



**County Employees Retirement System
Investment Committee – Regular Meeting
February 22, 2023 at 2:00 PM ET
Live Video Conference/Facebook Live**

AGENDA

- | | |
|---|---|
| 1. Call to Order | Merl Hackbart |
| 2. Opening Statement | Legal Services |
| 3. Roll Call | Sherry Rankin |
| 4. Public Comment | Sherry Rankin |
| 5. Approval of Minutes* -- November 22, 2022; December 15, 2022
February 1, 2023 | Merl Hackbart |
| 6. Adams Street Partners Specialty Credit Presentation** | Steve Willer
Bill Sacher
Adams Street Partners |
| 7. Adams Street Partners Re-Up ASP
Private Credit Fund III* | Steve Willer |
| 8. Wilshire Market Overview | David Lindberg
Craig Morton
Chris Tessman |
| 9. Investment Office Quarterly Update | Steve Willer |
| 10. Staffing Update | Dave Eager
Steve Willer |
| 11. ADJOURN* | Merl Hackbart |

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

*****Trustees will receive education credit***

**MINUTES OF MEETING
COUNTY EMPLOYEES RETIREMENT SYSTEM
INVESTMENT COMMITTEE MEETING
NOVEMBER 22, 2022 AT 2:00 P.M., E.T.
VIA LIVE VIDEO TELECONFERENCE**

At the meeting of the County Employees Retirement System Investment Committee held on November 22, 2022, the following Committee members were present: Dr. Merl Hackbart (Chair), George Cheatham, Dr. Martin Milkman, William O'Mara, and Jerry Powell. Staff members present were Erin Surratt, Victoria Hale, Steve Willer, Joseph Gilbert, Jared Crawford, Anthony Chiu, Lucas Fields, Ashley Gabbard, Katie Park, Phillip Cook, and Sherry Rankin. Also in attendance were KRS CEO John Chilton, CERS CEO Ed Owens, III, CERS Trustee Betty Pendergrass, and David Lindberg and Craig Morton with Wilshire Advisors, LLC.

Dr. Hackbart called the meeting to order.

Ms. Hale read the Legal Opening Statement.

Ms. Rankin took Roll Call.

There being no *Public Comment* submitted, Dr. Hackbart introduced agenda item *Approval of Minutes – August 31, 2022*. A motion was made by Dr. Milkman and seconded by Mr. Powell to approve the August 31, 2022 minutes as presented. The motion passed unanimously.

Dr. Hackbart introduced agenda item *Letter from State AG/State Treasurer*. Dr. Hackbart advised the Committee that a letter was received by Mr. Eager from the State Attorney General (AG) and

State Treasurer regarding the ESG Statement and ESG Policy. The letter dated October 31, 2022, requested follow up to indicate the degree to which the systems are following statutory requirements for issues regarding ESG, said Dr. Hackbart. Further, Dr. Hackbart stated that CERS CEO Ed Owens, III, drafted a response to the State Attorney General (AG) and State Treasurer on behalf of CERS. Mr. Owens presented the drafted response to the CERS Investment Committee. He stated that the Opinion of the Attorney General 22-05, which was attached to the letter, also discussed proxy voting; therefore, the drafted response addressed proxy voting. Mr. Owens advised that he and KRS CEO John Chilton desired to draft a joint response letter from both CERS and KRS. Mr. Owens stated that he and Mr. Chilton will work with the KPPA Division of Communications to edit the letter to be signed by CERS and KERS and to incorporate any edits requested by Trustees. If approved by the CERS Investment Committee, the letter would be presented to the CERS Board of Trustees on December 5, 2022 for final approval, said Mr. Owens. Mr. Powell made a motion to approve the response to the October 31, 2022 letter received from the Kentucky Attorney General and the State Treasurer regarding CERS' ESG practices with modifications. Dr. Milkman seconded the motion and the motion pass unanimously.

Dr. Hackbart introduced agenda item *CERS Investment Policy*. Mr. Steve Willer presented a red-lined version of the CERS Investment Policy including changes in sections II. Responsibilities – D. Investment Managers, III. Asset Allocation Guidelines, and V. Additional Items – Leverage. There was discussion regarding the process for the selection and recommendation of investment managers; specifically, how many managers would be recommended to the CERS Investment Committee and CERS Board of Trustees by the Office of Investments. Mr. Cheatham requested that the Office of Investments provide two to three investment managers to be considered by the

Committee to ensure transparency. Mr. Willer advised that the recommendation provided would be for one manager best suited to manage the funds; however, the Committee would be provided detailed documentation regarding the managers reviewed and why the recommended manager was selected. Mr. Powell added that in the past, several managers were recommended to the Investment Committee for consideration. Dr. Milkman asked how many managers would be interviewed by the Committee. Mr. Willer stated that the Committee would make that decision. Mr. O'Mara agreed that the Office of Investments should provide three options to the CERS Investment Committee for consideration. Mr. Willer reiterated that he and his team would recommend their top choice and provide detailed information on each manager and documentation regarding the due diligence process; however, the Committee may decide to select the recommended manager or select another manager. Dr. Hackbart asked Mr. Willer to explain under what circumstances a new manager would be required. Mr. Willer stated that there are a variety of reasons that selection of a new manager would be beneficial. Mr. Cheatham stated that he would like the Committee to review more than one/all managers who pass the due diligence process of the Office of Investments. Mr. Willer agreed and stated that he would make further revisions to this section of the CERS Investment Policy. Mr. Willer moved on to III. Asset Allocation Guidelines. There was discussion regarding the period in which Investment Staff must adjust allocations and bring the assets into compliance. Mr. Cheatham suggested that the period be changed to 12 months instead of 18 months. Mr. Willer reminded the Committee that changes to allocations can take a significant amount of time as changes are asset and market dependent and capital is called judiciously. Dr. Hackbart suggested that further discussion of the Investment Policy Statement amendments be tabled to a Special Called Meeting of the CERS Investment Committee to discuss D. Investment

Managers and III. Asset Allocation Guidelines. Mr. Cheatham asked Dr. Hackbart to work with Mr. Willer to make further revisions of the language in those sections.

Dr. Hackbart introduced agenda item *CERS Procurement Policy*. Mr. Willer presented a red-lined version of the CERS Procurement Policy and briefly reviewed the amendments in 2. External Manager Selection, 3. Co-Investment Opportunities, 4. External Investment Consultant Selection, 5. Procurement of Investment Analytical, Professional, Research and Technical Services and 6. Contract Renewal. Mr. O'Mara asked if the 5. Procurement of Investment Analytical, Professional, Research and Technical Services section was in line with standard procurement processed. Ms. Hale advised that investment contracts are outside of 45A, therefore, does not have to follow the procurement policy of the Commonwealth. The policy will be reviewed by the Finance Cabinet and CERS Finance Committees as well, said Ms. Hale. Dr. Hackbart stated that a Special Called Meeting of the CERS Investment Committee would be scheduled to further discuss the CERS Investment Policy and Procurement Policy. Dr. Milkman stated that the presented changes to the Procurement Policy are reasonable and asked Mr. O'Mara to comment. Mr. O'Mara was pleased that the Finance Cabinet would also review the policy. Mr. Cheatham expressed concern that the CERS Board of Trustees would not have oversight over/approve the procurement of goods and services. Ms. Adkins reminded Mr. Cheatham that spending is reported to the CERS Board of Trustees in the Trust Budget. Mr. O'Mara asked Ms. Adkins to confirm that CERS and KRS Investment Committees would review budget to actuals and variances quarterly. Ms. Adkins confirmed. Mr. O'Mara stated that reporting the percentage of budget may be discussed at that time. Dr. Milkman moved to approve the amendments to the CERS Procurement Policy as presented to be taken to the CERS Board of Trustees for ratification. There was no second to the

motion and the motion failed. Dr. Hackbart advised that the item would be placed on the agenda for the upcoming Special Called Meeting of the CERS Investment Committee.

Dr. Hackbart introduced agenda item *Wilshire Market Overview*. Mr. David Lindberg with Wilshire Advisors, LLC. presented a Capital Market Update (Meeting Materials, pp. 62-73).

***Dr. Hackbart exited and asked Mr. Ed Owens to conduct the meeting in his place. ***

Mr. Craig Morton with Wilshire Advisors, LLC. gave an Economic/Market Activity presentation (Meeting Materials, pp. 74-85).

Mr. Owens introduced agenda item *Investment Office Quarterly Update*. Mr. Willer presented the Investment Office Quarterly Update. Despite volatility, the plans held up well relative to the peer universe, said Mr. Willer. The CERS nonhazardous pension plan returned -2.96% and the CERS hazardous plan returned -2.97%, outperforming their IPS benchmarks by 177 and 178 basis points respectively. Mr. Willer reported that the CERS insurance plans performed similarly with returns of -3.04% for CERS hazardous and -3.03% for CERS nonhazardous. The largest drivers of outperformance across plans included strong relative performance in public equity allocations, private equity allocations, and the core fixed income allocation. Mr. Willer stated that several potential real assets mandates would be brought to the Committee soon for funding consideration. Mr. Willer added that a Special Called Meeting of the CERS Investment Committee would likely be scheduled to discuss the management of an internal portfolio once the new Investment Policy Statement (IPS) language is finalized. Next, Mr. Willer reviewed the Plan Sponsor Peer Group

Analysis – Multi Statistics as provided by Wilshire Advisors, LLC. Mr. Willer provided a brief update on staffing within the KPPA Office of Investments. He reported that the new Senior Investment Analyst position is with the Personnel Cabinet and Non-Merit Portal awaiting the necessary signatures. Additionally, he advised that the job description for the Private Equity Portfolio Manager position would be posted soon in various publications. Once filled, Mr. Willer stated that he will begin the recruitment for a Junior Investment Analyst position to be hired in the first quarter of 2023. The Office of Investments is also looking to downsize into a new office space in Louisville, said Mr. Willer. Mr. Powell asked how the search for new office space would impact the search for an employee disaster relief location. The Louisville office location includes disaster relief and training spaces, but these may not be needed anymore, said Mr. Willer. Ms. Adkins added that the Louisville office disaster relief space was used once prior to the covid-19 pandemic and that work from home options can now be utilized for disaster relief. One office space and a server room would suffice for an offsite disaster relief location; therefore, there is no need for the 4,300 square feet Louisville office.

Mr. Owens introduced agenda item *Trust Budget*. Mr. Steve Willer stated that the Trust Budget would be reported to the CERS and KRS Investment Committees on a quarterly basis to increase transparency. He advised that the presented Trust Budget would also be presented to the Public Pension Oversight Board (PPOB). Mr. Willer briefly reviewed the Trust Budget with the CERS Investment Committee. Mr. Powell expressed that the listing and description for each service vendor clarified the Trust Budget line items. Mr. Cheatham suggested that yearly subtotals be added to the Trust Budget report. Mr. Cheatham expressed concern that the proposed budgeted amount for BNYM Custodial Fees is substantially higher than past year actuals. Mr. Willer stated

that this budget is a work in progress and will become increasingly accurate overtime. Ms. Adkins advised that there was discussion regarding moving unqualified money directly into BNY Mellon out of JP Morgan at the time the 2023 budget was being created. This would require additional accounting work by BNY Mellon, so a cushion was included in the budget to account for this work, should it be needed during the fiscal year. Mr. Cheatham asked where the fees for JP Morgan are listed within the presented Trust Budget. Ms. Adkins advised that the JP Morgan fees are included in the Miscellaneous line item of the Administrative Budget. However, Staff will present to the KPPA Board of Trustees a request to add that item to the Trust Budget. Mr. Lindberg with Wilshire Advisors, LLC. reported that their fees had been revised and would provide Mr. Willer with the updated amount soon.

Dr. Owens introduced agenda item *Proxy Voting*. Mr. Joe Gilbert presented the Proxy Voting Policy Update to the Committee. Mr. Willer stated that Staff is seeking clarification regarding the conflicting language between on what has been adopted as the CERS Proxy Policy and the proxy policy which has been drafted and signed. Changes to the Investment Policy Statement (IPS) language will be discussed at a future Special Called CERS Investment Committee meeting and Special Called CERS Board of Trustees meeting, said Staff.

A motion was made by Mr. Powell and seconded by Mr. O'Mara to adjourn the meeting. The motion passed unanimously.

CERTIFICATION

I do certify that I was present at this meeting and I have recorded above the action of the Committee on the various items considered by it at this meeting. Further, I certify that all requirements of KRS 61.805-61.850 were met in connection with this meeting.

Recording Secretary

I, as Chair of the County Employees Retirement System Investment Committee of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of the meeting held on November 22, 2022 were approved by the County Employees Retirement System Investment Committee on February 22, 2023.

Committee Chair

I have reviewed the Minutes of the County Employees Retirement System Investment Committee Meeting on November 22, 2022 for form, content, and legality.

Office of Legal Services

**MINUTES OF MEETING
COUNTY EMPLOYEES RETIREMENT SYSTEM
SPECIAL CALLED INVESTMENT COMMITTEE MEETING
DECEMBER 15, 2022 AT 2:00 P.M., E.T.
VIA LIVE VIDEO TELECONFERENCE**

At the special called meeting of the County Employees Retirement System Investment Committee held on December 15, 2022, the following Committee members were present: Dr. Merl Hackbart (Chair), George Cheatham, Dr. Martin Milkman, William O'Mara, and Jerry Powell. Staff members present were David Eager, Rebecca Adkins, Erin Surratt, Victoria Hale, Steve Willer, Joseph Gilbert, Jared Crawford, Kristen Coffey, Ashley Gabbard, Katie Park, Shaun Case, and Sherry Rankin. Also in attendance were KRS CEO John Chilton, CERS CEO Ed Owens, III, and Eric Branco with Johnson Bowman Branco, LLP.

Dr. Hackbart called the meeting to order.

Ms. Hale read the Opening Statement.

Ms. Rankin took Roll Call.

Dr. Hackbart advised that the Special Called Meeting was a result of the discussions held at the November 22, 2022 CERS Investment Committee meeting. At the meeting, Mr. Willer presented suggested amendments to the CERS Investment Policy Statement and Procurement Policy, said Dr. Hackbart.

Dr. Hackbart introduced agenda items *Investment Policy Statement* and *Procurement Policy*. Dr. Hackbart reported that all Committee Members had reviewed the further revised copies of the

Investment Policy Statement and Procurement Policy. Mr. Willer and Dr. Hackbart opened the floor for any comments or questions regarding the revised Investment Policy Statement and Procurement Policy. Mr. O'Mara was pleased with the discussion and amended language within the Procurement Policy which increases transparency in purchasing procedures. He thanked all who worked on the revisions.

Dr. Milkman made a motion to approve the amendments to the CERS Investment Policy Statement as presented. Mr. Powell seconded the motion and the motion passed unanimously.

Mr. Eager commented that there is no correlation between a good presentation and good manager; therefore, Mr. Eager encouraged the Committee to rely heavily on KPPA Staff and consultants. Mr. Eager added that he is not in favor of in-person presentations. Dr. Hackbart advised all that the Investment Policy Statement provides an opportunity for the Committee to invite managers to make presentations and is confident that the Committee would rely on the recommendations of KPPA Staff to select a manager. He added that the option to have presentations in-person is advantageous. Mr. Powell commented that many years ago there were in-person presentations and Staff provided a recommendation. Mr. Willer added that there can be benefit to in-person presentations. Ms. Hale advised that these in-person presentations would require a quorum and are public meetings. Therefore, managers may not provide or share certain information knowing that it is a public meeting.

Mr. O'Mara made a motion to approve the amendments to the CERS Investment Procurement Policy as presented. Mr. Cheatham seconded the motion and the motion passed unanimously.

Ms. Rankin advised that no *Public Comment* was submitted.

CERS CEO Mr. Ed Owens, III, thanked Mr. Willer and Ms. Hale for their collaborative work on these items.

A motion was made by Mr. Powell and seconded by Mr. O'Mara to adjourn the meeting. The motion passed unanimously.

CERTIFICATION

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Recording Secretary

I, as Chair of the County Employees Retirement System Investment Committee of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of the meeting held on December 15, 2022 were approved by the County Employees Retirement System Investment Committee on February 22, 2023.

Committee Chair

I have reviewed the Minutes of the County Employees Retirement System Investment Committee Meeting on December 15, 2022 for form, content, and legality.

Office of Legal Services

**MINUTES OF MEETING
COUNTY EMPLOYEES RETIREMENT SYSTEM
SPECIAL CALLED INVESTMENT COMMITTEE MEETING
FEBRUARY 1, 2023 AT 2:00 P.M., E.T.
VIA LIVE VIDEO TELECONFERENCE**

At the special called meeting of the County Employees Retirement System Investment Committee held on February 1, 2023, the following Committee members were present: Dr. Merl Hackbart (Chair), George Cheatham, Dr. Martin Milkman, William O'Mara, and Jerry Powell. Staff members present were Rebecca Adkins, Erin Surratt, Victoria Hale, Michael Lamb, Steve Willer, Anthony Chiu, Joseph Gilbert, Jared Crawford, Brian Caldwell, Kristen Coffey, Ashley Gabbard, Phillip Cook, Katie Park, and Sherry Rankin. Also in attendance were CERS CEO Ed Owens, III, CERS Trustee Betty Pendergrass, and David Lindberg, Chris Tessman, Craig Morton, Marc Friedberg, and Matt Acker with Wilshire Advisors, LLC.

Dr. Hackbart called the meeting to order.

Ms. Hale read the Opening Statement.

Ms. Rankin took Roll Call.

There being no ***Public Comment*** submitted, Dr. Hackbart introduced agenda items ***Approval of Real Return Investment Managers*** (Video 00:06:25 to 01:18:32). Dr. Hackbart stated that the focus of the meeting was to consider the approval of three Real Return Investment Managers. Mr. Steve Willer stated that the presented recommendations (\$175 million) are the culmination of a competitive search process to identify strategies that provide both favorable and standalone risk-adjusted returns as well as positively correlated to inflation. He advised that the search process across assets included a wide spectrum of potential opportunities; asset classes, different managers

and structures for the asset classes researched. Additionally, the presented mandates were the most compelling opportunities from an asset, timing, and mandate perspective.

The first recommendation, Ceres Farms, LLC is a South Bend, Indiana-based firm founded in 2007 targeting investment in US row crop farmland, primarily in the Midwest. Mr. Willer briefly described the top candidate characteristics of Ceres Farms, LLC. Dr. Hackbart led an extensive discussion and among CERS Trustees and KPPA Office of Investments Staff regarding Ceres Farms, LLC. Dr. Milkman made a motion to approve, subject to successful contract negotiations, Ceres Farms, LLC, as Real Return Investment Managers for CERS as presented. Mr. Powell seconded the motion and the motion passed unanimously.

The second recommendation, Maritime Partners American Rivers Fund is a New Orleans-based firm founded in 2015 targeting investment that provides leasing solutions to the United States inland marine transportation industry governed by the Merchant Marine Act of 1920. There was brief discussion amongst the CERS Investment Committee regarding Maritime Partners American Rivers Fund. Dr. Milkman made a motion to approve, subject to successful contract negotiations, Maritime Partners American Rivers Fund as Real Return Investment Managers for CERS as presented. Mr. Cheatham seconded the motion and the motion passed unanimously.

The third recommendation, Arctos Sports Partners Fund II is a Dallas-based investment firm founded in 2019 targeting investments in the professional sports industry. Mr. Anthony Chui, Deputy Chief Investment Officer, described Arctos Sports Partners Fund II and answered Trustee questions regarding the firm. Mr. O'Mara made a motion to approve, subject to successful contract

negotiations, Arctos Sports Partners Fund II as Real Return Investment Managers for CERS as presented. Mr. Powell seconded the motion. Dr. Milkman abstained, however, the motion passed.

Dr. Hackbart requested a motion to *adjourn*. A motion was made by Mr. Cheatham and seconded by Dr. Milkman to adjourn the meeting. The motion passed unanimously.

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Recording Secretary

I, as Chair of the County Employees Retirement System Investment Committee of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of the meeting held on February 1, 2023 were approved by the County Employees Retirement System Investment Committee on February 22, 2023.

Committee Chair

I have reviewed the Minutes of the County Employees Retirement System Investment Committee Meeting on February 1, 2023 for form, content, and legality.

Office of Legal Services



FEBRUARY 2023

KENTUCKY PUBLIC PENSIONS AUTHORITY
COUNTY EMPLOYEES RETIREMENT SYSTEM

Senior Private Credit Fund III

Presented by: Bill Sacher, Gary Fencik

LEADING WITH FORESIGHT™





Confidentiality Statement and Other Important Considerations

As of February 2023

Adams Street Partners has provided this presentation (the "Presentation") to the recipient on a confidential and limited basis.

Potential investors should refer to the confidential private placement memorandum, limited partnership agreement, subscription agreement, or similar documents (collectively "Final Documentation") before making any final investment decision; the information contained herein should not be used or relied upon in connection with the purchase or sale of any security. Potential investors should take into account all the characteristics or objectives of any Adams Street-managed investment vehicle. The Final Documentation contains important information regarding risk factors, performance, costs and other material aspects of any proposed investment.

This Presentation is not an offer or sale of any security or investment product or investment advice. Offerings are made only pursuant to the Final Documentation.

Any information included herein is preliminary, subject to adjustment as represented in, and qualified in its entirety by, and is replaced by the information in the Final Documentation. Subscriptions to an Adams Street-managed investment vehicle will only be made and accepted on the basis of the Final Documentation.

Statements in the Presentation are made as of the date of the Presentation unless stated otherwise, and there is no implication that the information contained herein is correct as of any time subsequent to such date. All information with respect to primary and secondary investments of Adams Street Partners' funds (the "Funds") or Adams Street Partners' managed accounts (collectively, the "Investments"), the Investments' underlying portfolio companies, Fund portfolio companies, and industry data has been obtained from sources believed to be reliable and current, but accuracy cannot be guaranteed. The source of the information in this Presentation represents a mixture of Adams Street proprietary information and subjective analysis based on deal flow, market observations, historical returns and other factors as well as objective information, the source for which has generally been indicated or is otherwise available.

The Presentation contains highly confidential information. In accepting the Presentation, each recipient agrees that it will (i) not copy, reproduce, or distribute the Presentation, in whole or in part, to any person or party (including any employee of the recipient other than an employee or other representative directly involved in evaluating the Funds) without the prior written consent of Adams Street Partners, (ii) keep permanently confidential all information not already public contained herein, and (iii) use the Presentation solely for the purpose set forth in the first paragraph.

The Presentation is not intended to be relied upon as investment advice as the investment situation of potential investors depends on individual circumstances, which necessarily differ and are subject to change. The contents herein are not to be construed as legal, business, or tax advice, and each investor should consult its own attorney, business advisor, and tax advisor as to legal, business, and tax advice.

The internal rate of return (IRR) data and multiples provided in the Presentation are calculated as indicated in the applicable notes to the Presentation, which notes are an important component of the Presentation and the performance information contained herein. IRR performance data may include unrealized portfolio investments; there can be no assurance that such unrealized investments will ultimately achieve a liquidation event at the value assigned by Adams Street Partners or the General Partner of the relevant Investment, as applicable. Any fund-level net IRRs and net multiples presented herein for the 2015 Global Program Funds and all subsequently formed commingled Funds reflect the use of the Fund's capital call credit line (or, in the case of an Adams Street Global Fund, capital call credit lines of the underlying Funds) and are calculated using limited partner capital call dates, rather than the earlier dates on which the investment was made using the line of credit. The use of such dates generally results in higher net IRR and net multiple calculations, and the related differences in net IRR and net multiple figures could be material. The use of leverage has the potential to increase returns for positive investments, but can also result in substantially increased losses or returns on negative investments.

Any target returns are only targets, are aspirational in nature and based on Adams Street's historical experience as an investor; returns have not been modeled for a particular vehicle using assumptions related to returns, expenses or other factors. There is no guarantee that targeted returns will be realized or achieved or that an investment strategy will be successful. Investors should keep in mind that the securities markets are volatile and unpredictable. There are no guarantees that the historical performance of an investment, portfolio, or asset class will have a direct correlation with its future performance.

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Confidentiality Statement and Other Important Considerations

As of February 2023

Any gross performance figures displayed herein should be taken in context with applicable net figures which include the effect of management fees, carried interest and expenses which reduce returns to investors. A full description of the costs of participation in an Investment, including such management fees, carried interest and expenses, is available in the relevant Final Documentation and relevant net figures are also included herein, including a detailed description of Adams Street's calculation methodology with respect to performance that represents a composite or extract which can be found on the pages entitled "Methodology and Assumptions Associated with Calculation of Composites and Extracts".

Past performance is not a guarantee of future results and there can be no guarantee against a loss, including a complete loss, of capital. Projections or forward-looking statements contained in the Presentation are only estimates of future results or events that are based upon assumptions made at the time such projections or statements were developed or made. There can be no assurance that the results set forth in the projections or the events predicted will be attained, and actual results may be significantly different from the projections. Also, general economic factors, which are not predictable, can have a material impact on the reliability of projections or forward-looking statements. Therefore, the returns an investor ultimately realizes will depend on a variety of factors, including but not limited to how the market performs and the length of investment. **FOR ADDITIONAL IMPORTANT INFORMATION RELATED TO POTENTIAL RISKS ASSOCIATED WITH AN INVESTMENT, PLEASE SEE THE KEY RISK FACTORS PAGES AT THE END OF THIS PRESENTATION.**

References to the Investments and their underlying portfolio companies and to the Funds should not be considered a recommendation or solicitation for any such Investment, portfolio company, or Fund. Any case studies included in this presentation are for illustrative purposes only and have been selected to provide, among other things, examples of investment strategy and/or deal sourcing. These investments do not represent all the investments that may be selected by Adams Street Partners with respect to a particular asset class or a particular Fund or account.



Why Adams Street Partners

Adams Street Partners has been recognized as one of the most respected and experienced private markets investment managers in the industry.

<p>\$52bn Assets Under Management¹</p>	<p>100% Independent and Employee-owned</p>	<p>460+ Adams Street General Partners Worldwide²</p>
<p>40+ Years of Proprietary Data</p>	<p>29,000+ Companies Tracked</p>	<p>2,000+ Funds Tracked</p>

INTEGRATED PLATFORM

- 280+ employees
- 12 offices worldwide; 30 languages spoken
- 90+ investment professionals
- Shared insights and data across investment teams

EXTENSIVE RELATIONSHIPS

- 560+ institutional investors
- 510+ advisory board seats

ALIGNMENT OF INTERESTS

- 100% independent and employee-owned
- \$600mm+ invested alongside clients

RESPONSIBILITY

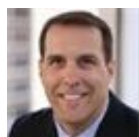
- ESG principles help identify risks and opportunities for value creation
- Committed to diversity, equity, inclusion, volunteerism and charitable giving

As of September 30, 2022.

1. Firmwide AUM as of September 30, 2022; does not include the more recent private credit closings or private credit leverage which may be discussed herein or is available upon request.
2. Represents the number of general partners in which Adams Street is invested.



Strategically Integrated Platform



Jeff Diehl
 Managing Partner &
 Head of Investments
 29 Years of Experience*



Bon French
 Chairman
 46 Years of Experience*

PRIMARY INVESTMENTS - \$31.3BN AUM

Provider of LP capital commitments to sponsors since 1979



Brijesh Jeevarathnam

- 1,280+ funds
- Partner & Global Head of Fund Investments
- 26 Years of Experience*
- 360+ GP relationships
- 510+ advisory boards
- 28 Professionals

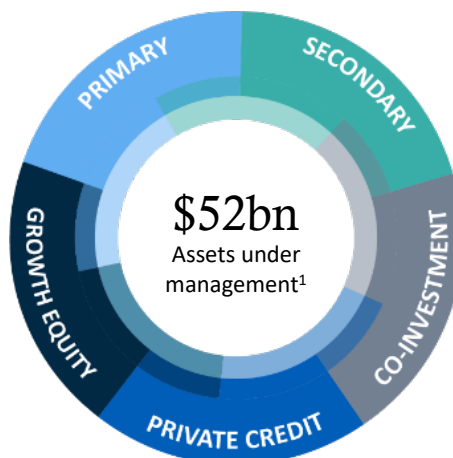
GROWTH EQUITY - \$2.7BN AUM

Provider of long-term capital to growth stage companies since 1972



Robin Murray

- 300+ companies
- Partner & Head of Growth Equity Investments
- 33 Years of Experience*
- 12 Professionals



SECONDARY INVESTMENTS - \$7.6BN AUM

Purchaser of secondary LP interests since 1986



Jeff Akers

- 580+ funds
- Partner & Head of Secondary Investments
- 25 Years of Experience*
- 220+ GP relationships
- 15 Professionals

CO-INVESTMENTS - \$4.3BN AUM

Provider of direct equity co-investments to sponsor-backed transactions since 1989



David Brett

- 210+ companies
- Partner & Head of Co-Investments
- 38 Years of Experience*
- 120+ GP relationships
- 10 Professionals

PRIVATE CREDIT - \$7.7BN AUM²

Provider of debt financing solutions to private equity-backed transactions



Bill Sacher

- 250+ GP relationships
- Partner & Head of Private Credit
- 38 Years of Experience*
- 18 Professionals

*Investment and Operational

AUM figures as of September 30, 2022.

1. Firmwide AUM as of September 30, 2022; does not include the more recent private credit closings or private credit leverage which may be discussed herein or is available upon request.
 2. AUM for Private Credit consists of total capital committed by investors (except with respect to funds for which the investment period has ended, in which case NAV is used) plus deployed and anticipated leverage. Capital committed by investors is \$6.6bn (updated to reflect applicable investor capital commitments closed upon between 10/1/2022 and 1/4/2023).



Adams Street Private Credit

Scaled private credit platform with a range of solutions for our investors

ADAMS STREET PRIVATE CREDIT



MIDDLE MARKET DIRECT LENDING

- ✓ Senior Only – First lien senior secured
- ✓ Flexible – Primarily first lien senior secured with second lien, mezzanine, preferred equity, and other forms of junior capital

INVESTOR SOLUTIONS

- ✓ Closed-end, evergreen, and bespoke SMA vehicles
- ✓ Levered and unlevered options
- ✓ Currency hedging
- ✓ Rated options

As of September 30, 2022.

1. AUM for Private Credit consists of total capital committed by investors (except with respect to funds for which the investment period has ended, in which case NAV is used) plus deployed and anticipated leverage. Capital committed by investors is \$6.6bn (updated to reflect applicable investor capital commitments closed upon between 10/1/2022 and 1/4/2023).



Dedicated Private Credit Team on Integrated Platform

Shared insights from global investment platform and leveraging 90+ investment professionals

Bill Sacher	Fred Chung	James Charalambides	Justin Lawrence	Leland Richards	Nolan Pauker	Emily Shiau					
Partner & Head of Private Credit	Partner & Head of Credit Underwriting	Partner & Head of European Private Credit	Partner	Partner	Principal	Principal					
Nisha Haran	Dennis Kan	Ervis Vukaj	Matthew Wachtel	Daniel Bracho	Julien Nifong	Margaret Ellen Crawford	William Dellow	Joseph Duffy	New Hire Mar-23	Chris Yang	Thomas Vuu
Vice President	Vice President	Vice President	Vice President	Senior Associate	Senior Associate	Associate	Associate	Associate	Associate	Analyst	Vice President, Business Services

ORIGINATION & UNDERWRITING SUPPORT

Jeff Akers	Dave Brett	Brian Dudley	Greg Holden	Jim Korczak	Robin Murray	Yar-Ping Soo	Andy Wang
Matt Autrey	Jeff Burgis	Joe Goldrick	Morgan Holzaepfel	Saguna Malhotra	Pinal Nicum	Michael Taylor	Fred Wang
Troy Barnett	Mattias de Beau	Terry Gould	Brijesh Jeevarathnam	Sunil Mishra	Sergey Sheshuryak	Benjamin Wallwork	Craig Waslin
Tom Bremner	Jeff Diehl	Doris (Yiyang) Guo	Alex Kessel	Ross Morrison			

40+ Investment Professionals Not Shown Here

FINANCE & ACCOUNTING 50 Professionals	LEGAL & COMPLIANCE 19 Professionals	INVESTMENT STRATEGY AND RISK MANAGEMENT 11 Professionals	INFORMATION TECHNOLOGY 39 Professionals ¹	INVESTOR RELATIONS 42 Professionals	MARKETING 11 Professionals	HUMAN RESOURCES & ADMINISTRATION 31 Professionals
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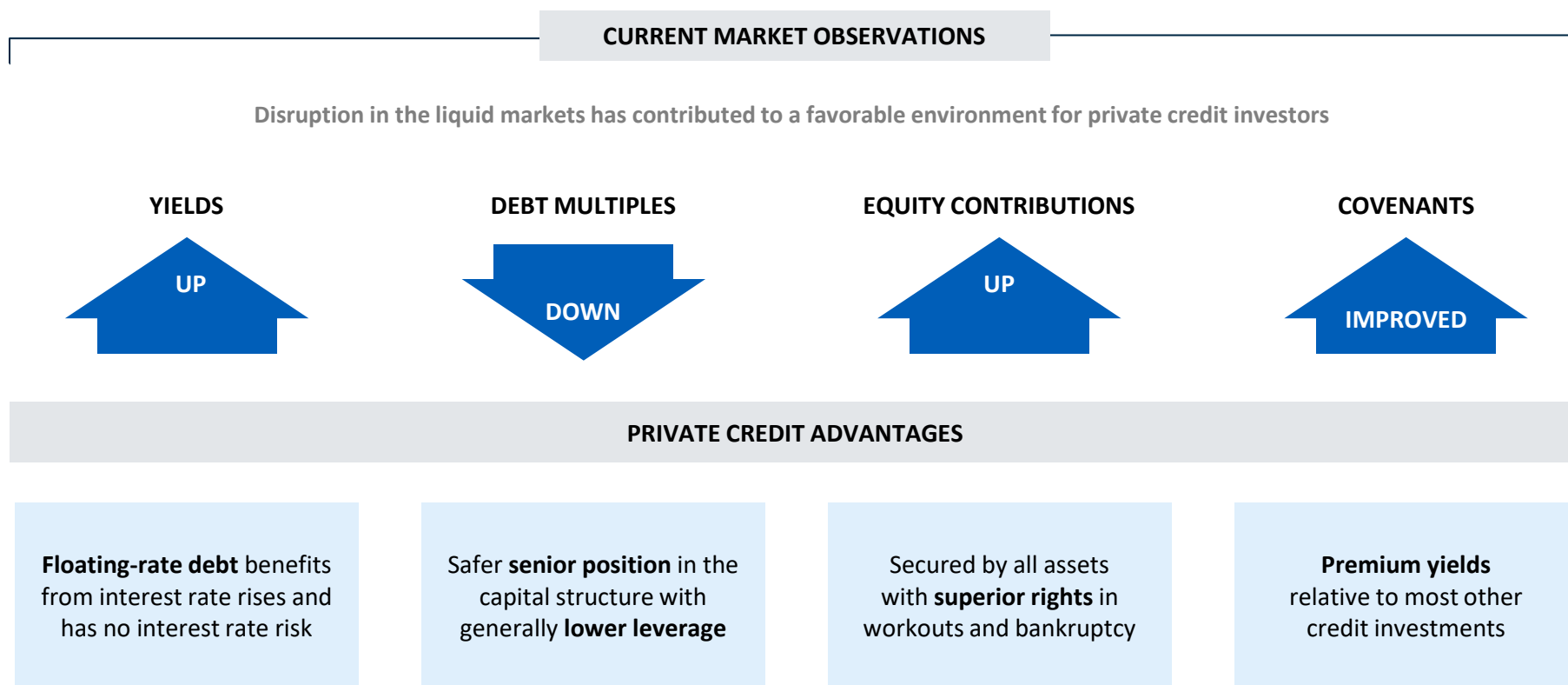
As of February 2023.

1. Includes 10 consultants and contractors.



Why Private Credit Now?

We believe private credit is well suited for the current environment, offering premium yields with defensive creditor protections



Based on Adams Street Private Credit market observations. Above statements generally represent a mixture of (i) objective data attained through a variety of sources which are available upon request, as well as (ii) Adams Street analysis based on market observations, historical deal flow or other factors; provided, however, that there can be no guarantee that this represents a complete universe of relevant data. Statements made represent current views and opinions as of 01/12/22 and are subject to change. While Adams Street believes in the merit of private credit investing, private credit investments are nevertheless subject to a variety of risk factors. There can be no guarantee against a loss, including a complete loss, of capital.



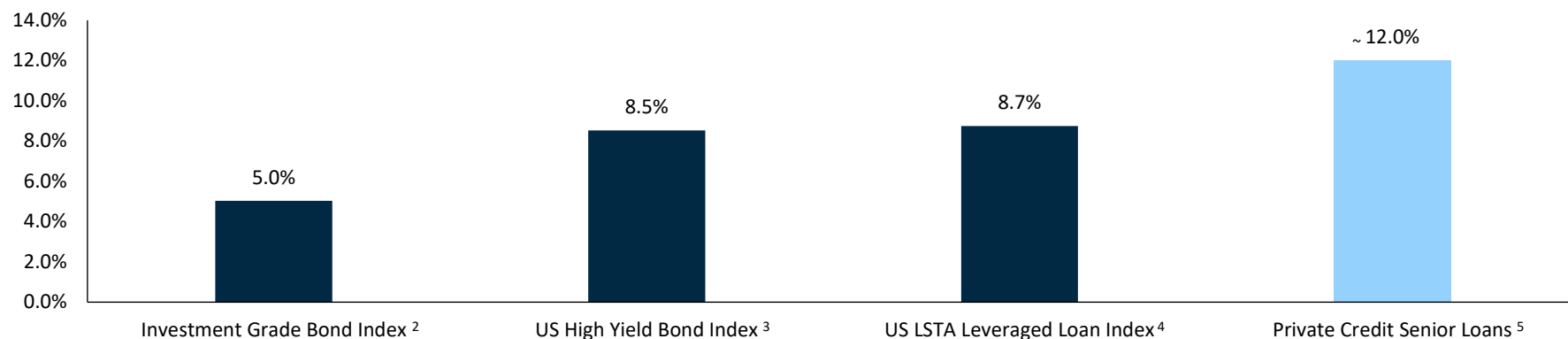
Market Update

PRIVATE CREDIT CONTINUES TO OFFER PREMIUM YIELDS THAT COMPARE FAVORABLY TO MOST CREDIT ALTERNATIVES

Deal Terms Summary¹

	2019	2020	2021	2022
Avg. Spreads⁽¹⁾	+/- 500	+/- 600	+/- 525	650 – 700
Avg. OID⁽¹⁾	1.5%	2.0%	1.5%	2.5%
Base Rate⁽¹⁾	1.91%	0.24%	0.21%	4.51%
Avg. Leverage⁽¹⁾	5.75x	5.00x	6.00x	5.5x
Avg. Equity Contribution⁽¹⁾	40%	45%	47%	50%

Credit Alternatives Yield Comparison



Statements made represent current views and opinions as of 12/31/22 and are subject to change.

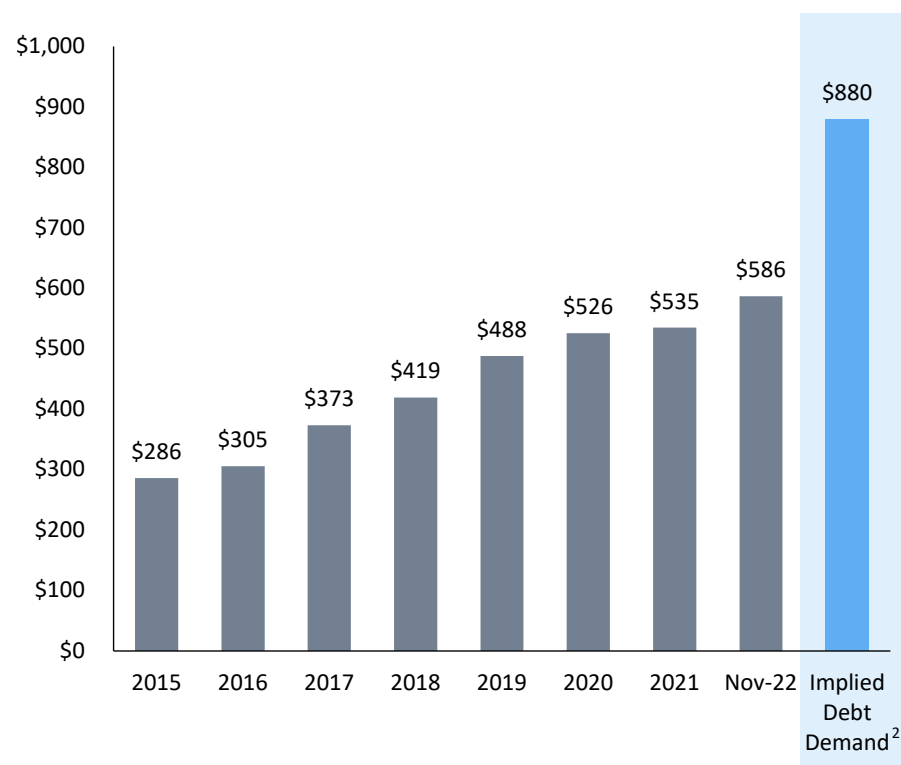
1. Based on Adams Street Private Credit market observations. Base Rate represents 3-month Libor as of the last day of each calendar year for 2019-2021 and 3-month term SOFR as of December 16, 2022 for Current.
2. US Investment Grade from S&P 500 Investment Grade Corporate Bond Index as of December 16, 2022.
3. High Yield Bonds from S&P U.S. High Yield Corporate Bond Index as of December 16, 2022.
4. Leveraged Loans from MorningStar LSTA U.S. Leveraged Loan 100 Index as of December 16, 2022.
5. Private Credit Senior Loans yield calculated based on observed market spreads of +/-650bps, 451bps SOFR as of December 16, 2022, and upfront fees of 2.5% amortized over 2.5 years.



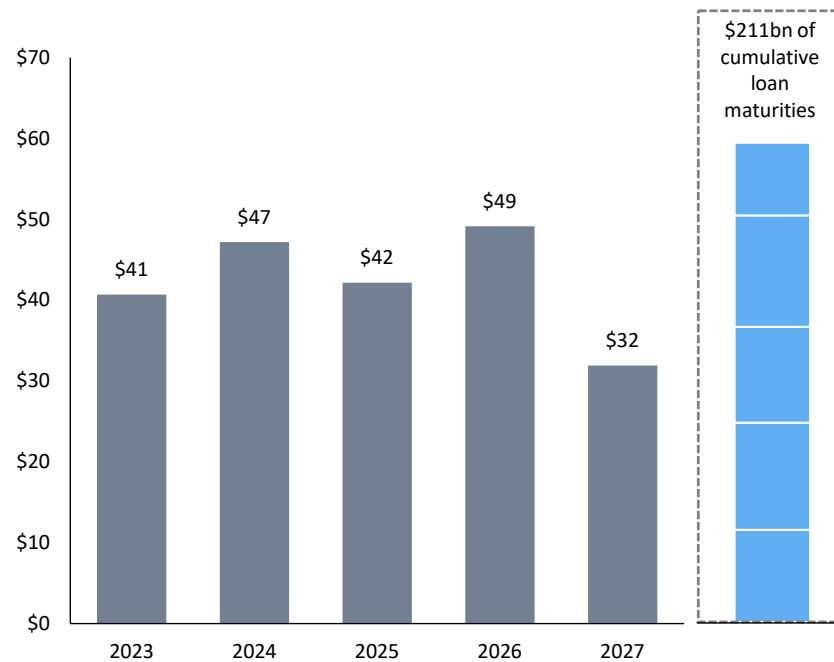
Private Credit Supply and Demand

WE BELIEVE THE DEMAND/SUPPLY IMBALANCE FAVORING PRIVATE CREDIT REMAINS INTACT

US Private Equity Dry Powder (\$bn)¹



Middle-Market Cumulative Sponsored Leveraged Loan Maturities³



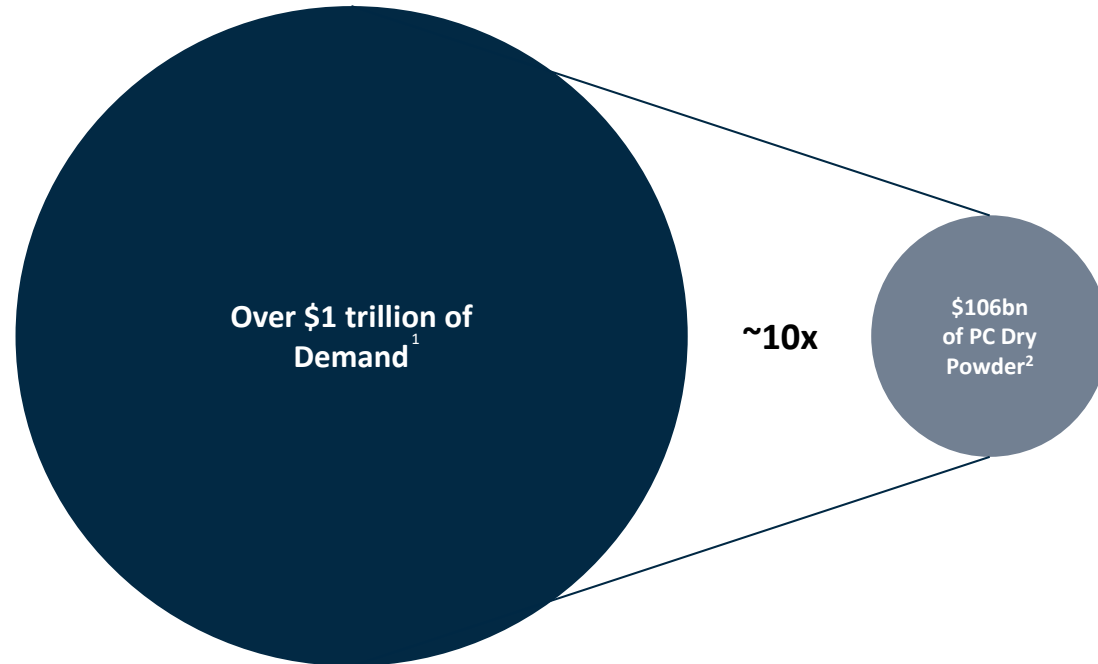
Statements made represent current views and opinions as of 12/31/22 and are subject to change.

1. Source: Preqin, North America focused Buyout funds only, as of November 22, 2022.
2. Implied debt demand assumes private equity dry powder is deployed at an average equity contribution of 40%. Equity contribution percentage is based on historical values observed from 2000 – YTD Q3 2022 per LCD's Q3 2022 Leveraged Buyout Review.
3. Source: Thompson Reuters 3Q 2022 Middle Market Lending Review. Middle-market defined as issuers with revenue of less than \$500mm and total deal size of less than \$500mm.

Private Credit Supply and Demand – Continued

US Prospective Financing Demand

Over \$1 trillion of Debt Financing Demand¹

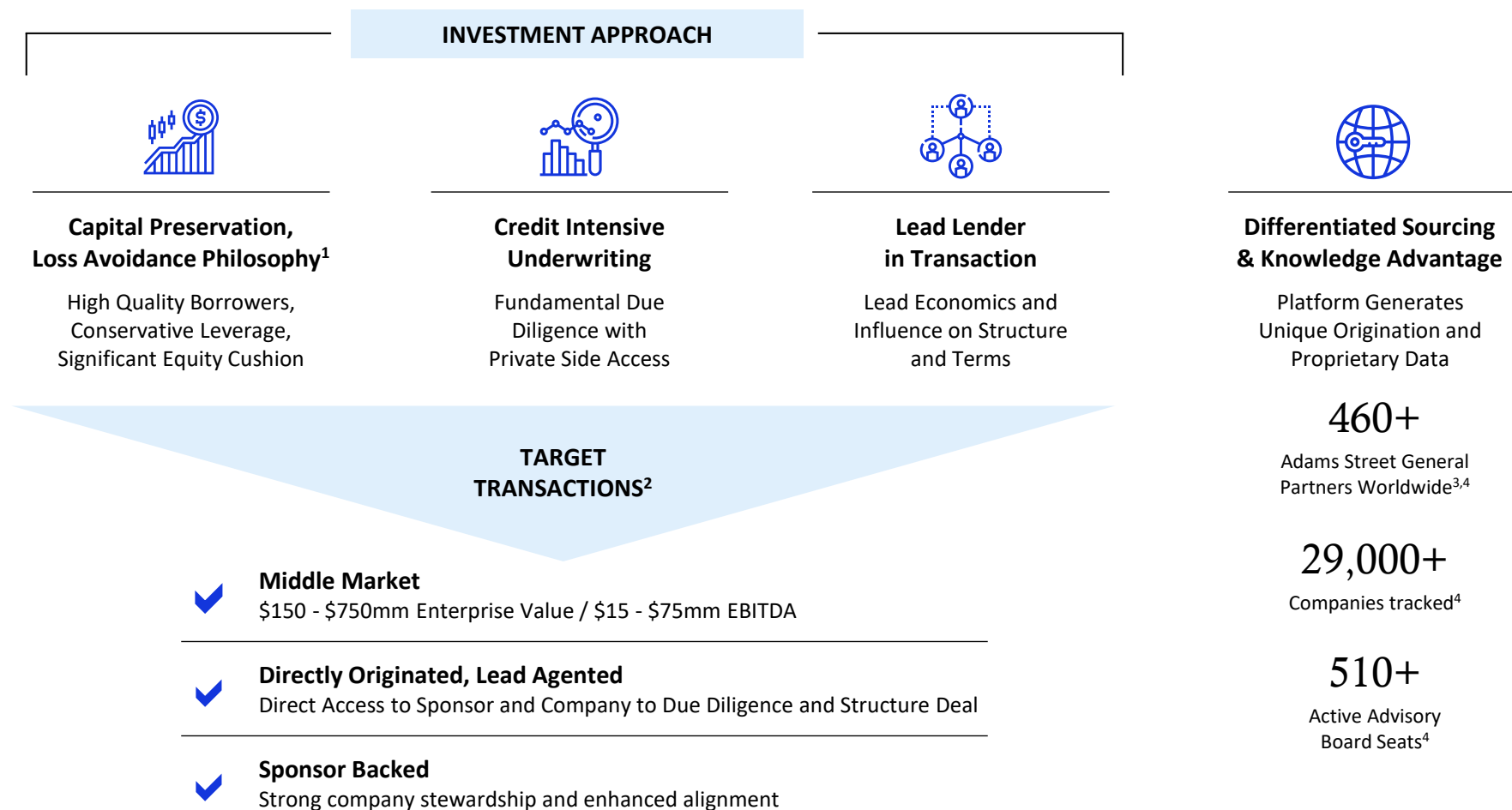


Significant private equity dry powder and existing middle market leveraged loan maturities create debt financing demand well in excess of current private credit supply

Statements made represent current views and opinions as of 12/31/22 and are subject to change.

1. Debt financing demand is a combination of private equity implied debt demand and cumulative loan maturities from prior slide.
2. Source: Preqin, North American focused Direct Lending Private Credit funds, as of November 22, 2022.

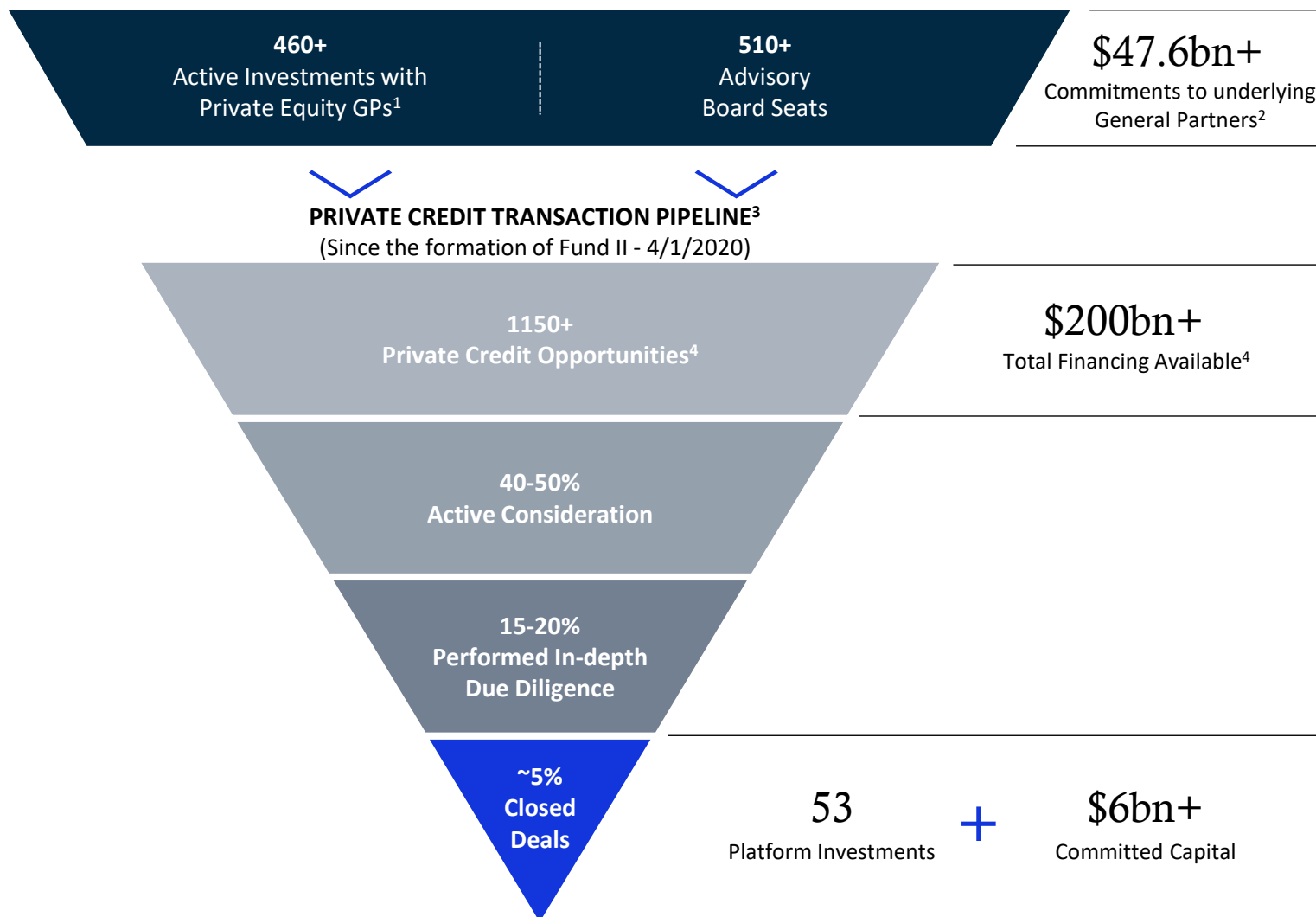
Our Approach and Investment Philosophy



1. Represent the aspirational goals of our investment philosophy and our approach to underwriting; provided, however, that past performance is not a guarantee of future results and there can be no guarantee against a loss, including a complete loss, of capital.
2. Represent target attributes, provided, however, that there can be no guarantee that all investments will display such attributes.
3. Represents the number of general partners in which Adams Street is invested.
4. As of September 30, 2022.



Sourcing Advantage and Large Opportunity Set Allows Us to be Selective

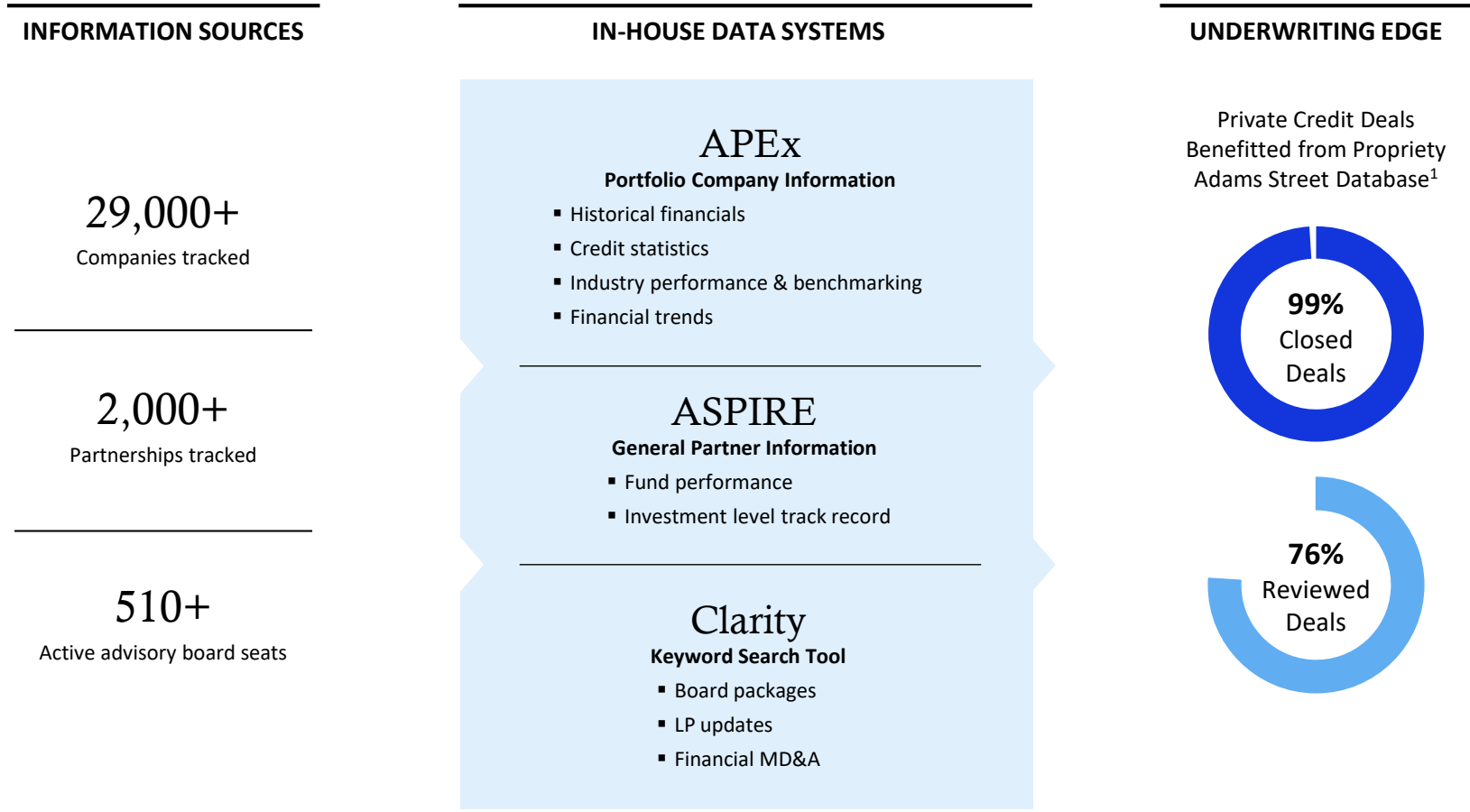


*A complete list of general partners in whose funds Adams Street has invested is available upon request.

1. Represents number of general partners in whose funds Adams Street is invested, as of September 30, 2022.
2. Represents aggregate commitments, as of September 30, 2022, to underlying Private Equity and Venture Capital funds on a primary or secondary basis by all funds and separate accounts of which Adams Street Partners is the general partner / investment manager.
3. There can be no guarantee that deal flow will maintain prior levels or that similarly attractive investments will be available.
4. Since April 1, 2020 through December 31, 2022.



Knowledge Advantage from Proprietary Data Has Provided an Underwriting Edge



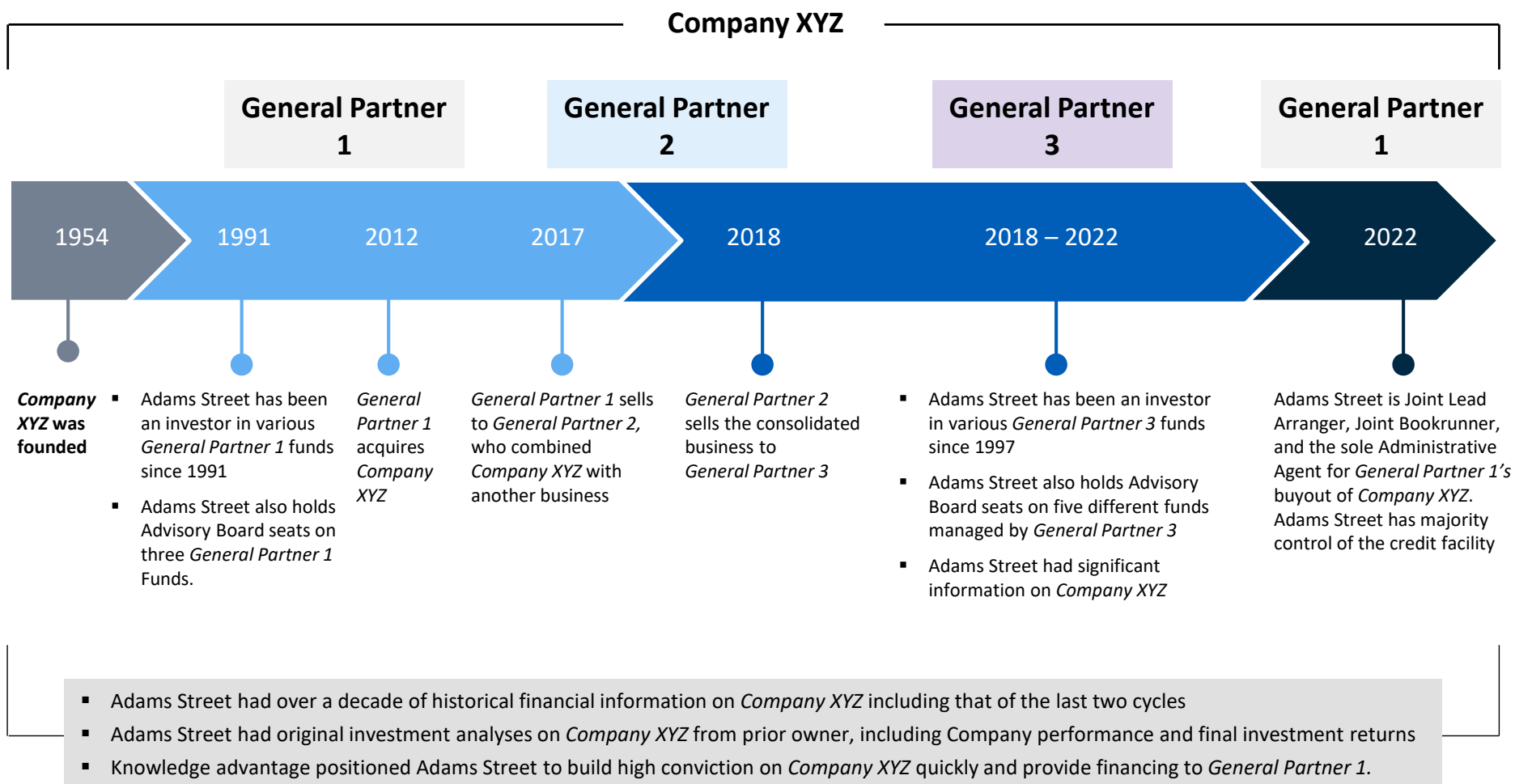
As of September 30, 2022, unless otherwise noted.

1. As of December 31, 2022. Private Credit deals benefitting from proprietary Adams Street database represents the percent of deals since inception (March 2017) where Adams Street had knowledge relating to either the company or the General Partner sponsoring the deal. Examples include but are not limited to historical company financials, credit statistics, industry performance & benchmarking, General Partner track record, and board packages.



Knowledge Advantage in Action

Case Study: Company XYZ*



*For illustrative purposes only. This case study is provided solely to demonstrate Adams Street's process, views and analysis in implementing its investment strategy and is subject to change. It is not intended to predict the performance of any Adams Street investment. The views, opinions and information presented herein, including (but not limited to) with respect to Adams Street's perception of its advantages, were current as of the date the investment was made and (unless the context indicates otherwise) are not subject to update. Past performance is not indicative of future results. A complete list of Adams Street's investments is available upon request.

Fund II Update



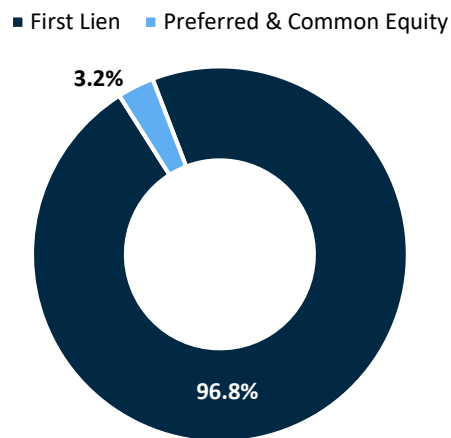


Senior Private Credit II Portfolio Highlights

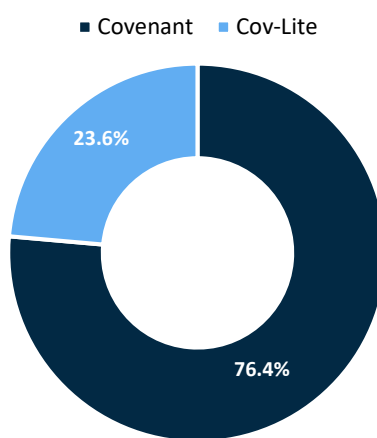
Fund Statistics ¹	Senior Private Credit II
First Investment	May 29, 2020
Fund Capital Raised	\$1,311mm
Number of Portfolio Companies (active)	50
Weighted Average Unlevered Yield (current) ^{3,4}	11.6%
Weighted Average Equity Cushion (current) ⁵	55.4%
Weighted Average EBITDA (current) ⁵	\$90.7mm
Weighted Average Net Leverage (current) ^{5,6}	5.4x

Adams Street Senior Private Credit II is a diversified portfolio of directly originated senior secured loans

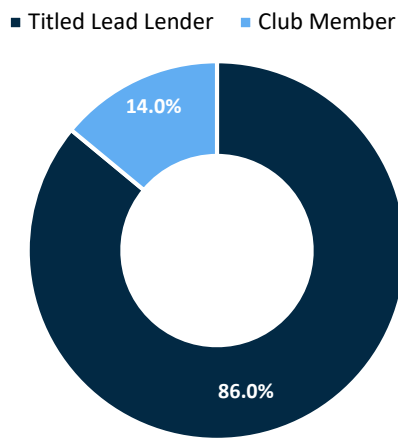
Asset Mix



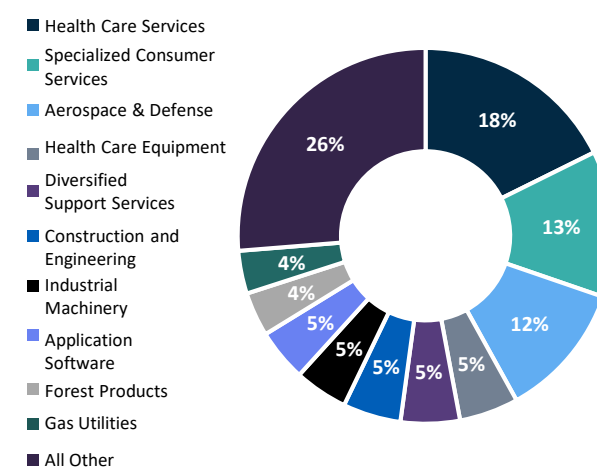
Covenants vs. Cov-Lite



Titled Lead Lender



Industry



Preliminary December 31, 2022

Please refer to page entitled "Notes to Private Credit II Program Portfolio Highlights" for detailed footnotes, including with respect to the Current Yield.



Kentucky Retirement Systems – Senior Private Credit Fund II Performance¹

Fund	Vintage	Size (millions) ²	Amount Drawn (millions)	Gross MOIC ³	Net MOIC ⁴	Gross IRR ^{5,7}	Net IRR ^{6,7}
Senior Private Credit II (Consolidated)	2020	\$500.0	\$327.4	1.18x	1.17x	17.2%	15.6%
Senior Private Credit II (Levered)	2020	\$250.0	\$179.1	1.22x	1.18x	22.1%	18.8%
Senior Private Credit II (Unlevered)	2020	\$250.0	\$148.3	1.14x	1.14x	12.3%	12.3%

1. Performance as of 9/30/2022. Past performance is not a guarantee of future results. The performance data set forth above includes unrealized investments. There can be no guarantee that unrealized investments included in this performance data will ultimately be liquidated at values reflected above.
2. Size reflects total capital commitments as of final close.
3. Gross MOIC (multiple of invested capital) is equal to total value (comprised of the investor's ending NAVs for the quarter plus distributions to the investor, less recallable distributions if applicable) gross of Adams Street Partners' fees, carried interest and expenses / amount drawn from investors, less recallable distributions if applicable. The Gross MOIC figure reflects the use of a credit line.
4. Net MOIC is equal to total value (comprised of the investor's ending NAV for the quarter plus distributions to the investor, less recallable distributions if applicable) net of Adams Street Partners' fees, carried interest and expenses / amount drawn from investors, less recallable distributions if applicable. Net MOIC is calculated excluding the value of the GP's investment in the fund. The Net MOIC figure reflects the use of a credit line.
5. Gross IRR is the since inception internal rate of return for your investment in the Adams Street Senior Private Credit Fund II, gross of Adams Street Partners' fees, carried interest and expenses, which reduce returns to investors.
6. Net IRR is the since inception internal rate of return for your investment in the Adams Street Senior Private Credit Fund II, which is net of Adams Street Partners' fees, carried interest, and expenses.
7. The IRRs set forth above reflect the use of a credit line. It should not be assumed that the funds will ultimately achieve the returns set forth above; the ultimate returns of these funds may be materially lower.

Fund III





Proposed Commitment to Senior Private Credit Fund III Kentucky Public Pensions Authority – Anchor Terms

Key Terms and Conditions

Fund	Senior Private Credit Fund III (Unlevered)	Senior Private Credit Fund III (Levered)
Anchor Minimum Commitment	[REDACTED]	[REDACTED]
Anchor Management Fees	[REDACTED]	[REDACTED]
Anchor Carried Interest	[REDACTED]	[REDACTED]
Anchor Co-Investment	[REDACTED]	[REDACTED]

Appendix





Bill Sacher

Partner & Head of Private Credit
New York

Bill leads the investment, portfolio construction, and fundraising efforts of the Private Credit Team, and manages key relationships with general partners in North America and Europe.

Prior to joining Adams Street, he was head of the US Private Debt Group (at the time the Mezzanine Debt Group) at Oaktree Capital Management. In this role he developed the strategy, managed the team, and approved the investments. In conjunction with Oaktree's in-house marketing team, Bill led the fundraising effort for each of the three funds for which he was responsible.

Prior to Oaktree, Bill worked at J.P. Morgan, where he was the Co-Head of both the Leveraged Finance Origination Team and the High Yield Capital Markets Group. He previously worked at NationsBank as head of the high yield business where he was responsible for the High Yield Origination Team, the High Yield Capital Markets Group, Private Placements, and NationsBridge (the bank's bridge loan unit). He commenced his career at Bear Stearns.

Bill is Chair of Adams Street's Private Credit Investment Committee and a member of the Executive Committee.

INVESTMENT AND OPERATIONAL EXPERIENCE

38 years

ACADEMIC

New York University, BS,
cum laude, MBA

AUTHORED CONTENT

- [Private Credit Demonstrates Resiliency Amid Current Economic Conditions](#)
- [Private Credit Update: Resilience and Opportunity When Facing Inflation](#)
- [Private Credit 2021 Outlook: A Steady Ship in Choppy Waters](#)
- [Q&A with Bill Sacher: Private Credit Considerations for Investors in 2021](#)



Gary Fencik

Senior Partner, Investor Relations
Chicago

Gary focuses on the development of institutional client and consultant relationships, and works with other members of the investor relations team to serve the needs of Adams Street Partners' clients.

He joined Adams Street after five years as Managing Director of Business Development at Brinson Partners/UBS Global Asset Management where he was responsible for business development in North America as well as global consultant relationships.

Gary spent 12 seasons with the Chicago Bears football club and was co-captain of the 1985 Super Bowl Championship Team.

INVESTMENT AND OPERATIONAL EXPERIENCE

35 years

ACADEMIC

Northwestern University
Kellogg School of
Management, MBA

Yale University, BA

Notes





Notes to Private Credit II Program Portfolio Highlights

As of December 2022

1. Deal statistics for Private Credit Fund II. Does not include commitments made to Private Credit portfolio companies by other Adams Street Funds or repayments.
2. Private Credit II refers to the successor fund to Private Credit Fund I and is a flexible mandate fund investing across the capital structure.
3. Weighted Average Unlevered Yield calculated as weighted average of deal level spreads, with weighting based on deal level investment amount. Deal level cash yield calculated based on weighted-average pricing spread, 3-month SOFR of 4.64% as of 01/09/2023, applicable LIBOR or SOFR floors, amortization of upfront fees and OID, and compounding impact. Assumes pre-payment periods as follows: assumes 1st lien is prepaid in 2.5 years, 1st lien unitranche prepaid in 3.25 years, and 2nd lien is prepaid in 4.5 years. There can be no guarantee that the foregoing assumptions will ultimately prove accurate or that the yields set forth above will be realized.
4. Yield only measures income, as an annual percentage rate, and Adams Street considers such performance metric distinct from more comprehensive overall return metrics that take into account current value, ultimate disposition, and other factors that impact total return. Additionally, yield for individual investments is not reflective of the return achieved by the relevant fund; for fund-level performance information on Adams Street's dedicated private credit funds, see the slide titled "Strong, Consistent Performance Across Our Commingled Funds" in this presentation.
5. Preliminary data as of December 31, 2022.
6. Weighted Average Net leverage represents constituent company level leverage, weighted based on deal level investment amount.

Past performance is not a guarantee of future results. There can be no guarantee that performance of other investments will equal or exceed performance of investments identified herein.



Key Risk Factors

This document identifies a number of benefits associated with, or inherent in, Adams Street's services and operations on behalf of a particular investment strategy or a fund; however, it is important to note that all investments come with material risks, some of which may be magnified in a private markets investment, which may pursue highly speculative investments and which have limited liquidity, as further identified in the Fund's definitive documents. Further, although Adams Street believes that the firm and its personnel will have competitive advantages in identifying, diligencing, monitoring, consulting, improving and ultimately selling investments on behalf of vehicles managed by the firm, there can be no guarantee that Adams Street will be able to maintain such advantages over time, outperform third parties or the financial markets generally, or avoid losses.

THE RISK FACTORS LISTED BELOW ARE NOT INTENDED TO BE EXHAUSTIVE; ADDITIONAL IMPORTANT RISKS ASSOCIATED WITH AN INVESTMENT IN A FUND ARE INCLUDED IN THE RELEVANT FINAL DOCUMENTATION.

Past Performance Not Necessarily Predictive of Future Performance: There is no assurance that the performance of any Adams Street-managed fund will equal or exceed the past investment performance of entities managed by Adams Street or its affiliates.

Appropriateness of Investments: An investment in an Adams Street-managed fund is not appropriate for all investors. An investment is appropriate only for sophisticated investors and an investor must have the financial ability to understand and willingness to accept the extent of its exposure to the risks and lack of liquidity inherent in an investment in an Adams Street-managed fund. Investors should consult their professional advisors to assist them in making their own legal, tax, accounting and financial evaluation of the merits and risks of investment in a fund in light of their own circumstances and financial condition. An investment in an Adams Street-managed fund requires a long-term commitment, with no certainty of return. There may be little or no near-term cash flow available to the limited partners. Many of a fund's portfolio investments will be highly illiquid. Consequently, dispositions of such portfolio investments may require a lengthy time period or may result in distributions in kind to the limited partners.

High Risk Asset Class: Private markets investments, whether made directly into portfolio companies or indirectly via investment funds or CLOs, are high-risk and subject to loss, even loss of a part or all of an investor's entire investment.

Illiquidity: An investment will be highly illiquid. There will be no market for interests, investors will have only very limited withdrawal rights for specific legal or regulatory reasons, and any transfer of an interest will be subject to the approval of the general partner of the relevant entity. The interests will not be registered under the US Securities Act of 1933, as amended (the "Securities Act"), or any state or other securities laws and may not be transferred unless registered under applicable federal or state securities laws or unless an exemption from such laws is available. In addition, the direct or indirect portfolio company investments that a fund will make are also generally and similarly illiquid.

Valuations May Fluctuate: The valuations of investments are calculated based upon good faith assessment of the fair value of the assets. Therefore, valuations of investments for which market quotations are not readily available may differ materially from the values that would have resulted if a liquid market for such investments had existed. Even if market quotations are available for any of the investments made pursuant to a fund's strategy, such quotations may not reflect the realizable value. A fund may experience fluctuations in results from period to period due to a number of factors, including changes in the values of the investments made pursuant to a fund's strategy, changes in the frequency and amount of drawdowns on capital commitments, distributions, dividends or interest paid in respect of investments, the degree of competition, the timing of the recognition of realized and unrealized gains or losses and general economic and market conditions (including, but not limited to, the effect of any catastrophic and other force majeure events on the financial markets, the economy overall and/or various industries). As an asset class, private markets have exhibited volatility in returns over different periods and it is likely that this will continue to be the case in the future. Such variability may cause results for a particular period not to be indicative of performance in a future period.



Key Risk Factors (continued)

Extraordinary Events: Terrorist activities, anti-terrorist efforts, armed conflicts involving the United States, its interests abroad or other countries and natural disasters may adversely affect the United States, other countries, global financial markets and global economies and could prevent a fund from meeting its investment objectives and other obligations. The potential for future terrorist attacks, the national and international response to terrorist attacks, acts of war or hostility and natural disasters have created many economic and political uncertainties in the past and may do so in the future, which may adversely affect certain financial markets and any Adams Street-managed fund(s) for the short or long term in ways that cannot presently be predicted.

Force Majeure Events: Investments may be subject to catastrophic events and other force majeure events. These events could include fires, floods, earthquakes, adverse weather conditions, pandemics, assertion of eminent domain, strikes, acts of war (declared or undeclared), riots, terrorist acts, "acts of God" and similar risks. These events could result in the partial or total loss of an investment or significant down time resulting in lost revenues, among other potentially detrimental effects. Some force majeure risks are generally uninsurable and, in some cases, investment project agreements can be terminated if the force majeure event is so catastrophic that it cannot be remedied within a reasonable time period.

Impact of Borrowings: Borrowing will directly impact (positively or negatively) the returns of an investment in an Adams Street-managed fund and increase the risks associated with an investment in such fund. Calculations of net and gross IRRs in respect of investment and performance data included and/or referred to in performance materials, and with respect to an Adams Street-managed fund, as reported to limited partners from time to time, are based on the payment date of capital contributions received from the applicable limited partner or timing of investment inflows and outflows received or made by the investing entity. In instances where an Adams Street-managed fund utilizes borrowings under a fund's subscription-based credit facility or asset-backed facility (or other facility), use of such facility (or other leverage) may result in a higher reported IRR (on an investment level and/or fund level) than if the facility had not been utilized because such borrowings were used in lieu of capital contributions or in advance of related capital contributions that would only be made at a later date. Use of a subscription-based credit facility (or other long-term leverage) may present conflicts of interest as a result of certain factors and the applicable fund's general partner may make distributions prior to the repayment of outstanding borrowings.

A credit agreement or borrowing facility frequently will contain other terms that restrict the activities of an Adams Street-managed fund and its limited partners or impose additional obligations on them. For example, certain lenders or facilities are expected to impose restrictions on the applicable fund's general partner's ability to consent to the transfer of a limited partner's interest in such fund or impose concentration or other limits on such fund's investments, and/or financial or other covenants, that could affect the implementation of such fund's investment strategy.

As a result of the foregoing and similar factors, use of such leverage arrangements with respect to investments may provide the applicable fund's general partner with an incentive to fund investments through long-term borrowings in lieu of capital contributions. Moreover, the costs and expenses of any such borrowings will generally be borne as costs and expenses of such fund, which will increase the expenses borne by the applicable limited partners and would be expected to diminish net cash on cash returns.

Subject to the limitations set forth in the applicable partnership agreements, Adams Street maintains substantial flexibility in choosing when and how subscription-based credit facilities or other lending facilities are used. Adams Street is authorized to adopt from time to time policies or guidelines relating to the use of such credit facilities. Such policies may include using the credit facilities to systematically defer calling capital from investors (such as seeking to call capital only once a year). In addition to using such facilities to defer capital calls, Adams Street may elect to use short or long-term fund-level financing for investments including (a) for investments that have a longer lead time to generate cash flow or to acquire assets, (b) for platform investments that require capital to fund operating expenses prior to developing sufficient scale to self-fund or generate enterprise value, (c) for investments where cash is retained in the business to fund activity that results in incremental returns for the investment, (d) to make margin payments as necessary under currency hedging arrangements, (e) to fund management fees otherwise payable by investors, (f) for investments with revenues in a foreign currency and (g) when Adams Street otherwise determines that it is in the best interests of the applicable fund.



Key Risk Factors (continued)

Availability of High-Quality Investment Opportunities: Investors will be dependent on the ability of Adams Street and its affiliates to provide access to high-quality private markets investment opportunities. There is no assurance that such opportunities will be available during the period over which an investor's investment will be allocated to investments or that high-quality investment opportunities will be available at attractive prices. In addition, in the event Adams Street does identify any such opportunities, it should not be assumed that an Adams Street-managed investment vehicle will be allocated a portion of any such opportunity. The application of the factors described herein, and applied under Adams Street's investment allocation policy (the "Investment Allocation Policy"), will result in the exclusion of certain managed entities from an allocation, and the Investment Allocation Policy does not require that a managed entity, including any particular investment vehicle, participate in every entity in which it is eligible to invest.

Competition: Investment vehicles managed by Adams Street will compete for investments with third parties, including other financial managers, investment funds, pension funds, corporations, endowments and foundations, wealthy individuals and family offices, among many others. Investment vehicles, including those managed by Adams Street will compete for limited capacity in such investments. There can be no assurance that Adams Street will be able to locate and complete attractive investments or that the investments which are ultimately made will satisfy all of the relevant objectives.

Compliance with the AIFMD: The European Union Alternative Investment Fund Managers Directive (EU 2011/61/EU) as implemented in each European Union member state and the United Kingdom (together with Commission Delegated Regulation (EU) No 231/2013, as well as any similar or supplementary law, rule or regulation, including any equivalent or similar law, rule or regulation to be implemented in the United Kingdom as a result of its withdrawal from the European Union, or subordinate legislation thereto, as implemented in any relevant jurisdiction, the "AIFMD") applies to (i) alternative investment fund managers (each, an "AIFM") established in the European Economic Area ("EEA") and the UK who manage EEA or non-EEA alternative investment funds (each, an "AIF"), (ii) non-EEA AIFMs who manage EEA or UK AIFs, and (iii) non-EEA AIFMs who market their AIFs within the EEA or the UK. European secondary implementation legislation has been adopted, and individual EEA member states were required to implement the AIFMD into domestic law by July 22, 2013. The AIFMD imposes various operating requirements on EEA and UK AIFMs, and, to a lesser extent, non-EEA AIFMs seeking to market an AIF within the EEA or the UK. As a result of the AIFMD's implementation, Adams Street or its agents may be required to give notice to or seek the approval of regulators in certain countries in connection with the marketing of certain investment vehicles. This may preclude Adams Street from marketing to you further until such notice is given or approval is obtained or otherwise significantly disrupt marketing activity. Compliance by Adams Street with the transparency, reporting and disclosure requirements of the AIFMD will significantly increase the regulatory burden and costs of doing business within the EEA and the UK and this may have an adverse impact on certain investment vehicles and Adams Street. The operating requirements imposed by the AIFMD include, among other things, rules relating to the remuneration of certain personnel, minimum regulatory capital requirements, restrictions on use of leverage, restrictions on early distributions ("asset stripping" rules), disclosure and reporting requirements to both investors and home state regulators, and independent valuation of an AIF's assets. As a result, the AIFMD could have an adverse effect on Adams Street and certain of its investment vehicles by, among other things, imposing extensive disclosure obligations significantly restricting marketing activities within the EEA and the UK, increasing the regulatory burden and costs of doing business in the UK and in EEA member states, and potentially requiring Adams Street to change its compensation structures for key personnel, thereby affecting Adams Street's ability to recruit and retain these personnel. The AIFMD could also limit Adams Street's operating flexibility and an Adams Street-managed fund's investment opportunities, as well as expose Adams Street and/or such fund to conflicting regulatory requirements in the United States (and elsewhere) and the EEA or the UK. The European Council and Parliament are in negotiations to finalize the revisions to the AIFMD and Directive 2009/65/EC. While the final text is yet to be published, there are proposals which, if implemented and applied to Non-EEA AIFMs, could adversely affect Adams Street's ability to market an Adams Street-managed fund in the EEA, could increase the costs associated with the management and operation of such fund as a result of additional disclosure and reporting requirements, and could affect the ability of such fund to conduct its operations, including but not limited to: concentration limits, limits on lending to connected entities, risk retention requirements, and mandated liquidity management mechanisms, to the extent applicable to such fund.



KENTUCKY PUBLIC PENSIONS AUTHORITY



INVESTMENTS

To: CERS Investment Committee

From: Steve Willer, CIO

Date: February 22, 2023

Subject: Investment Recommendation – Adams Street Partners Private Credit Fund III

KPPA Investment Staff is proposing an investment in Adams Street Partners Private Credit Fund III (the “Fund”) contingent on successful IMA negotiations. Adams Street Partners (“Adams Street” or the “Firm”) is one of the most respected and experienced private markets investment managers in the industry, providing clients with customized access to the spectrum of private market strategies. Adams Street manages \$52 billion for more than 560 institutional clients, including \$7.7 billion on their private credit platform. This investment recommendation is a "re-up" including the opportunity for a fee-free co-investment sidecar vehicle should it be approved and would be part of the Specialty Credit allocation.

KPPA Investment Staff started monitoring and began a dialogue with Adams Street Partners in 2016 when the firm recruited Bill Sacher, who previously led the mezzanine investing business at credit-centric investment management firm Oaktree Capital Management. While KPPA did not invest in their first private debt fund staff continued to perform due diligence on the firm and their processes and ultimately committed \$250 million to the Adams Street Partners Private Credit Fund II and an additional \$250 million investment to a co-investment side car vehicle. As one of two "anchor investors" KPPA was provided with attractive preferred pricing and a position on the Limited Partners Advisory Committee for the fund.

Business / People:

The firm that would become Adams Street was formed in 1972 as part of the First National Bank of Chicago. In 1989, Adams Street's predecessor organization, Brinson Partners, Inc., was organized and acquired the institutional asset management business from First Chicago. In 1995, Brinson Partners, Inc. and Swiss Bank Corporation combined their international institutional investment management organizations into a single investment management business. Union Bank of Switzerland and SBC subsequently merged in June 1998 to form UBS AG. Adams Street spun out of UBS AG on January 1, 2001 and was comprised of the members of Brinson Partners' Private Equity Group. Today Adams Street is an independent, 100% employee-owned organization.

The Adams Street Private Credit platform has seventeen dedicated investment professionals located in New York and London and leverage the expertise of over ninety investment professionals across their global investment platform to manage \$7.7 billion of assets. Bill Sacher is the Head of the Private platform and the Chair of Adams Street's Private Credit Investment Committee and a member of the Executive Committee. Bill leads the investment, portfolio construction and fundraising efforts of the team.

Fred Chung is the Head of Private Credit Underwriting and supports all aspects of the decision-making process of the team including sourcing, structuring, reviewing, and negotiating deal opportunities. Prior to joining Adams Street, he was a Vice President at Goldman Sachs where he focused on investing capital out of various private debt vehicles, including the firm's first Business Development Company (BDC).

James Charalambides is the Head of European Private Credit and a voting member of the Adams Street's Private Credit Investment Committee. Prior to joining Adams Street, James was a Managing Director in the Specialty Lending Europe Team at Sixth Street Partners.

Investment Process and Opportunity:

The Fund will build upon the Firm's flagship private credit strategy and seek to invest primarily in directly originated first lien senior secured loans of middle-market companies that are backed by private equity sponsors. Diversification across several metrics is a key tenant of the overall Fund investment strategy and the Fund is expected to invest in a wide variety of industry sectors building a geographically diverse portfolio focusing primarily across regions in North America and, to a lesser extent, parts of Europe. Based on the Fund's size and the anticipated length of its investment period the Firm expects that the Fund will invest in 40 to 50 portfolio companies. The Fund will seek to generate current income with attractive risk-adjusted returns and strong downside protection.

The Firm employs a capital preservation, loss avoidance philosophy seeking high quality borrowers, conservative leverage and significant equity cushions. Their credit intensive underwriting approach is designed with the goal of generating consistent results with low volatility, regular current income, and attractive all-in returns. Deal sourcing in the middle market remains heavily relationship driven. Adams Street is one of the largest and oldest Private Equity Fund-of-Funds firms in the world and is actively invested with over 460 general partners around the world. These GP relationships provide the firm unique access to financing opportunities within the private equity space. Also, Adams Street's position as an LP for over 40 years has provided them with an extensive database of portfolio company operating metrics. This proprietary database gives the firm a distinct advantage when evaluating potential loan opportunities.

Increasing regulation has caused commercial banks to substantially reduce their lending to middle-market companies while the demand for debt capital, particularly in the market for private equity-backed leveraged buyouts has continued to grow creating demand vs supply imbalance. Improvements in a number of key measures including absolute and relative yield, leverage, equity contributions, covenants, and lender's rights are creating positive dynamics and an attractive and compelling vintage opportunity for private credit. Relatively, private credit provides a premium spread of between 200 and 300 basis points over many liquid credit alternatives and offers defensive creditor protections. Meanwhile, the floating-rate nature of private credit provides a hedge against interest rate risk that fixed-coupon instruments lack. However, with elevated volatility and risk of a major, broad asset revaluation rigorous underwriting and careful credit selection will be key differentiators for private credit mandates.

Performance:

As of September 30, 2022

Vehicle / Investor Entity	Committed (millions)	Drawn (millions)	Distributions (millions)	NAV (millions)	Total Value (millions)	Gross Multiple	Gross IRR ¹	Net Multiple	Net IRR ¹
Adams Street Sr. Private Credit II-A1	\$175.0	\$125.4	\$9.9	\$138.6	\$148.5	1.22x	22.1%	1.18x	18.8%
Adams Street Sr. Private Credit II-B1	175.0	103.8	6.2	112.4	118.6	1.14x	12.3%	1.14x	12.3%
Kentucky Retirement Systems Total	350.0	229.2	16.1	251.0	267.1	1.18x	17.2%	1.17x	15.6%
Adams Street Sr. Private Credit II-A1	75.0	53.7	4.3	59.4	63.6	1.22x	22.1%	1.18x	18.8%
Adams Street Sr. Private Credit II-B1	75.0	44.5	2.7	48.2	50.8	1.14x	12.3%	1.14x	12.3%
Kentucky Retirement Systems Insurance Total	150.0	98.2	6.9	107.6	114.5	1.18x	17.2%	1.17x	15.6%
Adams Street Private Credit Program Total	\$500.0	\$327.4	\$23.0	\$358.5	\$381.6	1.18x	17.2%	1.17x	15.6%

1) Gross IRR is the since inception IRR of the Adams Street Partners fund to the client, which is gross of Adams Street Partners' fees, carried interest and expenses. Net IRR is the since inception IRR of the Adams Street Partners fund to the client, which is net of Adams Street Partners' fees, carried interest and expenses. The IRRs set forth above reflect the use of a credit line. It should not be assumed that the funds will ultimately achieve the returns set forth above; the ultimate returns of these funds may be materially lower.

Conclusion: Given the attractive economics and compelling market opportunity, Staff is recommending a “re-up” investment of up to \$175mm into the Adams Street Partners Private Credit Fund III, and up to an additional \$175mm investment into a co-investment side car vehicle to be allocated proportionally among all CERS Plans. KPPA will occupy an “anchor investor” position with preferred pricing and the co-investment vehicle will have a 0% management fee, and 0% carried interest. This "re-up" investment will maintain the Plans' current exposure to the Adams Street Private Credit Platform and will reside in the Specialty Credit allocation.

Investment and Terms Summary:

Type of Investment:	Specialty Credit - First Lien Senior Secured Debt
Fund Target Size:	\$3.0 billion
Structure:	GP / LP
Management Fee:	0.35% on Gross Invested Assets
Performance Fee:	10% over 7% return hurdle
Co-Investment:	0% management fee / 0% performance fee
Target Net Return:	11% - 13%
Sponsor Commitment:	At least 1% of the total capital commitments
Investment Period:	Three years from the date of the final close
Term:	Six years, subject to up to two one-year extensions
Risks:	Credit Risk, Liquidity Risk, Manager Risk, Macro-economic Risk

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

Wilshire

Kentucky Public Pensions Authority County Employees Retirement System (CERS)

Quarterly Board Summary

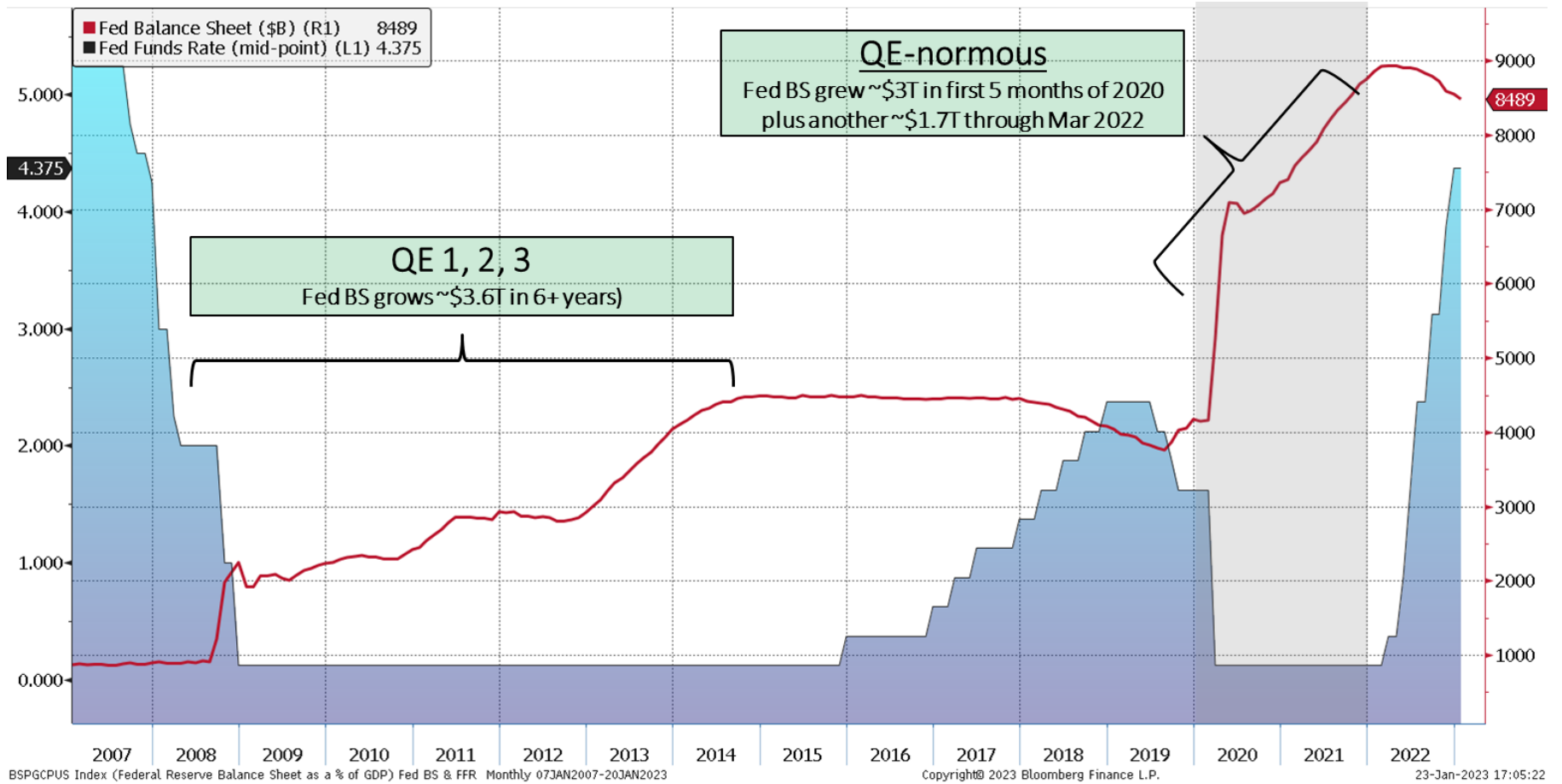
December 31, 2022

Quarterly Market Review

December 2022 Asset Class Assumptions

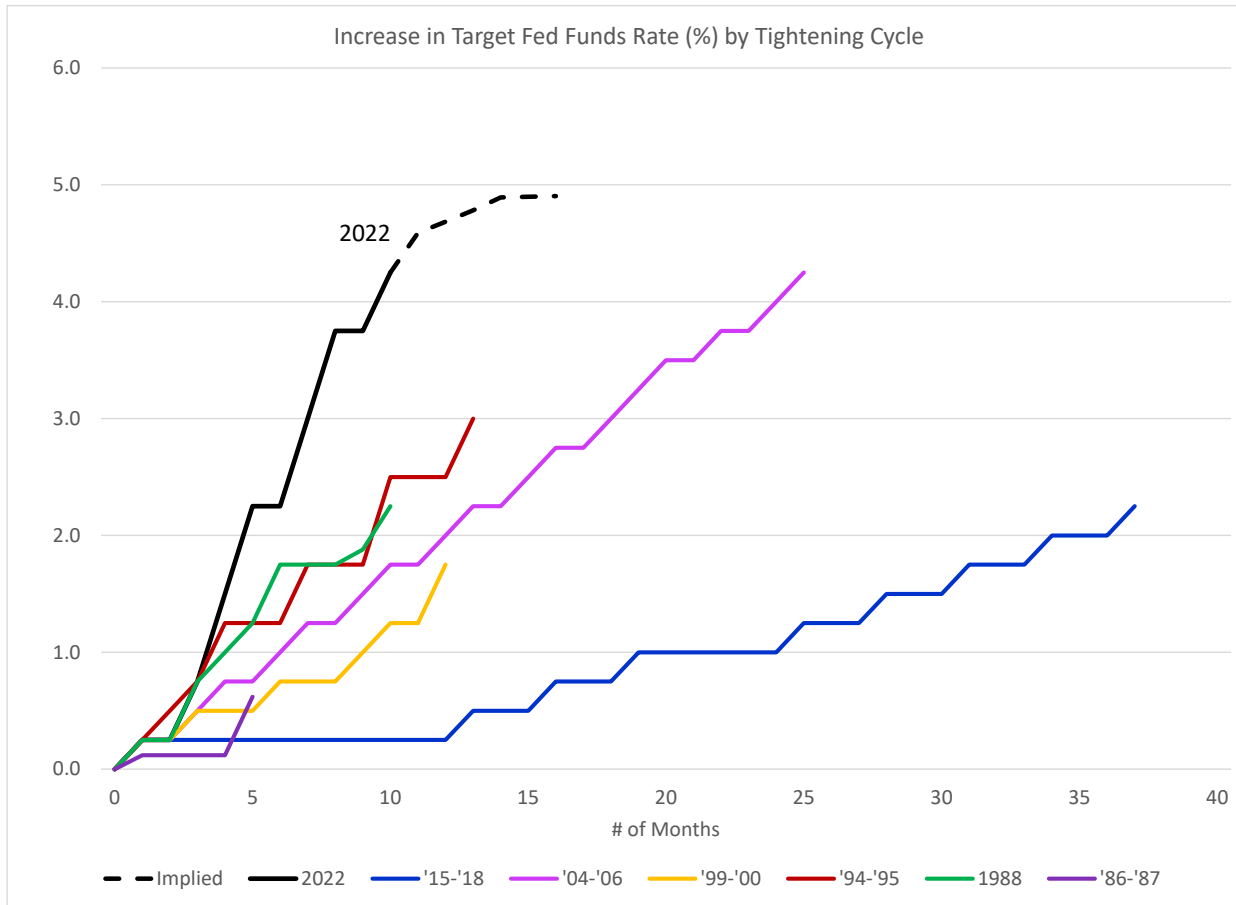
	Equity						Fixed Income						Real Assets						
	US Stock	Dev ex-US Stock	Emg Stock	Global ex-US Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Private Credit	Dev ex-US Bond (Hdg)	US RES	Global RES	Private RE	Cmdty	Real Assets	US CPI
Compound Return (%)	6.50	7.25	7.50	7.60	7.05	9.90	4.00	4.90	4.90	3.95	6.55	8.85	3.05	5.65	5.80	6.20	6.25	6.65	2.25
Expected Risk (%)	17.00	18.00	26.00	19.10	17.10	29.00	0.75	4.70	9.80	6.00	10.00	12.75	4.00	17.50	16.45	14.00	16.00	12.35	1.75
Cash Yield (%)	1.75	3.25	2.80	3.10	2.25	0.00	4.00	5.10	5.25	4.40	9.65	5.10	3.75	3.95	3.95	2.25	4.00	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

The Fed: Zero Rates & QE to \$8T and Beyond...



Data Source: Bloomberg

The Shift to Tightening: Most Aggressive in Modern Era: Will “Bring Some Pain”



“While higher interest rates, slower growth, and softer labor market conditions will bring down inflation, they will also bring some pain to households and businesses. These are the unfortunate costs of reducing inflation. But a failure to restore price stability would mean far greater pain.”

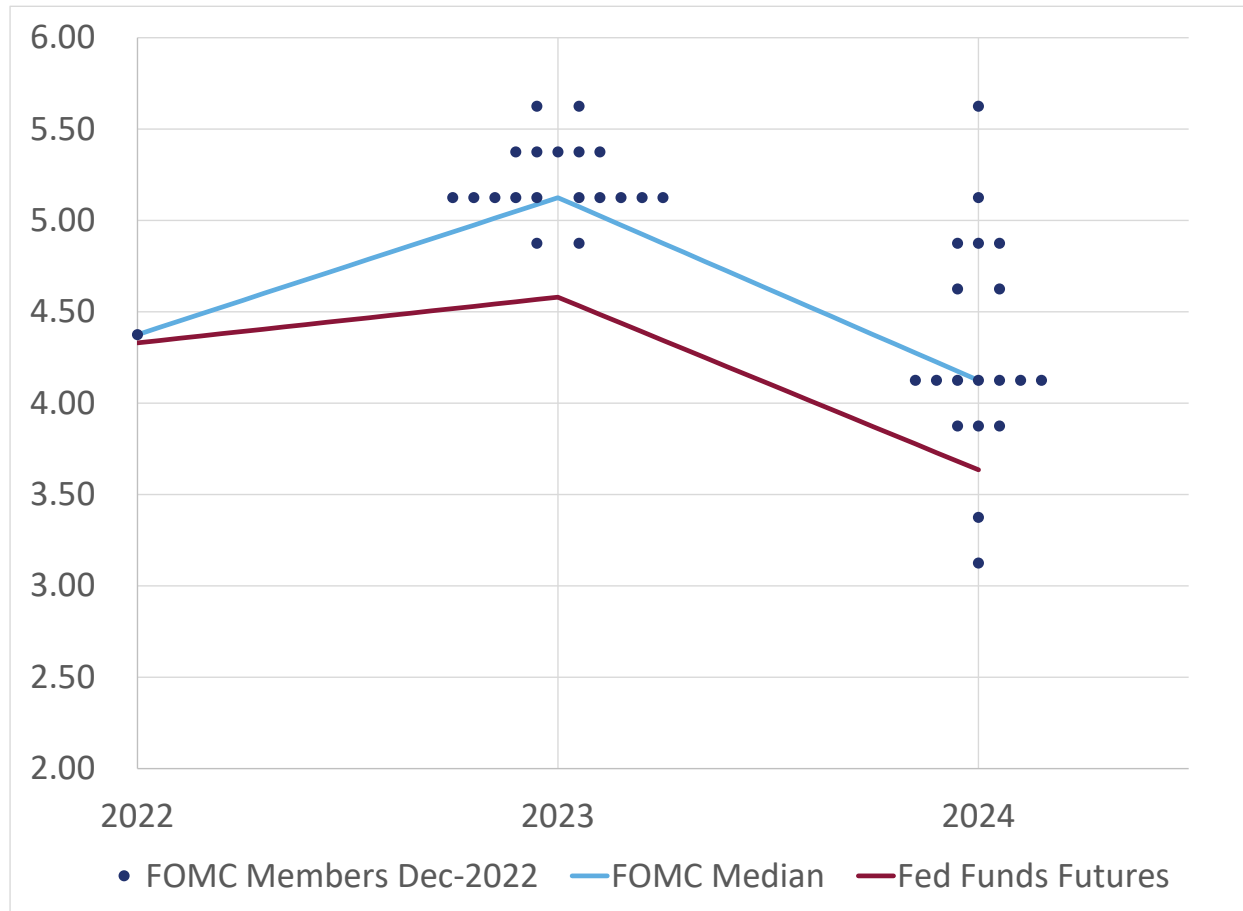


Jerome Powell

August 2022, Jackson Hole

Data Source: Bloomberg

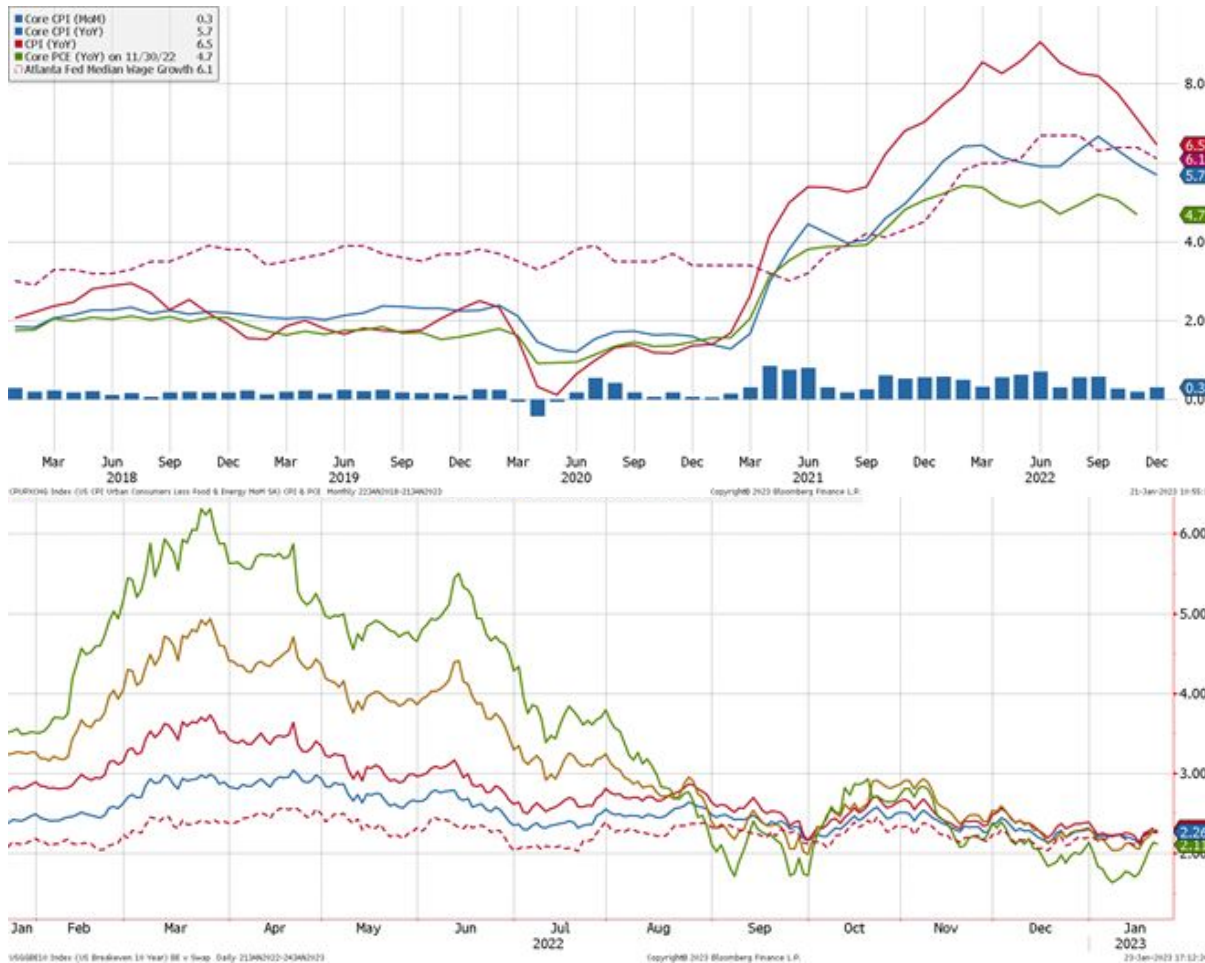
The Fed Outlook vs. Market Consensus



- The market's Dec 2023 implied Fed Funds Rate is below every FOMC member's forecast
- Why the divergence: A Fed credibility issue or just a difference in view?
- How might this play out?
 - What if the Fed's wrong?
 - What if the market is wrong?

Data Source: Bloomberg

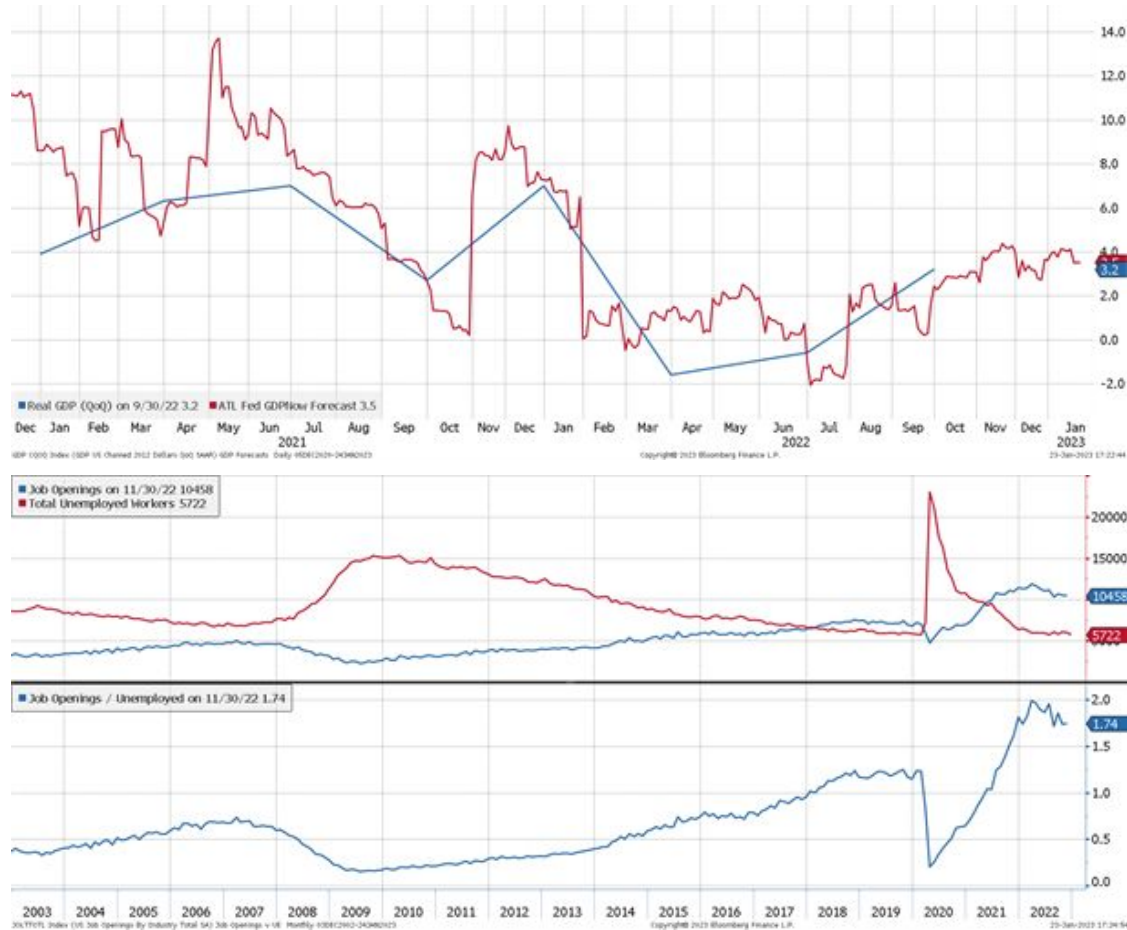
The Fed's Dashboard: Realized & Expected Inflation



Data Source: Bloomberg

- Realized inflation has begun to ease off extreme levels
 - CPI 6.5% v. 9.1% in June 2022
 - Core CPI stabilizing ~5%
 - Wage inflation remains elevated (~6%)
- Inflation expectations remain well-anchored
 - Expectational anchoring at higher levels would make the Fed's job even more challenging
 - These expectations are likely at the heart of the divergence between market and Fed outlooks (i.e., the Fed would likely pause now if they believed these expectations would be realized)

The Fed's Dashboard: Economic Growth & Labor Market



The market seems a bit more confident in the prospects of a “soft landing” as inflation has subsided in recent months

- However, lots more liquidity to be drained
- Powell’s “Sully” Sullenberger moment...



“We’re going to be in the Hudson”

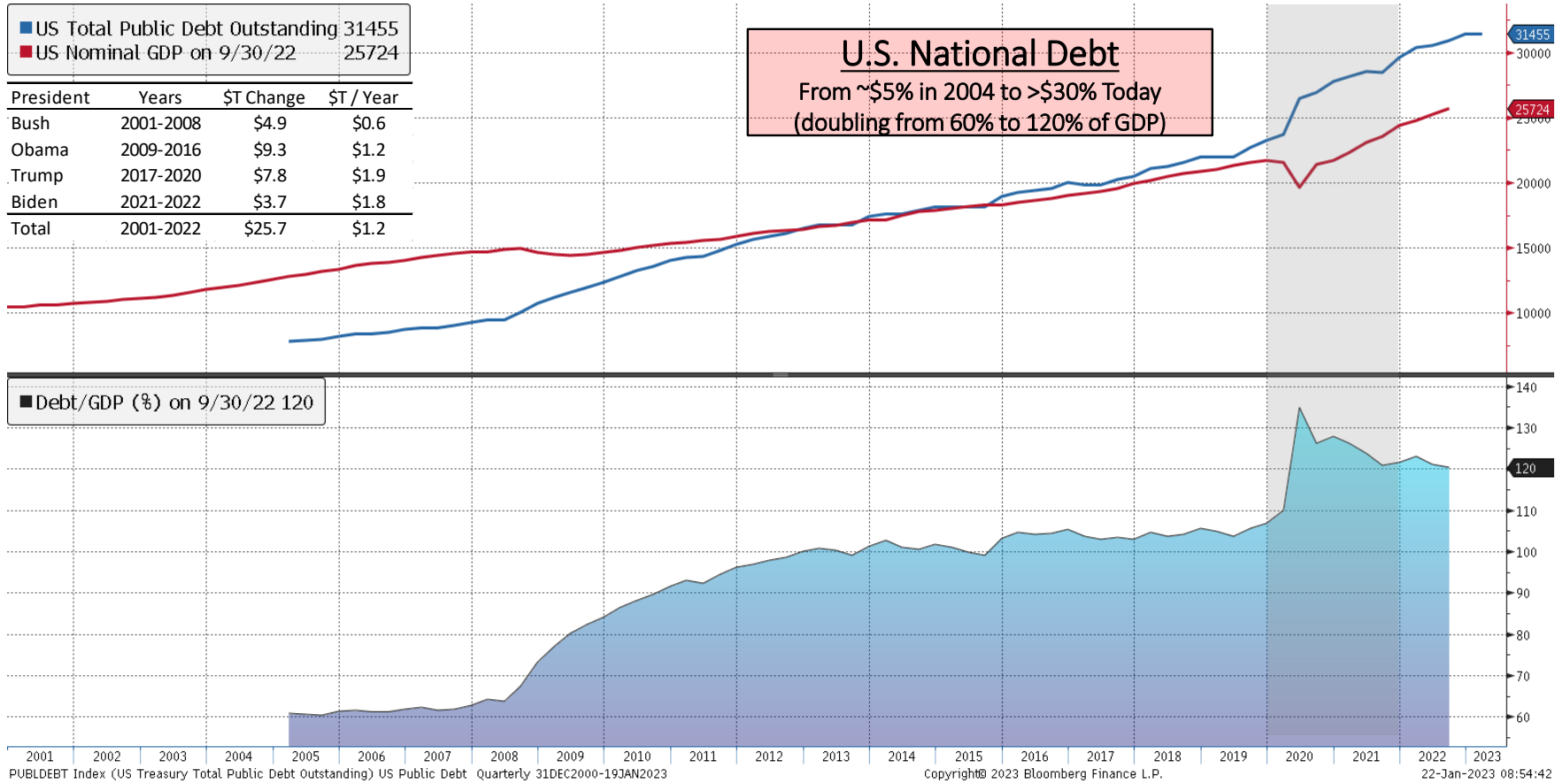
Chesley Burnett "Sully" Sullenberger III
Pilot of US Airways 1549, January 15, 2009

Labor markets remain tight

- Difficult to see inflation pressures return to Fed target without these tensions reversing
- Recent jobs reports remain strong (good news for economic resilience but challenges the market’s benign inflation expectations)

Data Source: Bloomberg

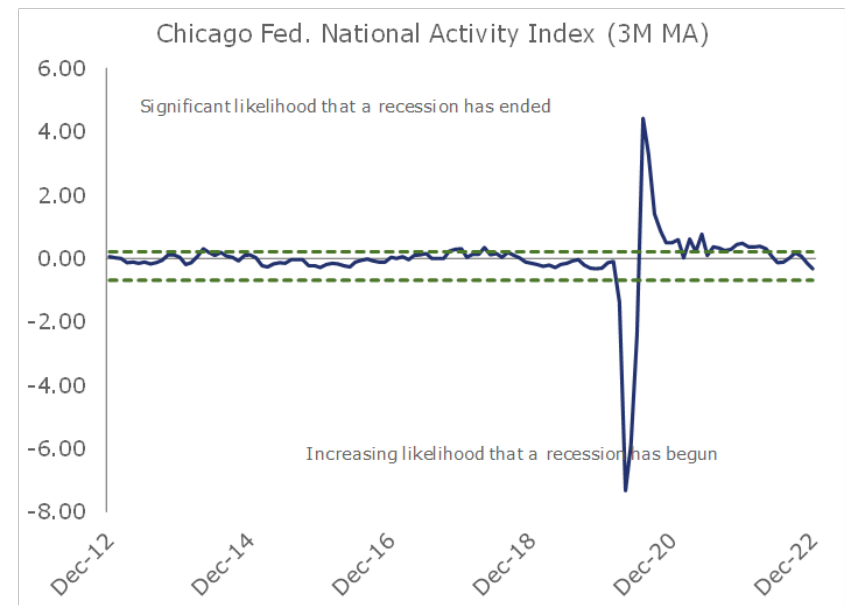
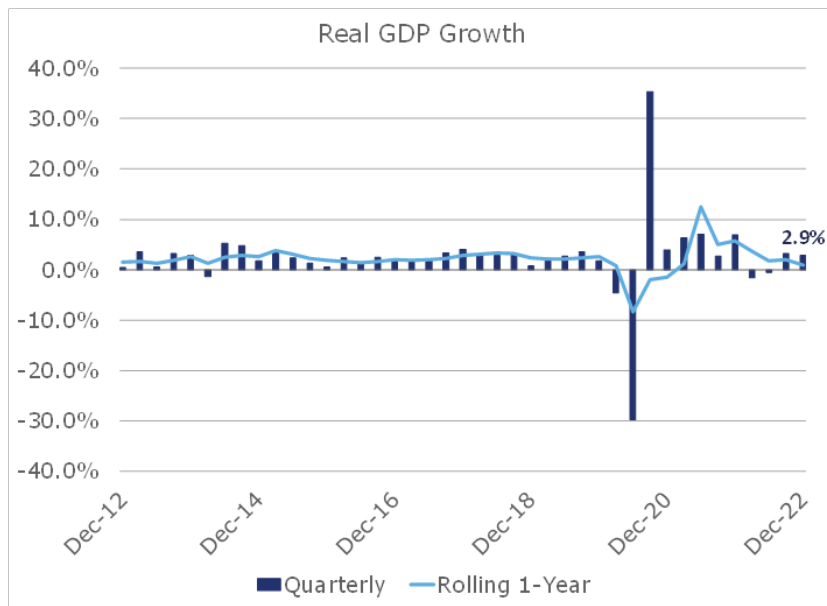
A Secular Explosion in National Debt: “We’re Not in Kansas Anymore”



Data Source: Bloomberg

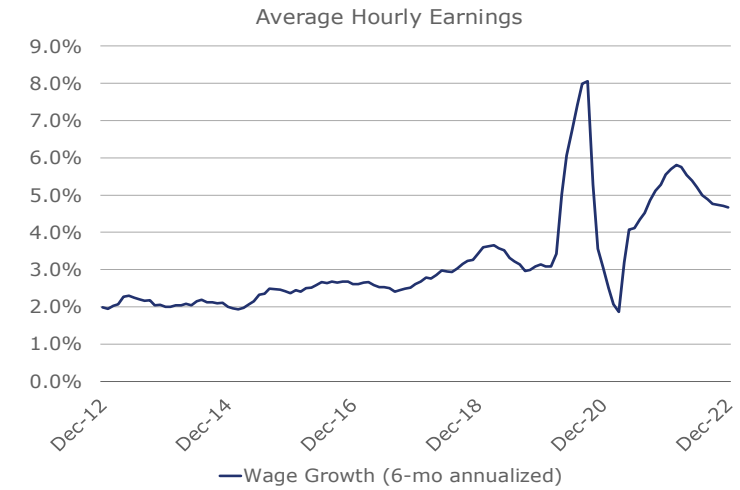
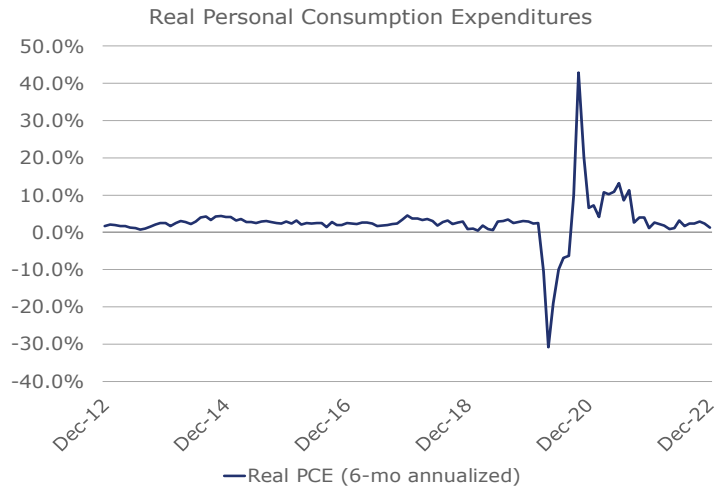
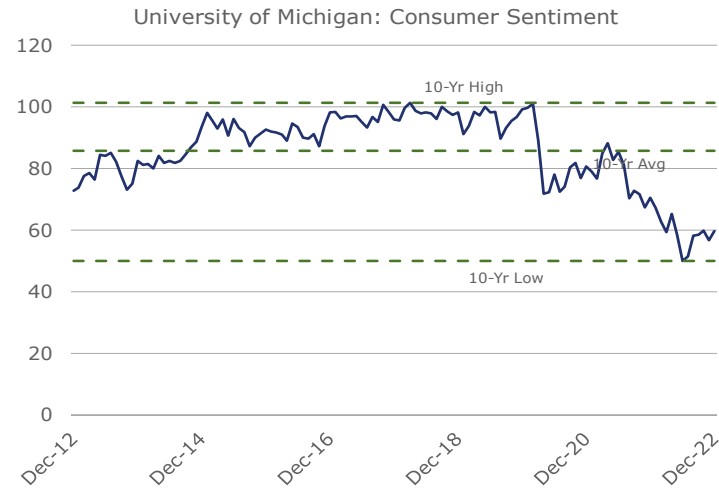
Economic/Market Activity

Economic Growth



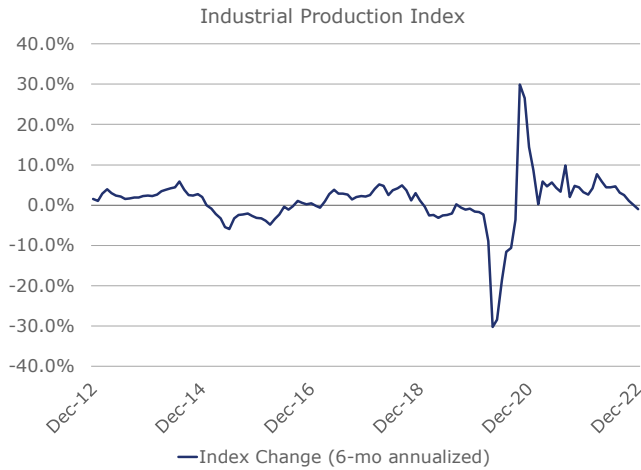
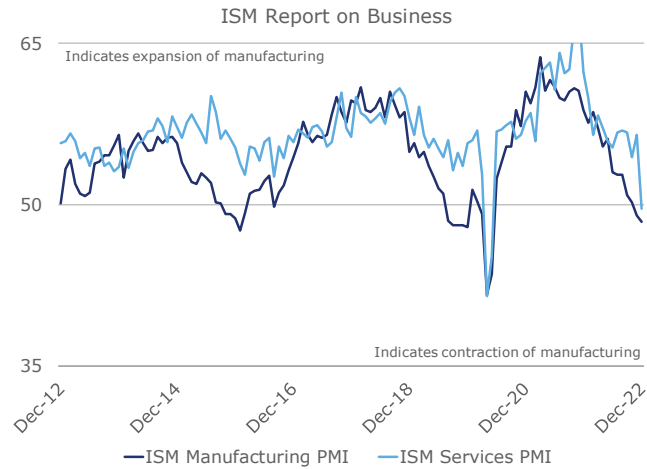
Data Source: Bloomberg

Consumer Activity



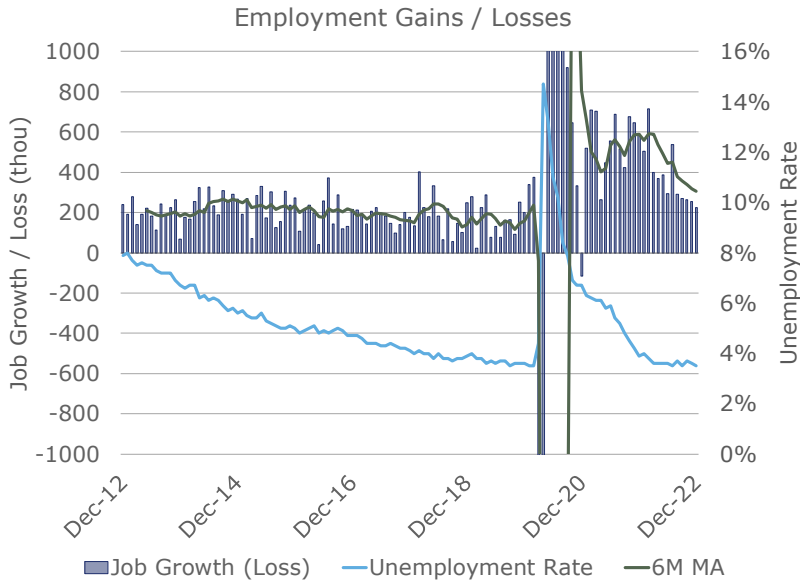
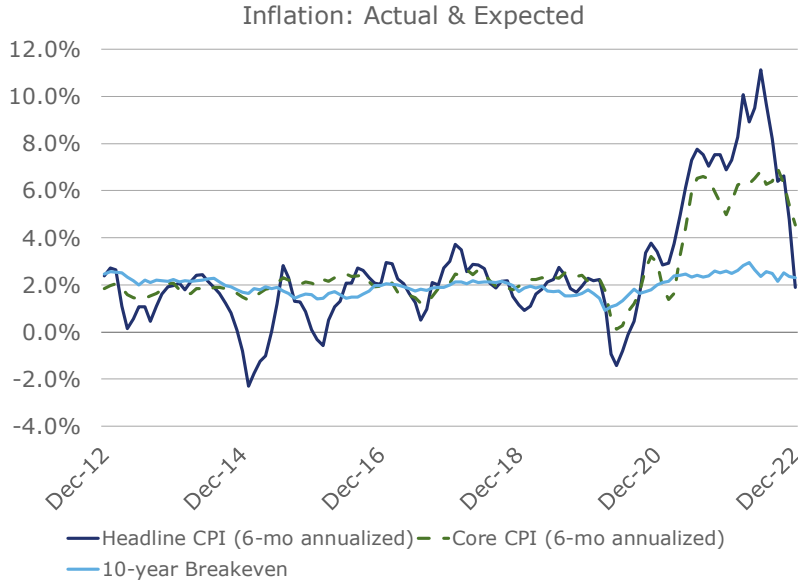
Data Source: Bloomberg

Business Activity



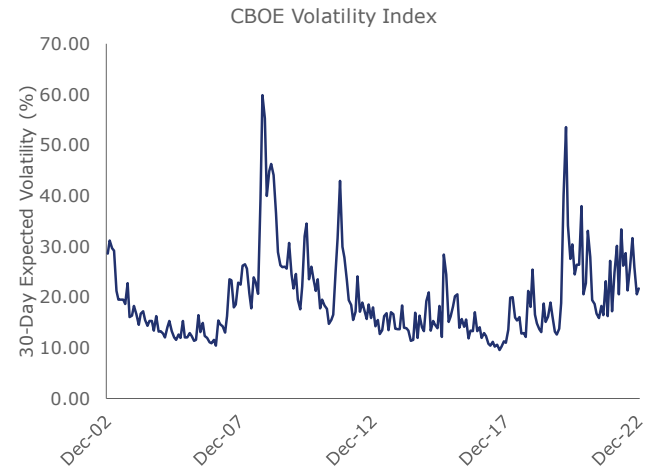
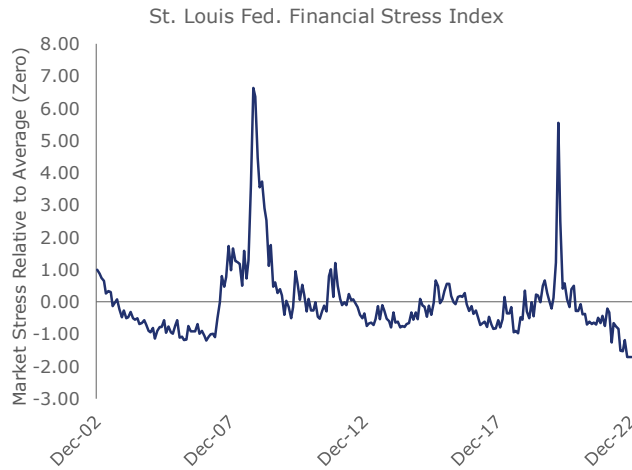
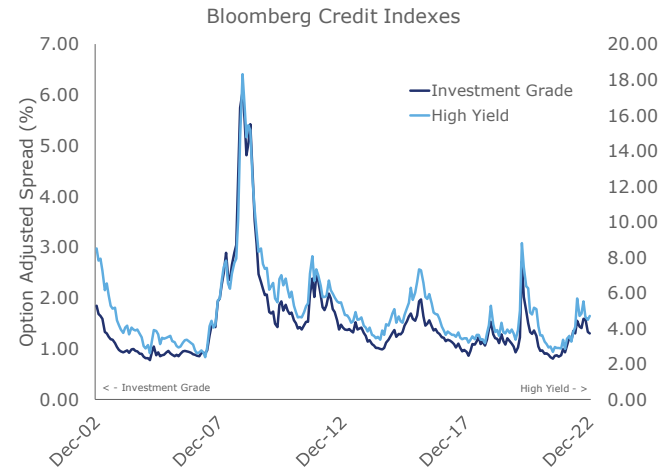
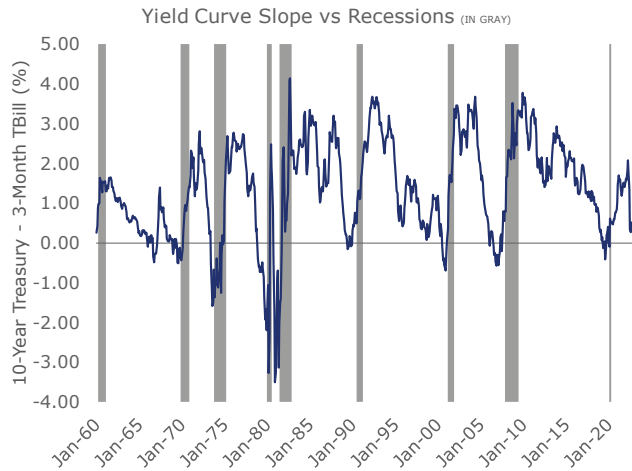
Data Source: Bloomberg

Inflation and Employment



Data Source: Bloomberg

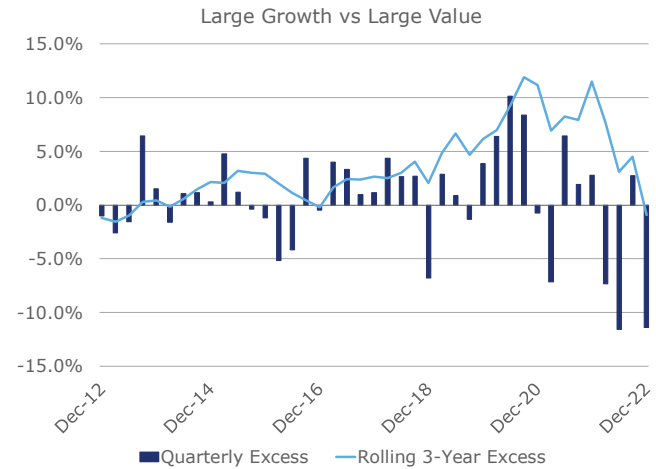
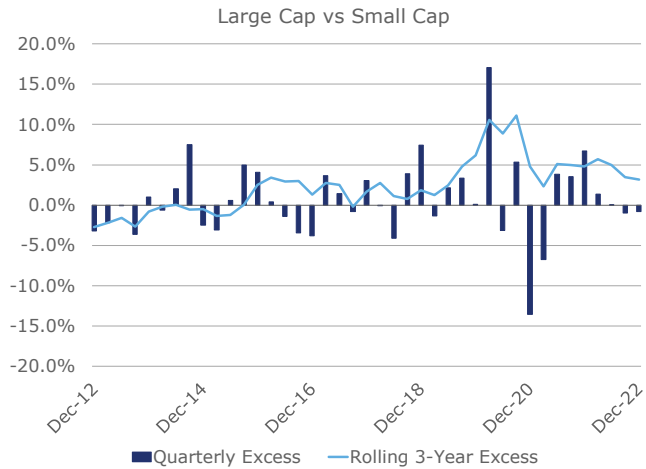
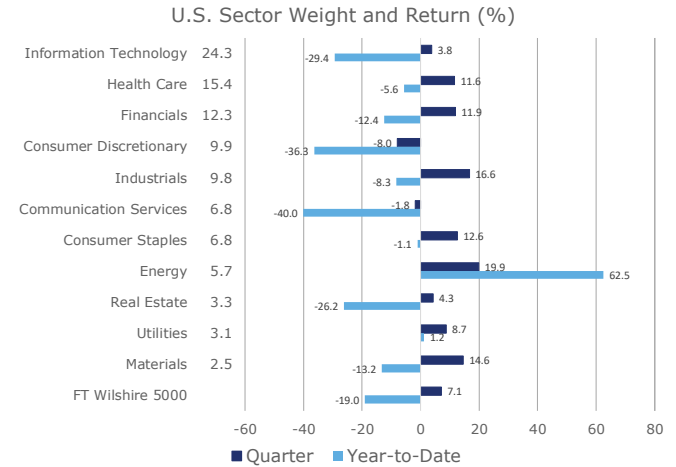
Risk Monitor



Data Sources: Bloomberg

U.S. Equity Market

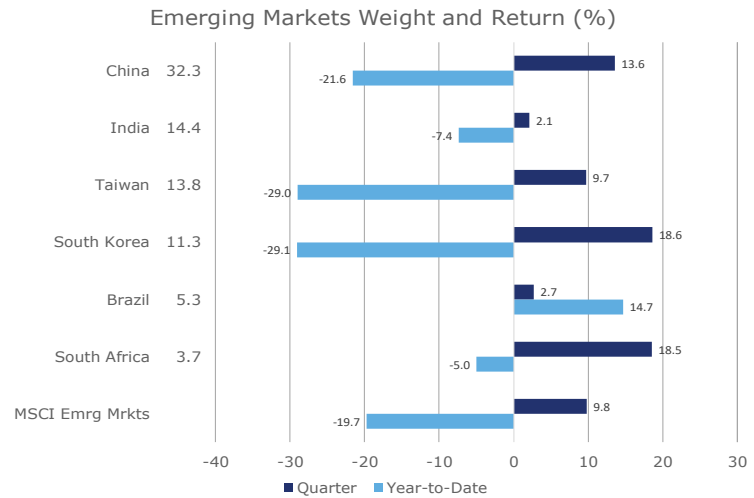
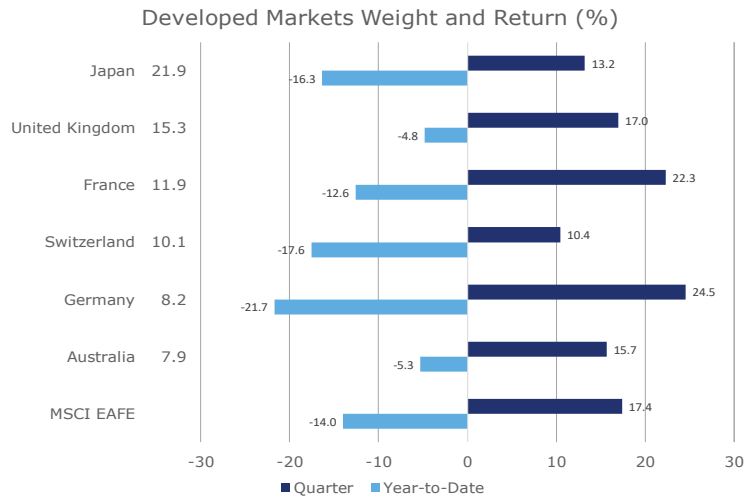
As of 12/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	7.1	-19.0	-19.0	7.4	9.0	12.3
Wilshire U.S. Large Cap	7.1	-19.0	-19.0	7.7	9.4	12.6
Wilshire U.S. Small Cap	7.9	-18.7	-18.7	4.4	5.1	9.7
Wilshire U.S. Large Growth	0.8	-29.5	-29.5	7.1	10.0	13.6
Wilshire U.S. Large Value	13.8	-5.5	-5.5	8.1	8.7	11.5
Wilshire U.S. Small Growth	7.1	-23.1	-23.1	3.2	5.1	9.9
Wilshire U.S. Small Value	8.7	-14.2	-14.2	5.6	5.0	9.3
Wilshire REIT Index	4.0	-26.8	-26.8	-0.5	3.4	6.3
MSCI USA Min. Vol. Index	9.8	-9.2	-9.2	5.1	8.6	11.9
FTSE RAFI U.S. 1000 Index	12.5	-7.4	-7.4	9.6	9.1	12.2



Data Sources: Bloomberg, Wilshire Atlas

Non-U.S. Equity Market

As of 12/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	14.4	-15.6	-15.6	0.5	1.4	4.3
MSCI EAFE (\$G)	17.4	-14.0	-14.0	1.3	2.0	5.2
MSCI Emerging Markets (\$G)	9.8	-19.7	-19.7	-2.3	-1.0	1.8
MSCI Frontier Markets (\$G)	9.2	-17.8	-17.8	-5.7	-3.8	0.2
MSCI ACWI ex-US Growth (\$G)	12.9	-22.8	-22.8	-0.1	1.8	5.0
MSCI ACWI ex-US Value (\$G)	15.7	-8.7	-8.7	0.8	0.6	3.6
MSCI ACWI ex-US Small (\$G)	13.4	-19.6	-19.6	1.5	1.1	5.6
MSCI ACWI Minimum Volatility	8.6	-9.8	-9.8	2.2	5.2	8.4
MSCI EAFE Minimum Volatility	12.5	-14.6	-14.6	-2.6	0.6	5.1
FTSE RAFI Developed ex-US	18.3	-9.0	-9.0	2.7	1.7	4.9
MSCI EAFE LC (G)	8.8	-6.5	-6.5	4.1	4.3	8.1
MSCI Emerging Markets LC (G)	6.7	-15.2	-15.2	0.5	1.7	5.0

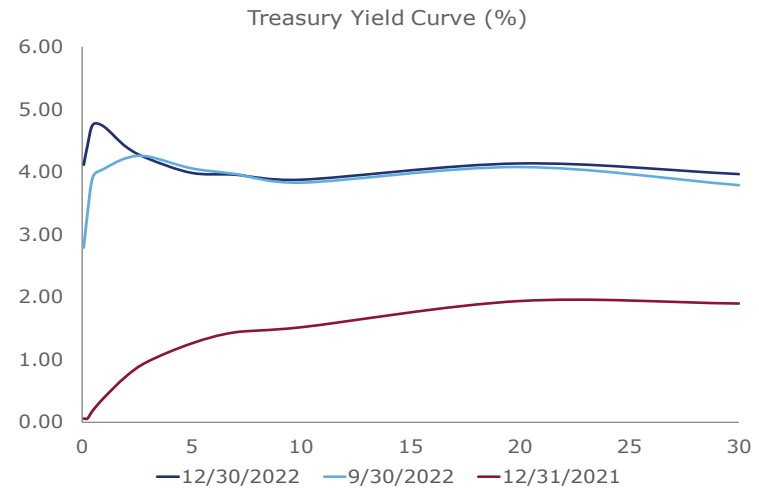
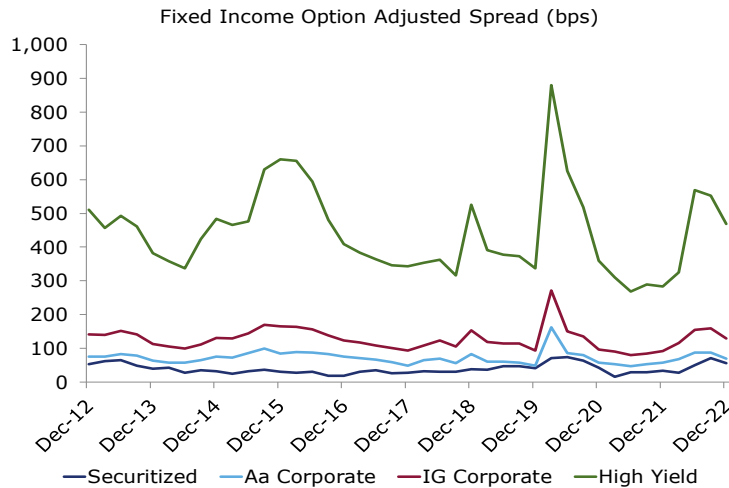


Data Sources: Bloomberg

U.S. Fixed Income

As of 12/30/2022	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.7	6.2	1.9	-13.0	-13.0	-2.7	0.0	1.1
Bloomberg Treasury	4.2	6.1	0.7	-12.5	-12.5	-2.6	-0.1	0.6
Bloomberg Gov't-Rel.	4.8	5.2	1.9	-11.1	-11.1	-2.4	0.3	1.1
Bloomberg Securitized	4.8	5.7	2.0	-11.7	-11.7	-3.1	-0.4	0.8
Bloomberg Corporate	5.4	7.1	3.6	-15.8	-15.8	-2.9	0.5	2.0
Bloomberg LT Gov't/Credit	4.9	14.3	2.6	-27.1	-27.1	-6.2	-1.2	1.6
Bloomberg LT Treasury	4.1	16.2	-0.6	-29.3	-29.3	-7.4	-2.2	0.6
Bloomberg LT Gov't-Rel.	5.5	11.6	4.2	-22.7	-22.7	-5.9	-0.8	1.6
Bloomberg LT Corporate	5.6	13.0	5.4	-25.6	-25.6	-5.7	-0.8	2.2
Bloomberg U.S. TIPS *	3.8	7.6	2.0	-11.8	-11.8	1.2	2.1	1.1
Bloomberg High Yield	9.0	3.9	4.2	-11.2	-11.2	0.0	2.3	4.0
S&P/LSTA Leveraged Loan	9.1	0.3	2.7	-0.6	-0.6	2.5	3.3	3.7
Treasury Bills	4.4	0.3	0.9	1.3	1.3	0.7	1.2	0.8

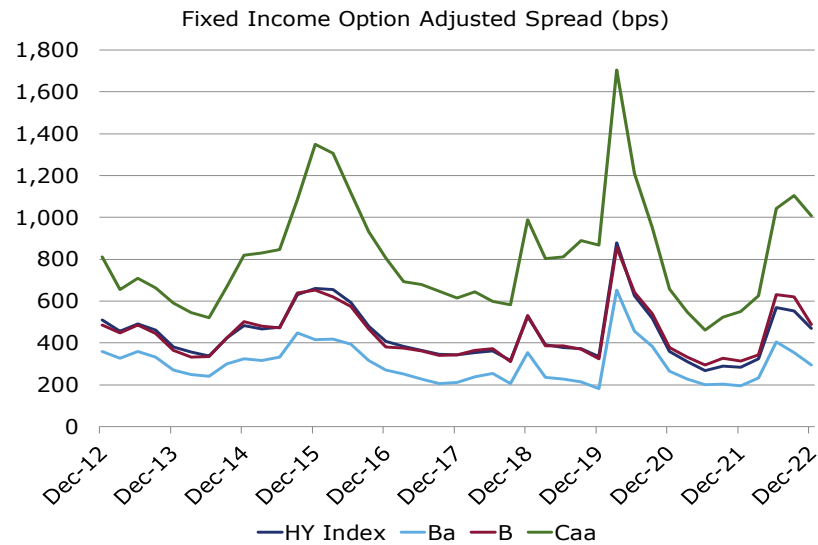
* Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index



Data Sources: Bloomberg

High Yield Bond Market

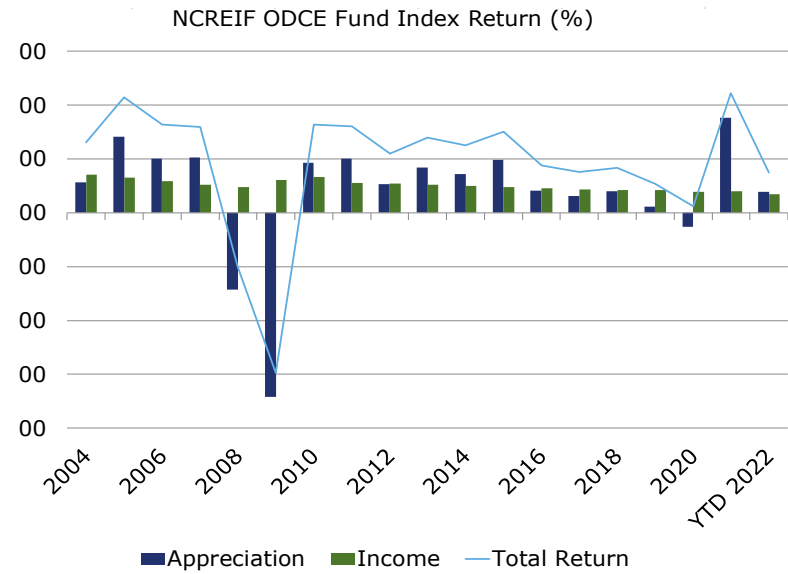
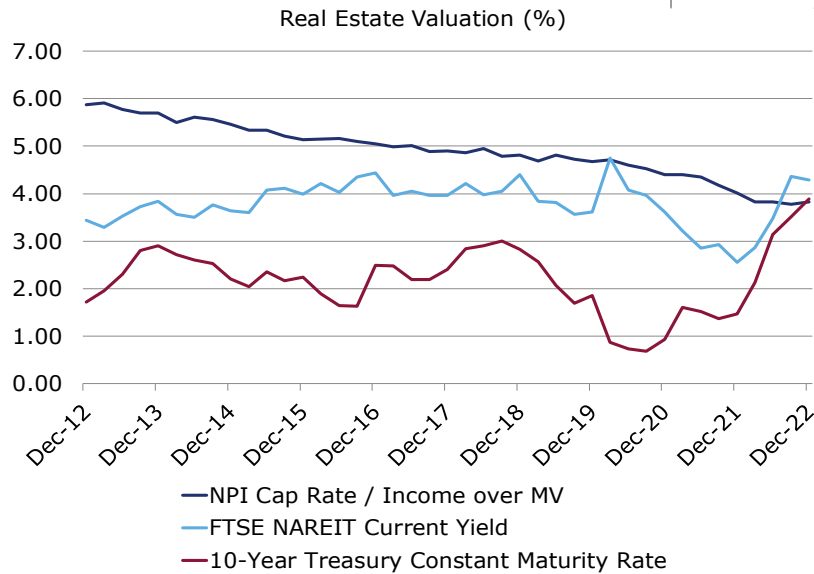
As of 12/31/2022		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		9.0	4.2	-11.2	-11.2	0.0	2.3	4.0
S&P LSTA Leveraged Loan		9.1	3.8	-0.6	-0.6	1.9	3.1	3.2
High Yield Quality Distribution	Weight							
Ba U.S. High Yield	49.9%	7.2	4.3	-10.8	-10.8	0.9	3.0	4.4
B U.S. High Yield	38.6%	9.2	4.9	-10.3	-10.3	-0.5	2.2	3.6
Caa U.S. High Yield	10.7%	14.3	0.5	-16.3	-16.3	-2.4	-0.4	3.5
Ca to D U.S. High Yield	0.7%	36.3	13.8	-10.4	-10.4	1.1	0.4	-5.0



Data Sources: Bloomberg

Real Assets

As of 12/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg U.S. TIPS	2.0	-11.8	-11.8	1.2	2.1	1.1
Bloomberg Commodity Index	2.2	16.1	16.1	12.7	6.4	-1.3
Bloomberg Gold Index	9.5	-0.7	-0.7	4.7	5.7	0.0
Wilshire Global RESI Index	6.4	-24.9	-24.9	-2.7	1.6	4.8
NCREIF ODCE Fund Index	-5.0	7.5	7.5	9.9	8.7	10.1
NCREIF Timberland Index	4.9	12.9	12.9	7.5	5.4	5.8
FTSE Global Core Infrastructure 50/50	9.2	-4.1	-4.1	2.3	5.5	7.9
Alerian Midstream Energy	8.4	21.5	21.5	8.8	6.8	n.a.
Bitcoin	-14.9	-64.3	-64.3	32.2	3.3	103.6



Data Sources: Bloomberg

Asset Class Performance

Asset Class Returns - Best to Worst

2017	2018	2019	2020	2021	2022 YTD	Annualized 5-Year as of 12/22
Emrg Mrkts 37.7%	T-Bills 1.9%	U.S. Equity 31.0%	U.S. Equity 20.8%	REITs 46.2%	Commodities 16.1%	U.S. Equity 9.0%
Developed 25.6%	Core Bond 0.0%	REITs 25.8%	Emrg Mrkts 18.7%	Commodities 27.1%	T-Bills 1.3%	Commodities 6.4%
U.S. Equity 21.0%	U.S. TIPS -1.3%	Developed 22.7%	U.S. TIPS 11.0%	U.S. Equity 26.7%	High Yield -11.2%	REITs 3.4%
High Yield 7.5%	High Yield -2.1%	Emrg Mrkts 18.9%	Developed 8.3%	Developed 11.8%	U.S. TIPS -11.8%	High Yield 2.3%
REITs 4.2%	REITs -4.8%	High Yield 14.3%	Core Bond 7.5%	U.S. TIPS 6.0%	Core Bond -13.0%	U.S. TIPS 2.1%
Core Bond 3.6%	U.S. Equity -5.3%	Core Bond 8.7%	High Yield 7.1%	High Yield 5.3%	Developed -14.0%	Developed 2.0%
U.S. TIPS 3.0%	Commodities -11.2%	U.S. TIPS 8.4%	T-Bills 0.7%	T-Bills 0.0%	U.S. Equity -19.0%	T-Bills 1.2%
Commodities 1.7%	Developed -13.4%	Commodities 7.7%	Commodities -3.1%	Core Bond -1.5%	Emrg Mrkts -19.7%	Core Bond 0.0%
T-Bills 0.8%	Emrg Mrkts -14.2%	T-Bills 2.3%	REITs -7.9%	Emrg Mrkts -2.2%	REITs -26.8%	Emrg Mrkts -1.0%

Data Sources: Bloomberg

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

County Employees Retirement System

Investment Office Update

Quarter Ending: December 31, 2022

December
2022

KPPA MONTHLY PERFORMANCE UPDATE

CERS/CERS-H

What's going on in the marketplace?

The story for 2022 was one of lower highs and lower lows with persistent volatility. The 12-month period was macro-driven as decades high inflation levels and aggressive Fed tightening were the central storylines with the regime transitioning from historically easy monetary policy to one of rapid tightening across the world. The unprecedented pace of the policy shift caused a repricing of risk assets as the “everything bubble” burst, best explained by a collapse of multiples with the formerly high-flying growth sectors of the market hit especially hard.

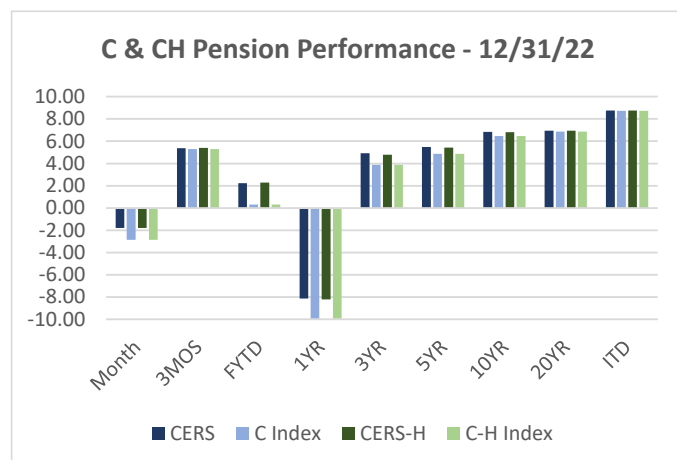
The 2022 calendar year marked the worst performance of the traditional 60/40 equity/fixed income portfolio in the last 80 years. From an equity style perspective, there was nowhere to hide; however, large cap value held up relatively well, falling ‘only’ -7.5% for the year. The large cap growth segment of the market got hit hardest, losing -29.1%, primarily due to weakness in high multiple large cap technology names. From a sector perspective, the information technology, consumer discretionary, and communication services sector all fell more than 30% during the year. Utilities and consumer staples remained relatively flat. The only sector to experience meaningful positive performance was the energy sector which was up roughly 60%. From a factor perspective, quality as defined by operating margin, return on equity, return on invested capital, and future cash flow growth led the market. Companies with higher leverage and limited liquidity were punished.

The high levels of inflation and the actions of global central banks to combat it were the central narrative of 2022. While the balance of data is beginning to indicate that inflation may have peaked and could soon start to roll over, the full potential of the damage to markets and the economy remains uncertain. The probability that the Fed may be near the end of their hiking cycle is rising as goods and commodity inflation has begun to abate. However, stickier pockets like wages and housing are likely to remain elevated, and as such price normalization across the economy is likely to take longer than once hoped. The balance may be that inflation remains elevated for longer than markets currently anticipate, and rates remain higher for longer than markets are pricing.

Volatility is likely to remain elevated in 2023 as the likelihood of a global recession is considered a certainty by many market participants, with only the depth and duration seemingly being debated. While 2022 performance was driven by a risk derating (multiple compression), 2023 is likely to be driven by earnings, which are likely to be weaker in response to a slowing global economy.

The KPPA Pension Trust portfolio fell -1.62% during the month of December, providing 100bps of downside protection

versus a blended benchmark. The CERS Pension Composite produced a -1.79% return during the month. The CERS and CERS-H Pension portfolios both returned -1.79%, while their benchmark fell -2.86%. Both funds outperformed their benchmark with similar drivers of attribution. The plans benefitted from strong selection in the Specialty Credit allocation, and solid relative performance from the public equity allocation, more specifically from the U.S. Equity allocation. Further, the Private Equity allocation bolstered relative performance. The overweight to Specialty Credit was additive in terms of relative performance. Partially



offsetting positive relative performance, was the underweight to the Real Return allocation.

For the fiscal year-to-date, the KPPA Pension Trust portfolio gained 2.05%, outperforming the benchmark return of 0.36% while the CERS Pension Composite returned 2.25%. The CERS and CERS-H Pension portfolios returned 2.24% and 2.28%, against a benchmark return of 0.31%. Both funds outperformed due to similar attribution drivers. Relative outperformance was driven by solid performance in the Private Equity, Public Equity (most notably within the international strategies), and Core Fixed Income allocations. The portfolios benefitted from their overweight to the Specialty Credit allocation; the CERS-H portfolio benefitted from its cash overweight during a volatile period. The underweight to the Real Return allocation (and to a lesser degree to Real Estate) partially offset the relative outperformance of the plans.

Global equity markets were weaker during the month of December, as evidenced by the MSCI ACWI Index returning -3.94%. Domestic markets were significantly weaker than their Non-US market counterparts (R3000: -5.86% versus MSCI ACWI Ex-US: -0.62%). This brought the fiscal year return for global equity markets to 2.28%.

US equity markets fell -5.86% during the month (Russell 3000), while the KPPA portfolio fared slightly better, returning -5.43%. All market segments were significantly weaker; with value holding up better than growth (R3000V: -7.58% versus R3000G: -4.18%). Despite the negative absolute return, individual strategies provided positive relative performance.

For the first two quarters of the fiscal year, the KPPA US Equity portfolio gained 2.96% compared with its benchmark return of 2.40%. During the period, mid-caps significantly outperformed both their small and large cap counterparts (MC: 8.05% versus R2000: 3.91% versus SP500: 2.31%). Value significantly outperformed growth (5.95% versus -1.13%) during the period. The KPPA portfolio's relative outperformance has been driven by its slight overweight down market cap and tilt value.

NonUS equity markets returned -0.62% (MSCI ACWI Ex-US) during the month. Developed markets returned -0.45% (MSCI World Ex-US) during the period while emerging markets fell -1.45% (MSCI EM). The KPPA portfolio lost -0.70% during the month, trailing the index by 8bps. Relative underperformance was driven by stock selection, as most individual mandates struggled.

Fiscal year-to-date, Non-US markets rose 3.09%. Developed markets significantly outperformed their emerging market counterparts (5.66% versus -2.99%). The KPPA portfolio returned 4.65%, thanks to strong relative performance amongst the individual strategies, in particular the relative value and emerging market mandates.

The specialty credit portfolio outperformed its benchmark during the month, returning 0.53% versus -0.10%. The High Yield market declined (-0.62%) as spreads reversed in a continuation of the risk-off sentiment and rates rose. The leveraged loan segment of the market held up better as the Morningstar LSTA Leveraged Loan Index gained 0.42% during the month as quality outperformed better combined with less sensitive rate profile. During the first half of the fiscal year, the portfolio underperformed its benchmark, gaining 2.30% versus 3.85%. Individual strategy relative performance has been mixed fiscal year to date, especially with private market pricing playing catch-up, but continues to produce strong relative performance over longer periods.

The core fixed income portfolio gained 38bps compared to the Bloomberg Aggregate Index return of -0.45%. Relative outperformance was attributable to positioning within the allocation; the portfolios remain underweight overall duration given rising rates and elevated volatility. Both shorter-term and intermediate credit market segments held up better. For the fiscal year, the portfolio returned -0.54% compared to the benchmark return of -2.97%.

The private equity allocation fell -1.97% during the month, bringing the fiscal year return to -5.99%. Trailing public marks have significantly affected the overall performance of the portfolio, the 1-year return crossed into negative territory, now at -0.21% as of 12/31/22.

The real return portfolio fell -1.34% during the month, compared to its benchmark return of 0.15%. As with several of the previous month, performance was driven by the MLP portion of the portfolio (approximately 40% of the allocation); the investment was down -4.81%. For the fiscal year, the portfolio has returned 7.70%, bringing the 1-year return to 6.73%.

Real estate remained relatively flat during the month, falling 8bps. The latest quarter performance of 1.15% brought the 1-year return to 18.74% versus 20.96%. The portfolio has benefitted from recent strength in industrial, multi-family, student housing, and storage properties.

The cash portfolio returned 0.30% during the month compared with the 3-month T-bill's 0.34%. This brought the fiscal year return to 1.42% (versus 1.33%).



CERS INS & CERS HAZ INS - INSURANCE FUND - PLAN NET RETURNS - 12/31/22											
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
CERS INS	3,071,319,181.23	-1.77	5.53	2.32	-7.70	4.73	5.41	6.76	6.80	6.77	7.25
KY Ins. CERS Plan IPS Index		-2.86	5.30	0.31	-9.90	3.55	4.66	6.43	6.98	6.95	7.40
CERS - H INS	1,522,831,336.04	-1.75	5.39	2.20	-7.60	4.86	5.52	6.83	6.84	6.79	7.27
KY Ins. CERS Haz Plan IPS Index		-2.86	5.30	0.31	-9.90	3.55	4.66	6.43	6.99	6.95	7.40

KPPA INSURANCE FUND UNIT - NET RETURNS - 12/31/22 - PROXY PLAN ASSET PERFORMANCE											
Structure		Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY		-3.50	10.57	3.67	-18.28	3.77	4.96	7.95	7.70		8.27
MSCI ACWI		-3.94	9.76	2.28	-18.42	3.41	4.67	7.63	7.40		8.05
PRIVATE EQUITY		-1.92	-2.45	-2.55	6.51	15.25	14.22	14.73	12.06		11.00
Russell 3000 + 3%(Qtr Lag)		-8.74	-3.54	-18.49	-14.63	10.76	11.65	14.71	11.61		10.88
SPECIALTY CREDIT		0.59	2.21	2.45	0.49	4.52	4.97				5.19
50% BB US HY / 50% SP LSTA Leveraged Loan		-0.10	3.45	3.85	-5.95	1.33	2.84				3.00
CORE FIXED INCOME		0.36	1.50	-0.62	-6.20	-0.13	1.52				2.03
Bloomberg Barclays US Aggregate		-0.45	1.87	-2.97	-13.01	-2.71	0.02				1.38
CASH		0.29	0.84	1.39	1.60	0.72	1.26	0.85	1.47		2.43
Citigroup Treasury Bill-3 Month		0.34	0.87	1.33	1.50	0.71	1.25	0.74	1.22		2.31
REAL ESTATE		-0.10	1.18	3.82	18.44	14.44	12.93	11.10			10.52
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^		0.31	0.31	4.87	20.96	11.38	9.26	9.91			7.10
REAL RETURN		-0.94	4.12	6.41	5.01	6.40	5.31	3.51			4.41
US CPI +3%		0.15	1.25	3.32	6.69	6.96	5.64	4.02			4.05

CERS Insurance Relative Weights

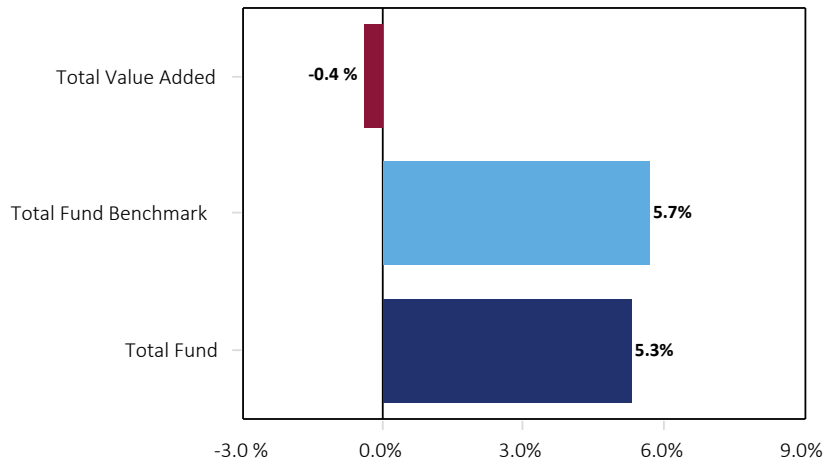
CERS-HAZ Insurance Relative Weights

Total Fund Attribution

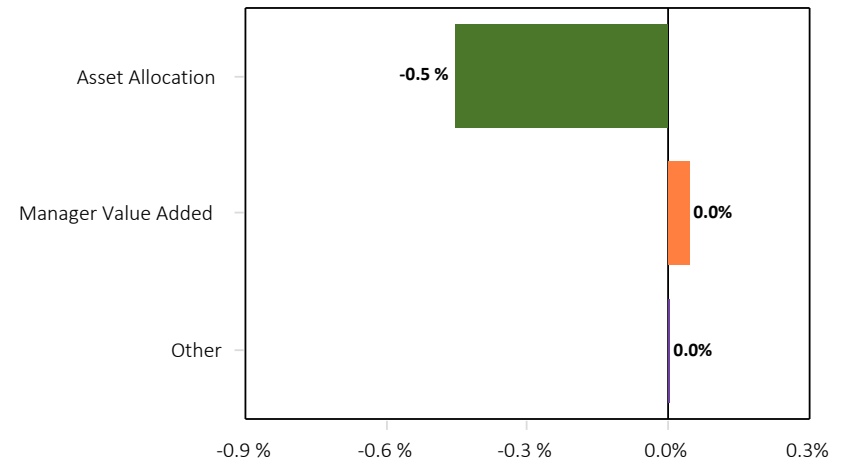
CERS Pension Plan

Periods Ended 1 Quarter Ending December 31, 2022

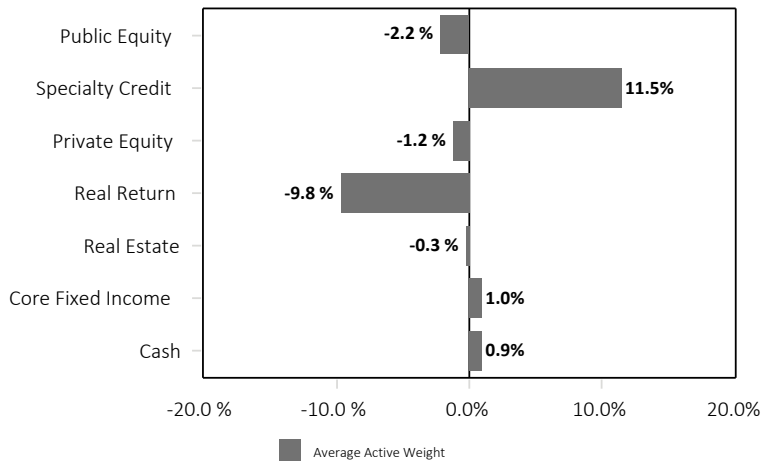
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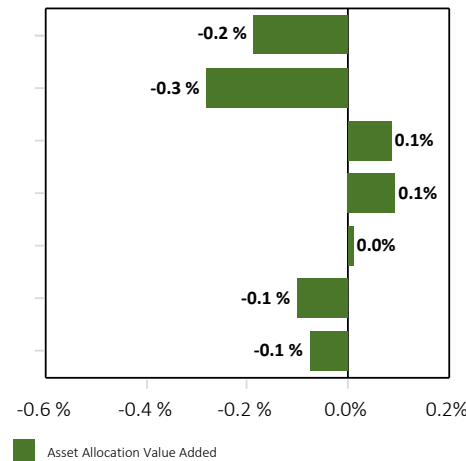
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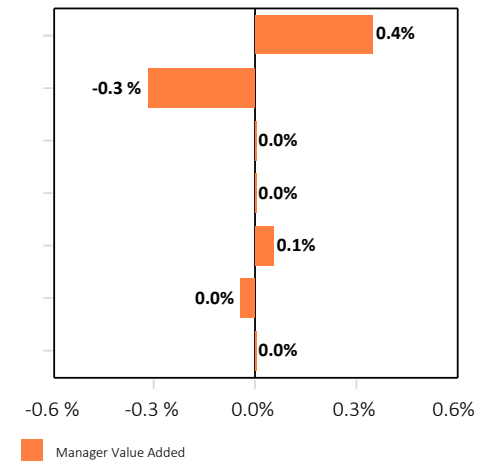
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Asset Allocation Value Added:-0.5 %



Total Manager Value Added:0.0%

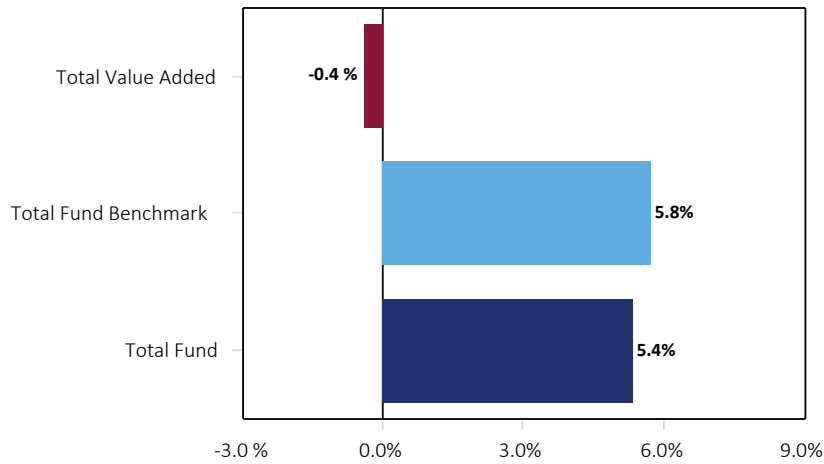


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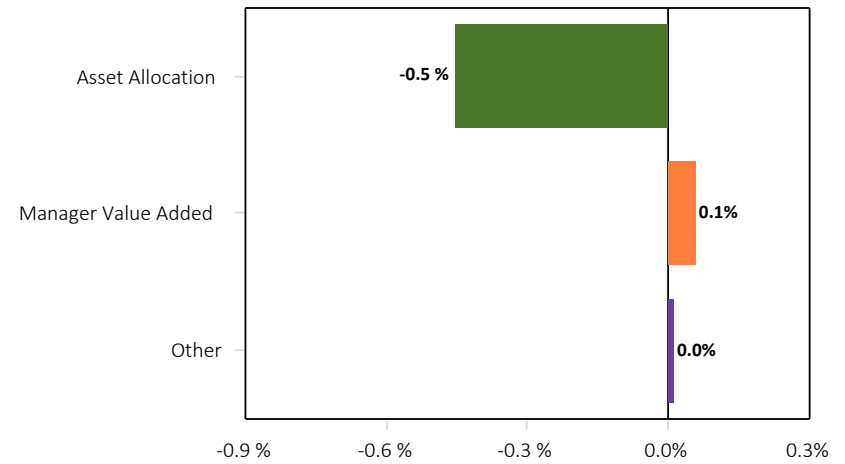
CERS (H) Pension Plan

Periods Ended 1 Quarter Ending December 31, 2022

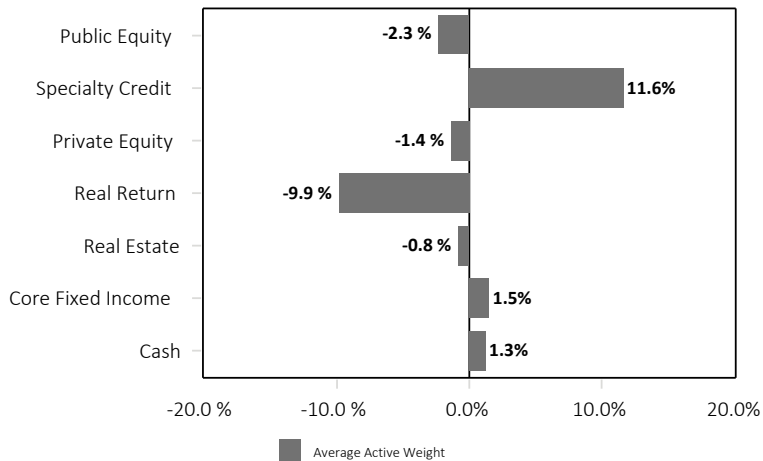
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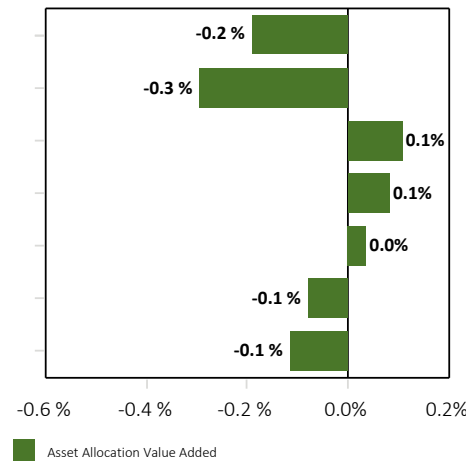
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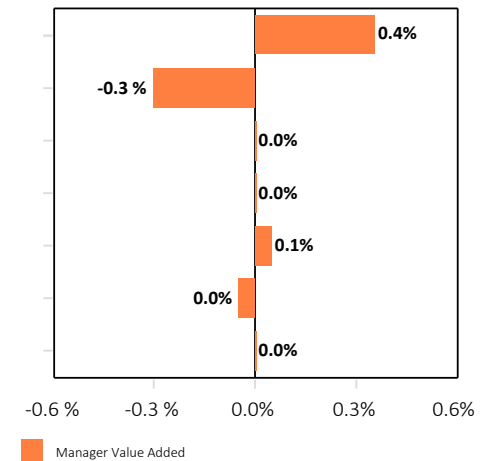
Total Asset Allocation:-0.5 %



Asset Allocation Value Added:-0.5 %



Total Manager Value Added:0.1%

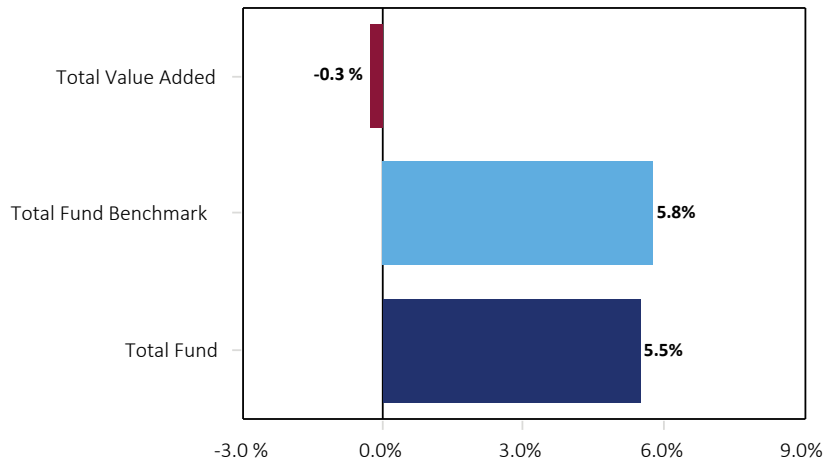


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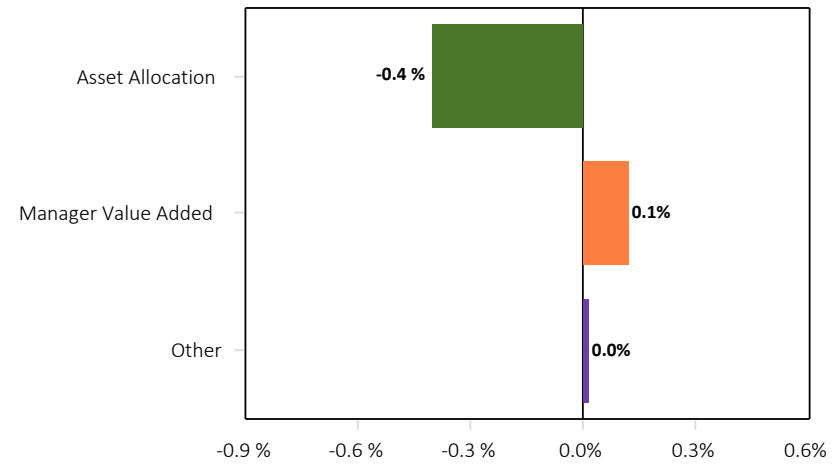
CERS Insurance Plan

Periods Ended 1 Quarter Ending December 31, 2022

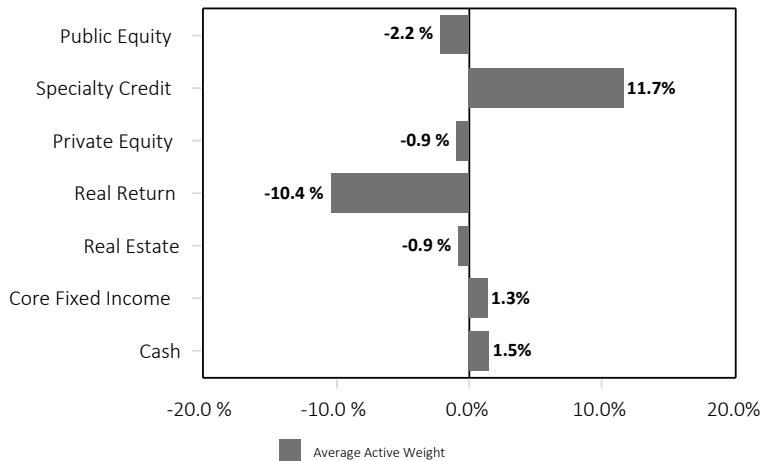
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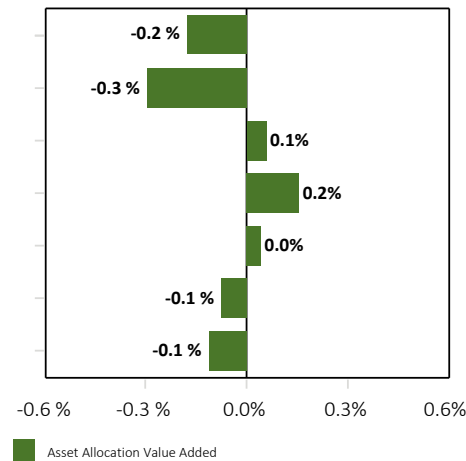
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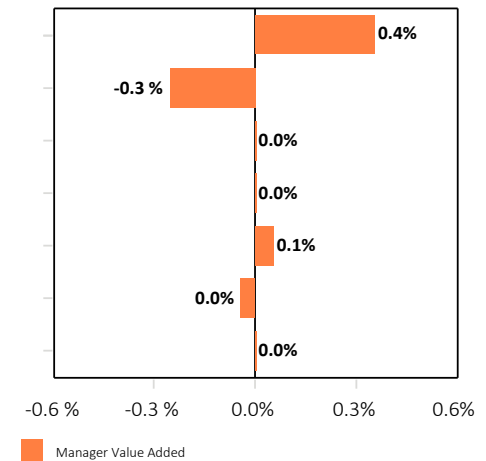
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Asset Allocation Value Added:-0.4 %



Total Manager Value Added:0.1%

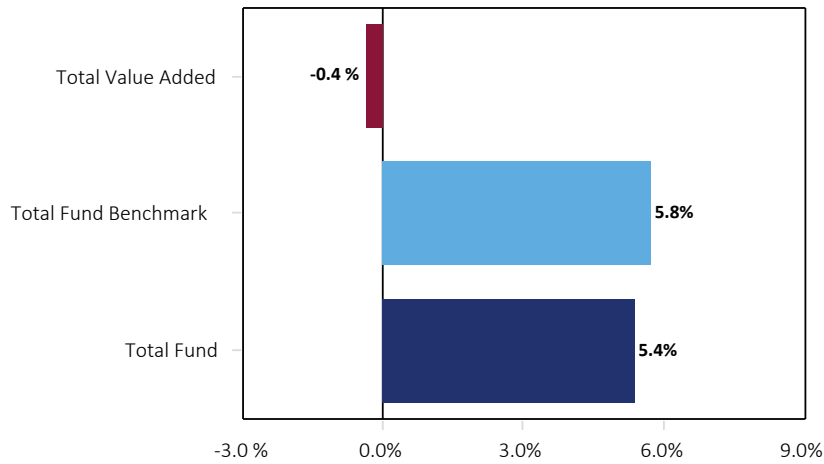


Total Fund Attribution

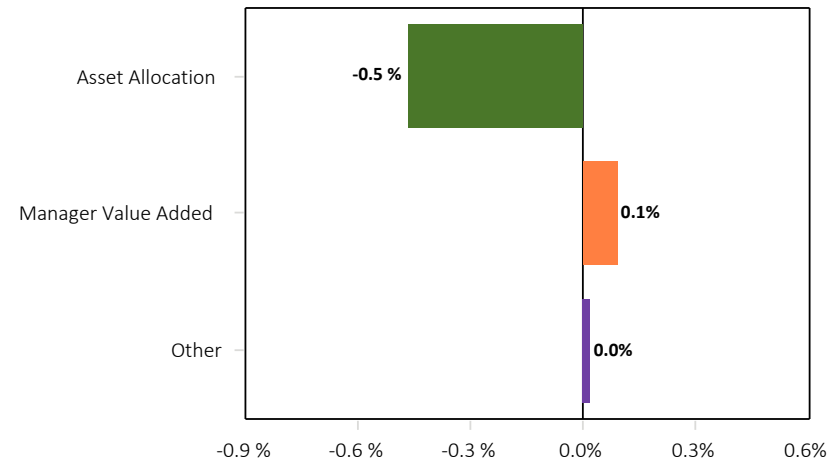
CERS (H) Insurance Plan

Periods Ended 1 Quarter Ending December 31, 2022

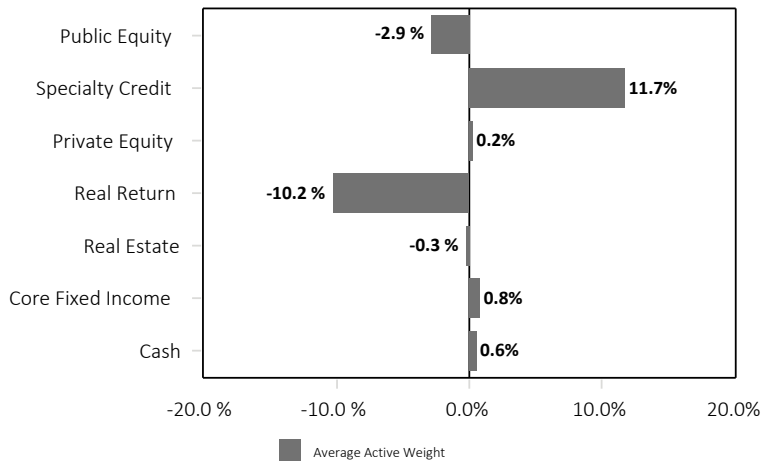
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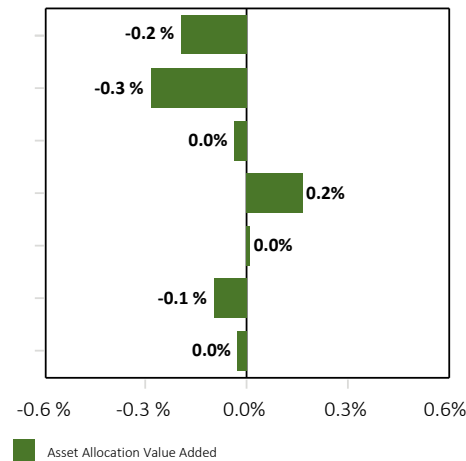
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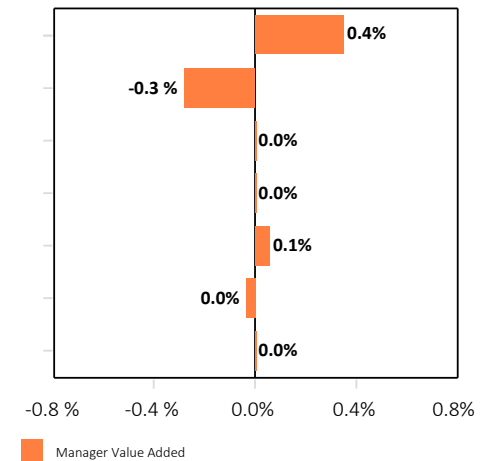
Total Asset Allocation:-0.5 %



Asset Allocation Value Added:-0.5 %



Total Manager Value Added:0.1%

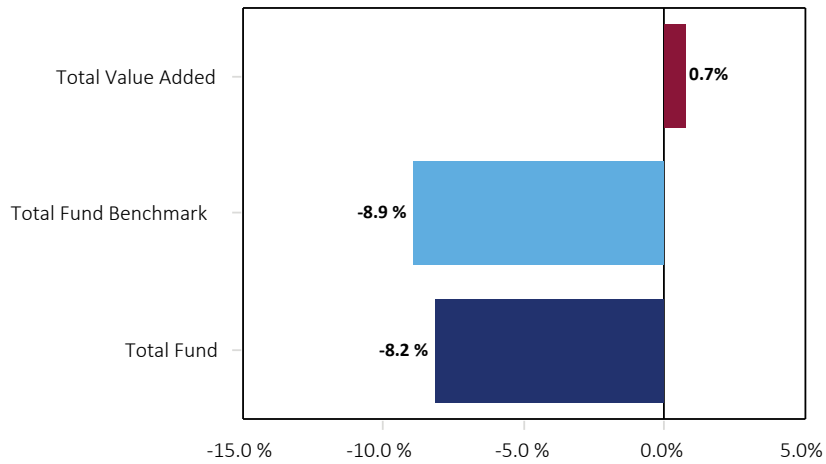


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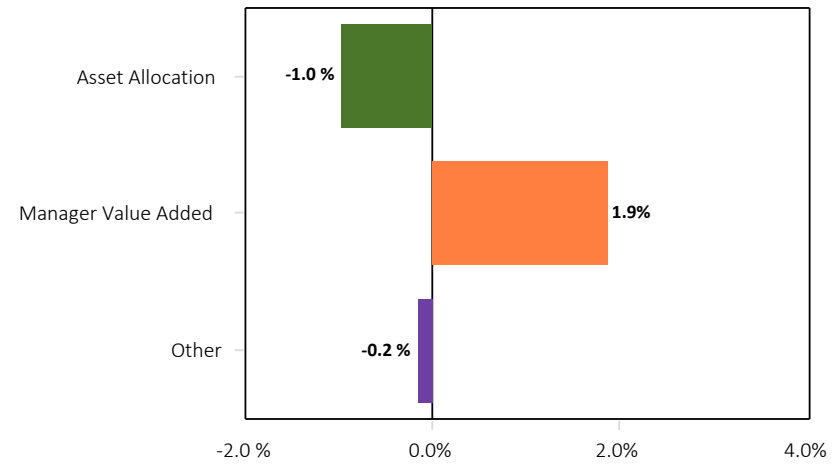
CERS Pension Plan

Periods Ended 1 Year Ending December 31, 2022

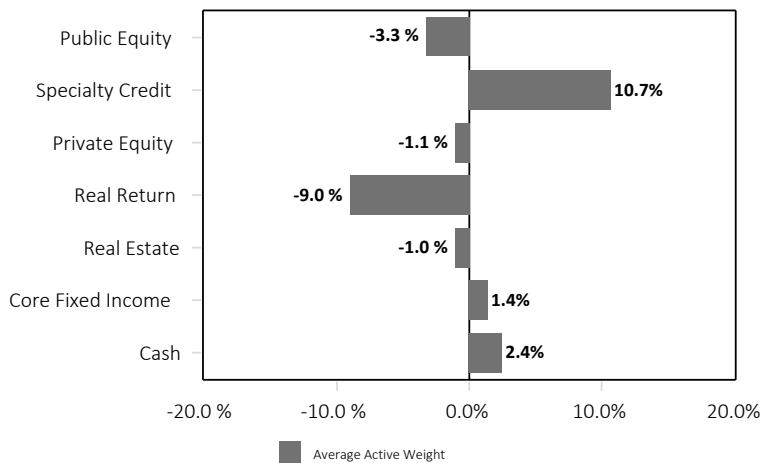
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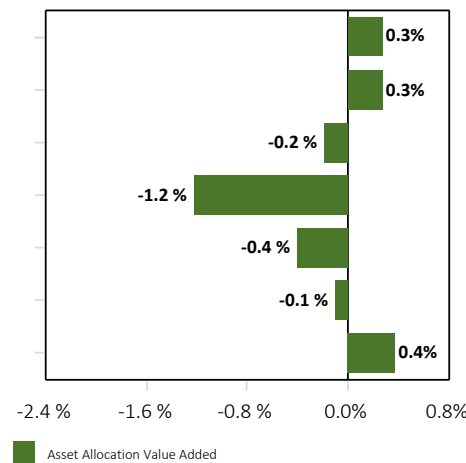
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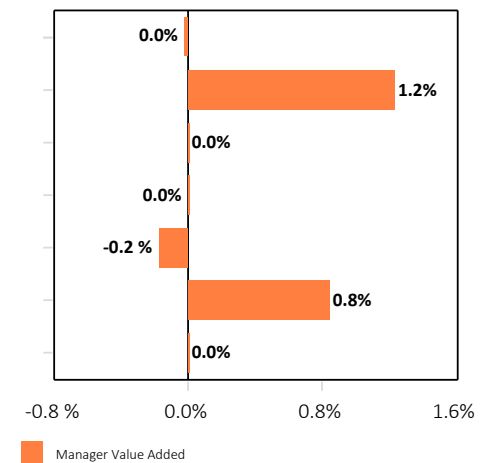
Total Asset Allocation: -1.0%



Asset Allocation Value Added: -1.0%



Total Manager Value Added: 1.9%

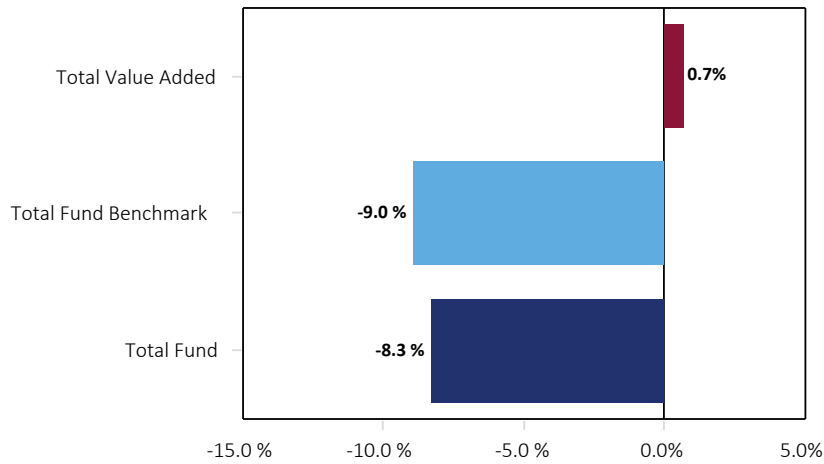


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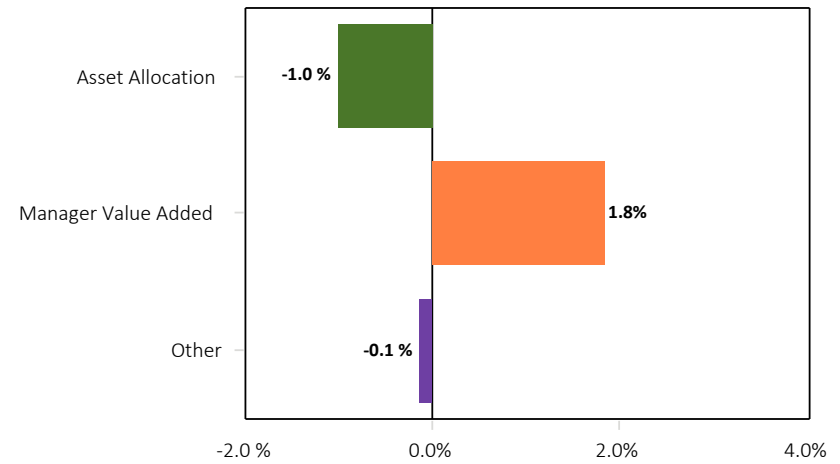
CERS (H) Pension Plan

Periods Ended 1 Year Ending December 31, 2022

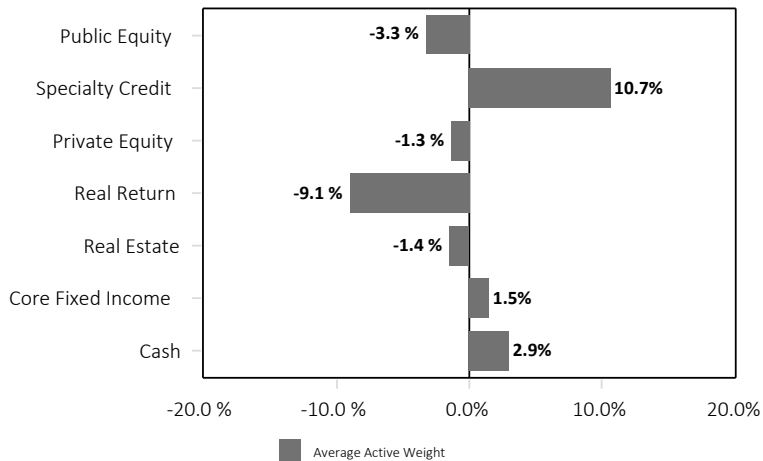
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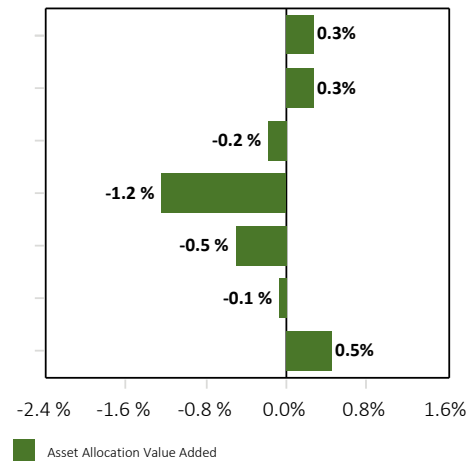
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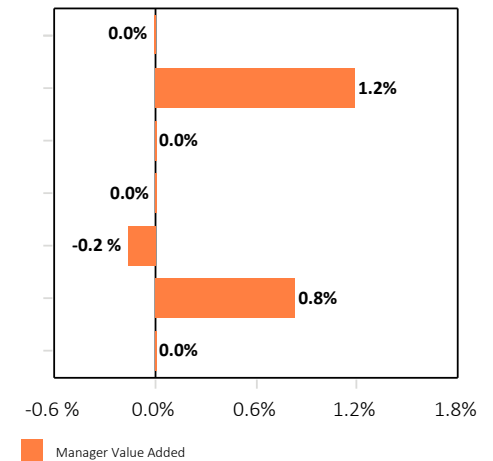
Total Asset Allocation:-1.0%



Asset Allocation Value Added:-1.0%



Total Manager Value Added:1.8%

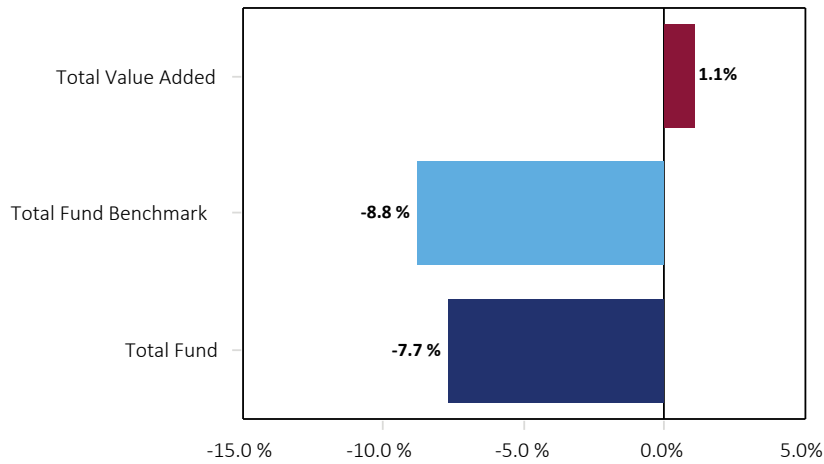


Total Fund Attribution

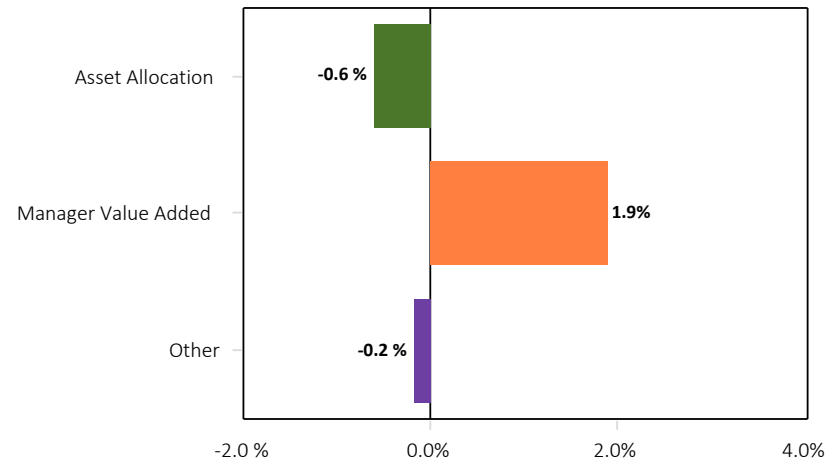
CERS Insurance Plan

Periods Ended 1 Year Ending December 31, 2022

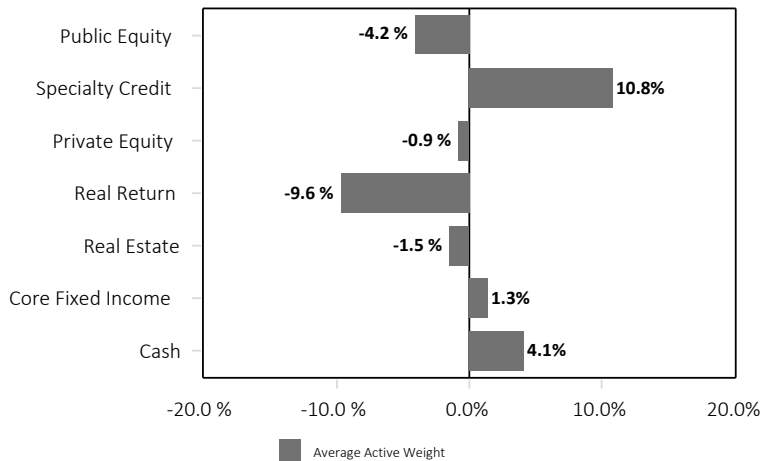
Total Fund Performance



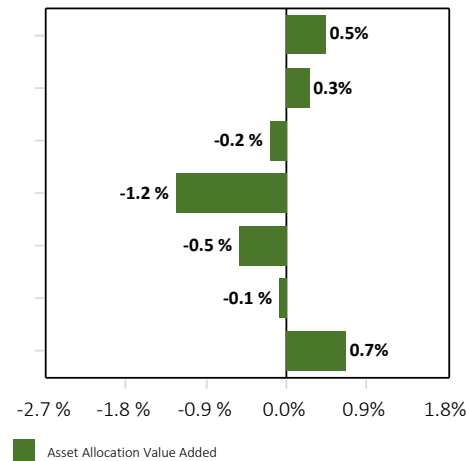
Total Value Added: 1.1%



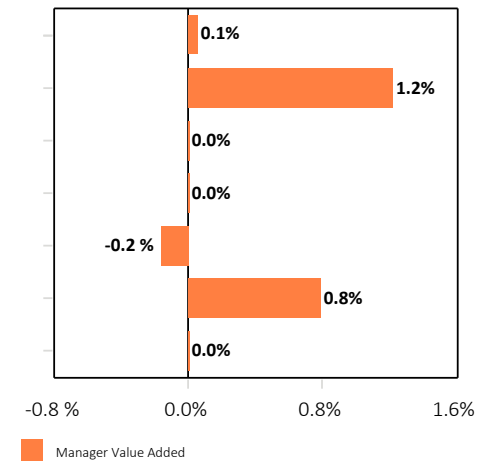
Total Asset Allocation: -0.6%



Asset Allocation Value Added: -0.6%



Total Manager Value Added: 1.9%

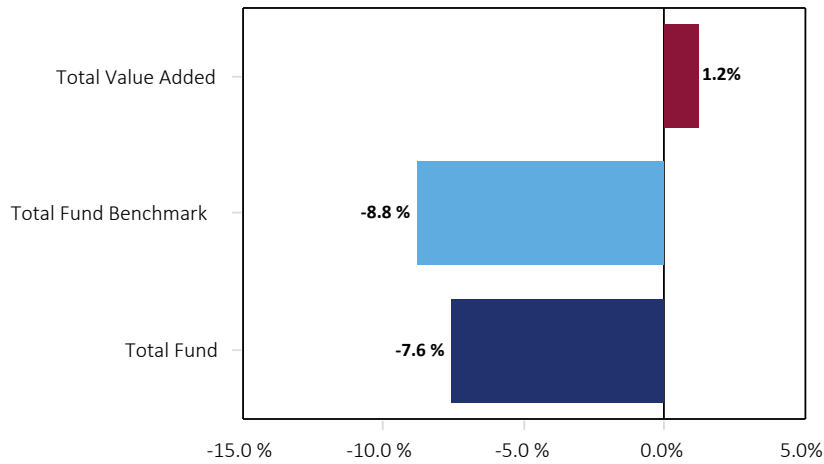


Total Fund Attribution

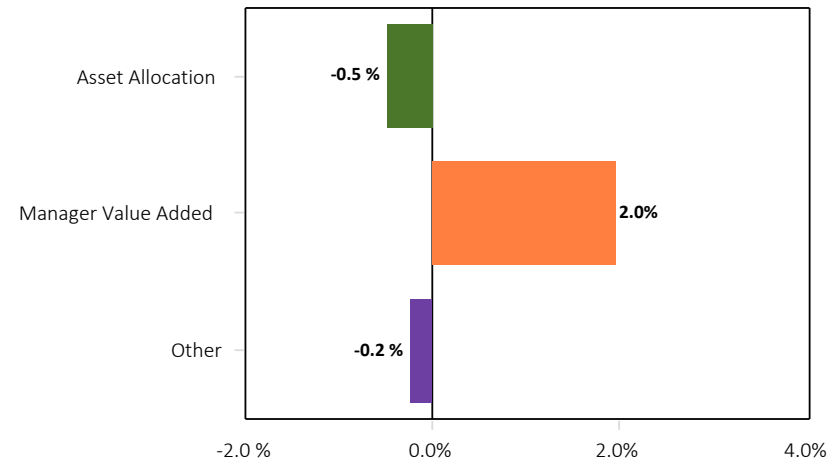
CERS (H) Insurance Plan

Periods Ended 1 Year Ending December 31, 2022

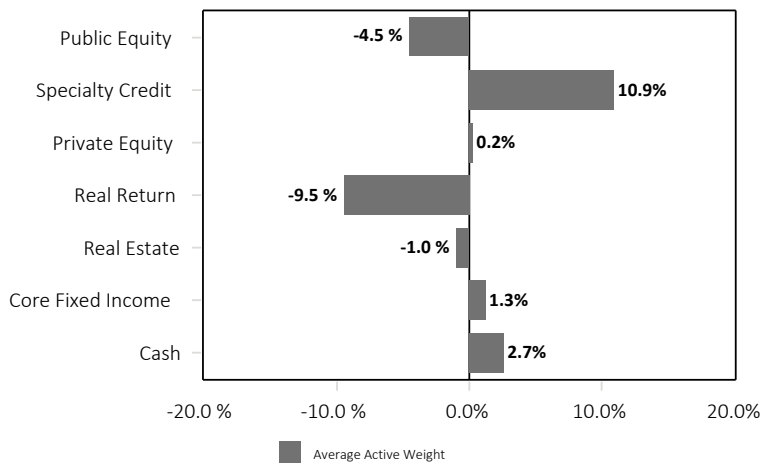
Total Fund Performance



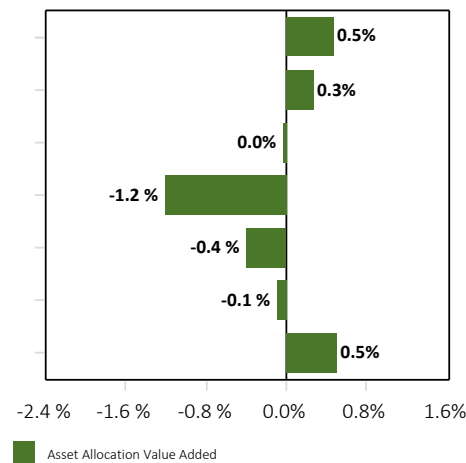
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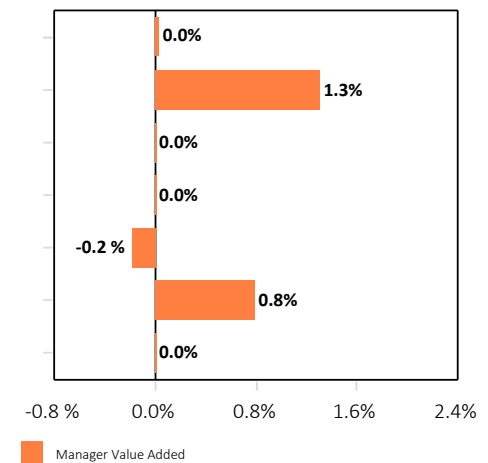
Total Asset Allocation: -0.5%



Asset Allocation Value Added: -0.5%



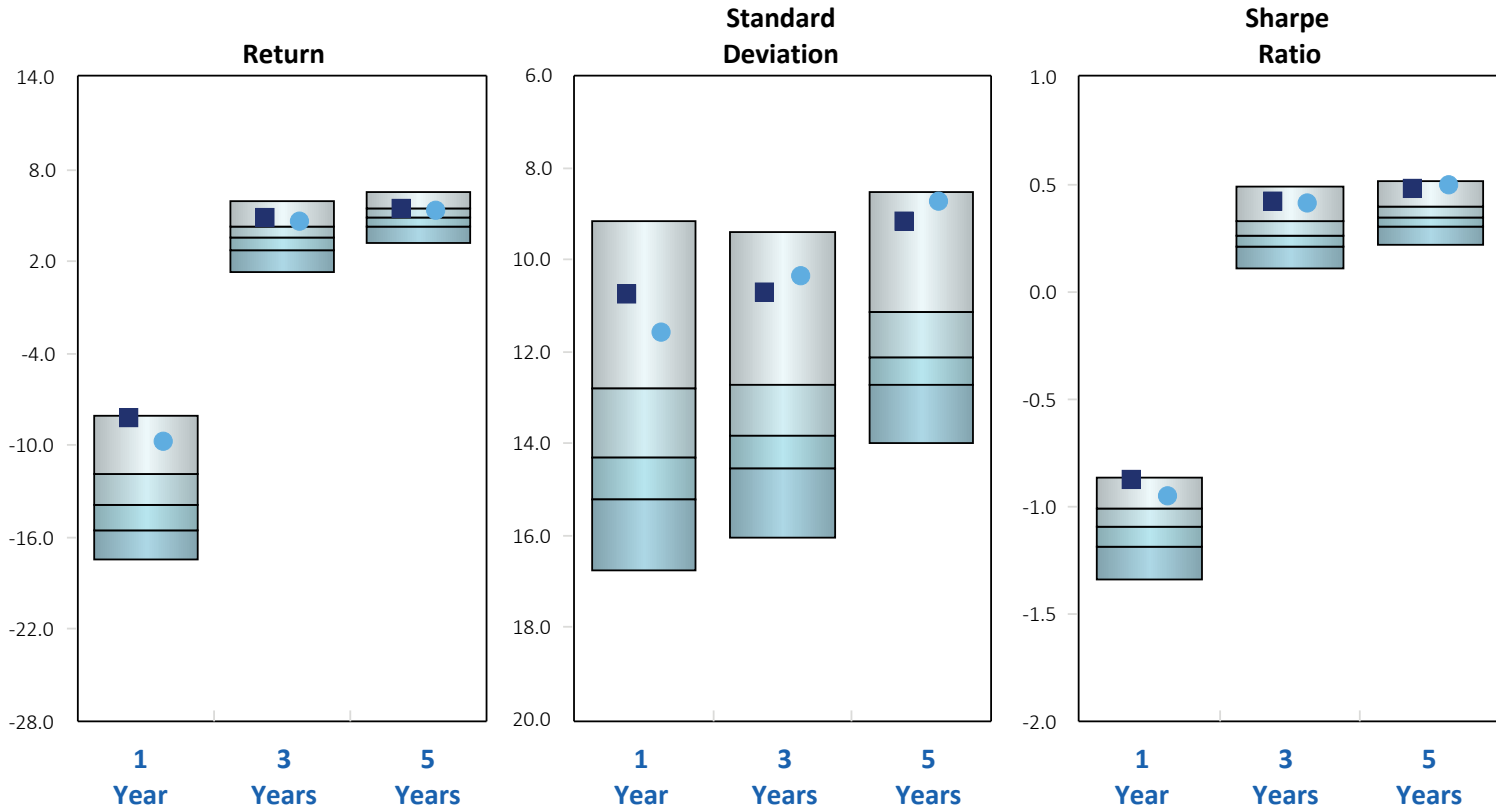
Total Manager Value Added: 2.0%



Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended December 31, 2022



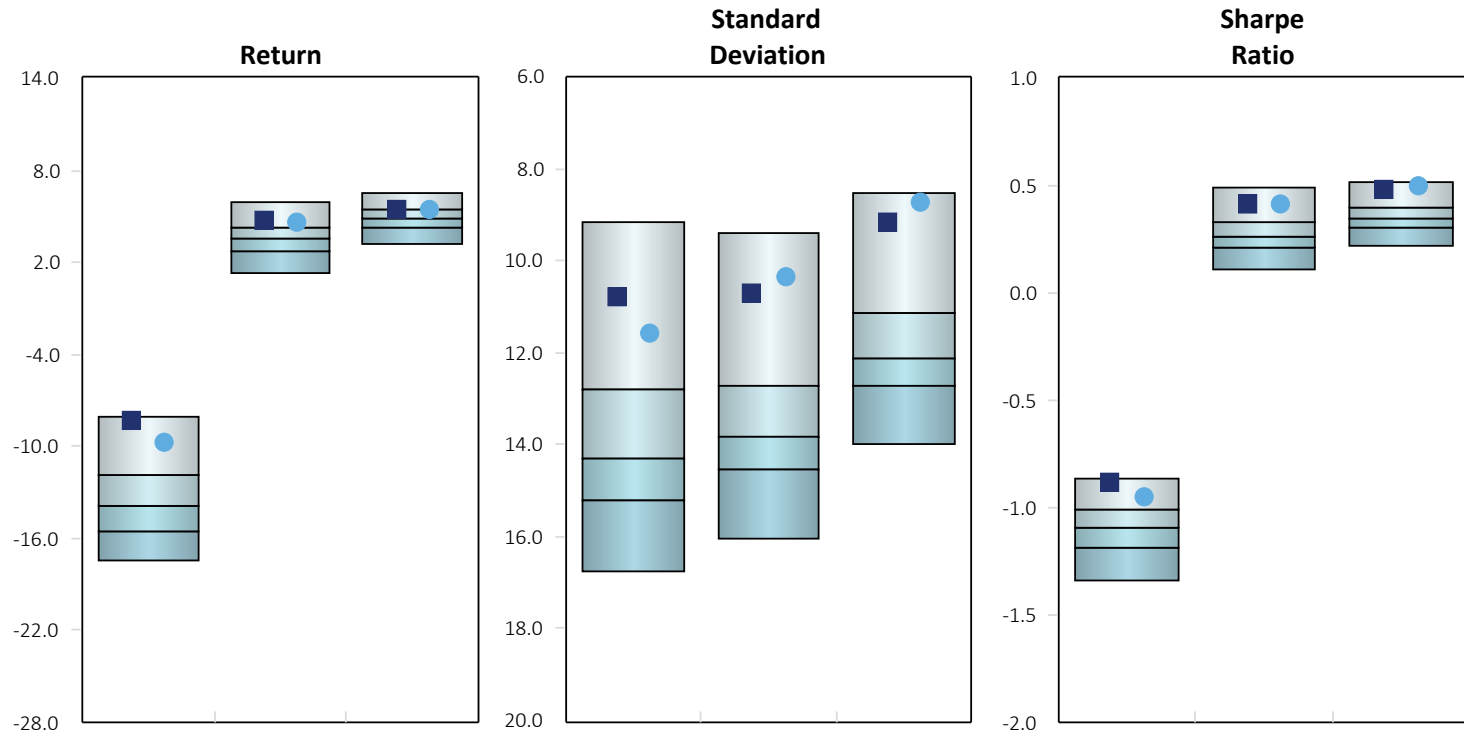
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS Pension Plan	-8.17 (6)	4.88 (14)	5.46 (28)	10.74 (10)	10.69 (8)	9.16 (6)	-0.88 (6)	0.43 (9)	0.49 (8)
● CERS Pension IPS Index	-9.77 (10)	4.66 (20)	5.40 (30)	11.58 (16)	10.35 (7)	8.74 (5)	-0.95 (15)	0.42 (10)	0.50 (7)
5th Percentile	-8.08	5.92	6.51	9.15	9.38	8.52	-0.87	0.49	0.51
1st Quartile	-11.88	4.33	5.50	12.78	12.72	11.16	-1.00	0.33	0.40
Median	-13.92	3.53	4.90	14.29	13.82	12.12	-1.10	0.26	0.35
3rd Quartile	-15.49	2.71	4.25	15.20	14.55	12.73	-1.19	0.21	0.31
95th Percentile	-17.47	1.29	3.20	16.75	16.03	13.98	-1.34	0.11	0.22

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

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

Periods Ended December 31, 2022



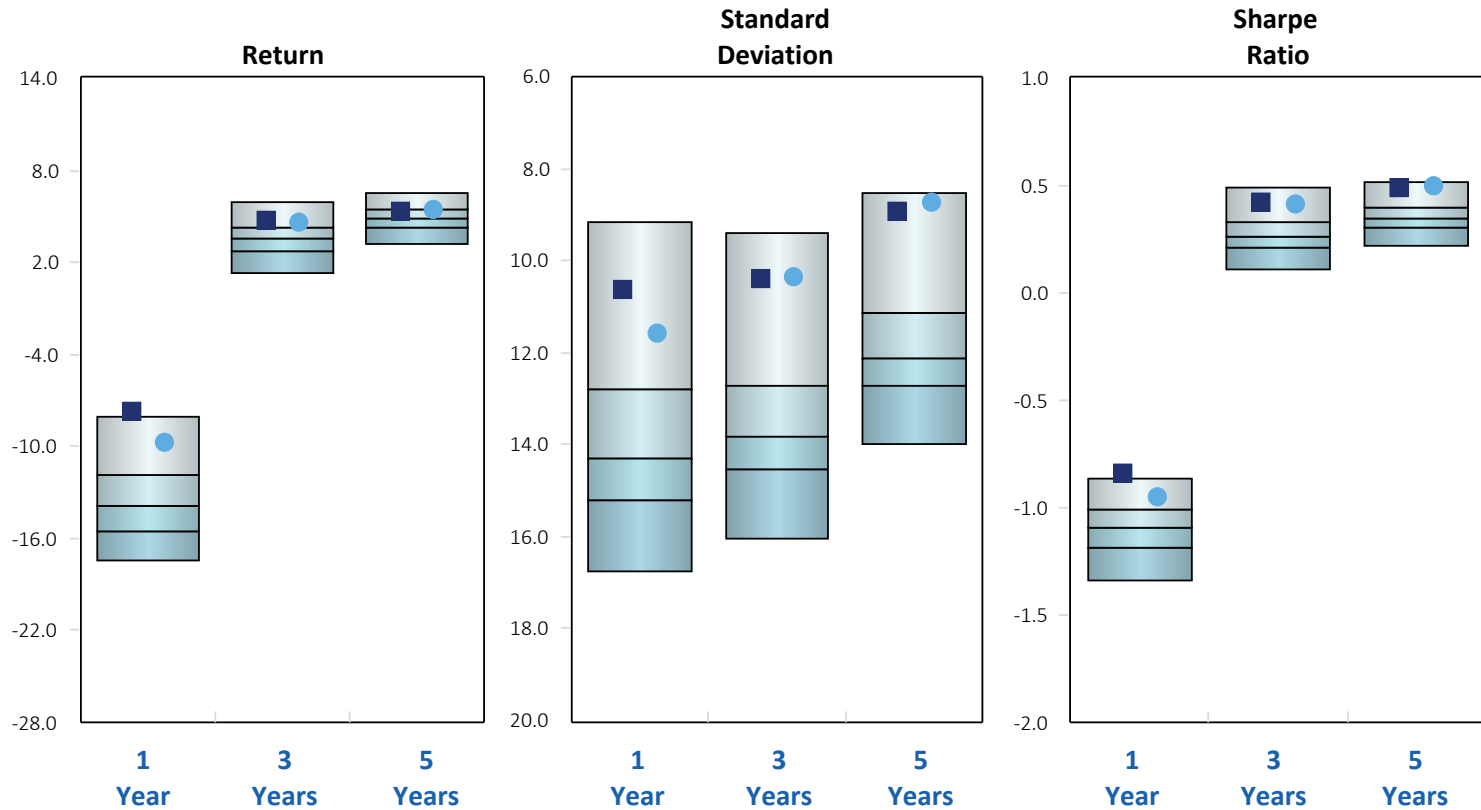
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS (H) Pension Plan	-8.25 (6)	4.78 (17)	5.40 (29)	10.79 (11)	10.69 (8)	9.16 (6)	-0.88 (6)	0.42 (9)	0.48 (8)
● CERS (H) Pension IPS Index	-9.77 (10)	4.66 (20)	5.40 (29)	11.58 (16)	10.35 (7)	8.74 (5)	-0.95 (15)	0.42 (10)	0.50 (7)
5th Percentile	-8.08	5.92	6.51	9.15	9.38	8.52	-0.87	0.49	0.51
1st Quartile	-11.88	4.33	5.50	12.78	12.72	11.16	-1.00	0.33	0.40
Median	-13.92	3.53	4.90	14.29	13.82	12.12	-1.10	0.26	0.35
3rd Quartile	-15.49	2.71	4.25	15.20	14.55	12.73	-1.19	0.21	0.31
95th Percentile	-17.47	1.29	3.20	16.75	16.03	13.98	-1.34	0.11	0.22

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended December 31, 2022



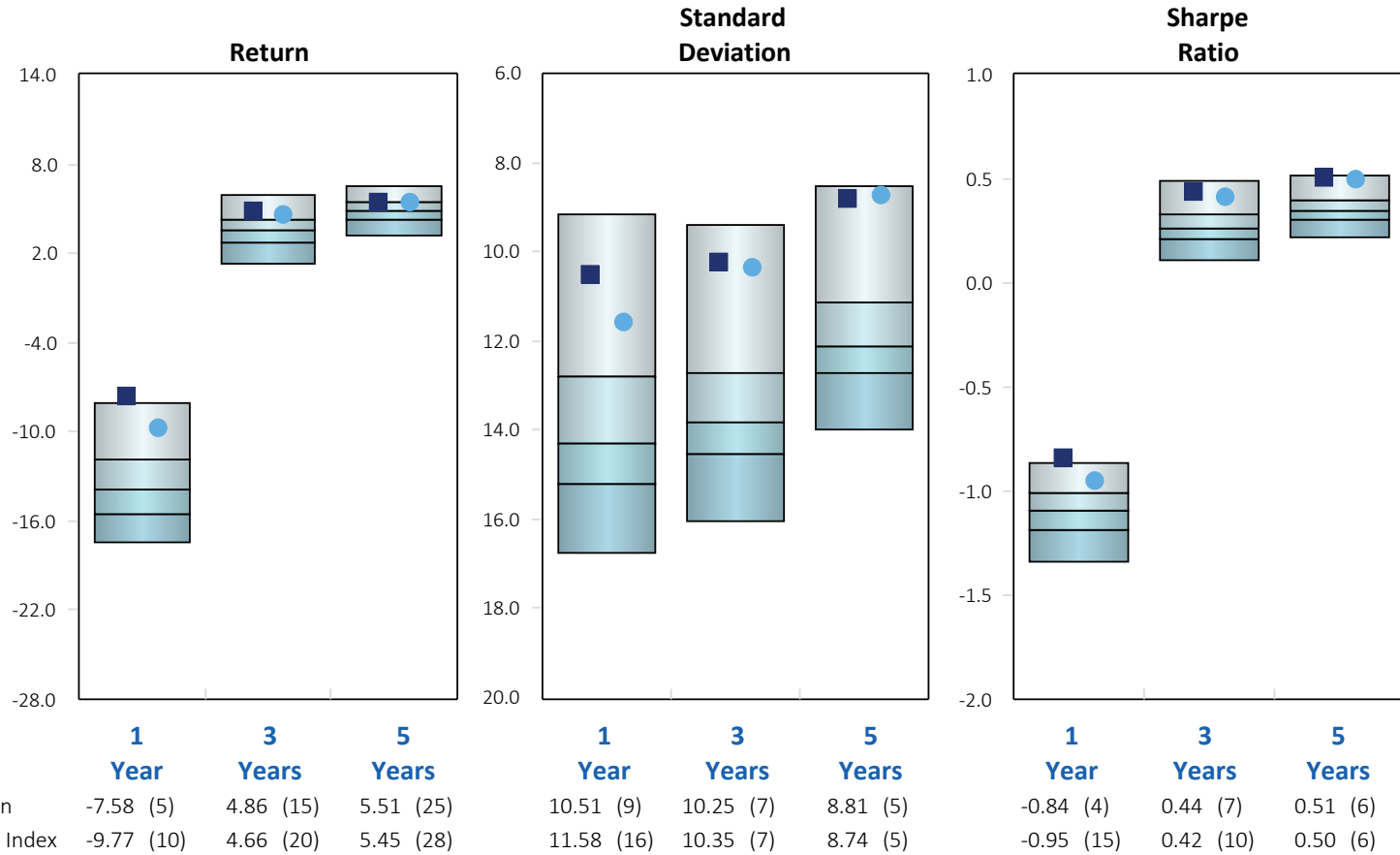
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ CERS Insurance Plan	-7.71 (5)	4.71 (18)	5.39 (30)	10.64 (9)	10.40 (7)	8.92 (5)	-0.84 (4)	0.42 (9)	0.49 (8)
● CERS Insurance IPS Index	-9.77 (10)	4.66 (20)	5.45 (28)	11.58 (16)	10.35 (7)	8.74 (5)	-0.95 (15)	0.42 (10)	0.50 (6)
5th Percentile	-8.08	5.92	6.51	9.15	9.38	8.52	-0.87	0.49	0.51
1st Quartile	-11.88	4.33	5.50	12.78	12.72	11.16	-1.00	0.33	0.40
Median	-13.92	3.53	4.90	14.29	13.82	12.12	-1.10	0.26	0.35
3rd Quartile	-15.49	2.71	4.25	15.20	14.55	12.73	-1.19	0.21	0.31
95th Percentile	-17.47	1.29	3.20	16.75	16.03	13.98	-1.34	0.11	0.22

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

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

Periods Ended December 31, 2022



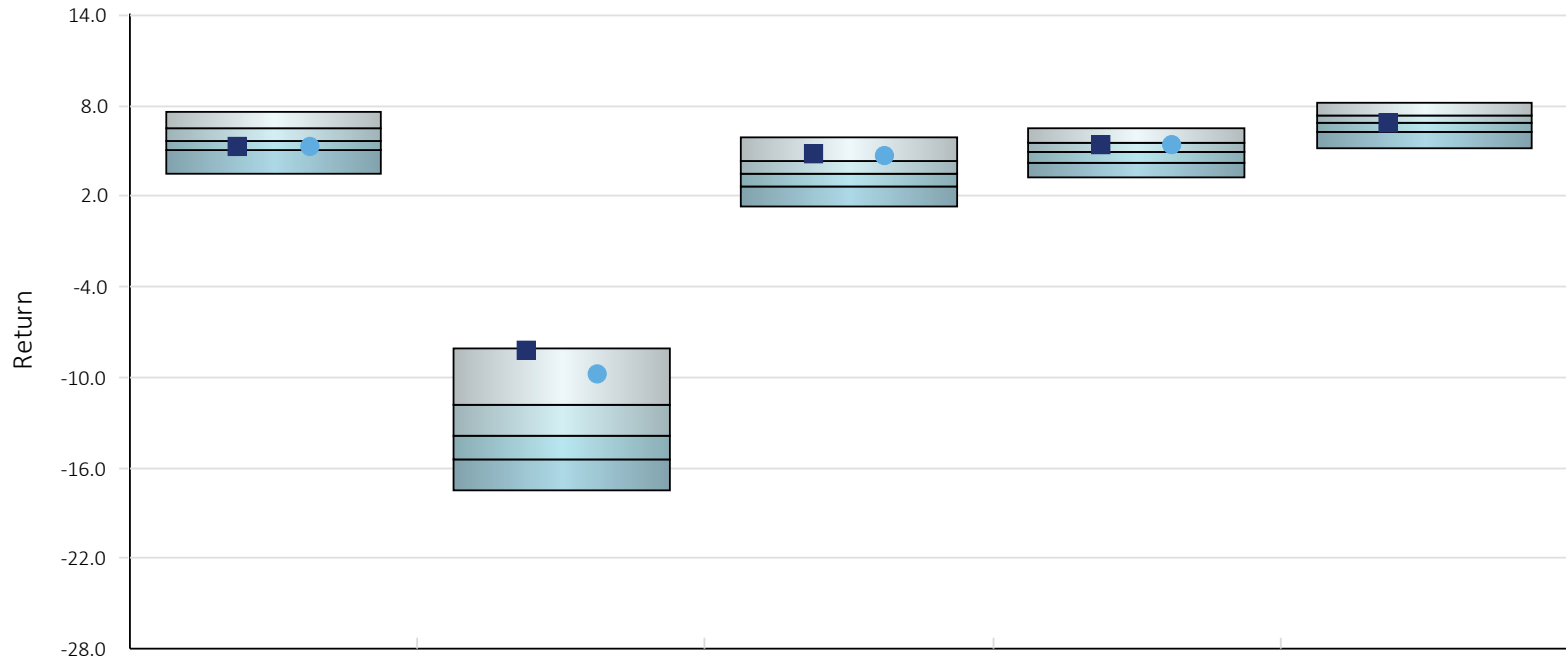
5th Percentile	-8.08	5.92	6.51	9.15	9.38	8.52	-0.87	0.49	0.51
1st Quartile	-11.88	4.33	5.50	12.78	12.72	11.16	-1.00	0.33	0.40
Median	-13.92	3.53	4.90	14.29	13.82	12.12	-1.10	0.26	0.35
3rd Quartile	-15.49	2.71	4.25	15.20	14.55	12.73	-1.19	0.21	0.31
95th Percentile	-17.47	1.29	3.20	16.75	16.03	13.98	-1.34	0.11	0.22

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended December 31, 2022



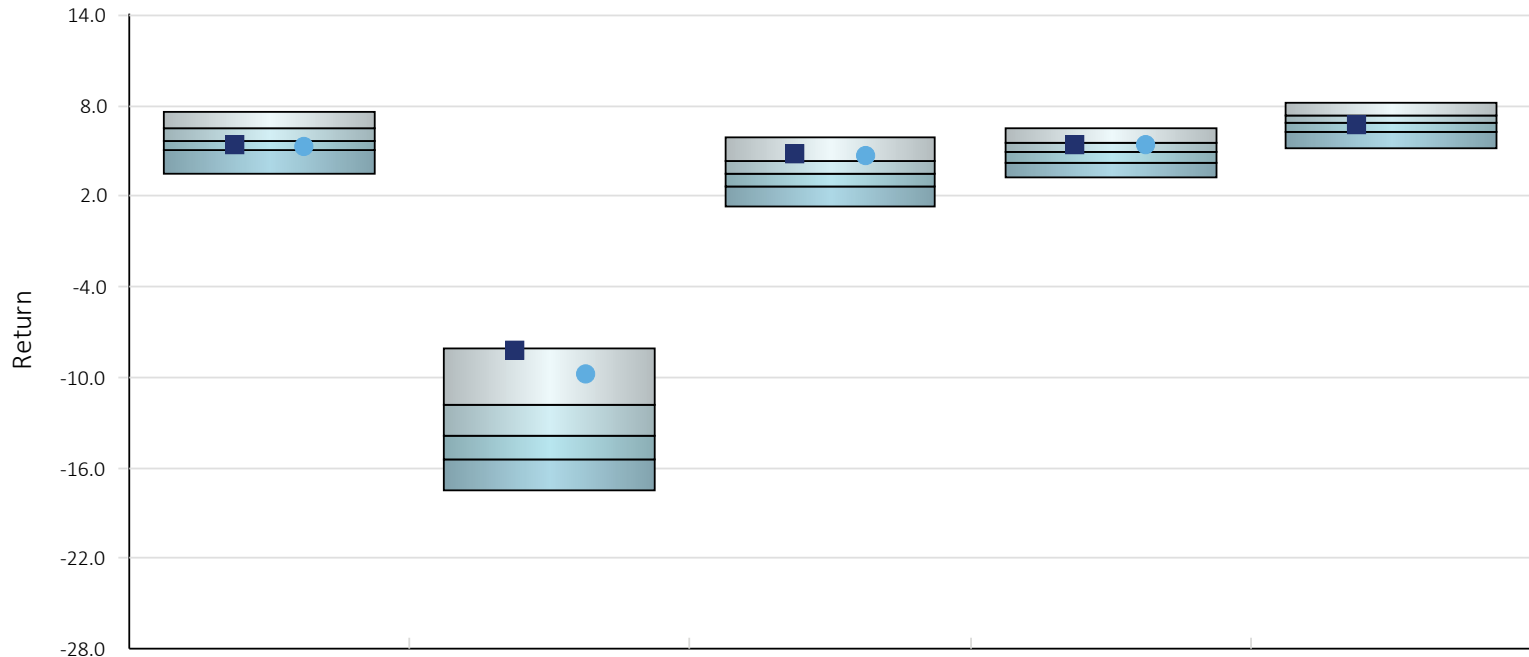
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS Pension Plan	5.32 (65)	-8.17 (6)	4.88 (14)	5.46 (28)	6.83 (51)
● CERS Pension IPS Index	5.34 (65)	-9.77 (10)	4.66 (20)	5.40 (30)	
5th Percentile	7.55	-8.08	5.92	6.51	8.17
1st Quartile	6.48	-11.88	4.33	5.50	7.40
Median	5.72	-13.92	3.53	4.90	6.84
3rd Quartile	5.02	-15.49	2.71	4.25	6.28
95th Percentile	3.44	-17.47	1.29	3.20	5.19
Population	532	524	511	488	395

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

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

Periods Ended December 31, 2022



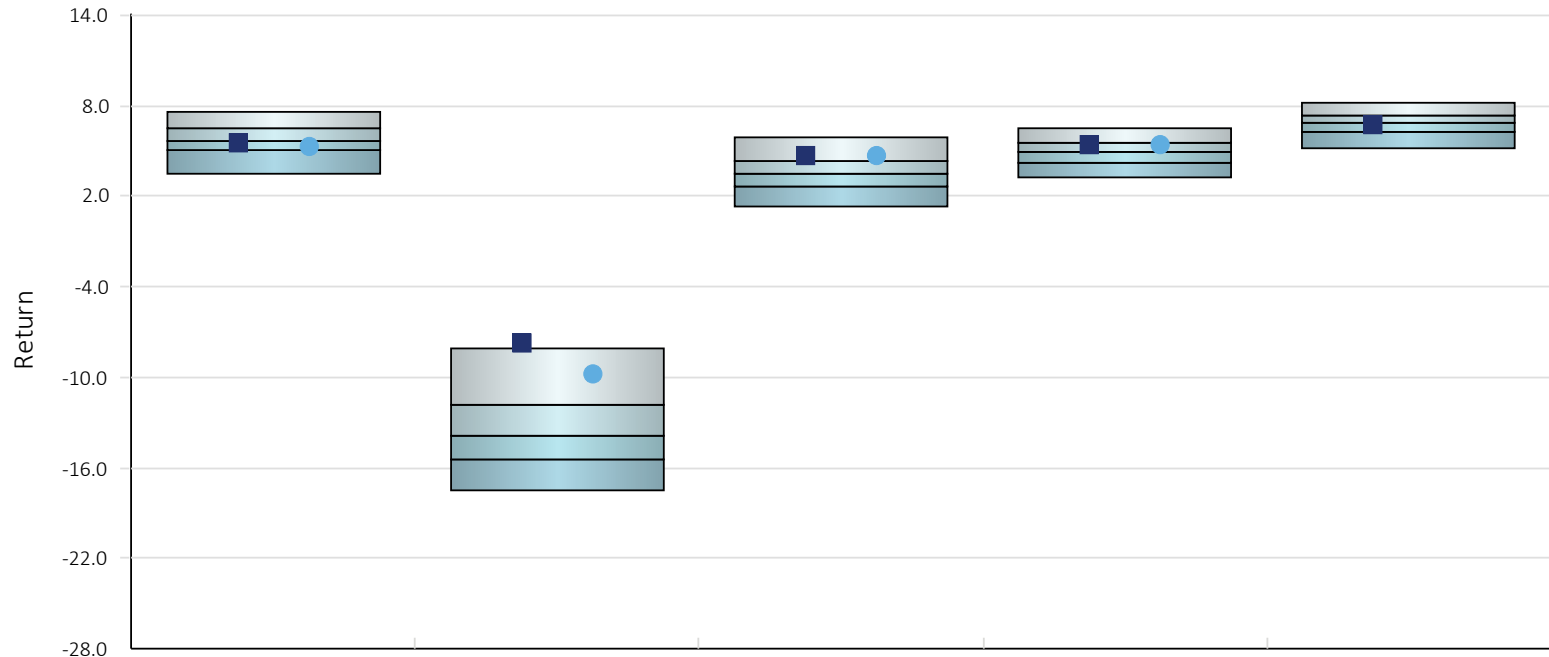
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Pension Plan	5.37 (64)	-8.25 (6)	4.78 (17)	5.40 (29)	6.80 (52)
● CERS (H) Pension IPS Index	5.34 (65)	-9.77 (10)	4.66 (20)	5.40 (29)	
5th Percentile	7.55	-8.08	5.92	6.51	8.17
1st Quartile	6.48	-11.88	4.33	5.50	7.40
Median	5.72	-13.92	3.53	4.90	6.84
3rd Quartile	5.02	-15.49	2.71	4.25	6.28
95th Percentile	3.44	-17.47	1.29	3.20	5.19
Population	532	524	511	488	395

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended December 31, 2022



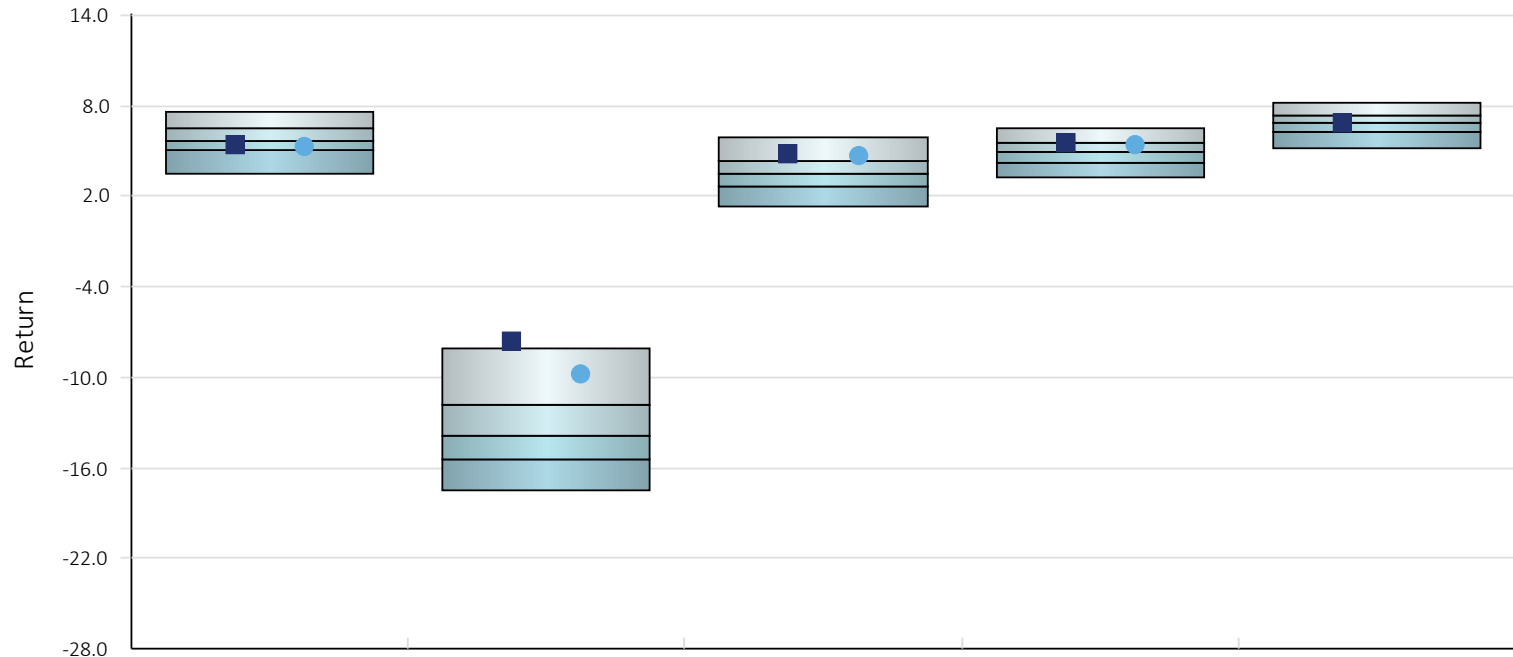
	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS Insurance Plan	5.51 (59)	-7.71 (5)	4.71 (18)	5.39 (30)	6.75 (55)
● CERS Insurance IPS Index	5.34 (65)	-9.77 (10)	4.66 (20)	5.45 (28)	
5th Percentile	7.55	-8.08	5.92	6.51	8.17
1st Quartile	6.48	-11.88	4.33	5.50	7.40
Median	5.72	-13.92	3.53	4.90	6.84
3rd Quartile	5.02	-15.49	2.71	4.25	6.28
95th Percentile	3.44	-17.47	1.29	3.20	5.19
Population	532	524	511	488	395

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

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

Periods Ended December 31, 2022



	QTD	1 Year	3 Years	5 Years	10 Years
■ CERS (H) Insurance Plan	5.41 (62)	-7.58 (5)	4.86 (15)	5.51 (25)	6.83 (51)
● CERS (H) Insurance IPS Index	5.34 (65)	-9.77 (10)	4.66 (20)	5.45 (28)	
5th Percentile	7.55	-8.08	5.92	6.51	8.17
1st Quartile	6.48	-11.88	4.33	5.50	7.40
Median	5.72	-13.92	3.53	4.90	6.84
3rd Quartile	5.02	-15.49	2.71	4.25	6.28
95th Percentile	3.44	-17.47	1.29	3.20	5.19
Population	532	524	511	488	395

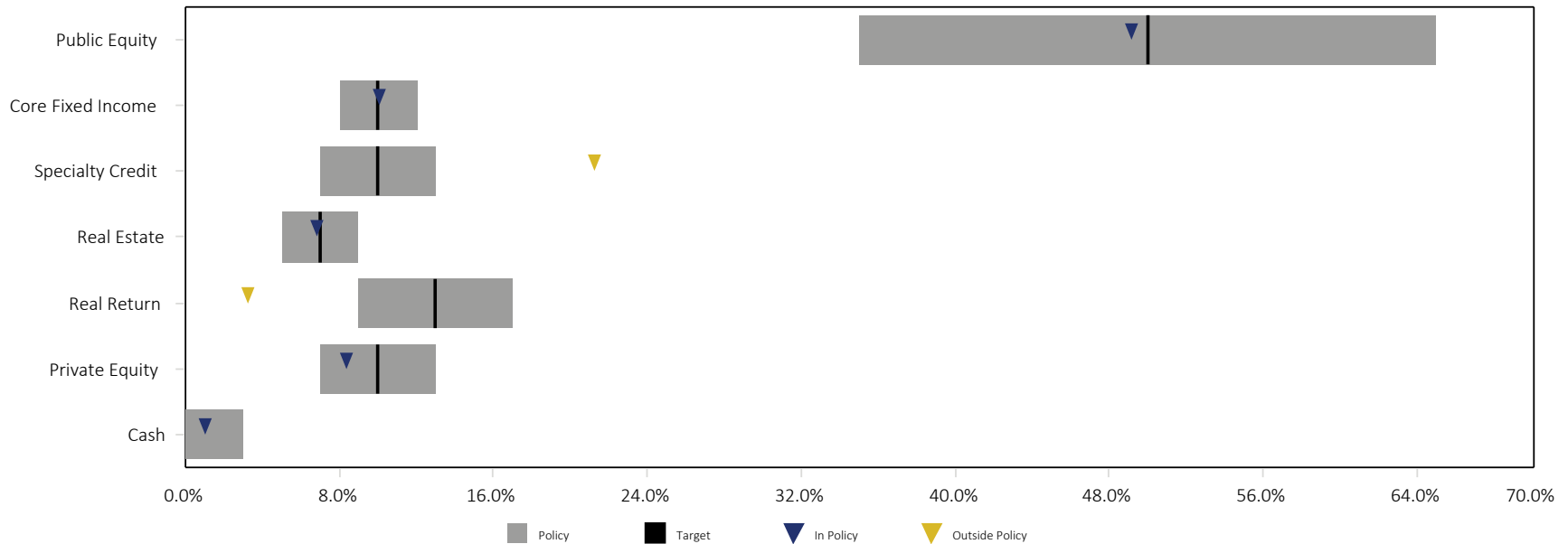
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Asset Allocation Compliance

CERS Pension Plan

Periods Ended As of December 31, 2022

Executive Summary



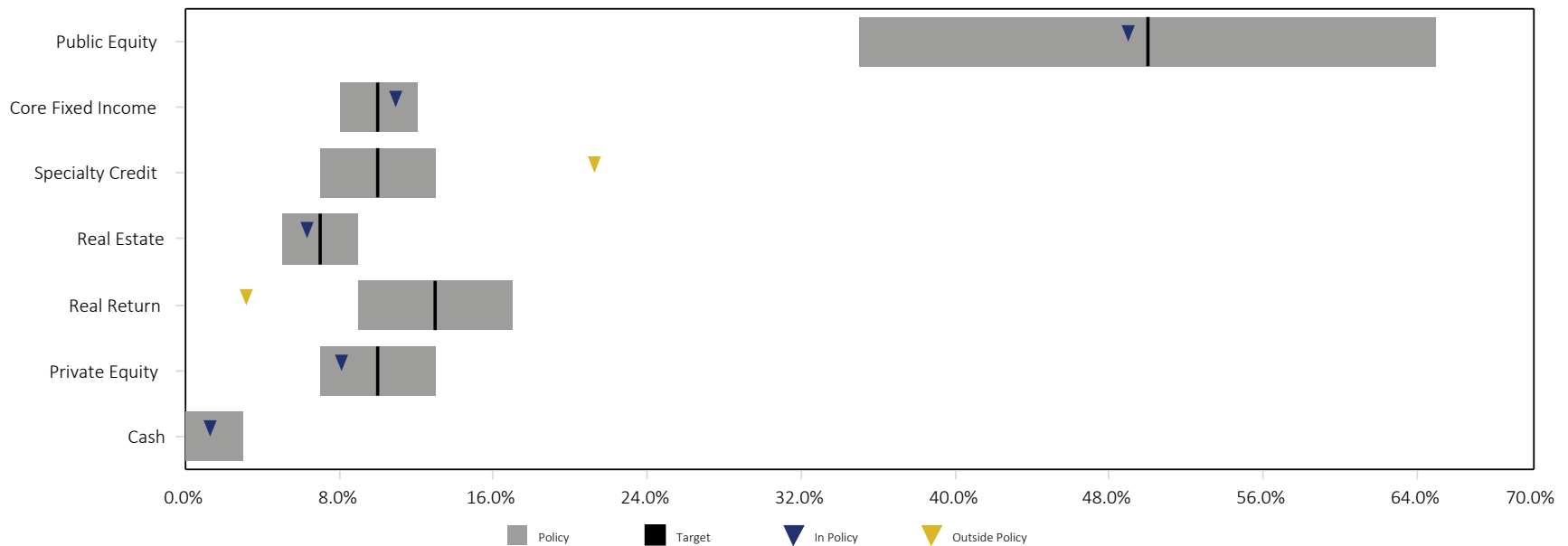
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	3,964,124,358	49.18	35.00	65.00	50.00	66,317,000
Core Fixed Income	813,833,728	10.10	8.00	12.00	10.00	-7,745,457
Specialty Credit	1,712,051,881	21.24	7.00	13.00	10.00	-905,963,609
Real Estate	548,383,290	6.80	5.00	9.00	7.00	15,878,500
Real Return	261,666,508	3.25	9.00	17.00	13.00	786,248,245
Private Equity	676,459,973	8.39	7.00	13.00	10.00	129,628,298
Cash	84,362,977	1.05	0.00	3.00	0.00	-84,362,977
Total Fund	8,060,882,715	100.00			100.00	

Asset Allocation Compliance

CERS (H) Pension Plan

Periods Ended As of December 31, 2022

Executive Summary



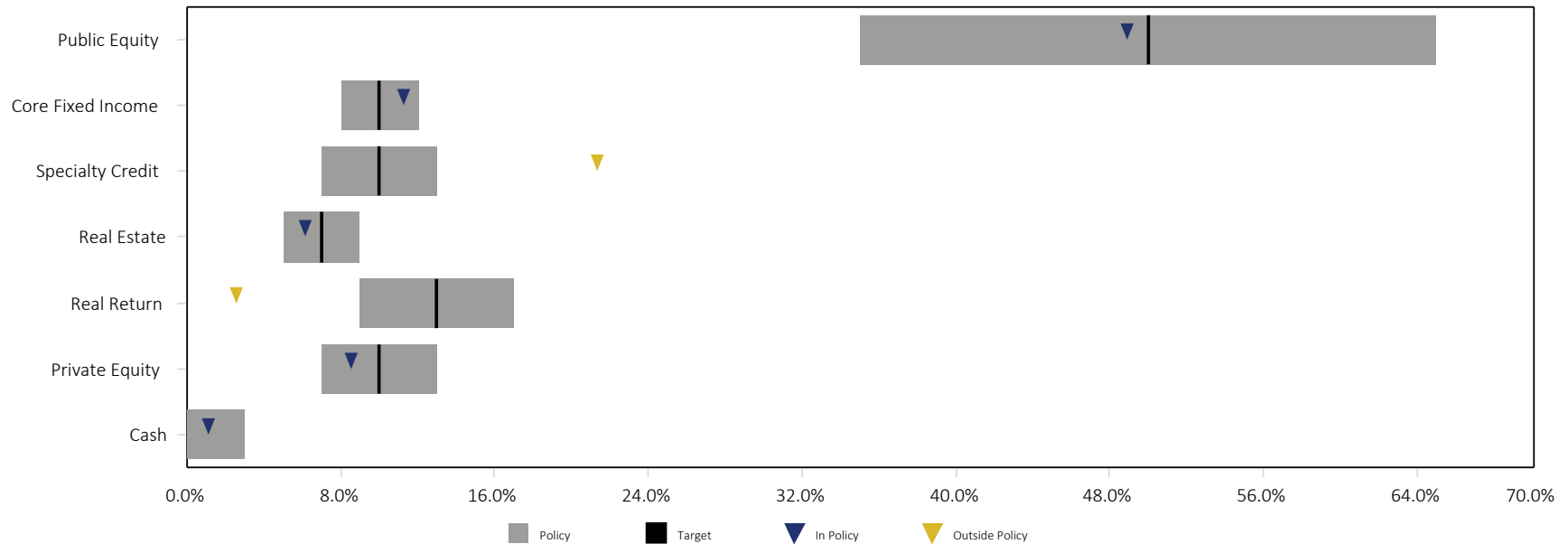
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,356,593,495	48.98	35.00	65.00	50.00	28,339,842
Core Fixed Income	302,695,384	10.93	8.00	12.00	10.00	-25,708,716
Specialty Credit	588,670,419	21.25	7.00	13.00	10.00	-311,683,751
Real Estate	174,476,800	6.30	5.00	9.00	7.00	19,413,868
Real Return	86,711,580	3.13	9.00	17.00	13.00	273,371,087
Private Equity	225,693,389	8.15	7.00	13.00	10.00	51,293,279
Cash	35,025,608	1.26	0.00	3.00	0.00	-35,025,608
Total Fund	2,769,866,674	100.00			100.00	

Asset Allocation Compliance

CERS Insurance Plan

Periods Ended As of December 31, 2022

Executive Summary



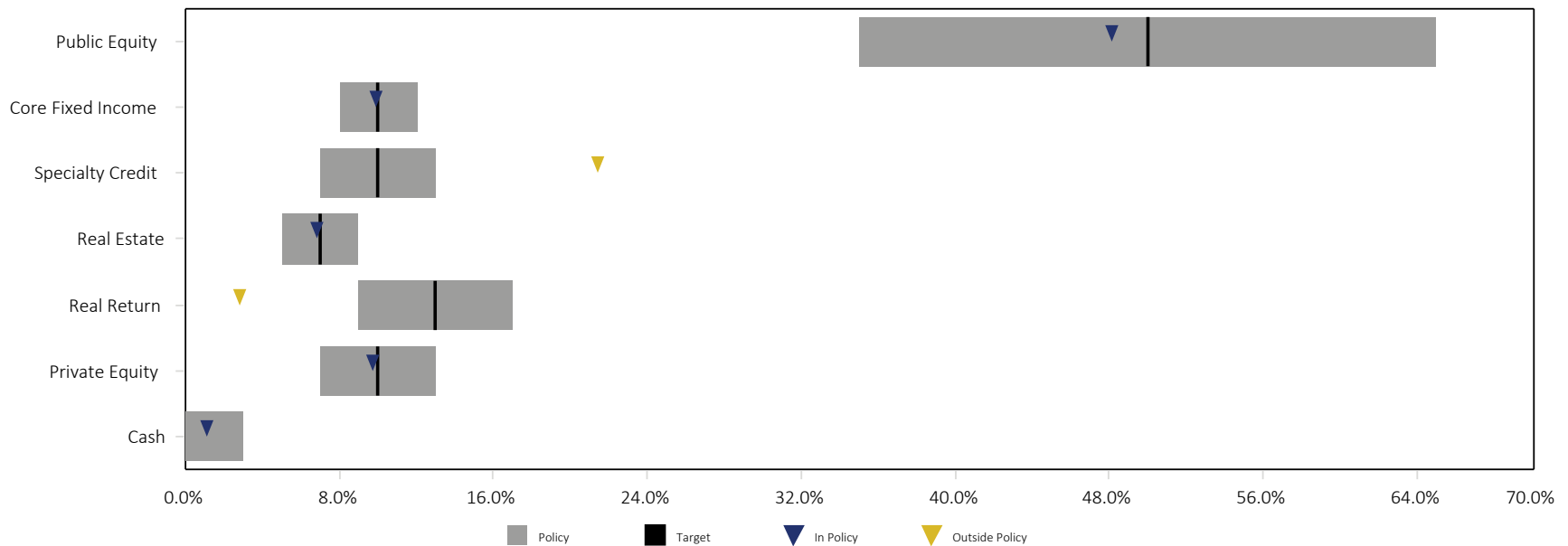
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,503,204,987	48.94	35.00	65.00	50.00	32,454,601
Core Fixed Income	345,447,041	11.25	8.00	12.00	10.00	-38,315,123
Specialty Credit	655,271,249	21.34	7.00	13.00	10.00	-348,139,331
Real Estate	190,045,239	6.19	5.00	9.00	7.00	24,947,103
Real Return	79,204,378	2.58	9.00	17.00	13.00	320,067,115
Private Equity	263,422,196	8.58	7.00	13.00	10.00	43,709,722
Cash	34,724,087	1.13	0.00	3.00	0.00	-34,724,087
Total Fund	3,071,319,176	100.00			100.00	

Asset Allocation Compliance

CERS (H) Insurance Plan

Periods Ended As of December 31, 2022

Executive Summary



	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	733,129,998	48.14	35.00	65.00	50.00	28,285,668
Core Fixed Income	151,178,609	9.93	8.00	12.00	10.00	1,104,524
Specialty Credit	326,611,917	21.45	7.00	13.00	10.00	-174,328,783
Real Estate	104,187,750	6.84	5.00	9.00	7.00	2,410,444
Real Return	42,397,798	2.78	9.00	17.00	13.00	155,570,275
Private Equity	148,193,392	9.73	7.00	13.00	10.00	4,089,742
Cash	17,131,869	1.13	0.00	3.00	0.00	-17,131,869
Total Fund	1,522,831,333	100.00			100.00	

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	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	8,060,882,715	5.32	2.20	-8.17	4.88	5.46	8.88	6.95	7.59	8.76	4/1/1984
CERS Pension IPS Index		5.34	0.25	-9.77	4.66	5.40					
Value Added		-0.02	1.95	1.60	0.22	0.06					
CERS Pension Attribution Index		6.19	2.48	-8.59	4.66						
Value Added		-0.87	-0.28	0.42	0.22						
Assumed Rate 6.25%		1.53	3.08	6.25	6.25	6.25					
Value Added		3.79	-0.88	-14.42	-1.37	-0.79					
CERS Insurance Plan	3,071,319,176	5.51	2.30	-7.71	4.71	5.39	6.70	6.80	6.77	7.25	4/1/1987
CERS Insurance IPS Index		5.34	0.25	-9.77	4.66	5.45					
Value Added		0.17	2.05	2.06	0.05	-0.06					
CERS Insurance Attribution Index		7.91	2.71	-7.85	4.85						
Value Added		-2.40	-0.41	0.14	-0.14						
Assumed Rate 6.25%		1.53	3.08	6.25	6.25	6.25					
Value Added		3.98	-0.78	-13.96	-1.54	-0.86					
CERS (H) Pension Plan	2,769,866,674	5.37	2.24	-8.25	4.78	5.40	8.88	6.93	7.58	8.75	4/1/1984
CERS (H) Pension IPS Index		5.34	0.25	-9.77	4.66	5.40					
Value Added		0.03	1.99	1.52	0.12	0.00					
CERS (H) Pension Attribution Index		6.22	2.48	-8.64	4.61						
Value Added		-0.85	-0.24	0.39	0.17						
Assumed Rate 6.25%		1.53	3.08	6.25	6.25	6.25					
Value Added		3.84	-0.84	-14.50	-1.47	-0.85					

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	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	1,522,831,333	5.41	2.22	-7.58	4.86	5.51	6.70	6.84	6.79	7.27	4/1/1987
CERS (H) Insurance IPS Index		5.34	0.25	-9.77	4.66	5.45					
Value Added		0.07	1.97	2.19	0.20	0.06					
CERS (H) Insurance Attribution Index		5.82	2.37	-8.61	4.52						
Value Added		-0.41	-0.15	1.03	0.34						
Assumed Rate 6.25%		1.53	3.08	6.25	6.25	6.25					
Value Added		3.88	-0.86	-13.83	-1.39	-0.74					

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended December 31, 2022

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Public Equity	-3.50	10.55	3.65	-18.43			-14.01	12/1/2021
Public Equity Policy Index	-3.90	9.88	2.51	-17.96			-13.61	
Value Added	0.40	0.67	1.14	-0.47			-0.40	
US Equity Composite	-5.43	7.50	2.97	-18.10	7.09	8.55	9.59	7/1/1992
Russell 3000 Index	-5.86	7.18	2.40	-19.21	7.07	8.79	9.76	
Value Added	0.43	0.32	0.57	1.11	0.02	-0.24	-0.17	
S&P 500 Index	-5.72	7.56	2.39	-17.91	8.00	9.70	7.97	7/1/2001
S&P 500 Index	-5.76	7.56	2.31	-18.11	7.66	9.42	7.54	
value added	0.04	0.00	0.08	0.20	0.34	0.28	0.43	
Scientific Beta	-4.02	11.10	5.02	-13.00	6.23	7.75	9.46	7/1/2016
S&P 500 Index	-5.76	7.56	2.31	-18.11	7.66	9.42	11.77	
Value Added	1.74	3.54	2.71	5.11	-1.43	-1.67	-2.31	
River Road FAV	-3.46	11.84	4.70	-16.55	-1.14	5.09	8.44	7/1/2016
Russell 3000 Value Index	-4.18	12.18	5.95	-7.98	5.88	6.50	8.77	
Value Added	0.72	-0.34	-1.25	-8.57	-7.02	-1.41	-0.33	
Westfield Capital	-6.93	0.97	-1.86	-28.02	6.29	10.69	11.97	7/1/2011
Russell 3000 Growth Index	-7.58	2.31	-1.13	-28.97	7.32	10.45	12.79	
Value Added	0.65	-1.34	-0.73	0.95	-1.03	0.24	-0.82	
Internal US Mid Cap	-5.40	10.95	8.35	-12.73	7.62	7.31	9.15	8/1/2014
S&P MidCap 400 Index	-5.54	10.78	8.05	-13.06	7.23	6.71	8.75	
Value Added	0.14	0.17	0.30	0.33	0.39	0.60	0.40	
NTGI Structured	-5.74	8.85	5.53	-15.72	5.78	6.23	9.69	7/1/2011
Russell 2000 Index	-6.49	6.23	3.91	-20.44	3.10	4.13	8.25	
Value Added	0.75	2.62	1.62	4.72	2.68	2.10	1.44	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended December 31, 2022

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Next Century Growth	-3.12	-4.57	4.44	-29.46	22.68		24.34	11/1/2019
Russell Microcap Growth Index	-4.21	2.69	4.90	-29.76	-0.24		4.25	
Value Added	1.09	-7.26	-0.46	0.30	22.92		20.09	
Non-US Equity Composite	-0.69	15.13	4.58	-18.46	0.30	1.56	2.37	4/1/2000
MSCI ACWI ex US IMI (10/17)	-0.62	14.15	3.09	-16.58	0.20	0.85	2.51	
Value Added	-0.07	0.98	1.49	-1.88	0.10	0.71	-0.14	
BlackRock World Ex US	-0.49	16.24	5.64	-14.01	1.46	1.56	5.80	6/1/2012
MSCI World ex US (11/19)	-0.48	16.18	5.50	-14.29	1.27	1.45	5.70	
value added	-0.01	0.06	0.14	0.28	0.19	0.11	0.10	
American Century	-1.00	13.85	4.88	-26.16	2.35	4.64	4.91	7/1/2014
MSCI ACWI ex US IMI (10/17)	-0.62	14.15	3.09	-16.58	0.20	0.85	2.28	
Value Added	-0.38	-0.30	1.79	-9.58	2.15	3.79	2.63	
Franklin Templeton	-3.39	12.20	3.90	-30.71	-4.73	0.00	3.18	7/1/2014
MSCI ACWI ex US IMI (10/17)	-0.62	14.15	3.09	-16.58	0.20	0.85	2.28	
Value Added	-2.77	-1.95	0.81	-14.13	-4.93	-0.85	0.90	
Lazard Asset Mgmt	-0.78	14.02	2.85	-15.58	-0.27	1.30	2.85	7/1/2014
MSCI ACWI ex US IMI (10/17)	-0.62	14.15	3.09	-16.58	0.20	0.85	2.28	
Value Added	-0.16	-0.13	-0.24	1.00	-0.47	0.45	0.57	
LSV Asset Mgmt	1.25	19.42	6.40	-10.29	-0.05	0.71	2.16	7/1/2014
MSCI ACWI ex US IMI (10/17)	-0.62	14.15	3.09	-16.58	0.20	0.85	2.28	
Value Added	1.87	5.27	3.31	6.29	-0.25	-0.14	-0.12	
Axiom	-0.60	9.30	0.91	-33.06			-28.06	12/1/2021
MSCI AC World ex USA Small Cap (Net)	0.17	13.31	3.83	-19.97			-15.42	
Value Added	-0.77	-4.01	-2.92	-13.09			-12.64	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended December 31, 2022

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
JP Morgan Emerging Markets	-1.35	12.04	0.23	-27.44	-1.83		0.09	11/1/2019
MSCI Emerging Markets IMI Index	-1.30	9.60	-2.04	-19.46	-1.45		0.82	
Value Added	-0.05	2.44	2.27	-7.98	-0.38		-0.73	
Pzena Emerging Markets	-0.03	13.94	4.82	-6.89	2.60		4.55	11/1/2019
MSCI Emerging Markets (Net)	-1.41	9.70	-2.99	-20.09	-2.69		-0.36	
Value Added	1.38	4.24	7.81	13.20	5.29		4.91	
Private Equity Composite	-1.92	-2.44	-2.56	6.53	15.29	14.25	11.01	7/1/2002
Russell 3000 +3% 1 Quarter Lag	-9.05	-3.76	-19.24	-15.16	10.93	11.87	11.16	
Value Added	7.13	1.32	16.68	21.69	4.36	2.38	-0.15	
Core Fixed Income Composite	0.36	1.50	-0.63	-6.21	-0.14		1.87	10/1/2018
Blmbg. U.S. Aggregate Index	-0.45	1.87	-2.97	-13.01	-2.71		0.41	
Value Added	0.81	-0.37	2.34	6.80	2.57		1.46	
NISA	-0.10	2.02	-2.80	-12.70	-2.69	0.05	1.82	7/1/2011
Blmbg. U.S. Aggregate Index	-0.45	1.87	-2.97	-13.01	-2.71	0.02	1.71	
Value Added	0.35	0.15	0.17	0.31	0.02	0.03	0.11	
Loomis Sayles Intmd	0.07	1.82	-2.13	-9.60	-1.38		0.42	2/1/2019
Blmbg. U.S. Intermediate Aggregate Index	-0.26	1.72	-2.19	-9.51	-1.93		-0.06	
Value Added	0.33	0.10	0.06	-0.09	0.55		0.48	
Lord Abbett	0.51	1.32	0.12	-4.14	-0.02		1.51	10/1/2018
ICE BofA 1-3 Year U.S. Corporate Index	0.30	1.39	0.08	-4.07	-0.03		1.42	
Value Added	0.21	-0.07	0.04	-0.07	0.01		0.09	
Specialty Credit Composite	0.59	2.23	2.46	0.50	4.53		5.13	10/1/2018
Specialty Credit Policy Index	-0.09	3.46	3.86	-5.94	1.34		2.57	
Value Added	0.68	-1.23	-1.40	6.44	3.19		2.56	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended December 31, 2022

	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Adams St SPC II A	2.67	2.67	3.24	17.87			15.12	6/1/2020
Adams St SPC II B	1.80	1.80	4.13	1.03			9.66	6/1/2020
Blue Torch	3.38	3.38	6.35	12.71			9.51	8/1/2020
BSP Coinvestment	0.64	0.64	2.21	5.54	6.66		6.13	10/1/2019
Morningstar LSTA US Leveraged Loan	0.44	2.74	4.14	-0.60	2.55		2.89	
Value Added	0.20	-1.10	-1.93	6.14	4.11		3.24	
BSP Private Credit	1.80	1.80	0.77	4.32	7.21		5.65	2/1/2018
Morningstar LSTA US Leveraged Loan	0.44	2.74	4.14	-0.60	2.55		3.16	
Value Added	1.36	-0.94	-3.37	4.92	4.66		2.49	
CapitalSpring	1.41	1.41	0.86	5.93			8.21	2/1/2020
Morningstar LSTA US Leveraged Loan	0.44	2.74	4.14	-0.60			2.43	
Value Added	0.97	-1.33	-3.28	6.53			5.78	
Cerberus Capital Mgmt	0.87	2.44	4.34	10.42	11.88	10.88	9.70	9/1/2014
Morningstar LSTA US Leveraged Loan	0.44	2.74	4.14	-0.60	2.55	3.31	3.44	
Value Added	0.43	-0.30	0.20	11.02	9.33	7.57	6.26	
Columbia	-0.79	4.17	4.06	-10.01	-0.58	2.32	5.10	11/1/2011
Blmbg. U.S. Corp: High Yield Index	-0.62	4.17	3.50	-11.19	0.05	2.31	5.01	
Value Added	-0.17	0.00	0.56	1.18	-0.63	0.01	0.09	
Manulife Asset Mgmt	0.10	4.03	2.30	-8.75	1.19	2.31	3.43	12/1/2011
Policy Index	-0.34	2.24	-2.31	-12.99	-2.54	0.18	0.83	
Value Added	0.44	1.79	4.61	4.24	3.73	2.13	2.60	
Marathon Bluegrass	-0.40	-2.07	-5.19	-5.72	4.54	4.40	5.59	1/1/2016
Blmbg. U.S. Corp: High Yield Index	-0.62	4.17	3.50	-11.19	0.05	2.31	5.05	
Value Added	0.22	-6.24	-8.69	5.47	4.49	2.09	0.54	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended December 31, 2022

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Shenkman Capital	0.19	3.13	3.98	-1.11	1.99	3.13	3.63	7/1/2011
Morningstar LSTA US Leveraged Loan	0.44	2.74	4.14	-0.60	2.55	3.31	3.92	
Value Added	-0.25	0.39	-0.16	-0.51	-0.56	-0.18	-0.29	
Waterfall	-0.38	1.31	2.95	1.06	2.19	4.68	7.84	7/1/2011
Policy Index	-0.10	2.42	2.86	-6.65	0.59	2.11	3.59	
Value Added	-0.28	-1.11	0.09	7.71	1.60	2.57	4.25	
White Oak Yield Spectrum	1.28	1.28	2.47	5.78	5.86		5.36	3/1/2018
Morningstar LSTA US Leveraged Loan	0.44	2.74	4.14	-0.60	2.55		3.18	
Value Added	0.84	-1.46	-1.67	6.38	3.31		2.18	
Arrowmark	1.07	3.69	5.45	8.73	8.81		9.20	6/1/2018
Morningstar LSTA US Leveraged Loan	0.44	2.74	4.14	-0.60	2.55		3.16	
Value Added	0.63	0.95	1.31	9.33	6.26		6.04	
H/2 Credit Partner	0.00	0.00	0.00	5.07	1.90	1.28	4.16	7/1/2011
Mesa West Core Lend	1.82	1.82	2.86	5.70	5.40	6.36	6.33	5/1/2013
Mesa West IV	0.71	0.71	-1.66	1.83	6.15	6.73	5.83	3/1/2017
Cash Composite	0.29	0.84	1.39	1.60	0.74	1.29	2.45	7/1/1992
FTSE 3 Month T-Bill	0.34	0.87	1.33	1.50	0.71	1.25	2.31	
Value Added	-0.05	-0.03	0.06	0.10	0.03	0.04	0.14	
Real Estate Composite	-0.10	1.19	3.82	18.48	14.46	12.45	10.28	5/1/2009
NCREIF ODCE NOF 1 Quarter Lag	0.31	0.31	4.87	20.96	11.38	9.26		
Value Added	-0.41	0.88	-1.05	-2.48	3.08	3.19		
Baring	3.07	8.33	-1.53	10.18	14.95		18.87	1/1/2019
Barings Euro RE II	-0.81	4.37	-1.14	-0.50			-15.14	12/1/2020

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended December 31, 2022

	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Divcowest IV	-0.83	-0.83	-0.20	20.04	13.14	16.10	18.58	3/1/2014
Fundamental Partners III	-1.07	-1.07	-0.18	14.35	18.28	15.40	14.17	5/1/2017
Greenfield Acq VI	-2.70	-2.70	-14.94	-25.22	-43.18	-38.48	-17.05	12/1/2012
Greenfield Acq VII	8.31	8.31	13.16	33.56	22.84	19.62	16.18	7/1/2014
Harrison Street	0.00	2.14	8.46	14.23	8.85	8.23	8.25	5/1/2012
Lubert Adler VII	0.53	0.53	0.18	10.14	-2.57	1.91	-0.55	7/1/2014
Lubert Adler VII B	2.07	2.07	5.19	20.20	25.18	18.13	15.47	7/1/2017
Patron Capital	-5.62	-0.80	-4.40	1.55	5.19	10.10	4.16	8/1/2016
Prologis Targeted US	0.00	0.06	5.86	34.63	26.36	22.34	19.31	10/1/2014
Rubenstein PF II	-5.18	-5.18	-11.02	-7.59	-5.01	0.52	6.58	7/1/2013
Stockbridge Sm/Mkts	0.00	0.64	0.64	21.11	13.36	11.21	10.47	5/1/2014
Walton St RE VI	2.71	2.71	6.05	17.71	4.92	4.22	-11.58	5/1/2009
Walton St RE VII	-2.16	-2.16	3.95	4.50	-1.16	-0.66	5.89	7/1/2013
Real Return Composite	-0.91	4.15	6.44	5.09	6.41	5.31	4.41	7/1/2011
US CPI +3%	0.17	1.20	2.45	9.61	8.05	6.88	5.56	
Value Added	-1.08	2.95	3.99	-4.52	-1.64	-1.57	-1.15	
Putnam	0.34	0.87	2.53	-3.26			10.18	7/1/2020
US CPI +3%	0.17	1.20	2.45	9.61			9.26	
Value Added	0.17	-0.33	0.08	-12.87			0.92	
Tortoise Capital	-4.81	10.55	19.54	32.84	9.95	4.54	9.35	8/1/2009
Alerian MLP Index	-4.70	10.11	18.97	30.92	9.38	4.08	6.52	
Value Added	-0.11	0.44	0.57	1.92	0.57	0.46	2.83	

Asset Allocation & Performance

Insurance Plan Accounts

Periods Ended December 31, 2022

	Performance (%) net of fees							Inception Date
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	
Amerra AGRI Fund II	3.67	3.67	8.94	21.47	10.42	8.07	6.53	12/1/2012
Amerra AGRI Holdings	-2.33	-2.33	-3.68	-2.63	-2.57	-2.14	-1.68	8/1/2015
BTG Pactual	7.28	7.28	6.66	17.91	6.79	3.05	-2.00	12/1/2014
IFM Infrastructure	1.56	1.56	2.29	4.48	4.17		4.27	7/1/2019
Magnetar MTP EOF II	3.08	3.08	7.97	204.11	71.24	42.04	26.95	8/1/2015
Oberland Capital	1.74	1.74	4.30	8.40	14.07		13.84	8/1/2018
Taurus Mine Finance	8.31	8.31	27.09	82.96	18.13	16.48	15.61	4/1/2015
TPF II	-1.27	-1.27	-2.74	32.92	5.40	5.72	-0.52	10/1/2008
Blackstone Strat Opp	-0.13	-3.00	-2.61	0.84	-4.46	-2.66	-2.07	8/1/2017
Luxor Capital	-0.45	3.45	3.33	3.77	-2.16	0.12	-0.02	4/1/2014
Myriad Opportunities	0.00	-7.04	-7.32	-47.21	-22.41	-15.73	-9.52	5/1/2016
Pine River	-1.26	-1.18	3.88	-9.92	-0.90	4.39	2.61	5/1/2014
PRISMA Capital	0.20	0.20	-0.58	-0.81	-0.07	0.71	2.37	9/1/2011
SRS Partners US	0.00	0.00	0.00	0.00	5.94	6.28	8.32	8/1/2017
Tricadia Select	0.00	0.00	0.00	0.00	0.00	-4.16	-4.68	9/1/2017



County Employees Retirement System (CERS) Pension and Insurance Trusts
Investment Policy Statement and Compliance Review
For the Quarter Ended December 31, 2022

Compliance Guidelines	Compliance Status
Investment Managers shall be qualified and agree to serve as a fiduciary to CERS and should be of institutional quality as deemed by KPPA Investment Staff in collaboration with the investment consultant(s).	●
Notwithstanding the CIO responsibilities when selecting a new investment, when the KPPA Investment Staff seeks a new external Investment Manager, the Investment Committee shall interview the top three candidates identified and considered by KPPA Investment Staff and the Investment Committee will participate in the selection of the Manager.	●
Total assets assigned to the selected manager shall not exceed 25% of that firm's total assets under management and shall not exceed 25% of a firm's total assets under management in a commingled product. Separate accounts or funds of one are not included in this 25% limitation for commingled products.	●
The assets managed by any one active or passive investment manager shall not exceed 15% of the overall assets in the pension and insurance funds.	●
All investment management services will be contracted according to the CERS Investment Procurement Policy established by the CERS Board.	●
Securities issued by the state of Kentucky, its subsidiaries or affiliates are prohibited.	●
The amount of stock in the domestic or international equity allocation in any single corporation shall not exceed 5% of the aggregate market value of the System's assets.	●
The amount of stock held in domestic or international equity allocation shall not exceed 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 Barclays Aggregate 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.	●
KPPA shall hire custodians and other agents who will be fiduciaries to CERS and who will assume responsibility for the safekeeping and accounting of all assets held on behalf of CERS and other duties as agreed to by contract.	●
Investment Managers shall be qualified and agree to serve as a fiduciary to CERS and should be of institutional quality as deemed by KPPA Investment Staff in collaboration with the investment consultant(s).	●



County Employees Retirement System (CERS) Pension and Insurance Trusts
Investment Policy Statement and Compliance Review
For the Quarter Ended December 31, 2022

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	●
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.	●
Alternative investments should earn a Net Internal Rate of Return ("IRR") that place the investment above the median Net IRR of other similar funds, of the same vintage year.	●
The private equity portfolio should earn a return that meets or exceeds the Systems Private Equity Index. Individual private equity investments should earn a Net IRR above the median Net IRR of other similar funds, of the same vintage year.	●
For periods less than five years or a full market cycle, individual portfolios should exceed the returns of their market goal or benchmark.	●
For periods greater than five years or a full market cycle, individual portfolios should exceed the return of their market goal or benchmark, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the benchmark.	●
For periods greater than five years or a full market cycle, individual portfolios should compare favorably on a risk-adjusted basis and generate returns that rank above the median return of a relevant peer group.	●
For periods greater than five years or a full market cycle, volatility, as measured by the standard deviation of monthly returns, should be comparable to the benchmark.	●
For periods greater than five years or a full market cycle, returns should rank above the median return of a relevant peer group.	●

Legend	
●	In Compliance
●	To be Determined

County Employees Retirement System

Investment Budget Update

Quarter Ending: December 31, 2022

CERS Investment Committee Meeting - Investment Office Quarterly Update

KENTUCKY PUBLIC PENSIONS AUTHORITY									
Investment Budget									
For the six month period ending December 31, 2022									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	Trust Budget FY 2023	Q2 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		\$ 288,972	\$ 901,028	24%
Albourne	-	-	-	-	270,000	67,500	171,750	98,250	64%
MercerInsight	-	-	-	-	160,000			160,000	0%
SUBTOTAL	1,021,799	1,238,170	1,225,671	1,021,175	1,620,000	67,500	460,722	1,159,278	28%
LEGAL & AUDITING SERVICES									
Faegre Drinker			96,039	202,502	375,000	5,177	8,721	366,279	2%
Intelligent Management Solutions (IMS)	620,001	202,140	155,700	69,884	75,000		73,859	1,141	98%
McClain/Goldberg			891	-	25,000			25,000	0%
Reinhart	317,909	671,269	663,689	619,509	437,500	33,445	57,068	380,432	13%
Stoll-Keenon-Ogden	10,314	135,353	254,211	463,560	250,000	261,025	350,408	(100,408)	140%
Haystack			-	-	140,000			140,000	0%
Umberg Zipser			289,100	498,058	360,000	102,732	147,684	212,316	41%
Frost Brown Todd			-	-	50,000			50,000	0%
Swansburg & Smith	-	-	-	-	-	4,275	4,275	(4,275)	
Eddins Domine	-	-	-	-	-	13,823	13,823	(13,823)	
Taft	-	-	-	-	-	66,916	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	487,392	722,754	1,189,746	38%
CONTRACTURAL SERVICES									
Bloomberg	68,722	71,810	98,163	102,243	150,000	25,712	51,425	98,575	34%
BNYM Custodial Fees	2,056,390	2,088,475	2,379,838	2,565,169	4,000,000	561,561	1,130,187	2,869,813	28%
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	62,097	87,903	41%
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	2,401	3,601	3,899	48%
State Street/Elkins McSherry	10,000	5,000	15,000	10,000	10,000		5,000	5,000	50%
ISS	32,050	32,050	28,288	35,813	37,000	11,775	16,025	20,975	43%
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%
Miscellaneous & New Services	-	-	-	-	250,000		9,520	240,480	4%
SUBTOTAL	2,391,713	2,474,036	2,681,251	3,267,008	5,047,500	633,356	1,570,405	3,477,095	31%

KENTUCKY PUBLIC PENSIONS AUTHORITY									
Investment Budget									
For the six month period ending December 31, 2022									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	Trust Budget FY 2023	Q2 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	\$ 1,188,248	\$ 2,754,131	\$ 5,825,869	32%

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 six month period ending December 31, 2022						
Pension						
	2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Absolute Return					262,462	142,519,762
<i>Investment Advisory Fees</i>					262,462	
<i>Carried Interest</i>						
<i>Miscellaneous Fees and Expenses</i>						
	<i>Absolute Return was absorbed by Real Return in December 2020</i>					
Core Fixed Income	1,412,142	1,982,992,065	1,591,391	2,344,396,966	1,401,242	2,282,848,163
<i>Investment Advisory Fees</i>	1,073,446		1,558,075		1,375,451	
<i>Carried Interest</i>	313,985				-	
<i>Miscellaneous Fees and Expenses</i>	24,711		33,316		25,791	
Opportunistic					1,132,942	370,905,924
<i>Investment Advisory Fees</i>					-	
<i>Carried Interest</i>					1,132,942	
<i>Miscellaneous Fees and Expenses</i>					-	
	<i>Opportunistic was absorbed by Specialty Credit in December 2021</i>					
Public Equity	6,326,122	6,860,008,005	7,390,244	7,258,279,054	5,850,569	6,295,655,905
<i>Investment Advisory Fees</i>	6,216,244		7,204,226		5,712,166	
<i>Miscellaneous Fees and Expenses</i>	109,877		186,018		138,403	
Specialty Credit Fixed Income	26,763,395	3,169,416,226	25,775,685	3,159,992,882	17,264,718	2,435,764,675
<i>Investment Advisory Fees</i>	8,272,318		8,375,883		7,320,545	
<i>Carried Interest</i>	7,246,973		12,762,781		8,459,198	
<i>Miscellaneous Fees and Expenses</i>	11,244,103		4,637,021		1,484,975	
Real Estate	5,120,746	980,167,711	16,451,186	780,082,609	980,198	584,165,093
<i>Investment Advisory Fees</i>	4,590,896		2,401,864		2,324,269	
<i>Carried Interest</i>	(380,882)		12,653,860		(2,070,445)	
<i>Miscellaneous Fees and Expenses</i>	910,732		1,395,462		726,374	
Real Return	2,108,571	451,152,401	2,632,576	1,021,821,360	3,216,441	847,105,839
<i>Investment Advisory Fees</i>	1,176,185		2,001,915		1,985,069	
<i>Carried Interest</i>	493,101		679,897		1,259,862	
<i>Miscellaneous Fees and Expenses</i>	439,285		(49,236)		(28,490)	
Private Equity	(1,217,614)	1,143,362,622	39,968,415	1,262,539,645	24,365,092	1,139,236,934
<i>Investment Advisory Fees</i>	3,652,032		3,928,841		4,294,168	
<i>Carried Interest</i>	(6,838,180)		33,350,556		17,523,541	
<i>Miscellaneous Fees and Expenses</i>	1,968,535		2,689,018		2,547,383	
Administrative Expense/Cash	1,574,490	813,973,145	1,878,932	612,903,688	1,435,169	266,674,138
Total Investment Mgmt Fees	42,087,852	15,401,072,174	95,688,429	16,440,016,204	54,513,429	13,851,450,747

KENTUCKY PUBLIC PENSIONS AUTHORITY Investment Fees and Expenses For the six month period ending December 31, 2022 Insurance						
	2023		2022		2021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Absolute Return					115,024	58,349,008
<i>Investment Advisory Fees</i>					105,411	
<i>Carried Interest</i>					-	
<i>Miscellaneous Fees and Expenses</i>					9,613	
Core Fixed Income	526,658	755,273,150	587,743	855,261,654	568,510	873,074,122
<i>Investment Advisory Fees</i>	406,870		457,920		558,897	
<i>Carried Interest</i>	112,040		117,337		-	
<i>Miscellaneous Fees and Expenses</i>	7,748		12,486		9,613	
Opportunistic					576,902	188,867,580
<i>Investment Advisory Fees</i>					-	
<i>Carried Interest</i>					576,902	
<i>Miscellaneous Fees and Expenses</i>					-	
Public Equity	2,916,264	3,159,950,145	3,221,274	3,246,444,061	2,616,659	2,840,620,347
<i>Investment Advisory Fees</i>	2,866,269		3,161,508		2,557,467	
<i>Miscellaneous Fees and Expenses</i>	49,995		59,766		59,192	
Specialty Credit Fixed Income	12,006,819	1,440,474,508	11,449,880	1,449,432,096	7,239,534	1,085,313,532
<i>Investment Advisory Fees</i>	3,715,203		3,748,168		3,373,550	
<i>Carried Interest</i>	3,460,460		5,702,991		3,344,830	
<i>Miscellaneous Fees and Expenses</i>	4,831,156		1,998,721		521,154	
Real Estate	2,141,670	414,400,346	6,801,703	330,413,444	536,259	246,753,396
<i>Investment Advisory Fees</i>	1,913,144		1,021,218		1,015,005	
<i>Carried Interest</i>	(161,966)		5,182,012		(795,199)	
<i>Miscellaneous Fees and Expenses</i>	390,492		598,473		316,453	
Real Return	938,266	175,390,319	1,140,159	432,244,515	1,245,054	361,358,291
<i>Investment Advisory Fees</i>	530,992		889,226		842,984	
<i>Carried Interest</i>	201,933		266,344		419,601	
<i>Miscellaneous Fees and Expenses</i>	205,341		(15,411)		(17,531)	
Private Equity	275,237	573,107,746	22,563,618	595,876,977	16,438,474	548,052,248
<i>Investment Advisory Fees</i>	2,427,153		2,772,848		2,892,530	
<i>Carried Interest</i>	(3,062,207)		18,845,205		12,027,941	
<i>Miscellaneous Fees and Expenses</i>	910,292		945,565		1,518,003	
Administrative Expense/Cash	821,924	223,048,022	963,210	401,003,570	842,635	108,497,980
Total Investment Mgmt Fees	\$ 19,626,840	\$ 6,741,644,236	\$ 46,727,587	\$ 7,310,676,317	\$ 29,487,125	\$ 6,063,669,916

KENTUCKY PUBLIC PENSIONS AUTHORITY				
Investment Fees and Expenses				
For the six month period ending December 31, 2022				
Pension				
	CERS		CERS Hazardous	
	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	611,646	813,833,731	213,237	302,695,385
<i>Investment Advisory Fees</i>	462,606		162,600	
<i>Carried Interest</i>	138,167		46,943	
<i>Miscellaneous Fees and Expenses</i>	10,874		3,694	
Public Equity	3,645,309	3,964,124,359	1,240,146	1,356,593,495
<i>Investment Advisory Fees</i>	3,582,346		1,218,593	
<i>Miscellaneous Fees and Expenses</i>	62,962		21,554	
Specialty Credit Fixed Income	15,019,998	1,712,051,881	5,051,147	588,670,419
<i>Investment Advisory Fees</i>	4,628,019		1,566,854	
<i>Carried Interest</i>	4,139,203		1,376,445	
<i>Miscellaneous Fees and Expenses</i>	6,252,777		2,107,848	
Real Estate	2,948,350	384,490,091	929,195	123,232,579
<i>Investment Advisory Fees</i>	2,628,218		828,480	
<i>Carried Interest</i>	(197,288)		(62,782)	
<i>Miscellaneous Fees and Expenses</i>	517,420		163,497	
Real Return	1,391,048	425,559,707	447,058	137,955,801
<i>Investment Advisory Fees</i>	758,775		245,752	
<i>Carried Interest</i>	340,970		107,464	
<i>Miscellaneous Fees and Expenses</i>	291,303		93,842	
Private Equity	31,729	676,459,973	(247,517)	225,693,389
<i>Investment Advisory Fees</i>	2,368,707		790,456	
<i>Carried Interest</i>	(3,559,834)		(1,438,538)	
<i>Miscellaneous Fees and Expenses</i>	1,222,856		400,566	
Administrative Expenses/Cash	826,505	84,362,977	282,902	35,025,608
Total Investment Mgmt Fees	24,474,585	8,060,882,719	7,916,169	2,769,866,675

KENTUCKY PUBLIC PENSIONS AUTHORITY				
Investment Fees and Expenses				
For the six month period ending December 31, 2022				
Insurance				
	CERS		CERS Hazardous	
	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	235,550	345,447,046	114,745	151,178,612
<i>Investment Advisory Fees</i>	182,361		87,969	
<i>Carried Interest</i>	49,748		25,044	
<i>Miscellaneous Fees and Expenses</i>	3,440		1,732	
Public Equity	1,339,836	1,503,204,987	667,730	733,129,998
<i>Investment Advisory Fees</i>	1,316,533		656,280	
<i>Miscellaneous Fees and Expenses</i>	23,303		11,450	
Specialty Credit Fixed Income	5,431,338	655,271,249	2,862,712	326,611,917
<i>Investment Advisory Fees</i>	1,678,837		860,966	
<i>Carried Interest</i>	1,563,901		845,862	
<i>Miscellaneous Fees and Expenses</i>	2,188,600		1,155,884	
Real Estate	983,401	190,045,239	538,728	104,187,750
<i>Investment Advisory Fees</i>	878,309		481,232	
<i>Carried Interest</i>	(74,258)		(40,887)	
<i>Miscellaneous Fees and Expenses</i>	179,349		98,383	
Real Return	422,107	79,204,378	229,855	42,397,798
<i>Investment Advisory Fees</i>	239,847		130,130	
<i>Carried Interest</i>	88,366		48,694	
<i>Miscellaneous Fees and Expenses</i>	93,895		51,031	
Private Equity	(408,633)	263,422,196	(324,214)	148,193,392
<i>Investment Advisory Fees</i>	1,182,517		659,924	
<i>Carried Interest</i>	(1,939,939)		(1,174,565)	
<i>Miscellaneous Fees and Expenses</i>	348,789		190,427	
Administrative Expenses/Cash	374,628	34,724,087	186,169	17,131,869
Total Investment Mgmt Fees	\$ 8,378,225	\$ 3,071,319,181	\$ 4,275,725	\$ 1,522,831,336

Kentucky Public Pensions Authority

CERS & CERS-Hazardous Unit Holdings

Quarter Ending: December 31, 2022

Kentucky Public Pensions Authority				
Pension: CERS & CERS-H Unit Holdings				
Quarter Ended December 31, 2022				
UNIT OF PARTICIPATION	CERS		CERS-H	
	Shares/Par	Base Market Value	Shares/Par	Base Market Value
Grand Total	44,622,663.043	8,065,299,365.07	15,458,172.668	2,771,344,755.97
KRS ABSOLUTE RETURN UNIT	465,662.055	56,440,982.42	147,504.984	17,878,472.42
KRS ADAMS STREET A1 UNIT	533,314.553	74,260,921.48	179,827.556	25,039,931.77
KRS ADAMS STREET B1 UNIT	545,003.682	67,428,262.11	183,768.998	22,736,037.52
KRS AMERRA AGRI UNIT	312,625.631	28,240,688.11	98,706.141	8,916,509.29
KRS AMERRA UNIT	83,187.980	15,619,293.68	26,265.165	4,931,521.67
KRS ARROWMARK UNIT	1,387,072.461	274,772,861.25	458,544.662	90,835,650.14
KRS BLACKROCK UNIT	3,173,089.335	486,874,169.47	1,098,793.478	168,597,258.24
KRS BLUE TORCH UNIT	482,295.226	71,036,616.60	162,844.338	23,985,124.01
KRS BNYM CUSTODY FEE UNIT	-305,969.166	-305,969.17	-104,938.494	-104,938.49
KRS BTG UNIT	199,420.716	16,120,853.40	63,908.686	5,166,276.50
KRS CASH UNIT	863,855.631	84,551,534.53	358,650.163	35,103,575.82
KRS DB PRIVATE EQ UNIT	15,210.721	5,109,335.90	4,379.059	1,470,941.67
KRS DIVCOWEST IV UNIT	1,775.028	979,574.08	553.116	305,244.82
KRS DOMESTIC EQUITY UNIT	2,852,515.155	676,050,339.13	977,325.504	231,627,599.69
KRS GLOBAL FIXED UNIT	1,294,621.245	166,615,829.13	505,407.882	65,045,242.87
KRS GREENFIELD UNIT	3,105.533	40,637.66	967.716	12,663.11
KRS GREENFIELD VII UNIT	7,987.293	2,448,474.67	2,488.922	762,969.69
KRS HARRISON UNIT	639,390.832	146,591,047.16	199,992.765	45,851,687.86
KRS IFM INFRAST DEBT UNIT	258,665.468	36,052,619.62	89,077.141	12,415,512.23
KRS INTERNAL EQUITY UNIT	5,830,830.640	1,631,026,815.09	1,990,723.555	556,854,366.06
KRS INTERNATIONAL EQUITY UNIT	7,499,776.923	1,170,230,069.61	2,560,511.784	399,530,267.90
KRS L-A VII UNIT	152,636.219	14,529,146.49	47,573.514	4,528,430.79
KRS LIQUID CORE FIXED UNIT	6,621,331.449	813,785,922.13	2,462,722.290	302,677,602.71
KRS LIQUID CREDIT FIXED UNIT	44,070.529	3.35	13,249.620	1.01
KRS LIQUID HY FI UNIT	1,172,435.736	176,010,879.61	460,074.218	69,068,235.73
KRS MAGNETAR MTP UNIT	319.749	164,495.45	101.107	52,014.68
KRS MESA WEST CORE UNIT	205,495.934	37,927,325.41	64,772.004	11,954,634.94
KRS MESA WEST IV UNIT	105,087.787	10,291,943.82	33,229.849	3,254,419.46
KRS MULTI SECTOR CREDIT FI	1,492,072.539	242,111,818.99	490,250.072	79,550,647.57
KRS OBERLAND UNIT	66,801.935	4,772,384.68	20,855.226	1,489,914.34
KRS PE 2010 UNIT	587,038.322	178,802,800.20	182,740.222	55,659,847.37
KRS PE 2011 UNIT	179,185.416	54,179,529.83	86,636.967	26,196,050.12
KRS PE 2012 A UNIT	10,384.628	6,602,770.86	2,891.166	1,838,265.81
KRS PE 2012 B UNIT	65,526.534	9,602,542.02	18,243.149	2,673,430.05
KRS PE 2013 UNIT	267,902.143	97,759,185.12	91,440.167	33,367,094.84
KRS PE 2014 UNIT	228,501.567	37,550,492.19	77,991.990	12,816,706.91
KRS PE 2015 UNIT	165,496.630	41,523,268.14	56,487.190	14,172,691.84
KRS PE 2016 UNIT	352,069.220	91,757,927.45	109,652.849	28,578,238.57
KRS PE 2017 UNIT	182,061.739	28,136,229.51	56,703.671	8,763,112.50
KRS PE 2018 UNIT	222,168.858	40,071,512.73	69,360.035	12,510,131.04
KRS PE 2019 UNIT	220,338.393	49,269,539.31	68,788.572	15,381,709.95
KRS PE 2021 UNIT	403,356.075	50,519,292.41	136,753.021	17,127,957.86
KRS PERIMETER PARK UNIT	17,188.363	1,682,470.76	18,713.042	1,831,712.89
KRS POST-2015 REAL ESTATE UNIT	664,118.024	102,608,393.76	210,001.016	32,445,839.69
KRS PRIVATE CREDIT FI UNIT	1,586,599.379	297,637,331.48	525,487.639	98,578,595.62
KRS PROLOGIS UNIT	741,098.600	192,213,759.25	234,343.128	60,780,000.92
KRS REAL RETURN UNIT	582,623.772	99,750,309.86	200,639.314	34,351,213.78
KRS RUBENSTEIN PF II UNIT	55,450.515	10,688,449.47	17,278.945	3,330,629.67
KRS SHENKMAN UNIT	827,306.875	127,550,108.60	278,851.943	42,992,022.29
KRS STOCKBRIDGE UNIT	280,090.753	66,037,843.27	89,313.398	21,057,689.75
KRS TAURUS UNIT	8,417.919	2,382,064.29	2,873.199	813,044.74
KRS TPF II UNIT	351.766	37,804.94	117.591	12,637.72
KRS WALTON VI UNIT	38,991.717	6,730,756.74	13,784.580	2,379,496.52
KRS WALTON VII UNIT	37,435.893	6,577,300.98	11,665.409	2,049,554.58
KRS WATERFALL UNIT	895,271.123	155,848,806.04	299,283.444	52,099,264.92

Kentucky Public Pensions Authority				
Insurance: CERS & CERS-H Unit Holdings				
Quarter Ended December 31, 2022				
UNIT OF PARTICIPATION	CERS INS		CERS-H INS	
	Shares/Par	Base Market Value	Shares/Par	Base Market Value
Grand Total	24,517,583.010	3,073,358,843.04	12,305,899.404	1,524,112,078.40
KR3 ARROWMARK UNIT	554,115.798	110,947,426.16	301,875.792	60,442,857.37
KRS INS PE 2014 UNIT	101,486.922	16,706,387.69	54,893.500	9,036,357.34
KRS INS ABSOLUTE RETURN UNIT	151,557.901	18,378,244.65	84,912.898	10,296,724.90
KRS INS ADAMS STREET A1 UNIT	186,733.637	26,001,563.39	98,650.679	13,736,528.27
KRS INS ADAMS STREET B1 UNIT	190,826.453	23,609,190.55	100,812.890	12,472,645.65
KRS INS AMERRA AGRI UNIT	113,082.785	10,216,152.33	62,427.093	5,639,803.54
KRS INS AMERRA UNIT	22,445.700	4,232,027.09	12,391.098	2,336,281.00
KRS INS BLACKROCK UNIT	3,237,957.534	198,348,636.42	1,610,309.295	98,643,249.50
KRS INS BLUE TORCH UNIT	168,732.244	24,852,345.95	88,690.812	13,063,150.77
KRS INS BNYM CUSTODY FEE UNIT	-165,532.997	-165,533.00	-82,550.330	-82,550.33
KRS INS BTG UNIT	58,674.170	4,743,126.61	32,238.357	2,606,097.52
KRS INS CASH UNIT	337,611.191	34,920,688.96	166,579.684	17,230,108.15
KRS INS DB PRIVATE EQ UNIT	27,357.854	9,182,073.64	14,782.255	4,961,345.07
KRS INS DIVCOWEST IV UNIT	514.258	285,419.12	279.422	155,082.43
KRS INS DOMESTIC EQUITY UNIT	1,079,817.937	255,793,846.85	549,142.447	130,084,206.02
KRS INS GLOBAL FIXED UNIT	477,750.334	60,338,936.05	219,395.327	27,709,202.20
KRS INS GREENFIELD UNIT	903.324	11,764.54	490.809	6,392.11
KRS INS GREENFIELD VII UNIT	2,308.723	707,763.41	1,254.414	384,553.85
KRS INS HARRISON UNIT	244,840.322	54,895,821.21	133,920.349	30,026,375.86
KRS INS IFM INFRAST DEBT UNIT	91,716.602	12,624,136.33	47,255.497	6,504,382.23
KRS INS INTERNAL EQUITY UNIT	2,203,707.454	617,870,266.55	1,053,648.266	295,419,400.51
KRS INS INTL EQ UNIT	2,795,466.778	431,189,934.85	1,354,849.173	208,980,243.02
KRS INS L-A-VII UNIT	44,116.449	4,200,359.80	23,970.508	2,282,249.83
KRS INS LIQUID CORE FIXED UNIT	2,837,526.720	345,414,621.81	1,241,791.918	151,164,421.71
KRS INS LIQUID CREDIT FIXED UN	5,562,779.296	5.56	2,995,343.950	3.00
KRS INS LIQUID HY FI UNIT	578,308.843	84,523,505.04	216,615.700	31,659,758.33
KRS INS MAGNETAR MTP	95.017	49,243.01	52.560	27,239.47
KRS INS MESA WEST CORE UNIT	117,798.214	21,284,123.04	65,081.046	11,759,032.19
KRS INS MESA WEST IV UNIT	34,504.073	3,265,500.46	18,935.158	1,792,042.55
KRS INS MULTI SECTOR CREDIT FI	531,206.774	84,683,358.42	290,366.710	46,289,372.39
KRS INS OBERLAND UNIT	12,648.950	933,250.48	6,877.327	507,415.14
KRS INS PE 2010 UNIT	66,903.608	20,019,184.40	35,813.046	10,716,133.15
KRS INS PE 2011 UNIT	122,164.555	38,035,092.73	73,120.458	22,765,550.94
KRS INS PE 2012 A UNIT	3,294.037	2,101,324.65	1,781.717	1,136,588.89
KRS INS PE 2012 B UNIT	27,004.062	3,975,806.13	14,333.239	2,110,281.76
KRS INS PE 2013 UNIT	144,647.162	52,376,491.03	78,238.554	28,330,047.16
KRS INS PE 2015 UNIT	95,121.209	23,713,818.61	51,450.359	12,826,629.24
KRS INS PE 2016 UNIT	203,578.509	53,055,557.34	122,933.898	32,038,384.14
KRS INS PE 2017 UNIT	105,845.206	16,268,728.13	63,916.046	9,824,089.49
KRS INS PE 2018 UNIT	47,101.950	8,740,925.20	25,609.708	4,752,511.14
KRS INS PE 2019 UNIT	23,031.899	5,150,126.89	12,283.675	2,746,733.34
KRS INS PE 2021 UNIT	156,658.650	19,747,886.86	80,606.596	10,161,008.91
KRS INS POST-2015 REAL ESTATE	230,506.460	35,487,613.98	126,497.412	19,474,904.64
KRS INS PRIVATE CREDIT FI UNIT	555,898.668	102,610,671.82	303,181.784	55,962,872.96
KRS INS PROLOGIS UNIT	150,318.422	62,061,052.96	82,491.818	34,057,895.35
KRS INS REAL RETURN UNIT	155,029.165	26,603,398.49	79,892.918	13,709,827.66
KRS INS RUBENSTEIN PF II UNIT	16,254.663	3,114,276.67	8,831.949	1,692,137.99
KRS INS SHENKMAN UNIT	327,756.225	50,064,596.54	121,439.412	18,549,808.37
KRS INS STOCKBRIDGE UNIT	117,767.220	27,646,488.25	64,874.850	15,229,719.93
KRS INS TAURUS UNIT	3,084.602	874,579.80	1,668.438	473,053.63
KRS INS TPF II UNIT	37.089	3,985.88	19.666	2,113.46
KRS INS WALTON VI UNIT	3,937.153	675,577.14	2,109.889	362,036.42
KRS INS WALTON VII UNIT	10,838.188	1,904,215.16	5,888.786	1,034,630.10
KRS INS WATERFALL UNIT	349,745.048	59,083,257.41	183,630.582	31,021,148.14

Kentucky Public Pensions Authority

Security Litigation Report

Quarter Ending: December 31, 2022

Claims Filed during the Quarter (pg 3):

19

Proceeds Received during the Quarter (pg 4):

\$144,900.41

Kentucky Retirement Systems	
Quarterly Securities Litigation Report	
Quarter Ended 12/31/22	
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	32
Total Filed	1,657
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	\$186,186
Total Proceeds	\$60,399,872

CERS Investment Committee Meeting - Investment Office Quarterly Update

Class Action Name	TNT Status Code	Status as of Date	Class Period Start Date	Class Period End Date	Class Account Id	Claimed Account Name
BANK OZK, Securities Litigation	FILED	10/4/2022	2/19/2016	10/18/2018	956588	KRS NTGI STRUCTURED
BANK OZK, Securities Litigation	FILED	10/4/2022	2/19/2016	10/18/2018	956765	KRS INS NTGI STRUCTURED
BENEFITFOCUS, INC., Securities Litigation	FILED	12/19/2022	2/26/2019	11/5/2020	956765	KRS INS NTGI STRUCTURED
BENEFITFOCUS, INC., Securities Litigation	FILED	12/19/2022	2/26/2019	11/5/2020	956588	KRS NTGI STRUCTURED
BOFI HOLDINGS, INC., Securities Litigation (15CV02324GPKSC)	FILED	11/24/2022	9/4/2013	10/13/2015	KR3F1002002	NTGI STRUCTURED
BOFI HOLDINGS, INC., Securities Litigation (15CV02324GPKSC)	FILED	11/24/2022	9/4/2013	10/13/2015	KR2F1002002	NTGI STRUCTURED
COVETRUS, INC., Securities Litigation	FILED	12/1/2022	2/8/2019	8/12/2019	956596	KRS KRS INTERNAL EQUITY
COVETRUS, INC., Securities Litigation	FILED	12/1/2022	2/8/2019	8/12/2019	956774	KRS INS S P 500 INDEX
COVETRUS, INC., Securities Litigation	FILED	12/1/2022	2/8/2019	8/12/2019	956599	KRS S P 500 INDEX
COVETRUS, INC., Securities Litigation	FILED	12/1/2022	2/8/2019	8/12/2019	956588	KRS NTGI STRUCTURED
COVETRUS, INC., Securities Litigation	FILED	12/1/2022	2/8/2019	8/12/2019	956772	KRS INS KRS INTERNAL EQUITY
COVETRUS, INC., Securities Litigation	FILED	12/1/2022	2/8/2019	8/12/2019	956765	KRS INS NTGI STRUCTURED
EVOLENT HEALTH, INC., Securities Litigation	FILED	12/14/2022	1/10/2018	5/28/2019	956588	KRS NTGI STRUCTURED
EVOLENT HEALTH, INC., Securities Litigation	FILED	12/14/2022	1/10/2018	5/28/2019	956765	KRS INS NTGI STRUCTURED
Facebook Fair Fund	FILED	10/18/2022	1/28/2016	3/19/2018	KR2F1011002	KRS INTERNAL EQUITY
Facebook Fair Fund	FILED	11/24/2022	1/28/2016	3/19/2018	956591	KRS WESTFIELD CAPITAL
Facebook Fair Fund	FILED	11/24/2022	1/28/2016	3/19/2018	956599	KRS S P 500 INDEX
Facebook Fair Fund	FILED	11/24/2022	1/28/2016	3/19/2018	956774	KRS INS S P 500 INDEX
Facebook Fair Fund	FILED	11/24/2022	1/28/2016	3/19/2018	956596	KRS KRS INTERNAL EQUITY
Facebook Fair Fund	FILED	11/24/2022	1/28/2016	3/19/2018	956768	KRS INS WESTFIELD CAPITAL
Facebook Fair Fund	FILED	10/18/2022	1/28/2016	3/19/2018	KR2F1006002	WESTFIELD CAPITAL
Facebook Fair Fund	FILED	10/18/2022	1/28/2016	3/19/2018	KR3F1011002	KRS INTERNAL EQUITY
Facebook Fair Fund	FILED	11/24/2022	1/28/2016	3/19/2018	956772	KRS INS KRS INTERNAL EQUITY
Facebook Fair Fund	FILED	10/18/2022	1/28/2016	3/19/2018	KR3F1006002	WESTFIELD CAPITAL
Facebook Fair Fund	FILED	10/18/2022	1/28/2016	3/19/2018	KR2F1902002	S&P 500 INDEX
FLUOR CORPORATION, Securities Litigation (18CV01338)	FILED	10/14/2022	8/14/2013	2/14/2020	956596	KRS KRS INTERNAL EQUITY
FLUOR CORPORATION, Securities Litigation (18CV01338)	FILED	10/14/2022	8/14/2013	2/14/2020	956772	KRS INS KRS INTERNAL EQUITY
FLUOR CORPORATION, Securities Litigation (18CV01338)	FILED	10/11/2022	8/14/2013	2/14/2020	956599	KRS S P 500 INDEX
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	956596	KRS KRS INTERNAL EQUITY
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	956591	KRS WESTFIELD CAPITAL
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	956597	KRS RIVER ROAD FAV
General Electric Company Fair Fund	FILED	10/12/2022	10/16/2015	1/16/2018	KR3F1006002	WESTFIELD CAPITAL
General Electric Company Fair Fund	FILED	10/12/2022	10/16/2015	1/16/2018	KR2F1902002	S&P 500 INDEX
General Electric Company Fair Fund	FILED	10/12/2022	10/16/2015	1/16/2018	KR3F1011002	KRS INTERNAL EQUITY
General Electric Company Fair Fund	FILED	10/12/2022	10/16/2015	1/16/2018	KR2F1006002	WESTFIELD CAPITAL
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	956768	KRS INS WESTFIELD CAPITAL
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	956772	KRS INS KRS INTERNAL EQUITY
General Electric Company Fair Fund	FILED	10/12/2022	10/16/2015	1/16/2018	KR2F1011002	KRS INTERNAL EQUITY
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	956599	KRS S P 500 INDEX
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	956774	KRS INS S P 500 INDEX
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	956592	KRS RIVER ROAD
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	956769	KRS INS RIVER ROAD
General Electric Company Fair Fund	FILED	12/13/2022	10/16/2015	1/16/2018	909181	KRS INS RIVER ROAD FAV
GROUPON, INC Securities Litigation	FILED	12/2/2022	7/30/2019	2/18/2020	956765	KRS INS NTGI STRUCTURED
GROUPON, INC Securities Litigation	FILED	12/2/2022	7/30/2019	2/18/2020	956588	KRS NTGI STRUCTURED
HARMAN INTERNATIONAL INDUSTRIES, INC., Securities Litigation (17CV00246)	FILED	11/7/2022	1/10/2017	3/12/2017	KR3F1902002	S&P 500 INDEX
HARMAN INTERNATIONAL INDUSTRIES, INC., Securities Litigation (17CV00246)	FILED	11/7/2022	1/10/2017	3/12/2017	KR2F1902002	S&P 500 INDEX
INOVIO PHARMACEUTICALS, INC Securities Litigation	FILED	12/15/2022	2/14/2020	8/10/2020	956765	KRS INS NTGI STRUCTURED
INOVIO PHARMACEUTICALS, INC Securities Litigation	FILED	12/15/2022	2/14/2020	8/10/2020	956588	KRS NTGI STRUCTURED
INTRUSION INC., Security Litigation	FILED	12/6/2022	10/14/2020	8/26/2021	956588	KRS NTGI STRUCTURED
MALLINCKRODT PLC, Securities Litigation	FILED	10/28/2022	10/6/2015	11/6/2017	KR3F1011002	KRS INTERNAL EQUITY
MALLINCKRODT PLC, Securities Litigation	FILED	10/27/2022	10/6/2015	11/6/2017	956599	KRS S P 500 INDEX
MALLINCKRODT PLC, Securities Litigation	FILED	10/27/2022	10/6/2015	11/6/2017	KR2F1011002	KRS INTERNAL EQUITY
SEALED AIR CORPORATION, Securities Litigation	FILED	12/19/2022	11/17/2014	6/20/2019	956596	KRS KRS INTERNAL EQUITY
SEALED AIR CORPORATION, Securities Litigation	FILED	12/19/2022	11/17/2014	6/20/2019	956772	KRS INS KRS INTERNAL EQUITY
SEALED AIR CORPORATION, Securities Litigation	FILED	12/19/2022	11/17/2014	6/20/2019	956599	KRS S P 500 INDEX
TWITTER, INC., Securities Litigation	FILED	11/10/2023	2/6/2015	7/28/2015	KR2F4290002	INST VEN PTRN XII
TWITTER, INC., Securities Litigation	FILED	11/10/2023	2/6/2015	7/28/2015	KR3F4290002	INST VEN PTRN XII
UNITI GROUP INC. SECURITIES LITIGATION	FILED	11/29/2022	4/24/2015	6/24/2019	956592	KRS RIVER ROAD
UNITI GROUP INC. SECURITIES LITIGATION	FILED	11/29/2022	4/24/2015	6/24/2019	956769	KRS INS RIVER ROAD
UNITI GROUP INC. SECURITIES LITIGATION	FILED	11/7/2022	4/24/2015	6/24/2019	KR3F1007002	RIVER ROAD
UNITI GROUP INC. SECURITIES LITIGATION	FILED	11/29/2022	4/24/2015	6/24/2019	956773	KRS INS TRANSITION
UNITI GROUP INC. SECURITIES LITIGATION	FILED	11/29/2022	4/24/2015	6/24/2019	KR3F3060002	NUVEEN REAL ASSET
UNITI GROUP INC. SECURITIES LITIGATION	FILED	11/29/2022	4/24/2015	6/24/2019	956598	KRS TRANSITION
UNITI GROUP INC. SECURITIES LITIGATION	FILED	11/7/2022	4/24/2015	6/24/2019	KR2F1007002	RIVER ROAD
UNITI GROUP INC. SECURITIES LITIGATION	FILED	11/29/2022	4/24/2015	6/24/2019	KR2F3060002	NUVEEN REAL ASSET
Vanda Pharms Inc. Securities Litigation	FILED	12/19/2022	11/4/2015	2/11/2019	956588	KRS NTGI STRUCTURED
Vanda Pharms Inc. Securities Litigation	FILED	12/19/2022	11/4/2015	2/11/2019	956765	KRS INS NTGI STRUCTURED
VENATOR MATERIALS PLC, Securities Litigation	FILED	11/24/2022	8/2/2017	10/29/2018	956766	KRS INS SYSTEMATIC
VENATOR MATERIALS PLC, Securities Litigation	FILED	11/24/2022	8/2/2017	10/29/2018	956589	KRS SYSTEMATIC
WALGREEN COMPANY Securities Litigation (15CV03187)	FILED	10/21/2022	4/17/2014	8/5/2014	KR2F1902002	S&P 500 INDEX
WALGREEN COMPANY Securities Litigation (15CV03187)	FILED	10/21/2022	4/17/2014	8/5/2014	KR3F1902002	S&P 500 INDEX



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD
 Status: FINAL

KR2G00000000 - TOTAL FUND

9/30/2022 - 12/31/2022

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	24213CenturyLink Inc. (2017) (NA9123459 D Minn) Distribution 1ST DISTR	10/5/2022	0.000000	264.84	264.84	264.84
		20221006S000140 / 000000000000	10/5/2022	0.000000	264.84	264.84	264.84
		KR2F10110002 : KRS INTERNAL EQUITY				Gain/Loss Local Amounts: 264.84 Long Gain/Loss Base Amounts: 264.84 Long	
CD	0.000	24213CenturyLink Inc. (2017) (NA9123459 D Minn) Distribution 1ST DISTR	10/5/2022	0.000000	14.72	14.72	14.72
		20221006S000170 / 000000000000	10/5/2022	0.000000	14.72	14.72	14.72
		KR2F19020002 : S&P 500 INDEX				Gain/Loss Local Amounts: 14.72 Long Gain/Loss Base Amounts: 14.72 Long	
CD	0.000	3-16-CV-05479-JSTWELLS FARGO & NA9123459 COMPANY (2016) Distribution 3	10/6/2022	0.000000	106.84	106.84	106.84
		20221006S000190 / 000000001111	10/6/2022	0.000000	106.84	106.84	106.84
		KR2F19020002 : S&P 500 INDEX				Gain/Loss Local Amounts: 106.84 Long Gain/Loss Base Amounts: 106.84 Long	
CD	0.000	1-18-cv-04253ROCKWELL MEDICAL, NA9123459 INC. (2018) Distribution 2ND	10/6/2022	0.000000	19.32	19.32	19.32
		20221006S000320 / 000000000000	10/6/2022	0.000000	19.32	19.32	19.32
		KR2F10020002 : NTGI STRUCTURED				Gain/Loss Local Amounts: 19.32 Long Gain/Loss Base Amounts: 19.32 Long	
CD	0.000	23548Wells Fargo & Company (SE NA9123459 C) Distribution 1ST DISTRIBUTI	10/11/2022	0.000000	61,122.58	61,122.58	61,122.58
		20221011S000010 / 000000000008	10/11/2022	0.000000	61,122.58	61,122.58	61,122.58
		KR2F19010002 : STATE STREET TRANSIT				Gain/Loss Local Amounts: 61,122.58 Long Gain/Loss Base Amounts: 61,122.58 Long	
CD	0.000	23548Wells Fargo & Company (SE NA9123459 C) Distribution 1ST DISTRIBUTI	10/11/2022	0.000000	9,995.62	9,995.62	9,995.62
		20221011S000020 / 000000000008	10/11/2022	0.000000	9,995.62	9,995.62	9,995.62
		KR2F10120002 : RIVER ROAD FAV				Gain/Loss Local Amounts: 9,995.62 Long Gain/Loss Base Amounts: 9,995.62 Long	



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD
 Status: FINAL

KR2G00000000 - TOTAL FUND

9/30/2022 - 12/31/2022

Trans Code Link Ref	Shares/Par Security Id	Description Broker	Trade Date C. Settle Date Reported Date	Price Local/Base	Cost Local/Base	Amount Local/Base	Net Gain/Loss Local/Base
CD	0.000 NA9123459	23548Wells Fargo & Company (SE C) Distribution 1ST DISTRIBUTI 20221011S000060 / 000000000008 KR2F10110002 : KRS INTERNAL EQUITY	10/11/2022 10/11/2022	0.000000 0.000000	10,061.94 10,061.94	10,061.94 10,061.94	10,061.94 10,061.94 Gain/Loss Local Amounts: 10,061.94 Long Gain/Loss Base Amounts: 10,061.94 Long
CD	0.000 NA9123459	23033RTI SURGICAL HOLDINGS, IN C. Distribution 1ST DISTRIBUTI 20221020S000250 / 000000000008 KR2F10020002 : NTGI STRUCTURED	10/20/2022 10/20/2022	0.000000 0.000000	206.14 206.14	206.14 206.14	206.14 206.14 Gain/Loss Local Amounts: 206.14 Long Gain/Loss Base Amounts: 206.14 Long
CD	0.000 NA9123459	A-13-686890-BParametric Sound Corporation (Nevada District C 20221021S000280 / 000000000000 KR2F10020002 : NTGI STRUCTURED	10/21/2022 10/21/2022	0.000000 0.000000	12.34 12.34	12.34 12.34	12.34 12.34 Gain/Loss Local Amounts: 12.34 Long Gain/Loss Base Amounts: 12.34 Long
CD	0.000 NA9123459	22050ACLARIS THERAPEUTICS, INC . Distribution 1ST DISTRIBUTIO 20221028S000350 / 000000000008 KR2F10020002 : NTGI STRUCTURED	10/27/2022 10/27/2022	0.000000 0.000000	122.69 122.69	122.69 122.69	122.69 122.69 Gain/Loss Local Amounts: 122.69 Long Gain/Loss Base Amounts: 122.69 Long
CD	0.000 NA9123459	3535COMMUNITY HEALTH SYSTEMS, INC. (2011) Distribution 1ST D 20221101S005150 / 000000000007 KR2F19020002 : S&P 500 INDEX	11/1/2022 11/1/2022	0.000000 0.000000	2,020.24 2,020.24	2,020.24 2,020.24	2,020.24 2,020.24 Gain/Loss Local Amounts: 2,020.24 Long Gain/Loss Base Amounts: 2,020.24 Long
CD	0.000 NA9123459	19893SYMANTEC CORPORATION (201 8) Distribution 1ST DISTRIBUTI 20221109S000150 / 000000000000 KR2F10110002 : KRS INTERNAL EQUITY	11/9/2022 11/9/2022	0.000000 0.000000	489.77 489.77	489.77 489.77	489.77 489.77 Gain/Loss Local Amounts: 489.77 Long Gain/Loss Base Amounts: 489.77 Long
CD	0.000 NA9123459	19893SYMANTEC CORPORATION (201 8) Distribution 1ST DISTRIBUTI 20221109S000250 / 000000000000 KR2F19020002 : S&P 500 INDEX	11/9/2022 11/9/2022	0.000000 0.000000	217.47 217.47	217.47 217.47	217.47 217.47 Gain/Loss Local Amounts: 217.47 Long Gain/Loss Base Amounts: 217.47 Long



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD
 Status: FINAL

KR2G00000000 - TOTAL FUND

9/30/2022 - 12/31/2022

Trans Code Link Ref	Shares/Par Security Id	Description Broker	Trade Date C. Settle Date Reported Date	Price Local/Base	Cost Local/Base	Amount Local/Base	Net Gain/Loss Local/Base
CD	0.000	05-2367 (SRC) (CLW)MERCK & CO NA9123459 INC. SECURITIES, DERIVATIVE & 20221110S000230 / 000000000010 KR2F19020002 : S&P 500 INDEX	11/10/2022 11/10/2022	0.000000 0.000000	390.31 390.31	390.31 390.31	390.31 390.31 Gain/Loss Local Amounts: 390.31 Long Gain/Loss Base Amounts: 390.31 Long
CD	0.000	BIG LOTS SEC LIT NA9123459 20221111S000010 / 0B70525DD023 KR2F90010002 : CASH ACCOUNT KR2	11/9/2022 11/9/2022	0.000000 0.000000	22.16 22.16	22.16 22.16	22.16 22.16 Gain/Loss Local Amounts: 22.16 Long Gain/Loss Base Amounts: 22.16 Long
CD	0.000	BIG LOTS SEC LIT NA9123459 20221111S000020 / 0B70525DD023 KR2F90010002 : CASH ACCOUNT KR2	11/9/2022 11/9/2022	0.000000 0.000000	360.58 360.58	360.58 360.58	360.58 360.58 Gain/Loss Local Amounts: 360.58 Long Gain/Loss Base Amounts: 360.58 Long
CD	0.000	BIG LOTS SEC LIT NA9123459 20221111S000030 / 0B70525DD023 KR2F90010002 : CASH ACCOUNT KR2	11/9/2022 11/9/2022	0.000000 0.000000	330.19 330.19	330.19 330.19	330.19 330.19 Gain/Loss Local Amounts: 330.19 Long Gain/Loss Base Amounts: 330.19 Long
CD	0.000	3-18-cv-05704-RSLIMPINJ, INC. NA9123459 (W.D. WASH.) Distribution 2ND 20221116S000150 / 000000000084 KR2F10020002 : NTGI STRUCTURED	11/16/2022 11/16/2022	0.000000 0.000000	183.40 183.40	183.40 183.40	183.40 183.40 Gain/Loss Local Amounts: 183.40 Long Gain/Loss Base Amounts: 183.40 Long
CD	0.000	COMMUNITY SYSTEMS HEALTH (2011 NA9123459) SEC LIT 20221121S000080 / F75569409F5B KR2F90010002 : CASH ACCOUNT KR2	11/18/2022 11/18/2022	0.000000 0.000000	993.12 993.12	993.12 993.12	993.12 993.12 Gain/Loss Local Amounts: 993.12 Long Gain/Loss Base Amounts: 993.12 Long
CD	0.000	CITIGROUP INC (VOL FA CAP) SEC NA9123459 FAIR FUND 20221201S000470 / 6EA9A7F1B881 KR2F19020002 : S&P 500 INDEX	11/29/2022 11/29/2022	0.000000 0.000000	514.96 514.96	514.96 514.96	514.96 514.96 Gain/Loss Local Amounts: 514.96 Long Gain/Loss Base Amounts: 514.96 Long



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008

Base Currency: USD

Status: FINAL

KR2G0000000 - TOTAL FUND

9/30/2022 - 12/31/2022

Trans Code Link Ref	Shares/Par Security Id	Description Broker	Trade Date C. Settle Date Reported Date	Price Local/Base	Cost Local/Base	Amount Local/Base	Net Gain/Loss Local/Base
CD	0.000	20584CITI SPONSORED AMERICAN D NA9123459 EPOSITARY RECEIPTS (CITIBANK N 20221216S000020 / 000000000009 KR2F20050002 : AMERICAN CENTURY	12/16/2022 12/16/2022	0.000000 0.000000	18.49 18.49	18.49 18.49	18.49 18.49 Gain/Loss Local Amounts: 18.49 Long Gain/Loss Base Amounts: 18.49 Long
CD	0.000	3-17-CV-2616-MBSSCANA Corporat ion (2017)(D.S.C) Distribution NA9123459 20221219S000070 / 000000000000 KR2F19020002 : S&P 500 INDEX	12/19/2022 12/19/2022	0.000000 0.000000	1,259.77 1,259.77	1,259.77 1,259.77	1,259.77 1,259.77 Gain/Loss Local Amounts: 1,259.77 Long Gain/Loss Base Amounts: 1,259.77 Long
CD	0.000	CITI SPONSORED ADRS CITIBANK NA9123459 20221221S000030 / 04A3D22F6BC1 KR2F90010002 : CASH ACCOUNT KR2	12/16/2022 12/16/2022	0.000000 0.000000	345.77 345.77	345.77 345.77	345.77 345.77 Gain/Loss Local Amounts: 345.77 Long Gain/Loss Base Amounts: 345.77 Long
CD	0.000	CITIGROUP INC (VOL FA CAP) SEC FAIR FUND NA9123459 20230110A000010 KR2F90010002 : CASH ACCOUNT KR2	11/30/2022 12/1/2022	0.000000 0.000000	93.32 93.32	93.32 93.32	93.32 93.32 Gain/Loss Local Amounts: 93.32 Long Gain/Loss Base Amounts: 93.32 Long
TOTAL U.S. DOLLAR CASH & CASH EQUIVALENTS:					<u>89,166.58</u>	<u>89,166.58</u>	<u>89,166.58</u>
TOTAL CASH & CASH EQUIVALENTS CLASS ACTIONS:					<u>89,166.58</u>	<u>89,166.58</u>	<u>89,166.58</u>
TOTAL CLASS ACTIONS:					<u>89,166.58</u>	<u>89,166.58</u>	<u>89,166.58</u>
TOTAL TRANSACTIONS BASE:					<u>89,166.58</u>	<u>89,166.58</u>	<u>89,166.58</u>



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD
 Status: REVISED

KR3G00000000 - TOTAL FUND

9/30/2022 - 12/31/2022

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	23548Wells Fargo & Company (SE	10/11/2022	0.000000	4,478.61	4,478.61	4,478.61
	NA9123459	C) Distribution 1ST DISTRIBUTI		0.000000	4,478.61	4,478.61	4,478.61
		20221011S000020 / 0000000000008	10/11/2022			Gain/Loss Local Amounts: 4,478.61 Long	
		KR3F10120002 : RIVER ROAD FAV				Gain/Loss Base Amounts: 4,478.61 Long	
CD	0.000	23548Wells Fargo & Company (SE	10/11/2022	0.000000	50,385.34	50,385.34	50,385.34
	NA9123459	C) Distribution 1ST DISTRIBUTI		0.000000	50,385.34	50,385.34	50,385.34
		20221011S000060 / 0000000000008	10/11/2022			Gain/Loss Local Amounts: 50,385.34 Long	
		KR3F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Amounts: 50,385.34 Long	
CD	0.000	23033RTI SURGICAL HOLDINGS, IN	10/20/2022	0.000000	80.36	80.36	80.36
	NA9123459	C. Distribution 1ST DISTRIBUTI		0.000000	80.36	80.36	80.36
		20221020S000250 / 0000000000080	10/20/2022			Gain/Loss Local Amounts: 80.36 Long	
		KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 80.36 Long	
CD	0.000	22050ACLARIS THERAPEUTICS, INC	10/27/2022	0.000000	45.44	45.44	45.44
	NA9123459	. Distribution 1ST DISTRIBUTIO		0.000000	45.44	45.44	45.44
		20221028S000360 / 0000000000087	10/27/2022			Gain/Loss Local Amounts: 45.44 Long	
		KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amounts: 45.44 Long	
CD	0.000	19893SYMANTEC CORPORATION (201	11/9/2022	0.000000	106.36	106.36	106.36
	NA9123459	8) Distribution 1ST DISTRIBUTI		0.000000	106.36	106.36	106.36
		20221109S000150 / 0000000000000	11/9/2022			Gain/Loss Local Amounts: 106.36 Long	
		KR3F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Amounts: 106.36 Long	
CD	0.000	19893SYMANTEC CORPORATION (201	11/9/2022	0.000000	93.95	93.95	93.95
	NA9123459	8) Distribution 1ST DISTRIBUTI		0.000000	93.95	93.95	93.95
		20221109S000250 / 0000000000000	11/9/2022			Gain/Loss Local Amounts: 93.95 Long	
		KR3F19020002 : S&P 500 INDEX				Gain/Loss Base Amounts: 93.95 Long	



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD
 Status: REVISED

KR3G0000000 - TOTAL FUND

9/30/2022 - 12/31/2022

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	05-2367 (SRC) (CLW)MERCCK & CO	11/10/2022	0.000000	137.56	137.56	137.56
	NA9123459	INC. SECURITIES, DERIVATIVE &		0.000000	137.56	137.56	137.56
		20221110S000230 / 000000000010	11/10/2022				
		KR3F19020002 : S&P 500 INDEX					Gain/Loss Local Amounts: 137.56 Long Gain/Loss Base Amounts: 137.56 Long
CD	0.000	BIG LOTS SEC LIT	11/9/2022	0.000000	71.36	71.36	71.36
	NA9123459	20221111S000010 / 0B70525DD023		0.000000	71.36	71.36	71.36
		KR3F90010002 : CASH ACCOUNT KR3	11/9/2022				
							Gain/Loss Local Amounts: 71.36 Long Gain/Loss Base Amounts: 71.36 Long
CD	0.000	BIG LOTS SEC LIT	11/9/2022	0.000000	143.27	143.27	143.27
	NA9123459	20221111S000020 / 0B70525DD023		0.000000	143.27	143.27	143.27
		KR3F90010002 : CASH ACCOUNT KR3	11/9/2022				
							Gain/Loss Local Amounts: 143.27 Long Gain/Loss Base Amounts: 143.27 Long
CD	0.000	18935Tivity Health, Inc. Distr	11/16/2022	0.000000	164.45	164.45	164.45
	NA9123459	ibution 1ST DISTRIBUTION PROCE		0.000000	164.45	164.45	164.45
		20221116S000160 / 000000000000	11/16/2022				
		KR3F10020002 : NTGI STRUCTURED					Gain/Loss Local Amounts: 164.45 Long Gain/Loss Base Amounts: 164.45 Long
CD	0.000	MERICK AND CO SEC LIT	11/18/2022	0.000000	6.95	6.95	6.95
	NA9123459	20221122S000100 / F75569409F5B		0.000000	6.95	6.95	6.95
		KR3F19020002 : S&P 500 INDEX	11/18/2022				
							Gain/Loss Local Amounts: 6.95 Long Gain/Loss Base Amounts: 6.95 Long
CD	0.000	20584CITI SPONSORED AMERICAN D	12/16/2022	0.000000	6.22	6.22	6.22
	NA9123459	EPOSITARY RECEIPTS (CITIBANK N		0.000000	6.22	6.22	6.22
		20221216S000020 / 000000000009	12/16/2022				
		KR3F20050002 : AMERICAN CENTURY					Gain/Loss Local Amounts: 6.22 Long Gain/Loss Base Amounts: 6.22 Long
CD	0.000	20584CITI SPONSORED AMERICAN D	12/16/2022	0.000000	5.50	5.50	5.50
	NA9123459	EPOSITARY RECEIPTS (CITIBANK N		0.000000	5.50	5.50	5.50
		20221216S000040 / 000000000009	12/16/2022				
		KR3F90010002 : CASH ACCOUNT KR3					Gain/Loss Local Amounts: 5.50 Long Gain/Loss Base Amounts: 5.50 Long



Transaction Detail
Reported By Transaction Category

Report ID: IACS0008
 Base Currency: USD
 Status: REVISED

KR3G00000000 - TOTAL FUND

9/30/2022 - 12/31/2022

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	CITI SPONSORED ADRS CITIBANK	12/16/2022	0.000000	8.46	8.46	8.46
	NA9123459	20221221S000030 / 04A3D22F6BC1		0.000000	8.46	8.46	8.46
		KR3F90010002 : CASH ACCOUNT KR3	12/16/2022				
						Gain/Loss Local Amounts: 8.46 Long	
						Gain/Loss Base Amounts: 8.46 Long	

TOTAL U.S. DOLLAR CASH & CASH EQUIVALENTS:	55,733.83	55,733.83	55,733.83
	55,733.83	55,733.83	55,733.83
TOTAL CASH & CASH EQUIVALENTS CLASS ACTIONS:	55,733.83	55,733.83	55,733.83
TOTAL CLASS ACTIONS:	55,733.83	55,733.83	55,733.83
TOTAL TRANSACTIONS BASE:	55,733.83	55,733.83	55,733.83

County Employees Retirement System

Capital Calls and Distributions

Quarter Ending: December 31, 2022

Kentucky Public Pensions Authority
Capital Calls and Distributions
For the quarter ending December 31, 2022

County Employees Retirement System											
Pension Funds Managers	Total Pension Fund Commitment	CERS Commitment	CERS Beginning Valuation	CERS Period Contributions	CERS Period Distributions	CERS Ending Valuation	CERS Haz Commitment	CERS Haz Beginning Valuation	CERS Haz Period Contributions	CERS Haz Period Distributions	CERS Haz Ending Valuation
Adams Street SPC II A1	175,000,000	97,124,912	76,914,674	36,632,733	37,174,031	76,373,376	32,749,407	25,934,747	12,352,138	12,534,657	25,752,227
Adams Street SPC II B1	175,000,000	97,124,911	62,373,347	22,424,272	16,103,218	68,694,401	32,749,407	21,031,578	7,561,207	5,429,821	23,162,965
AMERRA Agri Fund II, LP	40,100,000	27,641,371	16,192,346	0	0	16,192,346	8,727,285	5,112,453	0	0	5,112,453
AMERRA-KRS Agri Holding Company, LP	65,000,000	44,805,214	25,226,344	2,793,081	413,489	27,605,937	14,146,472	7,964,782	881,867	130,552	8,716,097
Arcano KRS Fund I, L.P.	36,000,000	15,587,717	6,402,515	0	0	6,402,515	4,852,329	1,993,050	0	0	1,993,050
Ares Special Situations Fund IV, L.P.	26,192,000	17,935,797	13,843,299	0	591,940	13,251,359	6,121,833	4,724,985	0	202,041	4,522,944
Barings Euro Real Estate II	158,753,438	89,314,686	17,712,629	1,755,080	0	21,227,429	28,242,231	5,600,917	554,975	0	6,712,333
Barings Real Estate European Value Add I SCSp	112,061,250	63,045,660	25,431,608	1,041,095	1,728,218	27,016,440	19,935,692	8,041,738	329,205	546,481	8,542,879
Bay Hills Capital I, L.P.	67,500,000	29,226,970	2,185,123	0	0	76,373,376	32,749,407	25,934,747	12,352,138	12,534,657	25,752,227
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	0	39,050,955	6,065,411	12,156,242	0	12,534,657	25,752,227
Bay Hills Emerging Partners II-B LP	45,000,000	19,484,647	26,716,266	0	0	26,716,266	6,065,411	8,316,555	0	0	8,316,555
BDCM Opportunity Fund IV, L.P.	35,580,000	24,364,524	35,502,881	75,927	2,079,541	33,423,340	8,316,082	12,117,818	25,915	709,787	11,408,030
Blackstone Capital Partners V, L.P.	47,174,735	20,426,290	78,228	0	0	78,228	6,358,537	24,352	0	0	24,352
Blackstone Capital Partners VI, L.P.	60,000,000	38,220,311	16,168,229	0	1,936,774	14,231,455	18,479,695	7,817,413	0	936,439	6,880,973
Blue Torch Credit Opportunities Fund II LP	140,000,000	77,659,705	73,440,689	0	0	73,440,689	26,221,374	24,796,846	0	0	24,796,846
BSP Co-Invest Vehicle K LP	0	0	22,509,683	0	450,143	22,059,540	0	7,455,291	0	149,089	7,306,202
BSP Private Credit Fund	100,000,000	58,940,485	55,857,163	0	2,023,425	53,833,737	19,521,309	18,500,101	0	670,166	17,829,935
BTG Pactual Brazil Timberland Fund I	34,500,000	23,847,150	19,416,216	0	2,082,297	17,333,919	7,642,335	6,222,347	0	667,317	5,555,030
Camelot Opportunities Fund, L.P.	23,400,000	10,132,016	3,326,090	0	0	3,326,090	3,154,014	1,035,385	0	0	1,035,385
Cerberus KRS Levered Loan Opportunities Fund, L.P.	140,000,000	82,516,679	88,038,544	14,770,486	0	104,972,946	27,329,832	29,158,694	4,892,040	0	34,767,431
Columbia Capital Equity Partners IV, L.P.	27,000,000	11,690,788	1,240,985	0	0	1,240,985	3,639,247	386,308	0	0	386,308
Crestview Partners II, L.P.	67,500,000	29,226,970	14,143,425	27,968	1,310,252	12,861,142	9,098,116	4,402,732	8,706	407,871	4,003,568
Crestview Partners III, L.P.	39,000,000	26,706,479	26,229,158	55,261	789,224	25,495,194	9,115,436	8,952,517	18,862	269,377	8,702,001
CS Adjacent Investment Partners Parallel LP	140,000,000	82,516,679	46,048,111	8,022,992	14,439,635	39,631,468	27,329,832	15,251,306	2,657,245	4,782,461	13,126,090
CVC European Equity Partners VI, L.P.	23,394,941	16,020,423	18,619,605	149,344	2,014,651	18,388,899	5,468,079	6,355,230	50,974	687,639	6,276,486
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	0	16,853,289	12,130,822	5,246,291	0	0	5,246,291
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	2,738,931	0	584,539	2,154,392	1,819,623	852,607	0	181,962	670,645
DivcoWest Fund IV	20,800,000	14,568,740	971,420	0	0	971,420	4,539,761	302,704	0	0	302,704
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	35,997,891	0	793,193	35,204,698	12,452,997	11,382,907	0	250,816	11,132,091
Green Equity Investors V, L.P.	90,000,000	38,969,294	1,238,113	0	413,544	824,569	12,130,822	385,414	0	128,733	256,681
Green Equity Investors VI, L.P.	32,000,000	20,384,166	20,816,793	0	238,950	20,577,842	9,855,837	10,065,014	0	115,534	9,949,481
Green Equity Investors VII LP	25,000,000	17,900,000	26,441,089	0	3,202,309	23,238,779	5,575,000	8,235,144	0	997,367	7,237,777
Greenfield Acquisition Partners VI, L.P.	38,100,000	26,685,999	39,541	0	0	39,541	8,315,632	12,321	0	0	12,321
Greenfield Acquisition Partners VII, L.P.	27,800,000	19,471,678	2,738,095	0	81,462	2,656,633	6,067,572	853,218	0	25,384	827,834
H.I.G. BioVentures II, L.P.	13,500,000	8,599,570	5,998,896	0	0	5,998,896	4,157,931	2,900,493	0	0	2,900,493
H.I.G. Capital Partner V, L.P.	13,100,000	8,970,638	8,689,648	53,264	1,206,927	7,535,986	3,061,852	2,965,945	18,180	411,947	2,572,177
H.I.G. Ventures II, L.P.	18,000,000	7,793,859	1,294,456	0	0	1,294,456	2,426,164	402,953	0	0	402,953
H&F Spock I LP	3,250,153	1,407,291	4,468,811	0	0	4,468,811	438,078	1,391,104	0	0	1,391,104
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	0	0	6,344,374	5,782,239	1,766,326	0	0	1,766,326

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the quarter ending December 31, 2022**

County Employees Retirement System											
Pension Funds Managers	Total Pension Fund Commitment	CERS Commitment	CERS Beginning Valuation	CERS Period Contributions	CERS Period Distributions	CERS Ending Valuation	CERS Haz Commitment	CERS Haz Beginning Valuation	CERS Haz Period Contributions	CERS Haz Period Distributions	CERS Haz Ending Valuation
Harvest Partners VII LP	20,000,000	14,320,000	21,607,587	32,224	0	21,639,812	4,460,000	6,729,738	10,036	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	44,923,133	0	1,086,744	43,836,389	6,065,411	13,984,203	0	338,295	13,645,909
IFM US Infrastructure Debt Fund	70,000,000	39,669,146	33,705,219	4,031,967	1,123,756	36,613,430	13,660,943	11,607,133	1,388,496	386,990	12,608,640
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	19,807,082	0	0	19,807,082	11,150,000	6,168,966	0	0	6,168,966
KCP IV Co-Invest	12,657,585	8,667,679	2,080,280	0	0	2,266,298	2,958,446	710,040	0	0	773,531
Keyhaven Capital Partners Fund III, L.P.	26,929,056	11,660,070	4,222,601	0	0	4,600,185	3,629,684	1,314,461	0	0	1,432,000
Keyhaven Capital Partners IV LP	12,657,585	8,667,679	6,711,812	324,677	349,393	7,297,642	2,958,446	2,290,871	110,819	119,254	2,490,826
Levine Leichtman Capital Partners V, L.P.	46,000,000	31,499,949	14,968,832	0	132,520	14,836,312	10,751,540	5,109,151	0	45,232	5,063,919
Levine Leichtman Capital Partners VI LP	37,500,000	26,849,987	28,620,703	0	60,508	28,560,195	8,362,509	8,914,003	0	18,846	8,895,158
Lubert Adler VII	34,750,000	24,338,900	14,605,979	0	0	14,605,979	7,585,925	4,552,378	0	0	4,552,378
Lubert-Adler Real Estate Fund VII-B LP	36,750,000	20,675,550	6,277,482	0	1,019,034	5,258,448	6,537,824	1,985,005	0	322,229	1,662,776
Magentar MTP Energy Opportunities Fund II LLC	37,500,000	26,265,000	231,287	0	0	231,287	8,186,251	72,087	0	0	72,087
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	122,617	0	0	122,617	3,639,247	38,170	0	0	38,170
Mesa West Core Lending Fund, LP	57,500,000	36,357,250	37,927,325	1,148,624	1,148,624	37,927,325	11,459,750	11,954,635	362,044	362,044	11,954,635
Mesa West Real Estate Income Fund IV LP	36,000,000	15,587,717	4,351,926	3,637,134	68,102	7,920,958	4,852,329	1,354,719	1,132,210	21,200	2,465,729
MiddleGround Partners I LP	50,000,000	35,875,000	48,534,749	2,939,491	1,425,206	49,644,978	11,200,000	15,152,312	917,695	444,942	15,498,920
MiddleGround Partners II LP	50,000,000	27,301,556	17,949,452	1,935,604	0	19,885,057	9,256,264	6,085,546	656,243	0	6,741,789
MiddleGround Partners II-X LP	25,000,000	13,650,778	8,300,211	1,032,546	0	9,332,757	4,628,132	2,814,087	350,072	0	3,164,159
Mill Road Capital I, L.P.	27,000,000	11,690,788	1,580,900	0	0	1,580,900	3,639,247	492,121	0	0	492,121
New Mountain Partners II, L.P.	25,000,000	10,824,804	61,450	0	61,626	-176	3,369,673	19,129	0	19,184	-55
New Mountain Partners III, L.P.	32,337,197	14,001,752	621,633	0	128,964	492,670	4,358,631	193,509	0	40,145	153,364
New Mountain Partners IV, L.P.	32,800,000	22,460,833	7,383,956	28,131	256,508	7,155,580	7,666,315	2,520,287	9,602	87,551	2,442,337
New State Capital Partners Fund III LP	17,500,000	9,555,545	1,659,680	316,664	0	1,976,344	3,239,692	562,695	107,361	0	670,056
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	351,148	6,446	315,714	41,880	4,549,058	109,310	2,006	98,279	13,037
Oberland Capital Healthcare LP	3,450,000	2,475,375	5,427,630	0	655,246	4,772,385	772,800	1,694,479	0	204,564	1,489,914
Patron Capital V LP	38,421,000	21,615,655	10,459,321	0	0	11,394,591	6,835,095	3,307,346	0	0	3,603,088
Riverside Capital Appreciation Fund VI, L.P.	35,500,000	25,961,146	7,260,156	0	0	7,260,156	7,227,806	2,021,290	0	0	2,021,290
Rubenstein Properties Fund II	20,800,000	14,568,738	10,134,561	0	0	10,134,561	4,539,767	3,158,032	0	0	3,158,032
Secondary Opportunities Fund III, L.P.	25,000,000	19,411,552	5,660,615	0	586,880	5,073,736	5,588,448	1,629,651	0	168,958	1,460,692
Strategic Value Special Situations Fund IV LP	43,300,000	31,067,750	37,836,449	0	27,238	37,809,210	9,699,200	11,812,355	0	8,504	11,803,851
Strategic Value Special Situations Fund V LP	70,000,000	38,222,178	13,006,680	2,852,330	0	15,859,010	12,958,769	4,409,758	967,048	0	5,376,807
Taurus Mining Finance Fund LLC	45,100,000	30,883,643	2,544,889	0	162,825	2,382,064	10,541,186	868,620	0	55,575	813,045
Tenaska Power Fund II, L.P.	27,000,000	12,131,225	37,325	0	0	37,325	4,055,317	12,477	0	0	12,477
Triton Fund IV, L.P.	26,850,860	18,386,972	12,264,717	0	0	13,361,424	6,275,828	4,186,184	0	0	4,560,512
VantagePoint Venture Partners 2006, L.P.	27,000,000	11,690,788	3,008,582	0	344,337	2,664,245	3,639,247	936,547	0	107,189	829,358
VantagePoint Venture Partners IV, L.P.	36,000,000	15,587,717	25,777	0	0	25,777	4,852,329	8,024	0	0	8,024
Vista Equity Partners III, L.P.	45,000,000	19,484,647	1,439,208	0	0	1,439,208	6,065,411	448,014	0	0	448,014
Vista Equity Partners IV, L.P.	27,000,000	17,199,140	11,970,058	0	0	11,970,058	8,315,863	5,787,577	0	0	5,787,577
Vista Equity Partners VI LP	25,000,000	17,900,000	23,645,472	0	302,146	23,343,327	5,575,000	7,364,442	0	94,104	7,270,338
Walton Street Real Estate Fund VI, LP	36,000,000	17,056,796	6,913,028	0	0	6,913,028	6,030,018	2,443,934	0	0	2,443,934

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the quarter ending December 31, 2022**

County Employees Retirement System											
Pension Funds Managers	Total Pension Fund Commitment	CERS Commitment	CERS Beginning Valuation	CERS Period Contributions	CERS Period Distributions	CERS Ending Valuation	CERS Haz Commitment	CERS Haz Beginning Valuation	CERS Haz Period Contributions	CERS Haz Period Distributions	CERS Haz Ending Valuation
Walton Street Real Estate Fund VII, LP	38,120,000	26,700,008	6,435,400	0	0	6,435,400	8,319,997	2,005,337	0	0	2,005,337
Warburg, Pincus Private Equity IX, L.P.	50,000,000	21,649,608	51,537	0	43,299	8,238	6,739,345	16,043	0	13,479	2,564
Warburg, Pincus Private Equity X, L.P.	38,750,000	16,778,446	371,192	0	0	371,192	5,222,993	115,549	0	0	115,549
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	4,014,346	0	702,325	3,312,021	7,227,806	1,117,628	0	195,533	922,095
White Oak Yield Spectrum Parallel Fund LP	100,000,000	58,940,485	84,176,342	0	3,430,270	80,746,072	19,521,309	27,879,519	0	1,136,118	26,743,401

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the quarter ending December 31, 2022**

County Employees Retirement System											
Insurance Funds Managers	Total Pension Fund Commitment	CERS Commitment	CERS Beginning Valuation	CERS Period Contributions	CERS Period Distributions	CERS Ending Valuation	CERS Haz Commitment	CERS Haz Beginning Valuation	CERS Haz Period Contributions	CERS Haz Period Distributions	CERS Haz Ending Valuation
Adams Street SPC II A1	75,000,000	34,007,112	26,930,742	12,826,509	13,016,037	26,741,214	17,965,829	14,227,410	6,776,196	6,876,323	14,127,283
Adams Street SPC II B1	75,000,000	34,007,113	21,839,273	7,851,587	5,638,347	24,052,514	17,965,828	11,537,605	4,147,964	2,978,717	12,706,852
AMERRA Agri Fund II, LP	16,200,000	7,502,182	4,387,294	0	0	4,387,294	4,141,562	2,421,996	0	0	2,421,996
AMERRA-KRS Agri Holding Company, LP	35,000,000	16,208,417	9,125,704	1,010,405	149,581	9,986,529	8,947,820	5,037,824	557,792	82,576	5,513,041
Arcano KRS Fund I, L.P.	4,000,000	1,611,501	661,910	0	0	661,910	862,625	354,316	0	0	354,316
Ares Special Situations Fund IV, L.P.	13,808,000	7,867,793	6,072,561	0	259,663	5,812,898	4,255,629	3,284,602	0	140,450	3,144,152
Barings Euro Real Estate II	68,037,188	31,242,679	6,195,958	613,935	0	7,425,450	17,145,368	3,400,220	336,915	0	4,074,941
Barings Real Estate European Value Add I SCSp	48,026,250	22,053,656	8,896,091	364,180	604,539	9,450,472	12,102,612	4,882,000	199,855	331,759	5,186,233
Bay Hills Capital I, L.P.	7,500,000	3,021,564	225,792	0	0	225,792	1,617,422	120,865	0	0	120,865
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	0	4,037,194	1,078,282	2,161,083	0	0	2,161,083
Bay Hills Emerging Partners II-B LP	5,000,000	2,070,000	2,838,269	0	0	2,838,269	1,250,000	1,713,931	0	0	1,713,931
BDCM Opportunity Fund IV, L.P.	24,420,000	13,914,506	20,275,596	43,361	1,187,620	19,087,976	7,526,253	10,966,920	23,454	642,375	10,324,545
Blackstone Capital Partners V, L.P.	12,414,403	5,001,455	19,044	0	0	19,044	2,677,245	10,194	0	0	10,194
Blackstone Capital Partners VI, L.P.	40,000,000	21,919,994	9,272,743	0	1,110,773	8,161,970	13,120,008	5,550,114	0	664,843	4,885,271
Blue Torch Credit Opportunities Fund II LP	60,000,000	27,169,450	25,693,417	0	0	25,693,417	14,281,092	13,505,243	0	0	13,505,243
BSP Co-Invest Vehicle K LP	0	0	7,821,301	0	155,404	7,665,897	0	4,265,662	0	84,756	4,180,906
BSP Private Credit Fund	50,000,000	22,344,255	21,175,371	0	767,078	20,408,294	12,186,342	11,548,844	0	418,357	11,130,487
BTG Pactual Brazil Timberland Fund I	15,500,000	7,016,381	5,712,698	0	612,660	5,100,038	3,855,131	3,138,826	0	336,624	2,802,202
Camelot Opportunities Fund, L.P.	2,600,000	1,047,475	343,859	0	0	343,859	560,706	184,065	0	0	184,065
Cerberus KRS Levered Loan Opportunities Fund, L.P.	60,000,000	26,813,106	28,607,391	4,799,546	0	34,110,083	14,623,610	15,602,196	2,617,626	0	18,603,311
Columbia Capital Equity Partners IV, L.P.	3,000,000	1,208,626	128,297	0	128,297	646,969	646,969	68,676	0	0	68,676
Crestview Partners II, L.P.	7,500,000	3,021,564	1,462,183	2,891	135,464	1,329,611	1,617,422	782,697	1,548	72,513	711,731
Crestview Partners III, L.P.	21,000,000	11,965,793	11,751,926	24,760	353,610	11,423,075	6,472,206	6,356,527	13,393	191,265	6,178,654
CS Adjacent Investment Partners Parallel LP	60,000,000	26,813,106	14,962,949	2,607,004	4,692,039	12,877,914	14,623,610	8,160,649	1,421,835	2,558,993	7,023,491
CVC European Equity Partners VI, L.P.	12,913,938	7,358,356	8,186,560	65,663	885,790	8,085,125	3,980,079	4,428,048	35,516	479,117	4,373,183
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	0	1,742,339	2,156,563	932,662	0	0	932,662
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	283,159	0	60,431	222,728	323,484	151,573	0	32,348	119,225
DivcoWest Fund IV	9,200,000	4,244,869	283,042	0	0	283,042	2,306,449	153,791	0	0	153,791
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	12,592,227	0	277,462	12,314,765	7,559,998	6,910,367	0	152,266	6,758,101
Green Equity Investors V, L.P.	10,000,000	4,028,752	127,999	0	42,754	85,246	2,156,563	68,517	0	22,886	45,632
Green Equity Investors VI, L.P.	28,000,000	15,343,995	15,669,659	0	179,868	15,489,791	9,184,005	9,378,928	0	107,659	9,271,270
Green Equity Investors VII LP	25,000,000	10,349,999	15,288,561	0	1,851,614	13,436,947	6,250,000	9,232,224	0	1,118,125	8,114,099
Greenfield Acquisition Partners VI, L.P.	16,700,000	7,704,620	11,447	0	0	11,447	4,186,204	6,220	0	0	6,220
Greenfield Acquisition Partners VII, L.P.	12,200,000	5,628,527	791,481	0	23,548	767,933	3,058,186	430,041	0	12,794	417,246
H.I.G. BioVentures II, L.P.	11,500,000	6,301,998	4,396,153	0	0	4,396,153	3,772,002	2,631,277	0	0	2,631,277
H.I.G. Capital Partner V, L.P.	6,900,000	3,931,617	3,808,465	23,345	528,967	3,302,843	2,126,582	2,059,970	12,627	286,114	1,786,483
H.I.G. Ventures II, L.P.	2,000,000	805,750	133,824	0	0	133,824	431,313	71,635	0	0	71,635
H&F Spock I LP	1,794,672	723,029	1,559,242	0	0	1,559,242	387,032	834,651	0	0	834,651
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

**Kentucky Public Pensions Authority
Capital Calls and Distributions
For the quarter ending December 31, 2022**

County Employees Retirement System											
Insurance Funds Managers	Total Pension Fund Commitment	CERS Commitment	CERS Beginning Valuation	CERS Period Contributions	CERS Period Distributions	CERS Ending Valuation	CERS Haz Commitment	CERS Haz Beginning Valuation	CERS Haz Period Contributions	CERS Haz Period Distributions	CERS Haz Ending Valuation
Harvest Partners VI, L.P.	11,600,000	6,609,681	2,019,090	0	0	2,019,090	3,575,121	1,092,109	0	0	1,092,109
Harvest Partners VII LP	20,000,000	8,279,999	12,493,772	18,632	0	12,512,404	5,000,000	7,544,549	11,252	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	4,644,277	0	112,351	4,531,926	1,078,282	2,486,050	0	60,141	2,425,909
IFM US Infrastructure Debt Fund	30,000,000	13,890,494	11,802,174	1,411,828	393,493	12,820,509	7,156,853	6,080,879	727,422	202,741	6,605,560
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	11,452,697	0	0	11,452,697	12,500,001	6,915,881	0	0	6,915,881
KCP IV Co-Invest	8,687,415	4,950,085	1,188,041	0	0	1,294,275	2,677,465	642,602	0	0	700,064
Keyhaven Capital Partners Fund III, L.P.	2,988,300	1,203,912	436,545	0	0	475,580	644,446	233,679	0	0	254,575
Keyhaven Capital Partners IV LP	8,687,415	4,950,085	3,833,095	185,422	199,537	4,167,661	2,677,465	2,073,293	100,294	107,928	2,254,257
Levine Leichtman Capital Partners V, L.P.	24,000,000	13,675,190	6,498,474	0	57,532	6,440,943	7,396,807	3,514,975	0	31,118	3,483,857
Levine Leichtman Capital Partners VI LP	37,500,000	15,525,007	16,548,857	0	34,987	16,513,870	9,374,983	9,993,249	0	21,127	9,972,122
Lubert Adler VII	15,250,000	7,036,350	4,200,360	0	0	4,200,360	3,823,174	2,282,250	0	0	2,282,250
Lubert-Adler Real Estate Fund VII-B LP	15,750,000	7,232,401	2,195,892	0	356,463	1,839,429	3,968,999	1,205,062	0	195,620	1,009,442
Magentar MTP Energy Opportunities Fund II LLC	12,500,000	5,764,587	50,762	0	0	50,762	3,188,762	28,080	0	0	28,080
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	12,676	0	0	12,676	646,969	6,786	0	0	6,786
Mesa West Core Lending Fund, LP	29,600,000	13,790,640	21,284,123	0	0	21,284,123	7,619,040	11,759,032	0	0	11,759,032
Mesa West Real Estate Income Fund IV LP	14,000,000	6,428,800	1,793,534	1,500,053	28,087	3,265,500	3,527,999	984,256	823,200	15,414	1,792,042
MiddleGround Partners I LP	25,000,000	3,750,000	5,073,320	307,264	148,976	5,189,371	1,999,999	2,705,769	163,874	79,454	2,767,664
MiddleGround Partners II LP	25,000,000	11,262,207	7,404,356	798,459	0	8,202,815	5,794,817	3,809,812	410,836	0	4,220,648
MiddleGround Partners II-X LP	12,500,000	5,631,103	3,423,932	425,938	0	3,849,869	2,897,408	1,761,738	219,160	0	1,980,898
Mill Road Capital I, L.P.	3,000,000	1,208,626	163,438	0	0	163,438	646,969	87,487	0	0	87,487
New Mountain Partners II, L.P.	5,000,000	2,014,376	11,436	0	11,420	16	1,078,282	6,122	0	6,113	9
New Mountain Partners III, L.P.	7,186,045	2,895,079	128,532	0	26,666	101,866	1,549,716	68,802	0	14,274	54,528
New Mountain Partners IV, L.P.	17,200,000	9,800,553	3,221,906	12,274	111,924	3,122,256	5,301,045	1,742,705	6,639	60,539	1,688,805
New State Capital Partners Fund III LP	7,500,000	3,378,662	586,832	111,967	0	698,799	1,738,445	301,947	57,611	0	359,557
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	121,009	2,221	108,798	14,432	2,695,704	64,775	1,189	58,239	7,725
Oberland Capital Healthcare LP	15,500,000	4,840,652	1,061,385	0	128,135	933,250	2,631,898	577,083	0	69,668	507,415
Patron Capital V LP	14,941,500	6,861,137	3,319,995	0	0	3,616,868	3,765,257	1,821,948	0	0	1,984,866
Riverside Capital Appreciation Fund VI, L.P.	18,712,500	10,748,972	3,005,965	0	0	3,005,965	5,705,349	1,595,508	0	0	1,595,508
Rubenstein Properties Fund II	9,200,000	4,244,871	2,952,892	0	0	2,952,892	2,306,445	1,604,450	0	0	1,604,450
Secondary Opportunities Fund III, L.P.	75,000,000	34,884,827	10,172,787	0	1,054,691	9,118,096	18,849,301	5,496,657	0	569,881	4,926,776
Strategic Value Special Situations Fund IV LP	21,700,000	6,776,910	8,253,382	0	5,942	8,247,440	3,684,660	4,487,430	0	3,230	4,484,199
Strategic Value Special Situations Fund V LP	30,000,000	13,514,648	4,598,920	1,008,531	0	5,607,451	6,953,780	2,366,312	518,926	0	2,885,238
Taurus Mining Finance Fund LLC	19,900,000	11,339,013	1,007,242	0	59,782	947,461	6,133,188	544,810	0	32,335	512,474
Tenaska Power Fund II, L.P.	3,000,000	1,278,755	3,935	0	0	3,935	678,044	2,087	0	0	2,087
Triton Fund IV, L.P.	13,814,484	7,871,487	5,379,458	0	0	5,860,488	4,257,628	2,909,708	0	0	3,169,894
VantagePoint Venture Partners 2006, L.P.	3,000,000	1,208,626	311,036	0	35,598	275,437	646,969	166,495	0	19,056	147,440
VantagePoint Venture Partners IV, L.P.	4,000,000	1,611,501	2,665	0	0	2,665	862,625	1,427	0	0	1,427
Vista Equity Partners III, L.P.	5,000,000	2,014,376	148,792	0	0	148,792	1,078,282	79,647	0	0	79,647
Vista Equity Partners IV, L.P.	23,000,000	12,603,996	8,771,983	0	0	8,771,983	7,544,005	5,250,389	0	0	5,250,389

Kentucky Public Pensions Authority
Capital Calls and Distributions
For the quarter ending December 31, 2022

County Employees Retirement System											
Insurance Funds Managers	Total Pension Fund Commitment	CERS Commitment	CERS Beginning Valuation	CERS Period Contributions	CERS Period Distributions	CERS Ending Valuation	CERS Haz Commitment	CERS Haz Beginning Valuation	CERS Haz Period Contributions	CERS Haz Period Distributions	CERS Haz Ending Valuation
Vista Equity Partners VI LP	25,000,000	10,349,999	13,672,102	0	174,704	13,497,397	6,250,000	8,256,101	0	105,498	8,150,603
Walton Street Real Estate Fund VI, LP	4,000,000	1,712,019	693,872	0	0	693,872	917,457	371,840	0	0	371,840
Walton Street Real Estate Fund VII, LP	16,755,000	7,730,005	1,863,133	0	0	1,863,133	4,199,996	1,012,309	0	0	1,012,309
Warburg, Pincus Private Equity IX, L.P.	10,000,000	4,028,752	9,591	0	8,058	1,533	2,156,563	5,134	0	4,313	821
Warburg, Pincus Private Equity X, L.P.	7,500,000	3,021,564	66,823	0	0	66,823	1,617,422	35,770	0	0	35,770
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	1,662,103	0	290,791	1,371,312	5,705,349	882,212	0	154,346	727,866
White Oak Yield Spectrum Parallel Fund LP	50,000,000	22,344,255	30,036,620	0	1,223,916	28,812,704	12,186,342	16,381,683	0	0	0

Kentucky Public Pensions Authority

Internal Asset Holdings Report & Internal Asset Transaction Report

Quarter Ending: December 31, 2022

Reports can be found:

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

Kentucky Public Pensions Authority

Commissions Report

Quarter Ending: December 31, 2022

Reports can be found:

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