discussions of investments.

ACTUARIAL ANALYSIS

Facilitate Board's discussion of actuarial assumptions, annual valuations, studies, and presentations to PPOB. Coordinate with Actuary selected by KPPA to complete annual actuarial valuation and periodic experience studies. Monitor CERS compliance with statutory requirements for actuarial analysis and reporting. Facilitate Actuarial Analysis required for proposed legislation.

LEGISLATIVE LIAISON

Collaborate with stakeholders to develop legislative goals. Monitor legislation that impacts CERS. Develop reporting & communication to PPOB. Develop CERS Board biennial budget request for CERS approval. Coordinate with KPPA to integrate CERS Board budget with the KPPA Administrative biennial agency budget request. Respond to legislative inquiries for actuarial or financial data.

PROCUREMENT COORDINATION

Prepares, or oversees preparation of, Request for Proposals for various contractual services. Serves as the liaison with the CERS outside advisors. Represents CERS Board on task forces, committees, councils or meetings as assigned. Plans, develops, initiates and evaluates research projects. Analyze CERS cash flow reporting. Develop SAFR reporting strategy.

COMPLIANCE

Confer with General Counsel. Provide technical assistance, advice and interpretation of rules and regulations, policies/procedures to legislators, CERS Board & Committees for CERS plan management. Coordinates with KPPA Executive Director to implement administrative policies. Develops and implements policy/procedures to ensure compliance with state and federal laws, rules and regulations.

OTHER DUTIES

Performs other duties as assigned.

Position Description Chief Executive Officer CERS Board of Trustees (Continued)

QUALIFICATIONS AND EXPERIENCE:

The following list is not the minimum qualifications, but does outline the types of qualifications and experience that CERS Board will consider to evaluate candidates. Candidates should describe their specific expertise, training, or experience with any of these areas in their proposal.

- Bachelor's degree in the fields of Accounting, Public Administration, Finance, Law, or a field related to governmental management or governing board administration.
- Professional certifications in finance, accounting, pension, or investment management, such as a CPA, CMA, CFA, Accredited Fiduciary, Certified Retirement Administrator, or a related profession.
- Significant management experience with governing board organization, pension administration, financial services, legislative analysis, educational development, and/or governmental management operations.
- Understanding of the fiduciary role of Trustees and a CEO for management of a public employee retirement system.
- Knowledge of federal and Kentucky laws and regulations governing open meetings, open records, ethics, public pension systems, governmental accounting, auditing, finance, retirement benefits administration, actuarial science and institutional investing.
- Experience communicating with stakeholders, legislators, and the media in a governmental environment.



MEMORANDUM

TO: County Employees Retirement System Board of Trustees

From: William O'Mara, Chair
Finance Committee

Date: June 14, 2023

Subject: Summary of Finance Committee Quarterly Meeting

The County Employees Retirement System held a regularly scheduled quarterly meeting on May 30, 2023.

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 seventeen (17) 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.
- b. **New Agency Participation in CERS Non-HAZ** – The Finance Committee entertained a presentation from KPPA staff that the **Greenup County Public Library** agency sought to participate in CERS Non-Hazardous coverage. After hearing the presentation from KPPA staff regarding the Greenup County Public Library agency, the Finance Committee voted unanimously to approve the request.

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

***Board of Trustees Action Required**



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: CERS Finance Committee

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

Date: 5/30/2023

Subject: Hazardous Position Classification

AGENCIES ARE ASKING FOR HAZARDOUS DUTY COVERAGE FOR THE FOLLOWING POSITIONS:

<u>Agency</u>	<u>Position</u>	<u>Effective Date</u>
Oldham County Fiscal Court	Sheriff Captain	2/1/2023
Pulaski County Fiscal Court	Major (Police)	1/1/2023
Pulaski County Fiscal Court	School Resource Officer	1/1/2023
Pulaski County Fiscal Court	Sergeant School Resource Officer	7/1/2023
Pulaski County Fiscal Court	Captain (Police)	7/1/2023
Pulaski County Fiscal Court	Sergeant Detective	7/1/2023
City of Catlettsburg	Police Chief	5/1/2023
City of Catlettsburg	Assistant Police Chief	5/1/2023
City of Catlettsburg	Police Captain	5/1/2023
City of Catlettsburg	Police Lieutenant	5/1/2023
City of Catlettsburg	Police Sergeant	8/1/2021
Larue County Fiscal Court	Sheriff	1/1/2023
City of Georgetown	Engineer (Firefighter)	7/1/2023
Shelby County Fiscal Court	Class D Coordinator	12/1/2017
City of Paris	Police Lieutenant	11/1/2017
City of Highland Heights	Lieutenant Colonel	7/1/2023
City of Shepherdsville	Police Major	7/1/2023

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



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



MEMORANDUM

To: CERS Finance Committee

From: D’Juan Surratt

Date: 5/30/2023

Subject: Participation of CERS Agency

PARTICIPATION —NEW CERS AGENCY

There is one (1) new agency electing to participate with the County Employees Retirement System under non-hazardous coverage. Copies of minutes, resolution to participate and agency budget has been submitted. The contract for health insurance has been received for the agency electing to participate in CERS.

RECOMMENDATION: The Kentucky Public Pensions Authority recommends approval of the participation of the Greenup County Public Library, as they have satisfactorily completed their trial participation period.



Combining Statement of Fiduciary Net Position - Pension Funds

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

ASSETS	CERS		TOTAL		Percentage of Change	Note
	Nonhazardous	Hazardous	FY 2023	FY 2022		
CASH AND SHORT-TERM INVESTMENTS						
Cash Deposits	\$1,137	\$121	\$1,258	\$379	231.58%	1
Short-term Investments	229,862	96,223	326,086	800,889	(59.28)%	2
Total Cash and Short-term Investments	230,999	96,345	327,344	801,269	(59.15)%	
RECEIVABLES						
Accounts Receivable	66,223	22,912	89,135	76,577	16.40%	3
Accounts Receivable - Investments	54,853	19,565	74,419	108,591	(31.47)%	4
Total Receivables	121,077	42,477	163,554	185,167	(11.67)%	
INVESTMENTS, AT FAIR VALUE						
Core Fixed Income	813,224	302,469	1,115,693	1,296,824	(13.97)%	5
Public Equities	4,184,544	1,432,065	5,616,609	5,350,842	4.97%	
Private Equities	681,432	227,671	909,102	1,010,550	(10.04)%	6
Specialty Credit	1,739,345	597,784	2,337,129	2,265,382	3.17%	
Derivatives	986	360	1,346	(3,927)	(134.28)%	7
Real Return	262,663	87,071	349,734	330,286	5.89%	
Real Estate	519,206	165,278	684,484	624,817	9.55%	
Total Investments, at Fair Value	8,201,400	2,812,697	11,014,097	10,874,774	1.28%	
Securities Lending Collateral Invested	198,614	68,437	267,051	336,039	(20.53)%	8
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	(9,931)	(826)	(10,757)	(10,571)	1.76%	
Total Capital Assets	30	1	31	217	(85.71)%	
Total Assets	8,752,120	3,019,956	11,772,077	12,197,467	(3.49)%	
LIABILITIES						
Accounts Payable	4,855	803	5,658	4,195	34.87%	9
Investment Accounts Payable	53,931	19,182	73,113	199,820	(63.41)%	10
Securities Lending Collateral	198,614	68,437	267,051	336,039	(20.53)%	11
Total Liabilities	257,399	88,422	345,821	540,054	(35.97)%	
Total Fiduciary Net Position Restricted for Pension Benefits	\$8,494,721	\$2,931,534	\$11,426,255	\$11,657,413	(1.98)%	

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 increase in Accounts Receivable is due to the ERCON Pension/Insurance split correction.
- 4) The variance in Investment Accounts Receivable is due to pending trades.
- 5) The decrease in Core Fixed Income is due to a rebalance of the portfolio as a result of the revised IPS and a decline in market value of the assets.
- 4) The decline in private equity is a result of unrealized losses and distributions.
- 7) 5) The variance in Derivatives is a result of hedging and arbitration of risk within the portfolios.
- 8) The variance is a result of the demand of the Securities Lending Program.
- 9) The variance in Accounts Payable is due to an Increase in outstanding employer credit invoices.
- 10) The variance in Investment Accounts Payable is due to pending trades.
- 11) The variance is a result of the demand of the Securities Lending Program.



Combining Statement of Changes In Fiduciary Net Position - Pension Funds

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

	CERS		Total	Percentage of Change	Note	
	Nonhazardous	Hazardous	FY 2023			FY 2022
ADDITIONS						
Member Contributions	\$142,280	\$54,856	\$197,137	\$186,986	5.43%	
Employer Contributions	461,766	199,583	661,350	562,511	17.57%	1
Actuarially Accrued Liability Contributions (AALC)	-	-	-	-		
Pension Spiking Contributions	36	150	186	78	138.10%	2
Health Insurance Contributions (HB1)	(18)	(20)	(38)	-	(100.00)%	3
Employer Cessation Contributions	-	-	-	-		
Total Contributions	604,064	254,570	858,635	749,576	14.55%	
INVESTMENT INCOME						
From Investing Activities						
Net Appreciation (Depreciation) in FV of Investments						
	398,006	137,055	535,061	81,022	560.39%	4
Interest/Dividends	170,462	59,311	229,772	237,225	(3.14)%	
Total Investing Activities Income	568,468	196,366	764,833	318,247		
Less: Investment Expense	36,153	12,096	48,249	43,422	11.12%	5
Less: Performance Fees	1,295	206	1,501	65,626	(97.71)%	6
Net Income from Investing Activities	531,020	184,064	715,084	209,199		
From Securities Lending Activities						
Securities Lending Income	6,223	2,173	8,396	552		
Less: Securities Lending Borrower Rebates (Income)/Expense	5,441	1,900	7,340	(723)		
Less: Securities Lending Agent Fees	117	41	158	191		
Net Income from Securities Lending	665	233	898	1,084	(17.20)%	7
Net Investment Income	531,685	184,296	715,981	210,283	240.48%	
Total Additions	1,135,749	438,867	1,574,616	959,859	64.05%	
DEDUCTIONS						
Benefit Payments	667,835	238,504	906,339	870,163	4.16%	
Refunds	18,054	4,217	22,271	18,853	18.13%	8
Administrative Expenses	17,485	1,539	19,024	18,518	2.73%	
Total Deductions	703,374	244,260	947,634	907,535	4.42%	
Net Increase (Decrease) in Fiduciary Net Position Restricted for Pension Benefits						
	432,375	194,606	626,982	52,324		
Total Fiduciary Net Position Restricted for Pension Benefits						
Beginning of Period	8,062,346	2,736,928	10,799,273	11,605,088	(6.94)%	
End of Period	\$8,494,721	\$2,931,534	\$11,426,255	\$11,657,413	(1.98)%	

NOTE - Variance Explanation *Differences due to rounding*

- 1) Employer Contributions increased due to an increase in covered payroll as well as an increase in the Employer Contribution rates.
- 2) Pension Spiking contributions increased due to an increase in CERS Hazardous.
- 3) 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.
- 4) The increase in Net Appreciation in Fair Value of Investments is the result of unrealized gains in public equity.
- 5) The increase in Investment Expense is primarily the result of increased management fees and partnership expenses for Specialty Credit.
- 6) The decrease in performance fees is the result in less than favorable market conditions causing returns to drop, impacting those fees directly related to performance most notably Private Equity, Real Estate and Specialty Credit.
- 7) The variance is a result of the demand of the Securities Lending Program.
- 8) The increase in Refunds was due to an increase in refunds taken by CERS members who terminated employment and were not eligible for a retirement benefit.



Combining Statement of Fiduciary Net Position - Insurance Funds

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

ASSETS	CERS		TOTAL		Percentage of Change	Note
	Nonhazardous	Hazardous	FY 2023	FY 2022		
CASH AND SHORT-TERM INVESTMENTS						
Cash Deposits	\$531	\$10	\$541	\$126	330.28%	1
Short-term Investments	81,259	31,774	113,032	389,268	(70.96)%	2
Total Cash and Short-term Investments	81,790	31,784	113,574	389,393	(70.83)%	
RECEIVABLES						
Accounts Receivable	11,731	3,541	15,272	21,026	(27.37)%	3
Investment Accounts Receivable	23,823	10,297	34,121	46,576	(26.74)%	4
Total Receivables	35,554	13,838	49,393	67,602	(26.94)%	
INVESTMENTS, AT FAIR VALUE						
Core Fixed Income	322,291	145,930	468,221	537,716	(12.92)%	5
Public Equities	1,577,082	769,964	2,347,046	2,197,400	6.81%	
Private Equities	267,458	150,445	417,903	457,649	(8.68)%	
Specialty Credit	656,811	326,856	983,667	961,661	2.29%	
Derivatives	398	184	582	(1,555)	(137.43)%	6
Real Return	79,171	42,379	121,550	114,648	6.02%	
Real Estate	179,983	98,669	278,653	253,289	10.01%	7
Total Investments, at Fair Value	3,083,194	1,534,428	4,617,622	4,520,808	2.14%	
Securities Lending Collateral Invested	48,831	24,067	72,898	103,754	(29.74)%	8
Total Assets	3,249,369	1,604,117	4,853,486	5,081,558	(4.49)%	
LIABILITIES						
Accounts Payable	156	15	171	182	(6.32)%	
Investment Accounts Payable	19,692	8,972	28,663	87,518	(67.25)%	9
Securities Lending Collateral	48,831	24,067	72,898	103,754	(29.74)%	10
Total Liabilities	68,678	33,053	101,732	191,455	(46.86)%	
Total Fiduciary Net Position Restricted for OPEB	\$3,180,690	\$1,571,064	\$4,751,754	\$4,890,103	(2.83)%	

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 decrease in Core Fixed Income is due to a rebalance of the portfolio as a result of the revised IPS and a decline in market value of the assets due to the unfavorable market conditions.
- 6) The variance in Derivatives is a result of hedging and arbitration of risk within the portfolios.
- 7) The increase in Real Estate is due to additional funding of current managers.
- 8) The variance is a result of the demands of the Securities Lending Program.
- 9) The variance in Investment Accounts Payable is due to pending trades.
- 10) 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 nine month period ending March 31, 2023, with Comparative Totals for the nine month period ending March 31, 2022 (\$ In Thousands) (Unaudited)

	CERS		TOTAL		Percentage of Change	Note
	Nonhazardous	Hazardous	FY 2023	FY 2022		
ADDITIONS						
Employer Contributions	\$72,337	\$34,077	\$106,415	\$170,614	(37.63)%	1
Actuarially Accrued Liability Contributions (AALC)	-	-	-	-		
Medicare Drug Reimbursement	-	-	-	1	(100.00)%	2
Insurance Premiums	286	(370)	(84)	139	(160.32)%	3
Humana Gain Share Payment	5,951	914	6,864	10,171	(32.51)%	4
Retired Re-employed Healthcare	3,599	1,178	4,778	4,711	1.41%	
Health Insurance Contributions (HB1)	12,600	2,952	15,552	14,091	10.37%	5
Employer Cessation Contributions	-	-	-	-		
Total Contributions	94,774	38,751	133,525	199,727	(33.15)%	
INVESTMENT INCOME						
From Investing Activities						
Net Appreciation (Depreciation) in FV of Investments	151,759	72,760	224,519	63,794	251.95%	6
Interest/Dividends	67,411	33,016	100,428	94,352	6.44%	
Total Investing Activities Income	219,170	105,776	324,946	158,146		
Less: Investment Expense	13,400	7,041	20,442	17,225	18.67%	7
Less: Performance Fees	65	(62)	3	30,940	(99.99)%	8
Net Income from Investing Activities	205,705	98,796	304,501	109,980		
From Securities Lending Activities						
Securities Lending Income	1,949	938	2,887	217		
Less: Securities Lending Borrower Rebates (Income)/Expense	1,686	810	2,496	(257)		
Less: Securities Lending Agent Fees	40	19	59	71		
Net Income from Securities Lending	224	108	332	403	(17.54)%	9
Net Investment Income	205,929	98,904	304,833	110,383	176.16%	
Total Additions	300,703	137,656	438,358	310,110	41.36%	
DEDUCTIONS						
Healthcare Premiums Subsidies	98,092	70,049	168,141	165,765	1.43%	
Administrative Expenses	707	391	1,098	1,079	1.81%	
Self-Funded Healthcare Costs	2,437	129	2,566	2,754	(6.82)%	
Excise Tax Insurance	-	-	-	6	(100.00)%	10
Total Deductions	101,237	70,569	171,806	169,604	1.30%	
Net Increase (Decrease) in Fiduciary Net Position Restricted for OPEB	199,466	67,087	266,552	140,506		
Total Fiduciary Net Position Restricted for OPEB						
Beginning of Period	2,981,224	1,503,977	4,485,201	4,749,597	(5.57)%	
End of Period	\$3,180,690	\$1,571,064	\$4,751,754	\$4,890,103	(2.83)%	

NOTE - Variance Explanation Differences due to rounding

- 1) Employer Contributions decreased due to a decrease in the employer insurance rate as well as the CERS/CERH correction.
- 2) Medicare Drug Reimbursement payments fluctuate year to year based on claims received.
- 3) Health Insurance Premiums decreased due to refunds processed to hazardous retirees for premiums paid for dependents that should have been covered by KPPA.
- 4) The Humana Gain Share payment will fluctuate year to year based on claims paid.
- 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 unrealized gains in public equity.
- 7) The increase in Investment Expense is primarily the result of increased management fees and partnership expenses for Specialty Credit.
- 8) The decrease in performance fees is the result in less than favorable market conditions causing returns to drop, impacting those fees directly related to performance most notably Private Equity, Real Estate and Specialty Credit.
- 9) The variance is a result of the demand of the Securities Lending Program.
- 10) The Excise Tax will fluctuate based on the timing of the posting of the payment.

Pension Funds Contribution Report

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



County Employees Retirement System

	Nonhazardous		Hazardous	
	FY23	FY22	FY23	FY22
Member Contributions	\$142.3	\$135.4	\$54.9	\$51.6
Employer Contributions	461.8	405.4	199.7	157.1
Net Investment Income	133.7	95.2	47.2	34.1
Total Inflows	737.8	636.0	301.8	242.8
Benefit Payments/Refunds	685.9	656.4	242.7	232.6
Administrative Expenses	17.5	17.0	1.5	1.5
Total Outflows	703.4	673.4	244.2	234.1
NET CONTRIBUTIONS	34.4	(37.4)	57.6	8.7
Realized Gain/(Loss)	(25.1)	358.0	(10.3)	120.8
Unrealized Gain/(Loss)	423.1	(294.7)	147.3	(103.1)
Change in Net Position	432.4	25.9	194.6	26.4
Beginning of Period	8,062.3	8,670.7	2,736.9	2,934.4
End of Period	\$8,494.7	\$8,696.6	\$2,931.5	\$2,960.8

Differences due to rounding.

Net Contributions*	(\$99.3)	(\$132.6)	\$10.4	(\$25.4)
Cash Flow as % of Assets	(1.17)%	(1.52)%	0.35%	(0.86)%
Net Investment Income	\$133.7	\$95.2	\$47.2	\$34.1
Yield as % of Assets	1.57%	1.09%	1.61%	1.15%

**Net Contributions are less Net Investment Income.*

Insurance Fund Contribution Report

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

**County Employees Retirement System**

	Nonhazardous		Hazardous	
	FY23	FY22	FY23	FY22
Employer Contributions	\$72.3	\$118.3	\$34.1	\$52.3
Insurance Premiums	0.3	0.4	(0.4)	(0.3)
Humana Gain Share	5.9	8.9	0.9	1.3
Retired Reemployed Healthcare	3.6	3.5	1.2	1.2
Health Insurance Contributions	12.6	11.4	3.0	2.7
Net Investment Income	54.2	31.3	26.1	15.3
Total Inflows	148.9	173.8	64.9	72.5
Healthcare Premiums	100.5	102.0	70.2	66.5
Administrative Expenses	0.7	0.7	0.4	0.4
Total Outflows	101.2	102.7	70.6	66.9
NET Contributions	47.7	71.1	(5.7)	5.6
Realized Gain/(Loss)	(10.2)	126.9	(3.9)	67.8
Unrealized Gain/(Loss)	161.9	(88.6)	76.7	(42.3)
Change in Net Position	199.4	109.4	67.1	31.1
Beginning of Period	2,981.2	3,141.8	1,504.0	1,607.8
End of Period	\$3,180.6	\$3,251.2	\$1,571.1	\$1,638.9

Differences due to rounding.

Net Contributions*	\$(6.5)	\$39.9	\$(31.8)	\$(9.7)
Cash Flow as % of Assets	(0.20)%	1.23%	(2.03)%	(0.59)%
Net Investment Income	\$54.2	\$31.3	\$26.1	\$15.3
Yield as % of Assets	1.70%	0.96%	1.66%	0.94%

**Net Contributions are less Net Investment Income.*

KPPA ADMINISTRATIVE BUDGET FY 2022-2023						
BUDGET-TO-ACTUAL ANALYSIS						
FOR THE NINE MONTH PERIOD ENDING MACH 31, 2023, WITH COMPARATIVE TOTALS FOR THE NINE MONTH PERIOD ENDING MARCH 31, 2022						
Account Name	Budgeted	FY 2023 Expense	Remaining	Percent Remaining	FY 2022 Expense	Percent Difference
PERSONNEL						
Staff						
Salaries/Wages	\$17,000,000	\$12,181,863	\$4,818,137	28.34%	\$11,779,326	3.42%
Wages (Overtime)	285,000	161,741	123,259	43.25%	147,766	9.46%
Emp Paid Retirement	14,865,100	9,300,601	5,564,499	37.43%	9,404,829	(1.11)%
Emp Paid Health Ins	2,700,000	1,757,627	942,373	34.90%	1,876,528	(6.34)%
Emp Paid Sick Leave	115,000	213,594	(98,594)	(85.73)%	73,621	190.13%
Adoption Assistance Benefit	8,000	-	8,000	100.00%	-	0.00%
Workers Compensation	75,000	11,116	63,884	85.18%	75,163	(85.21)%
Unemployment	8,000	8,009	(9)	(0.11)%	-	100.00%
Other Personnel	1,273,448	896,204	377,244	29.62%	841,179	6.54%
Employee Training	18,000	8,041	9,959	55.33%	7,264	10.70%
Bonds	-	-	-	0.00%	81	(100.00)%
Staff Subtotal	36,347,548	24,538,797	11,808,751	32.49%	24,205,757	1.38%
LEGAL & AUDITING SERVICES						
Legal Hearing Officers	100,000	129,545	(29,545)	(29.55)%	52,541	146.56%
Legal (Stoll, Keenon)	150,000	51,775	98,225	65.48%	78,867	(34.35)%
Frost Brown (Tax Advisor)	80,000	113,219	(33,219)	(41.52)%	21,397	429.13%
Reinhart	25,000	276	24,724	98.90%	-	0.00%
Ice Miller	300,000	91,866	208,134	69.38%	34,775	164.17%
Johnson, Bowman, Branco LLC	150,000	76,195	73,805	49.20%	53,008	43.74%
Dentons Bingham & Greenebaum	150,000	34,136	115,864	77.24%	-	100.00%
Legal Expense	25,000	23	24,977	99.91%	92	(75.00)%
Auditing	200,000	100,479	99,521	49.76%	85,655	17.31%
Total Legal & Auditing Services	1,180,000	597,515	582,485	49.36%	326,335	83.10%
CONSULTING SERVICES						
Medical Reviewers	1,800,000	660,075	1,139,925	63.33%	1,037,696	(36.39)%
Escrow for Actuary Fees	-	(28,866)	28,866	0.00%	-	(100.00)%
Total Consulting Services	1,800,000	631,209	1,168,791	64.93%	1,037,696	(39.17)%
CONTRACTUAL SERVICES						
Miscellaneous Contracts	100,000	19,295	80,705	80.70%	16,179	19.26%
Human Resources Consulting	8,000	-	8,000	100.00%	5,794	(100.00)%
Actuarial Services	500,000	252,280	247,720	49.54%	362,868	(30.48)%
Facility Security Charges	80,000	28,003	51,997	65.00%	57,162	(51.01)%
Tuition Assistance	8,000	-	8,000	100.00%	-	0.00%
Contractual Subtotal	696,000	299,578	396,422	56.96%	442,003	(32.22)%
PERSONNEL SUBTOTAL	\$40,023,548	\$26,067,098	\$13,956,450	34.87%	\$26,041,669	0.10%
OPERATIONAL						
Natural Gas	35,000	28,796	6,204	17.73%	24,556	17.27%
Electric	125,000	85,321	39,679	31.74%	82,521	3.39%
Rent-Non State Building	56,000	37,982	18,018	32.18%	37,982	0.00%
Building Rental - PPW	1,000,000	721,573	278,427	27.84%	721,573	0.00%
Copier Rental	67,000	62,939	4,061	6.06%	60,765	3.58%
Rental Carpool	5,500	3,174	2,326	42.29%	2,911	9.03%
Vehicle/Equip. Maint.	1,000	-	1,000	100.00%	249	(100.00)%
Postage	420,000	293,304	126,696	30.17%	321,650	(8.81)%
Freight	200	41	159	79.28%	155	(73.55)%
Printing (State)	12,000	995	11,005	91.71%	4,548	(78.12)%
Printing (non-state)	105,000	50,640	54,360	51.77%	57,405	(11.78)%
Insurance	12,000	5,572	6,428	53.57%	5,422	2.77%
Garbage Collection	6,000	4,512	1,488	24.79%	4,412	2.27%
Conference Expense	35,000	10,868	24,132	68.95%	8,657	25.54%
Conference Exp. Investment	-	64	(64)	0.00%	-	100.00%
Conference Exp. Audit	2,000	714	1,286	64.30%	-	100.00%
MARS Usage	50,000	20,325	29,675	59.35%	20,325	0.00%

KPPA ADMINISTRATIVE BUDGET 2022-23						
BUDGET-TO-ACTUAL ANALYSIS						
FOR THE NINE MONTH PERIOD ENDING MARCH 31, 2023, WITH COMPARATIVE TOTALS FOR THE NINE MONTH PERIOD ENDING MARCH 31, 2022						
Account Name	Budgeted	FY 2023 Expense	Remaining	Percent Remaining	FY 2022 Expense	Percent Difference
COVID-19 Expenses	12,000	2,421	9,579	79.83%	9,733	(75.13)%
Office Supplies	75,000	71,446	3,554	4.74%	67,451	5.92%
Furniture & Office Equipment	20,000	204	19,796	98.98%	300	100.00%
Travel (In-State)	15,000	10,264	4,736	31.57%	4,792	114.19%
Travel (In-State) Investment	1,000	41	959	95.94%	39	0.00%
Travel (In-State) Audit	500	-	500	100.00%	-	0.00%
Travel (Out of State)	75,000	21,542	53,458	71.28%	382	5,539.27%
Travel (Out of State) Investment	100,000	10,578	89,422	89.42%	-	100.00%
Travel (Out of State) Audit	500	1,077	(577)	(115.40)%	-	100.00%
Dues & Subscriptions	70,000	49,607	20,393	29.13%	36,719	35.10%
Dues & Subscriptions Invest	17,000	11,542	5,458	32.11%	12,228	(5.61)%
Dues & Subscriptions Audit	1,500	400	1,100	73.33%	265	50.94%
Miscellaneous	70,000	43,344	26,656	38.08%	32,591	32.99%
Miscellaneous Investment	-	-	-	0.00%	-	0.00%
Miscellaneous Audit	200	-	200	100.00%	-	0.00%
COT Charges	25,000	14,435	10,565	42.26%	15,760	(8.41)%
Telephone - Wireless	7,000	5,143	1,857	26.53%	4,063	26.58%
Telephone - Other	150,000	74,975	75,025	50.02%	91,667	(18.21)%
Telephone - Video Conference	-	4,836	(4,836)	0.00%	-	100.00%
Computer Equip./Software	3,500,000	1,609,836	1,890,164	54.00%	1,788,674	(10.00)%
Comp. Equip./Software Invest	-	-	-	0.00%	-	0.00%
Comp. Equip./Software Audit	3,000	24,407	(21,407)	(713.56)%	-	100.00%
OPERATIONAL SUBTOTAL	\$6,074,400	\$3,282,918	\$2,791,482	45.95%	\$3,419,455	(3.99)%
SUB-TOTAL	\$46,097,948	\$29,350,017	\$16,747,931	36.33%	\$29,461,124	(0.38)%
Reserve	4,086,552	-	4,086,552	100.00%	-	0.00%
TOTAL	\$50,184,500	\$29,350,017	\$20,834,483	41.52%	\$29,461,125	(0.38)%

Differences due to rounding

Plan	Budgeted	FY 2023 Expense	% of Total KPPA FY 2023 Expense
CERS Nonhazardous	\$28,896,235	\$16,899,740	57.58%
CERS Hazardous	2,559,410	1,496,851	5.10%
KERS Nonhazardous	16,543,320	9,675,233	32.965%
KERS Hazardous	1,824,207	1,066,873	3.635%
SPRS	361,328	211,320	0.720%
TOTAL	\$50,184,500	\$29,350,017	

**JP MORGAN CHASE CREDIT EARNINGS AND FEES
FOR THE NINE MONTH PERIOD ENDING MARCH 31, 2023**

	Earnings	Fees	Net Earnings
June-22	\$5,289	\$(5,906)	\$(616)
July-22	8,921	(5,814)	3,107
August-22	17,621	(6,185)	11,436
September-22	17,026	(6,033)	10,993
October-22	24,574	(6,031)	18,543
November-22	59,589	(5,070)	54,519
December-22	10,556	(6,884)	3,673
January-23	10,331	(6,550)	3,781
February-23	1,707	(6,524)	(4,817)
March-23	2,825	(6,510)	(3,685)
Total	\$143,576	\$(41,922)	\$101,654

**JP MORGAN CHASE HARD INTEREST EARNED
FOR THE NINE MONTH PERIOD ENDING MARCH 31, 2023**

	Clearing Account	CERS	KERS	Total
February-23	\$20,504	\$5,149	\$3,415	\$29,068
March-23	15,428	6,688	4,505	\$26,621
Total	\$35,931	\$11,837	\$7,920	\$55,689



CERS Outstanding Invoices by Type and Employer

Invoice Type	3/31/2023	12/31/2022	Change H/(L)
Averaging Refund to Employer	\$(373,896)	\$(255,232)	46%
Employer Free Military and Decompression Service	70,027	70,027	0%
Member Pension Spiking Refund	(16,723)	(18,164)	(8)%
Monthly Reporting Invoice	193,094	12,377	1,460%
Penalty – Monthly Reporting	206,615	204,302	1%
Reinstatement	171,358	171,358	0%
Other Invoices**	9,702	6,407	51%
Total	260,176	191,075	
Health Insurance Reimbursement	442,801	532,665	(17)%
Omitted Employer	1,298,207	1,261,512	3%
Employer Pension Spiking*	1,350,819	1,373,411	(2)%
Standard Sick Leave	215,408	288,320	(25)%
Total	3,307,235	3,455,908	(4)%
Grand Total	\$3,567,412	\$3,646,983	(2)%

*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)	3/31/2023	12/31/2022	Change H/(L)
Kentucky River Regional Jail	\$893,893	\$893,893	0%
City of Covington	397,775	393,864	1%
Kenton County Airport Board	375,004	369,818	1%
TARC Transit Authority of River City	271,869	197,460	38%
City of Fort Thomas	250,942	246,316	2%
Livingston County Fiscal Court	228,567	228,567	0%
Henry County Fiscal Court	167,970	207,652	(19)%
City of Jeffersontown	111,022	108,966	2%
Bullitt County Fiscal Court	101,000	100,809	0%
Judicial Dept Admin Office of the Courts	\$97,631	\$91,643	7%

	Total Unpaid Balance	Invoice Count
CERS	\$2,189,997	1,510
CERH	1,377,414	181
Grand Total:	\$3,567,412	1,691

CERS Board Meeting - Finance Committee Report



County Employees Retirement System
Penalty Invoices Report
From: 1/1/2023 To: 3/31/2023

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	\$-	\$-	2/6/2023	5/20/2017	CANC	County Attorneys	New employer reporting official
1,000	-	-	2/24/2023	11/9/2022	CANC	Special Districts & Boards	KPPA system issue
75,190	-	-	1/5/2023	1/20/2023	CANC	Urban Government Agencies	Employer file issues
1,000	-	-	3/10/2023	3/31/2023	CANC	Cities	New employer reporting official
1,000	-	-	3/10/2023	3/31/2023	CANC	Cities	New employer reporting official
Total	\$79,190	\$-					
\$1,000	\$1,000	\$-	1/9/2023	2/8/2023	CRTD	County Attorneys	
2,751	2,751	-	1/24/2023	2/23/2023	CRTD	Boards of Education	
1,000	1,000	-	2/9/2023	3/11/2023	CRTD	Housing Authorities	
1,000	1,000	-	2/13/2023	3/15/2023	CRTD	Cities	
1,000	1,000	-	2/16/2023	3/18/2023	CRTD	County Attorneys	
1,000	1,000	-	2/16/2023	3/18/2023	CRTD	County Attorneys	
1,000	1,000	-	2/16/2023	3/18/2023	CRTD	County Attorneys	
1,000	1,000	-	2/16/2023	3/18/2023	CRTD	County Attorneys	
1,000	1,000	-	2/17/2023	3/19/2023	CRTD	Cities	
1,000	1,000	-	2/17/2023	3/19/2023	CRTD	Cities	
1,000	1,000	-	3/6/2023	4/5/2023	CRTD	Conservation Districts	
1,000	1,000	-	3/8/2023	4/7/2023	CRTD	Housing Authorities	
113,377	113,377	-	3/20/2023	4/19/2023	CRTD	Urban Government Agencies	
1,000	1,000	-	3/20/2023	4/19/2023	CRTD	County Attorneys	
1,000	1,000	-	3/20/2023	4/19/2023	CRTD	Fiscal Courts	
1,000	1,000	-	3/21/2023	4/20/2023	CRTD	Special Districts & Boards	
Total	\$130,129	\$130,129					
\$1,395	\$-	\$-	1/30/2023	5/20/2022	PAID	Cities	
1,000	-	-	2/13/2023	10/19/2022	PAID	Cities	
1,000	-	-	1/24/2023	10/22/2022	PAID	Special Districts & Boards	
1,000	-	-	3/1/2023	1/4/2023	PAID	Fiscal Courts	
1,000	-	-	1/10/2023	1/5/2023	PAID	Housing Authorities	
1,000	-	-	1/11/2023	1/18/2023	PAID	Cities	
1,000	-	-	1/11/2023	1/18/2023	PAID	Fiscal Courts	
2,439	-	-	2/13/2023	1/21/2023	PAID	Boards of Education	
1,000	-	-	3/1/2023	1/26/2023	PAID	Fiscal Courts	
1,000	-	-	1/26/2023	2/2/2023	PAID	Cities	



**County Employees Retirement System
Penalty Invoices Report
From: 1/1/2023 To: 3/31/2023
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	-	-	1/10/2023	2/4/2023	PAID	Fiscal Courts	
1,000	-	-	2/9/2023	2/9/2023	PAID	Housing Authorities	
2,108	-	-	2/9/2023	2/17/2023	PAID	Airport Boards	
1,000	-	-	3/9/2023	2/22/2023	PAID	County Attorneys	
1,000	-	-	2/20/2023	2/25/2023	PAID	Cities	
1,000	-	-	2/23/2023	3/18/2023	PAID	Fiscal Courts	
1,000	-	-	3/15/2023	3/19/2023	PAID	Utility Boards	
81,723	-	-	3/17/2023	3/19/2023	PAID	Urban Government Agencies	
Total	\$101,664	\$-					

Notes:
Invoice Status:
 CANC - Cancelled
 PAID - Paid



KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director

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To: County Employees Retirement System (CERS) Board of Trustees
 From: Michael Lamb, KPPA, CFO *M. Lamb*
 Date: June 14, 2023
 Subject: FY 2024-Allocation of Administrative Expenses-CERS System and Plans

PURPOSE:

The purpose of this memo is to ask the CERS Board of Trustees to approve the FY2024 allocation of the CERS hybrid % between the CERS Nonhazardous and the CERS Hazardous plans, based on membership (as was done in the past).

The budget work group has determined that for FY 2024 the Hybrid % for administrative expenses for CERS and KRS is as follows:

CERS 64.34% and KRS 35.66%.

(These will be presented to the KPPA Board on June 28, 2023, for final approval).

Based on membership, the recommended allocation of the FY 2024 CERS hybrid % (of 64.34%) among the applicable plans are:

CERS	Membership as of 6/30/2022	% of Membership	% of Admin Expenses
CERS Nonhazardous	247,037	91.91%	59.13%
CERS Hazardous	21,751	8.09%	5.21%
CERS Total	268,788	100.00%	64.34%

For informational Purposes the breakdown for FY 2022 and FY 2023 was:

CERS	Membership as of 6/30/2021	% of Membership	% of Admin Expenses
CERS Nonhazardous	239,626	91.87%	57.58%
CERS Hazardous	21,195	8.13%	5.10%
CERS Total	260,821	100.00%	62.68%

BACKGROUND:

In accordance with KRS 61.505 11(a), the Kentucky Public Pensions Authority (KPPA) Board has the responsibility of determining how to prorate, assign or allocate to County Employees Retirement System and to Kentucky Retirement Systems all expenses incurred by or on behalf of the KPPA.

The KPPA Board approves the Hybrid % for the CERS and the KRS, but leaves the allocation among the individual plans of each system up to the Board of each system.

Attached are four prior memos for background and information:

March 24, 2022 – “Allocation of Administrative Expenses” – This memo provides the background, methodology, and allocation method (Hybrid) approved by the KPPA Board of Trustees.

April 28, 2022 – “Allocation of Administrative Expenses FY 2022 and FY 2023 – Update” - This Memo provides the approved Hybrid % for FY 2022 and FY 2023 as follows: CERS 62.68% and KRS 37.32%

June 16, 2022 - “Allocation of Administrative Expenses FY 2022 and FY 2023 – Update” – This Memo shows that both the KRS and CERS Board of Trustees concluded to allocate their systems Hybrid % Allocation to their specific plans based on membership.

March 14, 2023 - “Budget Planning” – This memo created the work group for the FY 2024 budget process, that has determined the Hybrid % for FY 2024 to be CERS 64.34% and KRS 35.66%.

KPPA Meeting - Administrative Expense Allocation



KENTUCKY PUBLIC PENSIONS AUTHORITY

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To: Kentucky Public Pensions Authority Board

From: Administrative Expense Allocation Work Group

William O'Mara, CERS Trustee and CERS Finance Committee Chair

C. Prewitt Lane, KRS Trustee and KRS Investment Committee Chair

David L. Eager, KPPA Executive Director

Ed Owens III, CERS CEO

John Chilton, KRS CEO

Date: March 24, 2022

Subject: Allocation of Administrative Expenses

In accordance with KRS 61.505 11(a), the Kentucky Public Pensions Authority (KPPA) Board has the responsibility of determining how to prorate, assign or allocate to County Employees Retirement System and to Kentucky Retirement Systems all expenses incurred by or on behalf of the KPPA.

KPPA administrative expenses are reported quarterly to the CERS, KRS and KPPA boards. The report includes any plan-specific legal expenses that are allocated exclusively to one or more of the plans via end-of-fiscal year adjustments. The issue for the Board's consideration is which methodology to utilize to allocate the bulk of administrative expenses.

The KPPA Board assigned the task of researching allocation options to a work group of trustees and staff leadership who have been meeting since October 2021. The group was tasked with bringing an allocation recommendation back to the KPPA Board. The following is a summary of the research that was considered and the recommendation.

Current Allocation Calculation

Under the previous governance structure, the former Kentucky Retirement Systems Board of Trustees allocated administrative expenses based on the number of members (retired, active and inactive) in each of the pension funds administered by that Board. This was the basis of the calculation for many years.

KPPA Meeting - Administrative Expense Allocation

Direct expenses were allocated to the specific plan in which the cost occurred and were not reflected in the administrative budget but were tracked within the trust expenditures. Examples of direct expenses are benefit payments, insurance premium costs, and legal case expenses specific to investments. Investment fees are not tracked in administrative expenses and are allocated based on asset allocation. If it is an investment administrative expense, like a research/news resource, the allocation is based on the overall asset allocation of the entire portfolio. Manager fees are based on the specific manager's account asset allocation.

The reasoning behind this methodology is that the number of members who require services would be a significant factor in determining the number of counselors required, brochures ordered, benefits calculated, postage, server storage for data and images, etc. As membership increases, the costs of providing services to the membership also increases. This is especially true for staffing which is a significant portion of the administrative budget. In fiscal year 2021, salaries and benefits accounted for 82% of the actual administrative expenditures (\$29,308,549 of \$35,750,705).

Potential Allocation Methodologies

While exploring possible allocation methodologies, the work group strived to be both equitable and simple – equitable to all plans and yet simple enough to maintain transparency and auditability and to limit manual entries.

Membership

As has been done historically, this allocation methodology uses the premise that more membership necessitates more KPPA staff, and staff is a critical component of administrative expenses. Conversely, not all staffing types are membership dependent. For example, not all administrative expenses increase or decrease with membership changes. For example, the actuary has stated that preparing the valuation costs about the same for KERS as it does for CERS. The systems are so large that the difference in membership is not a factor in costs.

Additionally, the work group decided there are different types of staffing positions and that while some positions increased with membership increases not all did. Legal staff, for example, is more dependent on the number of court cases, legislative changes and system complexity than with membership count.

Assets Under Management

Staff explored basing the allocation on percentage of assets under management (AUM) as of June 30 of the previous fiscal year. Important to note is that investment expenses are not tracked within administrative expenses. Neither are assets and liabilities connected to non-investment staffing and compensation levels which can be a driver of administrative costs. However, the work group did consider that AUM is a driver for investment staff compensation.

Even Division between CERS and KRS

Another option explored is a 50/50 split between the CERS and KRS funds. The primary reasoning on this option is that not all services are membership dependent. The example provided earlier is the actuary. Additionally, while staffing constitutes a major portion of the administrative budget, not all staffing positions increase when membership increases. Executive leadership, for example, is based on defined roles and not on membership. Information Technology security and development is not exclusively driven by the number of members but also by the complexity of the plan rules.

Hybrid

A final option considered by staff is a hybrid of membership count, sharing expenses evenly and AUM. The premise for this is that while there is merit to each allocation methodology. None is a perfect solution on its own.

With the overarching goals of being equitable to all plans and yet simple enough to maintain transparency and auditability and to limit manual errors, the work group decided a hybrid approach may be best. However, for simplicity one percentage to use on all expenditures is critical to reduce human error. Therefore, the decision was made to use a hybrid approach to calculate one percentage for each Board for all expenses.

The administrative budget was split into large categories. Large categories were defined as the usual budget categories and any line items that are \$100,000 or more. Each category was assigned the allocation method that best fit that category. Multiplying the budget for that category by the methodology percentage, an overall total budgeted dollar amount by system was calculated. Using the total dollar amount by system and the total fiscal year budget a single hybrid percentage was calculated for each Board.

KPPA Meeting - Administrative Expense Allocation

Budget Category	Allocation Method	Budgeted FY22	CERS	KRS
Membership as of 6/30/21		100.00%	65.04%	34.96%
50/50		100.00%	50.00%	50.00%
AUM (pension only) as of 6/30/21		100.00%	73.04%	26.96%
PERSONNEL				
KPPA Staff	Mem	\$29,665,107	\$19,294,186	\$10,370,921
KPPA Exec	50/50	\$1,300,000	\$650,000	\$650,000
KPPA Legal	50/50	\$2,500,000	\$1,250,000	\$1,250,000
KPPA Investments	AUM	\$2,100,000	\$1,533,840	\$566,160
Legal contracts	50/50	\$725,000	\$362,500	\$362,500
Auditing	50/50	\$118,350	\$59,175	\$59,175
Actuarial Services	50/50	\$700,000	\$350,000	\$350,000
Medical Examiners/Hearing Off.	Mem	\$1,284,600	\$835,504	\$449,096
Other Services (facility security, HR consults, misc contracts)	50/50	\$153,350	\$76,675	\$76,675
OPERATIONAL				
Building Rental (Frkt)	Mem	\$1,100,000	\$715,440	\$384,560
Operations (IT,Lville rent, travel, dues, office supplies)	Mem	\$4,294,137	\$2,792,907	\$1,501,230
Contingency	50/50	\$4,064,956	\$2,032,478	\$2,032,478
TOTALS		\$48,005,500	\$29,952,704	\$18,052,796
Hybrid Percentage			62.39%	37.61%

Comparison of Methodologies

FY 2022 Budget is \$48,000,500

	Membership		AUM		Even Split		Hybrid	
CERS	65.04%	\$ 31,222,777	73.04%	\$ 35,063,217	50.00%	\$ 24,002,750	62.39%	\$ 29,950,631
KRS	34.96%	\$ 16,782,723	26.96%	\$ 12,942,283	50.00%	\$ 24,002,750	37.61%	\$ 18,054,869
TOTAL	100.00%	\$ 48,005,500	100.00%	\$ 48,005,500	100.00%	\$ 48,005,500	100.00%	\$ 48,005,500

KPPA Meeting - Administrative Expense Allocation

Recommendation:

The work group recommends the following:

1. A combination of all of these methodologies be used to define a fiscal percentage for CERS and for KRS
CERS 62.39%
KRS 37.61%
2. Allow KRS and CERS Boards to determine the split for the plans under their administrative purview
3. Reevaluate the CERS/KRS split prior to the beginning of every fiscal year
4. Make the effective date of the recommended CERS/KRS percentages July 1, 2021, and instruct KPPA accounting staff to make correcting entries to implement that date
5. Since the evaluation process was just completed, use the FY 2022 hybrid percentage for FY 2023

KPPA Meeting - Administrative Expense Allocation Update



KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director
 1260 Louisville Road · Frankfort, Kentucky 40601
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To: Kentucky Public Pensions Authority Board
 From: Rebecca H Adkins, Deputy Executive Director
 Date: April 28, 2022
 Subject: Allocation of Administrative Expenses FY 2022 and FY 2023 - UPDATE

At the KPPA quarterly meeting on March 24, 2022, the KPPA Board elected to adopt the recommendations presented by the Cost Allocation Work Group with one change. They asked that staff of Legal Advocacy be moved from a 50/50 allocation to a membership allocation due to the majority of this group's workload being attributable to disability cases. The remainder of Legal would stay at the 50/50 allocation.

KPPA agreed that the hybrid allocation would be used for FY22 and for FY23 and would be reevaluated every following year.

Additionally, the KPPA Board decided that the CERS Board and the KRS Board should decide how to allocate the administrative expenses assigned to CERS or KRS among the plans that are controlled by the Boards. CERS met on April 20, 2022, and determined to base the CERS nonhazardous and hazardous split on membership.

The hybrid percentages presented on March 24:

KRS 37.61%
 CERS 62.39%

The updated hybrid percentages after changing the allocation for legal advocacy staff:

KRS 37.32%
 CERS 62.68%

	Membership as of 6/30/21	Percentage of Membership	Percentage of Admin Expenses
CERS Nonhazardous	239,626	91.87%	57.58%
CERS Hazardous	21,195	8.13%	5.10%

This memo is for informational purposes.

KPPA Meeting - Administrative Expense Allocation Update

Presented on March 24:

Budget Category	Allocation Method	Budgeted FY22	CERS	KRS
Membership as of 6/30/21		100.00%	65.04%	34.96%
50/50		100.00%	50.00%	50.00%
AUM (pension only) as of 6/30/21		100.00%	73.04%	26.96%
PERSONNEL				
KPPA Staff	Mem	\$29,665,107	\$19,294,186	\$10,370,921
KPPA Exec	50/50	\$1,300,000	\$650,000	\$650,000
KPPA Legal	50/50	\$2,500,000	\$1,250,000	\$1,250,000
KPPA Investments	AUM	\$2,100,000	\$1,533,840	\$566,160
Legal contracts	50/50	\$725,000	\$362,500	\$362,500
Auditing	50/50	\$118,350	\$59,175	\$59,175
Actuarial Services	50/50	\$700,000	\$350,000	\$350,000
Medical Examiners/Hearing Off.	Mem	\$1,284,600	\$835,504	\$449,096
Other Services (facility security, HR consults, misc contracts)	50/50	\$153,350	\$76,675	\$76,675
OPERATIONAL				
Building Rental (Frkt)	Mem	\$1,100,000	\$715,440	\$384,560
Operations (IT,Lville rent, travel, dues, office supplies)	Mem	\$4,294,137	\$2,792,907	\$1,501,230
Contingency	50/50	\$4,064,956	\$2,032,478	\$2,032,478
TOTALS		\$48,005,500	\$29,952,704	\$18,052,796
Hybrid Percentage			62.39%	37.61%

KPPA Meeting - Administrative Expense Allocation Update

Updated hybrid percentages:

Budget Category	Allocation Method	Budgeted FY22	CERS	KRS
Membership as of 6/30/21		100.00%	65.04%	34.96%
50/50		100.00%	50.00%	50.00%
AUM (pension only) as of 6/30/21		100.00%	73.04%	26.96%
PERSONNEL				
KPPA Staff	Mem	\$29,665,107	\$19,294,186	\$10,370,921
KPPA Exec	50/50	\$1,300,000	\$650,000	\$650,000
KPPA Legal	50/50	\$1,600,000	\$800,000	\$800,000
KPPA Legal Advocacy	Mem	\$900,000	\$585,360	\$314,640
KPPA Investments	AUM	\$2,100,000	\$1,533,840	\$566,160
Legal contracts	50/50	\$725,000	\$362,500	\$362,500
Auditing	50/50	\$118,350	\$59,175	\$59,175
Actuarial Services	50/50	\$700,000	\$350,000	\$350,000
Medical Examiners/Hearing Off.	Mem	\$1,284,600	\$835,504	\$449,096
Other Services (facility security, HR consults, misc contracts)	50/50	\$153,350	\$76,675	\$76,675
OPERATIONAL				
Building Rental (Frkt)	Mem	\$1,100,000	\$715,440	\$384,560
Operations (IT,Lville rent, travel, dues, office supplies)	Mem	\$4,294,137	\$2,792,907	\$1,501,230
Contingency	50/50	\$4,064,956	\$2,032,478	\$2,032,478
TOTALS		\$48,005,500	\$30,088,064	\$17,917,436
Hybrid Percentage			62.68%	37.32%

KPPA Meeting - Administrative Expense Allocation Update

KPPA Personnel Executive	KPPA Personnel Legal	KPPA Personnel Legal Advocacy	KPPA Personnel Investments	CERS/KRS Personnel
50/50	50/50	MEM	AUM	MEM
David Eager	Andrea Freadreacea	Carrie Slayton	Anthony Chiu	Ed Owens
Rebecca Adkins	Barry Seidl	Kathy Rupinen	Carol Johnson	John Chilton
Michael Board	Beth Camic	Kevin Edelman	Jared Crawford	
Sherry Rankin	Carrie Bass	Laura Stevens	Joe Gilbert	
Ashley Gabbard	Crystal Smith	Leigh Ann Davis	Steve Willer	
	Jenny Jones	Nathan Goodrich	Steven Herbert	
	Jessica Beaubien	Paralegal		
	Jillian Hall	Staff Attorney III		
	Kristi Wackowski	Staff Attorney Supervisor		
	Legal Secretary			
	Lisa Perry			
	Staff Attorney III			
	Tracy Chambers			
	Vicki Hale			

KPPA Meeting - Quarterly Financial Statements



KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director
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To: Kentucky Public Pensions Authority Board
 From: Rebecca H Adkins, Deputy Executive Director
 Date: June 16, 2022
 Subject: Allocation of Administrative Expenses FY 2022 and FY 2023 - UPDATE

At the KPPA quarterly meeting on March 24, 2022, the KPPA Board elected to adopt the recommendations presented by the Cost Allocation Work Group. KPPA agreed that the hybrid allocation would be used for FY22 and FY23 and would be reevaluated each following year.

Additionally, the KPPA Board decided that the CERS Board and the KRS Board should decide how to allocate the administrative expenses assigned to CERS or KRS among the plans that are controlled by the Boards. CERS met on April 20, 2022, and determined to base the CERS Nonhazardous and CERS Hazardous split on membership. KRS met on June 6, 2022, and determined to base the SPRS, KERS Nonhazardous and KERS Hazardous split on membership.

The hybrid percentages approved by KPPA on March 24:
 KRS 37.32%
 CERS 62.68%

Plan-specific percentages after decisions by the CERS Board and the KRS Board:

	Membership as of 6/30/21	Percentage of Membership	Percentage of Admin Expenses
CERS Nonhazardous	239,626	91.87%	57.58%
CERS Hazardous	21,195	8.13%	5.10%
CERS Total	260,821	100%	62.68%
KERS Nonhazardous	123,857	88.33%	32.965%
KERS Hazardous	13,661	9.74%	3.635%
SPRS	2,704	1.93%	0.720%
KRS Total	140,222	100%	37.320%
Total	401,043		100%

Recommendation:
 This memo is for informational purposes.

KPPA Board Meeting - Budget Planning



KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director

1260 Louisville Road · Frankfort, Kentucky 40601

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To: Kentucky Public Pensions Authority Board Members
From: Rebecca H Adkins, Deputy Executive Director
Mike Lamb, CFO
Date: March 14, 2023
Subject: Budget Planning

There are several items related to administrative and investment budgets that require decisions from the KPPA Board prior to June 30, 2023.

- **FY2024 Administrative and Investment Budgets**
On March 24, 2022, and June 6, 2022, the KPPA Board agreed upon a hybrid percentage methodology to determine how to allocate administrative costs to the CERS and the KRS plans. At that time, the Board agreed to reevaluate the hybrid percentage annually.
- **FY2023 Separation Expenses**
KRS 61.505 11(a)(2) requires the KPPA Board to determine which costs are "attributable solely to establishing a separate County Employees Retirement System board and the Kentucky Public Pensions Authority".
- **Biennial Budget Request for 2024–2026 (FY2025 and FY2026)**
KRS 61.505 11(b) requires that the KPPA Board "shall approve the biennial budget unit request prior to its submission by the Authority."
- **Budget Policy**
The KPPA Board may want to create a Budget Policy.

In 2021, the Board defined a work group of one CERS trustee and one KRS trustee to work with staff and the KRS and CERS CEOs on budget items similar to items listed above for FY2023.

Recommendation for consideration:

Define a work group to make recommendations to the full KPPA Board regarding the budget planning items described in the memo



KENTUCKY PUBLIC PENSIONS AUTHORITY

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To: David Eager, KPPA Executive Director
Rebecca Adkins, Deputy Executive Director
Erin Surratt, Executive Director of Benefits
Steve Willer, Executive Director, and Chief Investment Officer
Mike Lamb, Chief Financial Officer
John Chilton, KRS Chief Executive Officer
Ed Owens, CERS Chief Executive Officer
KRS Board of Trustees
CERS Board of Trustees

From: Michael Board, Executive Director, Office of Legal Services

Date: April 4, 2023

Re: Implementation of 23 RS HB 587

House Bill 587 was introduced in the House of Representatives on February 22, 2023, passed both the House and Senate, and was signed by the Governor on March 20, 2023. Per Section 55 of the Kentucky Constitution, HB 587 will become effective ninety (90) days after adjournment of the legislative session. Thus, HB 587 will become effective on June 28, 2023.

HB 587 amends KRS 61.505(8) in the following ways:

- a. The KPPA Board appoints or contracts for an internal auditor
 - i. Previously, as with all other employees of KPPA, the internal auditor was appointed by the KPPA Executive Director
- b. The KPPA Board sets the compensation and other terms of employment for the internal auditor
 - i. The internal auditor is not subject to KRS 18A or KRS 64.640
- c. The internal auditor reports directly to the KPPA Board
- d. The KPPA Board must conduct an annual performance evaluation of the internal auditor
- e. The internal auditor shall work cooperatively with the CEOs of KRS/CERS
- f. The internal auditor has the authority to appoint the employees under their direct supervision

As a result of the changes from this legislation, several things must happen. First and foremost, the CERS/KRS Joint Audit Committee will no longer exist, as the KPPA internal auditor will report directly to the KPPA Board. This will require amendments to the CERS and KRS By-laws to remove the language forming the Joint Audit Committee.

Second, the KPPA Board is faced with several tasks: they must appoint the internal auditor and set the compensation and terms of employment for the internal auditor. The terms of employment should include a position description. The KPPA Board is free to adopt the position description and compensation currently in place, making changes where necessary to reflect the removal of the internal auditor from the provision of KRS 18A, or they may adopt an entirely new position description and compensation. Adoption of a position description is important because the KPPA Board is required to perform an annual performance evaluation of the internal auditor.

The KPPA Board may choose to form an Audit Committee and delegate these tasks to that committee. The members of any KPPA Audit Committee must come from the eight (8) members of the KPPA Board. Forming a KPPA Audit Committee would require amending the KPPA By-laws. In creating the Audit Committee and amending the By-laws, the KPPA Board must decide the level of authority given to the Audit Committee: Are they able to act on behalf of the Board and then report their actions, or will their votes require ratification by the Board before action can be taken?

Once the KPPA Board has decided how it will carry out its responsibilities relating to internal audit, either the KPPA Board Chair or the Audit Committee Chair (if there is one) will be required to approve the internal auditor's timesheet on a weekly basis. This person will also be responsible for approving the internal auditor's leave requests (including day-to-day requests for medical appointments, school functions, etc.), approving a flex schedule, determining if the internal auditor may work from home and, if so, on what days, and approving travel and/or ongoing educational opportunities. The most efficient and effective way to handle these approvals is for the KPPA Board or Audit Committee to delegate this limited authority to the KPPA Executive Director.

There are several action items that must be completed to fully implement this legislation. Due to the number of action items, the KPPA Office of Legal Services proposes the following timeline:

- I. April Annual Meetings
 - a. All Boards review this memo
 - b. The KPPA Board should make initial decisions regarding whether they want to create an Audit Committee and, if so, its membership, and what authority it will have
- II. Between April Annual Meetings and June Board meetings
 - a. Staff will draft proposed amendments to By-Laws and Charters, and create a proposed position description for the internal auditor
- III. June Board Meetings
 - a. KPPA needs to decide how the hiring/appointment of an internal auditor will happen
 - b. KPPA will approve a position description and set the compensation for the internal auditor or delegate this to the Audit Committee
 - c. KRS and KPPA will vote on the By-law amendments
 - d. CERS will have the 1st reading of the By-law amendments
 - i. It is not a problem if the CERS By-laws are not fully amended when this legislation becomes effective
 - e. KPPA will vote on the Audit Charters

- f. KPPA will schedule the first meeting of the Audit Committee

This is a lot of information to digest, and lot of work to accomplish. We should move through this process slowly while ensuring we accomplish every step. There are also several internal questions to be answered while implementing this legislation. Staff will continue to work through those as well. One example of these internal issues is defining a process for the internal auditor to request new positions. While the internal auditor has the authority to appoint the positions that report directly to them, those positions are still subject to KRS 18A and KRS 64.640 and must still fit within the KPPA employee cap and the KPPA administrative budget.



KENTUCKY PUBLIC PENSIONS AUTHORITY

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To: County Employees Retirement System Board of Trustees

From: William O'Mara, Chair
Joint Audit Committee
Kristen N. Coffey, CICA *KNC*
Division Director, Internal Audit Administration

Date: June 14, 2023

Subject: Summary of Joint Audit Committee Meeting

The County Employees Retirement System (CERS) and Kentucky Retirement Systems (KRS) Joint Audit Committee held a regularly scheduled meeting on May 25, 2023.

1. Requested actions by the CERS Board of Trustees (Board)

- a. Annual Audit Plan – The Joint Audit Committee approved the Audit Plan as presented.

Requested Action: The Joint Audit Committee requests that the CERS Board ratify the actions of the Joint Audit Committee and submit the Audit Plan to the Kentucky Public Pensions Authority for approval.

2. The following other items were also discussed during the Joint Audit Committee meeting. These are presented for informational purposes only.

- a. Financial statements for the Quarter ended March 31, 2023.
- b. Information disclosures.
- c. Anonymous Tips.
- d. Internal Audit Budget – *12.09% overall remaining. Approximately 25% remaining for salary items, with one quarter remaining. No expenses anticipated for other line items.*
- e. Status of current internal audits – *Five audits closed, none remain open. Six projects closed, eight open.*
- f. Open internal audit findings and recommendations – *Six recommendations not yet implemented.*
- g. Reports issued since the last meeting (see attached).
1. Accuracy of Information Sent to Humana and Department of Employer Insurance – *no reportable findings.*
2. Plan Liquidity – Phase 3 – *one reportable finding and one management letter item.*
- h. Update on Structure of Audit Committee.
- i. Professional Article on Internal Audit role in Corporate Governance.
- j. Presentation on Internal Audit month.



KENTUCKY PUBLIC PENSIONS AUTHORITY

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To: Members of the Joint Audit Committee

From: Kristen N. Coffey, CICA *KNC*
Division Director, Internal Audit Administration

Date: May 25, 2023

Subject: Fiscal Year 2024 Risk Assessment and Audit Plan

Internal Audit has performed a risk assessment for fiscal year (FY) 2024. This assessment was conducted based on past risks noted within KPPA and audits conducted during fiscal year 2023. After the risks were identified, they were ranked based on inherent risk and inherent likelihood. A scale of 0-10 was used (0 = less inherent risk/unlikely to occur, 10 = high inherent risk/probable to occur). The scores were then averaged to obtain an overall risk score. The items were then sorted based on the risk score (highest to lowest). The following audits are being recommended in response to the completed risk assessment

FY 2024 Audit Plan

1. Review of investment administrative fees.
2. Review of investment manager fees, including reconciliation process and fee reporting process.*
3. Review of outstanding employer invoices.
4. Review of process to ensure new legislation is properly implemented.
5. **Review of interest calculated and applied to member accounts.**
6. Review of employer contributions, including the balancing process.*
7. **Review of member/employer information utilized for retirement (addressing risk that information may be altered to increase benefits).**
8. Review of correspondence process (to address risk of personal information disclosures).
9. Review of refund calculations.
10. Review of administrative expense allocation.*

** These projects have been previously approved by the Joint Audit Committee.*

FY 2024 Other Projects

In addition to the audits above, Internal Audit staff will also work on the following projects throughout fiscal year 2024.

1. Completion of self-assessment for peer review.
2. Review of the FY 2024 Annual Comprehensive Financial Report.
3. Review of the FY 2024 Summary Annual Financial Report.
4. Participation on the Trustee Election Vendor selection panel.
5. Completion of FY 2025 Risk Assessment and Audit Plan.
6. Updating audit related charters.
7. Updating Board Election policies.
8. Completion of process documentation for audit procedures.
9. Participation on various KPPA projects/work groups (e.g., IT Governance Group)
10. Preparation for and presentation to various Board and Committee meetings.

The Division of Internal Audit currently has one director and four additional staff members. Staff are expected to complete 2-3 audits a year, in addition to work completed on other projects. While this audit plan contains a substantial number of projects, it is feasible.

Carry-over from approved FY 2023 Audit Plan

The items below were included on the FY 2023 audit plan but were not recommended as a part of the FY 2024 audit plan because they were assessed at a lower risk during the FY 2024 risk assessment. Multiple higher risk items for the divisions were recommended for the FY 2024 audit plan. Should all above audits be completed, staff will work on the items below.

1. Review of reconciliation between Great Plains and BNY Mellon.
2. Review of investment direct repo process.
3. Review of cash receipt process.
4. Review of the accounts payable process (follow-up audit).
5. Review of investment contract process.

Joint Audit Committee Action Needed: The Division of Internal Audit has completed most of the audits from the FY 2023 audit plan. Without approval of the FY 2024, staff are unable to start any new projects. The Division of Internal Audit is requesting that the Joint Audit Committee take one of the following actions:

1. Approve the full FY 2024 Audit Plan.
2. Approve of the two items highlighted in yellow and submit the full FY 2024 Audit Plan to the KPPA Audit Committee and/or full KPPA Board for approval.

Joint Audit Committee Meeting - Joint Audit Committee Administrative Updates

KPPA Internal Audit Risk Assessment Report

Entity Path	Strategic Risk Title	Inherent	Reviewed in the Past 5 years?	Notes
Office of Investments	Lack of Oversight of Investment Admin Fees	8.00	No	Item being recommended for the FY 2024 audit plan. Carry-over from prior plan. Will be included on FY 2024 plan. Included as a part of every audit.
Office of Investments	Lack of Oversight of Manager Fees	8.00	No	Recommended for FY 2024 Audit Plan
Office of Investments	Lack of Oversight of Performance Fees	8.00	No	Recommended for FY 2024 Audit Plan
Office of Investments	Proxy Voting does not Comply with Policy	8.00	No	Tentatively recommended for FY 2024 Audit Plan. If the other two investment audits are able to be completed quickly, without too much burden on investment staff, this will also be completed in FY 2024. Otherwise this will be included on the FY 2025 plan.
Division of Accounting > Cash Management Branch	Pension and Insurance Contributions Split Correctly	8.00	No	Two other audits are scheduled with investments. Additionally, this is a new process. This is recommended for the FY 2025 plan.
Division of Employer Reporting, Compliance, and Education	Outstanding Employer Invoices	8.00	No	This is related to an issue previously reported to the Audit Committee. Requesting that the Audit Committee weigh-in on whether to make this item a priority for the FY 2024 audit plan.
Board of Trustees	Perimeter Park West, Inc	7.00	Yes	Recently audited, will not be on the FY 2024 plan.
Executive Director	Board of Trustees May Not Receive Proper Information Timely	7.00	No	This is not audited separately, but combined in every audit.
Executive Director	New Legislation Not Implemented	7.00	Yes	Recommended for FY 2024 Audit Plan
Executive Director	Segregation of Duties	7.00	Yes	This is not audited separately, but combined in every audit.
Office of Investments	Establishment and Usage of Retirement Allowance Account	7.00	Yes	Recently audited, will not be on the FY 2024 plan.
Office of Investments	Insufficient Cash Balance	7.00	Yes	Recently audited, will not be on the FY 2024 plan.
Office of Investments	Tier 3 Calculation May Be Inaccurate	7.00	No	Two other audits are scheduled with the Office of Investments. So as not to over burden one group, we will revisit this item for the FY 2025 plan.
Division of Accounting > Cash Management Branch	Accounts not Properly Reconciled	7.00	Yes	Recently audited, will not be on the FY 2024 plan.
Division of Accounting > Cash Management Branch	Manual Journal Entry Process	7.00	No	This could be impacted based on the Chase audit from FY 2023. Will revisit for the FY 2025 audit plan.
Division of Accounting > Cash Management Branch	Manual Mailing of Checks Processed by Treasury	7.00	No	This could be impacted based on the Chase audit from FY 2023. Will revisit for the FY 2025 audit plan.
Division of Accounting > Cash Management Branch	Overpayment Invoices may not be Monitored	7.00	No	This could be impacted based on the Chase audit from FY 2023. Will revisit for the FY 2025 audit plan.
Division of Accounting > Investment Operations Branch	Custodial Bank does not Reconcile to Great Plains	7.00	No	This could be impacted based on the Chase audit from FY 2023. Will revisit for the FY 2025 audit plan.
Division of Accounting > Investment Operations Branch	Interest on Member Accounts Calculated Improperly	7.00	No	Recommended for FY 2024 Audit Plan
Division of Employer Reporting, Compliance, and Education	Delinquent Employers	7.00	No	Two other audits are scheduled with ERCE. So as not to over burden one group, we will revisit this item for the FY 2025 plan.
Division of Employer Reporting, Compliance, and Education	Employer Contributions are Inaccurate	7.00	No	Recommended for FY 2024 Audit Plan (carry-over)
Division of Employer Reporting, Compliance, and Education	Inactive Employers not Reporting	7.00	No	Two other audits are scheduled with ERCE. So as not to over burden one group, we will revisit this item for the FY 2025 plan.
Division of Enterprise and Technology Services > Security	Mission Critical Systems are Compromised	7.00	No	This is addressed by a third party vendor audit each year.
Division of Enterprise and Technology Services > Security	Staff have Improper System Access	7.00	Yes	Recently audited, will not be on the FY 2024 plan.

Joint Audit Committee Meeting - Joint Audit Committee Administrative Updates

KPPA Internal Audit Risk Assessment Report

Entity Path	Strategic Risk Title	Inherent	Reviewed in the Past 5 years?	Notes	Risk Level	
					High Risk	Medium Risk
Division of Enterprise and Technology Services > Enterprise Project Management	COOP is Outdated, Inaccurate, or Insufficient	7.00	Yes	Recently audited, will not be on the FY 2024 plan.	Medium Risk	Item being recommended for the FY 2024 audit plan.
Division of Procurement and Office Services > Procurement Branch	Inventory Process	7.00	No	This process is currently being established. It will likely be included as a part of the FY2025 plan.	Low Risk	Carry-over from prior plan. Will be included on FY 2024 plan. Included as a part of every audit.
Division of Procurement and Office Services > Office Services Branch	Disclosures Occur During Correspondence	7.00	No	Recommended for FY 2024 Audit Plan	Medium Risk	
Division of Member Services > Finals	Member Information Altered Prior to Uploading to Their Account	7.00	No	Recommended for FY 2024 Audit Plan	Medium Risk	
Division of Membership Support	Refunds may be Processed Inaccurately	7.00	No	Recommended for FY 2024 Audit Plan	Medium Risk	
Division of Membership Support	Retirement/Recalculations Amounts are Inaccurate	7.00	No	Recommended for FY 2024 Audit Plan	Medium Risk	
Executive Director	Disclosure of Personal Information	6.00	Yes	Recently audited, will not be on the FY 2024 plan.	Medium Risk	
Executive Director	Lack of Back-ups in Key Areas of KPPA	6.00	Yes	This is not audited separately, but considered a risk in every audit.	Medium Risk	
Executive Director	Manual Workarounds Required for Outstanding IT Issues	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Executive Director	Policies and Procedures not Accurate	6.00	Yes	This is not audited separately, but considered a risk in every audit.	Medium Risk	
Executive Director	Staff not Properly Trained to Perform Job Duties	6.00	No	This is not audited separately, but considered a risk in every audit.	Medium Risk	
Executive Director	Use of Signature Stamp (including access to Digital Signature)	6.00	No	This is not audited separately, but considered a risk in every audit.	Medium Risk	
Executive Director	Violation of Record Retention Policy	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Office of Investments	Inconsistent Payment of Vendors	6.00	No	This could be impacted based on the Chase audit from FY 2023. Will revisit for the FY 2025 audit plan.	Medium Risk	
Office of Investments	Investment Procurement Policy not Followed	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Office of Investments	Investment Transactions Not Approved Properly	6.00	Yes	Recently audited, will not be on the FY 2024 plan.	Medium Risk	
Office of Investments	Number of Transfers Between Accounts	6.00	Yes	Recently audited, will not be on the FY 2024 plan.	Medium Risk	
Office of Legal Services - Non-Advocacy	Violation of Retired/Re-Employed Statutes	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Communications	Forms on the Website may be Inaccurate	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Communications	Inaccurate Information Communicated to Members	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Human Resources	Hiring Process is Inefficient	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Human Resources	HR Policies not Applied Consistently	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Accounting > Cash Management Branch	Accounts Receivable Process	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Accounting > Cash Management Branch	Accurate Financial Statements not Prepared Timely	6.00	Yes	Recently audited, will not be on the FY 2024 plan.	Medium Risk	
Division of Accounting > Cash Management Branch	Allocation of Expenses may be Inaccurate	6.00	No	Recommended for FY 2024 Audit Plan (carry-over)	Medium Risk	
Division of Accounting > Cash Management Branch	Service Purchases Processed Improperly	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Accounting > Investment Operations Branch	New Investment Accounts not Set-up Accurately	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Employer Reporting, Compliance, and Education	Employer Report Process	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Employer Reporting, Compliance, and Education	Pension Spiking	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Enterprise and Technology Services	Disaster Recovery Plan is Insufficient	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Enterprise and Technology Services > Security	Staff not Properly Trained on IT Security	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Procurement and Office Services > Procurement Branch	Procurement Process	6.00	Yes	Recently audited, will not be on the FY 2024 plan.	Medium Risk	
Division of Procurement and Office Services > Office Services Branch	Electronic Faxes not Handled Properly	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	
Division of Procurement and Office Services > Office Services Branch	Imaging Process is Inefficient/Inaccurate	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Medium Risk	

Joint Audit Committee Meeting - Joint Audit Committee Administrative Updates

KPPA Internal Audit Risk Assessment Report

		<div style="display: flex; justify-content: space-between; font-size: 8px;"> High Risk Medium Risk Low Risk </div>		<div style="background-color: #e0e0e0; padding: 2px;"> Item being recommended for the FY 2024 audit plan. Carry-over from prior plan. Will be included on FY 2024 plan. Included as a part of every audit. </div>	
Entity Path	Strategic Risk Title	Inherent	Reviewed in the Past 5 years?	Notes	
Division of Procurement and Office Services > Office Services Branch	Incoming Mail is not Handled Properly	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Disability and Survivor Benefits > Disability Branch	Applications Voided Incorrectly	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Disability and Survivor Benefits > Disability Branch	Cost/Benefit of Medical Review Vendor	6.00	Yes	Currently under review by Benefits	
Division of Disability and Survivor Benefits > Disability Branch	Disability Claims not Reviewed Timely/Accurately	6.00	No	Likely tied into a review recently performed by Benefits related to medical officers. Will revisit for the FY 2025 plan.	
Division of Disability and Survivor Benefits > Disability Branch	Disability Recipient Working at Unapproved Job	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Disability and Survivor Benefits > Survivor Benefits Branch	Overpayment Process	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Membership Support	Phone Calls not Answered Timely	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Member Services > Counseling	Service Purchases are Calculated Incorrectly	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Member Services > Finals	Final Retirements Not Processed Timely or Accurately	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Member Services > Finals	QDRO Process	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Quality Assurance > Post-Retirement Branch	Post Retirement Audits not Completed Timely or Accurately	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Quality Assurance > Pre-Retirement Branch	Pre-Retirement Audits not Completed Timely or Accurately	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Retiree Health Care	Medicare as Secondary Payer Process	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Retiree Health Care	Premiums Paid are Inaccurate	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Retiree Health Care	Retiree Insurance Payments Processed Incorrectly	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Retiree Services Payroll	Benefit Payment is not Accurate	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Retiree Services Payroll	Benefits Received by Wrong Individual	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Retiree Services Payroll	Dependent Child Payments are Inaccurate	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Retiree Services Payroll	Monthly Payroll is Inaccurate	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Retiree Services Payroll	Supplemental Payroll is Inaccurate	6.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Board of Trustees	Lack of Training for Board of Trustees	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Board of Trustees	Violation of Open Meetings	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Executive Director	Cash Receipt Process	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Office of Investments	Capital Call Process	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Office of Investments	Investment Services Provided by Duplicate Vendors	5.00	Yes	Currently being reviewed by Investments	
Office of Investments	Repo Process	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Office of Legal Services - Advocacy	Non-compliance with HIPAA.	5.00	Yes	Recently audited, will not be on the FY 2024 plan.	
Office of Legal Services - Non-Advocacy	Administrative Regulations may be Expired	5.00	Yes	FY 2024 plan complete, will re-evaluate for FY 2025.	
Office of Legal Services - Non-Advocacy	Violation of Open Records Request	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Communications	Communications to Legislatures may not be Timely	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Human Resources	Non-Compliance with FMLA	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Human Resources	Non-Compliance with Worker's Compensation	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Accounting > Cash Management Branch	Accounts Payable Process	5.00	Yes	Recently audited, will not be on the FY 2024 plan.	
Division of Accounting > Cash Management Branch	Accrual Process	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Accounting > Cash Management Branch	Excise Tax Calculation and Payment Process	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	
Division of Accounting > Cash Management Branch	Expenditures Coded Improperly	5.00	Yes	Recently audited, will not be on the FY 2024 plan.	
Division of Accounting > Investment Operations Branch	Transfers to Mellon may not be Routed to Proper Account	5.00	Yes	Recently audited, will not be on the FY 2024 plan.	

Joint Audit Committee Meeting - Joint Audit Committee Administrative Updates

KPPA Internal Audit Risk Assessment Report

Entity Path	Strategic Risk Title	Inherent	Reviewed in the Past 5 years?	Notes	Risk Level	
					High Risk	Medium Risk
Division of Enterprise and Technology Services > Application Services	System Build Process is Inefficient	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Item being recommended for the FY 2024 audit plan.	
Division of Disability and Survivor Benefits > Disability Branch	Additional Disability Payments not Reported to KPPA	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Carry-over from prior plan. Will be included on FY 2024 plan.	
Division of Disability and Survivor Benefits > Survivor Benefits Branch	Benefit Payments not Properly Supported	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.	Included as a part of every audit.	
Division of Disability and Survivor Benefits > Survivor Benefits Branch	Members/Beneficiaries Reported as Deceased are Still Living	5.00	Yes	Recently audited, will not be on the FY 2024 plan.		
Division of Disability and Survivor Benefits > Survivor Benefits Branch	Members/Beneficiaries Reported as Living are Deceased	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Membership Support	Forms are not User Friendly	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Retiree Health Care	Inaccurate Enrollment Numbers	5.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Retiree Services Payroll	1099-R Process	5.00	Yes	Recently audited, will not be on the FY 2024 plan.		
Division of Communications	Print Vendor is not Efficient	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Human Resources	Badge System	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Human Resources	Improper Handling of Classified versus Unclassified Employees	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Human Resources	Time Reporting may not be Accurate	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Accounting > Cash Management Branch	Budget Process	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Accounting > Cash Management Branch	Employer Penalty Invoices Waived Improperly	4.00	Yes	Recently audited, will not be on the FY 2024 plan.		
Division of Accounting > Cash Management Branch	ProCard Process	4.00	Yes	Recently audited, will not be on the FY 2024 plan.		
Division of Accounting > Cash Management Branch	Travel Reimbursement Process	4.00	Yes	Recently audited, will not be on the FY 2024 plan.		
Division of Employer Reporting, Compliance, and Education	Hazardous Duty Classification is Inaccurate	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Enterprise and Technology Services	Hardware/Software is Outdated	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Procurement and Office Services > Procurement Branch	Contracts not Tracked Properly	4.00	Yes	Recently audited, will not be on the FY 2024 plan.		
Division of Procurement and Office Services > Office Services Branch	Building not Physically-Secure	4.00	Yes	Recently audited, will not be on the FY 2024 plan.		
Division of Disability and Survivor Benefits > Disability Branch	Reasonable Accommodations Requirement not Met	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Disability and Survivor Benefits > Survivor Benefits Branch	Unclaimed Account Process	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Retiree Health Care	Ineligible Dependents on Insurance	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Retiree Services Payroll	Deductions Entered Inaccurately	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Retiree Services Payroll	EFT Return Process	4.00	No	FY 2024 plan complete, will re-evaluate for FY 2025.		
Division of Enterprise and Technology Services > Desktop Support	Support Tickets not Resolved Timely	3.00	Yes	Recently audited, will not be on the FY 2024 plan.		
Board of Trustees	Improper Board of Trustees Composition	2.00	Yes	Reviewed with each Trustee change.		
Division of Communications	Legislation that Impacts KPPA may not be Tracked	2.00	Yes	Reviewed by Communications		



Kentucky Public Pensions Authority

Internal Audit Administration



Kentucky Public
Pensions Authority

To: Members of the Joint Audit Committee

From: Kristen N. Coffey, CICA *KNC*
Division Director, Internal Audit Administration

Date: May 25, 2023

Subject: Final Audit Report Released

Please find attached the final audit report entitled **Accuracy of Information Sent to Humana and DEL**. The report is dated April 14, 2023. The Division of Internal Audit Administration noted three findings, all verbal, which are summarized below. The final audit report is attached for your review.

Summary of Audit Results

1. It was found that several procedures still referred to Kentucky Retirement Systems. The procedures have since been updated, resolving this issue.
2. During review of procedures, it was found that the output names for several semi-automated processes were incongruent with what was indicated by the procedures. The procedures have since been updated.
3. During calendar year 2021, several discrepancies and issues reported to Retiree Health Care were not resolved in a timely manner, with an average open time of 275 days. Management is currently determining a deadline for resolving discrepancies. Procedures will be updated to reflect the new process.

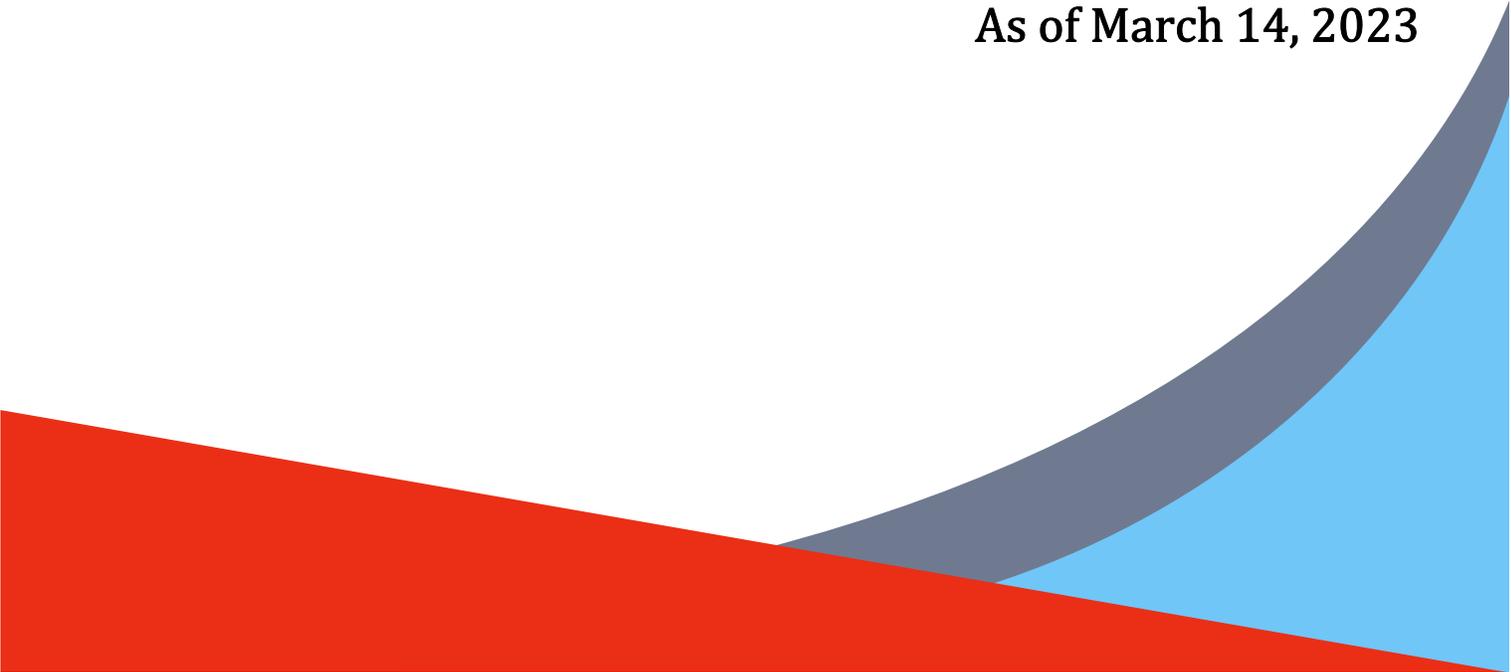
Attachment

No action is required of the Committee.



KPPA
Kentucky Public Pensions Authority

**Accuracy of Information Sent to Humana and DEI
As of March 14, 2023**



Acronyms

The following acronyms will be used throughout the report:

1. KPPA - Kentucky Public Pensions Authority
2. CERS - County Employees Retirement System
3. KRS - Kentucky Retirement System
4. DETS – Division of Enterprise Technology Services
5. RHC – Retiree Health Care
6. DEI – Department of Employee Insurance
7. LOB – Line of Business
8. KPPA Executive Management team - KPPA Executive Director, KPPA Deputy Executive Director, KPPA CIO, KPPA Executive Director-Office of Legal Services, and KPPA Executive Director-Office of Benefits

Objective

The objectives of our review of the Accuracy of Information Sent to Humana and DEI were to ensure internal controls have been designed and are operating effectively and efficiently. We also ensured compliance with applicable state and federal statutes and regulations as well as policies established by the CERS and KRS Boards and procedures developed by KPPA staff.

Executive Summary

Our review found that processes related to Accuracy of Information Sent to Humana and DEI are operating effectively and efficiently and comply with state and federal statutes and regulations as well as agency policies and procedures. Additional information is noted in the Commendations section of the report.

Commendations

We would like to acknowledge both RHC and DETS for their cooperation and prompt responses during this audit, despite the latter not being the main subject of the audit. Our interactions with RHC over the course of this audit have shown us that they strive to exhibit excellent customer service with everyone, not just our members.

In addition to our interactions with RHC during this audit, we would also like to acknowledge their achievements as a department. Since the start of the COVID-19 pandemic, RHC has reduced overtime, met deadlines, and maintained a consistent level of customer service despite increasing numbers of members and their dependents. They have also implemented several successful tele-services including Telehealth, retiree webinars, and retiree outreach with the goal of keeping retirees informed about their benefits.

Risks Identified During the Project

Risks that were identified and tested during the audit are listed below. For each risk identified, auditors determined if a control had been established to mitigate the risk. If so, auditors ensured the internal controls established were designed and operating effectively and efficiently. Where applicable, auditors ensured the process complied with applicable statutes, regulations, and policies.

1. Files are not sent to DEI/Humana at all or are not sent timely.
2. Batches do not run each night.
3. Files are transferred to DEI/Humana prematurely during open enrollment and other events.
4. Remittance files not submitted timely to DEI and Humana after monthly payroll.
5. Changes could occur to a file in the time between when it is generated and when it is transferred to DEI/Humana or some changes to member profiles are not captured by the Master Schedule.
6. Changes needed in response to DEI and Humana files are not made in a timely manner.
7. Member information in START differs from the information held by DEI/Humana.
8. Members are signed up for plans for which they do not qualify.

Scope, Sampling, and Methodology

The scope of the audit was January 1, 2021 through December 31, 2021. During that time frame, there were 1,243 reports, which included over 12,000 KPPA members.

While most of our testing featured the complete populations of relevant data, some tests required sampling due to the size and manual nature of the review.

In populations where a sample was determined to be appropriate, the population was broken down by unique individuals, rather than individual appearances of members on the reports. The unique individuals were then assigned a number by order of appearance and randomly selected for testing.

The following steps were performed to ensure the processes and procedures surrounding the information flowing between KPPA, DEI, and Humana complied with applicable state and federal guidelines as well as policies and procedures established by the KPPA Board and management.

- Reviewed current KPPA policies and procedures to determine if they were accurate and properly reflected the actual processes being followed.
- Verified the inclusion of files meant to synchronize data between KPPA and DEI in the monthly batch schedule.
- Ensured that files communicated daily to DEI and Humana had an appropriate file archived.
- Determined the plausibility of changes occurring to the archived files before they were sent to DEI and Humana
- Reviewed employee access to archived files.
- Compared data from DEI and Humana to member profiles to determine if changes were appropriate and if so, ensured the changes were made.
- Ensured changes to member information were made in a timely manner and documented appropriately.

Recommendations for Future Audits

During this audit, we noted one item that has been recommended for review in a future audit.

- Reimbursements of Overpayments Related to DEI and Humana

Background

To ensure member information is consistent between KPPA, DEI, and Humana, DETS facilitates the near daily communication of the updates RHC makes to member information to DEI and Humana. In turn, DEI and Humana provide regular reports to RHC regarding discrepancies between themselves and the information contained in LOB. RHC counselors identify all issues indicated in these reports and investigate the discrepancies. During their research, they may find that updates need to be made to the member's profile in LOB or that information needs to be updated on file at DEI or Humana.

This report is intended solely for use by the Joint Audit Committee; the CERS and KRS Boards; the Executive Management teams for KPPA, CERS, and KRS; the Division of Retiree Health Care; and the Division of Enterprise Technology Services. This report is not intended to be, and should not be, used by anyone other than the specified parties. All final reports are subject to Open Records Requests.



Kentucky Public Pensions Authority

Internal Audit Administration



Kentucky Public
Pensions Authority

To: Members of the Joint Audit Committee

From: Kristen N. Coffey, CICA *KNC*
Division Director, Internal Audit Administration

Date: May 25, 2023

Subject: Final Audit Report Released

The Division of Internal Audit Administration recently completed the Plan Liquidity – Daily Cash Review audit. Two findings were noted, which are summarized below. The final audit report, which includes detailed findings and recommendations as well as management’s responses are attached for your review. We have also included a copy of the Management Letter issued as a part of this audit.

Summary of Audit Results

1. Investment fees not allocated correctly.
2. Reconciliation failed to detect errors (management letter item).

Attachment

No action is required of the Joint Audit Committee.



KPPA

Kentucky Public Pensions Authority

Plan Liquidity Phase 3 - Available Cash Balance/Cash Projection

Issued May 15, 2023

Acronyms

The following acronyms will be used throughout the report:

1. KPPA - Kentucky Public Pensions Authority
2. CERS - County Employees Retirement System
3. KRS - Kentucky Retirement System
4. KPPA Executive Management team - KPPA Executive Director, KPPA Deputy Executive Director, KPPA CIO, KPPA Executive Director-Office of Legal Services, and KPPA Executive Director-Office of Benefits
5. Investment Operations – KPPA Division of Accounting, Investment Operations branch
6. Internal Audit – KPPA Division of Internal Audit Administration
7. Repo -Repurchase Agreement
8. ISF – Institutionally Secured Funding
9. BNY Mellon/custodial bank - Bank of New York Mellon

Objective

The objectives of our Plan Liquidity Phase 3 – Available Cash Balance/Cash Projection audit were to ensure internal controls have been designed and are operating effectively and efficiently. We also ensured compliance with applicable state statutes and regulations as well as policies established by the CERS and KRS Boards and procedures developed by KPPA staff.

Executive Summary

The following findings were noted during our review of Plan Liquidity Phase 3 – Available Cash Balance/ Cash Projection. The related recommendations can be found in the Audit Results section of the report.

1. Investment fees allocated incorrectly

We noted one other matter that we communicated to Investment Operations in a separate letter dated May 15, 2023.

Commendations

Internal Audit staff appreciate the cooperation of the KPPA Investment Operations staff. This audit involved multiple meetings and questions to clarify the established internal controls. Investment Operations took initiative to correct errors found during the audit and they began developing procedures to address the risks identified.

Sampling, Risks, Methodology, and Testing Results

No sampling was used. 100% of the 4,160 transactions were reviewed.

Methodology Matrix	
Risk: BNY Mellon cash projection differs from the Investment Operation's cash projection.	
Control	Testing
Investment Operations compares the daily cash projection worksheet to the cash projection worksheet from BNY Mellon. The acceptable variance threshold is \$100,000 between the two projections. If the difference is above the acceptable variance, Investment Operations staff determine what is causing the difference and this is noted in the investable cash email.	Auditor compared the two projections and found the difference between the Investment Operations and BNY Mellon calculations. If the variance was more than \$100,000 then auditor requested an explanation for the difference to determine if the variance was reasonable.
Results of testing: No exceptions noted.	

Risk: The same person who affirmed a repo is the same person who reviewed BNY cash projection against OPS projection.	
Control	Testing
To create a segregation of duties, the same person should not be preparing the investable cash email and affirming repos.	Auditor compared initials of staff who prepped the investable cash email and who affirmed the day's repo.
Results of testing: No exceptions noted.	
Risk: Investable cash email is sent to the Investment directors late causing the Repo investment to be delayed.	
Control	Testing
Investable cash email is sent around 10:00 am.	Compared time stamp of "Investable cash email" from Investment Operations staff to Investment Portfolio Managers against the target time of 10:00 a.m. Auditor considered the email to be sent timely if it was sent by 10:30 (allowed 30-minute window). If the email for any day was sent outside of this window, auditor requested an explanation of why the email was late to determine if the delay was reasonable.
Results of testing: No exceptions noted.	
Risk: Transactions flow through cash account incorrectly.	
Control	Testing
Investment Operations staff saves all backup documentation and records the transaction in the Cash Projection Worksheet and Cashflow Worksheet. BNY Mellon's Cash Projection Worksheet is compared against Investment Operations Daily Cash Projection Worksheet and BNY Mellon's Settled Cash Statement is compared against Investment Operations Cashflow Worksheet.	Auditor compared all transaction backup documents to the Settled Cash Statement to confirm that the total and date were accurate according to the corresponding supporting documents.
Results of testing: One distribution was approved by BNY for the wrong total and the corresponding day's reconciliation did not catch the error. (Addressed in a management letter)	
Risk: Transaction is not approved appropriately.	
Control	Testing
Appendix C of the contract with BNY Mellon specifies access and approval capabilities within Nexen.	Auditor compared the approving user ID to the Authorized Signer List. Auditor noted who sent KPPA Accounting wires to verify that appropriate staff sent the wires.
Results of testing: No exceptions noted.	
Risk: Transactions are allocated across the 5 plans incorrectly.	
Control	Testing
The daily cash reconciliation procedures compare the Plan Percent report cash balances from the prior day and current day activity against current day's closing balance from corresponding Plan Percent report. These two sums should match indicating that all custom allocations were applied correctly by BNY Mellon staff.	Auditor created a database with all transactions showing the total and the breakdown between the five plans. Using this database, Auditor reconciled all 261 business days for the Pension and Insurance master trust funds. This was to verify custom allocations. For non-custom allocations, Auditor compared the manager's accounting number from the plan schematics against the account number shown on the settled cash statement.
Results of testing:	
1. Sixteen daily reconciliations did not catch that investment fees were allocated incorrectly. (See finding #1: Investment fees allocated incorrectly)	

2. Two capital calls for L-A VII were approved for L-A VII B. The total of the capital calls was keyed correctly but the allocation was applied to the incorrect manager. The corresponding daily reconciliations did not catch this error. (Addressed in a management letter)	
Risk: Plan accounts or the master trust accounts are overdrawn.	
Control	Testing
Projected end of day cash balance is calculated using the Cash Projection worksheet, which captures all known incoming and outgoing transactions.	During testing of daily reconciliations, Auditor verified that plan accounts and master trust accounts were not overdrawn by confirming that these accounts never had a \$0 balance.
Results of testing: No exceptions noted.	
Risk: Details for Repos are approved for incorrect REPO details.	
Control	Testing
Investment Operations staff approving the repo compares the Letter of Direction from the Investment team to information entered into Cantor Fitzgerald portal. If total, interest rate and interest at maturity match, then Investment Operations staff approves the trade. Investment Operations staff then takes a screenshot of the approved repo.	Auditor compared the Letter of Direction to the screenshot of the approved repo to confirm that all details matched.
Results of testing: No exceptions noted.	

Recommendations for Future Audits

1. Evaluate how each manager balance is monitored on an individual basis to ensure that management fees, performance fees and capital calls follow the agreed upon investment relationship.
2. Investment fee re-calculation and reconciliation.
3. Repo and ISF creation process by Investment Portfolio Managers.
4. Monthly reconciliation between BNY Mellon and Great Plains.

This report is intended solely for use by the Joint Audit Committee; the CERS and KRS Boards; the Executive Management teams for KPPA, CERS, and KRS; and Investment Operations. This report is not intended to be, and should not be, used by anyone other than the specified parties. All final reports are subject to Open Records Requests.

Audit Results

1. Investment fees allocated incorrectly

Responsible Area(s):	Investment Operations																												
Condition:	<p>Sixteen daily reconciliations (8 Pension and 8 Insurance) did not detect that investment fees were allocated in a manner differently than directed by the custom allocations provided by Investment Operations. After auditor reconciled KRS AVG reports against interest income and investments fees, the residual difference explained by fees being allocated incorrectly across the plans is shown in the following charts.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Total residual difference</th> <th>KERS</th> <th>KHAZ</th> <th>CERS</th> <th>CHAZ</th> <th>SPRS</th> <th>PEN Total</th> </tr> </thead> <tbody> <tr> <td>\$ (274,692.82)</td> <td>\$ 4,735.83</td> <td>\$ 238,608.79</td> <td>\$ 65,158.41</td> <td>\$ (33,951.30)</td> <td>\$ (141.09)</td> <td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Total residual difference</th> <th>KERS</th> <th>KHAZ</th> <th>CERS</th> <th>CHAZ</th> <th>SPRS</th> <th>INS Total</th> </tr> </thead> <tbody> <tr> <td>\$ (30,654.12)</td> <td>\$ 15,284.01</td> <td>\$ (6,660.95)</td> <td>\$ 20,724.53</td> <td>\$ 5,306.74</td> <td>\$ 4,000.21</td> <td></td> </tr> </tbody> </table>	Total residual difference	KERS	KHAZ	CERS	CHAZ	SPRS	PEN Total	\$ (274,692.82)	\$ 4,735.83	\$ 238,608.79	\$ 65,158.41	\$ (33,951.30)	\$ (141.09)		Total residual difference	KERS	KHAZ	CERS	CHAZ	SPRS	INS Total	\$ (30,654.12)	\$ 15,284.01	\$ (6,660.95)	\$ 20,724.53	\$ 5,306.74	\$ 4,000.21	
Total residual difference	KERS	KHAZ	CERS	CHAZ	SPRS	PEN Total																							
\$ (274,692.82)	\$ 4,735.83	\$ 238,608.79	\$ 65,158.41	\$ (33,951.30)	\$ (141.09)																								
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\$ (30,654.12)	\$ 15,284.01	\$ (6,660.95)	\$ 20,724.53	\$ 5,306.74	\$ 4,000.21																								
Criteria:	Investment Operations staff prepare a custom allocation and provide these via email to the BNY Mellon Cash Management and Accounting teams. The BNY Mellon Accounting team then copies and pastes the values from the email into a spreadsheet used to apply custom allocations.																												
Cause:	<ol style="list-style-type: none"> 1. Investment Operations did not include BNY Mellon Accounting team on the email showing how the fee should be allocated. 2. BNY Mellon Cash Management team did not forward the email from Investment Operations to the BNY Mellon Accounting team. 3. Investment Operations did not reconcile investment fees to the KRS AVG report generated mid-month, which shows allocations for investment fees, litigation income, and interest. 																												
Effect:	Each plan was charged the wrong amount for investment fees causing a misstatement on financial records. Since the KRS AVG report is not reviewed and is only taken as realized/loss gain, inaccurate transactions may go undetected.																												
Recommendations:	<ol style="list-style-type: none"> 1. Investment Operations staff should continue working with BNY Mellon staff to determine how far back this issue has persisted. Once the total amount is known, Investment Operations should ensure correcting entries are made to the plan accounts. 2. Investment Operations should establish procedures to ensure that the allocation of investment fees shown in the KRS AVG report matches the allocation from Investment Operation emails. 																												
Recurring Issue:	No																												
Management Response:	We concur with the finding and have taken action to ensure the allocation of investment administrative expenses are properly reviewed. This was implemented in fiscal year 2023. We are currently working with BNY Mellon to quantify and correct any historical discrepancies. Depending on the availability of historical data from BNY Mellon we expected to have this completed by June 30, 2023.																												
Implementation Date:	12/29/2023																												

Exhibit A

Background

Section A: Daily cash projection procedures

There are a total of ten worksheets and statements used in this process. Six worksheets and statements are created by BNY Mellon Cash Management or BNY Mellon Accounting staff. The remaining four worksheets were created by KPPA Investment Operations staff.

BNY Mellon Worksheet Descriptions

Every morning BNY Mellon automatically sends one email with a zip file that contains the *Plan Percent* and *Unit Trade* spreadsheets. BNY Mellon Cash Management team then sends Investment Operations two additional excel files pertaining to the prior business day: *Cash Account Accruals* and *Unit Trade Details*. These files are saved to the Office of Investments shared drive.

1. *Unit Trade Details*- This shows the total incoming and outgoing transfers for each system for the prior business day. The first two tabs show incoming and outgoing wires for the day, which would capture transactions such as the daily qualification wire, recurring/supplemental payroll, and Department of Employee Insurance/Humana payments. The next two tabs called "Pension Strip" and "Insurance Strip" provide the BNY Mellon account number, total amount, asset class/name of the manager for all other types of transactions. To the right of this information there is the allotment percentage used to breakdown the total into the system specific amount for each fund. The "strip" tabs show the allocation across the five systems for all non-custom transactions and trade transfer requests (custom and non-custom).
2. *Unit Trade* - This spreadsheet reports the purchase and sale of cash units and any realized gain/loss associated with those transactions.
3. *Plan Percent* - This spreadsheet provides each system's ownership of each unit at the end of the prior day.
4. *Cash Account Accruals* - This spreadsheet provides the posting of accruals for anticipated income. The information in this worksheet is generated based on work performed by the BNY Mellon Accounting team.

The above reports are all general ledger reports prepared by the BNY Mellon Accounting team utilizing the same data set. As such, a comparison of these reports is not a true reconciliation because the data is not being compared to an independent, original source document.

In addition to the four reports explained above, Investment Operations staff also log into BNY Mellon Nexen to generate two *Settled Cash Statements* of all non-zero balances, one for the prior day and one for the current business day, as well as a *Current Projected Cash Worksheet* for the current business day. The information in these documents is generated based on work performed by the BNY Cash Management team.

Description of Transactions

While the six worksheets and statements above are being sent by BNY Mellon or generated in Nexen, the backup documentation for other account activity is being sent to Investment Operations. As of the completion of fieldwork for Phase III, this audit reviewed 12 types of transactions that move through the investment cash accounts at BNY Mellon. Most have backup documentation, but some are automatic transactions handled by BNY Mellon Cash Management and/or Accounting teams that do not have independent backup documentation.

The chart below shows the 12 types of transactions reviewed; the required backup documentation; and which groups are responsible for preparing, keying, approving, recording, and allocating each transaction.

Definition of actions:

- Prepare – This group reviewed the data to create the transaction type and has notified Investment Operations of what will happen in the cash accounts. If a custom allocation is needed, then the breakdown is provided. A custom allocation is a breakdown of a transaction that is not predetermined in BNY Mellon’s system.
 - KPPA groups who “prepare” a transaction type have separate procedures on SharePoint or the group’s KPPA drive to explain the review conducted of the data involved. Specific questions about how these transactions are created should be directed to the appropriate group.
- Key – This group took action in Nexen to create a movement to or from the cash accounts at BNY Mellon.
- Approve – This group reviewed what was keyed into Nexen and matched it to the details in the Nexen system.
- Record – This group added a transaction to one of the four worksheets used by Investment Operations to track and monitor the cash accounts.
- Allocate – This group split a transaction up across the five systems (KERS, KHAZ, CERS, CHAZ, SPRS) in the BNY Mellon cash accounts according to the predetermined percent breakdown in the Nexen system or by the given custom allocation.
- No action – This group has no involvement in the actions described above.

#	Transaction type	Required Backup Documents	Team Actions			
			KPPA Cash Management	KPPA Investment OPS	KPPA Investment Directors	BNY Staff
1	Daily Qualification Wires		Prepare	Record	No Action	Key & Approve from flow thru, Allocate
2	DEI, Humana and WEX Health Payments	Email from KPPA cash management with custom allocation	Prepare, Key, Approve	Record	No Action	Allocate
3	Recurring Supplemental Payments		Prepare, Key, Approve	Record	No Action	Allocate
4	KPPA Admin Expenses		Prepare, Key, Approve	Record	No Action	Allocate
5	Trade Transfer Requests	Email from KPPA Investment Director with direction on allocation type. Either "At current allocation" or a given custom allocation.	No Action	Record	Prepare	Key, Approve, Allocate
6	Repo/ ISF trades	Repo - Letter of direction from Investment directors ISF - Trade ticket submitted by Investment Directors	No Action	Approve Repo Only, Record Both	Prepare	Key Both, Approve ISF, Allocate Both
7	Capital Calls	Notification from Investment Manager	No Action	Approve (LP Only) and Record	No Action	Prepare, Key, Approve (Non-LP), Allocate
8	Distribution, Shares and Redemptions		No Action	Record	No Action	Prepare, Key, Approve, Allocate
9	Investment Fees	Invoice from vendor	No Action	Prepare, Key, Approve	No Action	Allocate
10	Residual Cash	No independent documentation due to automatic process	No Action	Record	No Action	Prepare, Key, Approve, Allocate
11	Interest Earned on Cash accounts		No Action	Record	No Action	Prepare, Key, Approve, Allocate
12	Foreign Exchange Transactions		No Action	Record	No Action	Prepare, Key, Approve, Allocate

Description of KPPA created worksheets and how they achieve Investment Operations objectives

The main objective of Investment Operations is to ensure that there is enough cash available to cover expenses and to complete daily investment activities. The secondary objective of Investment Operations is to confirm that BNY Mellon staff has correctly applied and allocated each deposit and expense according to the percent breakdown for each manager or KPPA created custom allocation. To keep track of all these transactions and to confirm the accuracy of BNY Mellon daily investable cash, Investment Operations created four worksheets: the Daily Cash Projection Worksheet, the Cashflow Worksheet, the Daily Cash Reconciliation Worksheet, and the Working Database.

Cash flow worksheets

	KERS	KERS HAZ	CERS	CHAZ	SPRS	TOTAL		
<i>Make sure to correctly label the transaction in column H for cash flow tracking (see bottom of sheet) - it must exactly match the descriptions</i>								
<i>Monday Dividend Sweeps</i>								
<i>Recurring Humana wire for Insurance every 30th</i>								
<i>Fill in first business day in cell below- all other days will populate - beware of holidays - copy this tab each month</i>						Repo Interest Due	TODAY'S REPO PURCHASE	0.00
July 1, 2020						0.00	at Cantor	
						0.00	ISF Note/ Muni Interest & Maturity	
						0.00	ISF Note/ Muni Interest & Maturity	
							ISF Purchase	
							ISF Purchase	
July 1, 2020	(0.01)	(18,303.72)	(202,300.89)	(69,049.19)	(5,770.19)	(295,424.00)	Capital Call	NMP IV
July 1, 2020	(56,369.93)	(17,361.50)	(191,472.35)	(65,937.72)	(6,729.77)	(337,871.27)	Capital Call	IFM USIDF
July 1, 2020	(0.01)	(15,037.07)	(166,196.47)	(56,726.06)	(4,740.39)	(242,700.00)	Capital Call	BHEP III
July 1, 2020	(3.94)	(0.50)	(4.71)	(1.47)	(0.26)	(10.87)	Investment Cash Outflow	Keyhaven Capital III
July 1, 2020	1,644,423.68					1,644,423.68	Accounting Contributions	Wire
July 1, 2020	0.39	0.12	1.34	0.46	0.05	2.36	Investment Cash Inflow	PIMCO All Asset
July 1, 2020	2,229,587.84	691,236.98	7,624,760.21	2,520,627.59	275,397.54	13,341,610.16	Investment Cash Inflow	ArrowMark

Figure 1: Right side of 7/1/2020 Pension Cashflow. This displays how each transaction was split up between the five systems (KERS, KHAZ, CERS, CHAZ, SPRS). The Keyhaven Capital III and PIMCO All

- ii. Any transactions that occur after the investable cash email is sent to Short Term Investment Fund (STIF) accounts by BNY Mellon staff because they will not be included in the repo calculation.

The **Daily Cash Projection Worksheet** is filled out next. The worksheet and all back up documentation for each day is saved on the Office of Investments shared drive. Each month has its own workbook and a tab is created for each business day. All transactions scheduled to take place "today" are posted in the top portion of the worksheet. The transactions in this section are separated into their assigned fund/system specific amount designated by the **Plan Percent Worksheet** or custom allocation. The sum of this section is called "Current Projected Cash." Transactions not yet due to be withdrawn or deposited are posted in the bottom section also separated into fund/system specific amounts, again, designated by the plan percent or the given custom allocation. The sum of this section is called "Future Projected Cash."

		KERS	KHAZ	CERS	CHAZ	SPRS	
6.30.20		124,045,671.57	23,007,485.04	184,178,597.56	69,269,422.26	9,931,110.13	410,432,286.56
7.1.20 - Wire		1,644,423.68					1,644,423.68
7.1.20 - NMP IV - Capital Call	PE 2013	(0.01)	(18,303.72)	(202,300.89)	(69,049.19)	(5,770.19)	(295,424.00)
7.1.20 - IFM USIDF - Capital Call	IFM INFRA DEBT	(56,369.88)	(17,361.48)	(189,112.84)	(66,300.33)	(6,729.77)	(337,871.27)
7.1.20 - BHEP III - Capital Call	PE 2013		(15,037.07)	(166,196.47)	(56,726.06)	(4,740.39)	(242,700.00)
Current Projected Cash Balance		125,633,725.36	22,956,782.77	183,620,987.36	69,077,346.68	9,913,869.78	411,200,714.97
Current Projected Cash Balance		125,633,725.36	22,956,782.77	183,620,987.36	69,077,346.68	9,913,869.78	411,200,714.97
7.2.20 - Reurring/Supplemental		(300,023.41)	(56,316.91)	(272,326.05)	(45,363.39)	(5,000.00)	(679,029.76)
7.7.2 - - SVSS IV - Capital Call	PE 2018		(75,991.50)	(932,032.51)	(290,976.00)		(1,299,000.00)
7.10.20 - VEP VI - Capital Call							(133,523.00)
7.13.20 - VEP III - Capital Call							(35,454.00)
7.13.20 - VEP IV - Capital Call							(106,306.00)
7.15.20 - Patron - Capital Call							(€ 195,100.00)
7.15.20 - LLCP V - Capital Call							(251,774.00)
7.15.20 - LLCP VI - Capital Call							(328,125.00)
7.16.20 - BHEP III - Capital Call							(177,980.00)
Future Projected Cash		125,333,701.95	22,824,474.36	182,416,628.80	68,741,007.29	9,908,869.78	407,994,423.21
Anticipated Cash Inflow							
7.7.20 - MWREIF - Dist							349,081.97
Future Projection with Inflow		125,333,701.95	22,824,474.36	182,416,628.80	68,741,007.29	9,908,869.78	408,343,505.18

Figure 3: Screen shot of 7/1/2020 Pension Daily Cash Projection worksheet. The Cashflow worksheet and the Daily Cash Projection worksheet differ because the automatic transactions from Keyhaven Capital III and PIMCO All Assets have not yet occurred on the morning of 7/1/2020.

- 4. An Investment Operations staff member then opens the Daily Cash Projection worksheet for the day and keys in the same known incoming and outgoing transactions in the appropriate sections for each day that were keyed in step #2. For example, Investment Operations receives a capital call notice on 7/1/2020 that is not due until 7/10/2020. This capital call will be recorded in the "Future Projected Balance" section from 7/1/2020 until 7/9/2020.

On 7/10/2020 the posting then moves up to the "Current Projected" section. This is the final posting of this call.

5. After all known information is keyed in the Daily Cash Projection worksheet, the preparing Investment Operations staff member will compare the sum of everything in the "Current Projected Balance" section to the Projected Cash Worksheet from BNY Mellon generated in Nexen by an Investment Operations staff member. The "Current Projected Balance" and the balance on BNY Mellon's projected cash worksheet should be similar. During this audit, it was noted that a variance of \$100,000 was deemed acceptable. As of February 2022, this threshold was dropped to \$25,000. If the difference is outside the acceptable threshold, the preparing Investment Operations staff researches the discrepancy to determine the cause of the difference. The reason for the difference should be noted on the spreadsheet. KPPA staff may need to contact BNY Mellon for assistance identifying the cause of the difference. Typically, the difference is the result of accruals in the cash account, which is a result of the anticipated interest due for outstanding cash investments such as repo, ISF and STIF.
 - i. The acceptable variance threshold will change over time due to the cash balance and interest earned on STIF accounts.
 1. The cash balance is influenced by Investment Portfolio Manager actions. Sometimes it will be high if investment staff are wanting to fund new managers. Other times it will be low to balance out asset classes.
 2. The interest earned on STIF accounts is not an item that KPPA can control or predict. This is also not documented, which means it will not show up in the Daily Cash Projection worksheet, which will cause a difference.
6. The preparing Investment Operations staff member will send an email as soon as possible to KPPA Investment Portfolio Managers with the BNY Mellon projected cash amounts. If Investment Operations staff run into issues during step #5, Investment Portfolio Managers will be notified that investable cash email will be sent later during the day. BNY Mellon is the custody of all the above KPPA financial information which means that their projected cash should be correct. This projected cash is used in a calculation by Investment Portfolio Managers to determine how much can be invested in the short-term vehicles, Repos and Institutional Secure Funding Program (ISFs). In the event of negative cash balances in the future, Investment Operations staff should alert the Office of Investments.

Finally, the ***Daily Cash Reconciliation Worksheet*** is completed for the prior business day and saved on the Office of Investments shared drive. Each month has its own file, and each day has its own section for Pension and Insurance. In the following steps, true current business day will be referred to as T and prior business days will be T-1 and T-2.

PENSION FUND						
	KERS	KHAZ	CERS	CHAZ	SPRS	Total
June 30, 2020	123,598,994.28	22,980,879.27	184,544,927.37	69,414,663.29	9,887,952.49	410,427,416.70
wire in	1,644,423.68	0.00	0.00	0.00	0.00	1,644,423.68
wire out	0.00	0.00	0.00	0.00	0.00	0.00
PIMCO All Asset	0.39	0.12	1.34	0.46	0.05	2.36
IVP XII	177,589.36	22,458.62	212,115.06	66,029.68	11,689.28	489,882.00
BDCM IV	0.00	10.97	121.21	41.37	3.46	177.00
LLCP VI	0.00	1,218.54	14,302.78	4,454.64	0.00	19,975.96
ArrowMark	2,229,587.84	691,236.98	7,624,760.21	2,520,627.59	275,397.54	13,341,610.16
NMP IV	(0.01)	(18,303.72)	(202,300.89)	(69,049.19)	(5,770.19)	(295,424.00)
IFM USIDF	(56,369.93)	(17,361.50)	(191,472.35)	(65,937.72)	(6,729.77)	(337,871.27)
BHEP III	(0.01)	(15,037.07)	(166,196.47)	(56,726.06)	(4,740.39)	(242,700.00)
	127,594,225.61	23,645,102.20	191,836,258.26	71,814,104.06	10,157,802.45	425,047,492.59
July 1, 2020	127,594,225.60	23,645,102.21	191,836,258.26	71,814,104.06	10,157,802.47	425,047,492.60
Daily Total	0.01	(0.01)	(0.00)	0.00	(0.02)	(0.01)
Unit Trades Realized Gain/Loss	0.00	0.00	0.00	0.00	0.00	0.00
Final	0.01	(0.01)	(0.00)	0.00	(0.02)	(0.01)

Figure 4: Screen shot of 7/1/2020 daily cash reconciliation worksheet. The Keyhaven Capital III automatic transaction is not included in this reconciliation because it was not included on the 7/1/2020 Unit Trades Detail report which means that this transaction has not yet been allocated across the systems by BNY accounting group on 7/1/20.

7. Closing balance is retrieved from the **Plan Percent Report** of the T-2 business day using the values in the base cost column for KRS Cash Unit (Pension) and KRS INS Cash Unit (Insurance).
8. Closing ending balance for T-1 is retrieved from the corresponding Plan Percent Report using the same column and units from step #7.
9. "Wires In" and "Wires Out" on the pension and insurance wire tabs are copied and pasted into the Daily Reconciliation Worksheet from the Unit Trade Details Worksheet for day T-1 from BNY Mellon.
10. All incoming and outgoing transactions on the pension and insurance strip tabs are copied and pasted into the Daily Reconciliation Worksheet from the Unit Trade Details Worksheet for day T-1 from BNY Mellon.
11. Realized loss/gain is calculated for day T-1 by finding the difference between base transaction amount and the base cost of system/fund specific cash account on the Unit Trades Worksheet. Realized Loss/Gain recorded during the middle of the month represents investment fees and interest being allocated across the plans.
12. The sum of all the above information should be zero, meaning that there is no discrepancy in what has been calculated verses what is being reported by BNY Mellon. If a difference is detected, the Investment Operations staff member assigned to this task on business day T will research the outage and may need to contact BNY Mellon Cash Management team for an explanation.

Working Database Worksheets are saved on the Office of Investments shared drive. This worksheet shows a running history of all capital calls, distributions and redemptions in the "Cash Flows" tab. This database was not tested in this audit because the same information is recorded elsewhere in the three other worksheets described above.

Section B: Capital call approvals

Investment managers send capital call notifications to BNY Mellon Cash Management, KPPA Investment Operations, and Investment Portfolio Managers. BNY Mellon Cash Management team keys the total of the call in BNY Mellon Nexen system after Investment Operations emails the notice to the BNY Mellon Cash Management team to ensure receipt from the Limited Partnership (LP) was received.

- If the call is a LP manager, Investment Operations compares the capital call notification letter to the information in Nexen to ensure the total, fund (Pension or Insurance), Investment Manager name, and due date match.
 - If the capital call exceeds \$25,000,000, it will take two members of the Investment Operations team to approve.
- If the call is from a commingled fund, BNY Mellon Cash Management team keys and approves the capital call in Nexen.

Capital calls involving foreign currency need to be approved in Nexen exactly two days before the due date. All other calls are approved in Nexen as soon as they are available to be approved and the scheduled withdraw happens automatically on the assigned due date.

Section C: Affirming Repo procedures

Investment Portfolio Managers send a Letters of Direction to Investment Operations staff to use when confirming that what was keyed in BNY Mellon Access system is correct. The fund (Pension/Insurance), total, trade date, maturity date, and interest due at maturity must match between the Letter of Direction and the trade in BNY Mellon Access. The Investment Operations staff member who approves the repo saves a screen shot of the match trade window to the day's folder on the Office of Investments shared drive. The Investment Operations staff member then replies to the repo email sent from the Investment Portfolio Manager with the receipt.

As of June 2021, the Investment Operations staff member who reviewed the daily cash following the steps in Section A of this report should not be affirming that day's repo unless necessary (e.g., staffing issues that day). Investment Operations staff review the Settled Cash Statement each day to ensure all cash transactions have settled.



KPPA

Kentucky Public Pensions Authority

**Plan Liquidity Phase 3 - Available Cash Balance/Cash
Projection**

Issued May 15, 2023



Acronyms

The following acronyms will be used throughout the report:

1. KPPA - Kentucky Public Pensions Authority
2. CERS - County Employees Retirement System
3. KRS - Kentucky Retirement System
4. KPPA Executive Management team - KPPA Executive Director, KPPA Deputy Executive Director, KPPA CIO, KPPA Executive Director-Office of Legal Services, and KPPA Executive Director-Office of Benefits
5. KPPA Accounting – KPPA Division of Accounting
6. Investment Operations – KPPA Division of Accounting, Investment Operations branch

Objective

The objectives of our Plan Liquidity Phase 3 - Available Cash Balance/Cash Projection audit were to ensure internal controls have been designed and are operating effectively and efficiently. We also ensured compliance with applicable state statutes and regulations as well as policies established by the CERS and KRS Boards and procedures developed by KPPA staff.

Other Matters Noted

In addition to the recommendations included in our Plan Liquidity Phase 3 - Available Cash Balance/Cash Projection audit report dated May 15, 2023, we noted one recommendation that we wanted to communicate to management. This item will be reviewed during follow engagements and/or during the annual review of open recommendations.

1. **Investment Operations staff should review the various reconciliations that are being performed to determine if these reconciliations can be completed in a manner that avoids duplication of work as well as ensures discrepancies are caught immediately. Investment Operations staff should consider analyzing the reconciliation method utilized by audit staff during the engagement to determine if a similar method would be beneficial to the Investment Operations team.**

Three initial reconciliations failed to detect the following errors. Compensating controls were in place that eventually caught these errors:

1. The distribution from Adams Street SPC II B1 settled for \$1 more than it should have at \$1,630,518 on June 11, 2021. Transaction ID is 4903599435701002-10. The discrepancy was noted in a second reconciliation on June 16, 2021.
2. Two capital calls from L-A VII settled correctly by total but were allocated across the plans incorrectly because the capital call was assigned to L-A VII B. The March 25, 2021, reconciliations for pension and insurance did not catch this error. The discrepancy was found by BNY Mellon staff and communicated on June 16, 2021.

There are three worksheets used in the various processes to monitor the cash accounts; however, each worksheet reviews the same type of information. Initial reconciliation procedures instruct the reader to copy and paste details from the Unit Trade's Detail report; however, the following actions are not required:

1. Wires in and out are not required to be compared to the source documents, which are emails from KPPA Accounting.
2. Transactions on the strip tabs are not required to be compared to the back-up documents. Inaccurate activity may go undetected and uncorrected.

This report is intended solely for use by the KPPA Board and KPPA Audit Committee; the CERS and KRS Boards; the Executive Management teams for KPPA, CERS, and KRS; and the Division of Accounting. This report is not intended to be, and should not be, used by anyone other than the specified parties. All final reports are subject to Open Records Requests.



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: June 14, 2023

SUBJECT: Joint CERS & KRS Retiree Health Plan Committee Report

The Joint CERS & KRS Retiree Health Plan Committee met on Thursday, May 11, 2023. The Committee elected Jerry Powell (CERS) as Chair and Dr. Crystal Miller (KRS) as Vice-Chair.

Humana provided information on Plan Performance for 2022, Stars Review 2023, Inflation Reduction Act Impact in 2024 – 2029 and Introducing Humana Community Navigator for 2023. Humana also provided information on the Centers for Medicare and Medicaid Services (CMS) Final Notice for 2024 plan year, indicating an average CMS net payment of all payment policies of –1.12%, but this impact will vary greatly by region and county. They also provided an overview of product updates, which included continuous Glucose Monitors and Diabetic Testing Supplies, as well as a Truthbrush and an online exercise portal.

Humana discussed their exit from the Employer Group Commercial Medical Products. This includes the Commercial medical and pharmacy benefits which will impact the KPPA Medical Only and Medicare Advantage (MA) Mirror plans. Humana has received approval to continue to administer these plans through 2024. Humana is researching possible solutions to be able to continue to provide coverage for these plans through the contract engagement which ends 12/31/2025. This does not affect their Group Medicare products which includes the KPPA Medicare Advantage Premium and Essential plans.

The Division of Retiree Health Care (RHC) provided an update on the Medicare Secondary Payer Act Reimbursement process. RHC reported that 98 retirees of the CERS plans have been reimbursed in the amount of \$421,870.50.



MEMORANDUM

TO: County Employees Retirement System Board of Trustees

From: Dr. Merl Hackbart, Chair
Investment Committee

Date: June 14, 2023

Subject: Summary of Investment Committee Special Meeting

The County Employees Retirement System Investment Committee held a Special Meeting on June 9, 2023.

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. **No Items Requiring Board Approval.** The Committee met on information only items and therefore no items approved by the Committee require Board ratification.

RECOMMENDATION: The Investment Committee has no requests for the County Employees Retirement System Board of Trustees to ratify at this time.

2. **The following items were also discussed during the Investment Committee meeting:**
 - a. Wilshire, the investment consultant for CERS, provided the Committee with a capital market overview that included their forward-looking return forecasts. They indicated that rate volatility in the market remains significant. In sum, Wilshire communicated to the Committee that the overall returns for the next 5, 10 and 20-years were higher than the returns the portfolio delivered over the last 12 months. The forward-looking capital market assumptions have been affected by the Fed's raising interest rates. Further, Wilshire stated that interest rates may

remain higher for a longer period. Finally, Wilshire also discussed that a new asset/liability study for the CERS investment portfolio had begun.

- b. The KPPA Investment Office presented the quarterly update on portfolio performance. During the most recent quarter the relative performance against benchmarks was slightly negative though relative performance remained positive for the FYTD. In monetary terms, the relative outperformance to benchmarks equates to approximately \$168 million.
- c. The portfolio continued to see outperformance in Public Equities; Specialty Credit; and Core Fixed Income. The Private Credit portion of our Specialty Credit portfolio is particularly enticing. We are achieving senior secured status which will translate into lower risk and higher returns.

The Investment Office went over the investment budget year to date and a forecast of the FY 2024 investment budget. Additionally, they provided a Compliance Report update which showed no compliance violations relative to the Investment Policy Statement.

***Board of Trustees Action Required**

Wilshire

**Kentucky Public Pensions Authority
County Employees Retirement System (CERS)**

Quarterly Board Summary

March 31, 2023

Quarterly Market Review

March 2023 Asset Class Assumptions

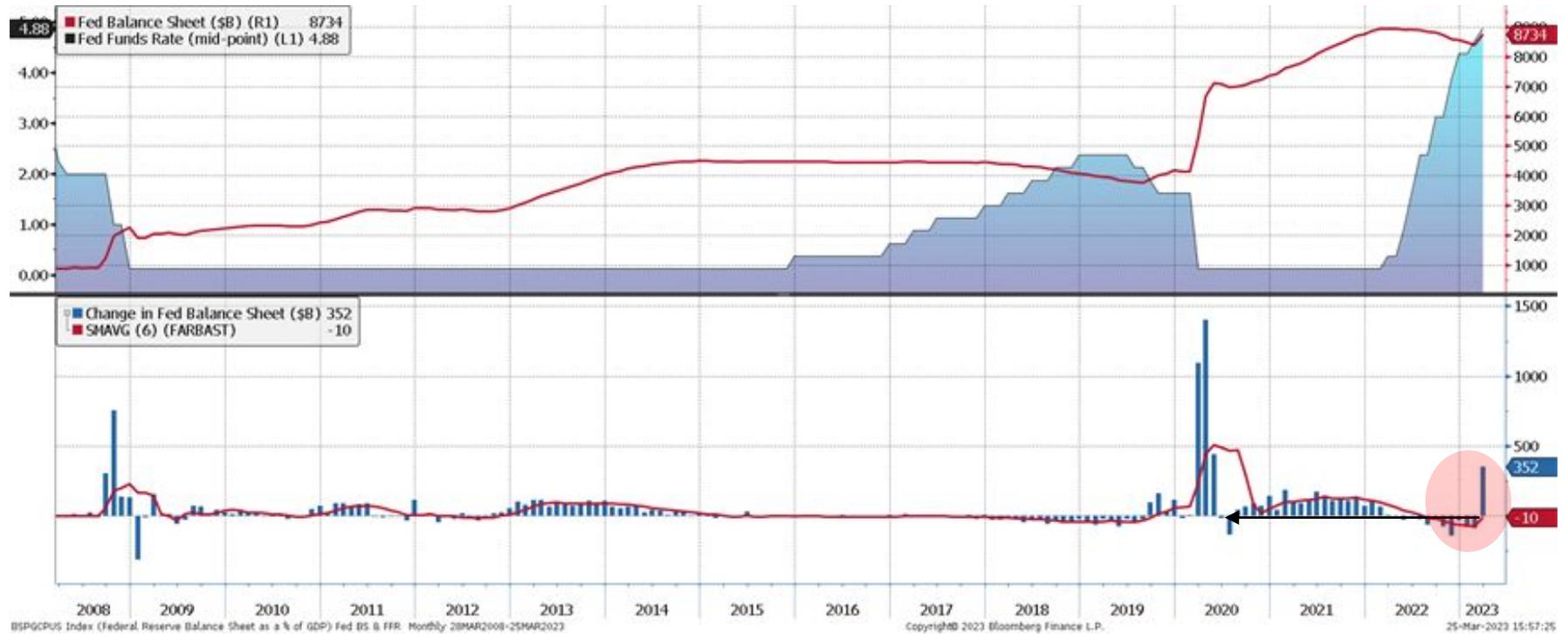
	Equity						Fixed Income						Real Assets						
	US Stock	Dev ex-US Stock	Emg Stock	Global ex-US Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Private Credit	Dev ex-US Bond (Hdg)	US RES	Global RES	Private RE	Cmdty	Real Assets	US CPI
Compound Return (%)	6.15	6.90	7.15	7.25	6.70	9.60	3.65	4.60	4.60	3.65	6.25	8.55	2.85	5.75	5.90	6.25	5.90	6.65	2.25
Expected Risk (%)	17.00	18.00	26.00	19.10	17.10	29.65	0.75	4.70	9.85	6.00	10.00	12.75	4.00	17.50	16.45	13.90	16.00	12.35	1.75
Cash Yield (%)	1.65	3.15	2.75	3.05	2.20	0.00	3.65	4.90	4.95	4.25	9.35	4.90	3.45	4.05	4.05	2.25	3.65	3.15	0.00
Growth Exposure	8.00	8.00	8.00	8.00	8.00	14.00	0.00	-0.95	-2.40	-3.00	4.00	5.10	-1.00	6.00	6.00	3.50	0.00	2.70	0.00
Inflation Exposure	-3.00	0.00	5.00	1.45	-1.30	-3.75	0.00	-2.50	-6.80	2.50	-1.00	-1.50	-3.00	1.00	1.80	1.00	12.00	5.25	1.00
Correlations																			
US Stock	1.00																		
Dev ex-US Stock (USD)	0.81	1.00																	
Emerging Mkt Stock	0.74	0.74	1.00																
Global ex-US Stock	0.84	0.95	0.89	1.00															
Global Stock	0.95	0.91	0.84	0.94	1.00														
Private Equity	0.72	0.63	0.61	0.67	0.73	1.00													
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.06	0.00	1.00												
Core Bond	0.28	0.13	0.00	0.08	0.20	0.30	0.18	1.00											
LT Core Bond	0.31	0.15	0.01	0.11	0.24	0.31	0.11	0.94	1.00										
TIPS	-0.05	0.00	0.15	0.06	-0.01	-0.03	0.20	0.60	0.48	1.00									
High Yield Bond	0.54	0.39	0.49	0.46	0.53	0.31	-0.10	0.24	0.32	0.05	1.00								
Private Credit	0.68	0.55	0.58	0.60	0.68	0.44	0.00	0.24	0.30	0.00	0.76	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.16	0.17	0.26	0.10	0.68	0.66	0.39	0.26	0.22	1.00						
US RE Securities	0.58	0.47	0.44	0.49	0.57	0.49	-0.05	0.17	0.22	0.10	0.56	0.62	0.05	1.00					
Global RE Securities	0.64	0.57	0.54	0.60	0.65	0.55	-0.05	0.17	0.21	0.11	0.61	0.68	0.04	0.96	1.00				
Private Real Estate	0.55	0.45	0.45	0.49	0.54	0.50	-0.05	0.19	0.25	0.09	0.58	0.63	0.05	0.79	0.78	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.28	0.00	-0.03	-0.03	0.25	0.29	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.62	0.63	0.65	0.69	0.67	0.57	-0.03	0.22	0.24	0.30	0.64	0.69	0.04	0.78	0.84	0.76	0.64	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	0.00	-0.08	0.05	0.04	0.05	0.44	0.22	1.00

Regional Banks Under Stress



Data Source: Bloomberg

Fed Response: “Dovish Hike” - End of QT?



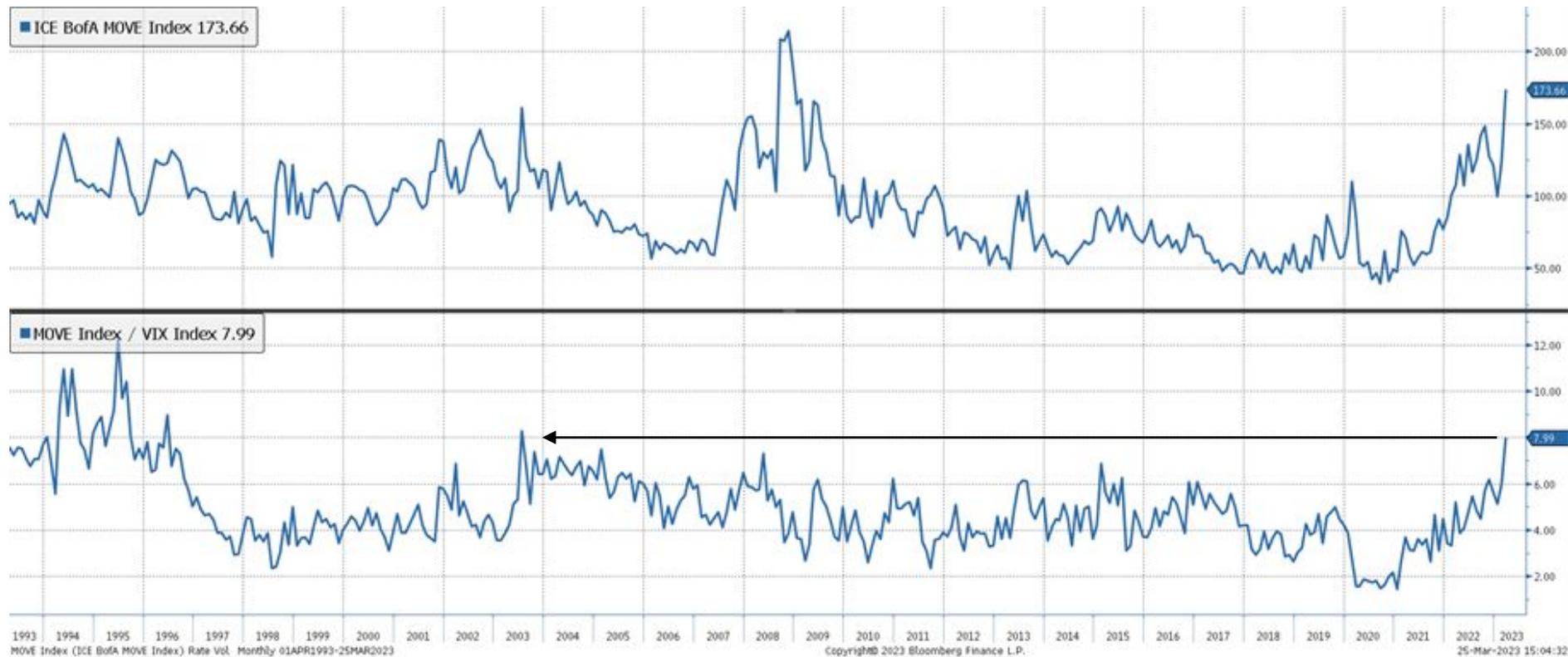
Data Source: Bloomberg

Fed Funds Discounting Goes into “Charlie Brown” Mode



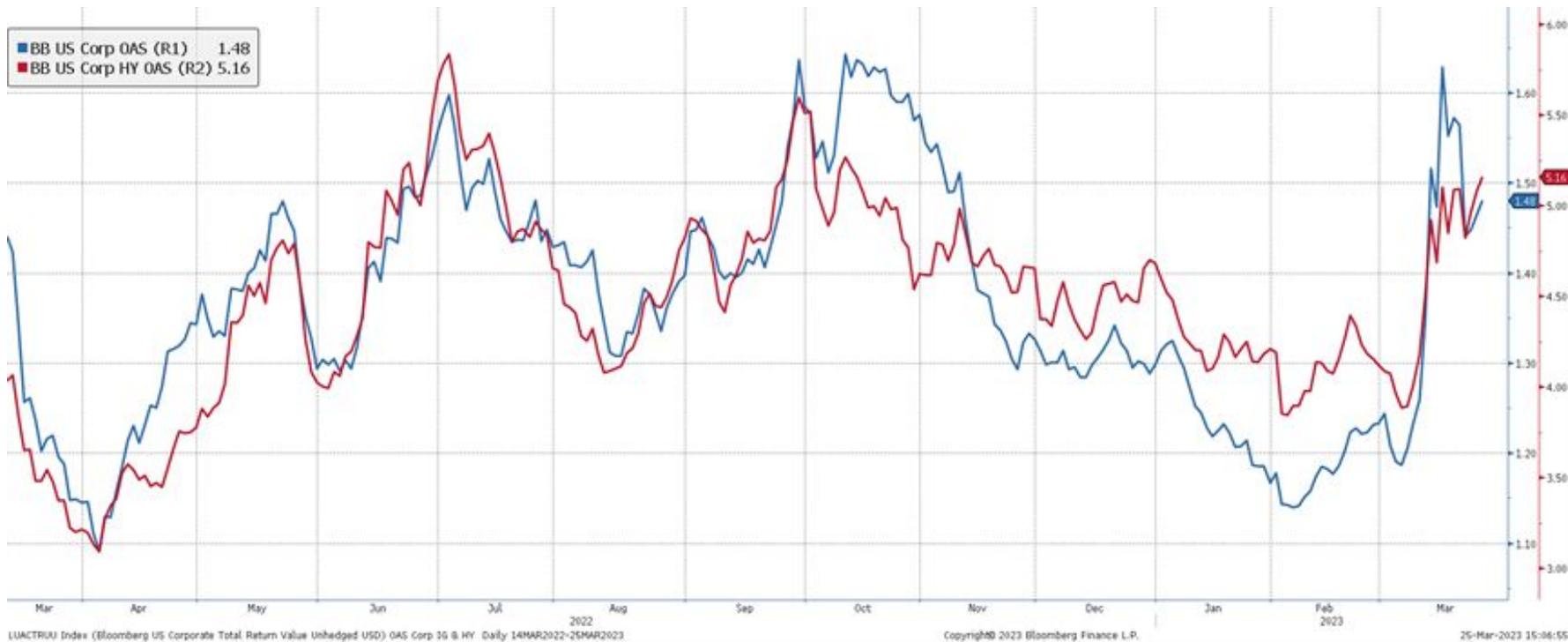
Data Source: Bloomberg

Extreme Interest Rate Volatility



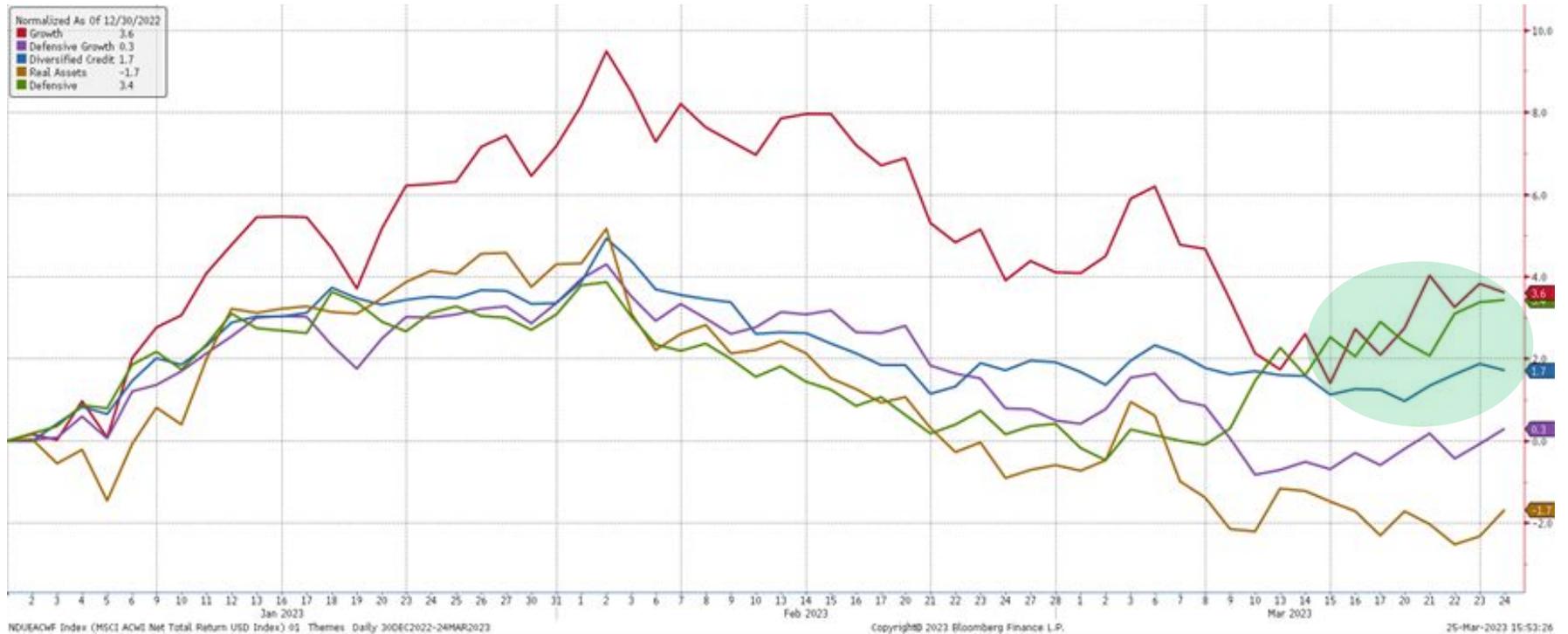
Data Source: Bloomberg

Credit Spreads Widen (but remain below Sept '22 levels)



Data Source: Bloomberg

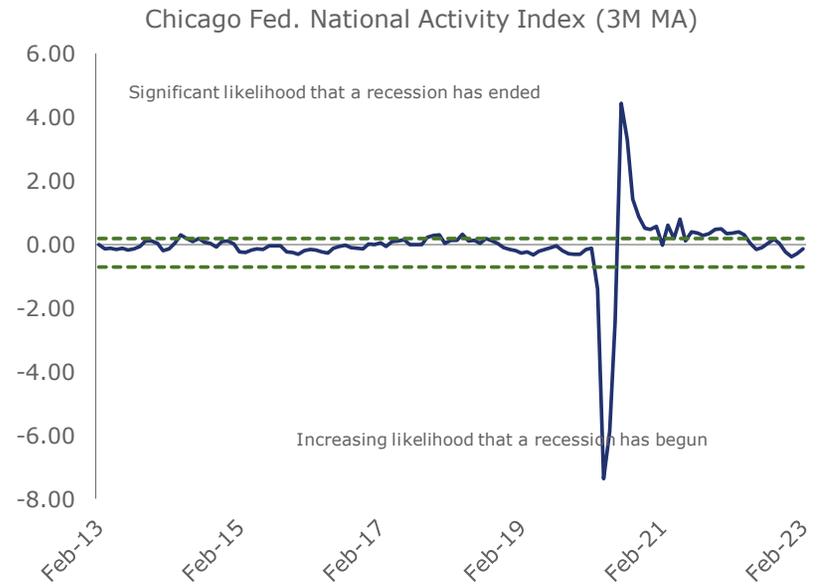
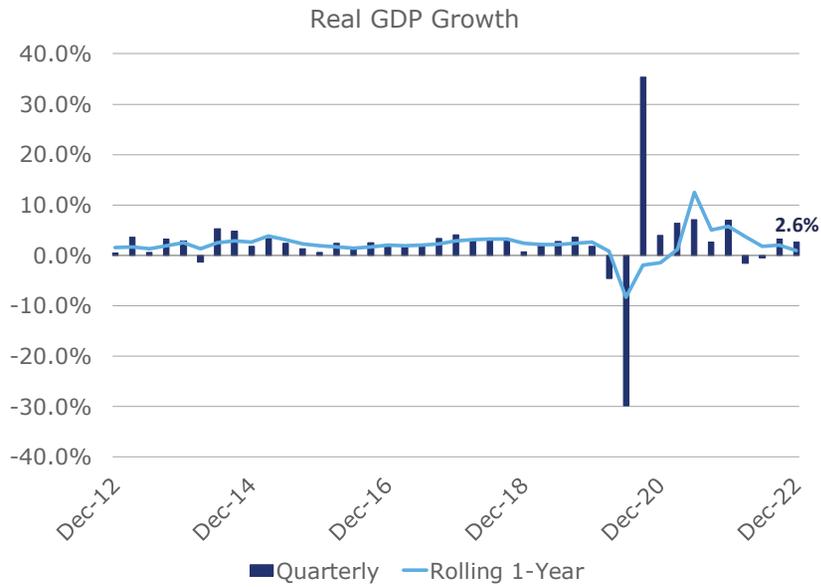
Many Risk-Assets Showing Resilience



Data Source: Bloomberg

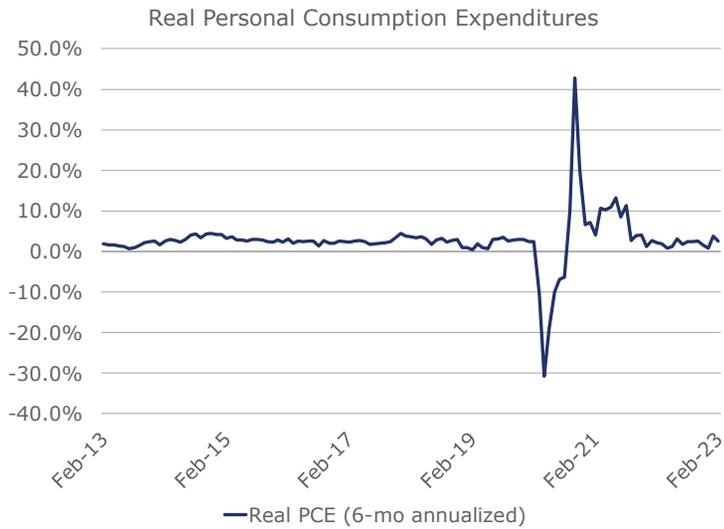
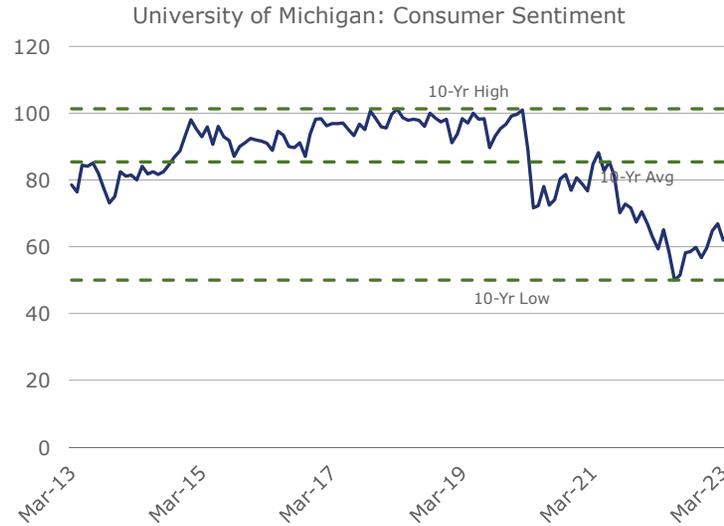
Economic/Market Activity

Economic Growth



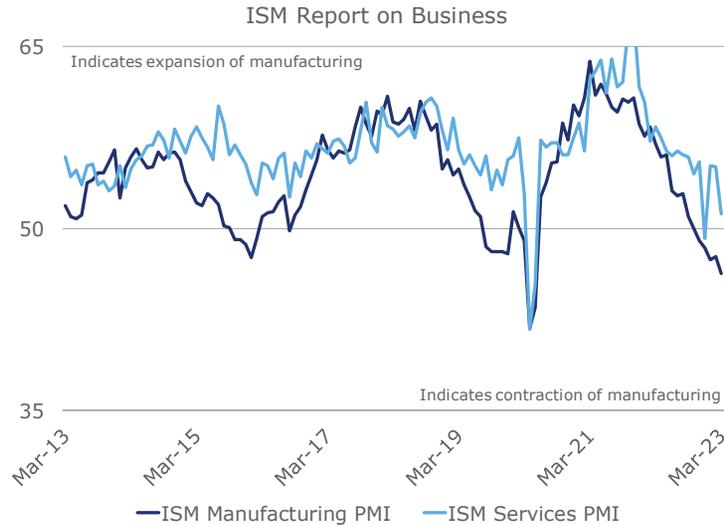
Data Sources: Bloomberg

Consumer Activity



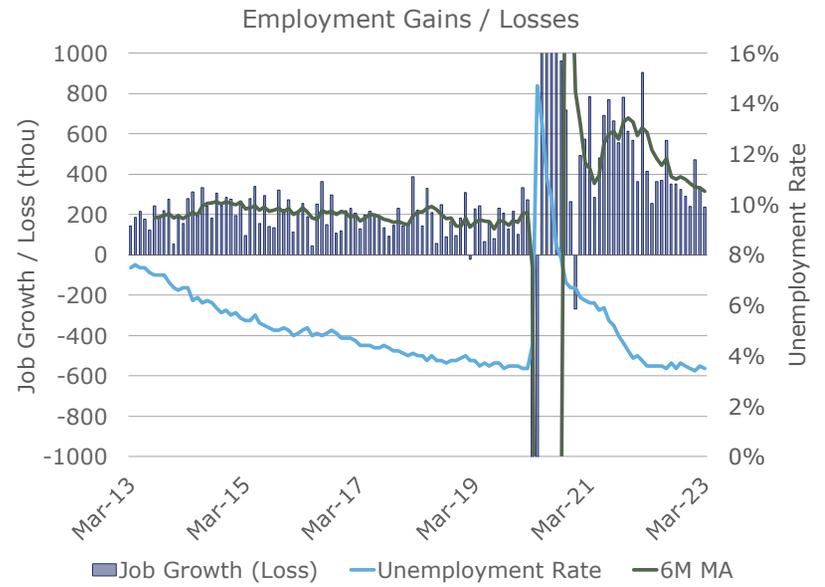
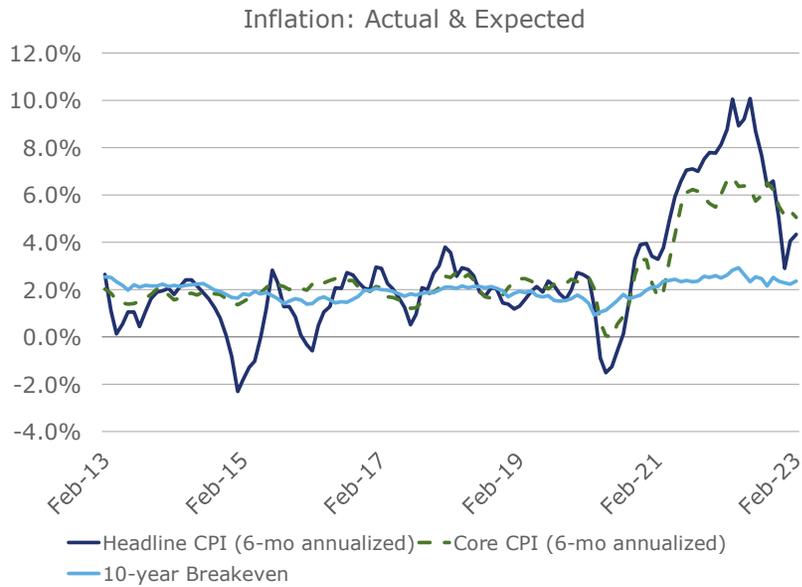
Data Sources: Bloomberg

Business Activity



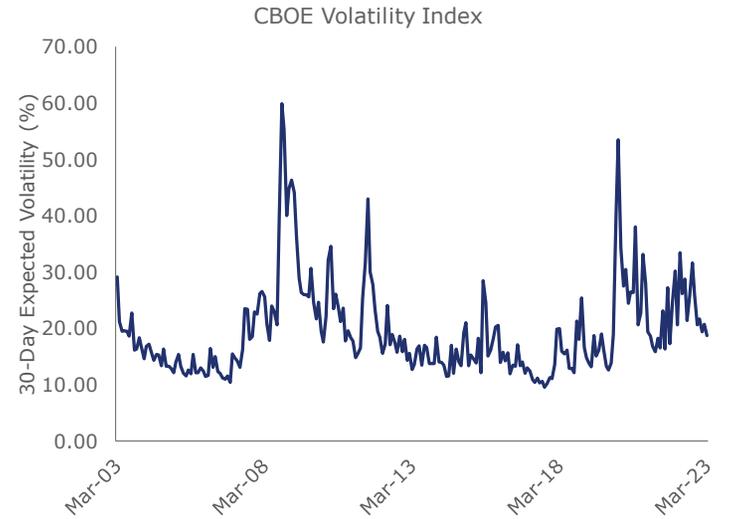
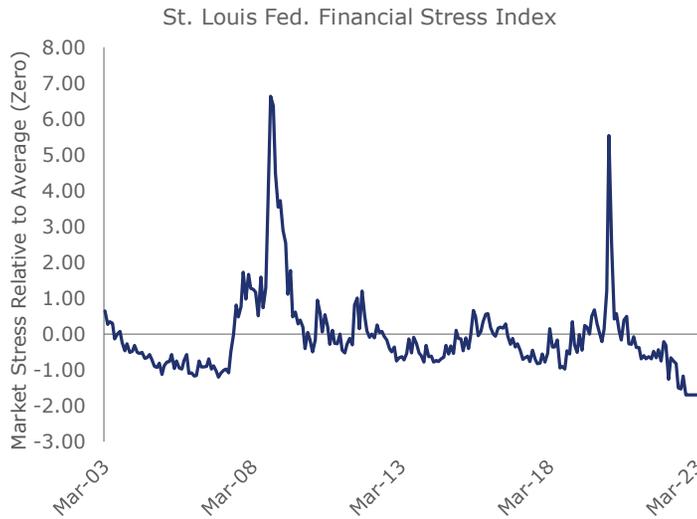
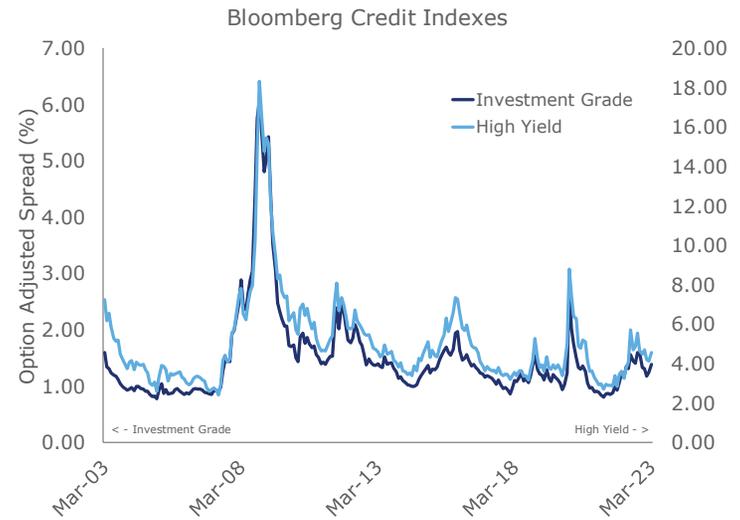
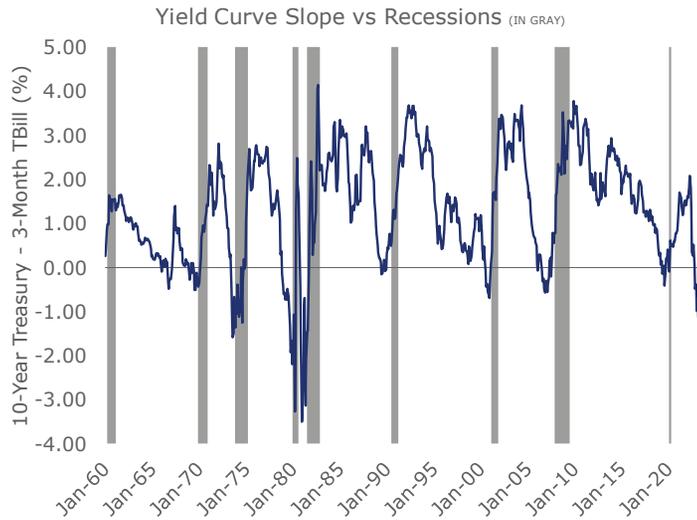
Data Sources: Bloomberg

Inflation and Employment



Data Sources: Bloomberg

Risk Monitor

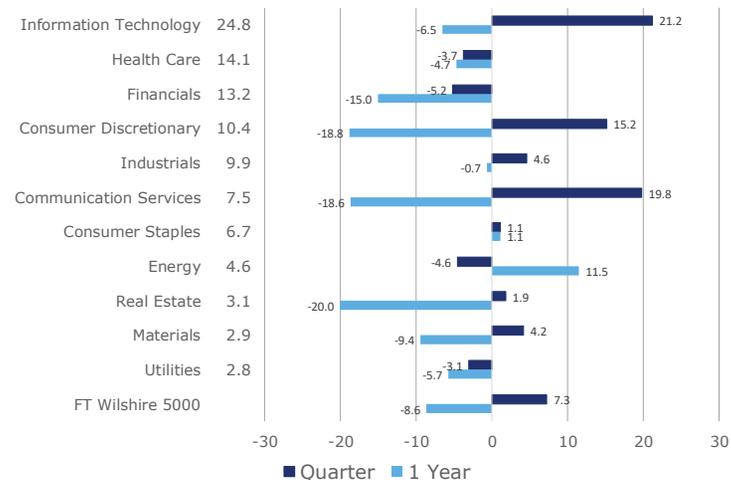


Data Sources: Bloomberg

U.S. Equity Market

As of 3/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	7.3	7.3	-8.6	18.8	10.7	11.9
Wilshire U.S. Large Cap	7.6	7.6	-8.4	18.8	11.2	12.3
Wilshire U.S. Small Cap	3.6	3.6	-10.3	19.8	6.0	8.7
Wilshire U.S. Large Growth	15.7	15.7	-11.4	19.7	12.9	14.2
Wilshire U.S. Large Value	0.1	0.1	-4.8	17.5	9.4	10.3
Wilshire U.S. Small Growth	6.3	6.3	-8.7	17.6	6.1	9.2
Wilshire U.S. Small Value	1.0	1.0	-11.7	22.0	5.8	8.1
Wilshire REIT Index	3.2	3.2	-21.3	11.0	5.7	5.9
MSCI USA Min. Vol. Index	1.3	1.3	-4.4	12.4	9.1	10.6
FTSE RAFI U.S. 1000 Index	1.7	1.7	-5.9	22.1	10.0	11.0

U.S. Sector Weight and Return (%)



Large Cap vs Small Cap



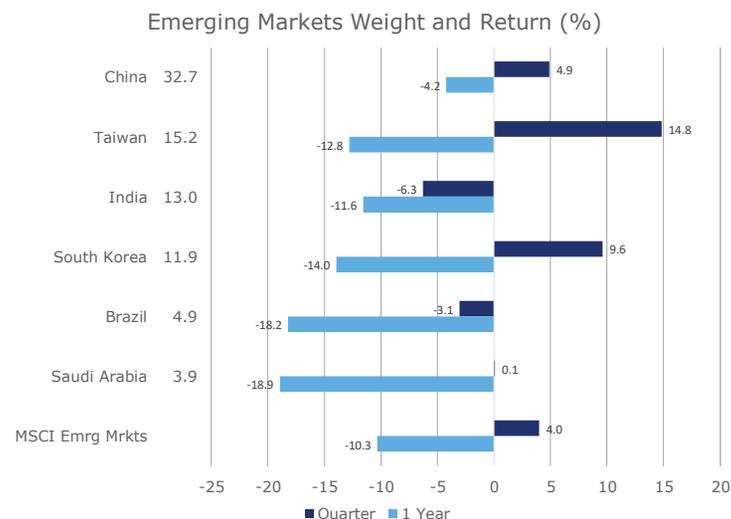
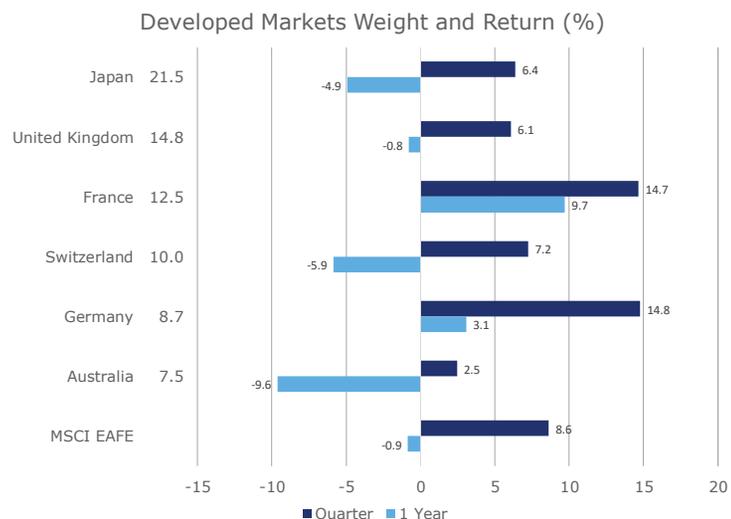
Large Growth vs Large Value



Data Sources: Bloomberg, Wilshire Atlas

Non-U.S. Equity Market

As of 3/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	7.0	7.0	-4.6	12.3	3.0	4.7
MSCI EAFE (\$G)	8.6	8.6	-0.9	13.5	4.0	5.5
MSCI Emerging Markets (\$G)	4.0	4.0	-10.3	8.2	-0.5	2.4
MSCI Frontier Markets (\$G)	2.5	2.5	-16.3	7.9	-3.7	0.0
MSCI ACWI ex-US Growth (\$G)	8.7	8.7	-6.0	9.8	3.7	5.4
MSCI ACWI ex-US Value (\$G)	5.1	5.1	-3.9	14.9	1.9	3.9
MSCI ACWI ex-US Small (\$G)	4.8	4.8	-9.9	15.5	2.1	5.5
MSCI ACWI Minimum Volatility	1.7	1.7	-5.5	8.9	5.7	7.4
MSCI EAFE Minimum Volatility	5.8	5.8	-4.6	5.3	1.6	4.7
FTSE RAFI Developed ex-US	6.7	6.7	-1.6	16.8	3.4	5.3
MSCI EAFE LC (G)	7.7	7.7	4.4	15.2	6.8	7.9
MSCI Emerging Markets LC (G)	3.8	3.8	-6.2	9.2	2.3	5.4

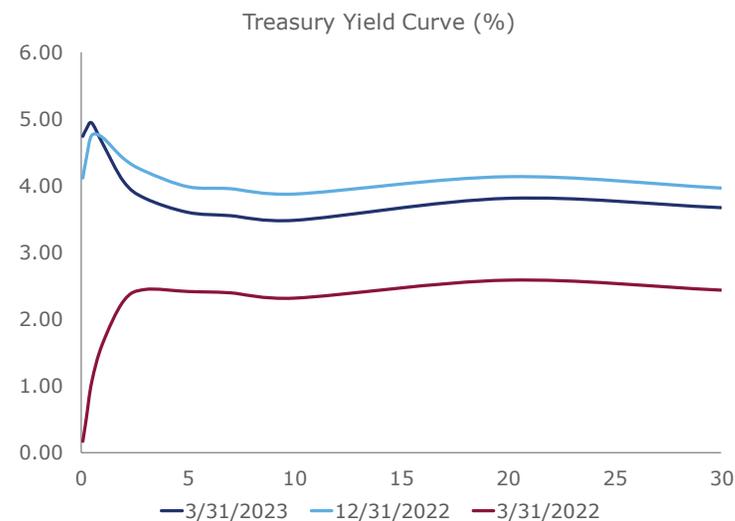
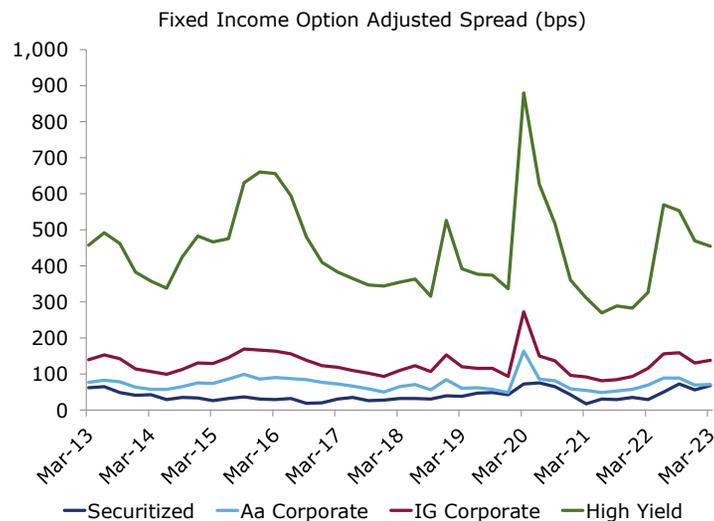


Data Sources: Bloomberg

U.S. Fixed Income

As of 3/31/2023	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.4	6.3	3.0	3.0	-4.8	-2.8	0.9	1.4
Bloomberg Treasury	3.8	6.3	3.0	3.0	-4.5	-4.2	0.7	0.9
Bloomberg Gov't-Rel.	4.4	5.4	2.9	2.9	-3.3	-1.6	1.1	1.4
Bloomberg Securitized	4.6	5.8	2.5	2.5	-4.7	-3.1	0.3	1.0
Bloomberg Corporate	5.2	7.2	3.5	3.5	-5.6	-0.5	1.6	2.3
Bloomberg LT Gov't/Credit	4.6	14.6	5.8	5.8	-13.4	-6.3	0.6	2.3
Bloomberg LT Treasury	3.8	16.4	6.2	6.2	-16.0	-11.3	-0.4	1.5
Bloomberg LT Gov't-Rel.	5.1	11.7	5.2	5.2	-9.9	-3.1	0.6	2.3
Bloomberg LT Corporate	5.3	13.2	5.4	5.4	-11.5	-2.6	1.1	3.0
Bloomberg U.S. TIPS *	3.5	7.6	3.3	3.3	-6.1	1.8	2.9	1.5
Bloomberg High Yield	8.5	3.7	3.6	3.6	-3.3	5.9	3.2	4.1
S&P/LSTA Leveraged Loan	9.4	0.3	3.2	3.2	2.5	8.5	3.6	3.8
Treasury Bills	4.7	0.3	1.1	1.1	2.5	0.8	1.4	0.9

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

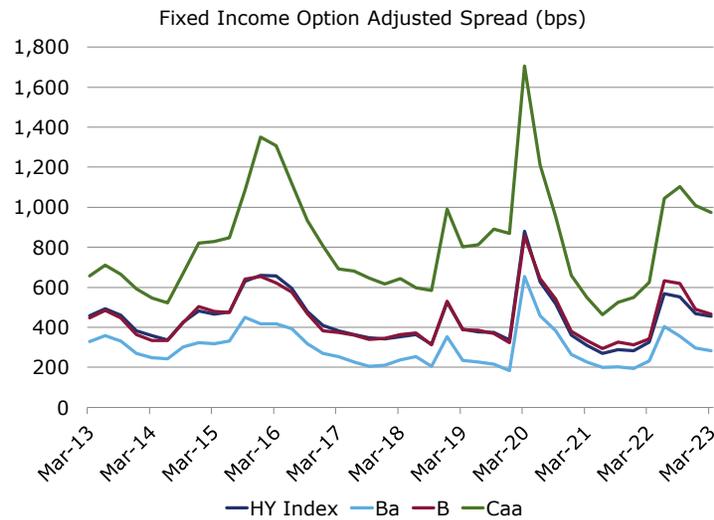


Data Sources: Bloomberg

High Yield Bond Market

As of 3/31/2023

	YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield	8.5	3.6	3.6	-3.3	5.9	3.2	4.1
S&P LSTA Leveraged Loan	9.1	2.9	2.9	2.4	6.5	3.4	3.3
High Yield Quality Distribution	Weight						
Ba U.S. High Yield	48.8%	6.8	3.4	3.4	-1.9	5.8	4.5
B U.S. High Yield	39.6%	8.7	3.5	3.5	-3.7	5.4	3.7
Caa U.S. High Yield	10.7%	13.4	5.0	5.0	-8.6	7.1	3.4
Ca to D U.S. High Yield	0.9%	35.1	-3.6	-3.6	-10.3	12.4	-5.3

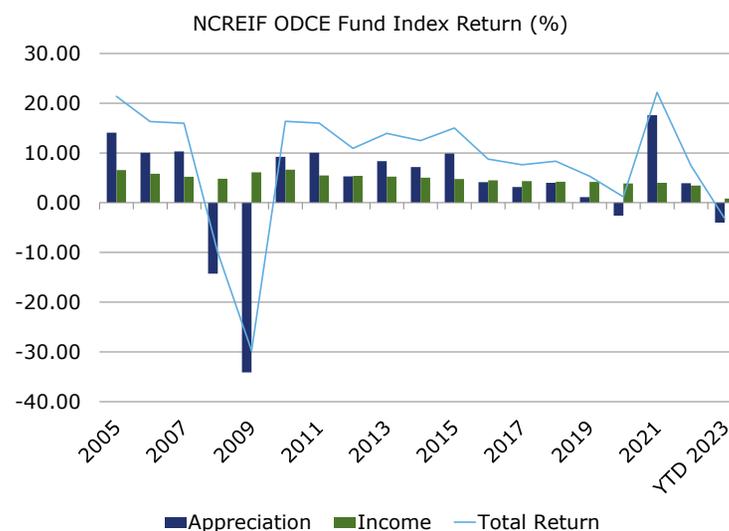
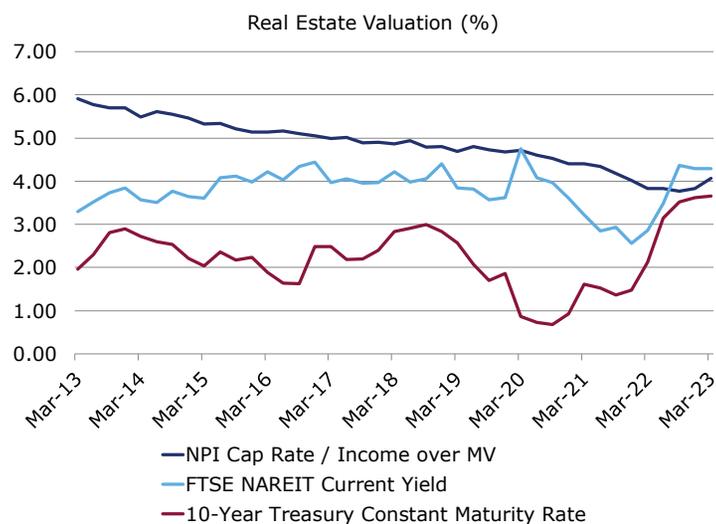


Data Sources: Bloomberg

Real Assets

As of 3/31/2023

	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg U.S. TIPS	3.3	3.3	-6.1	1.8	2.9	1.5
Bloomberg Commodity Index	-5.4	-5.4	-12.5	20.8	5.4	-1.7
Bloomberg Gold Index	8.1	8.1	0.7	5.9	7.1	1.3
Wilshire Global RESI Index	2.3	2.3	-20.8	9.0	3.2	4.3
NCREIF ODCE Fund Index	-3.2	-3.2	-3.1	8.4	7.5	9.5
NCREIF Timberland Index	1.8	1.8	11.3	8.1	5.5	5.8
FTSE Global Core Infrastructure 50/50	0.7	0.7	-7.1	11.1	6.6	7.1
Alerian Midstream Energy	0.8	0.8	-1.2	34.8	9.7	n.a.
Bitcoin	71.7	71.7	-38.0	63.6	32.9	77.7



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

Asset Class Performance

Asset Class Returns - Best to Worst

Annualized 5-Year as of 3/23

2018	2019	2020	2021	2022	2023 YTD	
T-Bills 1.9%	U.S. Equity 31.0%	U.S. Equity 20.8%	REITs 46.2%	Commodities 16.1%	Developed 8.6%	U.S. Equity 10.7%
Core Bond 0.0%	REITs 25.8%	Emrg Mrkts 18.7%	Commodities 27.1%	T-Bills 1.3%	U.S. Equity 7.3%	REITs 5.7%
U.S. TIPS -1.3%	Developed 22.7%	U.S. TIPS 11.0%	U.S. Equity 26.7%	High Yield -11.2%	Emrg Mrkts 4.0%	Commodities 5.4%
High Yield -2.1%	Emrg Mrkts 18.9%	Developed 8.3%	Developed 11.8%	U.S. TIPS -11.8%	High Yield 3.6%	Developed 4.0%
REITs -4.8%	High Yield 14.3%	Core Bond 7.5%	U.S. TIPS 6.0%	Core Bond -13.0%	U.S. TIPS 3.3%	High Yield 3.2%
U.S. Equity -5.3%	Core Bond 8.7%	High Yield 7.1%	High Yield 5.3%	Developed -14.0%	REITs 3.2%	U.S. TIPS 2.9%
Commodities -11.2%	U.S. TIPS 8.4%	T-Bills 0.7%	T-Bills 0.0%	U.S. Equity -19.0%	Core Bond 3.0%	T-Bills 1.4%
Developed -13.4%	Commodities 7.7%	Commodities -3.1%	Core Bond -1.5%	Emrg Mrkts -19.7%	T-Bills 1.1%	Core Bond 0.9%
Emrg Mrkts -14.2%	T-Bills 2.3%	REITs -7.9%	Emrg Mrkts -2.2%	REITs -26.8%	Commodities -5.4%	Emrg Mrkts -0.5%

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

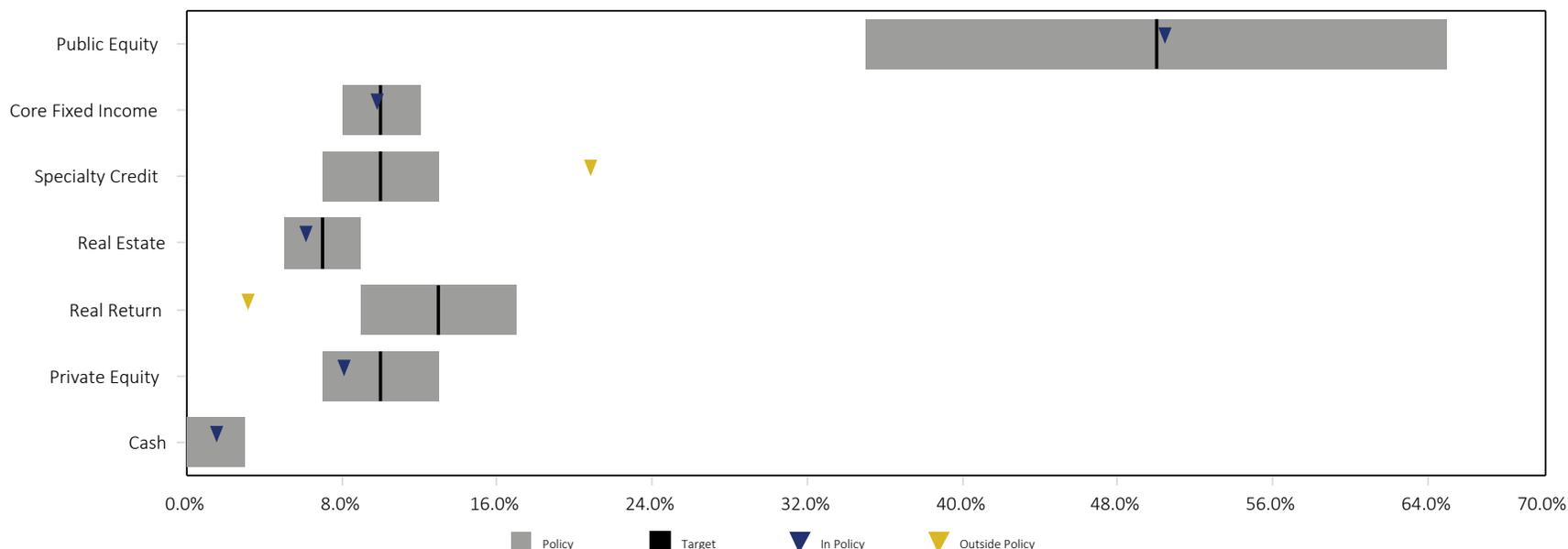
CERS Total Fund Composites

Asset Allocation Compliance

CERS Pension Plan

Periods Ended As of March 31, 2023

Executive Summary



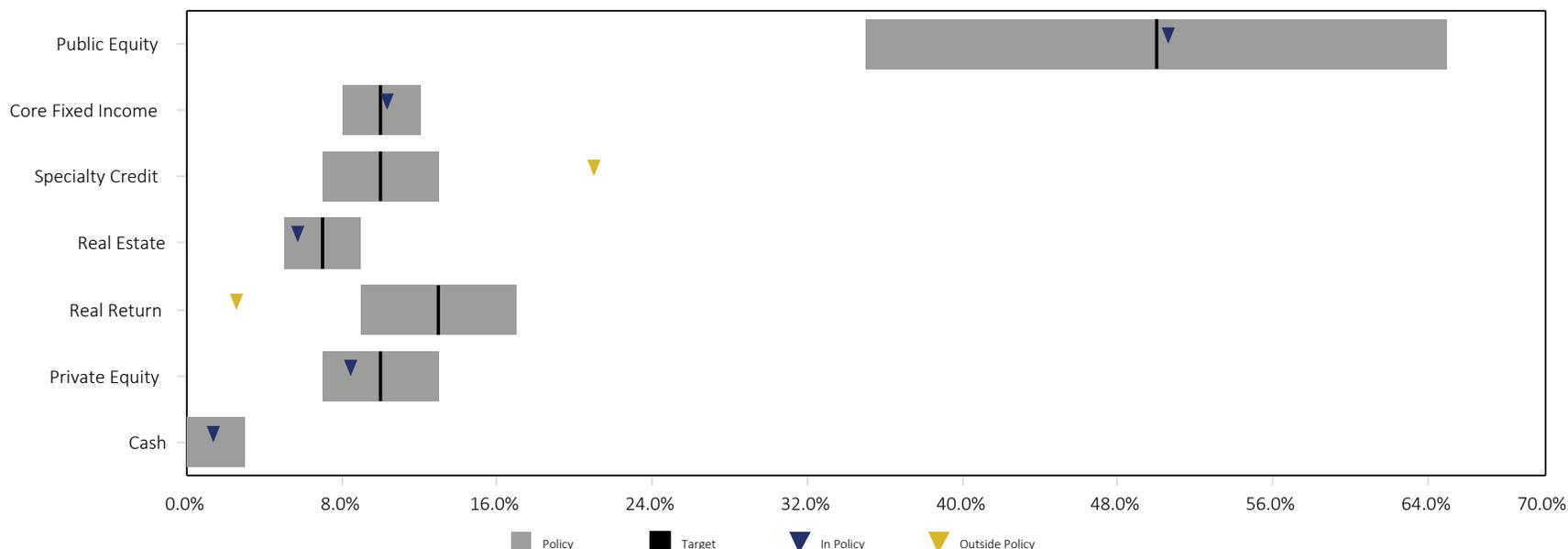
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	4,255,625,008	50.45	35.00	65.00	50.00	-37,955,786
Core Fixed Income	829,436,836	9.83	8.00	12.00	10.00	14,097,008
Specialty Credit	1,756,452,438	20.82	7.00	13.00	10.00	-912,918,594
Real Estate	519,206,007	6.16	5.00	9.00	7.00	71,267,684
Real Return	266,709,054	3.16	9.00	17.00	13.00	829,884,944
Private Equity	681,444,112	8.08	7.00	13.00	10.00	162,089,732
Cash	126,464,989	1.50	0.00	3.00	0.00	-126,464,989
Total Fund	8,435,338,444	100.00			100.00	

Asset Allocation Compliance

CERS Insurance Plan

Periods Ended As of March 31, 2023

Executive Summary



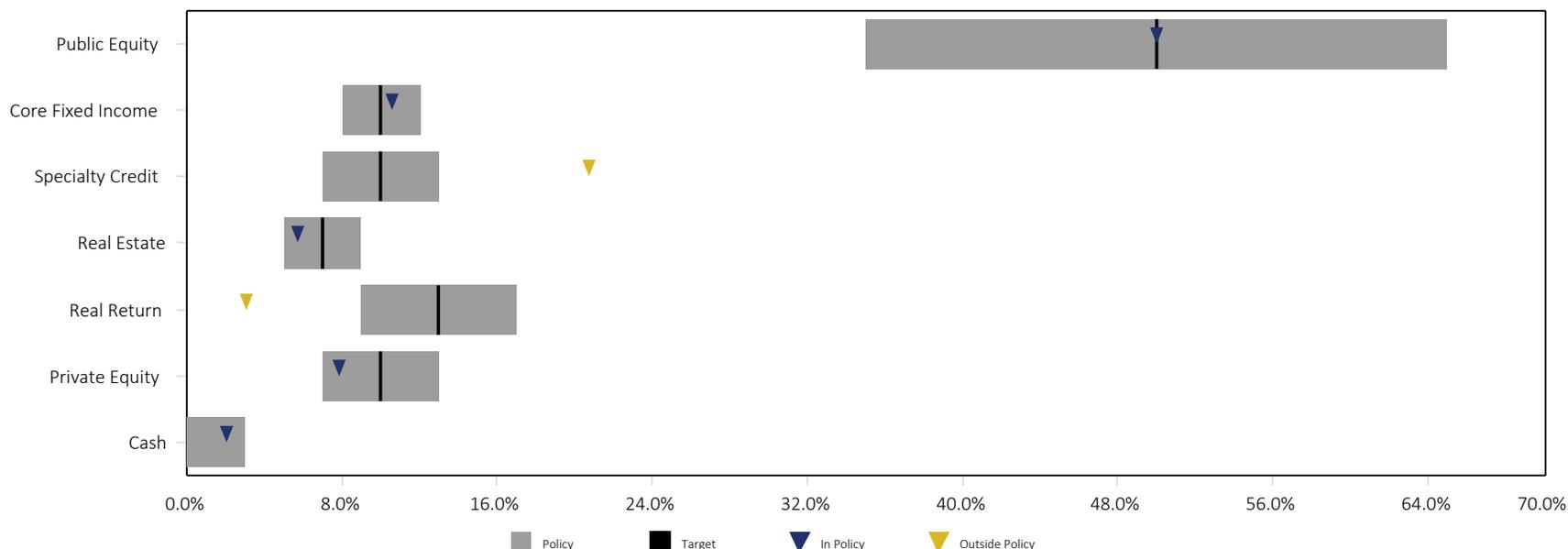
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,602,881,085	50.64	35.00	65.00	50.00	-20,165,621
Core Fixed Income	326,927,769	10.33	8.00	12.00	10.00	-10,384,676
Specialty Credit	664,135,066	20.98	7.00	13.00	10.00	-347,591,973
Real Estate	179,983,196	5.69	5.00	9.00	7.00	41,596,969
Real Return	80,435,848	2.54	9.00	17.00	13.00	331,070,173
Private Equity	267,459,623	8.45	7.00	13.00	10.00	49,083,470
Cash	43,608,341	1.38	0.00	3.00	0.00	-43,608,341
Total Fund	3,165,430,929	100.00			100.00	

Asset Allocation Compliance

CERS (H) Pension Plan

Periods Ended As of March 31, 2023

Executive Summary



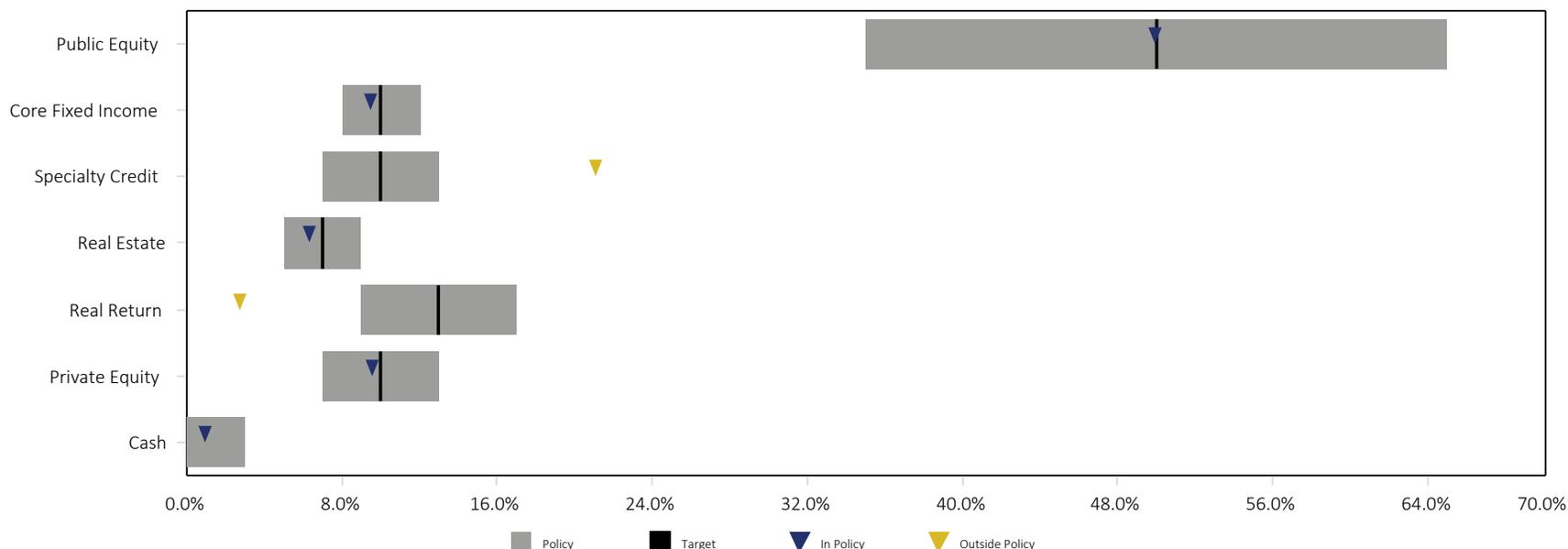
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,456,358,882	50.05	35.00	65.00	50.00	-1,310,798
Core Fixed Income	308,498,766	10.60	8.00	12.00	10.00	-17,489,150
Specialty Credit	604,239,498	20.76	7.00	13.00	10.00	-313,229,881
Real Estate	165,277,568	5.68	5.00	9.00	7.00	38,429,164
Real Return	88,443,554	3.04	9.00	17.00	13.00	289,868,948
Private Equity	227,674,605	7.82	7.00	13.00	10.00	63,335,011
Cash	59,603,294	2.05	0.00	3.00	0.00	-59,603,294
Total Fund	2,910,096,167	100.00			100.00	

Asset Allocation Compliance

CERS (H) Insurance Plan

Periods Ended As of March 31, 2023

Executive Summary



	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	782,652,028	49.95	35.00	65.00	50.00	715,432
Core Fixed Income	148,029,698	9.45	8.00	12.00	10.00	8,643,794
Specialty Credit	329,700,998	21.04	7.00	13.00	10.00	-173,027,506
Real Estate	98,669,442	6.30	5.00	9.00	7.00	11,002,002
Real Return	43,041,663	2.75	9.00	17.00	13.00	160,633,876
Private Equity	150,445,413	9.60	7.00	13.00	10.00	6,228,079
Cash	14,195,677	0.91	0.00	3.00	0.00	-14,195,677
Total Fund	1,566,734,919	100.00			100.00	

Asset Allocation & Performance

Total Fund

Periods Ended March 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
CERS Pension Plan	8,435,338,444	4.38	6.72	-1.40	11.21	6.29	8.39	7.25	7.63	8.82	4/1/1984
CERS Pension IPS Index		5.07	5.39	-3.68	9.99	6.47					
Value Added		-0.69	1.33	2.28	1.22	-0.18					
CERS Pension Attribution Index		4.38	6.64	-2.53	11.04						
Value Added		0.00	0.08	1.13	0.17						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.85	2.07	-7.65	4.96	0.04					
CERS Insurance Plan	3,165,430,929	4.44	6.87	-1.14	10.96	6.20	6.00	7.17	6.78	7.33	4/1/1987
CERS Insurance IPS Index		5.07	5.39	-3.68	9.99	6.50					
Value Added		-0.63	1.48	2.54	0.97	-0.30					
CERS Insurance Attribution Index		4.49	6.87	-2.27	10.92						
Value Added		-0.05	0.00	1.13	0.04						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.91	2.22	-7.39	4.71	-0.05					
CERS (H) Pension Plan	2,910,096,167	4.42	6.80	-1.43	11.12	6.24	8.39	7.24	7.62	8.81	4/1/1984
CERS (H) Pension IPS Index		5.07	5.39	-3.68	9.99	6.47					
Value Added		-0.65	1.41	2.25	1.13	-0.23					
CERS (H) Pension Attribution Index		4.39	6.66	-2.55	11.03						
Value Added		0.03	0.14	1.12	0.09						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.89	2.15	-7.68	4.87	-0.01					

Asset Allocation & Performance

Total Fund

Periods Ended March 31, 2023

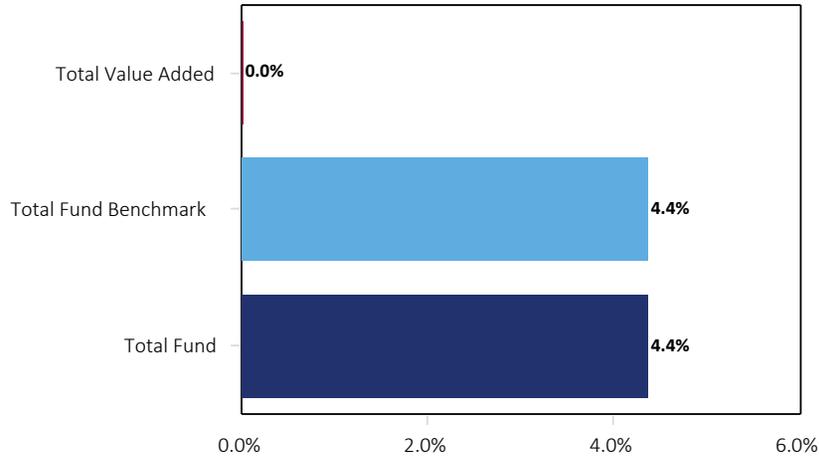
	Market Value \$	Performance (%) net of fees									
		QTD	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
CERS (H) Insurance Plan	1,566,734,919	4.35	6.64	-1.20	10.98	6.29	6.00	7.21	6.80	7.34	4/1/1987
CERS (H) Insurance IPS Index		5.07	5.39	-3.68	9.99	6.50					
Value Added		-0.72	1.25	2.48	0.99	-0.21					
CERS (H) Insurance Attribution Index		4.48	6.82	-2.30	10.89						
Value Added		-0.13	-0.18	1.10	0.09						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.82	1.99	-7.45	4.73	0.04					

Total Fund Attribution

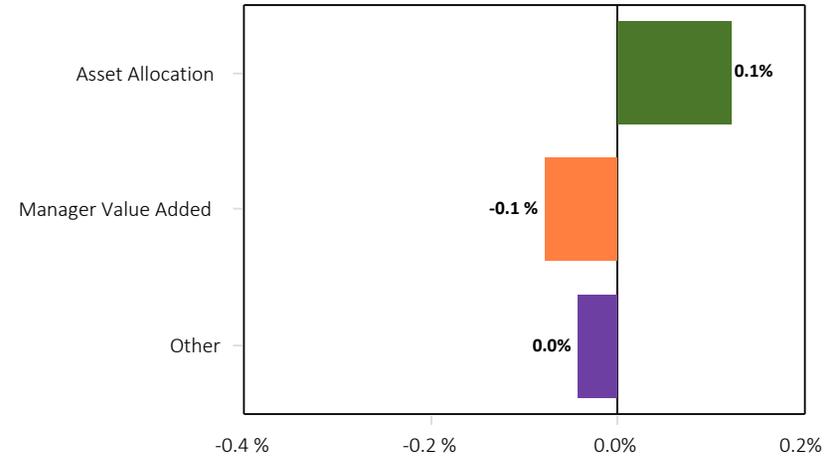
CERS Pension Plan

Periods Ended 1 Quarter Ending March 31, 2023

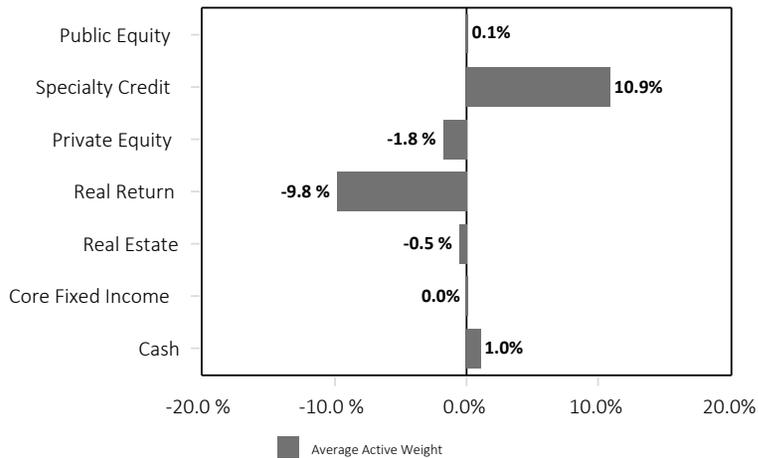
Total Fund Performance



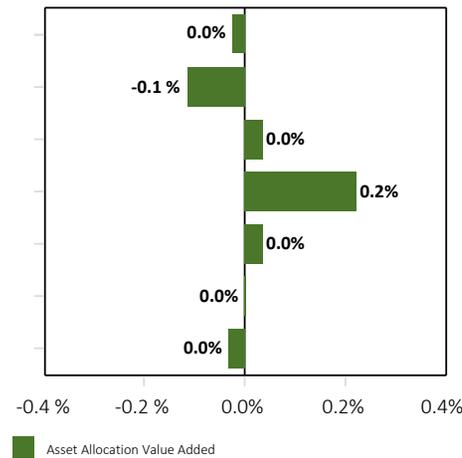
Total Value Added:0.0%



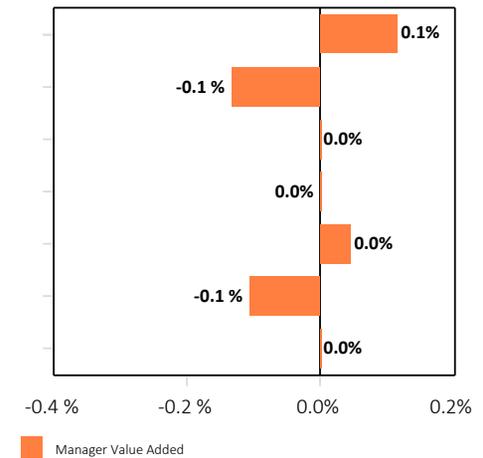
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:-0.1%

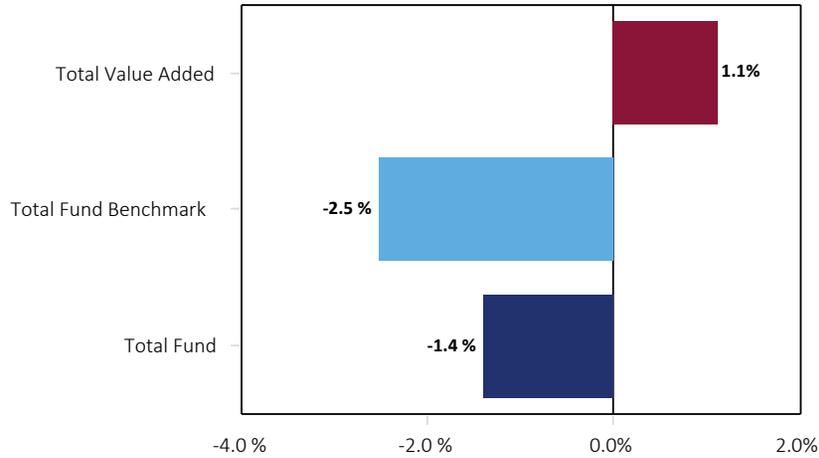


Total Fund Attribution

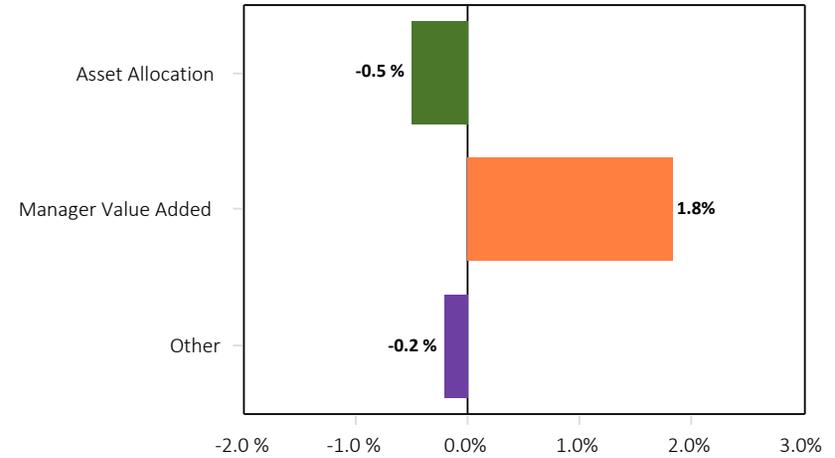
CERS Pension Plan

Periods Ended 1 Year Ending March 31, 2023

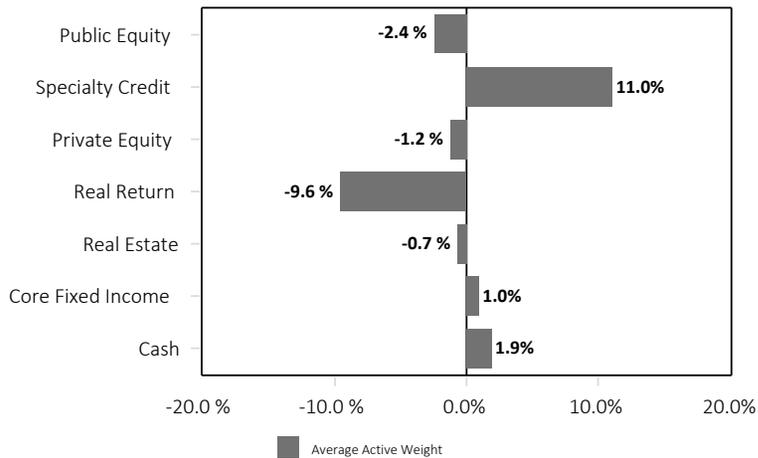
Total Fund Performance



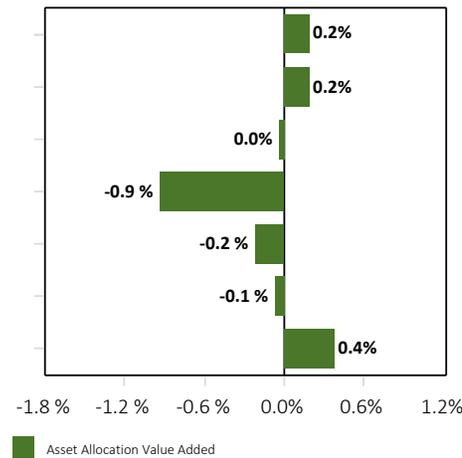
Total Value Added: 1.1%



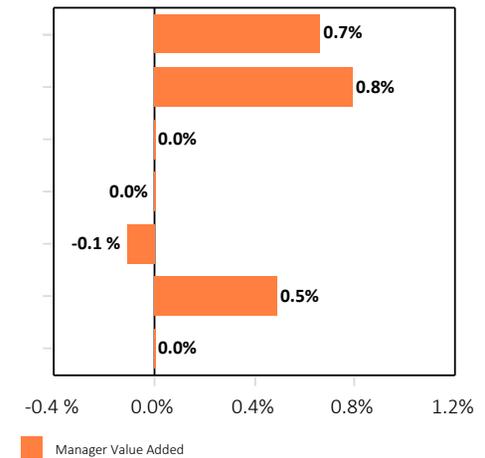
Total Asset Allocation: -0.5%



Asset Allocation Value Added: -0.5%



Total Manager Value Added: 1.8%

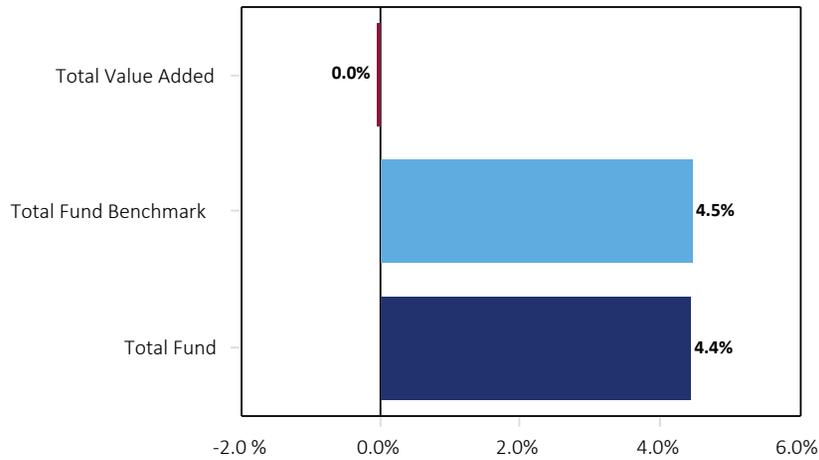


Total Fund Attribution

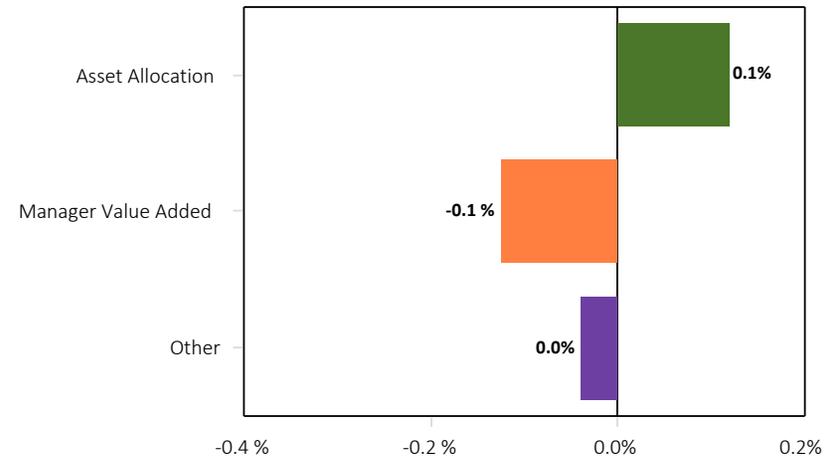
CERS Insurance Plan

Periods Ended 1 Quarter Ending March 31, 2023

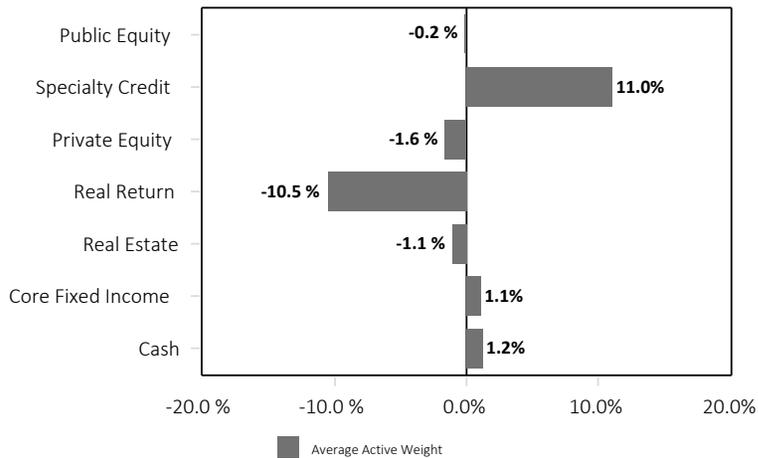
Total Fund Performance



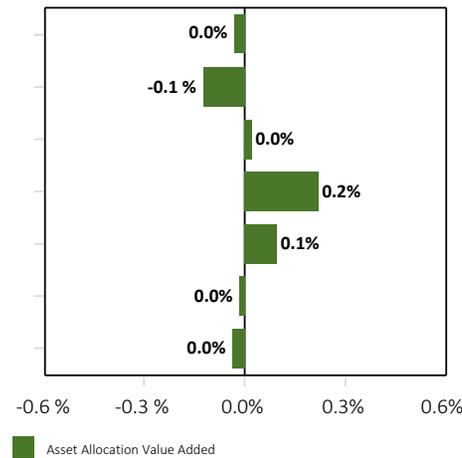
Total Value Added:0.0%



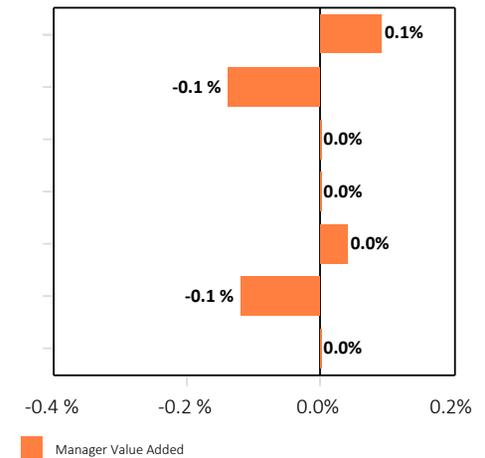
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:-0.1%

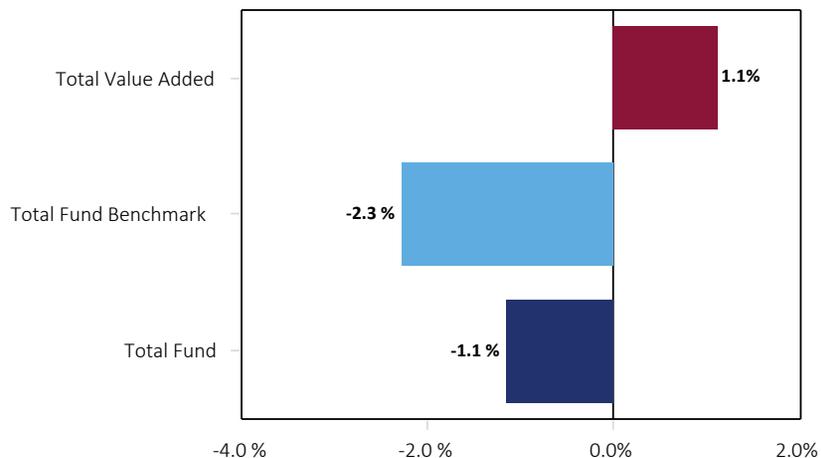


Total Fund Attribution

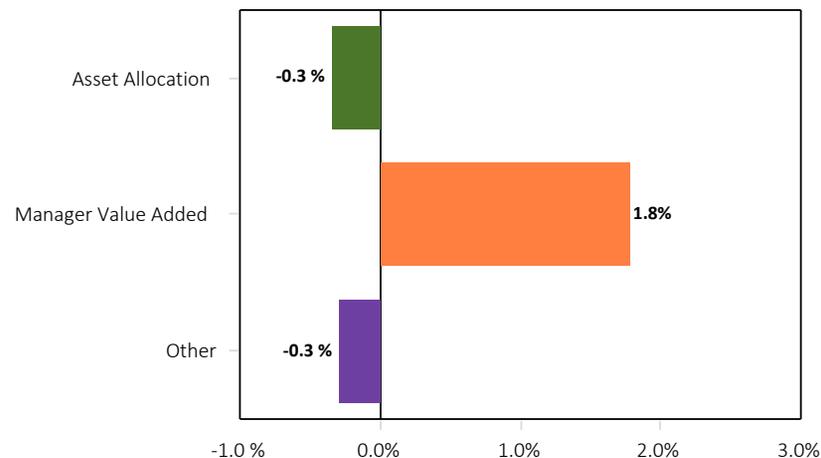
CERS Insurance Plan

Periods Ended 1 Year Ending March 31, 2023

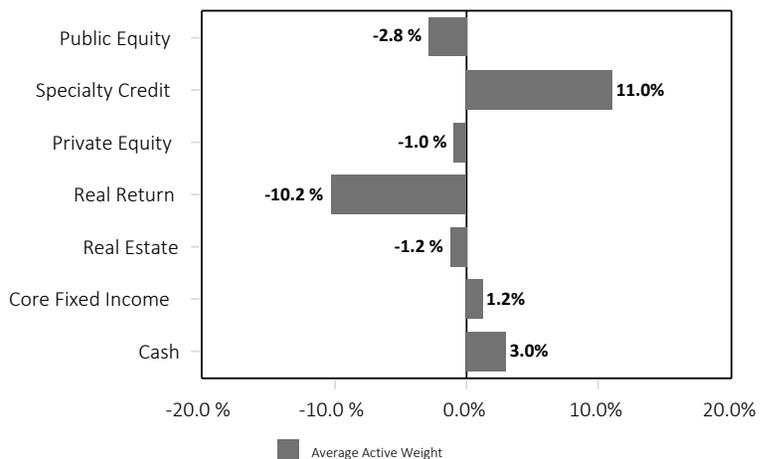
Total Fund Performance



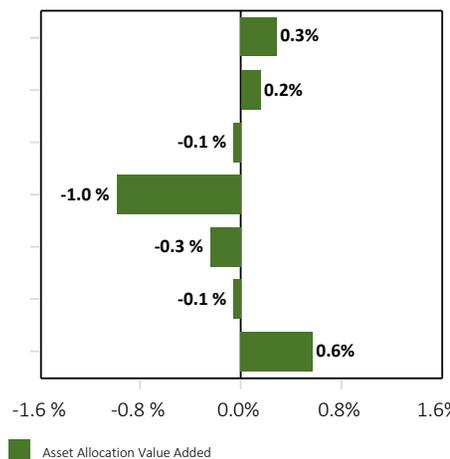
Total Value Added: 1.1%



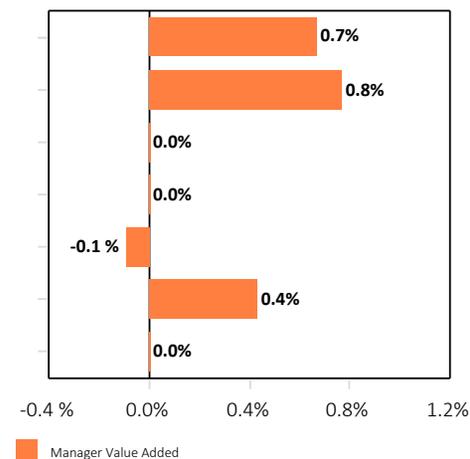
Total Asset Allocation: -0.3%



Asset Allocation Value Added: -0.3%



Total Manager Value Added: 1.8%

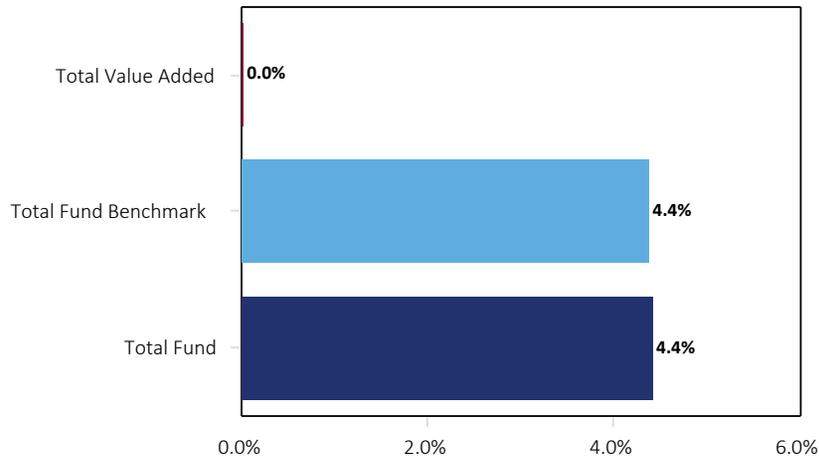


Total Fund Attribution

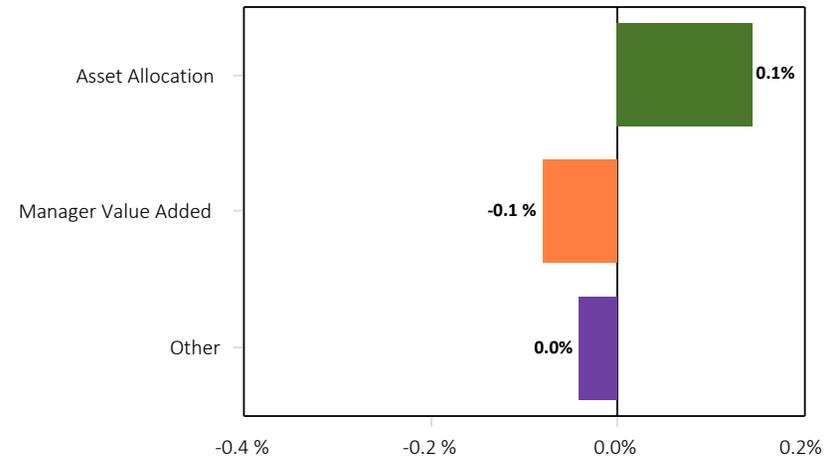
CERS (H) Pension Plan

Periods Ended 1 Quarter Ending March 31, 2023

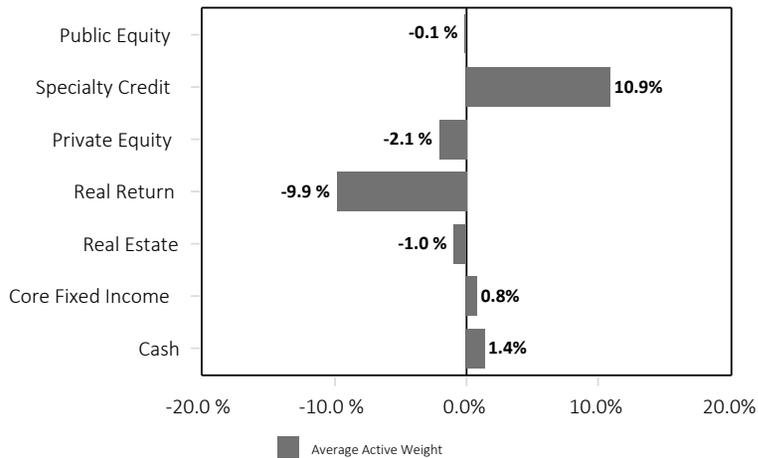
Total Fund Performance



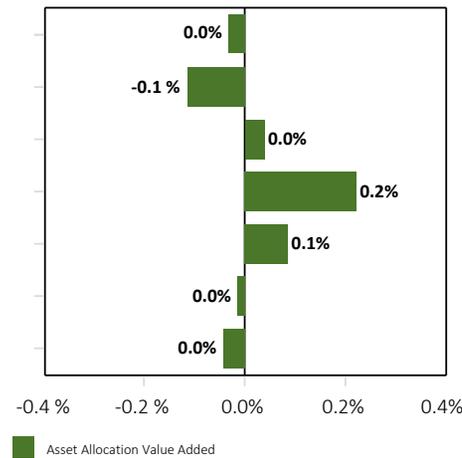
Total Value Added:0.0%



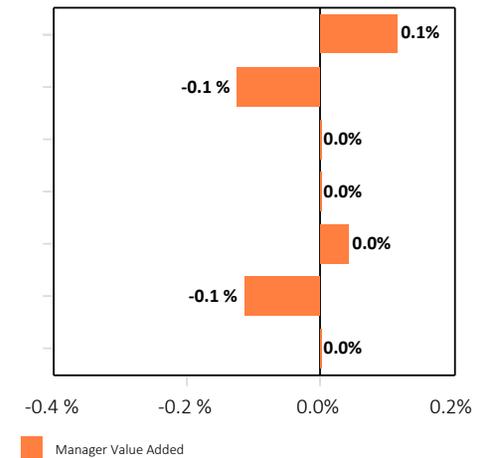
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:-0.1%

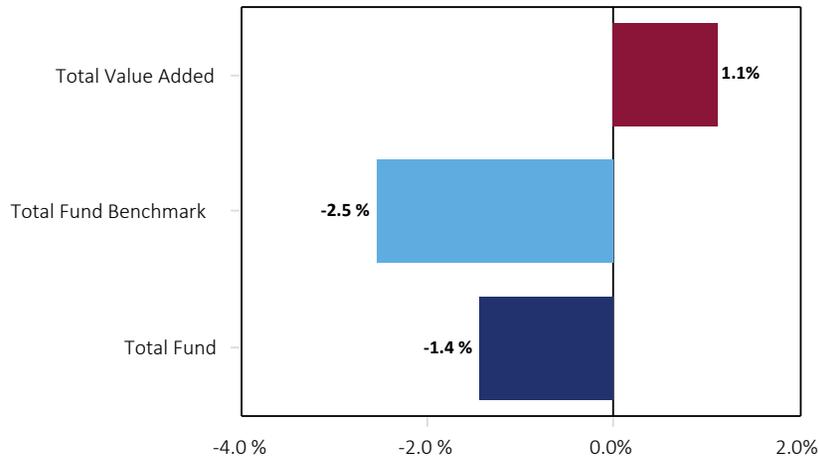


Total Fund Attribution

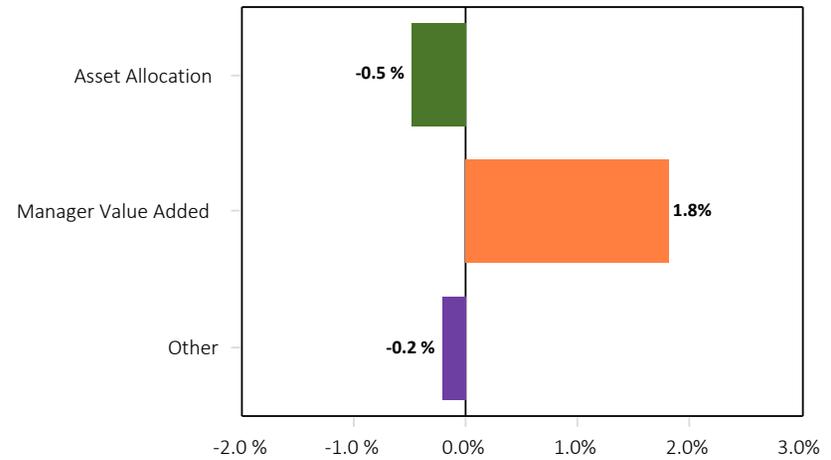
CERS (H) Pension Plan

Periods Ended 1 Year Ending March 31, 2023

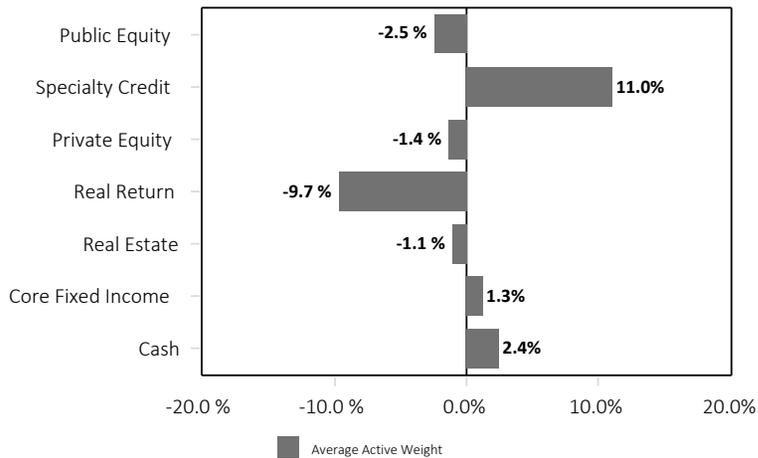
Total Fund Performance



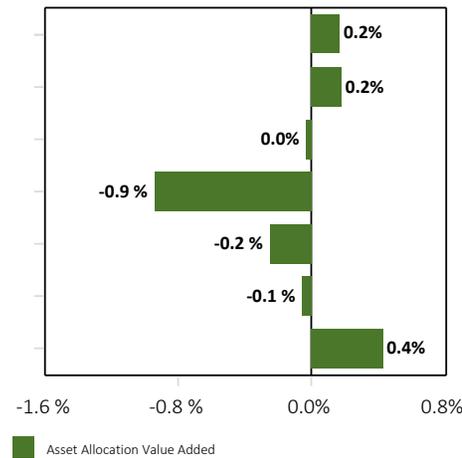
Total Value Added: 1.1%



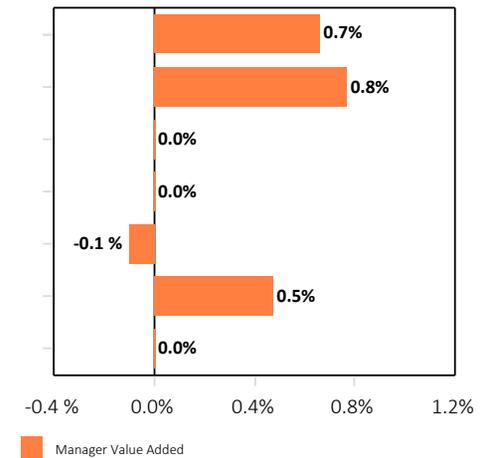
Total Asset Allocation: -0.5%



Asset Allocation Value Added: -0.5%



Total Manager Value Added: 1.8%

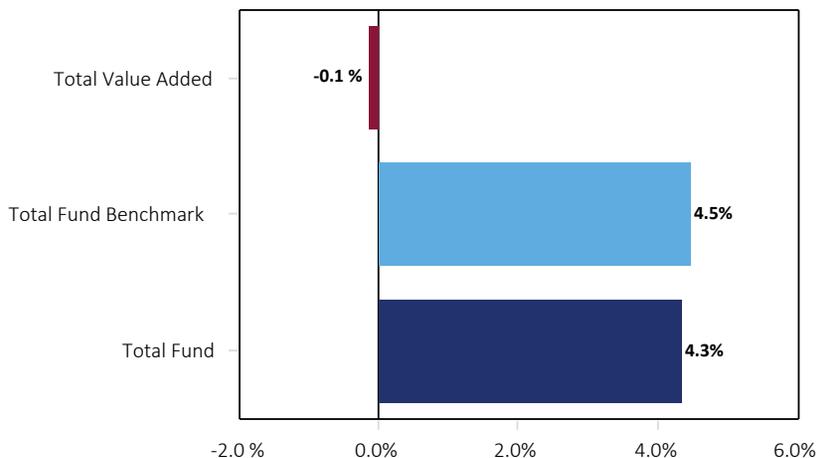


Total Fund Attribution

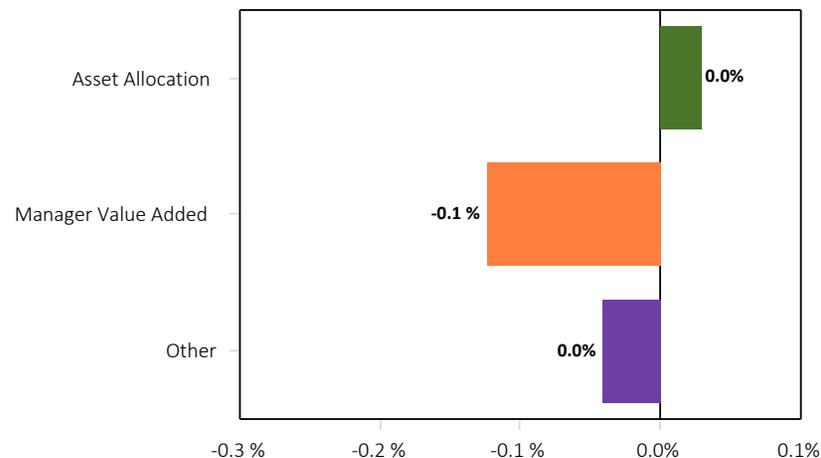
CERS (H) Insurance Plan

Periods Ended 1 Quarter Ending March 31, 2023

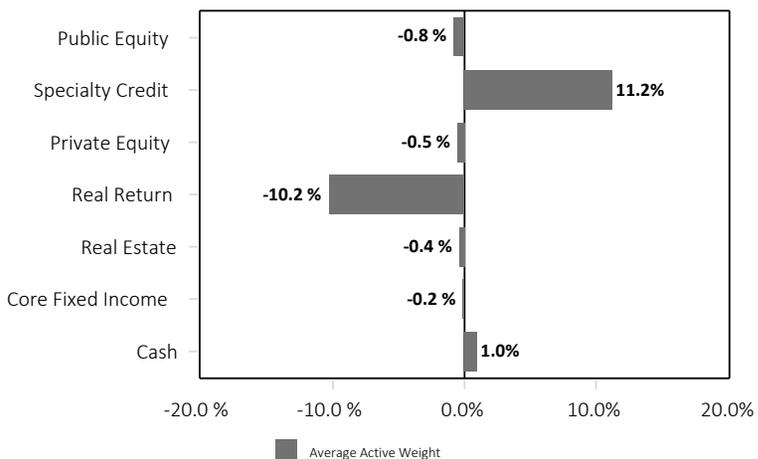
Total Fund Performance



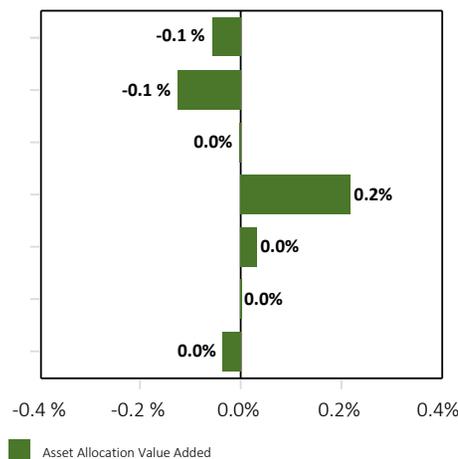
Total Value Added:-0.1 %



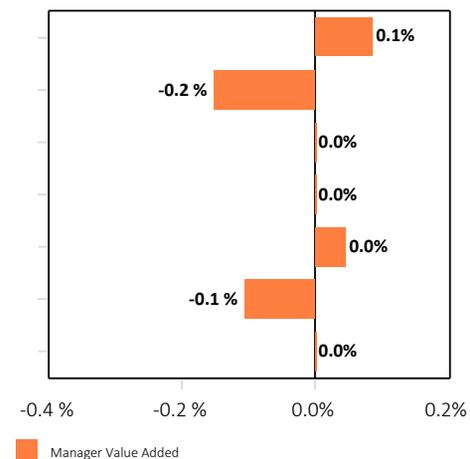
Total Asset Allocation:0.0%



Asset Allocation Value Added:0.0%



Total Manager Value Added:-0.1 %

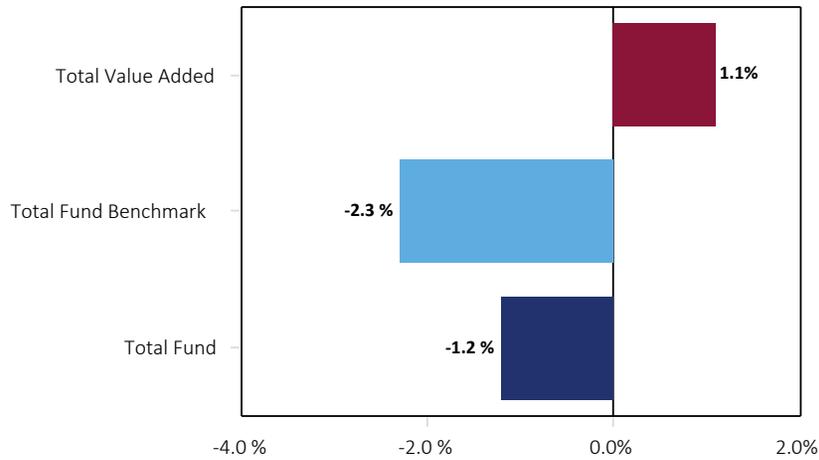


Total Fund Attribution

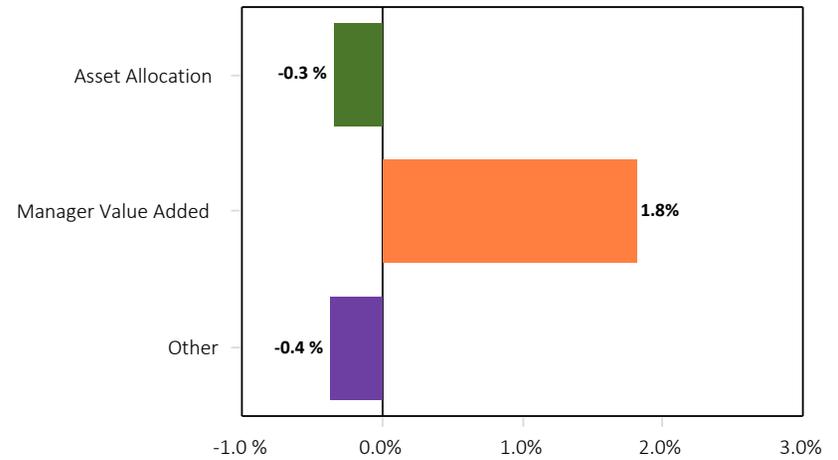
CERS (H) Insurance Plan

Periods Ended 1 Year Ending March 31, 2023

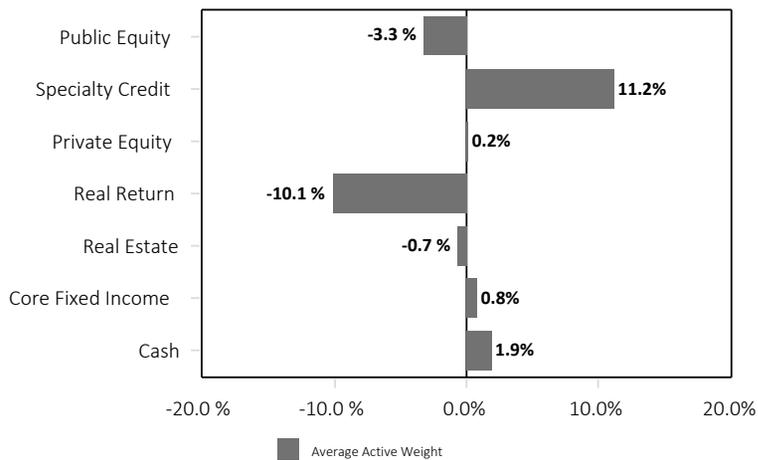
Total Fund Performance



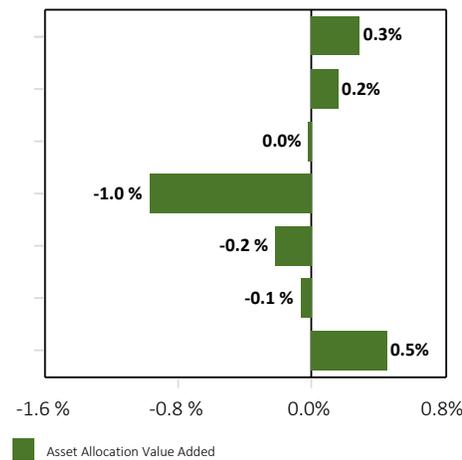
Total Value Added: 1.1%



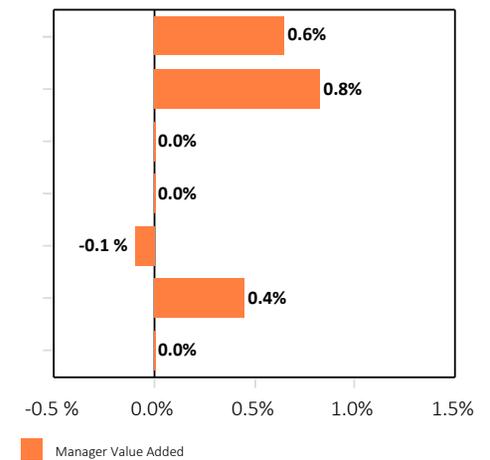
Total Asset Allocation: -0.3%



Asset Allocation Value Added: -0.3%



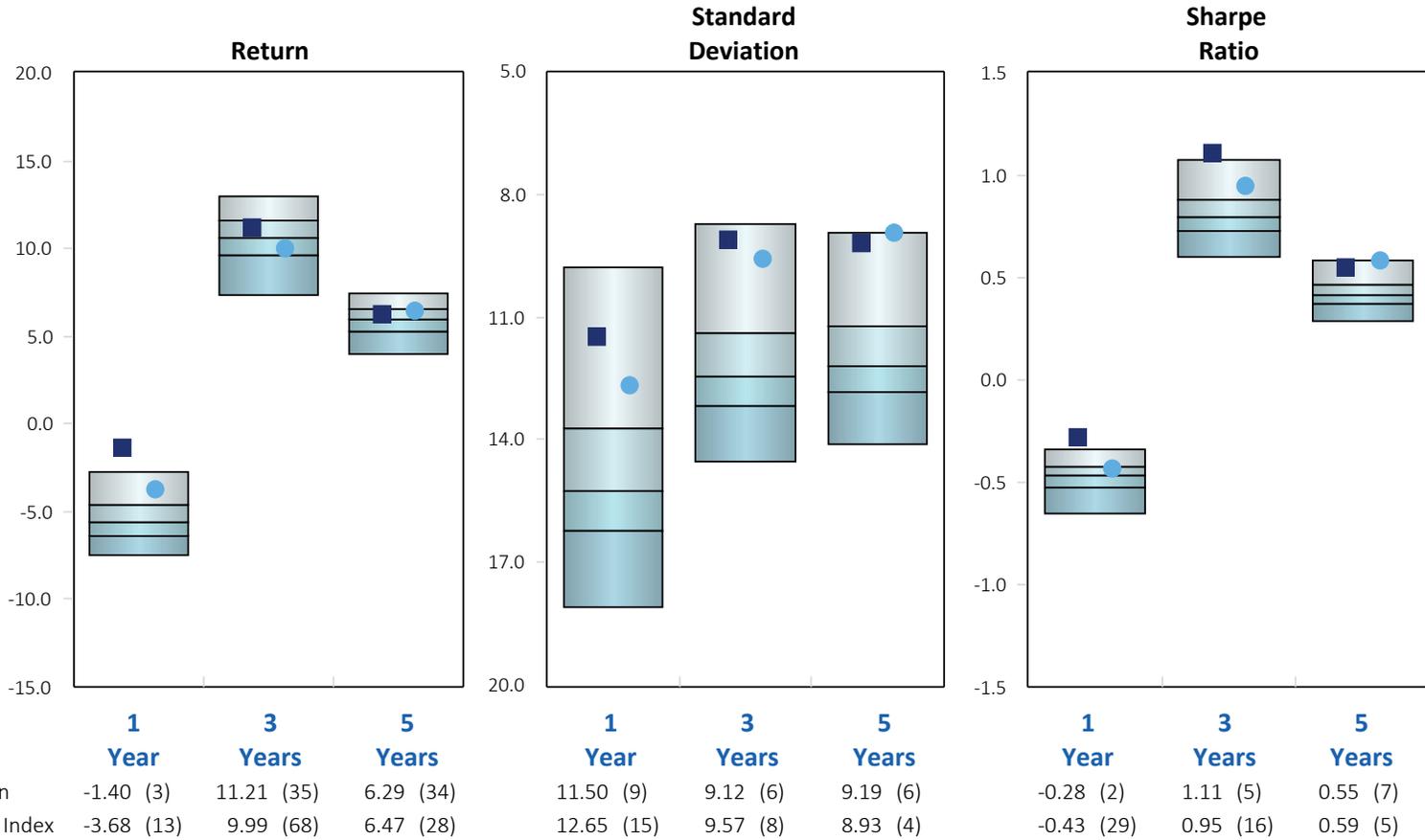
Total Manager Value Added: 1.8%



Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2023



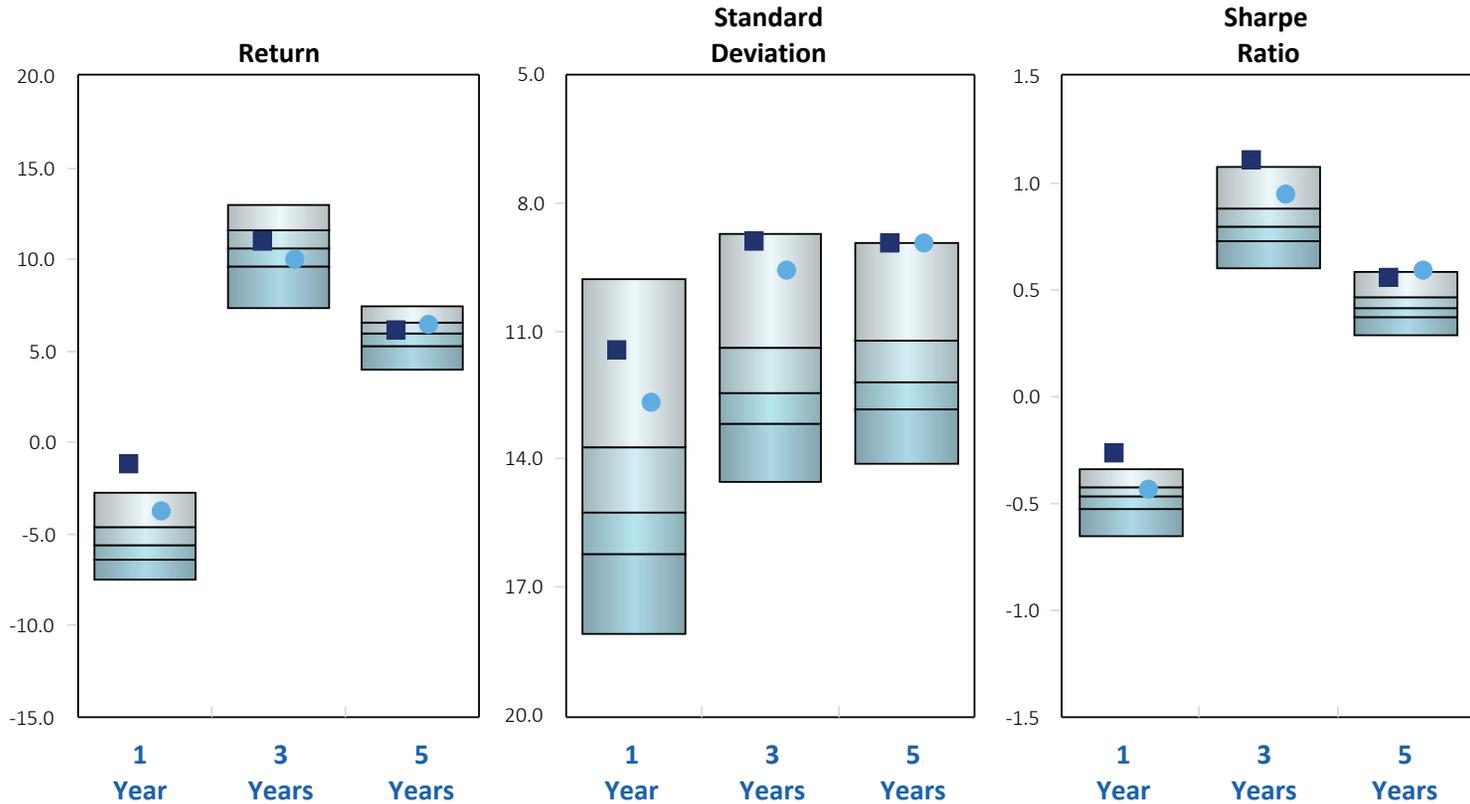
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS Pension Plan	-1.40 (3)	11.21 (35)	6.29 (34)	11.50 (9)	9.12 (6)	9.19 (6)	-0.28 (2)	1.11 (5)	0.55 (7)
● CERS Pension IPS Index	-3.68 (13)	9.99 (68)	6.47 (28)	12.65 (15)	9.57 (8)	8.93 (4)	-0.43 (29)	0.95 (16)	0.59 (5)
5th Percentile	-2.76	12.93	7.43	9.79	8.71	8.96	-0.34	1.07	0.58
1st Quartile	-4.60	11.64	6.55	13.73	11.38	11.23	-0.42	0.88	0.47
Median	-5.59	10.63	5.96	15.27	12.45	12.20	-0.47	0.80	0.42
3rd Quartile	-6.42	9.66	5.31	16.24	13.18	12.85	-0.52	0.73	0.37
95th Percentile	-7.47	7.34	3.98	18.11	14.53	14.11	-0.65	0.60	0.29

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2023



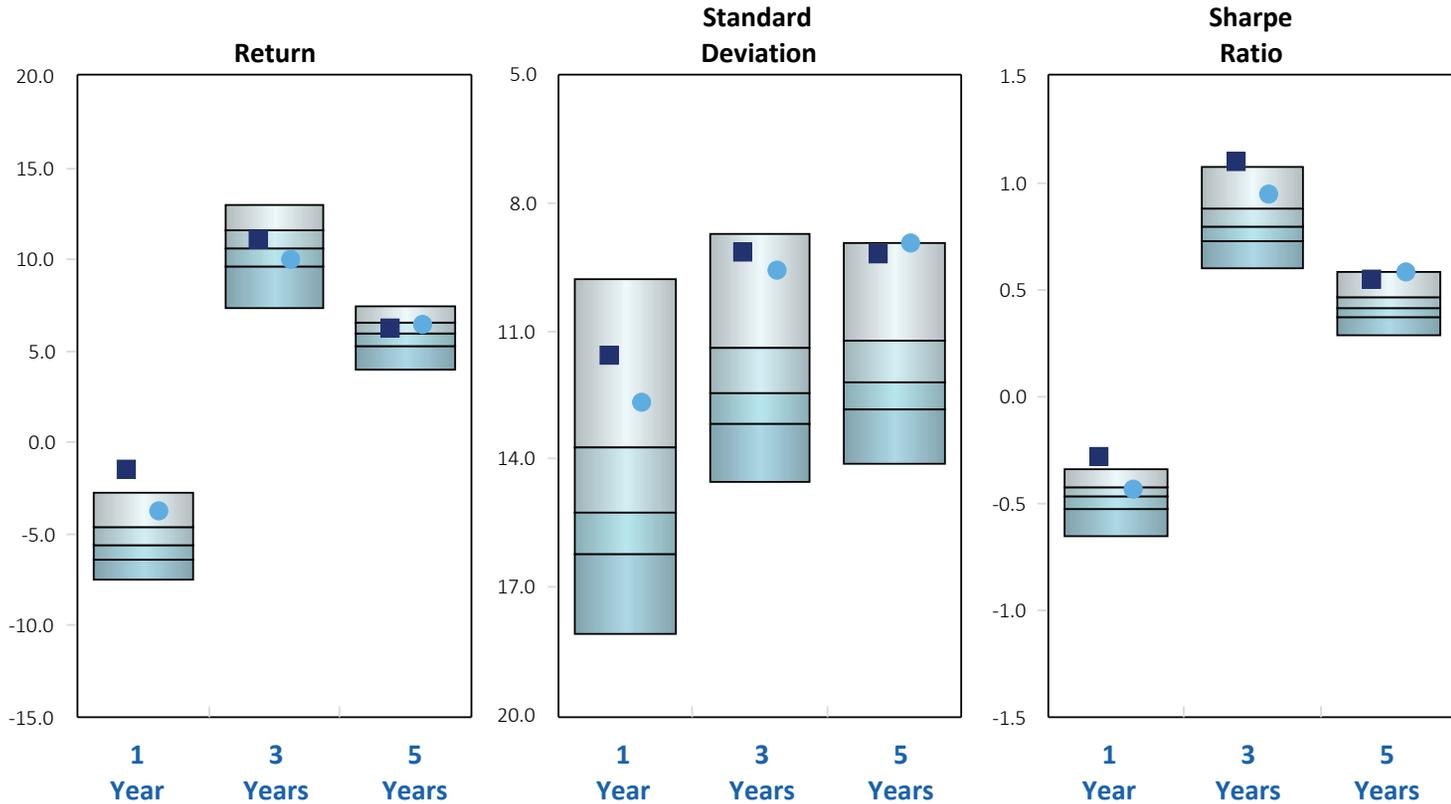
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS Insurance Plan	-1.14 (3)	10.96 (41)	6.20 (38)	11.45 (9)	8.90 (5)	8.95 (4)	-0.26 (1)	1.11 (5)	0.56 (7)
● CERS Insurance IPS Index	-3.68 (13)	9.99 (68)	6.50 (27)	12.65 (15)	9.57 (8)	8.93 (4)	-0.43 (29)	0.95 (16)	0.59 (5)
5th Percentile	-2.76	12.93	7.43	9.79	8.71	8.96	-0.34	1.07	0.58
1st Quartile	-4.60	11.64	6.55	13.73	11.38	11.23	-0.42	0.88	0.47
Median	-5.59	10.63	5.96	15.27	12.45	12.20	-0.47	0.80	0.42
3rd Quartile	-6.42	9.66	5.31	16.24	13.18	12.85	-0.52	0.73	0.37
95th Percentile	-7.47	7.34	3.98	18.11	14.53	14.11	-0.65	0.60	0.29

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

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

Periods Ended March 31, 2023



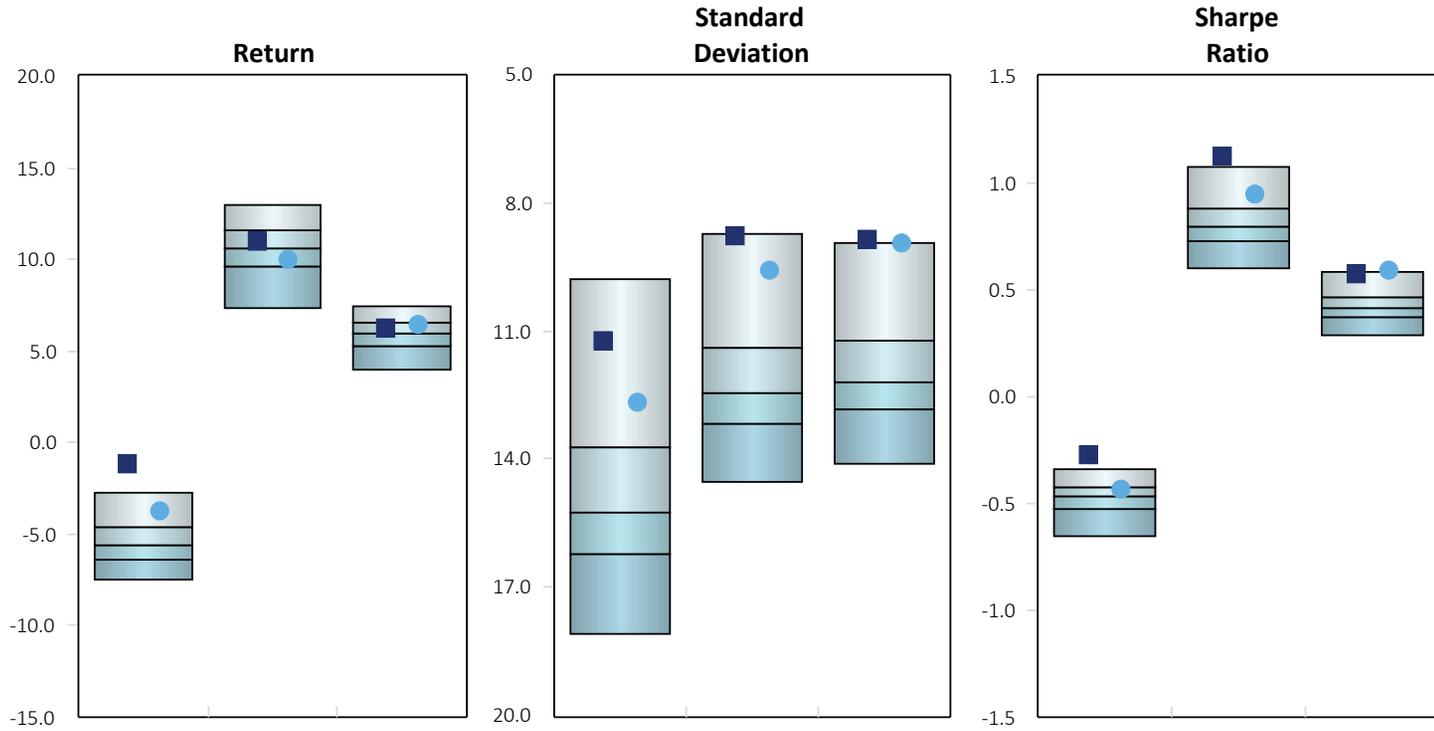
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS (H) Pension Plan	-1.43 (3)	11.12 (38)	6.24 (37)	11.57 (10)	9.14 (6)	9.19 (6)	-0.28 (2)	1.10 (5)	0.55 (8)
● CERS (H) Pension IPS Index	-3.68 (13)	9.99 (68)	6.47 (28)	12.65 (15)	9.57 (8)	8.93 (4)	-0.43 (29)	0.95 (16)	0.59 (5)
5th Percentile	-2.76	12.93	7.43	9.79	8.71	8.96	-0.34	1.07	0.58
1st Quartile	-4.60	11.64	6.55	13.73	11.38	11.23	-0.42	0.88	0.47
Median	-5.59	10.63	5.96	15.27	12.45	12.20	-0.47	0.80	0.42
3rd Quartile	-6.42	9.66	5.31	16.24	13.18	12.85	-0.52	0.73	0.37
95th Percentile	-7.47	7.34	3.98	18.11	14.53	14.11	-0.65	0.60	0.29

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

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

Periods Ended March 31, 2023



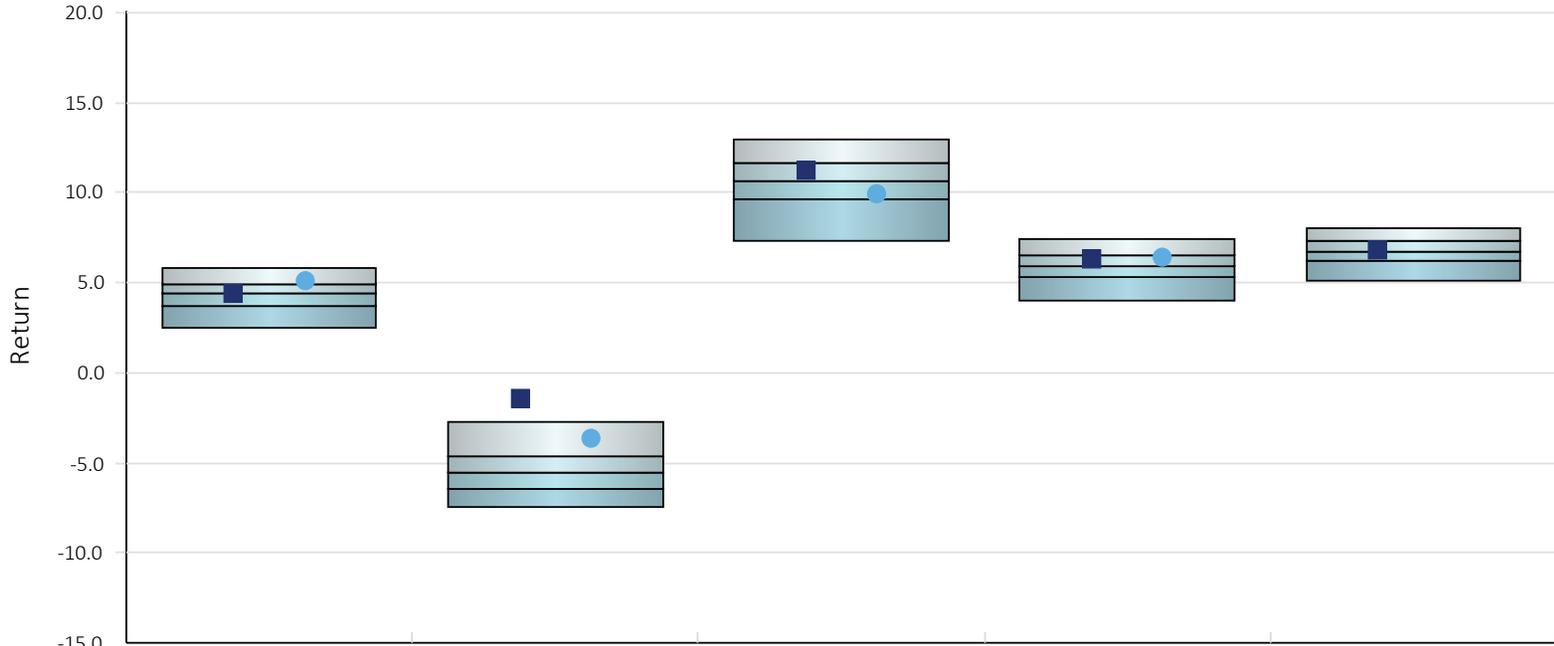
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS (H) Insurance Plan	-1.20 (3)	10.98 (41)	6.29 (34)	11.25 (8)	8.78 (5)	8.84 (4)	-0.27 (2)	1.13 (4)	0.57 (6)
● CERS (H) Insurance IPS Index	-3.68 (13)	9.99 (68)	6.50 (27)	12.65 (15)	9.57 (8)	8.93 (4)	-0.43 (29)	0.95 (16)	0.59 (5)
5th Percentile	-2.76	12.93	7.43	9.79	8.71	8.96	-0.34	1.07	0.58
1st Quartile	-4.60	11.64	6.55	13.73	11.38	11.23	-0.42	0.88	0.47
Median	-5.59	10.63	5.96	15.27	12.45	12.20	-0.47	0.80	0.42
3rd Quartile	-6.42	9.66	5.31	16.24	13.18	12.85	-0.52	0.73	0.37
95th Percentile	-7.47	7.34	3.98	18.11	14.53	14.11	-0.65	0.60	0.29

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2023



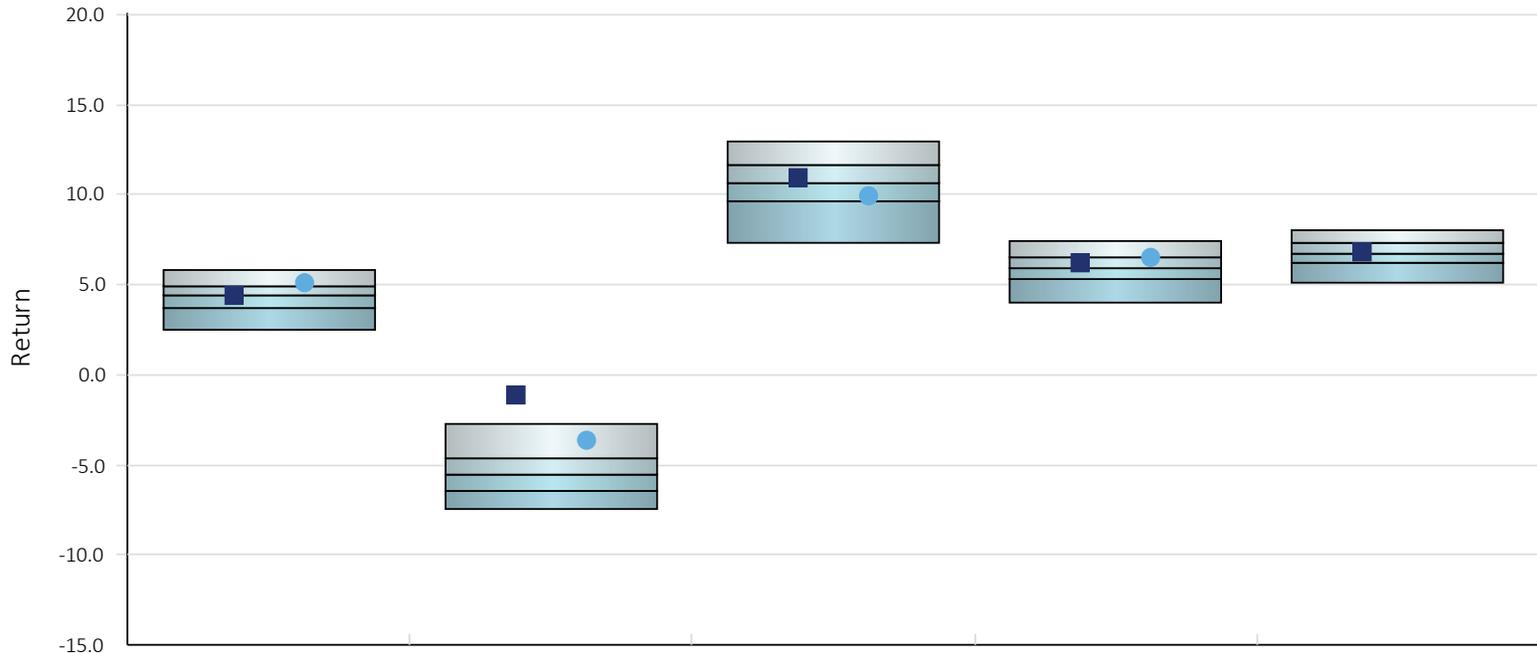
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS Pension Plan	4.38 (49)	-1.40 (3)	11.21 (35)	6.29 (34)	6.87 (43)
● CERS Pension IPS Index	5.07 (20)	-3.68 (13)	9.99 (68)	6.47 (28)	
5th Percentile	5.86	-2.76	12.93	7.43	8.05
1st Quartile	4.90	-4.60	11.64	6.55	7.30
Median	4.36	-5.59	10.63	5.96	6.74
3rd Quartile	3.74	-6.42	9.66	5.31	6.22
95th Percentile	2.50	-7.47	7.34	3.98	5.10
Population	614	596	583	564	462

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2023



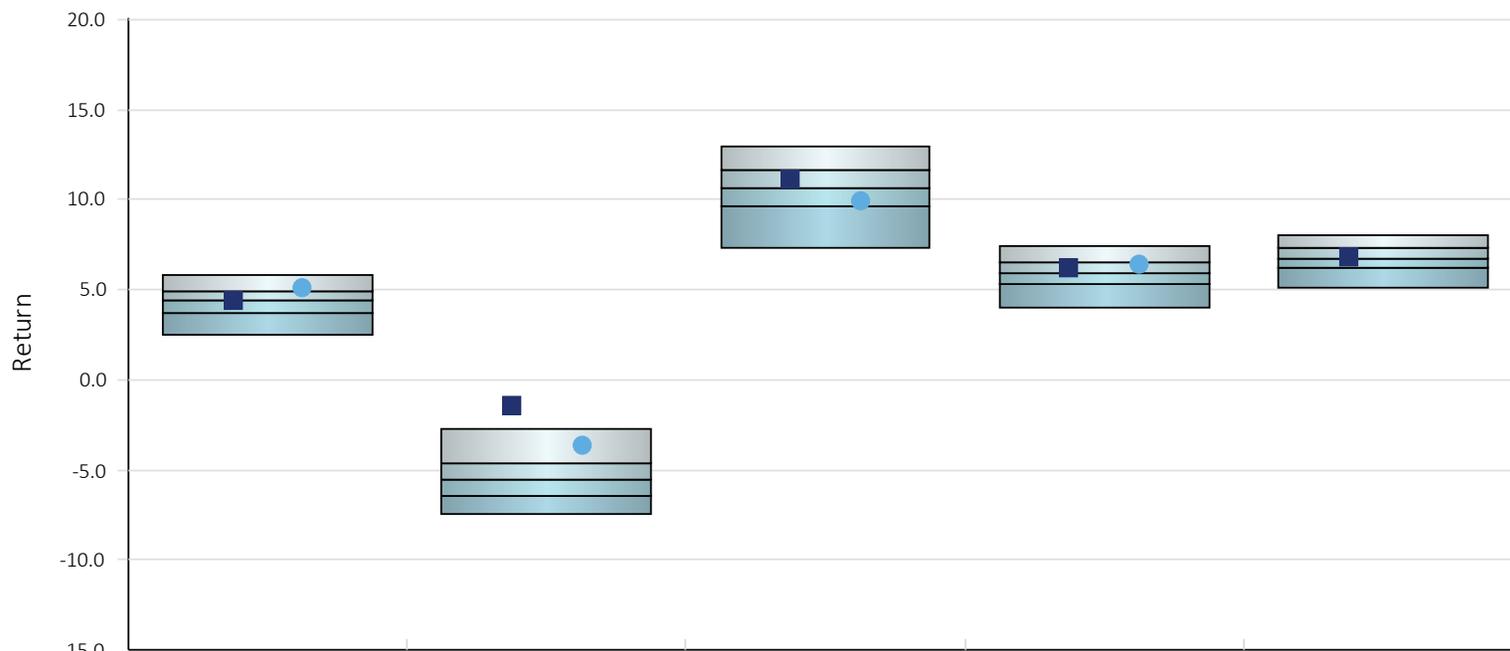
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS Insurance Plan	4.44 (46)	-1.14 (3)	10.96 (41)	6.20 (38)	6.80 (46)
● CERS Insurance IPS Index	5.07 (20)	-3.68 (13)	9.99 (68)	6.50 (27)	
5th Percentile	5.86	-2.76	12.93	7.43	8.05
1st Quartile	4.90	-4.60	11.64	6.55	7.30
Median	4.36	-5.59	10.63	5.96	6.74
3rd Quartile	3.74	-6.42	9.66	5.31	6.22
95th Percentile	2.50	-7.47	7.34	3.98	5.10
Population	614	596	583	564	462

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

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

Periods Ended March 31, 2023



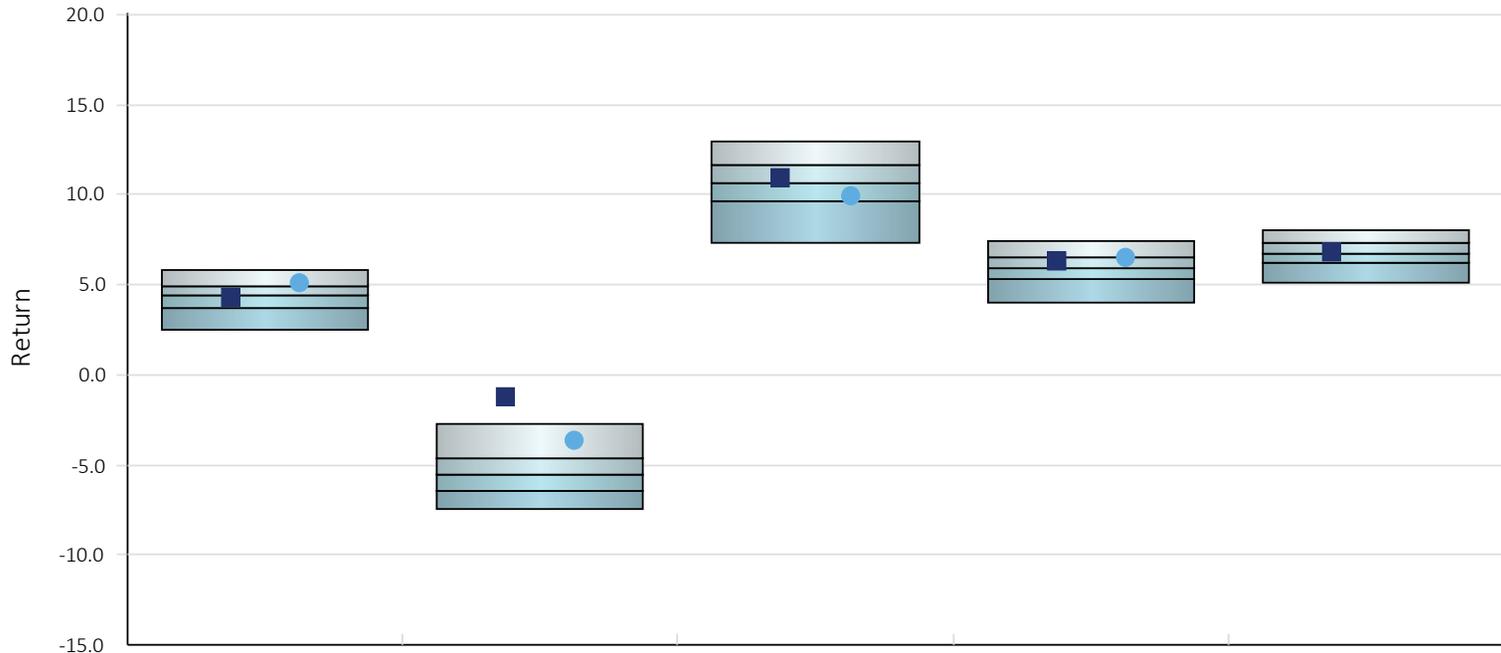
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Pension Plan	4.42 (47)	-1.43 (3)	11.12 (38)	6.24 (37)	6.85 (44)
● CERS (H) Pension IPS Index	5.07 (20)	-3.68 (13)	9.99 (68)	6.47 (28)	
5th Percentile	5.86	-2.76	12.93	7.43	8.05
1st Quartile	4.90	-4.60	11.64	6.55	7.30
Median	4.36	-5.59	10.63	5.96	6.74
3rd Quartile	3.74	-6.42	9.66	5.31	6.22
95th Percentile	2.50	-7.47	7.34	3.98	5.10
Population	614	596	583	564	462

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

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

Periods Ended March 31, 2023



	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Insurance Plan	4.35 (51)	-1.20 (3)	10.98 (41)	6.29 (34)	6.87 (43)
● CERS (H) Insurance IPS Index	5.07 (20)	-3.68 (13)	9.99 (68)	6.50 (27)	
5th Percentile	5.86	-2.76	12.93	7.43	8.05
1st Quartile	4.90	-4.60	11.64	6.55	7.30
Median	4.36	-5.59	10.63	5.96	6.74
3rd Quartile	3.74	-6.42	9.66	5.31	6.22
95th Percentile	2.50	-7.47	7.34	3.98	5.10
Population	614	596	583	564	462

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Public Equity	2.36	7.51	11.44	-6.10			-6.61	12/1/2021
Public Equity Policy Index	3.08	7.31	9.75	-7.44			-6.75	
Value Added	-0.72	0.20	1.69	1.34			0.14	
US Equity Composite	2.28	6.77	9.94	-7.93	18.89	10.13	9.74	7/1/1992
Russell 3000 Index	2.67	7.18	9.75	-8.58	18.48	10.45	9.93	
Value Added	-0.39	-0.41	0.19	0.65	0.41	-0.32	-0.19	
S&P 500 Index	3.62	7.44	10.00	-7.55	18.68	11.45	8.23	7/1/2001
S&P 500 Index	3.67	7.50	9.98	-7.73	18.60	11.19	7.81	
value added	-0.05	-0.06	0.02	0.18	0.08	0.26	0.42	
Scientific Beta	1.05	2.96	8.13	-6.22	17.42	8.32	9.56	7/1/2016
S&P 500 Index	3.67	7.50	9.98	-7.73	18.60	11.19	12.51	
Value Added	-2.62	-4.54	-1.85	1.51	-1.18	-2.87	-2.95	
River Road FAV	-0.18	0.66	5.39	-10.49	11.39	5.20	8.22	7/1/2016
Russell 3000 Value Index	-0.86	0.91	6.92	-6.35	18.12	7.30	8.58	
Value Added	0.68	-0.25	-1.53	-4.14	-6.73	-2.10	-0.36	
Westfield Capital	5.59	15.00	12.86	-10.56	17.67	13.21	13.04	7/1/2011
Russell 3000 Growth Index	6.25	13.85	12.56	-10.88	18.23	13.02	13.75	
Value Added	-0.66	1.15	0.30	0.32	-0.56	0.19	-0.71	
Internal US Mid Cap	-2.99	4.15	12.85	-4.43	22.57	8.32	9.39	8/1/2014
S&P MidCap 400 Index	-3.21	3.81	12.17	-5.12	22.10	7.67	8.96	
Value Added	0.22	0.34	0.68	0.69	0.47	0.65	0.43	
NTGI Structured	-4.54	2.81	8.49	-7.83	20.25	6.85	9.74	7/1/2011
Russell 2000 Index	-4.78	2.74	6.75	-11.61	17.51	4.71	8.31	
Value Added	0.24	0.07	1.74	3.78	2.74	2.14	1.43	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Next Century Growth	0.64	11.70	16.66	-11.33	37.69		26.40	11/1/2019
Russell Microcap Growth Index	-5.85	0.76	5.70	-17.98	10.87		4.16	
Value Added	6.49	10.94	10.96	6.65	26.82		22.24	
Non-US Equity Composite	2.48	8.53	13.51	-3.59	12.84	3.22	2.71	4/1/2000
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.76	
Value Added	0.35	1.97	3.66	2.25	0.64	0.87	-0.05	
BlackRock World Ex US	2.24	8.04	14.14	-2.43	13.70	3.43	6.42	6/1/2012
MSCI World ex US (11/19)	2.22	8.02	13.96	-2.74	13.49	3.28	6.32	
value added	0.02	0.02	0.18	0.31	0.21	0.15	0.10	
American Century	3.10	9.48	14.83	-6.43	12.62	5.90	5.86	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	0.97	2.92	4.98	-0.59	0.42	3.55	2.90	
Franklin Templeton	3.46	12.24	16.62	-8.52	7.84	1.86	4.46	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	1.33	5.68	6.77	-2.68	-4.36	-0.49	1.50	
Lazard Asset Mgmt	3.09	8.97	12.08	-1.92	12.55	2.72	3.78	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	0.96	2.41	2.23	3.92	0.35	0.37	0.82	
LSV Asset Mgmt	1.33	7.06	13.90	-0.96	13.56	2.34	2.90	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	-0.80	0.50	4.05	4.88	1.36	-0.01	-0.06	
Axiom	1.39	7.62	8.59	-13.20			-19.14	12/1/2021
MSCI AC World ex USA Small Cap (Net)	0.23	4.70	8.70	-10.37			-9.66	
Value Added	1.16	2.92	-0.11	-2.83			-9.48	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
JP Morgan Emerging Markets	1.58	5.56	5.79	-7.25	9.85		1.68	11/1/2019
MSCI Emerging Markets IMI Index	2.79	4.01	1.88	-10.32	9.60		1.92	
Value Added	-1.21	1.55	3.91	3.07	0.25		-0.24	
Pzena Emerging Markets	3.12	7.13	12.29	0.74	18.98		6.33	11/1/2019
MSCI Emerging Markets (Net)	3.03	3.96	0.84	-10.70	7.83		0.81	
Value Added	0.09	3.17	11.45	11.44	11.15		5.52	
Private Equity Composite	2.11	2.07	-0.54	2.53	16.35	13.73	10.98	7/1/2002
Russell 3000 +3% 1 Quarter Lag	-5.62	7.98	-12.79	-16.78	10.28	12.05	11.43	
Value Added	7.73	-5.91	12.25	19.31	6.07	1.68	-0.45	
Core Fixed Income Composite	1.18	1.92	1.28	-1.08	1.26		2.20	10/1/2018
Blmbg. U.S. Aggregate Index	2.54	2.96	-0.09	-4.78	-2.77		1.04	
Value Added	-1.36	-1.04	1.37	3.70	4.03		1.16	
NISA	2.43	3.02	0.14	-4.48	-2.66	0.94	2.04	7/1/2011
Blmbg. U.S. Aggregate Index	2.54	2.96	-0.09	-4.78	-2.77	0.90	1.93	
Value Added	-0.11	0.06	0.23	0.30	0.11	0.04	0.11	
Loomis Sayles Intmd	2.03	2.45	0.27	-2.64	-1.21		0.98	2/1/2019
Blmbg. U.S. Intermediate Aggregate Index	2.15	2.39	0.15	-2.79	-1.96		0.51	
Value Added	-0.12	0.06	0.12	0.15	0.75		0.47	
Lord Abbett	0.74	1.59	1.71	-0.10	2.69		1.78	10/1/2018
ICE BofA 1-3 Year U.S. Corporate Index	0.88	1.29	1.36	0.33	0.96		1.63	
Value Added	-0.14	0.30	0.35	-0.43	1.73		0.15	
Specialty Credit Composite	1.51	2.74	5.27	3.57	7.40		5.47	10/1/2018
Specialty Credit Policy Index	0.52	3.41	7.31	-0.34	7.26		3.17	
Value Added	0.99	-0.67	-2.04	3.91	0.14		2.30	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Adams St SPC II A	2.97	2.97	6.31	21.37			14.88	6/1/2020
Adams St SPC II B	2.04	2.04	6.26	3.09			9.55	6/1/2020
Blue Torch	3.92	3.92	10.52	13.78			10.15	8/1/2020
BSP Coinvestment	2.29	2.29	4.55	6.22	6.84		6.37	10/1/2019
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52		3.57	
Value Added	2.32	-0.94	-2.78	3.68	-1.68		2.80	
BSP Private Credit	1.22	1.22	2.00	3.49	6.76	5.81	5.61	2/1/2018
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	3.61	
Value Added	1.25	-2.01	-5.33	0.95	-1.76	2.18	2.00	
CapitalSpring	8.17	8.17	9.10	11.40	10.84		10.24	2/1/2020
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52		3.21	
Value Added	8.20	4.94	1.77	8.86	2.32		7.03	
Cerberus Capital Mgmt	0.88	2.09	6.52	9.52	11.97	10.82	9.67	9/1/2014
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	3.70	
Value Added	0.91	-1.14	-0.81	6.98	3.45	7.19	5.97	
Columbia	1.53	3.96	8.18	-2.33	5.13	3.44	5.35	11/1/2011
Blmbg. U.S. Corp: High Yield Index	1.07	3.57	7.19	-3.34	5.91	3.21	5.22	
Value Added	0.46	0.39	0.99	1.01	-0.78	0.23	0.13	
Manulife Asset Mgmt	2.03	3.34	5.71	-1.93	4.13	3.07	3.66	12/1/2011
Policy Index	2.35	2.93	0.55	-4.61	-2.02	1.05	1.06	
Value Added	-0.32	0.41	5.16	2.68	6.15	2.02	2.60	
Marathon Bluegrass	1.52	1.26	-3.99	-3.83	4.04	4.38	5.57	1/1/2016
Blmbg. U.S. Corp: High Yield Index	1.07	3.57	7.19	-3.34	5.91	3.21	5.38	
Value Added	0.45	-2.31	-11.18	-0.49	-1.87	1.17	0.19	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Shenkman Capital	-0.02	2.81	6.90	2.21	7.93	3.40	3.79	7/1/2011
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	4.10	
Value Added	0.01	-0.42	-0.43	-0.33	-0.59	-0.23	-0.31	
Waterfall	1.42	2.66	5.68	3.99	9.10	4.60	7.91	7/1/2011
Policy Index	0.61	3.11	6.06	-0.67	4.94	2.79	3.78	
Value Added	0.81	-0.45	-0.38	4.66	4.16	1.81	4.13	
White Oak Yield Spectrum	0.96	0.96	3.45	5.08	5.37	5.38	5.29	3/1/2018
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	3.63	
Value Added	0.99	-2.27	-3.88	2.54	-3.15	1.75	1.66	
Arrowmark	1.22	3.76	9.41	10.90	15.44		9.54	6/1/2018
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52		3.64	
Value Added	1.25	0.53	2.08	8.36	6.92		5.90	
H/2 Credit Partner	0.00	0.00	0.00	0.00	3.02	1.27	4.07	7/1/2011
Mesa West Core Lend	-1.04	-1.04	1.79	2.99	4.55	5.77	6.05	5/1/2013
Mesa West IV	-1.02	-1.02	-2.66	-1.82	5.23	6.05	5.40	3/1/2017
Cash Composite	0.32	0.89	2.29	2.48	0.92	1.39	2.46	7/1/1992
FTSE 3 Month T-Bill	0.40	1.12	2.46	2.61	0.95	1.40	2.33	
Value Added	-0.08	-0.23	-0.17	-0.13	-0.03	-0.01	0.13	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Real Estate Composite	-1.71	-4.34	-0.69	5.95	11.71	10.96	9.74	5/1/2009
NCREIF ODCE NOF 1 Quarter Lag	-5.17	-5.17	-0.55	6.55	8.97	7.72		
Value Added	3.46	0.83	-0.14	-0.60	2.74	3.24		
Baring	-9.15	-9.71	-11.09	-1.43	8.74		14.87	1/1/2019
Barings Euro RE II	-16.44	-16.97	-17.91	-23.65			-20.25	12/1/2020
Divcowest IV	-4.29	-4.29	-4.48	-3.43	10.86	12.62	17.46	3/1/2014
Fundamental Partners III	3.79	3.79	3.60	7.95	18.62	15.91	14.24	5/1/2017
Greenfield Acq VI	-20.30	-20.30	-32.21	-33.17	-38.60	-39.62	-18.48	12/1/2012
Greenfield Acq VII	-13.99	-13.99	-2.67	-1.12	14.17	14.69	13.71	7/1/2014
Harrison Street	-0.44	-1.03	7.34	10.10	7.67	7.50	7.95	5/1/2012
Lubert Adler VII	-8.73	-8.73	-8.56	-4.07	-5.77	-0.23	-1.56	7/1/2014
Lubert Adler VII B	7.57	7.57	13.15	19.79	26.24	20.00	16.22	7/1/2017
Patron Capital	-0.79	-1.45	-5.79	-8.51	4.17	5.76	3.77	8/1/2016
Prologis Targeted US	0.00	-5.58	-0.05	11.88	22.25	20.04	17.89	10/1/2014
Rubenstein PF II	-17.50	-17.50	-26.59	-26.43	-10.91	-3.87	4.32	7/1/2013
Stockbridge Sm/Mkts	-2.05	-6.24	-5.64	6.95	10.64	9.37	9.37	5/1/2014
Walton St RE VI	5.25	5.25	11.62	14.32	6.66	4.80	-11.06	5/1/2009
Walton St RE VII	-0.40	-0.40	3.53	1.96	-1.40	-1.23	5.69	7/1/2013

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Real Return Composite	0.56	1.53	8.06	7.08	13.05	5.70	4.45	7/1/2011
US CPI +3%	0.30	1.69	4.70	8.14	8.51	6.99	5.61	
Value Added	0.26	-0.16	3.36	-1.06	4.54	-1.29	-1.16	
Tortoise Capital	-0.98	3.21	23.38	11.23	39.34	7.39	9.42	8/1/2009
Alerian MLP Index	-1.18	4.09	23.84	14.70	47.08	7.42	6.71	
Value Added	0.20	-0.88	-0.46	-3.47	-7.74	-0.03	2.71	
Amerra AGRI Fund II	-1.45	-1.45	7.36	12.08	8.52	7.92	6.22	12/1/2012
Amerra AGRI Holdings	3.55	3.55	-0.26	2.59	-1.33	-1.23	-1.17	8/1/2015
BTG Pactual	0.85	0.85	7.56	23.30	6.22	4.12	-1.84	12/1/2014
IFM Infrastructure	2.02	3.82	6.20	7.21	5.48		5.02	7/1/2019
Magnetar MTP EOF II	-2.12	-2.12	5.68	135.62	68.73	40.48	25.61	8/1/2015
Oberland Capital	3.34	3.34	7.79	9.92	15.32		13.85	8/1/2018
Taurus Mine Finance	3.21	3.21	31.17	70.20	19.38	16.31	15.54	4/1/2015
TPF II	-4.22	-4.22	-6.85	-6.92	3.89	4.87	-0.81	10/1/2008
Blackstone Strat Opp	0.35	0.11	-2.50	-0.25	-4.25	-3.08	-1.96	8/1/2017
Luxor Capital	-0.04	-0.08	3.25	3.99	1.64	-1.21	-0.03	4/1/2014
Myriad Opportunities	0.00	-0.30	-7.59	-7.95	-22.89	-16.00	-9.23	5/1/2016
Pine River	1.31	-7.43	-3.84	-16.63	-4.81	2.76	1.65	5/1/2014
PRISMA Capital	0.34	0.98	0.39	0.45	0.02	0.43	2.41	9/1/2011
SRS Partners US	0.00	0.00	0.00	0.00	4.37	6.19	7.94	8/1/2017
Tricadia Select	0.00	0.00	0.00	0.00	0.00	-4.33	-4.48	9/1/2017

County Employees Retirement Systems

Investment Office Quarterly Update

Quarter Ending: March 31, 2023

County Employees Retirement Systems

Performance and Asset Allocations

Quarter Ending: March 31, 2023

What’s going on in the marketplace?

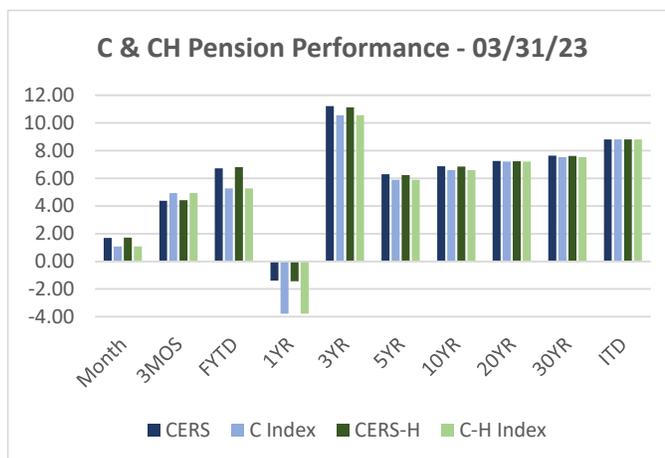
During the first quarter of 2023, global risks markets were able to shrug off a multitude of headwinds and produce positive performance. Markets were buoyed early in the quarter as optimism grew that the economy could avoid a recession and central banks would shortly shift to easing mode. This market optimism faded as concerns grew regarding the health of the banking sector following the sudden failure of two regional banks. Markets were able to rebound late in the quarter to finish on a positive note as fears of immediate contagion subsided, and optimism again took root. Despite this, most remain cautious on the market as earnings are likely to come under pressure as underlying growth seems to be slowing at a more meaningful pace. The market seems to be experiencing a broad underlying slowdown as company trends are beginning to decelerate. That said, it is a difficult starting point for comparison as we are coming off elevated numbers post pandemic, and high inflation and rates. Despite the long-predicted recession to come, as mentioned above, equity markets continue to be resilient as businesses have been performing against low expectations. Supply chains seem to be functioning and inflationary pressures are starting to abate. The financial industry experienced a couple of significant bank failures, as bond investments came under significant pressures during the quarter; however, they appear to be idiosyncratic, and contagion seems minimal. This is still likely to renew banks focus on capital/liquidity and may result in tightening credit availability. Mixed data has created some confusion in the marketplace. Equity markets seem to be doing well, while bond markets say we are headed for recession. Mixed growth trends are evidence of the contradiction as machine and semi-conductor sales are down, while retail and travel activity are up. There is a dichotomy in soft and hard data as well; PMI and business surveys say we are in recession, while auto and construction data say different. Slowing demand in North America is being offset by increasing demand in China (re-opening post covid).

The KPPA Pension Trust portfolio returned 1.61% during the month of March, outperforming its blended benchmark return of 0.99%. The CERS Pension Composite produced a 1.69% return during the month. The CERS and CERS-H Pension portfolios returned 1.69% and 1.71% respectively, while their benchmark gained 1.07%. Both funds outperformed their respective benchmark with similar drivers of attribution. Performance was stronger within the private equity portfolio in terms of selection. Also, the portfolios benefitted from strong selection in the high yield and real estate portfolios. Allocation positioning was modestly positive during the month. Partially offsetting relative performance was the weakness experienced in the public equity and core fixed income asset classes.

For the fiscal year, the KPPA Pension Trust portfolio gained 6.26%, outperforming the benchmark return of 5.00%, while the CERS Pension Composite returned 6.74%. The CERS and CERS-H Pension portfolios returned 6.72% and 6.80%, against a benchmark return of 5.27%.

Global equity markets were stronger during the month, as evidenced by the MSCI ACWI Index rising 3.08%. US markets outpaced their international market counterparts (R3000: 2.67% versus MSCI ACWI Ex-US: 2.13%). This brought the fiscal year return for global equity markets to 9.75% (KPPA global equity portfolio: 11.53%).

US equity markets gained 2.67% during the month (Russell 3000), while the KPPA portfolio underperformed, returning 2.31%. The market was driven by strength in the large cap segment (3.67%),



while midcaps and small caps were significantly weaker (-3.21% and -4.78%, respectively). Growth significantly outperformed value during the month, returning 6.25% versus -0.86%, as evidenced by the Russell 3000 style indices. For the fiscal year, the KPPA US Equity portfolio has gained 9.98% compared with its benchmark return of 9.75%. Relative outperformance has been driven by the portfolio's slight overweight down market cap to midcaps which have returned 12.17% for the fiscal year.

NonUS equity markets returned 2.13% (MSCI ACWI Ex-US) during the month. Developed markets returned 2.34% (MSCI World Ex-US) and emerging markets gained 3.03% (MSCI EM) during the period while period. The KPPA portfolio returned 2.56% during the month, outperforming its benchmark by 43bps. Relative outperformance was driven by stock selection, as the majority of individual active mandates bested their respective benchmarks. The fiscal year return now stands at 13.63% versus 9.85%.

The specialty credit portfolio outperformed its benchmark during the month, returning 1.61% versus 0.52%. The high yield market returned 1.07% during the period, as the leverage loan market remained relatively flat (-0.03%). For the fiscal year to date, the portfolio has underperformed its benchmark, gaining 5.16% versus 7.31%. The reported relative underperformance is largely driven by the issues associated with timing differences between the private market mandates and the public market benchmarks which tend to be exacerbated during periods of larger moves in the public markets. Individual strategy relative performance has been mixed fiscal year to date.

The core fixed income portfolio gained 1.15% compared to the Bloomberg Aggregate Index gaining 2.54% as Government bond yields overall decreased significantly in March as investors sought refuge of safer assets and forward rate hike expectations decreased in light of the banking sector turmoil. Relative underperformance was attributable to positioning within the allocation; the portfolios continue to remain underweight overall duration given the potential for higher rates and continued volatility. The fiscal year-to-date return now stands at 1.39% compared to the benchmark return of -0.09%.

The private equity allocation gained 160bps during the month, bringing the fiscal year to date return to -4.53%. Trailing public marks have significantly affected the overall performance of the portfolio, and the portfolio's 1-year return crossed into negative territory recently coming in at -2.92% at the end of March.

The real return portfolio gained 31bps during the month, compared to its benchmark return of 0.79%. As with several of the previous months, performance, both absolute and relative, was heavily influenced by the MLP portion of the portfolio (approximately 40% of the allocation); which lost -0.98%. For the fiscal year, the portfolio has returned 9.97% versus the benchmark return of 5.15%.

The real estate portfolio fell -1.57% during the month. The 1-year return now stands at 6.09% versus the 6.55% return of its benchmark, closing the relative gap that existed due to the benchmark finally adjusting to the impact of higher interest rates. The three open-end real estate funds in the portfolio (approximately 75% of the allocation) continue to outperform the benchmark.

The cash portfolio returned 0.31% during the month compared with the 3-month T-bill's 0.40%. This brought the fiscal year return to 2.31%, trailing the benchmark return of 2.46%. The relative underperformance of the cash portfolio is most attributable to lower rates offered by overnight repurchase agreements relative to the yields of the 3-month T-bill.

CERS Board Meeting - Investment Committee Report

CERS & CERS-HAZ - PENSION FUND PLAN NET RETURNS - 03/31/23											
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
CERS	8,435,338,447.03	1.69	4.38	6.72	-1.40	11.22	6.30	6.88	7.26	7.63	8.82
KY Ret. CKERS Plan IPS Index		1.07	4.94	5.27	-3.77	10.55	5.90	6.60	7.22	7.54	8.81
CERS- H	2,910,096,168.23	1.71	4.42	6.80	-1.43	11.13	6.24	6.86	7.24	7.62	8.81
KY Ret. CERS Haz Plan IPS Index		1.07	4.94	5.27	-3.77	10.55	5.90	6.60	7.22	7.54	8.81

KPPA PENSION FUND UNIT - NET RETURNS - 03/31/23 - PROXY PLAN ASSET PERFORMANCE											
Structure	Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD	
PUBLIC EQUITY	2.41	7.55	11.53	-6.09	15.89	6.58	7.98	8.43	8.43	10.12	
MSCI ACWI	3.08	7.31	9.75	-7.44	15.29	6.37	7.75	8.38	8.22	9.95	
PRIVATE EQUITY	1.60	1.55	-4.53	-2.92	16.07	13.79	13.38	12.69		11.80	
Russell 3000 + 3%(Qtr Lag)	-5.23	7.23	-12.59	-16.21	10.13	11.84	15.35	12.25		11.56	
SPECIALTY CREDIT	1.61	2.80	5.16	3.27	7.48	5.29				5.61	
50% BB US HY / 50% SP LSTA Leveraged Loan	0.52	3.41	7.31	-0.34	7.26	3.46				3.46	
CORE FIXED INCOME	1.15	1.94	1.39	-0.74	1.43	2.26				2.47	
Bloomberg Barclays US Aggregate	2.54	2.96	-0.09	-4.78	-2.77	0.91				1.64	
CASH	0.31	0.88	2.31	2.49	0.92	1.47	1.11	1.66	2.70	3.30	
Citigroup Treasury Bill-3 Month	0.40	1.12	2.46	2.61	0.95	1.40	0.85	1.26	2.31	2.90	
REAL ESTATE	-1.57	-4.24	-0.51	6.09	11.87	11.38	10.31	8.38	6.69	6.75	
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	-5.17	-5.17	-0.55	6.55	8.97	7.72	9.11	7.40	7.72	6.61	
REAL RETURN	0.31	2.10	9.97	8.14	14.45	5.93	3.85			4.71	
US CPI +3%	0.79	1.77	5.15	9.04	14.76	6.11	3.98			4.07	

Plan	Global Equity	Private Equity	Specialty Credit	Core Fixed Income	Cash	Real Estate	Real Return
CERS	50.4	8.1	20.3	9.8	1.5	6.7	3.2
CERS-H	50.0	7.8	20.2	10.6	2.0	6.2	3.0

CERS PEN Relative Weights

CERS-HAZ PEN Relative Weights

CERS Board Meeting - Investment Committee Report

CERS INS & CERS HAZ INS - INSURANCE FUND - PLAN NET RETURNS - 03/31/23											
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
CERS INS	3,165,430,934.58	1.75	4.44	6.87	-1.14	10.97	6.21	6.81	7.18	6.78	7.33
KY Ins. CERS Plan IPS Index		1.07	4.94	5.27	-3.77	10.11	5.67	6.57	7.42	6.97	7.49
CERS - H INS	1,566,734,922.31	1.73	4.35	6.64	-1.20	10.98	6.30	6.87	7.21	6.80	7.35
KY Ins. CERS Haz Plan IPS Index		1.07	4.94	5.27	-3.77	10.11	5.67	6.57	7.42	6.97	7.49

KPPA INSURANCE FUND UNIT - NET RETURNS - 03/31/23 - PROXY PLAN ASSET PERFORMANCE											
Structure	Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD	
PUBLIC EQUITY	2.36	7.50	11.45	-6.11	15.91	6.56	8.02	8.32		8.45	
MSCI ACWI	3.08	7.31	9.75	-7.44	15.26	6.34	7.73	8.05		8.23	
PRIVATE EQUITY	2.11	2.07	-0.53	2.51	16.30	13.70	14.47	12.38		10.97	
Russell 3000 + 3%(Qtr Lag)	-5.23	7.23	-12.59	-16.21	10.13	11.84	15.35	12.07		11.12	
SPECIALTY CREDIT	1.51	2.74	5.26	3.54	7.39	5.19				5.45	
50% BB US HY / 50% SP LSTA Leveraged Loan	0.52	3.41	7.31	-0.34	7.26	3.46				3.46	
CORE FIXED INCOME	1.19	1.93	1.30	-1.06	1.27	2.09				2.18	
Bloomberg Barclays US Aggregate	2.54	2.96	-0.09	-4.78	-2.77	0.91				1.64	
CASH	0.32	0.89	2.29	2.48	0.91	1.36	0.93	1.49		2.44	
Citigroup Treasury Bill-3 Month	0.40	1.12	2.46	2.61	0.95	1.40	0.85	1.26		2.33	
REAL ESTATE	-1.71	-4.35	-0.70	5.92	11.69	11.33	10.31			9.97	
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^	-5.17	-5.17	-0.55	6.55	8.97	7.72	9.11			6.56	
REAL RETURN	0.56	1.52	8.03	7.06	13.04	5.69	3.61			4.45	
US CPI +3%	0.79	1.77	5.15	9.04	13.73	6.08	4.04			4.11	

CERS Insurance Relative Weights

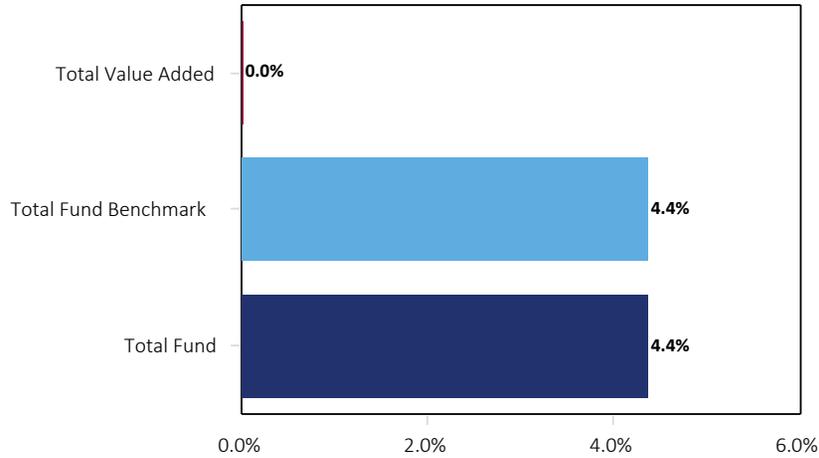
CERS-HAZ Insurance Relative Weights

Total Fund Attribution

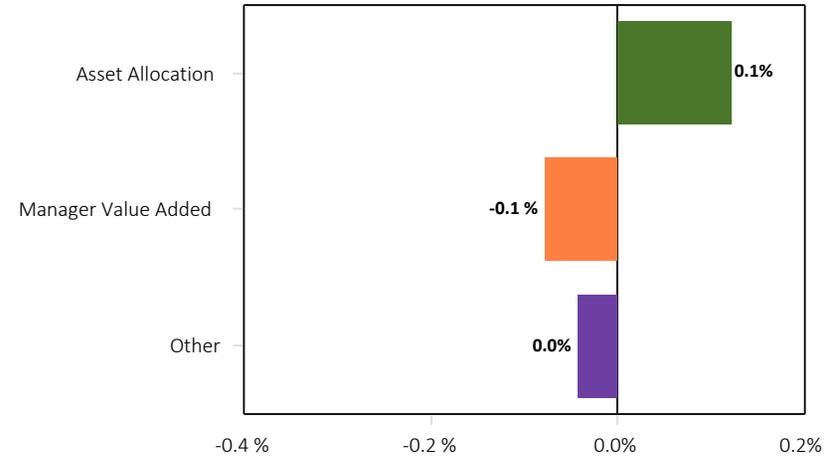
CERS Pension Plan

Periods Ended 1 Quarter Ending March 31, 2023

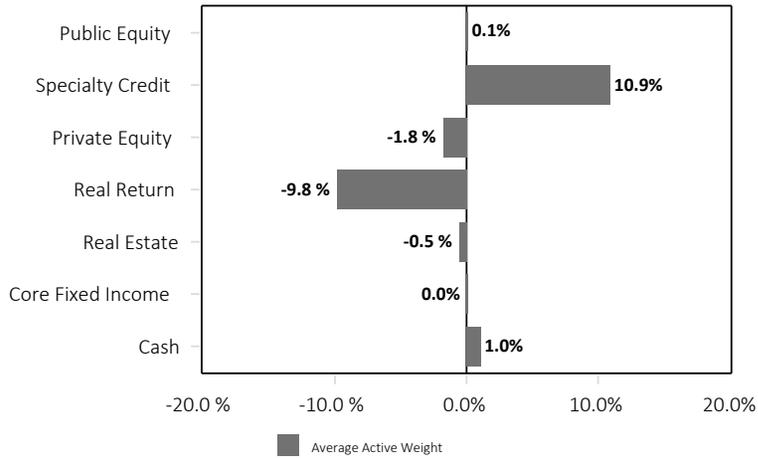
Total Fund Performance



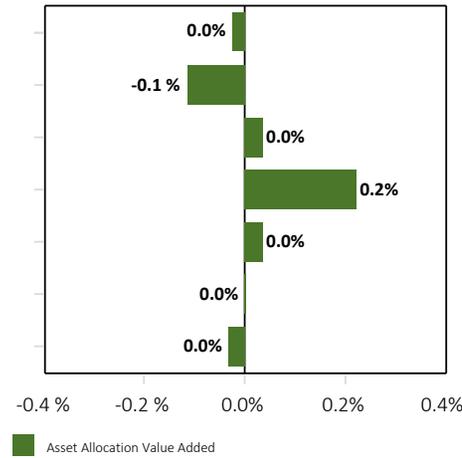
Total Value Added:0.0%



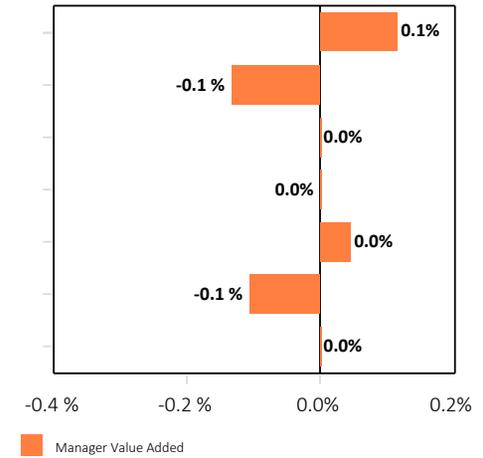
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Asset Allocation Value Added:0.1%



Total Manager Value Added:-0.1%

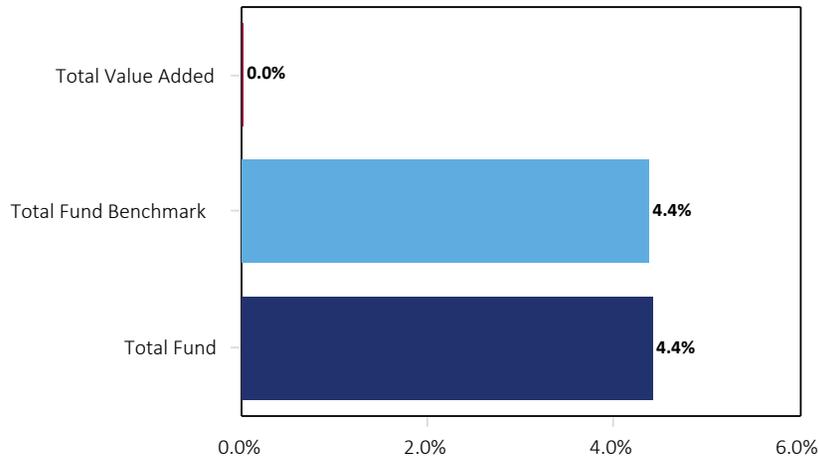


Total Fund Attribution

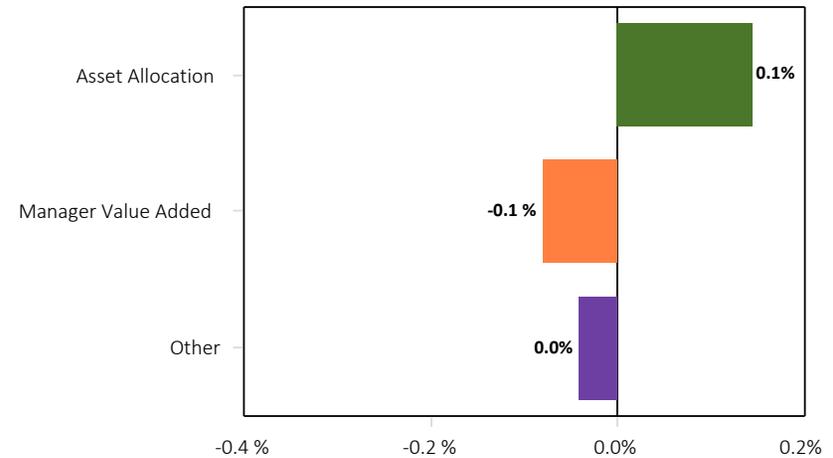
CERS (H) Pension Plan

Periods Ended 1 Quarter Ending March 31, 2023

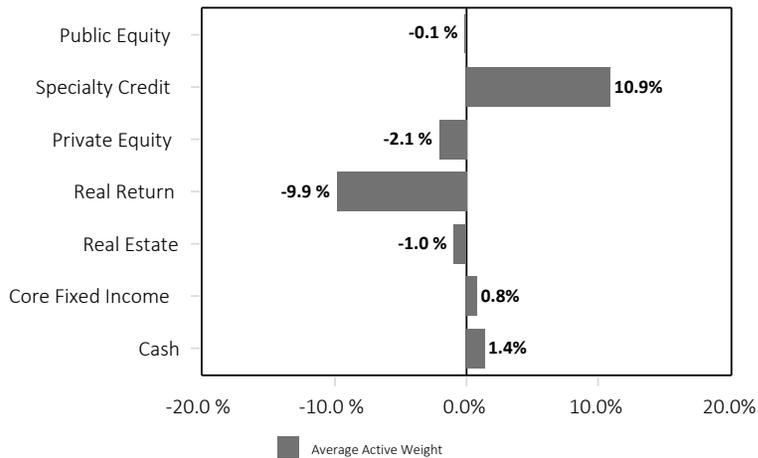
Total Fund Performance



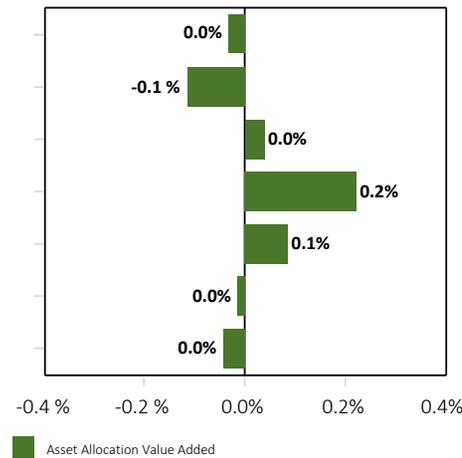
Total Value Added:0.0%



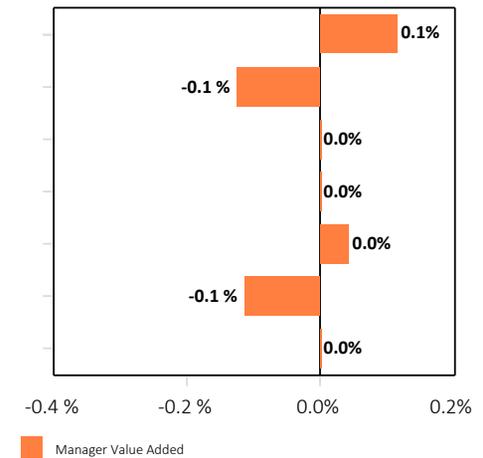
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:-0.1%

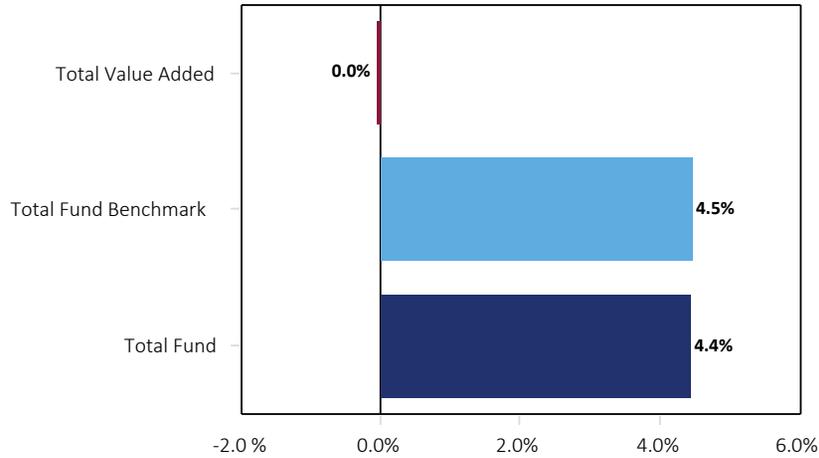


Total Fund Attribution

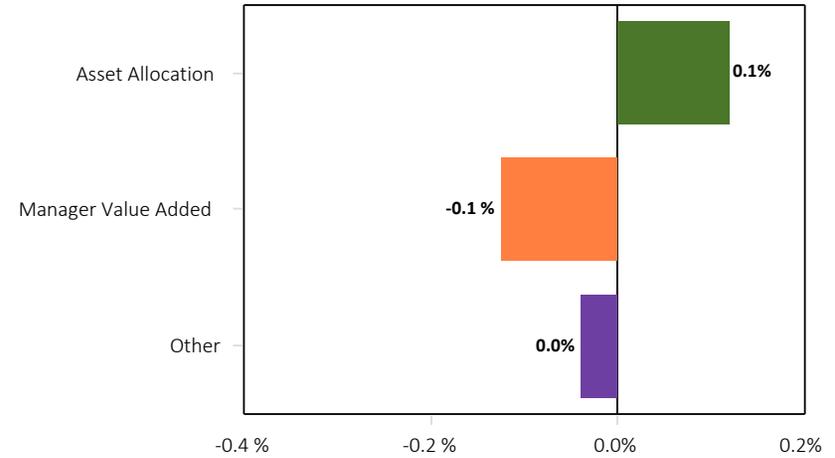
CERS Insurance Plan

Periods Ended 1 Quarter Ending March 31, 2023

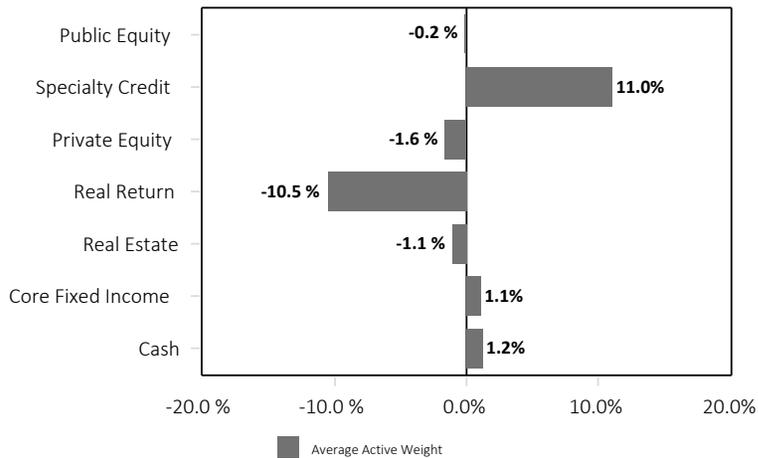
Total Fund Performance



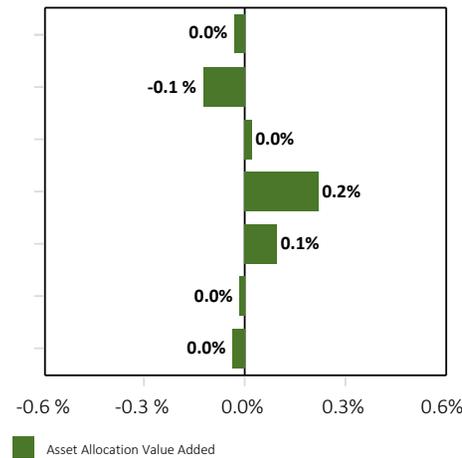
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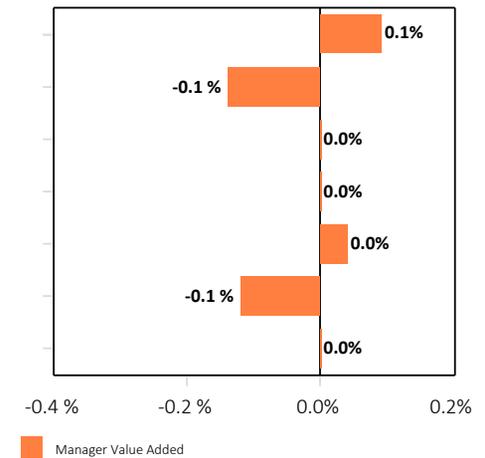
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:-0.1%

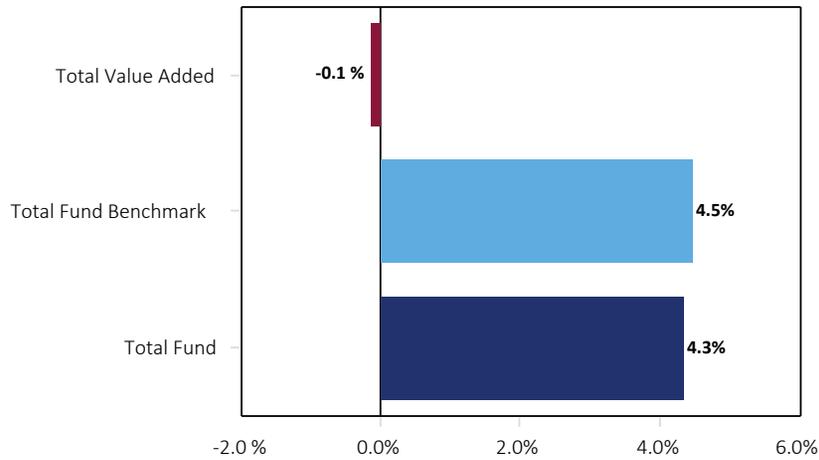


Total Fund Attribution

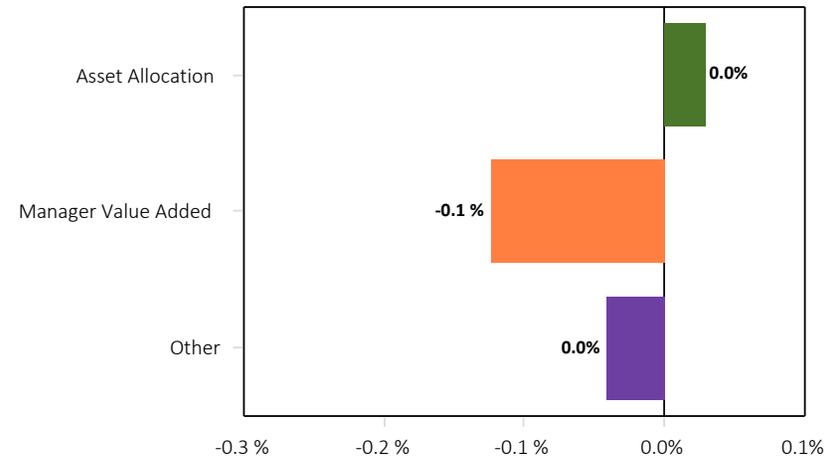
CERS (H) Insurance Plan

Periods Ended 1 Quarter Ending March 31, 2023

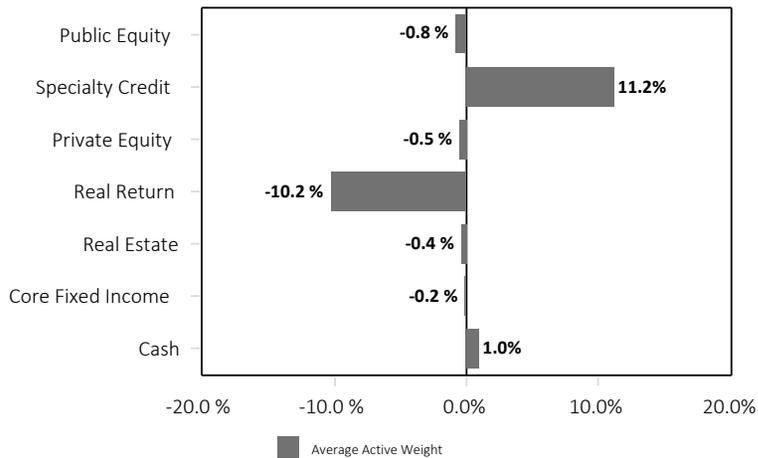
Total Fund Performance



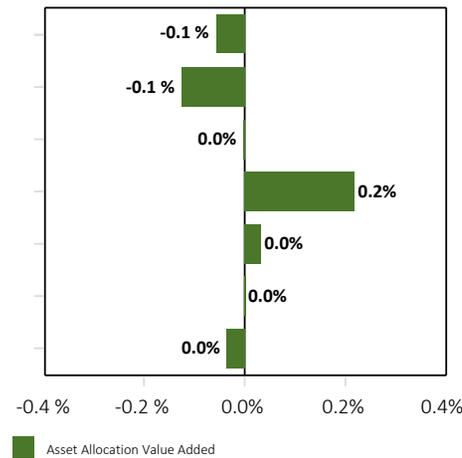
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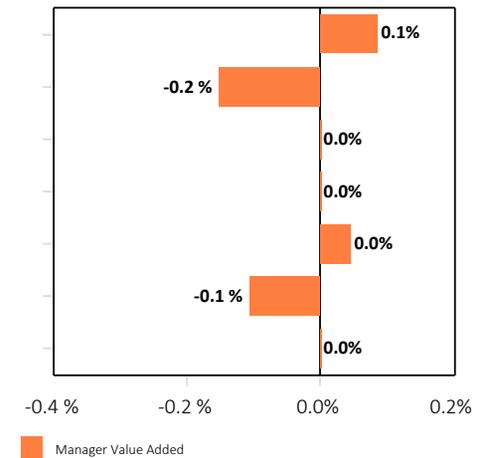
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Asset Allocation Value Added:0.0%



Total Manager Value Added:-0.1 %

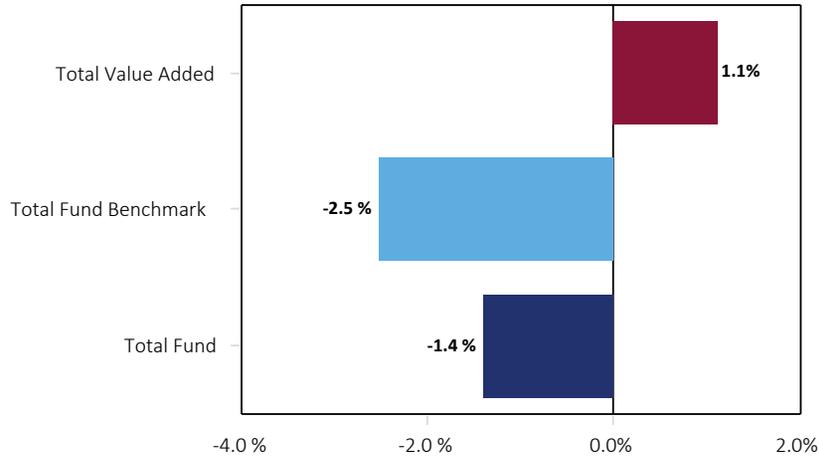


Total Fund Attribution

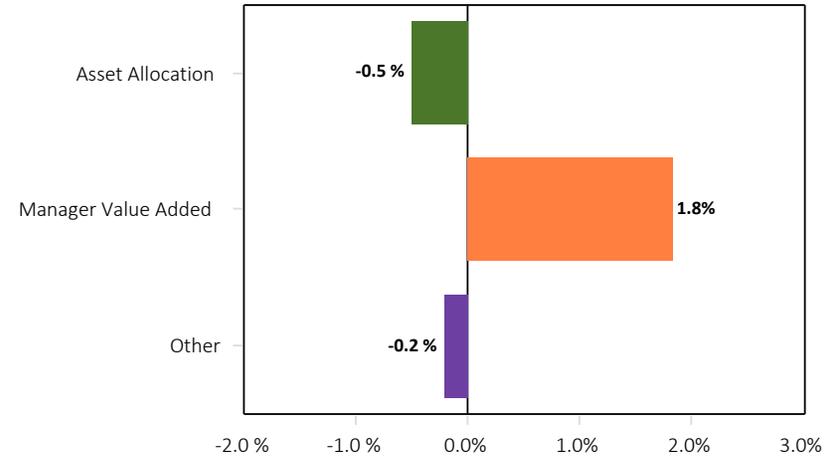
CERS Pension Plan

Periods Ended 1 Year Ending March 31, 2023

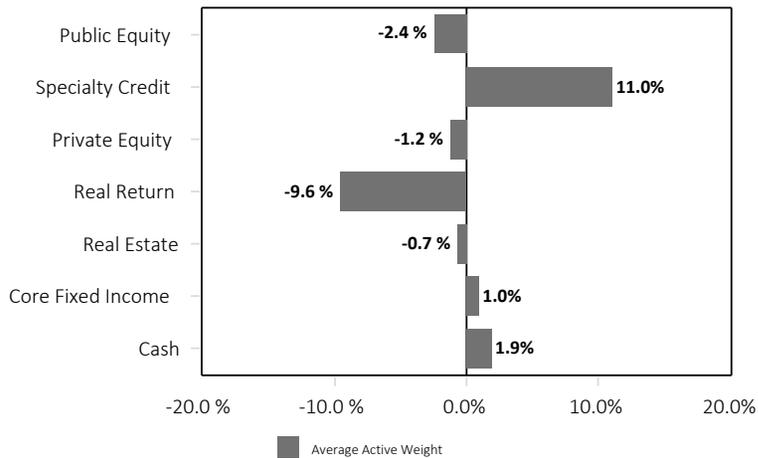
Total Fund Performance



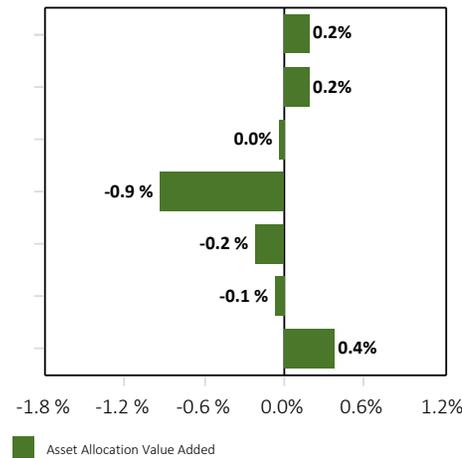
Total Value Added: 1.1%



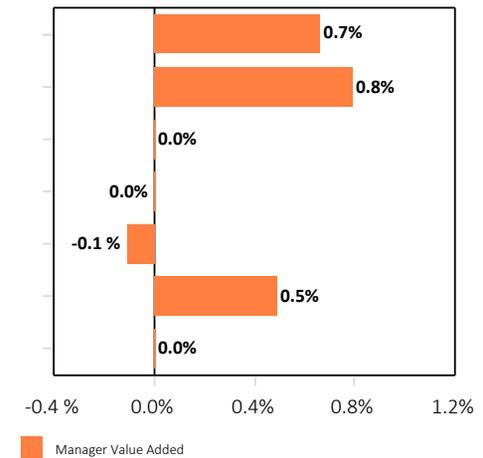
Total Asset Allocation: -0.5%



Asset Allocation Value Added: -0.5%



Total Manager Value Added: 1.8%

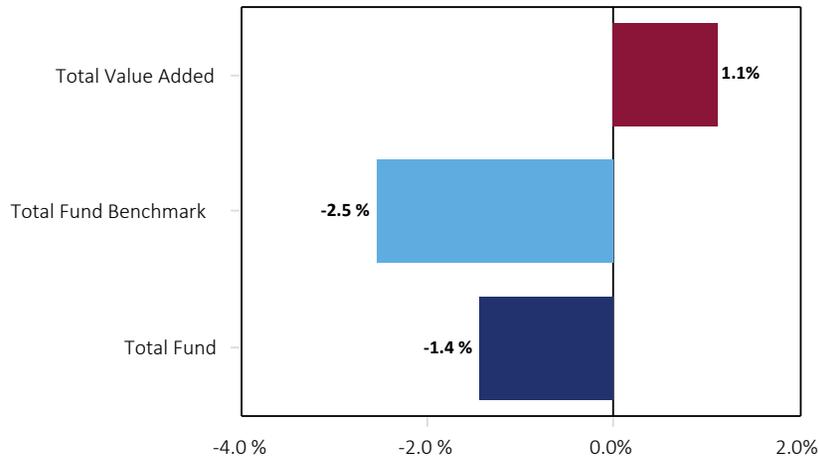


Total Fund Attribution

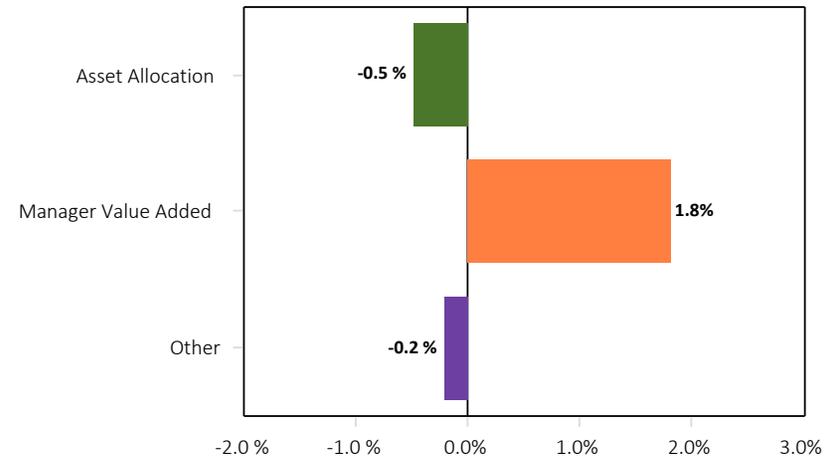
CERS (H) Pension Plan

Periods Ended 1 Year Ending March 31, 2023

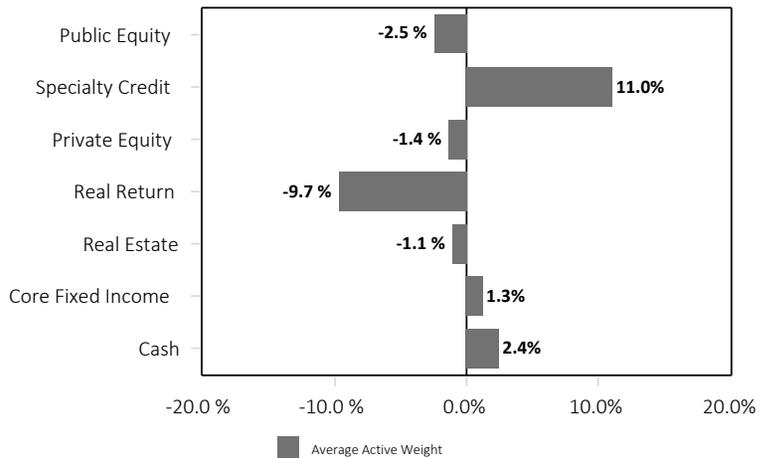
Total Fund Performance



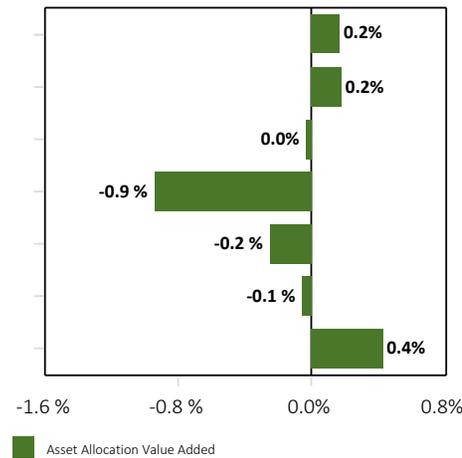
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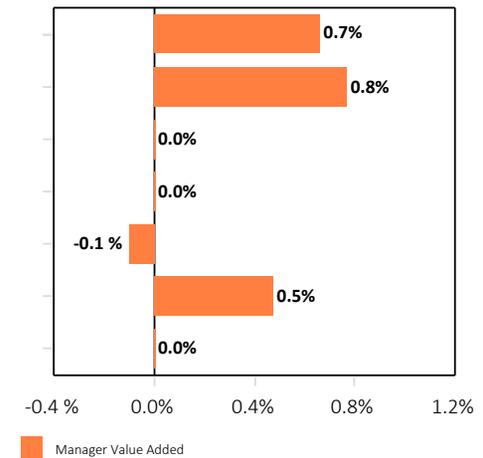
Total Asset Allocation: -0.5%



Asset Allocation Value Added: -0.5%



Total Manager Value Added: 1.8%

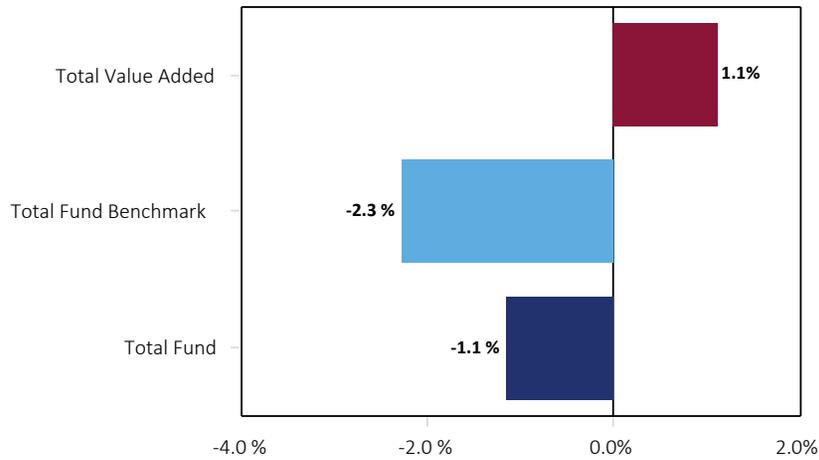


Total Fund Attribution

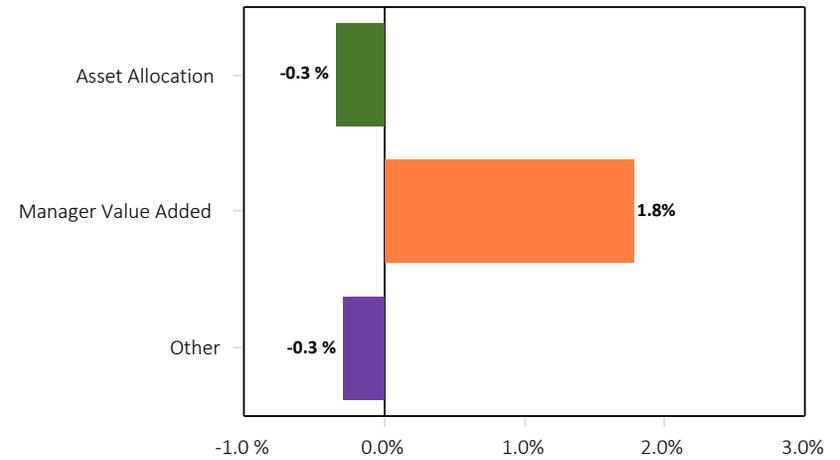
CERS Insurance Plan

Periods Ended 1 Year Ending March 31, 2023

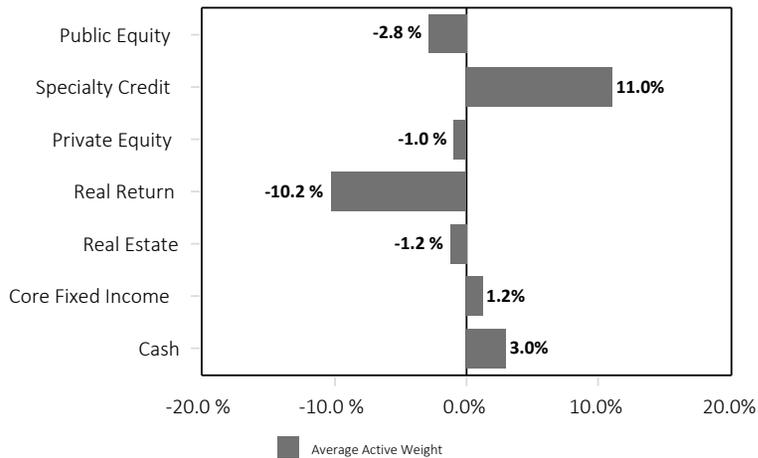
Total Fund Performance



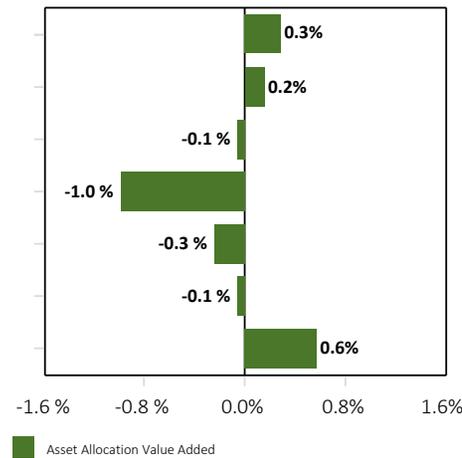
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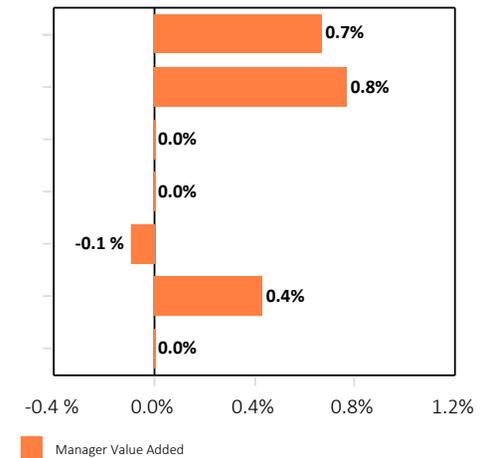
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Asset Allocation Value Added: -0.3%



Total Manager Value Added: 1.8%

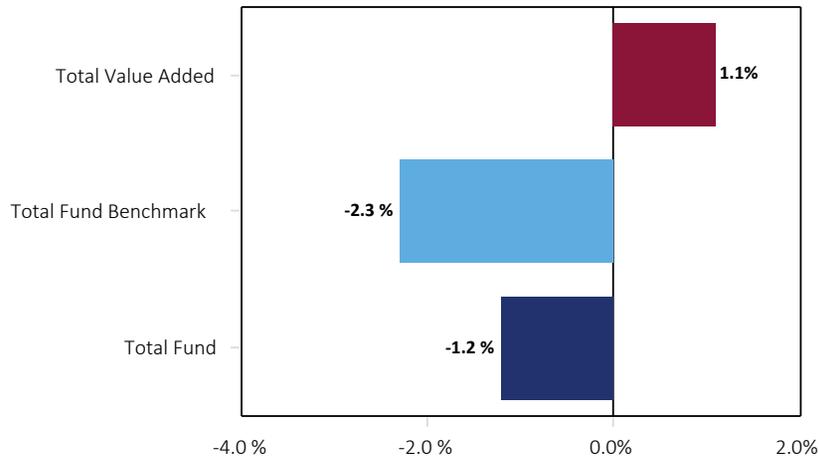


Total Fund Attribution

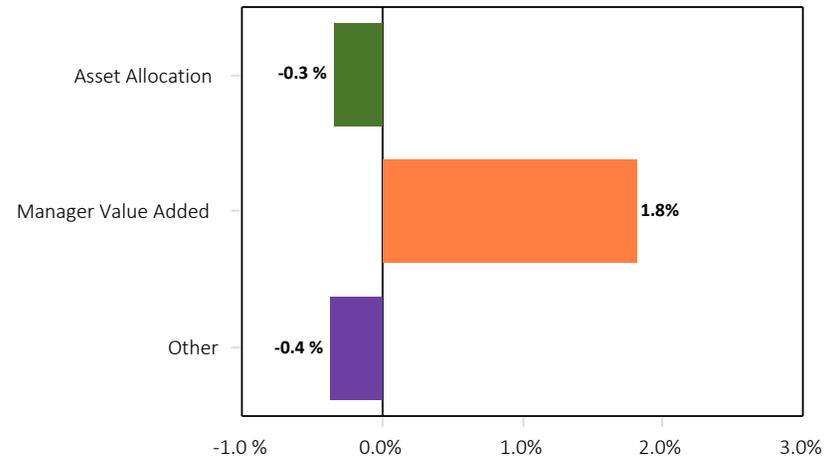
CERS (H) Insurance Plan

Periods Ended 1 Year Ending March 31, 2023

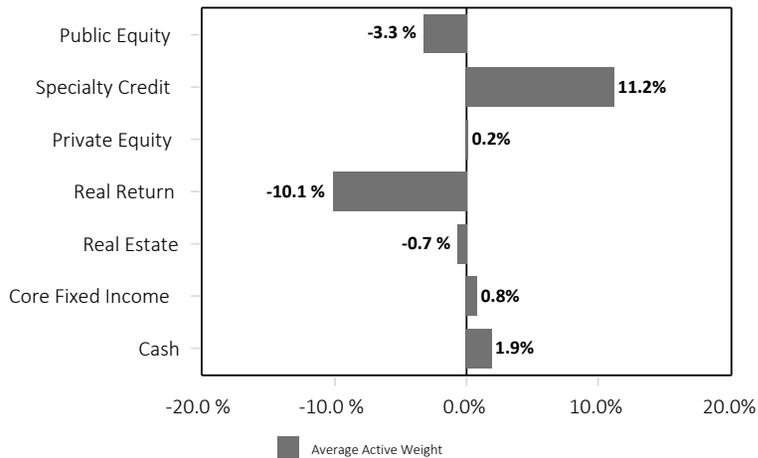
Total Fund Performance



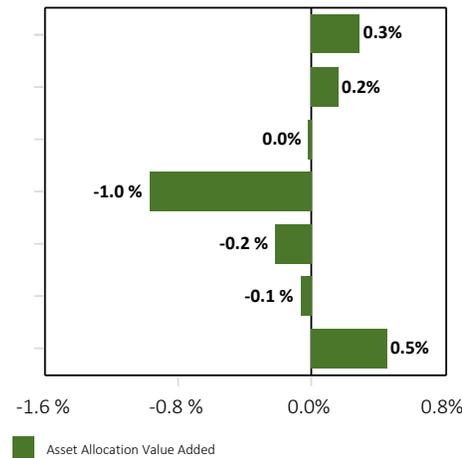
Total Value Added: 1.1%



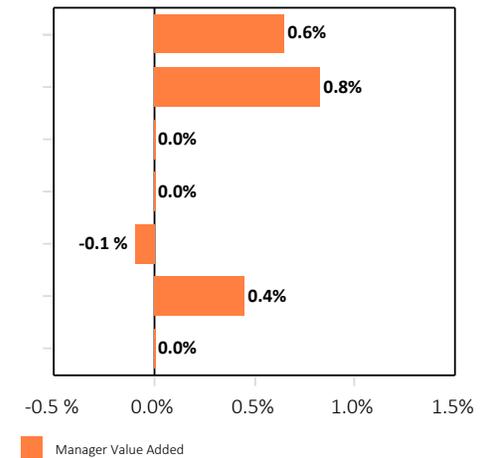
Total Asset Allocation: -0.3%



Asset Allocation Value Added: -0.3%



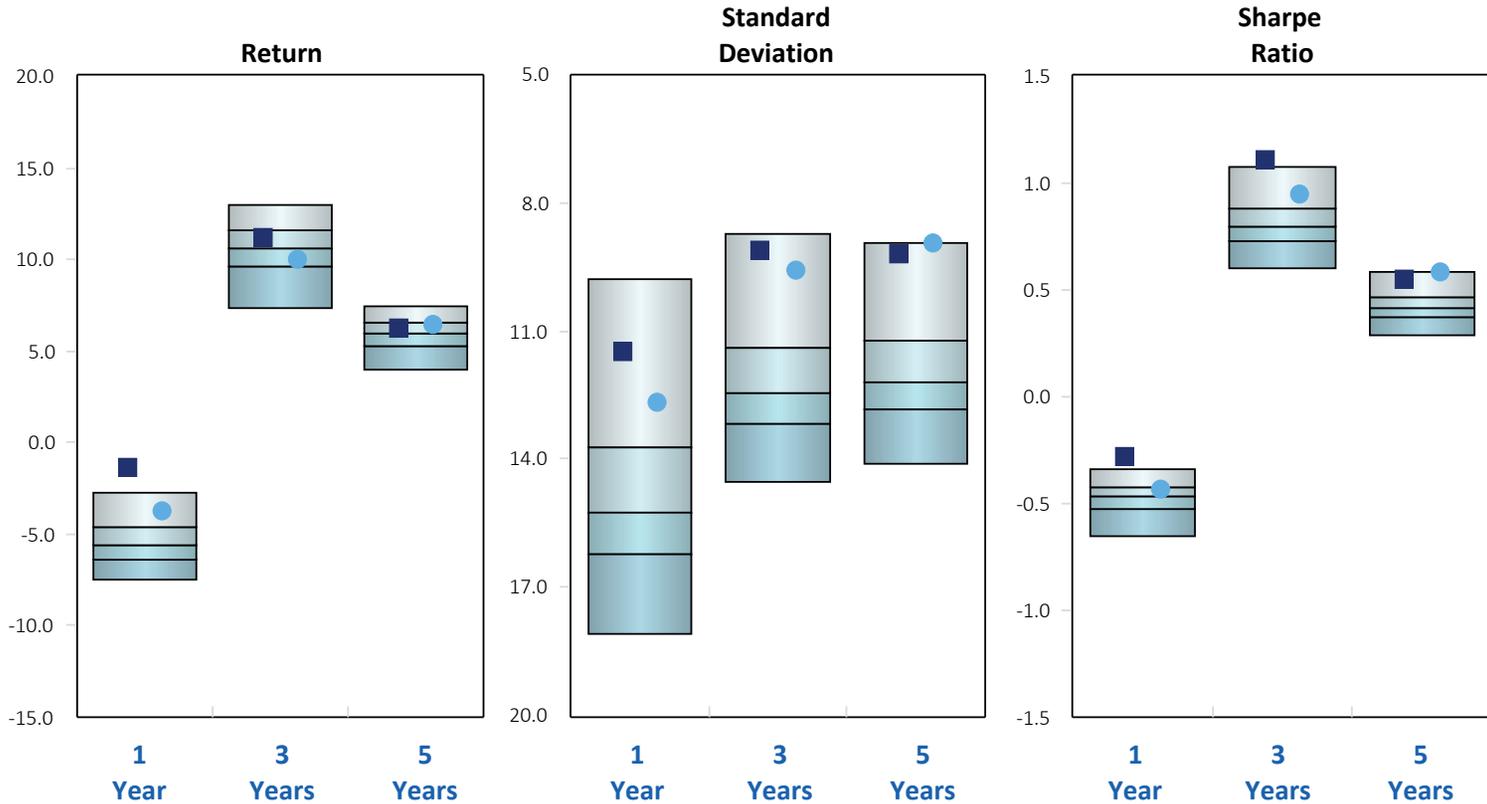
Total Manager Value Added: 1.8%



Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2023



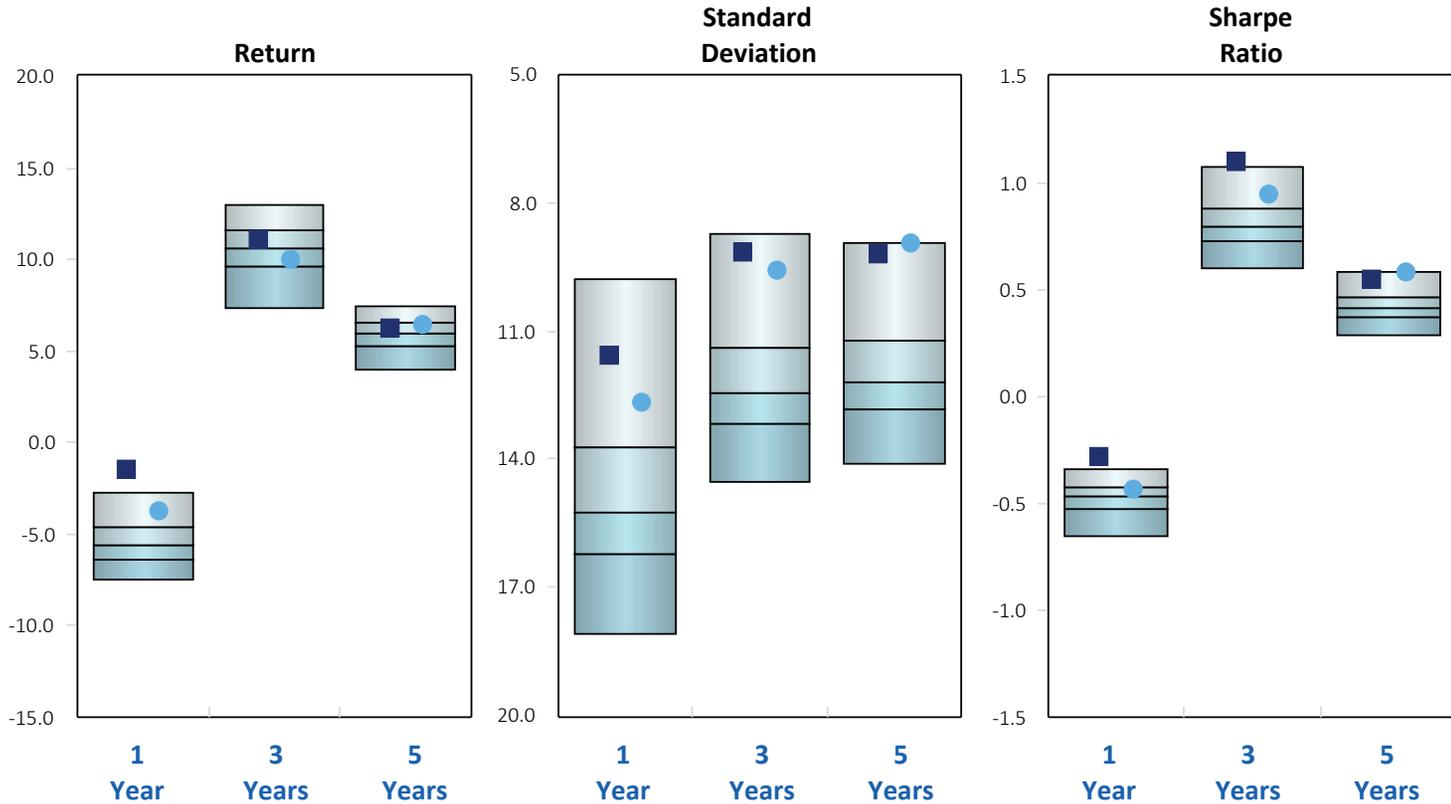
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS Pension Plan	-1.40 (3)	11.21 (35)	6.29 (34)	11.50 (9)	9.12 (6)	9.19 (6)	-0.28 (2)	1.11 (5)	0.55 (7)
● CERS Pension IPS Index	-3.68 (13)	9.99 (68)	6.47 (28)	12.65 (15)	9.57 (8)	8.93 (4)	-0.43 (29)	0.95 (16)	0.59 (5)
5th Percentile	-2.76	12.93	7.43	9.79	8.71	8.96	-0.34	1.07	0.58
1st Quartile	-4.60	11.64	6.55	13.73	11.38	11.23	-0.42	0.88	0.47
Median	-5.59	10.63	5.96	15.27	12.45	12.20	-0.47	0.80	0.42
3rd Quartile	-6.42	9.66	5.31	16.24	13.18	12.85	-0.52	0.73	0.37
95th Percentile	-7.47	7.34	3.98	18.11	14.53	14.11	-0.65	0.60	0.29

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

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

Periods Ended March 31, 2023



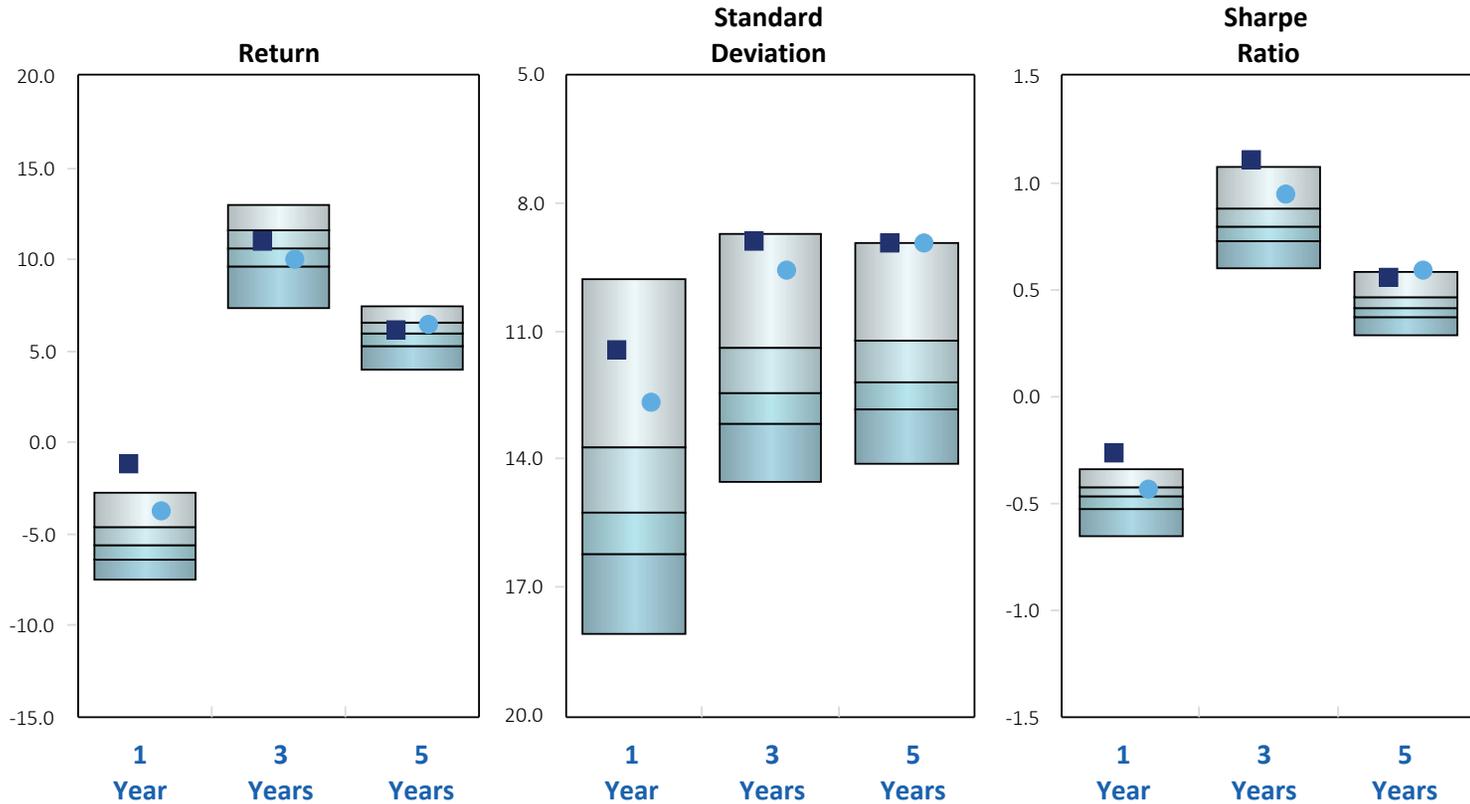
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS (H) Pension Plan	-1.43 (3)	11.12 (38)	6.24 (37)	11.57 (10)	9.14 (6)	9.19 (6)	-0.28 (2)	1.10 (5)	0.55 (8)
● CERS (H) Pension IPS Index	-3.68 (13)	9.99 (68)	6.47 (28)	12.65 (15)	9.57 (8)	8.93 (4)	-0.43 (29)	0.95 (16)	0.59 (5)
5th Percentile	-2.76	12.93	7.43	9.79	8.71	8.96	-0.34	1.07	0.58
1st Quartile	-4.60	11.64	6.55	13.73	11.38	11.23	-0.42	0.88	0.47
Median	-5.59	10.63	5.96	15.27	12.45	12.20	-0.47	0.80	0.42
3rd Quartile	-6.42	9.66	5.31	16.24	13.18	12.85	-0.52	0.73	0.37
95th Percentile	-7.47	7.34	3.98	18.11	14.53	14.11	-0.65	0.60	0.29

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2023



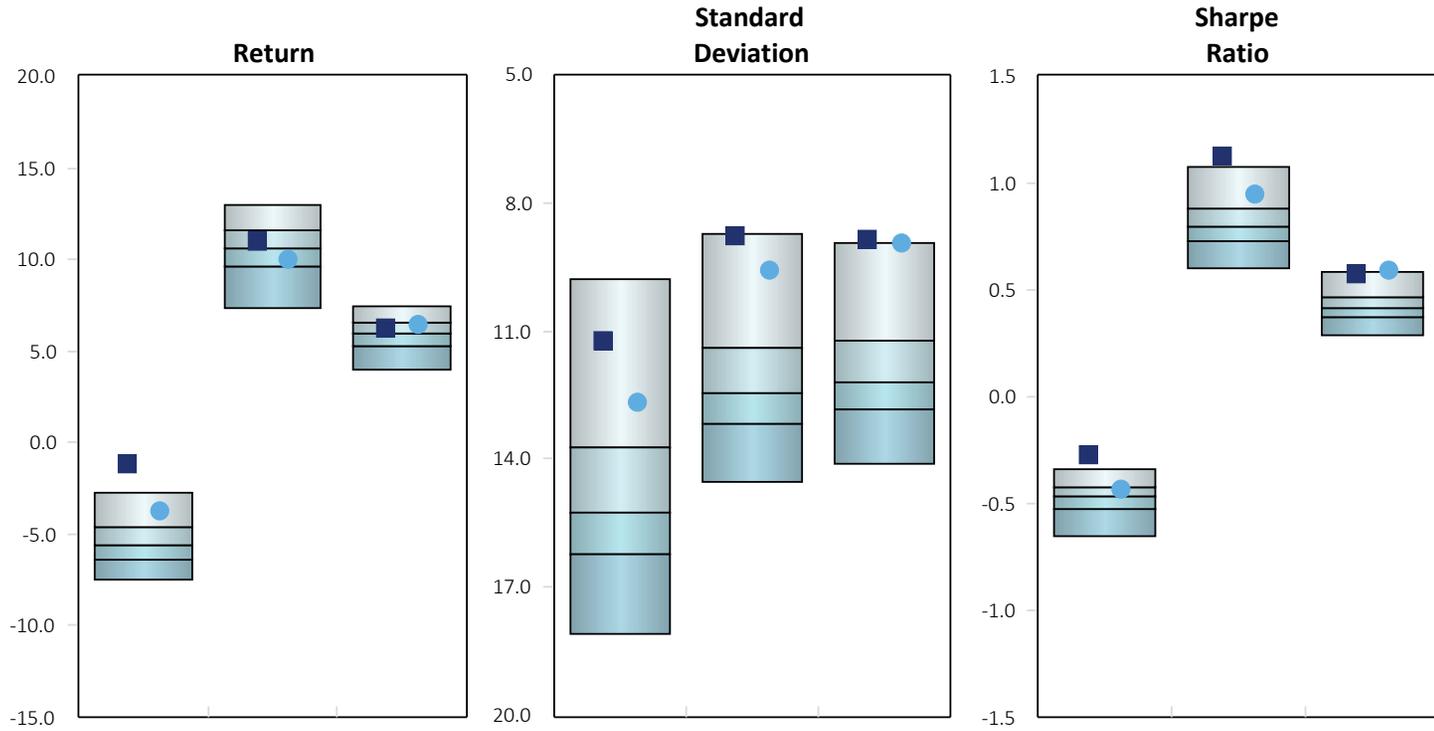
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS Insurance Plan	-1.14 (3)	10.96 (41)	6.20 (38)	11.45 (9)	8.90 (5)	8.95 (4)	-0.26 (1)	1.11 (5)	0.56 (7)
● CERS Insurance IPS Index	-3.68 (13)	9.99 (68)	6.50 (27)	12.65 (15)	9.57 (8)	8.93 (4)	-0.43 (29)	0.95 (16)	0.59 (5)
5th Percentile	-2.76	12.93	7.43	9.79	8.71	8.96	-0.34	1.07	0.58
1st Quartile	-4.60	11.64	6.55	13.73	11.38	11.23	-0.42	0.88	0.47
Median	-5.59	10.63	5.96	15.27	12.45	12.20	-0.47	0.80	0.42
3rd Quartile	-6.42	9.66	5.31	16.24	13.18	12.85	-0.52	0.73	0.37
95th Percentile	-7.47	7.34	3.98	18.11	14.53	14.11	-0.65	0.60	0.29

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

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

Periods Ended March 31, 2023



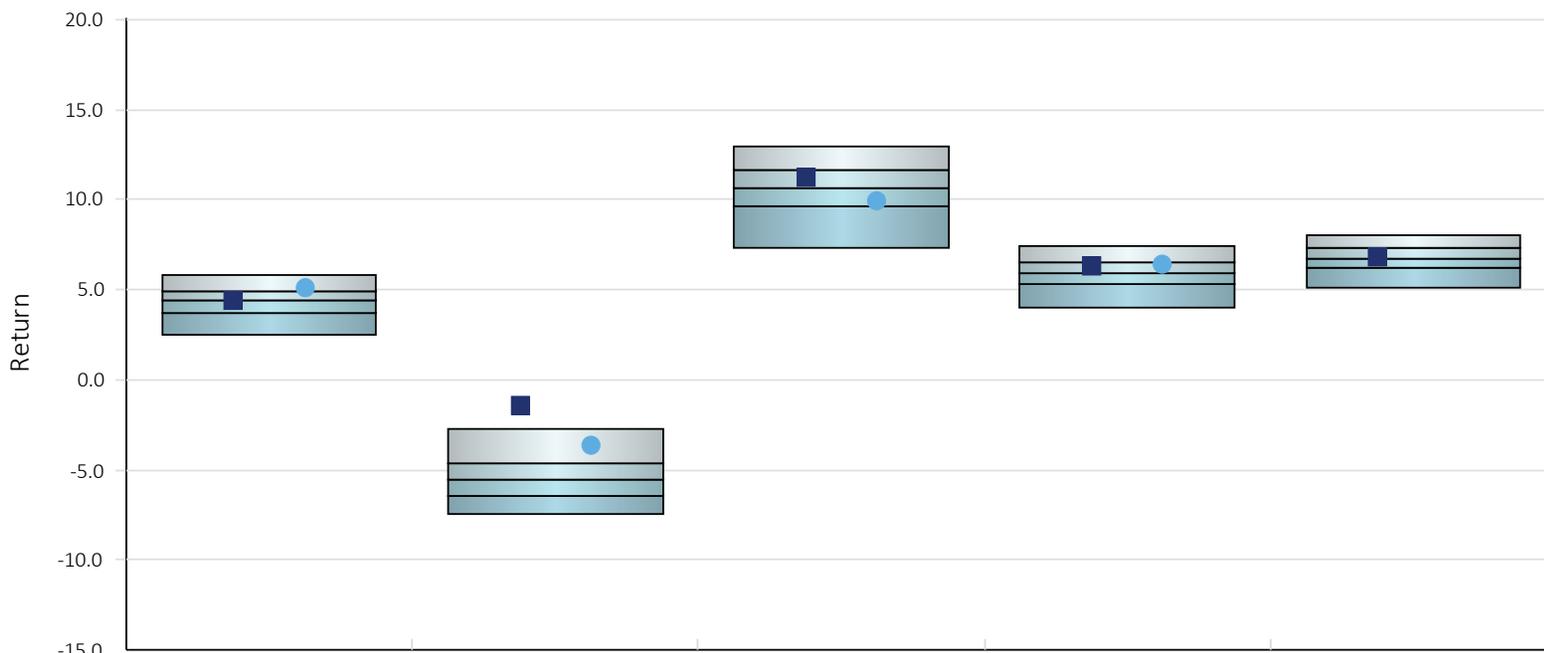
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS (H) Insurance Plan	-1.20 (3)	10.98 (41)	6.29 (34)	11.25 (8)	8.78 (5)	8.84 (4)	-0.27 (2)	1.13 (4)	0.57 (6)
● CERS (H) Insurance IPS Index	-3.68 (13)	9.99 (68)	6.50 (27)	12.65 (15)	9.57 (8)	8.93 (4)	-0.43 (29)	0.95 (16)	0.59 (5)
5th Percentile	-2.76	12.93	7.43	9.79	8.71	8.96	-0.34	1.07	0.58
1st Quartile	-4.60	11.64	6.55	13.73	11.38	11.23	-0.42	0.88	0.47
Median	-5.59	10.63	5.96	15.27	12.45	12.20	-0.47	0.80	0.42
3rd Quartile	-6.42	9.66	5.31	16.24	13.18	12.85	-0.52	0.73	0.37
95th Percentile	-7.47	7.34	3.98	18.11	14.53	14.11	-0.65	0.60	0.29

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2023



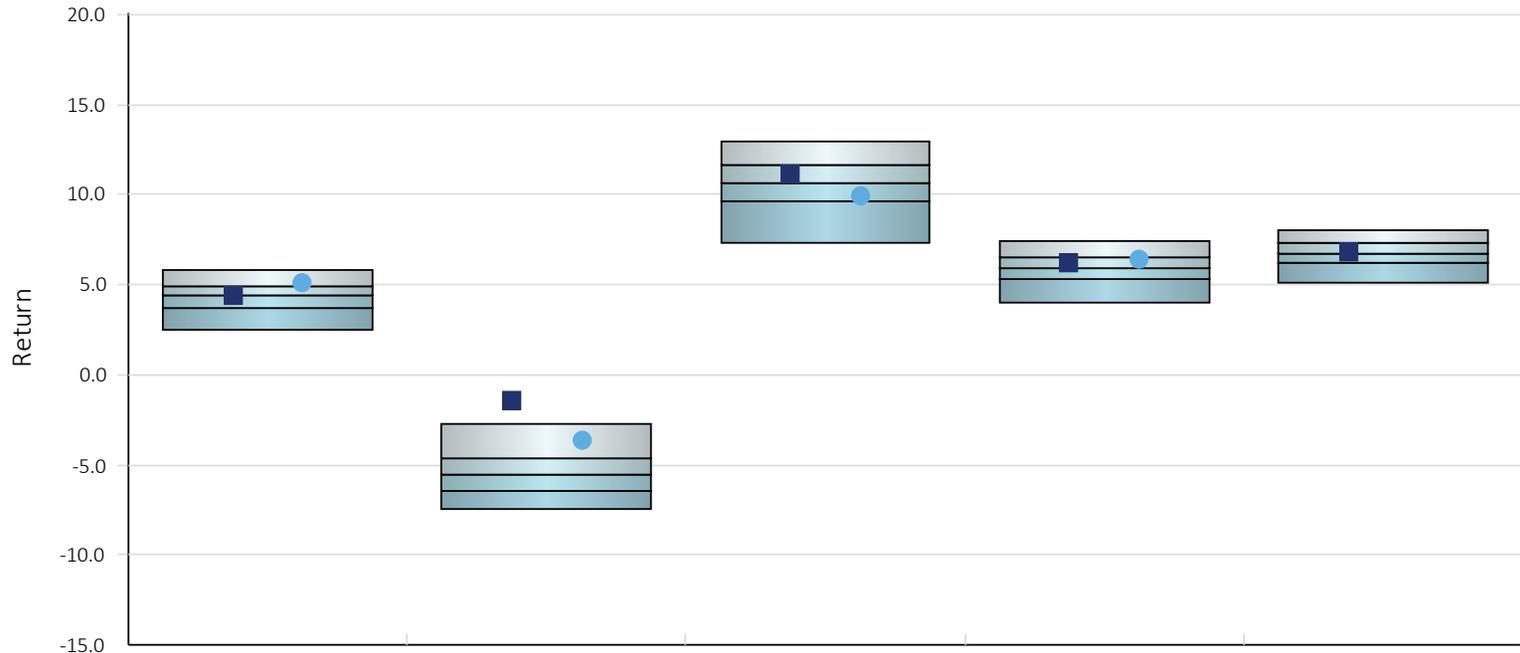
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS Pension Plan	4.38 (49)	-1.40 (3)	11.21 (35)	6.29 (34)	6.87 (43)
● CERS Pension IPS Index	5.07 (20)	-3.68 (13)	9.99 (68)	6.47 (28)	
5th Percentile	5.86	-2.76	12.93	7.43	8.05
1st Quartile	4.90	-4.60	11.64	6.55	7.30
Median	4.36	-5.59	10.63	5.96	6.74
3rd Quartile	3.74	-6.42	9.66	5.31	6.22
95th Percentile	2.50	-7.47	7.34	3.98	5.10
Population	614	596	583	564	462

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

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

Periods Ended March 31, 2023



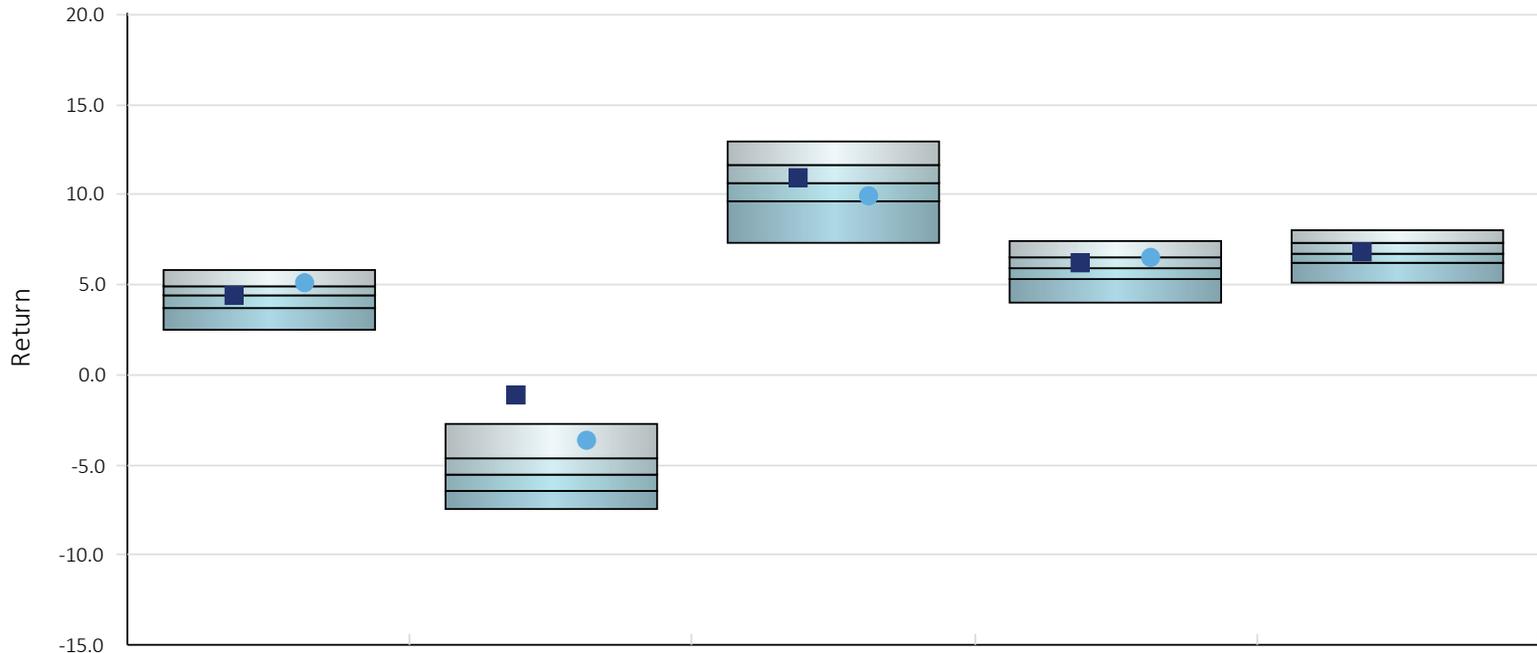
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Pension Plan	4.42 (47)	-1.43 (3)	11.12 (38)	6.24 (37)	6.85 (44)
● CERS (H) Pension IPS Index	5.07 (20)	-3.68 (13)	9.99 (68)	6.47 (28)	
5th Percentile	5.86	-2.76	12.93	7.43	8.05
1st Quartile	4.90	-4.60	11.64	6.55	7.30
Median	4.36	-5.59	10.63	5.96	6.74
3rd Quartile	3.74	-6.42	9.66	5.31	6.22
95th Percentile	2.50	-7.47	7.34	3.98	5.10
Population	614	596	583	564	462

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended March 31, 2023



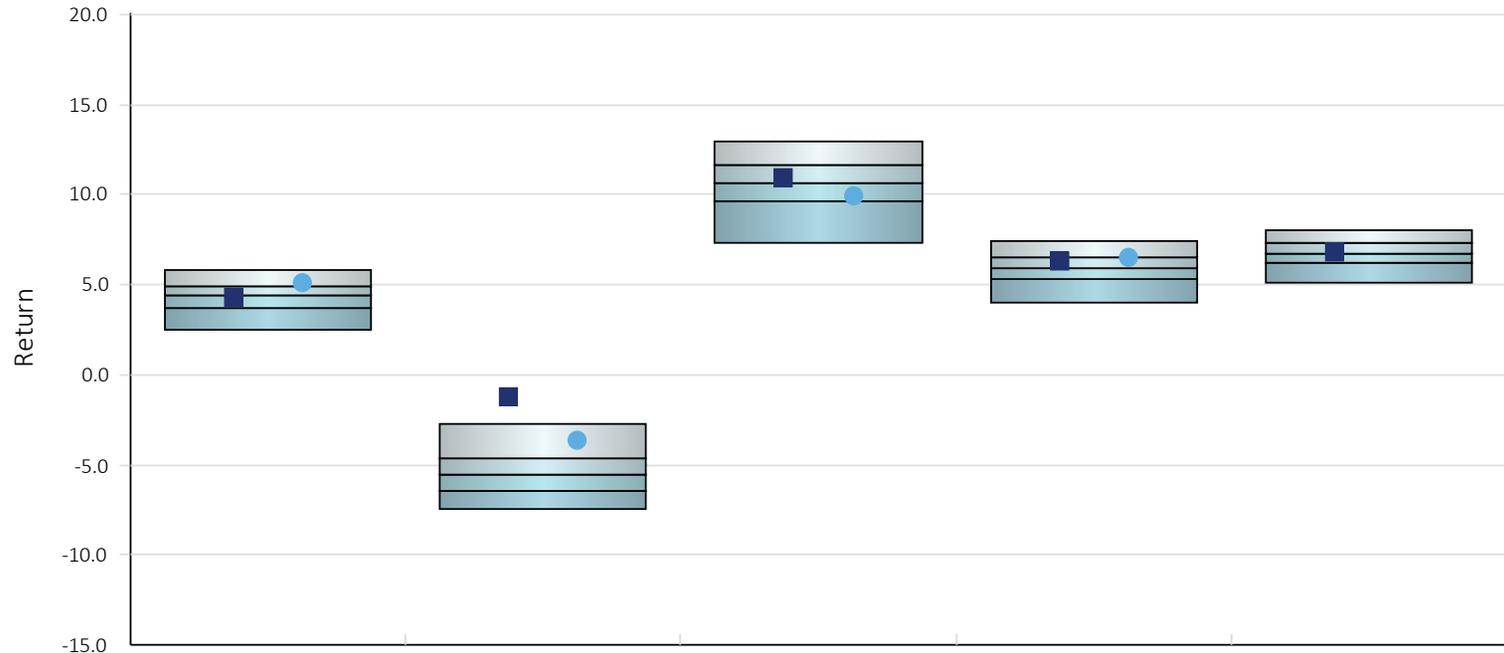
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS Insurance Plan	4.44 (46)	-1.14 (3)	10.96 (41)	6.20 (38)	6.80 (46)
● CERS Insurance IPS Index	5.07 (20)	-3.68 (13)	9.99 (68)	6.50 (27)	
5th Percentile	5.86	-2.76	12.93	7.43	8.05
1st Quartile	4.90	-4.60	11.64	6.55	7.30
Median	4.36	-5.59	10.63	5.96	6.74
3rd Quartile	3.74	-6.42	9.66	5.31	6.22
95th Percentile	2.50	-7.47	7.34	3.98	5.10
Population	614	596	583	564	462

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

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

Periods Ended March 31, 2023



	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Insurance Plan	4.35 (51)	-1.20 (3)	10.98 (41)	6.29 (34)	6.87 (43)
● CERS (H) Insurance IPS Index	5.07 (20)	-3.68 (13)	9.99 (68)	6.50 (27)	
5th Percentile	5.86	-2.76	12.93	7.43	8.05
1st Quartile	4.90	-4.60	11.64	6.55	7.30
Median	4.36	-5.59	10.63	5.96	6.74
3rd Quartile	3.74	-6.42	9.66	5.31	6.22
95th Percentile	2.50	-7.47	7.34	3.98	5.10
Population	614	596	583	564	462

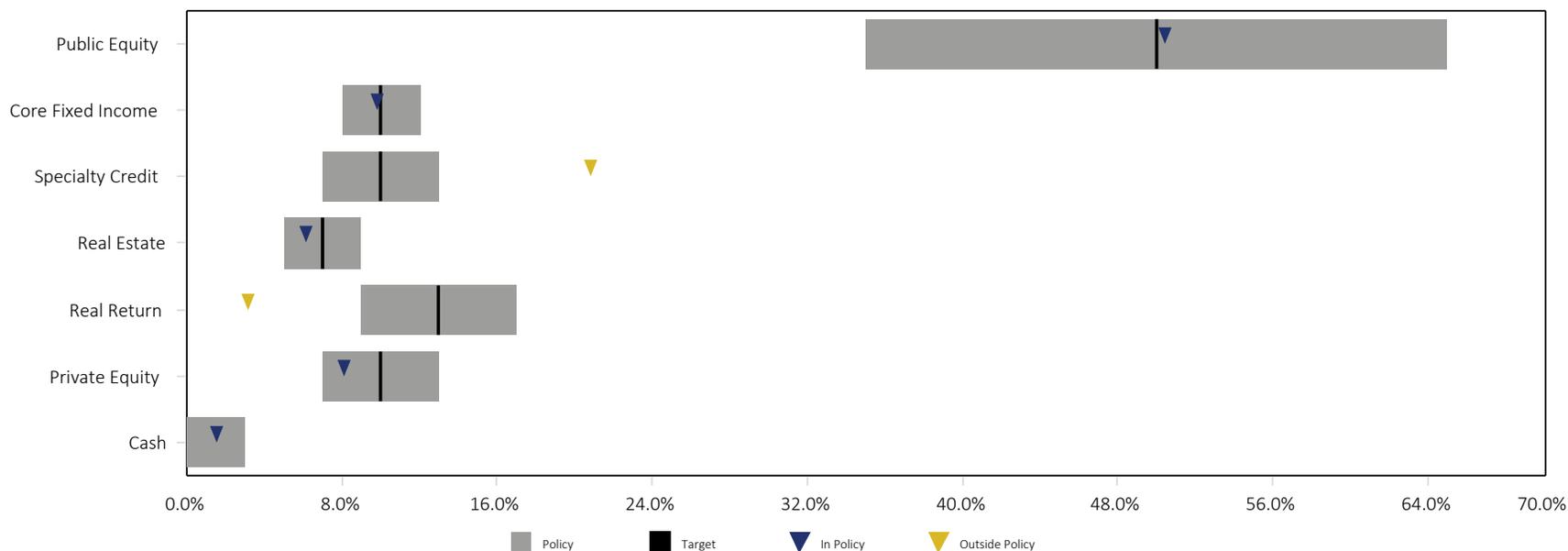
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Asset Allocation Compliance

CERS Pension Plan

Periods Ended As of March 31, 2023

Executive Summary



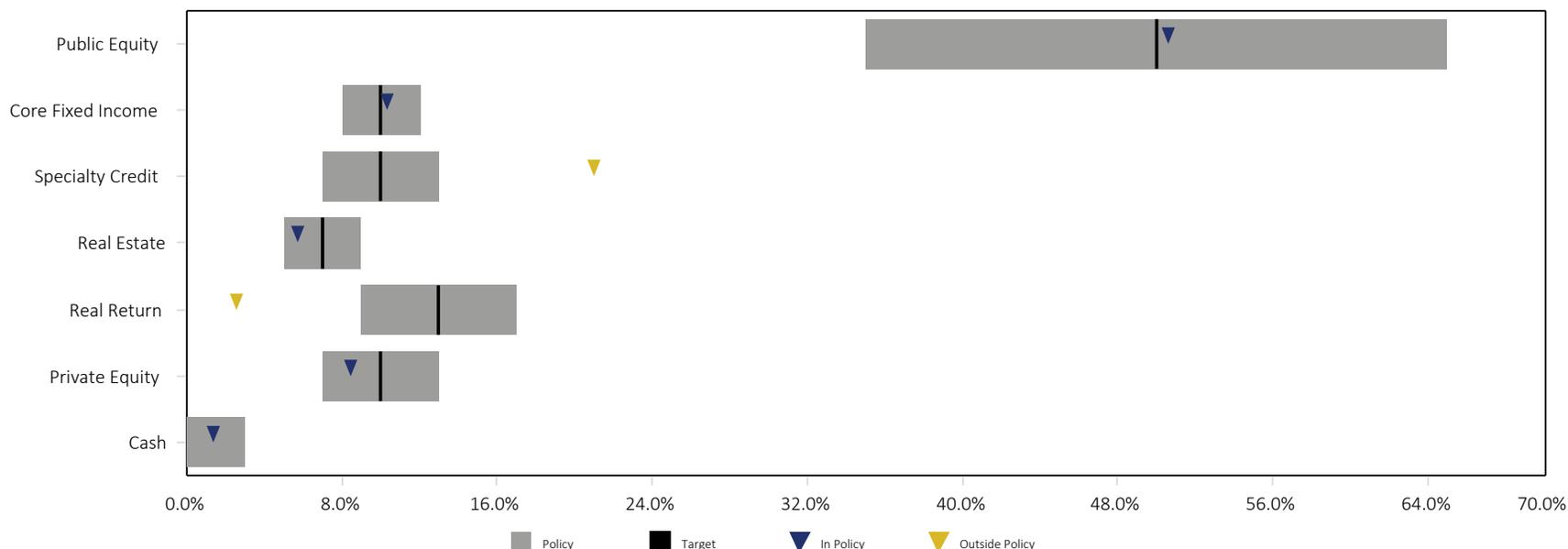
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	4,255,625,008	50.45	35.00	65.00	50.00	-37,955,786
Core Fixed Income	829,436,836	9.83	8.00	12.00	10.00	14,097,008
Specialty Credit	1,756,452,438	20.82	7.00	13.00	10.00	-912,918,594
Real Estate	519,206,007	6.16	5.00	9.00	7.00	71,267,684
Real Return	266,709,054	3.16	9.00	17.00	13.00	829,884,944
Private Equity	681,444,112	8.08	7.00	13.00	10.00	162,089,732
Cash	126,464,989	1.50	0.00	3.00	0.00	-126,464,989
Total Fund	8,435,338,444	100.00			100.00	

Asset Allocation Compliance

CERS Insurance Plan

Periods Ended As of March 31, 2023

Executive Summary



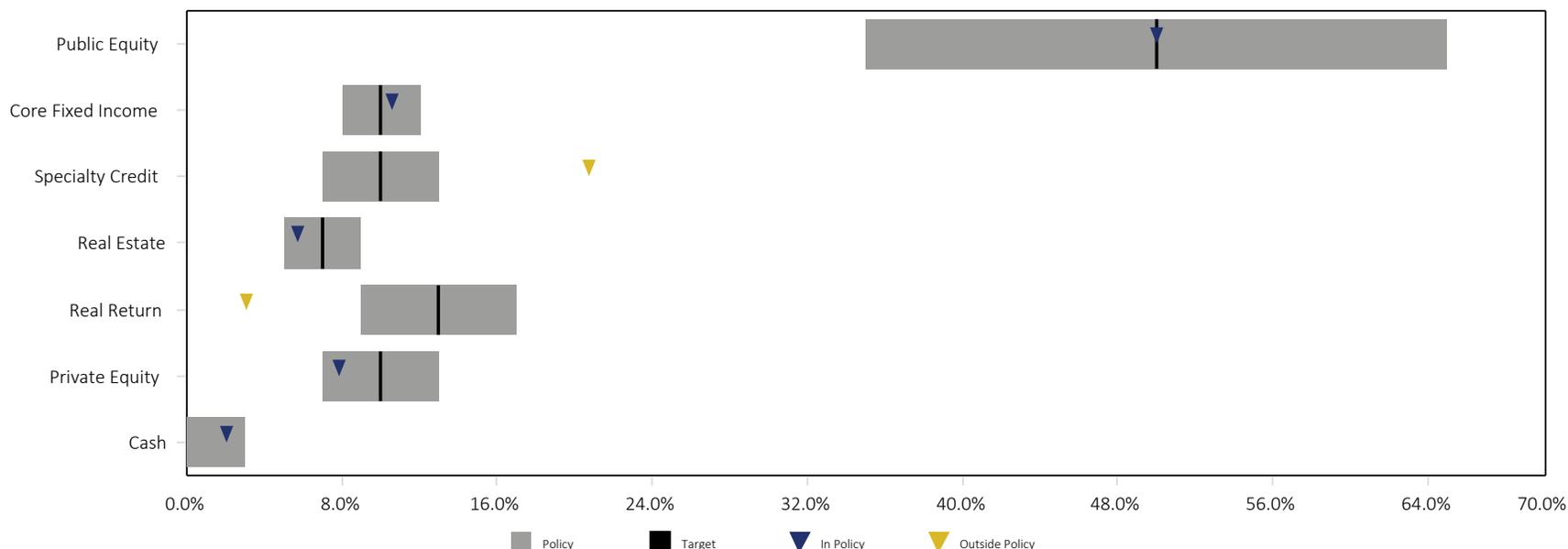
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,602,881,085	50.64	35.00	65.00	50.00	-20,165,621
Core Fixed Income	326,927,769	10.33	8.00	12.00	10.00	-10,384,676
Specialty Credit	664,135,066	20.98	7.00	13.00	10.00	-347,591,973
Real Estate	179,983,196	5.69	5.00	9.00	7.00	41,596,969
Real Return	80,435,848	2.54	9.00	17.00	13.00	331,070,173
Private Equity	267,459,623	8.45	7.00	13.00	10.00	49,083,470
Cash	43,608,341	1.38	0.00	3.00	0.00	-43,608,341
Total Fund	3,165,430,929	100.00			100.00	

Asset Allocation Compliance

CERS (H) Pension Plan

Periods Ended As of March 31, 2023

Executive Summary



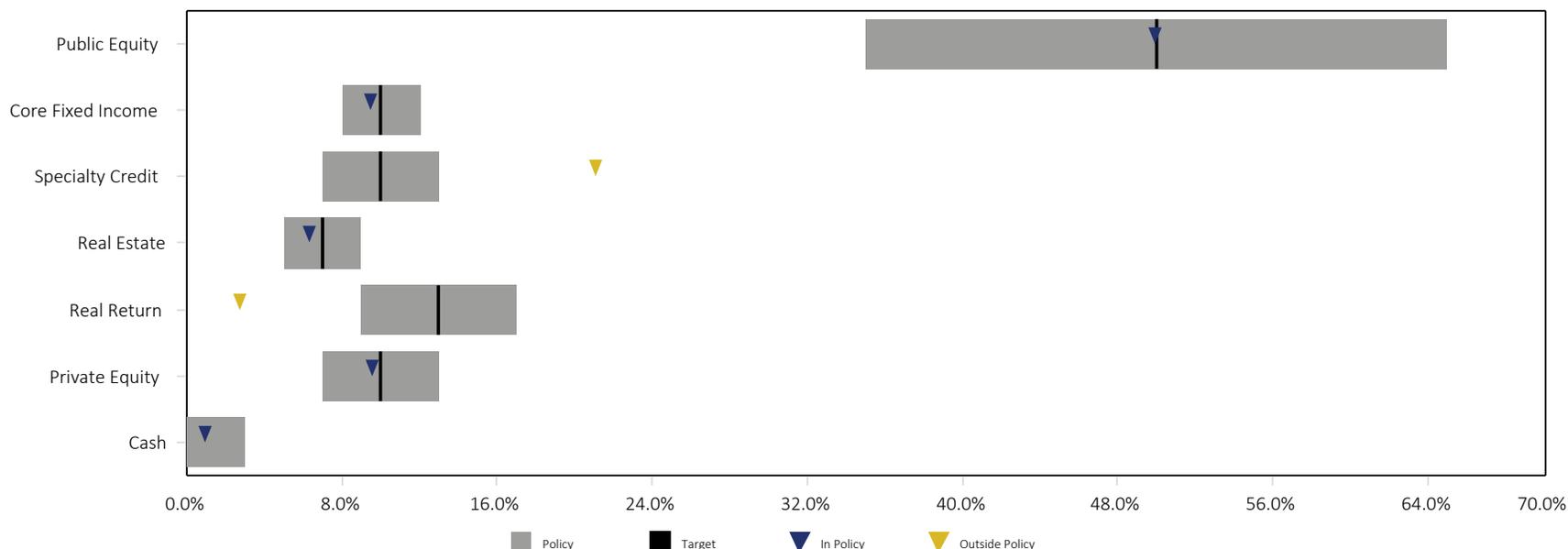
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,456,358,882	50.05	35.00	65.00	50.00	-1,310,798
Core Fixed Income	308,498,766	10.60	8.00	12.00	10.00	-17,489,150
Specialty Credit	604,239,498	20.76	7.00	13.00	10.00	-313,229,881
Real Estate	165,277,568	5.68	5.00	9.00	7.00	38,429,164
Real Return	88,443,554	3.04	9.00	17.00	13.00	289,868,948
Private Equity	227,674,605	7.82	7.00	13.00	10.00	63,335,011
Cash	59,603,294	2.05	0.00	3.00	0.00	-59,603,294
Total Fund	2,910,096,167	100.00			100.00	

Asset Allocation Compliance

CERS (H) Insurance Plan

Periods Ended As of March 31, 2023

Executive Summary



	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	782,652,028	49.95	35.00	65.00	50.00	715,432
Core Fixed Income	148,029,698	9.45	8.00	12.00	10.00	8,643,794
Specialty Credit	329,700,998	21.04	7.00	13.00	10.00	-173,027,506
Real Estate	98,669,442	6.30	5.00	9.00	7.00	11,002,002
Real Return	43,041,663	2.75	9.00	17.00	13.00	160,633,876
Private Equity	150,445,413	9.60	7.00	13.00	10.00	6,228,079
Cash	14,195,677	0.91	0.00	3.00	0.00	-14,195,677
Total Fund	1,566,734,919	100.00			100.00	

Asset Allocation & Performance

Total Fund

Periods Ended March 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
CERS Pension Plan	8,435,338,444	4.38	6.72	-1.40	11.21	6.29	8.39	7.25	7.63	8.82	4/1/1984
CERS Pension IPS Index		5.07	5.39	-3.68	9.99	6.47					
Value Added		-0.69	1.33	2.28	1.22	-0.18					
CERS Pension Attribution Index		4.38	6.64	-2.53	11.04						
Value Added		0.00	0.08	1.13	0.17						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.85	2.07	-7.65	4.96	0.04					
CERS Insurance Plan	3,165,430,929	4.44	6.87	-1.14	10.96	6.20	6.00	7.17	6.78	7.33	4/1/1987
CERS Insurance IPS Index		5.07	5.39	-3.68	9.99	6.50					
Value Added		-0.63	1.48	2.54	0.97	-0.30					
CERS Insurance Attribution Index		4.49	6.87	-2.27	10.92						
Value Added		-0.05	0.00	1.13	0.04						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.91	2.22	-7.39	4.71	-0.05					
CERS (H) Pension Plan	2,910,096,167	4.42	6.80	-1.43	11.12	6.24	8.39	7.24	7.62	8.81	4/1/1984
CERS (H) Pension IPS Index		5.07	5.39	-3.68	9.99	6.47					
Value Added		-0.65	1.41	2.25	1.13	-0.23					
CERS (H) Pension Attribution Index		4.39	6.66	-2.55	11.03						
Value Added		0.03	0.14	1.12	0.09						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.89	2.15	-7.68	4.87	-0.01					

Asset Allocation & Performance

Total Fund

Periods Ended March 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
CERS (H) Insurance Plan	1,566,734,919	4.35	6.64	-1.20	10.98	6.29	6.00	7.21	6.80	7.34	4/1/1987
CERS (H) Insurance IPS Index		5.07	5.39	-3.68	9.99	6.50					
Value Added		-0.72	1.25	2.48	0.99	-0.21					
CERS (H) Insurance Attribution Index		4.48	6.82	-2.30	10.89						
Value Added		-0.13	-0.18	1.10	0.09						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.82	1.99	-7.45	4.73	0.04					

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Public Equity	2.36	7.51	11.44	-6.10			-6.61	12/1/2021
Public Equity Policy Index	3.08	7.31	9.75	-7.44			-6.75	
Value Added	-0.72	0.20	1.69	1.34			0.14	
US Equity Composite	2.28	6.77	9.94	-7.93	18.89	10.13	9.74	7/1/1992
Russell 3000 Index	2.67	7.18	9.75	-8.58	18.48	10.45	9.93	
Value Added	-0.39	-0.41	0.19	0.65	0.41	-0.32	-0.19	
S&P 500 Index	3.62	7.44	10.00	-7.55	18.68	11.45	8.23	7/1/2001
S&P 500 Index	3.67	7.50	9.98	-7.73	18.60	11.19	7.81	
value added	-0.05	-0.06	0.02	0.18	0.08	0.26	0.42	
Scientific Beta	1.05	2.96	8.13	-6.22	17.42	8.32	9.56	7/1/2016
S&P 500 Index	3.67	7.50	9.98	-7.73	18.60	11.19	12.51	
Value Added	-2.62	-4.54	-1.85	1.51	-1.18	-2.87	-2.95	
River Road FAV	-0.18	0.66	5.39	-10.49	11.39	5.20	8.22	7/1/2016
Russell 3000 Value Index	-0.86	0.91	6.92	-6.35	18.12	7.30	8.58	
Value Added	0.68	-0.25	-1.53	-4.14	-6.73	-2.10	-0.36	
Westfield Capital	5.59	15.00	12.86	-10.56	17.67	13.21	13.04	7/1/2011
Russell 3000 Growth Index	6.25	13.85	12.56	-10.88	18.23	13.02	13.75	
Value Added	-0.66	1.15	0.30	0.32	-0.56	0.19	-0.71	
Internal US Mid Cap	-2.99	4.15	12.85	-4.43	22.57	8.32	9.39	8/1/2014
S&P MidCap 400 Index	-3.21	3.81	12.17	-5.12	22.10	7.67	8.96	
Value Added	0.22	0.34	0.68	0.69	0.47	0.65	0.43	
NTGI Structured	-4.54	2.81	8.49	-7.83	20.25	6.85	9.74	7/1/2011
Russell 2000 Index	-4.78	2.74	6.75	-11.61	17.51	4.71	8.31	
Value Added	0.24	0.07	1.74	3.78	2.74	2.14	1.43	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Next Century Growth	0.64	11.70	16.66	-11.33	37.69		26.40	11/1/2019
Russell Microcap Growth Index	-5.85	0.76	5.70	-17.98	10.87		4.16	
Value Added	6.49	10.94	10.96	6.65	26.82		22.24	
Non-US Equity Composite	2.48	8.53	13.51	-3.59	12.84	3.22	2.71	4/1/2000
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.76	
Value Added	0.35	1.97	3.66	2.25	0.64	0.87	-0.05	
BlackRock World Ex US	2.24	8.04	14.14	-2.43	13.70	3.43	6.42	6/1/2012
MSCI World ex US (11/19)	2.22	8.02	13.96	-2.74	13.49	3.28	6.32	
value added	0.02	0.02	0.18	0.31	0.21	0.15	0.10	
American Century	3.10	9.48	14.83	-6.43	12.62	5.90	5.86	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	0.97	2.92	4.98	-0.59	0.42	3.55	2.90	
Franklin Templeton	3.46	12.24	16.62	-8.52	7.84	1.86	4.46	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	1.33	5.68	6.77	-2.68	-4.36	-0.49	1.50	
Lazard Asset Mgmt	3.09	8.97	12.08	-1.92	12.55	2.72	3.78	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	0.96	2.41	2.23	3.92	0.35	0.37	0.82	
LSV Asset Mgmt	1.33	7.06	13.90	-0.96	13.56	2.34	2.90	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	-0.80	0.50	4.05	4.88	1.36	-0.01	-0.06	
Axiom	1.39	7.62	8.59	-13.20			-19.14	12/1/2021
MSCI AC World ex USA Small Cap (Net)	0.23	4.70	8.70	-10.37			-9.66	
Value Added	1.16	2.92	-0.11	-2.83			-9.48	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
JP Morgan Emerging Markets	1.58	5.56	5.79	-7.25	9.85		1.68	11/1/2019
MSCI Emerging Markets IMI Index	2.79	4.01	1.88	-10.32	9.60		1.92	
Value Added	-1.21	1.55	3.91	3.07	0.25		-0.24	
Pzena Emerging Markets	3.12	7.13	12.29	0.74	18.98		6.33	11/1/2019
MSCI Emerging Markets (Net)	3.03	3.96	0.84	-10.70	7.83		0.81	
Value Added	0.09	3.17	11.45	11.44	11.15		5.52	
Private Equity Composite	2.11	2.07	-0.54	2.53	16.35	13.73	10.98	7/1/2002
Russell 3000 +3% 1 Quarter Lag	-5.62	7.98	-12.79	-16.78	10.28	12.05	11.43	
Value Added	7.73	-5.91	12.25	19.31	6.07	1.68	-0.45	
Core Fixed Income Composite	1.18	1.92	1.28	-1.08	1.26		2.20	10/1/2018
Blmbg. U.S. Aggregate Index	2.54	2.96	-0.09	-4.78	-2.77		1.04	
Value Added	-1.36	-1.04	1.37	3.70	4.03		1.16	
NISA	2.43	3.02	0.14	-4.48	-2.66	0.94	2.04	7/1/2011
Blmbg. U.S. Aggregate Index	2.54	2.96	-0.09	-4.78	-2.77	0.90	1.93	
Value Added	-0.11	0.06	0.23	0.30	0.11	0.04	0.11	
Loomis Sayles Intmd	2.03	2.45	0.27	-2.64	-1.21		0.98	2/1/2019
Blmbg. U.S. Intermediate Aggregate Index	2.15	2.39	0.15	-2.79	-1.96		0.51	
Value Added	-0.12	0.06	0.12	0.15	0.75		0.47	
Lord Abbett	0.74	1.59	1.71	-0.10	2.69		1.78	10/1/2018
ICE BofA 1-3 Year U.S. Corporate Index	0.88	1.29	1.36	0.33	0.96		1.63	
Value Added	-0.14	0.30	0.35	-0.43	1.73		0.15	
Specialty Credit Composite	1.51	2.74	5.27	3.57	7.40		5.47	10/1/2018
Specialty Credit Policy Index	0.52	3.41	7.31	-0.34	7.26		3.17	
Value Added	0.99	-0.67	-2.04	3.91	0.14		2.30	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Adams St SPC II A	2.97	2.97	6.31	21.37			14.88	6/1/2020
Adams St SPC II B	2.04	2.04	6.26	3.09			9.55	6/1/2020
Blue Torch	3.92	3.92	10.52	13.78			10.15	8/1/2020
BSP Coinvestment	2.29	2.29	4.55	6.22	6.84		6.37	10/1/2019
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52		3.57	
Value Added	2.32	-0.94	-2.78	3.68	-1.68		2.80	
BSP Private Credit	1.22	1.22	2.00	3.49	6.76	5.81	5.61	2/1/2018
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	3.61	
Value Added	1.25	-2.01	-5.33	0.95	-1.76	2.18	2.00	
CapitalSpring	8.17	8.17	9.10	11.40	10.84		10.24	2/1/2020
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52		3.21	
Value Added	8.20	4.94	1.77	8.86	2.32		7.03	
Cerberus Capital Mgmt	0.88	2.09	6.52	9.52	11.97	10.82	9.67	9/1/2014
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	3.70	
Value Added	0.91	-1.14	-0.81	6.98	3.45	7.19	5.97	
Columbia	1.53	3.96	8.18	-2.33	5.13	3.44	5.35	11/1/2011
Blmbg. U.S. Corp: High Yield Index	1.07	3.57	7.19	-3.34	5.91	3.21	5.22	
Value Added	0.46	0.39	0.99	1.01	-0.78	0.23	0.13	
Manulife Asset Mgmt	2.03	3.34	5.71	-1.93	4.13	3.07	3.66	12/1/2011
Policy Index	2.35	2.93	0.55	-4.61	-2.02	1.05	1.06	
Value Added	-0.32	0.41	5.16	2.68	6.15	2.02	2.60	
Marathon Bluegrass	1.52	1.26	-3.99	-3.83	4.04	4.38	5.57	1/1/2016
Blmbg. U.S. Corp: High Yield Index	1.07	3.57	7.19	-3.34	5.91	3.21	5.38	
Value Added	0.45	-2.31	-11.18	-0.49	-1.87	1.17	0.19	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Shenkman Capital	-0.02	2.81	6.90	2.21	7.93	3.40	3.79	7/1/2011
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	4.10	
Value Added	0.01	-0.42	-0.43	-0.33	-0.59	-0.23	-0.31	
Waterfall	1.42	2.66	5.68	3.99	9.10	4.60	7.91	7/1/2011
Policy Index	0.61	3.11	6.06	-0.67	4.94	2.79	3.78	
Value Added	0.81	-0.45	-0.38	4.66	4.16	1.81	4.13	
White Oak Yield Spectrum	0.96	0.96	3.45	5.08	5.37	5.38	5.29	3/1/2018
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	3.63	
Value Added	0.99	-2.27	-3.88	2.54	-3.15	1.75	1.66	
Arrowmark	1.22	3.76	9.41	10.90	15.44		9.54	6/1/2018
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52		3.64	
Value Added	1.25	0.53	2.08	8.36	6.92		5.90	
H/2 Credit Partner	0.00	0.00	0.00	0.00	3.02	1.27	4.07	7/1/2011
Mesa West Core Lend	-1.04	-1.04	1.79	2.99	4.55	5.77	6.05	5/1/2013
Mesa West IV	-1.02	-1.02	-2.66	-1.82	5.23	6.05	5.40	3/1/2017
Cash Composite	0.32	0.89	2.29	2.48	0.92	1.39	2.46	7/1/1992
FTSE 3 Month T-Bill	0.40	1.12	2.46	2.61	0.95	1.40	2.33	
Value Added	-0.08	-0.23	-0.17	-0.13	-0.03	-0.01	0.13	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Real Estate Composite	-1.71	-4.34	-0.69	5.95	11.71	10.96	9.74	5/1/2009
NCREIF ODCE NOF 1 Quarter Lag	-5.17	-5.17	-0.55	6.55	8.97	7.72		
Value Added	3.46	0.83	-0.14	-0.60	2.74	3.24		
Baring	-9.15	-9.71	-11.09	-1.43	8.74		14.87	1/1/2019
Barings Euro RE II	-16.44	-16.97	-17.91	-23.65			-20.25	12/1/2020
Divcowest IV	-4.29	-4.29	-4.48	-3.43	10.86	12.62	17.46	3/1/2014
Fundamental Partners III	3.79	3.79	3.60	7.95	18.62	15.91	14.24	5/1/2017
Greenfield Acq VI	-20.30	-20.30	-32.21	-33.17	-38.60	-39.62	-18.48	12/1/2012
Greenfield Acq VII	-13.99	-13.99	-2.67	-1.12	14.17	14.69	13.71	7/1/2014
Harrison Street	-0.44	-1.03	7.34	10.10	7.67	7.50	7.95	5/1/2012
Lubert Adler VII	-8.73	-8.73	-8.56	-4.07	-5.77	-0.23	-1.56	7/1/2014
Lubert Adler VII B	7.57	7.57	13.15	19.79	26.24	20.00	16.22	7/1/2017
Patron Capital	-0.79	-1.45	-5.79	-8.51	4.17	5.76	3.77	8/1/2016
Prologis Targeted US	0.00	-5.58	-0.05	11.88	22.25	20.04	17.89	10/1/2014
Rubenstein PF II	-17.50	-17.50	-26.59	-26.43	-10.91	-3.87	4.32	7/1/2013
Stockbridge Sm/Mkts	-2.05	-6.24	-5.64	6.95	10.64	9.37	9.37	5/1/2014
Walton St RE VI	5.25	5.25	11.62	14.32	6.66	4.80	-11.06	5/1/2009
Walton St RE VII	-0.40	-0.40	3.53	1.96	-1.40	-1.23	5.69	7/1/2013

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended March 31, 2023

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Real Return Composite	0.56	1.53	8.06	7.08	13.05	5.70	4.45	7/1/2011
US CPI +3%	0.30	1.69	4.70	8.14	8.51	6.99	5.61	
Value Added	0.26	-0.16	3.36	-1.06	4.54	-1.29	-1.16	
Tortoise Capital	-0.98	3.21	23.38	11.23	39.34	7.39	9.42	8/1/2009
Alerian MLP Index	-1.18	4.09	23.84	14.70	47.08	7.42	6.71	
Value Added	0.20	-0.88	-0.46	-3.47	-7.74	-0.03	2.71	
Amerra AGRI Fund II	-1.45	-1.45	7.36	12.08	8.52	7.92	6.22	12/1/2012
Amerra AGRI Holdings	3.55	3.55	-0.26	2.59	-1.33	-1.23	-1.17	8/1/2015
BTG Pactual	0.85	0.85	7.56	23.30	6.22	4.12	-1.84	12/1/2014
IFM Infrastructure	2.02	3.82	6.20	7.21	5.48		5.02	7/1/2019
Magnetar MTP EOF II	-2.12	-2.12	5.68	135.62	68.73	40.48	25.61	8/1/2015
Oberland Capital	3.34	3.34	7.79	9.92	15.32		13.85	8/1/2018
Taurus Mine Finance	3.21	3.21	31.17	70.20	19.38	16.31	15.54	4/1/2015
TPF II	-4.22	-4.22	-6.85	-6.92	3.89	4.87	-0.81	10/1/2008
Blackstone Strat Opp	0.35	0.11	-2.50	-0.25	-4.25	-3.08	-1.96	8/1/2017
Luxor Capital	-0.04	-0.08	3.25	3.99	1.64	-1.21	-0.03	4/1/2014
Myriad Opportunities	0.00	-0.30	-7.59	-7.95	-22.89	-16.00	-9.23	5/1/2016
Pine River	1.31	-7.43	-3.84	-16.63	-4.81	2.76	1.65	5/1/2014
PRISMA Capital	0.34	0.98	0.39	0.45	0.02	0.43	2.41	9/1/2011
SRS Partners US	0.00	0.00	0.00	0.00	4.37	6.19	7.94	8/1/2017
Tricadia Select	0.00	0.00	0.00	0.00	0.00	-4.33	-4.48	9/1/2017

County Employees Retirement Systems

Investment Budget Update

Quarter Ending: March 31, 2023

CERS Board Meeting - Investment Committee Report

KENTUCKY PUBLIC PENSIONS AUTHORITY									
Investment Budget									
For the nine month period ending March 31, 2023									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	Trust Budget FY 2023	Q3 2023	FYTD 2023	Remaining	Percentage Spent
CONSULTING SERVICES									
Wilshire Associates	\$ 1,021,799	\$ 1,238,170	\$ 1,225,671	\$ 1,021,175	\$ 1,190,000	\$ 274,600	\$ 563,572	\$ 626,428	47%
Albourne	-	-	-	-	270,000	67,500	239,250	30,750	89%
MercerInsight	-	-	-	-	160,000			160,000	0%
SUBTOTAL	1,021,799	1,238,170	1,225,671	1,021,175	1,620,000	342,100	802,822	817,178	50%
LEGAL & AUDITING SERVICES									
Faegre Drinker			96,039	202,502	375,000	6,897	15,618	359,382	4%
Intelligent Management Solutions (IMS)	620,001	202,140	155,700	69,884	75,000	8,022	81,880	(6,880)	109%
McClain/Goldberg			891	-	25,000			25,000	0%
Reinhart	317,909	671,269	663,689	619,509	437,500	8,614	65,682	371,818	15%
Stoll-Keenon-Ogden	10,314	135,353	254,211	463,560	250,000	6,045	356,453	(106,453)	143%
Haystack			-	-	140,000	55,892	55,892	84,108	40%
Umberg Zipser			289,100	498,058	360,000	94,880	242,564	117,436	67%
Frost Brown Todd			-	-	50,000			50,000	0%
Swansburg & Smith	-	-	-	-	-	1,013	5,288	(5,288)	
Eddins Domine	-	-	-	-	-	26,482	40,305	(40,305)	
Taft	-	-	-	-	-	-	66,916	(66,916)	
Miscellaneous					200,000			200,000	0%
SUBTOTAL	948,225	1,008,762	1,459,630	1,853,513	1,912,500	207,843	930,597	981,903	49%
CONTRACTURAL SERVICES									
Bloomberg	68,722	71,810	98,163	102,243	150,000	26,105	77,530	72,470	52%
BNYM Custodial Fees	2,056,390	2,088,475	2,379,838	2,565,169	4,000,000	554,497	1,684,683	2,315,317	42%
eVestment (Solovis RMS)			-	30,000	35,000		33,800	1,200	97%
Solovis (Reporting & Analytics)			-	245,000	265,000		257,250	7,750	97%
FactSet	222,476	162,295	109,662	140,098	150,000	31,657	93,754	56,246	63%
Russell Index Subscription	1,075	1,250	1,000	1,000	1,500	250	500	1,000	33%
S&P Global		94,500	26,250	68,250	75,000			75,000	0%
TradeWeb			-	6,000	7,500	2,000	5,600	1,900	75%
State Street/Elkins McSherry	10,000	5,000	15,000	10,000	10,000	5,000	10,000	-	100%
ISS	32,050	32,050	28,288	35,813	37,000	15,838	31,863	5,138	86%
MSCI	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			7,500	0%
Jayant Ghevaria and CO		10,050	-	52,085	55,000			55,000	0%
India Renewal Fee (SEBI)			-	3,000	3,000			3,000	0%
With Intelligence	-	-	-	-	-		9,520	(9,520)	0%
Miscellaneous & New Services	-	-	-	-	250,000			250,000	0%
SUBTOTAL	2,391,713	2,474,036	2,681,251	3,267,008	5,047,500	635,346	2,205,499	2,842,001	44%

CERS Board Meeting - Investment Committee Report

KENTUCKY PUBLIC PENSIONS AUTHORITY									
Investment Budget									
For the nine month period ending March 31, 2023									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	Trust Budget FY 2023	Q3 2023	FYTD 2023	Remaining	Percentage Spent
INACTIVE CONTRACTURAL SERVICES									
Dean Dorton	9,719		-	-	-		250	(250)	
Hirschler		4,794	-	-	-				
INFORMA	12,904		-	-	-				
Lighthouse Solutions	3,093		-	-	-				
London Stock Exchange GBP (GREAT BRITISH POUNDS)	6,467	3,544	-	-	-				
Deutsche Bank Trust	3,000		3,000	-	-				
Morris James LLP	94,192	20,154	-	-	-				
Calcaterra Pollack			1,200,000	-	-				
Manatt		90,798	30,757	-	-				
ORG	162,344		-	-	-				
SUBTOTAL	291,718	119,290	1,233,757	-	-	-	250	(250)	
TOTAL	\$ 4,653,455	\$ 4,840,258	\$ 6,600,309	\$ 6,141,696	\$ 8,580,000	\$ 1,185,289	\$ 3,939,169	\$ 4,640,831	46%

INVESTMENT BUDGET

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

KENTUCKY PUBLIC PENSIONS AUTHORITY						
Investment Fees and Expenses						
For the nine month period ending March 31, 2023						
Pension						
	2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	1,961,961	2,021,010,684	2,153,340	2,131,886,569	2,031,618	2,263,311,450
<i>Investment Advisory Fees</i>	1,081,599		1,773,298		1,902,240	
<i>Carried Interest</i>	313,985		327,140		81,121	
<i>Miscellaneous Fees and Expenses</i>	566,378		52,902		48,257	
Opportunistic	Opportunistic was absorbed by Specialty Credit in December 2021				2,727,633	375,449,617
<i>Investment Advisory Fees</i>					-	
<i>Carried Interest</i>					2,727,633	
<i>Miscellaneous Fees and Expenses</i>					-	
Public Equity	9,871,250	7,364,652,759	10,884,478	6,939,548,432	9,171,752	6,619,150,686
<i>Investment Advisory Fees</i>	9,712,159		10,658,036		8,995,110	
<i>Miscellaneous Fees and Expenses</i>	159,091		226,442		176,642	
Specialty Credit Fixed Income	41,248,671	3,253,455,667	37,495,009	3,117,337,032	26,547,242	2,546,489,496
<i>Investment Advisory Fees</i>	18,151,509		12,988,501		11,228,203	
<i>Carried Interest</i>	5,190,755		18,829,074		12,519,342	
<i>Miscellaneous Fees and Expenses</i>	17,906,407		5,677,434		2,799,697	
Real Estate	4,469,109	929,393,252	25,637,587	844,241,655	5,303,814	589,400,002
<i>Investment Advisory Fees</i>	3,627,098		3,454,869		3,254,551	
<i>Carried Interest</i>	42,187		20,336,478		(907,044)	
<i>Miscellaneous Fees and Expenses</i>	799,825		1,846,240		2,956,307	
Real Return	3,159,066	460,465,548	3,848,329	568,603,601	6,282,116	1,011,388,853
<i>Investment Advisory Fees</i>	1,799,568		2,738,748		3,527,345	
<i>Carried Interest</i>	473,651		1,049,935		2,329,614	
<i>Miscellaneous Fees and Expenses</i>	885,848		59,646		425,157	
Private Equity	1,735,503	1,143,005,497	52,650,593	1,303,761,398	34,414,531	1,155,001,941
<i>Investment Advisory Fees</i>	5,111,920		5,375,037		6,202,846	
<i>Carried Interest</i>	(5,910,958)		44,069,198		26,932,151	
<i>Miscellaneous Fees and Expenses</i>	2,534,541		3,206,358		1,279,534	
Administrative Expense/Cash	2,349,103	980,437,717	3,087,180	1,088,261,843	1,932,601	285,262,649
Total Investment Mgmt Fees	64,794,664	16,152,421,124	135,756,516	15,993,640,530	88,411,307	14,845,454,694

KENTUCKY PUBLIC PENSIONS AUTHORITY Investment Fees and Expenses For the nine month period ending March 31, 2023 Insurance						
	2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	737,251	738,513,799	810,054	802,476,521	813,678	864,872,800
<i>Investment Advisory Fees</i>	612,135		673,659		766,735	
<i>Performance</i>	112,040		117,337		28,448	
<i>Miscellaneous Fees and Expenses</i>	13,075		19,058		18,495	
Opportunistic	<i>Opportunistic was absorbed by Specialty Credit in December 2021</i>				1,388,928	191,181,257
<i>Investment Advisory Fees</i>						
<i>Carried Interest</i>					1,388,928	
<i>Miscellaneous Fees and Expenses</i>						
Public Equity	4,563,134	3,377,277,074	4,821,293	3,215,837,276	4,102,906	2,988,294,144
<i>Investment Advisory Fees</i>	4,490,997		4,743,902		4,026,883	
<i>Miscellaneous Fees and Expenses</i>	72,137		77,391		76,023	
Specialty Credit Fixed Income	18,849,336	1,464,234,371	16,639,635	1,409,325,113	11,135,696	1,134,227,766
<i>Investment Advisory Fees</i>	8,360,965		5,791,524		5,087,579	
<i>Carried Interest</i>	2,645,586		8,397,118		4,960,086	
<i>Miscellaneous Fees and Expenses</i>	7,842,785		2,450,993		1,088,031	
Real Estate	2,029,870	392,477,821	10,607,357	356,747,650	2,331,407	249,384,483
<i>Investment Advisory Fees</i>	1,515,332		1,501,018		1,408,641	
<i>Carried Interest</i>	171,381		8,302,981		(290,973)	
<i>Miscellaneous Fees and Expenses</i>	343,157		803,358		1,213,739	
Real Return	1,402,993	177,947,842	1,672,090	219,995,987	2,465,100	427,472,422
<i>Investment Advisory Fees</i>	801,226		1,221,294		1,508,890	
<i>Carried Interest</i>	196,724		415,727		(139,583)	
<i>Miscellaneous Fees and Expenses</i>	405,042		35,069		1,095,793	
Private Equity	2,034,850	584,914,353	32,266,953	621,666,942	22,861,402	561,073,081
<i>Investment Advisory Fees</i>	3,350,796		3,739,853		4,149,597	
<i>Carried Interest</i>	(2,539,096)		27,332,502		18,202,847	
<i>Miscellaneous Fees and Expenses</i>	1,223,150		1,194,598		508,958	
Administrative Expense/Cash	1,225,286	236,662,657	1,564,044	505,485,795	1,219,907	140,405,157
Total Investment Mgmt Fees	\$ 30,842,720	\$ 6,972,027,917	\$ 68,381,426	\$ 7,131,535,284	\$ 46,319,024	\$ 6,556,911,110

COUNTY EMPLOYEES RETIREMENT SYSTEMS				
Investment Management Fees and Expenses				
For the nine month period ending March 31, 2023				
Pension				
	CERS		CERS Hazardous	
	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	837,296	829,436,836	297,165	308,498,766
<i>Investment Advisory Fees</i>	682,761		244,484	
<i>Carried Interest</i>	133,163		47,683	
<i>Miscellaneous Fees and Expenses</i>	21,371		4,997	
Public Equity	5,688,187	4,255,625,007	1,938,476	1,456,358,882
<i>Investment Advisory Fees</i>	5,597,041		1,907,299	
<i>Miscellaneous Fees and Expenses</i>	91,146		31,177	
Specialty Credit Fixed Income	23,143,111	1,756,452,442	7,775,019	604,239,498
<i>Investment Advisory Fees</i>	10,123,388		3,402,513	
<i>Carried Interest</i>	2,988,946		998,896	
<i>Miscellaneous Fees and Expenses</i>	10,030,777		3,373,610	
Real Estate	2,571,595	519,206,007	808,746	165,277,568
<i>Investment Advisory Fees</i>	2,089,802		656,584	
<i>Carried Interest</i>	23,816		7,529	
<i>Miscellaneous Fees and Expenses</i>	457,976		144,633	
Real Return	2,075,706	266,709,054	668,012	88,443,554
<i>Investment Advisory Fees</i>	1,155,107		374,716	
<i>Carried Interest</i>	329,411		103,676	
<i>Miscellaneous Fees and Expenses</i>	591,188		189,620	
Private Equity	1,901,916	681,444,112	392,540	227,674,605
<i>Investment Advisory Fees</i>	3,336,408		1,109,929	
<i>Carried Interest</i>	(3,016,857)		(1,241,944)	
<i>Miscellaneous Fees and Expenses</i>	1,582,365		524,554	
Administrative Expenses/Cash	1,229,799	126,464,989	421,999	59,603,294
Total Investment Mgmt Fees	37,447,610	8,435,338,447	12,301,957	2,910,096,167

COUNTY EMPLOYEES RETIREMENT SYSTEMS				
Investment Management Fees and Expenses				
For the nine month period ending March 31, 2023				
Insurance				
	CERS		CERS Hazardous	
	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	331,270	326,927,769	156,909	148,029,697
<i>Investment Advisory Fees</i>	275,651		129,067	
<i>Carried Interest</i>	49,806		24,933	
<i>Miscellaneous Fees and Expenses</i>	5,813		2,910	
Public Equity	2,100,984	1,602,881,085	1,041,448	782,652,028
<i>Investment Advisory Fees</i>	2,067,154		1,024,952	
<i>Miscellaneous Fees and Expenses</i>	33,829		16,496	
Specialty Credit Fixed Income	8,509,439	664,135,072	4,491,804	329,701,001
<i>Investment Advisory Fees</i>	3,773,401		1,972,641	
<i>Carried Interest</i>	1,189,525		637,231	
<i>Miscellaneous Fees and Expenses</i>	3,546,513		1,881,932	
Real Estate	931,173	179,983,196	509,804	98,669,442
<i>Investment Advisory Fees</i>	695,905		380,751	
<i>Carried Interest</i>	77,634		42,610	
<i>Miscellaneous Fees and Expenses</i>	157,634		86,443	
Real Return	629,460	80,435,848	342,416	43,041,663
<i>Investment Advisory Fees</i>	361,963		196,226	
<i>Carried Interest</i>	82,251		45,255	
<i>Miscellaneous Fees and Expenses</i>	185,246		100,935	
Private Equity	413,549	267,459,623	164,992	150,445,413
<i>Investment Advisory Fees</i>	1,622,618		907,730	
<i>Carried Interest</i>	(1,720,853)		(1,022,814)	
<i>Miscellaneous Fees and Expenses</i>	511,784		280,076	
Administrative Expenses/Cash	549,761	43,608,341	272,262	14,195,677
Total Investment Mgmt Fees	\$ 13,465,636	\$ 3,165,430,934	\$ 6,979,634	\$ 1,566,734,921

County Employees Retirement Systems

Compliance Report

Quarter Ending: March 31, 2023



Compliance Guideline Review for the Period Ended March 31, 2023	Compliance Status	Legend
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.	●	<p>Legend</p> <ul style="list-style-type: none"> ● In Compliance ● To be determined ● Not In Compliance
The assets managed by any one active or passive investment manager shall not exceed 15% of the overall assets in the pension and insurance funds.	●	
No more than 20% of the total net assets of the Real Return portfolio may be invested in any single closed-end or open-end limited partnership or other unregistered investment vehicle.	●	
Securities issued by the state of Kentucky, its subsidiaries, or affiliates are prohibited.	●	
An investment in any single domestic or international equity allocation in any single corporation cannot exceed 5% of the market value of CERS' total assets.	●	
The systems in aggregate shall not hold in excess of 3% of the outstanding shares of any single corporation.	●	

The amount of stock in any one industry in the domestic equity allocation shall not exceed 10% of the aggregate market value of the System's assets.



Investment in "frontier" markets shall not exceed 5% of the System's international equity assets.



The duration of the total fixed income portfolio shall not deviate from the Fixed Income Index by more than 25%.



The duration of the TIPS portfolio shall not deviate from the Barclay's TIPS Index by more than 10%.



The amount invested in the debt of a single corporation shall not exceed 5% of the total market value of the System's Assets.



50% of the fixed income assets must have liquidity that is T+3 (trade date plus three days) or better.



No public fixed income manager shall invest more than 5% of the total market value of assets held in any single issue, short-term instruments, with the exception of U.S. Government issued, guaranteed or agency obligations.



No more than 50% of the total net assets of the Real Return portfolio may be invested in any one registered investment vehicle, mutual fund, or separately managed account.



The maximum investment in any co-investment vehicle shall not exceed 50 percent of the total capital committed by all partners at the time of the final closing. The maximum investment in any single direct co-investment shall not exceed 20 percent of the original partnership commitment. Total investment in direct co-investments shall not exceed 20 percent of the asset class portfolio on a cost basis at the time of investment.



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



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



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



Kentucky Public Pensions Authority

CERS & CERS-Hazardous Unit Holdings

Quarter Ending: March 31, 2023

CERS Board Meeting - Investment Committee Report

Kentucky Public Pensions Authority				
Pension: CERS & CERS-H Unit Holdings				
Quarter Ended March 31, 2023				
UNIT OF PARTICIPATION	CERS		CERS-H	
	Shares/Par	Base Market Value	Shares/Par	Base Market Value
Grand Total	44,997,491.576	8,410,658,913.83	15,690,028.799	2,901,707,333.45
KRS ABSOLUTE RETURN UNIT	465,636.034	56,887,794.04	147,496.741	18,020,006.21
KRS ADAMS STREET A1 UNIT	527,051.575	77,739,914.94	177,715.752	26,213,008.55
KRS ADAMS STREET B1 UNIT	597,810.536	76,896,655.00	201,574.864	25,928,671.11
KRS AMERRA AGRI UNIT	308,823.485	28,238,240.73	97,505.679	8,915,736.56
KRS AMERRA UNIT	83,187.980	15,957,225.64	26,265.165	5,038,217.83
KRS ARROWMARK UNIT	1,387,072.461	284,673,755.34	458,544.662	94,108,732.31
KRS BLACKROCK UNIT	3,173,089.335	518,163,492.53	1,098,793.478	179,432,283.82
KRS BLUE TORCH UNIT	482,295.226	73,440,689.50	162,844.338	24,796,846.04
KRS BNYM CUSTODY FEE UNIT	-300,822.296	-300,822.30	-103,486.954	-103,486.95
KRS BTG UNIT	199,420.716	17,480,831.89	63,908.686	5,602,111.05
KRS CASH UNIT	1,285,920.027	126,828,697.72	605,594.657	59,729,050.08
KRS DB PRIVATE EQ UNIT	15,210.721	4,940,319.52	4,379.059	1,422,283.05
KRS DIVCOWEST IV UNIT	1,567.757	821,181.13	488.528	255,887.86
KRS DOMESTIC EQUITY UNIT	2,851,992.818	717,515,872.35	977,146.542	245,834,473.73
KRS GLOBAL FIXED UNIT	1,294,425.036	172,426,641.46	505,331.284	67,313,729.03
KRS GREENFIELD UNIT	3,105.533	39,540.80	967.716	12,321.32
KRS GREENFIELD VII UNIT	6,027.951	2,004,940.54	1,878.371	624,759.92
KRS HARRISON UNIT	639,390.832	145,718,923.82	199,992.765	45,578,899.52
KRS IFM INFRAST DEBT UNIT	267,825.438	39,331,462.92	92,231.578	13,544,654.00
KRS INTERNAL EQUITY UNIT	5,811,688.662	1,739,323,624.06	1,984,188.228	593,828,344.95
KRS INTERNATIONAL EQUITY UNIT	7,499,542.445	1,271,894,545.37	2,560,431.731	434,239,712.13
KRS L-A VII UNIT	152,636.219	13,331,147.70	47,573.514	4,155,039.65
KRS LIQUID CORE FIXED UNIT	6,621,148.248	829,977,929.37	2,462,654.151	308,700,019.46
KRS LIQUID CREDIT FIXED UNIT	44,070.529	3.35	13,249.620	1.01
KRS LIQUID HY FI UNIT	1,172,349.190	182,732,823.21	460,040.256	71,705,986.14
KRS MAGNETAR MTP UNIT	319.749	165,972.80	101.107	52,481.83
KRS MESA WEST CORE UNIT	205,495.934	37,532,720.82	64,772.004	11,830,256.18
KRS MESA WEST IV UNIT	105,087.787	10,187,188.00	33,229.849	3,221,294.58
KRS MULTI SECTOR CREDIT FI	1,492,072.539	240,411,700.81	490,250.072	78,992,039.96
KRS OBERLAND UNIT	54,294.957	3,946,364.01	16,950.611	1,232,034.89
KRS PE 2010 UNIT	548,109.444	164,189,506.04	170,621.980	51,110,848.25
KRS PE 2011 UNIT	175,778.072	53,908,110.60	84,989.501	26,064,817.80
KRS PE 2012 A UNIT	6,977.987	4,263,240.57	1,942.729	1,186,921.26
KRS PE 2012 B UNIT	65,526.534	10,572,182.77	18,243.149	2,943,386.35
KRS PE 2013 UNIT	260,988.057	92,795,232.52	89,080.255	31,672,801.70
KRS PE 2014 UNIT	216,827.092	35,469,697.79	74,007.266	12,106,491.56
KRS PE 2015 UNIT	167,514.812	43,695,228.60	57,176.034	14,914,023.70
KRS PE 2016 UNIT	350,085.918	88,182,874.42	109,035.145	27,464,779.37
KRS PE 2017 UNIT	183,142.200	28,729,687.60	57,040.183	8,947,946.67
KRS PE 2018 UNIT	222,012.396	37,782,583.07	69,311.188	11,795,538.29
KRS PE 2019 UNIT	257,483.676	58,014,271.44	80,385.148	18,111,772.63
KRS PE 2021 UNIT	436,440.435	50,917,713.09	147,969.875	17,263,037.60
KRS PERIMETER PARK UNIT	17,188.363	1,682,470.76	18,713.042	1,831,712.89
KRS POST-2015 REAL ESTATE UNIT	633,336.085	91,090,164.09	200,267.448	28,803,655.96
KRS PRIVATE CREDIT FI UNIT	1,540,165.113	299,605,802.80	510,108.436	99,230,560.54
KRS PROLOGIS UNIT	741,098.600	181,505,019.36	234,343.128	57,393,785.37
KRS REAL RETURN UNIT	582,392.386	101,941,860.74	200,559.630	35,105,922.34
KRS RUBENSTEIN PF II UNIT	55,450.515	10,134,562.15	17,278.945	3,158,032.74
KRS SHENKMAN UNIT	827,271.175	131,194,865.81	278,839.911	44,220,523.83
KRS STOCKBRIDGE UNIT	280,090.753	63,212,457.49	89,313.398	20,156,750.32
KRS TAURUS UNIT	7,574.437	2,396,312.42	2,585.302	817,907.83
KRS TPF II UNIT	351.766	37,325.09	117.591	12,477.31
KRS WALTON VI UNIT	38,991.717	7,276,175.72	13,784.580	2,572,316.23
KRS WALTON VII UNIT	37,435.893	6,409,518.89	11,665.409	1,997,271.96
KRS WATERFALL UNIT	897,520.726	157,342,672.93	300,035.472	52,598,655.13

CERS Board Meeting - Investment Committee Report

Kentucky Public Pensions Authority				
Insurance: CERS & CERS-H Unit Holdings				
Quarter Ended March 31, 2023				
UNIT OF PARTICIPATION	CERS INS		CERS-H INS	
	Shares/Par	Base Market Value	Shares/Par	Base Market Value
Grand Total	24,281,143.896	3,154,090,825.89	12,164,795.723	1,560,695,617.02
KR3 ARROWMARK UNIT	554,115.798	114,945,195.99	301,875.792	62,620,795.51
KRS INS PE 2014 UNIT	96,303.623	15,771,426.98	52,089.893	8,530,644.21
KRS INS ABSOLUTE RETURN UNIT	151,549.664	18,524,778.81	84,908.283	10,378,823.15
KRS INS ADAMS STREET A1 UNIT	184,540.735	27,219,691.42	97,492.177	14,380,060.72
KRS INS ADAMS STREET B1 UNIT	209,287.160	26,924,433.37	110,565.612	14,224,075.92
KRS INS AMERRA AGRI UNIT	111,707.475	10,215,266.66	61,667.856	5,639,314.59
KRS INS AMERRA UNIT	22,445.700	4,323,588.89	12,391.098	2,386,827.48
KRS INS BLACKROCK UNIT	3,237,957.534	210,976,071.78	1,610,309.295	104,923,157.84
KRS INS BLUE TORCH UNIT	168,732.244	25,693,416.96	88,690.812	13,505,243.33
KRS INS BNYM CUSTODY FEE UNIT	-164,388.917	-164,388.92	-81,194.760	-81,194.76
KRS INS BTG UNIT	58,674.170	5,143,263.56	32,238.357	2,825,951.64
KRS INS CASH UNIT	419,500.121	43,797,030.86	136,860.124	14,288,594.39
KRS INS DB PRIVATE EQ UNIT	27,357.854	8,878,331.43	14,782.255	4,797,224.19
KRS INS DIVCOWEST IV UNIT	454.208	239,268.69	246.794	130,006.69
KRS INS DOMESTIC EQUITY UNIT	1,079,744.155	271,569,663.58	549,104.925	138,107,012.72
KRS INS GLOBAL FIXED UNIT	415,168.016	54,269,329.89	180,293.611	23,567,358.46
KRS INS GREENFIELD UNIT	903.324	11,447.13	490.809	6,219.65
KRS INS GREENFIELD VII UNIT	1,742.377	579,554.21	946.698	314,893.28
KRS INS HARRISON UNIT	244,840.322	54,569,226.01	133,920.349	29,847,738.04
KRS INS IFM INFRAST DEBT UNIT	94,964.510	13,772,251.90	48,928.929	7,095,930.21
KRS INS INTERNAL EQUITY UNIT	2,160,972.310	648,231,866.48	1,035,988.972	310,768,010.25
KRS INS INTL EQ UNIT	2,795,392.309	468,678,792.66	1,354,813.081	227,149,569.32
KRS INS L-A-VII UNIT	44,116.449	3,854,019.56	23,970.508	2,094,067.15
KRS INS LIQUID CORE FIXED UNIT	2,635,317.386	327,109,988.05	1,193,245.947	148,112,204.45
KRS INS LIQUID CREDIT FIXED UN	5,562,779.296	5.56	2,995,343.950	3.00
KRS INS LIQUID HY FI UNIT	578,267.180	87,725,355.22	216,600.095	32,859,067.46
KRS INS MAGNETAR MTP	95.017	49,685.27	52.560	27,484.11
KRS INS MESA WEST CORE UNIT	117,798.214	21,062,674.76	65,081.046	11,636,686.66
KRS INS MESA WEST IV UNIT	34,504.073	3,232,249.12	18,935.158	1,773,794.87
KRS INS MULTI SECTOR CREDIT FI	531,206.774	84,133,689.02	290,366.710	45,988,913.69
KRS INS OBERLAND UNIT	10,280.748	771,720.08	5,589.719	419,589.94
KRS INS PE 2010 UNIT	62,794.529	18,517,349.30	33,613.484	9,912,211.05
KRS INS PE 2011 UNIT	119,763.502	37,484,979.93	71,683.331	22,436,286.34
KRS INS PE 2012 A UNIT	2,213.500	1,356,771.43	1,197.264	733,866.54
KRS INS PE 2012 B UNIT	27,004.062	4,377,276.30	14,333.239	2,323,374.44
KRS INS PE 2013 UNIT	141,579.856	49,741,085.87	76,579.472	26,904,576.68
KRS INS PE 2015 UNIT	96,281.183	24,954,217.09	52,077.781	13,497,551.78
KRS INS PE 2016 UNIT	202,110.990	50,907,638.55	122,047.715	30,741,331.59
KRS INS PE 2017 UNIT	106,473.354	16,611,873.24	64,295.361	10,031,302.17
KRS INS PE 2018 UNIT	47,068.777	8,241,631.49	25,591.672	4,481,041.22
KRS INS PE 2019 UNIT	26,914.683	6,064,210.61	14,354.492	3,234,244.40
KRS INS PE 2021 UNIT	168,303.164	19,725,364.26	86,598.125	10,149,420.36
KRS INS POST-2015 REAL ESTATE	219,845.072	31,520,232.46	120,646.650	17,297,683.40
KRS INS PRIVATE CREDIT FI UNIT	539,203.529	103,156,129.80	294,076.416	56,260,360.53
KRS INS PROLOGIS UNIT	150,318.422	58,595,928.93	82,491.818	32,156,302.87
KRS INS REAL RETURN UNIT	154,975.484	26,664,488.69	79,865.254	13,741,309.96
KRS INS RUBENSTEIN PF II UNIT	16,254.663	2,952,891.76	8,831.949	1,604,449.72
KRS INS SHENKMAN UNIT	327,737.984	51,485,424.07	121,432.653	19,076,249.75
KRS INS STOCKBRIDGE UNIT	117,767.220	26,463,651.48	64,874.850	14,578,126.41
KRS INS TAURUS UNIT	2,775.521	879,810.77	1,501.258	475,882.89
KRS INS TPF II UNIT	37.089	3,935.15	19.666	2,086.57
KRS INS WALTON VI UNIT	3,937.153	730,321.51	2,109.889	391,373.49
KRS INS WALTON VII UNIT	10,838.188	1,855,640.46	5,888.786	1,008,237.68
KRS INS WATERFALL UNIT	350,616.142	59,691,077.76	184,087.943	31,340,279.02

Kentucky Public Pensions Authority

Security Litigation Report

Quarter Ending: March 31, 2023

Claims Filed during the Quarter (pg 3):

10

Proceeds Received during the Quarter (pg 4):

\$45,908.81

CERS Board Meeting - Investment Committee Report

Kentucky Retirement Systems	
Quarterly Securities Litigation Report	
Quarter Ended 03/31/23	
Total Claims Filed	
No Claim on File	9
Fiscal Year 1997	1
Fiscal Year 1998	2
Fiscal Year 1999	5
Fiscal Year 2000	9
Fiscal Year 2001	8
Fiscal Year 2002	33
Fiscal Year 2003	45
Fiscal Year 2004	38
Fiscal Year 2005	89
Fiscal Year 2006	150
Fiscal Year 2007	70
Fiscal Year 2008	73
Fiscal Year 2009	85
Fiscal Year 2010	65
Fiscal Year 2011	69
Fiscal Year 2012	54
Fiscal Year 2013	48
Fiscal Year 2014	65
Fiscal Year 2015	80
Fiscal Year 2016	224
Fiscal Year 2017	140
Fiscal Year 2018	74
Fiscal Year 2019	55
Fiscal Year 2020	42
Fiscal Year 2021	43
Fiscal Year 2022	49
Fiscal Year 2023	42
Total Filed	1,667
Proceeds Received	
Fiscal Year 1998	\$67,682
Fiscal Year 1999	\$233,370
Fiscal Year 2000	\$303,918
Fiscal Year 2001	\$415,502
Fiscal Year 2002	\$387,318
Fiscal Year 2003	\$519,059
Fiscal Year 2004	\$1,080,920
Fiscal Year 2005	\$1,645,440
Fiscal Year 2006	\$797,535
Fiscal Year 2007	\$5,398,363
Fiscal Year 2008	\$5,402,336
Fiscal Year 2009	\$3,504,682
Fiscal Year 2010	\$2,776,544
Fiscal Year 2011	\$1,292,484
Fiscal Year 2012	\$468,657
Fiscal Year 2013	\$1,070,427
Fiscal Year 2014	\$308,704
Fiscal Year 2015	\$23,639,565
Fiscal Year 2016	\$2,417,957
Fiscal Year 2017	\$1,886,532
Fiscal Year 2018	\$2,247,966
Fiscal Year 2019	\$1,702,272
Fiscal Year 2020	\$1,743,474
Fiscal Year 2021	\$286,420
Fiscal Year 2022	\$616,557
Fiscal Year 2023	\$232,095
Total Proceeds	\$60,445,781

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
TEXTRON INC., Securities Litigation	FILED	1/18/2023	1/31/2018	12/6/2018	956596	KRS KRS INTERNAL EQUITY
TEXTRON INC., Securities Litigation	FILED	1/18/2023	1/31/2018	12/6/2018	956599	KRS S P 500 INDEX
TEXTRON INC., Securities Litigation	FILED	1/18/2023	1/31/2018	12/6/2018	956772	KRS INS KRS INTERNAL EQUITY
TEXTRON INC., Securities Litigation	FILED	1/18/2023	1/31/2018	12/6/2018	956774	KRS INS S P 500 INDEX
ORACLE CORPORATION, Securities Litigation (18CV04844BLF)	FILED	1/31/2023	5/10/2017	6/20/2018	956774	KRS INS S P 500 INDEX
ORACLE CORPORATION, Securities Litigation (18CV04844BLF)	FILED	1/31/2023	5/10/2017	6/20/2018	956772	KRS INS KRS INTERNAL EQUITY
ORACLE CORPORATION, Securities Litigation (18CV04844BLF)	FILED	1/31/2023	5/10/2017	6/20/2018	956596	KRS KRS INTERNAL EQUITY
ORACLE CORPORATION, Securities Litigation (18CV04844BLF)	FILED	1/31/2023	5/10/2017	6/20/2018	956599	KRS S P 500 INDEX
PEABODY ENERGY CORP. SECURITIES LITIGATION	FILED	1/31/2023	4/3/2017	10/28/2019	956588	KRS NTGI STRUCTURED
PEABODY ENERGY CORP. SECURITIES LITIGATION	FILED	1/31/2023	4/3/2017	10/28/2019	956765	KRS INS NTGI STRUCTURED
PORTOLA PHARMACEUTICALS INC. Securities Litigation	FILED	2/9/2023	1/8/2019	2/28/2020	956588	KRS NTGI STRUCTURED
PORTOLA PHARMACEUTICALS INC. Securities Litigation	FILED	2/9/2023	1/8/2019	2/28/2020	956765	KRS INS NTGI STRUCTURED
SUPER MICRO COMPUTER, INC., Securities Litigation (18CV00838)	FILED	2/23/2023	8/5/2016	1/30/2018	956765	KRS INS NTGI STRUCTURED
SUPER MICRO COMPUTER, INC., Securities Litigation (18CV00838)	FILED	2/23/2023	8/5/2016	1/30/2018	956588	KRS NTGI STRUCTURED
U.S STEEL, Securities Litigation	FILED	2/25/2023	1/27/2016	4/25/2017	956766	KRS INS SYSTEMATIC
U.S STEEL, Securities Litigation	FILED	2/25/2023	1/27/2016	4/25/2017	956589	KRS SYSTEMATIC
U.S STEEL, Securities Litigation	FILED	2/25/2023	1/27/2016	4/25/2017	956765	KRS INS NTGI STRUCTURED
U.S STEEL, Securities Litigation	FILED	2/25/2023	1/27/2016	4/25/2017	956588	KRS NTGI STRUCTURED
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956768	KRS INS WESTFIELD CAPITAL
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	KR2F1901002	STATE STREET TRANSITION
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956766	KRS INS SYSTEMATIC
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956774	KRS INS S P 500 INDEX
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956589	KRS SYSTEMATIC
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956591	KRS WESTFIELD CAPITAL
PROPETRO HOLDING CORP., Securities Litigation	FILED	3/15/2023	2/8/2017	3/13/2020	956765	KRS INS NTGI STRUCTURED
OMEGA HEALTHCARE INVESTORS, INC., Securities Litigation (17CV08983NRB)	FILED	3/22/2023	2/8/2017	10/31/2017	956816	KRS INS NUVEEN REAL ASSET
OMEGA HEALTHCARE INVESTORS, INC., Securities Litigation (17CV08983NRB)	FILED	3/22/2023	2/8/2017	10/31/2017	956642	KRS NUVEEN REAL ASSET
DEUTSCHE BANK AKTIENGESELLSCHAFT, Securities Litigation	FILED	3/28/2023	3/14/2017	9/18/2020	956801	KRS INS LSV ASSET MGMT



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008

Base Currency: USD

KR2G0000000 - TOTAL FUND

12/31/2022 - 3/31/2023

Status: PRELIMINARY

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	16-1224 (KM)(MAH)PTC THERAPEUT	1/19/2023	0.000000	329.21	329.21	329.21
	NA9123459	ICS, INC. Distribution 2ND DIS		0.000000	329.21	329.21	329.21
		20230119S000020 / 000000000008	1/19/2023				Gain/Loss Local Amounts: 329.21 Long
		KR2F10060002 : WESTFIELD CAPITAL					Gain/Loss Base Amounts: 329.21 Long
CD	0.000	24358LADENBURG THALMANN FINANC	1/19/2023	0.000000	33.95	33.95	33.95
	NA9123459	IAL SERVICES INC. (2020) Distr		0.000000	33.95	33.95	33.95
		20230119S000190 / 000000001530	1/19/2023				Gain/Loss Local Amounts: 33.95 Long
		KR2F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 33.95 Long
CD	0.000	23548Wells Fargo & Company (SE	2/2/2023	0.000000	22,884.64	22,884.64	22,884.64
	NA9123459	C) Distribution 1ST DISTRIBUTI		0.000000	22,884.64	22,884.64	22,884.64
		20230203S000050 / 000000000008	2/2/2023				Gain/Loss Local Amounts: 22,884.64 Long
		KR2F10120002 : RIVER ROAD FAV					Gain/Loss Base Amounts: 22,884.64 Long
CD	0.000	APPLIED MICRO CIRCUITS CORPS S	2/8/2023	0.000000	223.90	223.90	223.90
	NA9123459	EC LIT PROCEEDS		0.000000	223.90	223.90	223.90
		20230210S000010 / DFEACAFDBE6F	2/8/2023				Gain/Loss Local Amounts: 223.90 Long
		KR2F90010002 : CASH ACCOUNT KR2					Gain/Loss Base Amounts: 223.90 Long
CD	0.000	24000GTT Communications, Inc.	3/10/2023	0.000000	880.47	880.47	880.47
	NA9123459	(2021) Distribution 1ST DISTRI		0.000000	880.47	880.47	880.47
		20230310S000260 / 000000000000	3/10/2023				Gain/Loss Local Amounts: 880.47 Long
		KR2F10020002 : NTGI STRUCTURED					Gain/Loss Base Amounts: 880.47 Long
CD	0.000	3-17-CV-2616-MBSSCANNA Corporat	3/14/2023	0.000000	8,020.25	8,020.25	8,020.25
	NA9123459	ion (2017)(D.S.C) Distribution		0.000000	8,020.25	8,020.25	8,020.25
		20230314S000320 / 000000000002	3/14/2023				Gain/Loss Local Amounts: 8,020.25 Long
		KR2F10110002 : KRS INTERNAL EQUITY					Gain/Loss Base Amounts: 8,020.25 Long



**Transaction Detail
Reported By Transaction Category**

Report ID: IACS0008

Base Currency: USD

Status: PRELIMINARY

KR2G0000000 - TOTAL FUND

12/31/2022 - 3/31/2023

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	COMPUTER SCIENCES CORP (SEC NA9123459 FAIR FUND)	3/10/2023	0.000000	127.56	127.56	127.56
		20230317A000150	3/10/2023	0.000000	127.56	127.56	127.56
		KR2F19020002 : S&P 500 INDEX					Gain/Loss Local Amounts: 127.56 Long Gain/Loss Base Amounts: 127.56 Long
CD	0.000	COMPUTER SCIENCES CORP (SEC NA9123459 FAIR FUND)	3/10/2023	0.000000	41.97	41.97	41.97
		20230317A000160	3/10/2023	0.000000	41.97	41.97	41.97
		KR2F19020002 : S&P 500 INDEX					Gain/Loss Local Amounts: 41.97 Long Gain/Loss Base Amounts: 41.97 Long
CD	0.000	20721HONEYWELL INTERNATIONAL, NA9123459 INC. (2018) Distribution 1ST D	3/31/2023	0.000000	141.80	141.80	141.80
		20230331S000270 / 000000000087	3/31/2023	0.000000	141.80	141.80	141.80
		KR2F10110002 : KRS INTERNAL EQUITY					Gain/Loss Local Amounts: 141.80 Long Gain/Loss Base Amounts: 141.80 Long
CD	0.000	22119NETAPP, INC., Securities NA9123459 Litigation Distribution 1ST DI	3/31/2023	0.000000	67.44	67.44	67.44
		20230331S000420 / 000000000000	3/31/2023	0.000000	67.44	67.44	67.44
		KR2F19020002 : S&P 500 INDEX					Gain/Loss Local Amounts: 67.44 Long Gain/Loss Base Amounts: 67.44 Long
TOTAL U.S. DOLLAR CASH & CASH EQUIVALENTS:					<u>32,751.19</u>	<u>32,751.19</u>	<u>32,751.19</u>
					<u>32,751.19</u>	<u>32,751.19</u>	<u>32,751.19</u>
TOTAL CASH & CASH EQUIVALENTS CLASS ACTIONS:					<u>32,751.19</u>	<u>32,751.19</u>	<u>32,751.19</u>
TOTAL CLASS ACTIONS:					<u>32,751.19</u>	<u>32,751.19</u>	<u>32,751.19</u>
TOTAL TRANSACTIONS BASE:					<u>32,751.19</u>	<u>32,751.19</u>	<u>32,751.19</u>



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008

Base Currency: USD

KR3G0000000 - TOTAL FUND

12/31/2022 - 3/31/2023

Status: PRELIMINARY

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	16-1224 (KM)(MAH)PTC THERAPEUT	1/19/2023	0.000000	132.32	132.32	132.32
	NA9123459	ICS, INC. Distribution 2ND DIS		0.000000	132.32	132.32	132.32
		20230119S000020 / 000000000008	1/19/2023				
		KR3F10060002 : WESTFIELD CAPITAL					Gain/Loss Local Amounts: 132.32 Long Gain/Loss Base Amounts: 132.32 Long
CD	0.000	24358LADENBURG THALMANN FINANC	1/19/2023	0.000000	11.32	11.32	11.32
	NA9123459	IAL SERVICES INC. (2020) Distr		0.000000	11.32	11.32	11.32
		20230119S000190 / 000000001530	1/19/2023				
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Local Amounts: 11.32 Long Gain/Loss Base Amounts: 11.32 Long
CD	0.000	8-14-cv-02004-DOC-KESxALLERGAN	1/31/2023	0.000000	172.94	172.94	172.94
	NA9123459	, INC. (2014) (C.D. CAL.) (SEC		0.000000	172.94	172.94	172.94
		20230131S000150 / 000000000985	1/31/2023				
		KR3F19020002 : S&P 500 INDEX					Gain/Loss Local Amounts: 172.94 Long Gain/Loss Base Amounts: 172.94 Long
CD	0.000	23548Wells Fargo & Company (SE	2/2/2023	0.000000	8,125.24	8,125.24	8,125.24
	NA9123459	C) Distribution 1ST DISTRIBUTI		0.000000	8,125.24	8,125.24	8,125.24
		20230203S000040 / 000000000008	2/2/2023				
		KR3F10120002 : RIVER ROAD FAV					Gain/Loss Local Amounts: 8,125.24 Long Gain/Loss Base Amounts: 8,125.24 Long
CD	0.000	412-CV-01332 (HARMON, J.)HOUST	2/7/2023	0.000000	18.62	18.62	18.62
	NA9123459	ON AMERICAN ENERGY CORP Distri		0.000000	18.62	18.62	18.62
		20230207S000250 / 000000000010	2/7/2023				
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Local Amounts: 18.62 Long Gain/Loss Base Amounts: 18.62 Long
CD	0.000	24000GTT Communications, Inc.	3/10/2023	0.000000	388.34	388.34	388.34
	NA9123459	(2021) Distribution 1ST DISTRI		0.000000	388.34	388.34	388.34
		20230310S000250 / 000000000000	3/10/2023				
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Local Amounts: 388.34 Long Gain/Loss Base Amounts: 388.34 Long



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008

Base Currency: USD

KR3G0000000 - TOTAL FUND

12/31/2022 - 3/31/2023

Status: PRELIMINARY

Trans Code	Shares/Par	Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id	Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
		Transaction No./Client Ref No.	Reported Date				
CD	0.000	3-17-CV-2616-MBSSCANA Corporat	3/14/2023	0.000000	4,220.86	4,220.86	4,220.86
	NA9123459	ion (2017)(D.S.C) Distribution		0.000000	4,220.86	4,220.86	4,220.86
		20230314S000320 / 000000000002	3/14/2023				Gain/Loss Local Amounts: 4,220.86 Long
		KR3F10110002 : KRS INTERNAL EQUITY					Gain/Loss Base Amounts: 4,220.86 Long
CD	0.000	20721HONEYWELL INTERNATIONAL,	3/31/2023	0.000000	58.93	58.93	58.93
	NA9123459	INC. (2018) Distribution 1ST D		0.000000	58.93	58.93	58.93
		20230331S000260 / 0000000000087	3/31/2023				Gain/Loss Local Amounts: 58.93 Long
		KR3F10110002 : KRS INTERNAL EQUITY					Gain/Loss Base Amounts: 58.93 Long
CD	0.000	22119NETAPP, INC., Securities	3/31/2023	0.000000	29.05	29.05	29.05
	NA9123459	Litigation Distribution 1ST DI		0.000000	29.05	29.05	29.05
		20230331S000400 / 0000000000000	3/31/2023				Gain/Loss Local Amounts: 29.05 Long
		KR3F19020002 : S&P 500 INDEX					Gain/Loss Base Amounts: 29.05 Long
TOTAL U.S. DOLLAR CASH & CASH EQUIVALENTS:					<u>13,157.62</u>	<u>13,157.62</u>	<u>13,157.62</u>
					13,157.62	13,157.62	13,157.62
TOTAL CASH & CASH EQUIVALENTS CLASS ACTIONS:					<u>13,157.62</u>	<u>13,157.62</u>	<u>13,157.62</u>
TOTAL CLASS ACTIONS:					13,157.62	13,157.62	13,157.62
TOTAL TRANSACTIONS BASE:					<u>13,157.62</u>	<u>13,157.62</u>	<u>13,157.62</u>

County Employees Retirement Systems

Capital Calls and Distributions

Quarter Ending: December 31, 2022

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the period January 1, 2023 thru March 31, 2023**

Pension Funds Managers	Total Pension Fund Commitment	County Employees Retirement System					County Employees Hazardous Retirement System				
		Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
Adams Street SPC II A1	175,000,000	97,124,912	78,626,395	0	886,480	77,739,915	32,749,407	26,511,919	0	298,911	26,213,008
Adams Street SPC II B1	175,000,000	97,124,911	70,240,673	7,542,462	886,480	76,896,656	32,749,407	23,684,350	2,543,232	298,911	25,928,671
AMERRA Agri Fund II, LP	40,100,000	27,641,371	15,957,226	0	0	15,957,226	8,727,285	5,038,218	0	0	5,038,218
AMERRA-KRS Agri Holding Company, LP	65,000,000	44,805,214	28,573,982	0	335,743	28,238,239	14,146,472	9,021,741	0	106,005	8,915,736
Arcano KRS Fund I, L.P.	36,000,000	15,587,717	6,776,586	0	0	6,776,586	4,852,329	2,109,496	0	0	2,109,496
Arcos Sports Partners Fund II	85,000,000										
Ares Special Situations Fund IV, L.P.	26,192,000	17,935,797	13,572,811	0	709,737	12,863,074	6,121,833	4,632,662	0	242,247	4,390,415
Barings Euro Real Estate II	161,609,438	90,921,471	17,314,028	0	0	17,625,510	28,750,313	5,474,875	0	0	5,573,369
Barings Real Estate European Value Add I SCSp	114,077,250	64,179,862	24,274,176	0	2,840,355	21,861,732	20,294,339	7,675,747	0	898,150	6,912,907
Bay Hills Capital I, L.P.	67,500,000	29,226,970	2,184,037	0	50,660	2,133,377	9,098,116	679,873	0	15,770	664,103
Bay Hills Capital III, L.P.	51,250,000	35,095,051	33,312,933	0	0	33,312,933	11,978,618	11,370,346	0	0	11,370,346
Bay Hills Emerging Partners II LP	45,000,000	19,484,647	39,050,955	0	257,197	38,793,758	6,065,411	12,156,242	0	80,063	12,076,179
Bay Hills Emerging Partners II-B LP	45,000,000	19,484,647	26,716,266	0	837,840	25,878,426	6,065,411	8,316,555	0	260,813	8,055,742
BDCM Opportunity Fund IV, L.P.	35,580,000	24,364,524	38,993,384	0	231,530	38,761,854	8,316,082	13,309,194	0	79,026	13,230,168
Blackstone Capital Partners V, L.P.	47,174,735	20,426,290	67,885	0	0	67,885	6,358,537	21,132	0	0	21,132
Blackstone Capital Partners VI, L.P.	60,000,000	38,220,311	15,447,178	76,330	150,465	15,373,044	18,479,695	7,468,781	36,906	72,751	7,432,937
Blue Torch Credit Opportunities Fund II LP	140,000,000	77,659,705	76,318,324	0	0	76,318,324	26,221,374	25,768,464	0	0	25,768,464
BSP Co-Invest Vehicle K LP	0	0	22,560,039	0	407,980	22,152,059	0	7,471,969	0	135,125	7,336,845
BSP Private Credit Fund	100,000,000	58,940,485	54,475,143	0	1,412,139	53,063,003	19,521,309	18,042,371	0	467,706	17,574,665
BTG Pactual Brazil Timberland Fund I	34,500,000	23,847,150	17,480,832	0	0	17,480,832	7,642,335	5,602,111	0	0	5,602,111
Camelot Opportunities Fund, L.P.	23,400,000	10,132,016	2,803,888	0	0	2,803,888	3,154,014	872,827	0	0	872,827
Cerberus KRS Levered Loan Opportunities Fund, L.P.	140,000,000	82,516,679	105,329,769	0	0	107,165,833	27,329,832	34,885,613	0	0	35,493,724
Ceres Farms	100,000,000										
Columbia Captal Equity Partners IV, L.P.	27,000,000	11,690,788	1,379,084	0	0	1,379,084	3,639,247	429,298	0	0	429,298
Crestview Partners II, L.P.	67,500,000	29,226,970	13,977,042	0	1,285,690	12,691,352	9,098,116	4,350,939	0	400,225	3,950,714
Crestview Partners III, L.P.	39,000,000	26,706,479	23,876,503	835,092	2,104,973	22,606,622	9,115,436	8,149,511	285,033	718,468	7,716,076
CS Adjacent Investment Partners Parallel LP	140,000,000	82,516,679	42,743,526	0	1,557,127	41,186,398	27,329,832	14,156,815	0	515,726	13,641,089
CVC European Equity Partners VI, L.P.	23,815,820	16,308,633	18,566,009	48,522	896,071	18,056,806	5,566,451	6,336,937	16,562	305,846	6,163,136
DAG Ventures II, L.P.	27,000,000	11,690,788	833,864	0	0	833,864	3,639,247	259,575	0	0	259,575
DAG Ventures III, L.P.	27,000,000	11,690,788	158,328	0	0	158,328	3,639,247	49,286	0	0	49,286
DAG Ventures IV, L.P.	90,000,000	38,969,294	16,853,289	0	7,708,766	9,144,523	12,130,822	5,246,291	0	2,399,676	2,846,615
DAG Ventures V, L.P.	8,000,000	5,096,042	28,785	0	0	28,785	2,463,959	13,918	0	0	13,918
DCM VI, L.P.	13,500,000	5,845,394	2,063,069	0	303,438	1,759,632	1,819,623	642,217	0	94,458	547,759
DivcoWest Fund IV	20,800,000	14,568,740	934,614	0	113,433	821,181	4,539,761	291,235	0	35,347	255,888
Essex Woodlands Fund VIII, L.P.	22,500,000	9,742,323	-748,415	0	0	-748,415	3,032,705	-232,975	0	0	-232,975
Fundamental Partners III LP	70,000,000	39,382,001	36,528,805	0	1,189,788	35,339,017	12,452,997	11,550,787	0	376,223	11,174,564
Green Equity Investors V, L.P.	90,000,000	38,969,294	674,823	0	0	674,823	12,130,822	210,067	0	0	210,067
Green Equity Investors VI, L.P.	32,000,000	20,384,166	21,470,604	30,934	0	21,501,537	9,855,837	10,381,135	14,957	0	10,396,091
Green Equity Investors VII LP	25,000,000	17,900,000	22,395,348	0	572,402	21,822,946	5,575,000	6,975,088	0	178,276	6,796,812
Greenfield Acquisition Partners VI, L.P.	38,100,000	26,685,999	31,513	0	0	31,513	8,315,632	9,820	0	0	9,820
Greenfield Acquisition Partners VII, L.P.	27,800,000	19,471,678	2,356,825	0	651,692	1,705,133	6,067,572	734,411	0	203,074	531,337
H.I.G. BioVentures II, L.P.	13,500,000	8,599,570	6,043,738	0	1,019,696	5,024,042	4,157,931	2,922,175	0	493,028	2,429,147
H.I.G. Capital Partner V, L.P.	13,100,000	8,970,638	8,131,602	0	1,495,792	6,635,810	3,061,852	2,775,473	0	510,543	2,264,930

Kentucky Public Pensions Authority

Capital Calls and Distributions

For the period January 1, 2023 thru March 31, 2023

Pension Funds Managers	Total Pension Fund Commitment	County Employees Retirement System					County Employees Hazardous Retirement System				
		Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
H.I.G. Ventures II, L.P.	18,000,000	7,793,859	1,425,280	0	0	1,425,280	2,426,164	443,678	0	0	443,678
H&F Spock I LP	3,250,153	1,407,291	4,490,661	0	0	4,490,661	438,078	1,397,906	0	0	1,397,906
Harvest Partners V, L.P.	36,000,000	15,587,717	-75,818	0	0	-75,818	4,852,329	-23,601	0	0	-23,601
Harvest Partners VI, L.P.	28,400,000	20,768,921	6,344,374	5,471	2,086,604	4,263,240	5,782,239	1,766,326	1,523	580,928	1,186,921
Harvest Partners VII LP	20,000,000	14,320,000	21,639,812	0	0	21,639,812	4,460,000	6,739,774	0	0	6,739,774
Hellman and Friedman Capital Partners VI, L.P.	20,000,000	8,659,843	132	0	0	132	2,695,738	41	0	0	41
Horsley Bridge International Fund V, L.P.	45,000,000	19,484,647	43,836,389	0	750,388	43,086,001	6,065,411	13,645,909	0	233,589	13,412,319
IFM US Infrastructure Debt Fund	70,000,000	39,669,146	37,393,931	1,937,532	670,576	39,331,463	13,660,943	12,877,422	667,232	230,928	13,544,654
Institutional Venture Partners XII, L.P.	27,000,000	11,690,788	149,869	0	0	149,869	3,639,247	46,653	0	0	46,653
Kayne Anderson Energy Fund VII LP	50,000,000	35,800,000	20,458,731	0	0	20,458,731	11,150,000	6,371,924	0	0	6,371,924
KCP IV Co-Invest	12,885,297	8,823,612	2,266,298	303,113	40,924	2,574,200	3,011,669	773,531	103,458	13,968	878,624
Keyhaven Capital Partners Fund III, L.P.	27,413,514	11,869,836	4,600,185	0	107,140	4,574,782	3,694,983	1,432,000	0	33,352	1,424,092
Keyhaven Capital Partners IV LP	12,885,297	8,823,612	7,297,642	501,465	0	7,929,219	3,011,669	2,490,826	171,160	0	2,706,395
Levine Leichtman Capital Partners V, L.P.	46,000,000	31,499,949	15,041,662	87,379	127,931	15,001,110	10,751,540	5,134,009	29,824	43,665	5,120,168
Levine Leichtman Capital Partners VI LP	37,500,000	26,849,987	30,794,867	228,508	59,015	30,964,360	8,362,509	9,591,153	71,169	18,380	9,643,942
Lubert Adler VII	34,750,000	24,338,900	13,331,148	0	0	13,331,148	7,585,925	4,155,040	0	0	4,155,040
Lubert-Adler Real Estate Fund VII-B LP	36,750,000	20,675,550	5,656,254	0	0	5,656,254	6,537,824	1,788,566	0	0	1,788,566
Magentar MTP Energy Opportunities Fund II LLC	37,500,000	26,265,000	226,381	0	0	226,381	8,186,251	70,558	0	0	70,558
Maritime Partners LP	175,000,000										
MatlinPatterson Global Opportunities Partners II	45,000,000	19,484,647	375,716	0	0	375,716	6,065,411	116,957	0	0	116,957
MatlinPatterson Global Opportunities Partners III	45,000,000	19,484,647	45,446	0	0	45,446	6,065,411	14,147	0	0	14,147
Merit Mezzanine Fund IV, L.P.	27,000,000	11,690,788	173,373	0	0	173,373	3,639,247	53,970	0	0	53,970
Mesa West Core Lending Fund, LP	57,500,000	36,357,250	37,532,721	804,501	804,501	37,532,721	11,459,750	11,830,256	253,578	253,578	11,830,256
Mesa West Real Estate Income Fund IV LP	36,000,000	15,587,717	7,840,335	0	0	7,840,335	4,852,329	2,440,632	0	0	2,440,632
MiddleGround Partners I LP	50,000,000	35,875,000	49,644,978	8,384,902	15,608	58,014,272	11,200,000	15,498,920	2,617,726	4,873	18,111,773
MiddleGround Partners II LP	50,000,000	27,301,556	19,885,057	0	0	19,885,057	9,256,264	6,741,789	0	0	6,741,789
MiddleGround Partners II-X LP	25,000,000	13,650,778	9,332,757	0	0	9,332,757	4,628,132	3,164,159	0	0	3,164,159
Mill Road Capital I, L.P.	27,000,000	11,690,788	1,234,325	0	0	1,234,325	3,639,247	384,235	0	0	384,235
New Mountain Partners II, L.P.	25,000,000	10,824,804	-176	0	0	-176	3,369,673	-55	0	0	-55
New Mountain Partners III, L.P.	32,337,197	14,001,752	617,179	0	0	617,179	4,358,631	192,123	0	0	192,123
New Mountain Partners IV, L.P.	32,800,000	22,460,833	7,616,593	288,442	364,398	7,550,713	7,666,315	2,599,690	98,451	124,376	2,577,204
New State Capital Partners Fund III LP	17,500,000	9,555,545	2,019,070	56,661	0	2,075,731	3,239,692	684,541	19,210	0	703,752
Oak Hill Capital Partners II, L.P.	67,500,000	29,226,970	73,997	0	0	73,997	9,098,116	23,035	0	0	23,035
Oak Hill Capital Partners III, L.P.	33,750,000	14,613,485	6,758	0	0	6,758	4,549,058	2,104	0	0	2,104
Oberland Capital Healthcare LP	3,450,000	2,475,375	5,011,255	0	909,055	4,102,200	772,800	1,564,488	0	283,802	1,280,686
Patron Capital V LP	39,112,200	22,004,524	11,049,876	95,800	728,799	10,607,650	6,958,059	3,494,086	30,293	230,454	3,354,249
Riverside Capital Appreciation Fund VI, L.P.	35,500,000	25,961,146	7,396,199	0	0	7,396,199	7,227,806	2,059,165	0	0	2,059,165
Rubenstein Properties Fund II	20,800,000	14,568,738	8,361,493	0	0	8,361,493	4,539,767	2,605,526	0	0	2,605,526
Secondary Opportunities Fund III, L.P.	25,000,000	19,411,552	4,940,320	0	0	4,940,320	5,588,448	1,422,283	0	0	1,422,283
Strategic Value Special Situations Fund IV LP	43,300,000	31,067,750	36,855,180	0	26,627	36,828,553	9,699,200	11,506,008	0	8,313	11,497,695
Strategic Value Special Situations Fund V LP	70,000,000	38,222,178	16,446,831	3,807,885	4,921	20,254,715	12,958,769	5,576,100	1,291,017	1,668	6,867,117
Taurus Mining Finance Fund LLC	45,100,000	30,883,643	2,663,163	0	266,851	2,396,312	10,541,186	908,989	0	91,081	817,908
Tenaska Power Fund II, L.P.	27,000,000	12,131,225	35,746	0	0	35,746	4,055,317	11,950	0	0	11,950

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the period January 1, 2023 thru March 31, 2023**

Pension Funds Managers	Total Pension Fund Commitment	County Employees Retirement System					County Employees Hazardous Retirement System				
		Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
Triton Fund IV, L.P.	27,333,911	18,717,756	12,808,403	0	0	13,038,828	6,388,731	4,371,755	0	0	4,450,403
VantagePoint Venture Partners 2006, L.P.	27,000,000	11,690,788	2,517,842	0	0	2,517,842	3,639,247	783,784	0	0	783,784
VantagePoint Venture Partners IV, L.P.	36,000,000	15,587,717	25,380	0	0	25,380	4,852,329	7,901	0	0	7,901
Vista Equity Partners III, L.P.	45,000,000	19,484,647	1,477,527	2,230	0	1,479,757	6,065,411	459,942	694	0	460,636
Vista Equity Partners IV, L.P.	27,000,000	17,199,140	11,885,812	55,485	0	11,941,297	8,315,863	5,746,844	26,827	0	5,773,672
Vista Equity Partners VI LP	25,000,000	17,900,000	23,909,528	74,627	0	23,984,155	5,575,000	7,446,683	23,243	0	7,469,926
Walton Street Real Estate Fund VI, LP	36,000,000	17,056,796	7,276,176	0	0	7,276,176	6,030,018	2,572,316	0	0	2,572,316
Walton Street Real Estate Fund VII, LP	38,120,000	26,700,008	6,409,519	0	0	6,409,519	8,319,997	1,997,272	0	0	1,997,272
Warburg, Pincus Private Equity IX, L.P.	50,000,000	21,649,608	8,569	0	0	8,569	6,739,345	2,667	0	0	2,667
Warburg, Pincus Private Equity X, L.P.	38,750,000	16,778,446	374,035	0	67,449	306,585	5,222,993	116,434	0	20,996	95,437
Wayzata Opportunities Fund II, L.P.	67,500,000	29,226,970	632	0	0	632	9,098,116	197	0	0	197
Wayzata Opportunities Fund III, L.P.	35,500,000	25,961,146	3,683,791	0	0	3,683,791	7,227,806	1,025,599	0	0	1,025,599
White Oak Yield Spectrum Parallel Fund LP	100,000,000	58,940,485	81,469,068	0	5,430,559	76,038,509	19,521,309	26,982,859	0	1,798,621	25,184,238

CERS Board Meeting - Investment Committee Report

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the period January 1, 2023 thru March 31, 2023**

Insurance Funds Managers	Total Pension Fund Commitment	County Employees Retirement System					County Employees Hazardous Retirement System				
		Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
Adams Street SPC II A1	75,000,000	34,007,112	27,530,081	0	310,390	27,219,691	17,965,829	14,544,038	0	163,978	14,380,061
Adams Street SPC II B1	75,000,000	34,007,113	24,593,922	2,640,902	310,390	26,924,433	17,965,828	12,992,875	1,395,178	163,978	14,224,076
AMERRA Agri Fund II, LP	16,200,000	7,502,182	4,323,588	0	0	4,323,588	4,141,562	2,386,827	0	0	2,386,827
AMERRA-KRS Agri Holding Company, LP	35,000,000	16,208,417	10,336,722	0	121,456	10,215,266	8,947,820	5,706,364	0	67,050	5,639,315
Arcano KRS Fund I, L.P.	4,000,000	1,611,501	700,583	0	0	700,583	862,625	375,017	0	0	375,017
Arcos Sports Partners Fund II	40,000,000	0	0	0	0	0	0	0	0	0	0
Ares Special Situations Fund IV, L.P.	13,808,000	7,867,793	5,953,907	0	311,336	5,642,571	4,255,629	3,220,423	0	168,399	3,052,023
Barings Euro Real Estate II	69,261,188	31,804,740	6,056,525	0	0	6,165,483	17,453,816	3,323,702	0	0	3,383,496
Barings Real Estate European Value Add I SCSp	48,890,250	22,450,404	8,491,216	0	993,569	7,647,332	12,320,340	4,659,812	0	545,251	4,196,706
Bay Hills Capital I, L.P.	7,500,000	3,021,564	225,792	0	5,237	220,555	1,617,422	120,865	0	2,804	118,061
Bay Hills Capital III, L.P.	48,750,000	27,777,730	23,717,701	0	0	23,717,701	15,024,764	12,828,725	0	0	12,828,725
Bay Hills Emerging Partners II LP	5,000,000	2,014,376	4,037,194	0	26,590	4,010,605	1,078,282	2,161,083	0	14,233	2,146,849
Bay Hills Emerging Partners II-B LP	5,000,000	2,070,000	2,838,269	0	89,010	2,749,259	1,250,000	1,713,931	0	53,750	1,660,181
BDCM Opportunity Fund IV, L.P.	24,420,000	13,914,506	22,269,010	0	132,226	22,136,784	7,526,253	12,045,143	0	71,520	11,973,623
Blackstone Capital Partners V, L.P.	12,414,403	5,001,455	16,510	0	0	16,510	2,677,245	8,838	0	0	8,838
Blackstone Capital Partners VI, L.P.	40,000,000	21,919,994	8,859,205	43,777	86,294	8,816,688	13,120,008	5,302,595	26,202	51,651	5,277,146
Blue Torch Credit Opportunities Fund II LP	60,000,000	27,169,450	26,700,165	0	0	26,700,165	14,281,092	14,034,421	0	0	14,034,421
BSP Co-Invest Vehicle K LP	0	0	7,838,460	0	137,312	7,701,148	0	4,275,021	0	74,889	4,200,132
BSP Private Credit Fund	50,000,000	22,344,255	20,651,450	0	535,340	20,116,110	12,186,342	11,263,102	0	291,969	10,971,133
BTG Pactual Brazil Timberland Fund I	15,500,000	7,016,381	5,143,263	0	0	5,143,263	3,855,131	2,825,952	0	0	2,825,952
Camelot Opportunities Fund, L.P.	2,600,000	1,047,475	289,872	0	0	289,872	560,706	155,167	0	0	155,167
Cerberus KRS Levered Loan Opportunities Fund, L.P.	60,000,000	26,813,106	34,226,029	0	0	34,822,643	14,623,610	18,666,547	0	0	18,991,934
Ceres Farms	50,000,000	0	0	0	0	0	0	0	0	0	0
Columbia Captal Equity Partners IV, L.P.	3,000,000	1,208,626	142,574	0	0	142,574	646,969	76,319	0	0	76,319
Crestview Partners II, L.P.	7,500,000	3,021,564	1,444,976	0	132,914	1,312,063	1,617,422	773,486	0	71,148	702,338
Crestview Partners III, L.P.	21,000,000	11,965,793	10,697,822	374,162	943,129	10,128,856	6,472,206	5,786,370	202,382	510,131	5,478,621
CS Adjacent Investment Partners Parallel LP	60,000,000	26,813,106	13,889,152	0	505,975	13,383,177	14,623,610	7,575,010	0	275,954	7,299,056
CVC European Equity Partners VI, L.P.	13,146,262	7,490,735	8,162,996	21,334	393,979	7,939,112	4,051,682	4,415,303	11,539	213,100	4,294,206
DAG Ventures II, L.P.	3,000,000	1,208,626	86,203	0	0	86,203	646,969	46,144	0	0	46,144
DAG Ventures III, L.P.	3,000,000	1,208,626	16,363	0	0	16,363	646,969	8,759	0	0	8,759
DAG Ventures IV, L.P.	10,000,000	4,028,752	1,742,339	0	796,953	945,386	2,156,563	932,662	0	426,604	506,058
DAG Ventures V, L.P.	7,000,000	3,835,999	21,662	0	0	21,662	2,296,001	12,966	0	0	12,966
DCM VI, L.P.	1,500,000	604,313	213,286	0	31,370	181,916	323,484	114,171	0	16,792	97,378
DivcoWest Fund IV	9,200,000	4,244,869	272,319	0	33,051	239,268	2,306,449	147,965	0	17,958	130,006
Essex Woodlands Fund VIII, L.P.	5,000,000	2,014,376	-154,746	0	0	-154,746	1,078,282	-82,835	0	0	-82,835
Fundamental Partners III LP	30,000,000	13,776,001	12,777,944	0	416,193	12,361,751	7,559,998	7,012,284	0	228,399	6,783,886
Green Equity Investors V, L.P.	10,000,000	4,028,752	69,765	0	0	69,765	2,156,563	37,345	0	0	37,345
Green Equity Investors VI, L.P.	28,000,000	15,343,995	16,161,809	23,285	0	16,185,094	9,184,005	9,673,500	13,937	0	9,687,437
Green Equity Investors VII LP	25,000,000	10,349,999	12,949,264	0	330,970	12,618,295	6,250,000	7,819,605	0	199,861	7,619,744
Greenfield Acquisition Partners VI, L.P.	16,700,000	7,704,620	9,123	0	0	9,123	4,186,204	4,957	0	0	4,957
Greenfield Acquisition Partners VII, L.P.	12,200,000	5,628,527	681,270	0	188,379	492,891	3,058,186	370,159	0	102,353	267,806
H.I.G. BioVentures II, L.P.	11,500,000	6,301,998	4,429,016	0	747,261	3,681,756	3,772,002	2,650,946	0	447,266	2,203,680
H.I.G. Capital Partner V, L.P.	6,900,000	3,931,617	3,563,887	0	655,570	2,908,317	2,126,582	1,927,680	0	354,593	1,573,087

CERS Board Meeting - Investment Committee Report

Kentucky Public Pensions Authority

Capital Calls and Distributions

For the period January 1, 2023 thru March 31, 2023

Insurance Funds Managers	Total Pension Fund Commitment	County Employees Retirement System					County Employees Hazardous Retirement System				
		Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
H.I.G. Ventures II, L.P.	2,000,000	805,750	147,349	0	0	147,349	431,313	78,875	0	0	78,875
H&F Spock I LP	1,794,672	723,029	1,566,866	0	0	1,566,866	387,032	838,733	0	0	838,733
Harvest Partners V, L.P.	4,000,000	1,611,501	-7,839	0	0	-7,839	862,625	-4,196	0	0	-4,196
Harvest Partners VI, L.P.	11,600,000	6,609,681	2,019,090	1,741	664,060	1,356,771	3,575,121	1,092,109	942	359,184	733,866
Harvest Partners VII LP	20,000,000	8,279,999	12,512,404	0	0	12,512,404	5,000,000	7,555,801	0	0	7,555,801
Hellman and Friedman Capital Partners VI, L.P.	7,500,000	3,021,564	46	0	0	46	1,617,422	25	0	0	25
Horsley Bridge International Fund V, L.P.	5,000,000	2,014,376	4,531,926	0	77,577	4,454,349	1,078,282	2,425,909	0	41,527	2,384,382
IFM US Infrastructure Debt Fund	30,000,000	13,890,494	13,093,808	678,444	234,808	13,772,252	7,156,853	6,746,373	349,557	120,981	7,095,930
Institutional Venture Partners XII, L.P.	3,000,000	1,208,626	15,440	0	0	15,440	646,969	8,265	0	0	8,265
Kayne Anderson Energy Fund VII LP	50,000,000	20,699,998	11,829,489	0	0	11,829,489	12,500,001	7,143,412	0	0	7,143,412
KCP IV Co-Invest	8,843,703	5,039,138	1,294,275	173,107	23,371	1,470,117	2,725,633	700,064	93,632	12,641	795,175
Keyhaven Capital Partners Fund III, L.P.	3,042,060	1,225,570	475,580	0	11,077	472,954	656,039	254,575	0	5,929	253,169
Keyhaven Capital Partners IV LP	8,843,703	5,039,138	4,167,661	286,385	0	4,528,352	2,725,633	2,254,257	154,904	0	2,449,352
Levine Leichtman Capital Partners V, L.P.	24,000,000	13,675,190	6,530,094	37,934	55,540	6,512,488	7,396,807	3,532,078	20,518	30,041	3,522,555
Levine Leichtman Capital Partners VI LP	37,500,000	15,525,007	17,805,986	132,126	34,123	17,903,989	9,374,983	10,752,383	79,786	20,606	10,811,564
Lubert Adler VII	15,250,000	7,036,350	3,854,020	0	0	3,854,020	3,823,174	2,094,067	0	0	2,094,067
Lubert-Adler Real Estate Fund VII-B LP	15,750,000	7,232,401	1,978,583	0	0	1,978,583	3,968,999	1,085,808	0	0	1,085,808
Magentar MTP Energy Opportunities Fund II LLC	12,500,000	5,764,587	49,686	0	0	49,686	3,188,762	27,484	0	0	27,484
Maritime Partners LP	75,000,000	0	0	0	0	0	0	0	0	0	0
MatlinPatterson Global Opportunities Partners II	5,000,000	2,014,376	38,842	0	0	38,842	1,078,282	20,792	0	0	20,792
MatlinPatterson Global Opportunities Partners III	5,000,000	2,014,376	4,704	0	0	4,704	1,078,282	2,518	0	0	2,518
Merit Mezzanine Fund IV, L.P.	3,000,000	1,208,626	17,924	0	0	17,924	646,969	9,595	0	0	9,595
Mesa West Core Lending Fund, LP	29,600,000	13,790,640	21,062,675	451,490	451,490	21,062,675	7,619,040	11,636,687	249,439	249,439	11,636,687
Mesa West Real Estate Income Fund IV LP	14,000,000	6,428,800	3,232,249	0	0	3,232,249	3,527,999	1,773,795	0	0	1,773,795
MiddleGround Partners I LP	25,000,000	3,750,000	5,189,371	876,471	1,631	6,064,211	1,999,999	2,767,664	467,451	870	3,234,244
MiddleGround Partners II LP	25,000,000	11,262,207	8,202,815	0	0	8,202,815	5,794,817	4,220,648	0	0	4,220,648
MiddleGround Partners II-X LP	12,500,000	5,631,103	3,849,869	0	0	3,849,869	2,897,408	1,980,898	0	0	1,980,898
Mill Road Capital I, L.P.	3,000,000	1,208,626	127,607	0	0	127,607	646,969	68,307	0	0	68,307
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	127,611	0	0	127,611	1,549,716	68,309	0	0	68,309
New Mountain Partners IV, L.P.	17,200,000	9,800,553	3,323,415	125,858	158,723	3,294,668	5,301,045	1,797,610	68,076	85,852	1,782,061
New State Capital Partners Fund III LP	7,500,000	3,378,662	713,906	20,035	0	733,940	1,738,445	367,331	10,309	0	377,639
Oak Hill Capital Partners II, L.P.	7,500,000	3,021,564	7,650	0	0	7,650	1,617,422	4,095	0	0	4,095
Oak Hill Capital Partners III, L.P.	12,500,000	5,035,940	2,329	0	0	2,329	2,695,704	1,247	0	0	1,247
Oberland Capital Healthcare LP	15,500,000	4,840,652	979,962	0	177,768	802,194	2,631,898	532,813	0	96,654	436,159
Patron Capital V LP	15,210,300	6,984,570	3,507,451	30,409	231,332	3,367,083	3,832,995	1,924,820	16,688	126,950	1,847,789
Riverside Capital Appreciation Fund VI, L.P.	18,712,500	10,748,972	3,062,292	0	0	3,062,292	5,705,349	1,625,406	0	0	1,625,406
Rubenstein Properties Fund II	9,200,000	4,244,871	2,436,275	0	0	2,436,275	2,306,445	1,323,747	0	0	1,323,747
Secondary Opportunities Fund III, L.P.	75,000,000	34,884,827	8,878,332	0	0	8,878,332	18,849,301	4,797,224	0	0	4,797,224
Strategic Value Special Situations Fund IV LP	21,700,000	6,776,910	8,039,332	0	5,808	8,033,524	3,684,660	4,371,050	0	3,158	4,367,891
Strategic Value Special Situations Fund V LP	30,000,000	13,514,648	5,815,292	1,346,397	1,740	7,161,689	6,953,780	2,992,180	692,770	895	3,684,951
Taurus Mining Finance Fund LLC	19,900,000	11,339,013	977,788	0	97,975	879,812	6,133,188	528,878	0	52,994	475,884
Tenaska Power Fund II, L.P.	3,000,000	1,278,755	3,769	0	0	3,769	678,044	1,998	0	0	1,998

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the period January 1, 2023 thru March 31, 2023**

Insurance Funds Managers	Total Pension Fund Commitment	County Employees Retirement System					County Employees Hazardous Retirement System				
		Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
Triton Fund IV, L.P.	14,063,009	8,013,097	5,617,926	0	0	5,718,994	4,334,223	3,038,694	0	0	3,093,360
VantagePoint Venture Partners 2006, L.P.	3,000,000	1,208,626	260,302	0	0	260,302	646,969	139,338	0	0	139,338
VantagePoint Venture Partners IV, L.P.	4,000,000	1,611,501	2,624	0	0	2,624	862,625	1,405	0	0	1,405
Vista Equity Partners III, L.P.	5,000,000	2,014,376	152,754	230	0	152,984	1,078,282	81,768	123	0	81,891
Vista Equity Partners IV, L.P.	23,000,000	12,603,996	8,710,245	40,660	0	8,750,906	7,544,005	5,213,436	24,337	0	5,237,773
Vista Equity Partners VI LP	25,000,000	10,349,999	13,824,782	43,150	80,779	13,787,153	6,250,000	8,348,299	26,057	48,780	8,325,577
Walton Street Real Estate Fund VI, LP	4,000,000	1,712,019	730,322	0	0	730,322	917,457	391,373	0	0	391,373
Walton Street Real Estate Fund VII, LP	16,755,000	7,730,005	1,855,640	0	0	1,855,640	4,199,996	1,008,238	0	0	1,008,238
Warburg, Pincus Private Equity IX, L.P.	10,000,000	4,028,752	1,595	0	0	1,595	2,156,563	854	0	0	854
Warburg, Pincus Private Equity X, L.P.	7,500,000	3,021,564	67,335	0	12,147	55,188	1,617,422	36,044	0	6,502	29,542
Wayzata Opportunities Fund II, L.P.	7,500,000	3,021,564	65	0	0	65	1,617,422	35	0	0	35
Wayzata Opportunities Fund III, L.P.	18,712,500	10,748,972	1,525,240	0	0	1,525,240	5,705,349	809,568	0	0	809,568
White Oak Yield Spectrum Parallel Fund LP	50,000,000	22,344,255	29,070,668	0	1,937,617	27,133,051	12,186,342	15,854,862	0	1,056,757	14,798,105

Kentucky Public Pensions Authority

Commissions Report

Quarter Ending: March 31, 2023

Reports can be found:

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

Kentucky Public Pensions Authority

Internal Asset Holdings Report & Internal Asset Transaction Report

Quarter Ending: March 31, 2023

Reports can be found:

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

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

[Revised: September ~~14, 2022~~13, 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 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.
 - f. 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.
 - 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

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

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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.
- 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

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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.
- 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.

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- 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 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.

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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, 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 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

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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 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).
 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.

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- 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 (4) 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) trustee 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 convene additional meetings as circumstances require. The regular quarterly meetings shall be held 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

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- 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, 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

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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 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.

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

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

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.

h. **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.

1. **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 determined by the Board of Trustees no later than the December Board of Trustees meeting of the previous calendar year.

A. 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.

B. 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.

C. 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.i. 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.

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.

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

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_ day, of September 2022.

_____	Date _____
Chair, Board of Trustees	
_____	Date _____
CERS Chief Executive Officer	



PROPOSED RECURRING MEETING SCHEDULE

BY MONTH	
MONTH	MEETINGS
January	Personnel – 2 nd Tuesday Training – 3 rd Wednesday
February	Actuarial – 1 st Wednesday Healthcare – 3 rd Thursday Finance – 3 ^d Monday Investment – 3 rd Wednesday
March	Board – 2 nd Wednesday
April	Actuarial – 2 nd Wednesday Board (Annual) – 3 rd Wednesday
May	Healthcare – 2 nd Wednesday Finance – 3 rd Thursday Investment – 4 th Wednesday
June	Personnel – 1 st Tuesday Board – 2 nd Wednesday
July	Trustee Training – 3 rd Wednesday Legislative – 4 th Wednesday
August	Finance – 2 nd Tuesday Investment – 3 rd Wednesday
September	Healthcare – 1 st Tuesday Legislative – 2 nd Monday Board – 3 rd Wednesday
October	Trustee Training – 3 rd Wednesday Healthcare – 3 rd Monday Actuarial – October 30 (last Wednesday)
November	Board – 1 st Wednesday Finance – 2 nd Thursday Investment – 4 th Tuesday
December	Board – 2 nd Monday

BY COMMITTEE	
COMMITTEE	SCHEDULE
Actuarial	Feb – 1 st Wednesday April – 2 nd Wednesday October 30 – last Wednesday
Finance	Feb – 3 rd Monday May – 3 rd Thursday August – 2 nd Tuesday November – 2 nd Thursday
Investment	Feb – 3 rd Wednesday May – 4 th Wednesday August – 3 rd Wednesday November – 4 th Tuesday
Legislative	July – 4 th Wednesday August – 2 nd Monday
Personnel	Jan – 2 nd Tuesday June – 1 st Tuesday
Retiree Health Care	Feb – 3 rd Thursday May – 2 nd Wednesday September – 1 st Tuesday October – 3 rd Monday
Board of Trustees	March – 2 nd Wednesday April – 3 rd Wednesday June – 2 nd Wednesday September – 3 rd Wednesday November – 1 st Wednesday December – 2 nd Monday
Trustee Training	Jan – 3 rd Wednesday July – 3 rd Wednesday October – 3 rd Wednesday

January 2024

January 2024							February 2024						
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28	29	30	31				25	26	27	28	29		

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Dec 31	Jan 1, 24	2	3	4	5	6
7	8	9 CERS Personnel	10	11	12	13
14	15	16	17 CERS Trustee Training	18	19	20
21	22	23	24	25	26	27
28	29	30	31	Feb 1	2	3

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11	12	13	14	15 Joint Retiree HealthCare Committee	16	17														
18	19 CERS Finance Committee	20	21 CERS Investment Committee	22	23	24														
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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Mar 31	Apr 1	2	3	4	5	6
7	8	9	10 CERS Actuarial Committee	11	12	13
14	15	16	17 CERS Board Annual Meeting	18	19	20
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May 2024

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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19	20	21	22 CERS Investment Committee	23	24	25
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CERS Board Meeting - Administrative

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13	14	15	16 CERS Trustee Training	17	18	19														
20	21 Joint Retiree Health Care Committee	22	23	24	25	26														
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November 2024

November 2024							December 2024						
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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Oct 27	28	29	30 CERS Actuarial Committee	31	Nov 1	2
3	4	5	6 CERS Board	7	8	9
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17	18	19	20	21	22	23
24	25	26 CERS Investment	27	28	29	30

December 2024

December 2024							January 2025						
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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Dec 1	2	3	4	5	6	7
8	9 CERS Board	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	Jan 1, 25	2	3	4



MEMORANDUM

DATE: June 14, 2023

TO: CERS Board of Trustees

FROM: Ed Owens, III
CEO

SUBJECT: CEO Quarterly Report

.....

A few of the issues I worked on during the second quarter are as follows:

- 1. HB 236 and Proxy Voting.** There was considerable time and effort expended by various members of KPPA to meet with legislators, and others, to come to a consensus on the language contained in HB 236 concerning fiduciary responsibility in investing. We spent a lot of effort convincing the Treasurer, the Attorney General, and the legislature we did not invest for ESG related reasons but only in the best interest of our members. We provided the Treasurer's Office with a list of our investments with financial institutions that had been placed on the Treasurer's Watch List and there were no investments made with those firms that were ESG focused. We continued to maintain our investments were only made in the best interest of our members. We continued to work with the Investment Office on **proxy voting**. To date, 11 of our 12 external managers have completed the necessary amendments to relevant agreements to vote our shares by our Proxy Voting Policy. It took almost a year of focused work to get to this point which placed us well in front of the curve in complying with the proxy voting requirements of HB 236.
- 2. HB 49.** HB 49, the KPPA Housekeeping Bill did not pass this session of the General Assembly. When HB 49 was originally presented, CERS had issue with several provisions contained in the proposed legislation. We worked diligently with KPPA Executive staff, and others, to iron out the differences we had with the bill. In the end, all parties agreed that HB 49 served the interest of their respective groups and we had hoped it would receive passage in the legislature. It did not. Subsequently, Rep. Johnson, Co-Chair of the PPOB, has indicated that he will be the sponsor of the KPPA Housekeeping Bill in the next legislative session. We are beginning to put together what should be added to last year's HB 49 as we all agree those provisions should be included in the new Housekeeping Bill.

- 3. Henry Clay Center College Student Congress.** I was asked to develop and present to the Student Congress on the topic of “Public Policy Accountability.” The Congress has a college student representative from each of the 50 states who are interested in public policy. The 2-week program consists of one week in Lexington, which is hosted by the Martin School of Public Policy and the Patterson School of Diplomacy at the University of Kentucky, and the following week in Washington DC. I worked closely with the KPPA Communications group to develop the presentation. I was able to highlight my role with CERS and the policy decisions we make daily while also speaking to the broader policy issues facing today’s society.
- 4. Testimony Before PPOB.** I had the great honor of testifying before the PPOB in May concerning the assumed rate of return change the Board of Trustees made to all of the CERS plans. As you know, the assumed rate of return was raised from 6.25% to 6.50%. GRS and Wilshire both participated in the presentation and provided great insight and solid counsel. The questions were probing, yet fair, as the PPOB tried to understand the Board’s rationale in making the change. In the end, the PPOB members indicated they would continue to watch us closely and I indicated their oversight has consistently made us better and we welcome it.
- 5. Asset/Liability Study.** The Investment Office and Wilshire are about to kick off a full-blown asset/liability study. Dr. Hackbart and I will be integrally involved. It is recommended that a full asset/liability study be conducted every 3-5 years. It has been 3 years since the last full-blown asset/liability study and this will mark the first one since the CERS Board was formed. Last year prior to setting our asset allocation we performed an Efficient Frontier analysis which looks only at the asset side of the house. As we raised our assumed rate of return it will also be important for us to determine whether we can also reduce the risk in our portfolio. The asset/liability study will be a key factor in determining whether that can be done. Additionally, we will determine whether recommendations should be made to adjust the asset allocation to better take advantage of opportunities in the marketplace.
- 6. Economic Multiplier Project.** We are just starting a project with the Communication and Procurement groups. The project is designed to determine whether we can better quantify the multiplier effect of the over \$2 billion CERS and KRS annually disbursed by the retirement systems to members throughout Kentucky. There has been interest from a couple of Kentucky based Universities to develop a customized methodology to determining the economic impact of our dollars.
- 7. Budget Work Group.** I continue as a member of the budget work group. The group is being led by the KPPA CFO to develop the budget for FY2024 as well as establish the percentages CERS and KRS will pay from their respective Trusts.

2022-2023			
CERS Hours Summary			
Name	Current Hours	Hours Needed	Due Date
Merl Hackbart	14.5	0	3/31/2023
George "Lyle" Cheatham	29.75	0	3/31/2023
William O'Mara	14.5	0	3/31/2023
Jerry Wayne Powell	12.5	0	3/31/2023
Betty Pendergrass	25	0	3/31/2023
Patricia P. Carver	17	0	3/31/2023
J. Michael Foster	13	0	7/1/2023
J.T. Fulkerson	12	0	7/1/2023
Martin Milkman	23	0	7/1/2023

2023-2024			
CERS Hours Summary			
Name	Current Hours	Hours Needed	Due Date
Merl Hackbart	2	10	3/31/2024
George "Lyle" Cheatham	2	10	3/31/2024
William O'Mara	2	10	3/31/2024
Jerry Wayne Powell	2	10	3/31/2024
Betty Pendergrass	17	0	3/31/2024
Patricia P. Carver	2	10	3/31/2024
J. Michael Foster	0	12	7/1/2024
J.T. Fulkerson	0	12	7/1/2024
Martin Milkman	0	12	7/1/2024



KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director

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To: County Employees Retirement System

From: David Eager, Executive Director of KPPA

Date: June 5, 2023

Subject: KPPA Update

I. STAFFING: We continue to have in the area of 250 staff members. While we have a number of open positions and are actively recruiting for many of them, I don't foresee any great jump in that number of staff before June 30th. Benefits administration, investments, legal and other areas which are short staffed, are performing their duties as required, although not without some pressure.

II. ANNUAL BUDGET: We are in the final stages of putting the FY 2024 Budget together for the KPPA Board approval. This year's process was very thorough thanks to Board Members, Bill O'Mara and Lynn Hampton, CEOs John Chilton and Ed Owens, and our CFO, Mike Lamb. Mike spent many hours assuring himself and the team that all the various account budgets were supported by history, upcoming plan year needs and reasonableness.

III. STRATEGIC PLANNING: We hosted the representatives from Provaliant, Ray Smith and Kris Valenta, for a launch meeting on May 4th. Various KPPA staff were involved in providing information that will be used to develop our strategic plan. The Provaliant staff will be onsite again on June 7th and 8th conducting more research about our agency. I will provide more updates as appropriate.

IV. GOVERNMENT OFFICIALS NEWSLETTER: This newsletter was recently sent to Kentucky government officials. It is an effective and efficient means of getting relevant information and using links to streamline the actual content. Key subjects in this issue included: Background on COLAs, links to our ACFR and SAFR, a link to our new Summary Plan Description, Plan funded statuses, Legislative news related to KPPA, CERS, and KRS, and Investment news. I encourage you to read it. Contact Ashley Gabbard if you need a copy.

V. MEMBER NEWSLETTER: The member newsletter went out last week to active members and retirees. In it we encouraged recipients to contact family members or friends who might be looking for a job, to go to the State website link to open positions in State government. We also covered several topics, including the fact that we are doing a Member Survey for which they can click to the link and participate. Other topics included encouraging members to use self service and to make sure their beneficiary information is up to date. Finally, members were advised of

the new board leadership that resulted from the CERS, KRS, and KPPA annual meetings and the election of Keith Peercy to the SPRS Board.

VI. SUMMARY PLAN DESCRIPTION: The Summary Plan Description has been updated thanks to the hard work by many staff members. Most notably, a thank you goes to Erin Surratt, Amy Fields, Carrie Bass, Shauna Miller, Liza Welch, Wes Crosthwaite, Connie Pettyjohn, Odette Gwandi, and Stephanie Aldridge.

VII. FIXED INCOME PORTFOLIO MANAGER: Brian Caldwell has been promoted to Fixed Income Portfolio Manager effective July 16. Brian had been the investment department's Senior Investment Analyst.

VIII. CEM INVESTMENT DEPARTMENT BENCHMARKING: Bill O'Mara, Steve Willer and I had a demonstration of CEM's Investment Benchmarking Study. I am putting it in the FY 2024 proposed budget for KPPA Board approval and plan to do the study every other year. The study will allow us to compare our investment management fees, carried interest, and expenses with a broad universe of other public funds and to a hand-picked peer group. It will also break that information into asset subcategories and compare with other funds and with passive alternatives to see if we are receiving competitive fees and spending prudently.

IX. LOUISVILLE OFFICE: We have officially vacated the Louisville office, removed all furnishings, and discontinued the rent. Securing new space is still in limbo. Investment staff, most of whom live in or near Louisville, are generally working remotely.