September 7, 2023

Members, Board of Retirement
Employee Bargaining Units
Requesting News Media
Other Interested Parties

Subject: Meeting of the Kern County Employees' Retirement Association Board of Retirement

Ladies and Gentlemen:

A meeting of the Kern County Employees' Retirement Association Board of Retirement will be held on Wednesday, September 13, 2023 at 8:30 a.m. in the KCERA Boardroom, 11125 River Run Boulevard, Bakersfield, California, 93311.

How to Participate: Listen to or View the Board Meeting
To listen to the live audio of the Board meeting, please dial one of the following numbers *(landline recommended for best audio)* and enter ID# 899 9273 9382:

- (669) 900-9128; U.S. Toll-free: (888) 788-0099 or (877) 853-5247

To access live audio and video of the Board meeting, please use the following:

- https://us02web.zoom.us/j/89992739382?pwd=QlZHUThBRWhUdzNMYkw0THFsckV5dz09
- Passcode: 211483

Items of business will be limited to the matters shown on the attached agenda. If you have any questions or require additional service, please contact KCERA at (661) 381-7700 or send an email to administration@kcera.org.

Sincerely,

Dominic D. Brown
Chief Executive Officer

Attachments

AGENDA:

All agenda item supporting documentation is available for public review on KCERA's website at www.kcera.org following the posting of the agenda. Any supporting documentation that relates to an agenda item for an open session of any regular meeting that is distributed after the agenda is posted and prior to the meeting will also be available for review at the same location.

AMERICANS WITH DISABILITIES ACT
(Government Code §54953.2)

Disabled individuals who need special assistance to listen to and/or participate in the meeting of the Board of Retirement may request assistance by calling (661) 381-7700 or sending an email to administration@kcera.org. Every effort will be made to reasonably accommodate individuals with disabilities by making meeting materials and access available in alternative formats. Requests for assistance should be made at least two (2) days in advance of a meeting whenever possible.

CALL TO ORDER

ROLL CALL (IN PERSON)

SALUTE TO FLAG

MOMENT OF SILENCE

AB 2449 REMOTE APPEARANCE(S)

Items 1 and/or 2 withdrawn from agenda if no trustees will have a need to appear via teleconference:

The first two items on the agenda are reserved for trustees who have a need to appear via teleconference due to a "just cause" need or an "emergency circumstance." Trustees who have notified this Board before agenda-posting will be called upon and will provide a general description of their need to attend via teleconference as allowed by law. Trustees who were not able to notify the Board in advance of posting and have a need to attend via teleconference will state their notification or request when called upon to do so. All trustees appearing via teleconference will need to disclose any adult person(s) present in the room of their remote location and their relationship to such person(s). Trustees appearing remotely are reminded to keep their cameras on throughout the meeting.

1. JUST CAUSE CIRCUMSTANCE(S):

   a) The following Trustee(s) have notified the Board of a "Just Cause" to attend this meeting via teleconference. (See Government Code § 54953).

      - NONE

b) Call for Trustee(s) who wish to notify the Board of a "Just Cause" to attend this meeting via teleconference. (See Government Code § 54953).

2. EMERGENCY CIRCUMSTANCE(S):

a) The following Trustee(s) have requested the Board approve their attendance of this meeting via teleconference due to an "Emergency Circumstance." (See Government Code § 54953).

- NONE

b) Call for Trustee(s) requesting the Board approve their attendance of this meeting via teleconference due to an "Emergency Circumstance". (See Government Code § 54953).

TAKE ACTION ON REQUEST(S) FOR REMOTE APPEARANCE

CONSENT MATTERS

All items listed with an asterisk (*) are considered to be routine and non-controversial by staff and will be approved by one motion if no member of the Board or public wishes to comment or ask questions. If comment or discussion is desired by anyone, the item will be removed from the consent agenda and will be considered in the listed sequence with an opportunity for any member of the public to address the Board concerning the item before action is taken. Staff recommendations are shown in caps after each item.

*3. Summary of proceedings of the following meetings:

- August 8, 2023 Investment Committee
- August 9, 2023 Board of Retirement

RECEIVE AND FILE

*4. Report from the KCERA office on members retired from service for the month of August 2023 – RATIFY

*5. Report from the KCERA office on deceased retirees for the month of August 2023 – RECEIVE AND FILE

*6. Report of current disability retirement applications and appeals of KCERA Board decisions for the period ending August 31, 2023 – RECEIVE AND FILE

*7. KCERA asset allocation, cash flow position, investment fees cash flow, and operating expense budget status reports for the month of July 2023 – RECEIVE AND FILE

*8. Certificate of Achievement for Excellence in Financial Reporting for Annual Comprehensive Financial Report for the Fiscal Year Ended June 30, 2022 and Award of Financial Reporting Achievement presented by the Government Finance Officers Association (GFOA) – RECEIVE AND FILE

*9. Report on Special Pay Codes classified by the Chief Executive Officer – RECEIVE AND FILE

*10. Service provider evaluation period initiated pursuant to Evaluation Period Policy – RATIFY

11. KCERA final Schedules of Employer Allocations and Pension Amounts by Employer and related notes, including independent auditors' report as of and for the year ended June 30, 2022 – RECEIVE AND FILE

**Pursuant KCERA's Board Operations Policy #38, this matter is being presented to the Board without the involvement of the Finance Committee to prevent the imprudent use of Plan time and resources in light of the routine and non-controversial nature of item*

*12. Invitation from State Association of County Retirement Systems (SACRS) to Board of Directors to attend the SACRS Board of Directors Meeting September 25-26, 2023, in Huntington Beach, California – APPROVE ATTENDANCE OF TRUSTEE JORDAN KAUFMAN

PUBLIC COMMENTS

13. The public is provided the opportunity to comment on agenda items at the time those agenda items are discussed by the Board. This portion of the meeting is reserved for persons to address the Board on any matter not on this agenda but under the jurisdiction of the Board. Board members may respond briefly to statements made or questions posed. They may ask a question for clarification and, through the Chair, make a referral to staff for factual information or request staff to report back to the Board at a later meeting. Speakers are limited to two minutes. Please state your name for the record prior to making a presentation.

INVESTMENT MATTERS

14. Update on status of investment manager on-site due diligence compliance review presented by Chief Investment Officer Daryn Miller, CFA – HEAR PRESENTATION

15. Discussion and appropriate action on updated Investment Policy Statement (IPS) presented by Scott Whalen, CFA, Chief Investment Officer Daryn Miller, CFA, and the Investment Committee – ADOPT UPDATED INVESTMENT POLICY STATEMENT

16. Discussion and appropriate action on recommendation for Japan Equity Investment Managers presented by Scott Whalen, CFA, Chief Investment Officer Daryn Miller, CFA, Investment Analyst II Rafael Jimenez, and the Investment Committee – APPROVE LAZARD ASSET MANAGEMENT AND DALTON INVESTMENTS AS JAPAN EQUITY INVESTMENT MANAGERS; AUTHORIZE CHIEF EXECUTIVE OFFICER TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

17. Discussion and appropriate action on transition manager recommendation presented by Scott Whalen, CFA, Chief Investment Officer Daryn Miller, CFA, Senior Investment Officer Geoff Nolan, and the Investment Committee – APPROVE BLACKROCK AS TRANSITION MANAGER; AUTHORIZE CHIEF EXECUTIVE OFFICER TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

18. Presentation on the 2nd Quarter Investment Performance Review period ending June 30, 2023 by Scott Whalen, CFA, Verus – RECEIVE AND FILE

19. Presentation on the 2nd Quarter 2023 Portfolio Review presented by Spencer Edge, Albourne America[1] – RECEIVE AND FILE

ADMINISTRATIVE MATTERS

20. Discussion and appropriate action on proposed Compensation Policy presented by Governance Consultants Julie Becker and Benita Harper, Aon, Chief Executive Officer Dominic Brown, Chief Legal Officer Jennifer Zahry, and the Administrative Committee – APPROVE PROPOSED POLICY; TAKE OTHER ACTION, AS APPROPRIATE

STAFF REPORTS

21. Report from Chief Executive Officer

22. Report from Chief Investment Officer

23. Report from Chief Legal Officer

COMMITTEE REPORTS

24. Report from Committee Chairs:

    a. Administrative Committee: Gonzalez
    b. Finance Committee: Contreras
    c. Investment Committee: Kratt

CALL FOR PUBLIC COMMENT ON EXECUTIVE SESSION ITEM(S)

1 Written materials and investment recommendations from the consultants, fund managers and KCERA investment staff relating to alternative investments are exempt from public disclosure pursuant to California Government Code §6254.26, §6255, and §54957.5.

EXECUTIVE SESSION

25. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

    Initiation of litigation pursuant to paragraph (4) of subdivision (d) of Section 54956.9: (1 potential case).

RETURN TO PUBLIC SESSION

ROLL CALL

REPORT OF EXECUTIVE SESSION ACTIONS, IF APPLICABLE

REFERRALS TO STAFF, ANNOUNCEMENTS OR REPORTS

26. On their own initiative, Board members may make a brief announcement, refer matters to staff, subject to KCERA's rules and procedures, or make a brief report on their own activities.

NEW BUSINESS

27. Consider, discuss, and take possible action to agendize one or more items for future meetings of the Board of Retirement – CONSIDER, DISCUSS, AND TAKE ACTION ON WHETHER TO AGENDIZE PROPOSED ITEMS, IF ANY, FOR A FUTURE MEETING

28. Adjournment

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (KCERA)
BOARD OF RETIREMENT

11125 River Run Boulevard, Bakersfield, California

SUMMARY OF PROCEEDINGS

Investment Committee
August 8, 2023

8:32 a.m.

Committee Members: Couch, Kaufman, Chair Kratt, Nunneley (Alternate), Whitezell

ROLL CALL

Present: Couch, Kratt, Nunneley, Whitezell

Absent: Kaufman

NOTE: The vote is displayed in bold below each item. For example, Couch-Kaufman denotes Trustee David Couch made the motion and Trustee Jordan Kaufman seconded the motion.

AB 2449 REMOTE APPEARANCE(S)
Items 1 and 2 withdrawn from agenda. No trustees appeared via teleconference.

3. Presentation and review of Fixed Income presented by Senior Investment Officer Geoff Nolan – CHAIR RICK KRATT HEARD; TRUSTEE CHASE NUNNELEY HEARD; CHIEF INVESTMENT OFFICER DARYN MILLER, CFA, HEARD; SENIOR INVESTMENT OFFICER GEOFF NOLAN HEARD

   RECEIVED AND FILED

   Couch-Nunneley – 4 Ayes
   Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

4. Discussion and appropriate action on review of Asset Liability Study presented by Scott Whalen, CFA, Verus, and Chief Investment Officer Daryn Miller, CFA – SCOTT WHALEN, CFA, VERUS, HEARD; CHAIR RICK KRATT HEARD; CHIEF EXECUTIVE OFFICER DOMINIC BROWN HEARD; CHIEF INVESTMENT OFFICER DARYN MILLER, CFA, HEARD

   APPROVED CHANGES TO ASSET ALLOCATION AND LEVEL OF RISK

   Whitezell-Couch – 4 Ayes
   Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

5. Discussion and appropriate action on private market fund recommendation presented by Mark Mallory, Investment Director, Cambridge Associates[1], and Senior Investment Officer Geoff Nolan – MARK MALLORY, CAMBRIDGE ASSOCIATES, HEARD; SENIOR INVESTMENT OFFICER GEOFF NOLAN HEARD

TRUSTEE DAVID COUCH LEFT AT 9:36 A.M.

APPROVED UP TO $30MM COMMITMENT TO SILVER POINT SPECIALTY CREDIT FUND III; AUTHORIZED CHIEF EXECUTIVE OFFICER TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

Whitezell-Nunneley – 3 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

6. Discussion and appropriate action on private market fund recommendation presented by Keirsten Lawton, Managing Director, Cambridge Associates[2], and Senior Investment Officer Geoff Nolan – KEIRSTEN LAWTON, CAMBRIDGE ASSOCIATES, HEARD; SENIOR INVESTMENT OFFICER GEOFF NOLAN HEARD

APPROVED UP TO $30MM COMMITMENT TO ARES PATHFINDER FUND II; AUTHORIZED CHIEF EXECUTIVE OFFICER TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

Nunneley-Whitezell – 3 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

7. Discussion and appropriate action on opportunistic fund recommendation presented by Spencer Edge, Albourne America[3], and Chief Investment Officer Daryn Miller, CFA – SPENCER EDGE, ALBOURNE AMERICA, HEARD; CHIEF INVESTMENT OFFICER DARYN MILLER, CFA, HEARD

APPROVED UP TO $30MM INVESTMENT IN HUDSON BAY SPECIAL OPPORTUNITIES FUND; AUTHORIZED CHIEF EXECUTIVE OFFICER TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

Whitezell-Nunneley – 3 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

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1 Written materials and investment recommendations from the consultants, fund managers and KCERA investment staff relating to alternative investments are exempt from public disclosure pursuant to California Government Code § 7928.710, § 7922.000, and §54957.5.

2 Written materials and investment recommendations from the consultants, fund managers and KCERA investment staff relating to alternative investments are exempt from public disclosure pursuant to California Government Code § 7928.710, § 7922.000, and §54957.5.

3 Written materials and investment recommendations from the consultants, fund managers and KCERA investment staff relating to alternative investments are exempt from public disclosure pursuant to California Government Code § 7928.710, § 7922.000, and §54957.5.

PUBLIC COMMENTS

8. The public is provided the opportunity to comment on agenda items at the time those agenda items are discussed by the Committee. This portion of the meeting is reserved for persons to address the Committee on any matter not on this agenda but under the jurisdiction of the Committee. Committee members may respond briefly to statements made or questions posed. They may ask a question for clarification and, through the Chair, make a referral to staff for factual information or request staff to report back to the Committee at a later meeting. Speakers are limited to two minutes. Please state your name for the record prior to making a presentation – NONE

REFERRALS TO STAFF, ANNOUNCEMENTS OR REPORTS

9. On their own initiative, Committee members may make a brief announcement refer matters to staff, subject to KCERA's rules and procedures, or make a brief report on their own activities – NONE

10. ADJOURNED – 10:04 A.M.

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Secretary, Board of Retirement

____
Chair, Investment Committee

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (KCERA)
BOARD OF RETIREMENT

11125 River Run Boulevard, Bakersfield, California

SUMMARY OF PROCEEDINGS

Board of Retirement Meeting
August 9, 2023

8:30 A.M.

Board Members: Adams, Contreras (Alternate), Couch, Vice-Chair Franey, Gonzalez, Hughes, Kaufman, Kratt, Nunneley (Alternate), Sanders, Seibly (Alternate), Chair Whitezell

ROLL CALL

Present: Adams, Contreras, Couch, Franey, Gonzalez, Kratt, Nunneley, Sanders, Seibly, Whitezell

Absent: Hughes, Kaufman

SALUTE TO FLAG – TRUSTEE RICK KRATT

MOMENT OF SILENCE

NOTE: The vote is displayed in bold below each item. For example, Couch-Kaufman denotes Trustee David Couch made the motion and Trustee Jordan Kaufman seconded the motion.

AB 2449 REMOTE APPEARANCE(S)

Items 1 and 2 withdrawn from agenda. No trustees appeared via teleconference.

3. Resolution honoring Brenda Greenwood, KCERA Chief Technology Officer, upon her retirement with 14 years of dedicated service to the Kern County Employees' Retirement Association – CHIEF TECHNOLOGY OFFICER BRENDA GREENWOOD HEARD; CHAIR TYLER WHITEZELL HEARD; CHIEF EXECUTIVE OFFICER DOMINIC BROWN HEARD

   RECEIVED AND FILED

   Couch-Franey – 8 Ayes
   Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

CONSENT MATTERS

All consent matter items listed below with an asterisk (*) were considered to be routine and non-controversial by staff and approved by one motion, unless otherwise noted.

*4. Application for service-connected disability pension benefits for Bradly Brandon, Sheriff (Safety) – ADOPTED RECOMMENDATION OF SDAG TO GRANT SERVICE-CONNECTED DISABILITY PENSION

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

Trustee Dustin Contreras voted in place of Trustee Rick Kratt per Cal. Gov. Code section 31520.1

*6. Application for service-connected disability pension benefits for Scott Carvel, District Attorney (Safety) – ADOPTED RECOMMENDATION OF SDAG TO GRANT SERVICE-CONNECTED DISABILITY PENSION

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*7. Application for service-connected disability pension benefits for Timothy Champlin, Probation (Safety) –

THIS ITEM REMOVED FROM CONSENT AGENDA

*8. Application for service-connected disability pension benefits for Anthony Diffenbaugh, Fire (Safety) – ADOPTED RECOMMENDATION OF SDAG TO GRANT SERVICE-CONNECTED DISABILITY PENSION

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*9. Summary of proceedings of the following meetings:

- June 1, 2023 Investment Committee
- June 2, 2023 Finance Committee
- June 14, 2023 Board of Retirement
- June 14, 2023 Special Joint Board of Retirement and KPI Board of Directors
- June 21, 2023 Administrative Committee
- June 28, 2023 Finance Committee

RECEIVED AND FILED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*10. Report from the KCERA office on members retired from service for the months of June and July 2023 – RATIFIED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*11. Report from the KCERA office on deceased retirees for the months of June and July 2023 – RECEIVED AND FILED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*12. Report of current disability retirement applications and appeals of KCERA Board decisions for the period ending July 31, 2023 – RECEIVED AND FILED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*13. KCERA asset allocation, cash flow position, investment fees cash flow, and operating expense budget status reports for the months of May and June 2023 – RECEIVED AND FILED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*14. KCERA Class Action Proceeds Report from April 1 through June 30, 2023 for the Northern Trust Company – RECEIVED AND FILED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*15. Corrections in Benefit Payments Report for the period January through June 2023 – RECEIVED AND FILED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*16. Corrections in Benefit Contributions Report for the period January through June 2023 – RECEIVED AND FILED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*17. Board of Retirement Semi-annual Trustee Education Report – RECEIVED AND FILED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*18. 2023 KCERA Retirement Benefit Statement and Cover Letter Sample – RECEIVED AND FILED; APPROVED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*19. Agreement for Custodian Services with the Northern Trust Company, effective August 9, 2023 – RECEIVED AND FILED; AUTHORIZED CHIEF EXECUTIVE OFFICER TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*20. Report on Special Pay Codes classified by the Chief Executive Officer – RECEIVED AND FILED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*21. Service provider evaluation period initiated pursuant to Evaluation Period Policy – RATIFIED

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

22. KCERA draft Schedules of Employer Allocations and Pension Amounts by Employer and related notes including independent auditors' draft report as of and for the year ended June 30, 2022, and Segal's Governmental Accounting Standards (GAS) 68 Actuarial Valuation as of June 30, 2023 – RECEIVED AND FILED

**Pursuant KCERA's Board Operations Policy #38, this matter is being presented to the Board without the involvement of the Finance Committee to prevent the imprudent use of Plan time and resources in light of the routine and non-controversial nature of item*

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

*23. Invitation from to Workiva to staff to attend the Amplify Conference, September 19-21, 2023 in Nashville, Tennessee – APPROVED THE ATTENDANCE OF CHIEF FINANCIAL OFFICER ANGELA KRUGER

Franey-Couch – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

THE FOLLOWING ITEM VOTED ON OUT OF ORDER

*5. Application for service-connected disability pension benefits for Enrique Bravo, Sheriff (Safety) – ADOPTED RECOMMENDATION OF SDAG TO GRANT SERVICE-CONNECTED DISABILITY PENSION

TRUSTEE DUSTIN CONTRERAS DISCLOSED PERSONAL KNOWLEDGE OF THE MEMBER IN ITEM 5, RECUSED HIMSELF FROM ITEM 5, AND LEFT THE MEETING AT 8:41 A.M.

Couch-Nunneley – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

TRUSTEE DUSTIN CONTRERAS RETURNED AT 8:42 A.M., FOLLOWING THE CONCLUSION OF ITEM 5

PUBLIC COMMENTS

24. The public is provided the opportunity to comment on agenda items at the time those agenda items are discussed by the Board. This portion of the meeting is reserved for persons to address the Board on any matter not on this agenda but under the jurisdiction of the Board. Board members may respond briefly to statements made or questions posed. They may ask a question for clarification and, through the Chair, make a referral to staff for factual information or request staff to report back to the Board at a later meeting. Speakers are limited to two minutes. Please state your name for the record prior to making a presentation – NONE

INVESTMENT MATTERS

25. Presentation and review of Fixed Income presented by Senior Investment Officer Geoff Nolan and the Investment Committee – SCOTT WHALEN, CFA, VERUS, HEARD; VICE-CHAIR PHIL FRANEY HEARD; TRUSTEE RICK KRATT HEARD; CHIEF INVESTMENT OFFICER DARYN MILLER, CFA, HEARD; SENIOR INVESTMENT OFFICER GEOFF NOLAN HEARD

RECEIVED AND FILED

Kratt-Franey – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

26. Discussion and appropriate action on review of Asset Liability Study presented by Scott Whalen, CFA, Verus, Chief Investment Officer Daryn Miller, CFA, and the Investment Committee – SCOTT WHALEN, CFA, VERUS, HEARD; VICE-CHAIR PHIL FRANEY HEARD; TRUSTEES JEANINE ADAMS, JUAN GONZALEZ, AND RICK KRATT HEARD; CHIEF INVESTMENT OFFICER DARYN MILLER, CFA, HEARD

APPROVED CHANGES TO ASSET ALLOCATION AND LEVEL OF RISK

Kratt-Franey – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

27. Discussion and appropriate action on private market fund recommendation presented by Mark Mallory, Investment Director, Cambridge Associates[1], Senior Investment Officer Geoff Nolan, and the Investment Committee – MARK MALLORY, CAMBRIDGE ASSOCIATES, HEARD; TRUSTEE RICK KRATT HEARD; SENIOR INVESTMENT OFFICER GEOFF NOLAN HEARD

TRUSTEE CHASE NUNNELEY LEFT AT 9:50 A.M.

APPROVED UP TO $30MM COMMITMENT TO SILVER POINT SPECIALTY CREDIT FUND III; AUTHORIZED CHIEF EXECUTIVE OFFICER TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

Kratt-Couch – 7 Ayes; 1 Absent (Nunneley)

28. Discussion and appropriate action on private market fund recommendation presented by Keirsten Lawton, Managing Director, Cambridge Associates[2], Senior Investment Officer Geoff Nolan, and the Investment Committee – KEIRSTEN LAWTON, CAMBRIDGE ASSOCIATES, HEARD; TRUSTEE RICK KRATT HEARD; SENIOR INVESTMENT OFFICER GEOFF NOLAN HEARD

TRUSTEE CHASE NUNNELEY RETURNED AT 9:56 A.M.

APPROVED UP TO $30MM COMMITMENT TO ARES PATHFINDER FUND II; AUTHORIZE CHIEF EXECUTIVE OFFICER TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

Kratt-Franey – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

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1 Written materials and investment recommendations from the consultants, fund managers and KCERA investment staff relating to alternative investments are exempt from public disclosure pursuant to California Government Code § 7928.710, § 7922.000, and §54957.5.

2 Written materials and investment recommendations from the consultants, fund managers and KCERA investment staff relating to alternative investments are exempt from public disclosure pursuant to California Government Code § 7928.710, § 7922.000, and §54957.5.

29. Discussion and appropriate action on opportunistic fund recommendation presented by Spencer Edge, Albourne America[1], Chief Investment Officer Daryn Miller, CFA, and the Investment Committee – SPENCER EDGE, ALBOURNE AMERICA, HEARD; TRUSTEE ROBB SEIBLY HEARD; CHIEF INVESTMENT OFFICER DARYN MILLER, CFA, HEARD

    APPROVED UP TO $30MM INVESTMENT IN HUDSON BAY SPECIAL OPPORTUNITIES FUND; AUTHORIZED CHIEF EXECUTIVE OFFICER TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

    Kratt-Nunneley – 8 Ayes
    Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

ADMINISTRATIVE MATTERS

30. Follow-up discussion and appropriate action on Strategic Planning presented by Chief Executive Officer Dominic Brown and Governance Consultants Julie Becker and Benita Falls Harper, Aon – BENITA FALLS HARPER, AON, HEARD; CHAIR TYLER WHITEZELL HEARD; VICE-CHAIR PHIL FRANEY HEARD; TRUSTEES JUAN GONZALEZ AND RICK KRATT HEARD; CHIEF EXECUTIVE OFFICER DOMINIC BROWN HEARD

    DIRECTED STAFF TO WORK WITH AON TO DEVELOP LANGUAGE BASED ON DISCUSSION AND INCORPORATE INTO STRATEGIC PLAN

    Franey-Gonzalez – 8 Ayes
    Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

31. Discussion and appropriate action on review of revisions to KCERA's Trustee Education Policy presented by Chief Executive Officer Dominic Brown, Chief Legal Officer Jennifer Zahry, and the Administrative Committee – VICE-CHAIR PHIL FRANEY HEARD; TRUSTEES JUAN GONZALEZ AND RICK KRATT HEARD; CHIEF EXECUTIVE OFFICER DOMINIC BROWN HEARD; CHIEF LEGAL OFFICER JENNIFER ZAHRY HEARD

    APPROVED PROPOSED CHANGES

    Franey-Kratt – 8 Ayes
    Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

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1 Written materials and investment recommendations from the consultants, fund managers and KCERA investment staff relating to alternative investments are exempt from public disclosure pursuant to California Government Code § 7928.710, § 7922.000, and §54957.5.

32. Trustee education regarding Wellness Audit communications initiative presented by Chief Operations Officer Matthew Henry, Chief Financial Officer Angela Kruger, and Chief Legal Officer Jennifer Zahry – VICE-CHAIR PHIL FRANEY HEARD; CHIEF LEGAL OFFICER JENNIFER ZAHRY HEARD; CHIEF OPERATIONS OFFICER MATTHEW HENRY HEARD; CHIEF FINANCIAL OFFICER ANGELA KRUGER HEARD

RECEIVED EDUCATIONAL TRAINING (16 MINUTES TRUSTEE EDUCATION CREDIT)

STAFF REPORTS

33. Report from Chief Executive Officer

CHIEF EXECUTIVE OFFICER DOMINIC BROWN REPORTED THE FOLLOWING:

- BOARD REFERRAL UPDATE
- STAFFING UPDATE
- MEMBER OUTREACH
- CUSTODIAN CONTRACT UPDATE
- BOARDROOM UPGRADES
- SOLAR PROJECT UPDATE
- DEATH AUDIT PROJECT
- WELLNESS AUDIT LETTERS
- DISABILITY UPDATE
- INTERNET SERVICE PROVIDER UPDATE
- OPERATIONS ACTIVITY
- UPCOMING MEETINGS AND EVENTS

VICE-CHAIR PHIL FRANEY HEARD; TRUSTEES CHASE NUNNELEY AND ROBB SEIBLY HEARD; CHIEF INVESTMENT OFFICER DARYN MILLER, CFA, HEARD

34. Report from Chief Investment Officer

CHIEF INVESTMENT OFFICER DARYN MILLER, CFA, REPORTED THE FOLLOWING:

- REBALANCING – JUNE AND JULY ACTIVITY
- POSITIONING
- UPDATES
- KEY INITIATIVES
- INVESTMENT COMMITTEE MEETINGS

35. Report from Chief Legal Officer:

CHIEF LEGAL OFFICER JENNIFER ZAHRY REPORTED THE FOLLOWING:

- LEGISLATIVE CALENDAR
- LEGISLATIVE UPDATES
- AUGUST CALENDAR
- Q2 2023 METRICS

COMMITTEE REPORTS

36. Report from Committee Chairs:

a. Administrative Committee: GONZALEZ – MEETING TO BE DETERMINED

b. Finance Committee: CONTRERAS – AUDIT COMING TO FUTURE MEETING

c. Investment Committee: KRATT – MEETING TO BE SCHEDULED IN SEPTEMBER

VICE-CHAIR PHIL FRANEY HEARD; TRUSEE DAVID COUCH HEARD; CHIEF EXECUTIVE OFFICER DOMINIC BROWN HEARD; CHIEF INVESTMENT OFFICER DARYN MILLER, CFA, HEARD; CHIEF OPERATIONS OFFICER MATTHEW HENRY HEARD; CHIEF FINANCIAL OFFICER ANGELA KRUGER HEARD

CALL FOR PUBLIC COMMENT ON EXECUTIVE SESSION ITEM(S) – NONE

EXECUTIVE SESSION

7. PUBLIC EMPLOYMENT (pursuant to Government Code §54957) Application for service-connected disability pension benefits:

Timothy Champlin	Probation	Safety

37. PUBLIC EMPLOYEE PERFORMANCE EVALUATION (pursuant to GOVERNMENT CODE §54957): Title: Chief Executive Officer

RETURN TO PUBLIC SESSION

BOARD OF RETIREMENT RECONVENED AT 11:56 A.M.

ROLL CALL

Present: Adams, Contreras, Couch, Franey, Gonzalez, Kratt, Nunneley, Sanders, Seibly, Whitezell

Absent: Hughes, Kaufman

REPORT OF EXECUTIVE SESSION ACTIONS, IF APPLICABLE

ITEM 7 – ADOPTED RECOMMENDATION OF SDAG TO DENY SERVICE-CONNECTED DISABILITY PENSION BUT GRANT A NON-SERVICE-CONNECTED DISABILITY PENSION

Gonzalez-Kratt – 8 Ayes
Trustee Chase Nunneley voted in place of Trustee Jordan Kaufman

ITEM 37 – NO REPORTABLE ACTION

REFERRALS TO STAFF, ANNOUNCEMENTS OR REPORTS

38. On their own initiative, Board members may make a brief announcement, refer matters to staff (subject to KCERA's rules and procedures)**,** or make a brief report on their own activities – TRUSTEE JEANINE ADAMS HEARD; CHIEF EXECUTIVE OFFICER DOMINIC BROWN HEARD

NEW BUSINESS

39. Consider, discuss, and take possible action to agendize one or more items for future meetings of the Board of Retirement – NONE

40. ADJOURNED – 11:59 A.M.

____
Secretary, Board of Retirement

____
Chair, Board of Retirement

Kern County Employees' Retirement Association
New Retirees- August 1, 2023 to August 31, 2023

Employer Name: County Of Kern

Member Last Name	Member First Name	Retirement Date	Membership Tier	Department Name
Armstrong	Daniel	07/17/2023	General Tier I	1160 - Information Technology Services
Ashley	Janie	06/10/2023	General Tier I	4110J - Health-Nursing
Blair	Ki	07/19/2023	General Tier I	2180 - District Attorney
Cranston	Clark	07/01/2023	General Tier II PEPRA	5120 - Depart Of Human Services
Greenwood	Brenda	07/29/2023	General Tier I	9415 - KCERA-Admin
Hazel	Deborah	07/01/2023	General Tier I	4300A - California Children Services
Herrera	Steve	07/18/2023	General Tier I	2180 - District Attorney
Marquez	Sandra	07/01/2023	Safety Tier I	2340S - Probation-Safety
Mckinley	Jason	07/01/2023	Safety Tier I	2340S - Probation-Safety
Olmos	Adrian	06/03/2023	Safety Tier I	2210S - Sheriff
Quiton-Buaya	Marie	07/29/2023	General Tier I	4120 - Behavioral Health & Recovery
Raybon	Margaret	07/15/2023	General Tier II PEPRA	4120 - Behavioral Health & Recovery
Sanders	JuDee	07/08/2023	General Tier II	5120 - Depart Of Human Services
Sessions	Jerry	07/15/2023	General Tier I	8954 - Public Works-Public Ways
Silvestro	Andrew	07/15/2023	Safety Tier I	2210S - Sheriff
Smith	Brandon	07/01/2023	Safety Tier I	2415S - Fire

Member Last Name	Member First Name	Retirement Date	Membership Tier	Department Name
Stewart	Lula	07/14/2023	General Tier II	4120 - Behavioral Health & Recovery
Truong	Jill	10/17/2022	General Tier I	4120 - Behavioral Health & Recovery
Van Hoose	Inge	02/22/2023	General Tier II	4122 - Environmental Health Services Division
Villanueva	Leticia	07/15/2023	General Tier I	5120 - Depart Of Human Services
Warkentin	Randolph	07/01/2023	General Tier I	4110 - Depart Of Public Health
Youngblood	Damon	07/31/2023	Safety Tier I	2210S - Sheriff

Employer Name: KC Superior Court

Member Last Name	Member First Name	Retirement Date	Membership Tier	Department Name
Mckinney	Angela	07/03/2023	General Tier I	9410Y - Family Court Services

Employer Name: Kern County Hospital Authority

Member Last Name	Member First Name	Retirement Date	Membership Tier	Department Name
Macias	Ralph	07/19/2023	General Tier I	9460.2 - KCHA
Ward	Kimberly	07/15/2023	General Tier II	9460 - Kern County Hospital Authority

Employer Name: San Joaquin Valley APCD

Member Last Name	Member First Name	Retirement Date	Membership Tier	Department Name
Franco	Michelle	07/17/2023	General Tier I	0959 - San Joaquin Valley Air Pollution Control District

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Kern County Employees' Retirement Association
New Retirees- August 1, 2023 to August 31, 2023

Member Last Name	Member First Name	Retirement Date	Membership Tier	Department Name
Ogden	Andrea	07/16/2023	General Tier I	0959 - San Joaquin Valley Air Pollution Control District

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Kern County Employees' Retirement Association
Decedents- August 1, 2023 to August 31, 2023

Post-Retirement Deaths

Last Name	First Name	Membership Type	Employer Name
Blossom	Kenneth	General	County Of Kern
Bowen	Terrance	Safety	County Of Kern
Burch	Philip	General	County Of Kern
Cantrell	Bill	General	County Of Kern
Dearkland	Judith	General	County Of Kern
Hall	Jessie	General	County Of Kern
Harlan	Mary	General	County Of Kern
Hawkins	Denise	General	County Of Kern
Hernandez	Christina	General	KC Superior Court
Heston	Garnie	General	County Of Kern
Hockett	Robert	Safety	County Of Kern
Joyner	Jacqueline	Safety	County Of Kern
Milliken	Jackie	General	County Of Kern
Mince	Robert	General	County Of Kern
Neal	Robin	General	County Of Kern
Ontiveros	Yvonne	General	County Of Kern
Renois	Betty	General	County Of Kern
Ribble	George	General	Kern County Water Agency
Rudie	Ralph	General	County Of Kern
Ryan	Linda	General	County Of Kern
Wallace	Schuyler	Safety	County Of Kern
Wyatt	Ralph	General	KC Superior Court

KCERA
STATUS OF DISABILITY RETIREMENT APPLICATIONS
AS OF AUGUST 31, 2023

NAME	PLAN SPONSOR/ DEPARTMENT	DATE FILED	DATE OF LAST CONTACT
Rickels, Adam	SHERIFF	8/11/2023	8/24/2023
Stephan, Daren	PUBLIC WORKS	7/7/2023	7/13/2023
NAME	**PLAN SPONSOR/ DEPARTMENT**	**DATE FILED**	**MMRO ASSIGNED**
Norris, David	SHERIFF	5/26/2023	8/11/2023
Meeks, Sandra	BEHAVIORAL HEALTH & RECOVERY SERVICES	5/1/2023	7/18/2023
Fulmer, Evon	DEPARTMENT OF HUMAN SERVICES	4/28/2023	7/18/2023
Muniz, Linda	BEHAVIORAL HEALTH & RECOVERY SERVICES	4/6/2023	6/26/2023
Guivas Smith, Loida	AGING AND ADULT SERVICES	3/8/2023	6/19/2023
Gonzalez-Lopez, Rebecca	DEPARTMENT OF HUMAN SERVICES	3/9/2023	6/19/2023
Romero, Anthony	FIRE	3/10/2023	6/19/2023
Allen, Paul	SHERIFF	2/22/2023	4/25/2023
Mierta, Richard	SHERIFF	2/10/2023	4/25/2023
Harbour, Leslie	SHERIFF	2/9/2023	4/25/2023
Ramirez, Edward	SHERIFF	2/7/2023	4/25/2023
Lock, Ranna	SHERIFF	2/1/2023	4/25/2023
Inman Ferguson, Jill	KERN COUNTY SUPERIOR COURT	1/24/2023	4/10/2023
Monahan, Laura	KERN COUNTY WATER AGENCY	1/3/2023	4/6/2023
Kimbrell, Tamara	SHERIFF	11/29/2022	3/23/2023
Dunlap, James	SHERIFF	11/1/2022	2/8/2023
Perez, Manuelita	PROBATION	10/27/2022	1/17/2023
Schmidt, Mark	FIRE	10/26/2022	3/23/2023
Yanez, Alfred	SHERIFF	10/3/2022	2/10/2022
Morrison, James	SHERIFF	9/14/2022	12/19/2022
Gregory, Dolores	SHERIFF	8/16/2022	12/19/2022
Smith, Clifton	FIRE	8/15/2022	12/19/2022
Cockrell, June	DEPARTMENT OF HUMAN SERVICES	8/11/2022	10/18/2022
Gaetzman, Travis	SHERIFF	8/10/2022	11/22/2022
Hartley-Anders, Kim	KERN COUNTY SUPERIOR COURT	8/9/2022	11/22/2022
Hudson, Richard	SHERIFF	8/8/2022	11/22/2022
Carrillo, Aaron	SHERIFF	7/15/2022	9/30/2022
Rice, Jerry	FIRE	7/7/2022	11/22/2022
Roden, Jim	SHERIFF	6/22/2022	9/30/2022
Rodriguez, Mark	FIRE	6/21/2022	9/1/2022
Fecke, Daniel	KERN COUNTY HOSPITAL AUTHORITY	6/15/2022	9/30/2022
Pena, Armando	PROBATION	5/27/2022	9/19/2022
Hill, Sheldon	SHERIFF	5/27/2022	8/19/2022

KCERA
STATUS OF DISABILITY RETIREMENT APPLICATIONS
AS OF AUGUST 31, 2023

NAME	PLAN SPONSOR/ DEPARTMENT	DATE FILED	MMRO ASSIGNED
Gomez, Armando	INFORMATION TECHNOLOGY SERVICES	4/29/2022	10/14/2022
Cano, Emma	BEHAVIORAL HEALTH AND RECOVERY SERVICES	3/17/2022	8/19/2022
Yohn, Jacob	SHERIFF	11/30/2021	7/21/2022
Fussel, Kathy	KERN COUNTY HOSPITAL AUTHORITY	11/3/2021	2/24/2022
Guandique, Sandra	RISK MANAGEMENT	10/15/2021	3/14/2022
Kauffman, Stephen	DISTRICT ATTORNEY	8/16/2021	4/25/2022
Brannan, Derek	SHERIFF	7/14/2021	11/22/2021
Leon, Theresa	DEPARTMENT OF HUMAN SERVICES	7/7/2021	10/18/2021
Patton, Eric	SHERIFF	6/30/2021	11/22/2021
Candelaria, Valerie	DEPARTMENT OF HUMAN SERVICES	6/23/2021	9/15/2021
Introini, Jessica	SHERIFF	6/18/2021	11/22/2021
Williams, Theron	GENERAL SERVICES	5/12/2021	9/15/2021
Garcia, Judy	KERN COUNTY HOSPITAL AUTHORITY	3/29/2021	10/18/2021
Smith, Thomas Jr.	SHERIFF	3/16/2021	11/8/2021
Sanders-Stubblefield, Misty	AGING AND ADULT SERVICES	2/25/2021	8/20/2021
McAdoo, John	SHERIFF	2/24/2021	8/20/2021
Bankston, Josh	SHERIFF	2/9/2021	8/19/2021
Cushman, Harris	SHERIFF	12/22/2020	8/19/2021
Burchfield, James	PUBLIC WORKS	11/17/2020	7/16/2021
Fleeman, Justin	SHERIFF	9/17/2020	2/8/2021
Baker, Breanne	DEPARTMENT OF HUMAN SERVICES	4/2/2020	9/29/2020
Martinez de Moore, Brenda	KERN BEHAVIORAL HEALTH AND RECOVERY SERVICES	12/10/2018	9/8/2020

KCERA
STATUS OF DISABILITY RETIREMENT APPLICATIONS
AS OF AUGUST 31, 2023

COMPLETED IN 2023			
NAME	**DEPARTMENT**	**FILED**	**DATE COMPLETED**
Carvel, Scott	DISTRICT ATTORNEY	1/27/2017	8/9/2023
Rodriquez, Ted	SHERIFF	6/22/2017	4/12/2023
Coletti, John	SHERIFF	01/30/18	3/8/2023
Hulsey, Jonathan	PROBATION	4/18/2018	6/14/2023
Champlin, Timothy	PROBATION	4/25/2018	8/9/2023
Terry, Leann	SHERIFF	10/17/2019	5/3/2023
Brown, Michael	SHERIFF	4/14/2020	4/12/2023
Diffenbaugh, Anthony	FIRE	6/9/2020	8/9/2023
Tisinger, Douglas	KERN COUNTY WATER AGENCY	10/5/2020	4/12/2023
Carrillo, Mabelle	ANIMAL CONTROL	11/18/2020	6/14/2023
Bravo, Enrique	SHERIFF	3/1/2021	8/9/2023
Brandon, Bradly	SHERIFF	3/4/2021	8/9/2023
Gardner, Stephen	FIRE	7/19/2021	4/12/2023
Barnes, Mark	SHERIFF	12/3/2021	5/3/2023

KCERA
DISABILITY RETIREMENT APPLICATION APPEALS PENDING
AS OF AUGUST 31, 2023

ADMINISTRATIVE HEARING	DEPARTMENT	DATE FILED	SDAG RECOMMENDATION	APPEAL RECEIVED	HEARING OFFICER ASSIGNED	STATUS

WRIT OF MANDATE	DEPARTMENT	DATE FILED	BOARD DECISION	PETITION FOR WRIT FILED	STATUS

COURT OF APPEAL	DEPARTMENT	DATE FILED	BOARD DECISION	PETITION FOR WRIT FILED	JUDGMENT ON WRIT	NOTICE OF APPEAL RECEIVED	STATUS

HEARINGS COMPLETED IN 2023			
NAME	DEPARTMENT	DATE FILED	DATE COMPLETED
Morgan, Gloria	SHERIFF	03/26/15	02/24/23
Ashley, Mark	SHERIFF	09/03/15	03/10/23

KCERA ASSET ALLOCATION*
7/31/2023

Manager Name	Type	$(000)	Current Allocation	Target Percentage	Variance Over Target (Under Target)	Variance Over Target (Under Target) $(000)
AllianceBernstein	Small Cap Value	91,504	1.7%	*Domestic Equity Range 16.0% - 27.0%*		
Geneva Capital	Small Cap Growth	53,180	1.0%			
Mellon Capital Management EB DV	Large Cap Passive	553,106	10.1%			
PIMCO StockPlus	Large Cap Enhanced	120,356	2.2%			
Total Domestic Equity		**$818,146**	**15.0%**	**19.0%**	**(4.0%)**	**($219,613)**
American Century	International Small	72,375	1.3%	*International Developed Equity Range 8.0% - 18.0%*		
Cevian Capital II LP	International Large	39,767	0.7%			
Mellon Capital Management-EB DV	International Large Passive	543,636	10.0%			
Total International Developed Equity		**$655,778**	**12.0%**	**13.0%**	**(1.0%)**	**($54,267)**
AB Emerging Markets Strategic Core	Emerging Markets	55,249	1.0%	*Emerging Market Equity Range 1.0% - 9.0%*		
DFA Emerging Markets Value Portfolio	Emerging Markets	86,755	1.6%			
Mellon Emerging Markets	Emerging Markets	89,551	1.6%			
Total Emerging Market Equity		**$231,555**	**4.2%**	**5.0%**	**(0.8%)**	**($41,539)**
TOTAL EQUITY		**$1,705,479**	**31.2%**	**37.0%**	**(5.8%)**	**($315,419)**
Mellon Capital Management Ag Bond	Core	160,938	2.9%	*Core Range 12.0% - 25.0%*		
PIMCO CP	Core Plus	164,396	3.0%			
Western Asset Management - CP	Core Plus	122,526	2.2%			
Total Core		**$447,860**	**8.2%**	**14.0%**	**(5.8%)**	**($316,804)**
TCW Securitized Opportunities LP	Securitized Opportunities	93,143	1.7%	*Credit Range 3.0% - 9.0%*		
Western Asset Management - HY	High Yield	167,616	3.1%			
Total Credit		**$260,759**	**4.8%**	**6.0%**	**(1.2%)**	**($66,954)**
PIMCO EM Beta	Emerging Markets	151,537	2.8%	*Emerging Market Debt Range 1.0% - 7.0%*		
Stone Harbor Global Funds	Emerging Markets	67,318	1.2%			
Total Emerging Market Debt		**$218,855**	**4.0%**	**4.0%**	**0.0%**	**$380**
TOTAL FIXED INCOME		**$927,474**	**17.0%**	**24.0%**	**(7.0%)**	**($383,379)**
Gresham Commodity Builder Fund	Active	51,514	0.9%	*Commodities Range 0.0% - 6.0%*		
Wellington Trust Company (WTC)	Active	192,741	3.5%			
TOTAL COMMODITIES		**$244,255**	**4.5%**	**4.0%**	**0.5%**	**$25,780**
Aristeia International Ltd	Hedge Fund - Direct	70,900	1.3%	*Hedge Fund Range 5.0% - 15.0%*		
Brevan Howard Fund Limited	Hedge Fund - Direct	54,345	1.0%			
D.E. Shaw Composite Fund	Hedge Fund - Direct	61,265	1.1%			
HBK Multi-Strategy Fund	Hedge Fund - Direct	45,026	0.8%			
Hudson Bay Enhanced Fund LP	Hedge Fund - Direct	83,739	1.5%			
Indus Pacific Opportunities Fund	Hedge Fund - Direct	47,059	0.9%			
PIMCO Commodity Alpha Fund LLC	Hedge Fund - Direct	73,114	1.3%			
Pharo Macro Fund LTD	Hedge Fund - Direct	62,960	1.2%			
Sculptor Enhanced LP (Formerly OZ Domestic)	Hedge Fund - Direct	45,599	0.8%			
TOTAL HEDGE FUND		**$544,007**	**10.0%**	**10.0%**	**(0.0%)**	**($2,182)**
ASB Capital Management	Core	164,334	3.0%	*Core Real Estate Range 3.0% - 7.0%*		
JPMCB Strategic Property Fund	Core	138,046	2.5%			
TOTAL CORE REAL ESTATE		**$302,380**	**5.5%**	**5.0%**	**0.5%**	**$29,286**
Davidson Kempner	Hedge Fund - Direct	55,433	1.0%	*CE Alpha Pool Range 0.0% - 7.0%*		
Garda Fixed Income	Hedge Fund - Direct	59,715	1.1%			
HBK Multi-Strategy Fund	Hedge Fund - Direct	43,335	0.8%			
Hudson Bay Enhanced Fund LP	Hedge Fund - Direct	60,845	1.1%			
TOTAL CE ALPHA POOL		**$219,328**	**4.0%**	**5.0%**	**(1.0%)**	**($53,766)**
Harvest Midstream	Midstream	164,757	3.0%	*Midstream Energy Range 0.0% - 7.0%*		
PIMCO Midstream	Midstream	157,246	2.9%			
TOTAL MIDSTREAM ENERGY		**$322,003**	**5.9%**	**5.0%**	**0.9%**	**$48,909**
Aristeia Select Opportunities II LP	Opportunistic	48,350	0.9%	*Opportunistic Range 0.0% - 10.0%*		
DB Investor's Fund IV	Opportunistic	23,394	0.4%			
River Birch International Ltd	Opportunistic	5,506	0.1%			
Sixth Street TAO Partners (D)	Opportunistic	90,734	1.7%			
TOTAL OPPORTUNISTIC		**$167,984**	**3.1%**	**0.0%**	**3.1%**	**$167,984**
Abbott Capital Funds	Private Equity Fund of Funds	17,490	0.3%	*Private Equity Range 0.0% - 10.0%*		
Brighton Park Capital Fund I	Private Equity	36,502	0.7%			
Brighton Park Capital Fund II	Private Equity	3,299	0.1%			
Level Equity Growth Partners	Private Equity	12,763	0.2%			
LGT Crown Global	Private Equity	26,518	0.5%			
Linden Capital Partners	Private Equity	14,592	0.3%			
Pantheon Funds	Private Equity Fund of Funds	8,225	0.2%			
Peak Rock	Private Equity	13,114	0.2%			
OrbiMed Private Investments IX	Private Equity	861	0.0%			
Rubicon Technology Partners IV	Private Equity	2,935	0.1%			
Vista Foundation Fund IV	Private Equity	18,308	0.3%			
Warren Equity Partners Fund III and Fund IV	Private Equity	37,081	0.7%			
TOTAL PRIVATE EQUITY		**$191,688**	**3.5%**	**5.0%**	**(1.5%)**	**($81,406)**
Blue Torch Credit Opportunites II	Private Credit	16,789	0.3%	*Private Credit Range 0.0% - 10.0%*		
Blue Torch Credit Opportunities Fund III	Private Equity	10,119	0.2%			
Brookfield Real Estate Finance Fund V	Private Credit	16,662	0.3%			
Colony Distressed Credit Fund	Private Credit	18,527	0.3%			
Fortress Credit Opportunities Fund V	Private Credit	15,508	0.3%			
Fortress Lending Fund II (A)	Private Credit	27,105	0.5%			
Fortress Lending Fund III (A)	Private Credit	22,995	0.4%			
H.I.G Bayside Loan Opportunity Fund	Private Credit	45,805	0.8%			
Magnetar Constellation Fund V	Private Credit	28,113	0.5%			
OrbiMed Royalty & Credit Opportunities IV	Private Credit	6,271	0.1%			
Sixth Street TAO Partners (B)	Private Credit	40,367	0.7%			
TOTAL PRIVATE CREDIT		**$248,261**	**4.5%**	**5.0%**	**(0.5%)**	**($24,833)**
Covenant Apartment Fund X	Private Real Estate	31,836	0.6%	*Private Real Estate Range 0.0% - 10.0%*		
Covenant Apartment Fund XI	Private Real Estate	12,444	0.2%			
Invesco Real Estate Funds III & IV	Private Real Estate	931	0.0%			
KCERA Property	Private Real Estate	4,629	0.1%			
KSL Capital Partners VI, LP and ITS Parallel Funds	Private Real Estate	2,673	0.0%			
LBA Logistics Value Fund IX	Private Real Estate	13,365	0.2%			
Landmark Real Estate Partners VIII	Private Real Estate	32,525	0.6%			
Long Wharf Real Estate Partners VI	Private Real Estate	34,573	0.6%			
Singerman Real Estate Opportunity Fund IV	Private Real Estate	11,613	0.2%			
TOTAL PRIVATE REAL ESTATE		**$144,589**	**2.6%**	**5.0%**	**(2.4%)**	**($128,505)**
Northern Trust STIF	Short Term	158,870	2.9%	*Cash Range 0.0% - 5.0%*		
BlackRock Short Duration	Short Term	181,639	3.3%			
Parametric	Overlay	91,788	1.7%			
Treasurers Pooled Cash	Short Term	10,910	0.2%			
Wells Fargo Bank	Short Term	920	0.0%			
TOTAL CASH AND OVERLAY		**$444,127**	**8.1%**	**-5.0%**	**13.1%**	**$717,221**
Transition Accounts	Liquidation	312	0.0%			
Other		**$312**	**0.0%**	**0.0%**	**0.0%**	**$312**
As Allocated to Managers **		**$5,461,887**	**100.0%**	**100.0%**	**(0.0%)**	**($0)**

*This report reflects the strategic asset allocation policy adopted by the Board of Retirement April 2022.

****Physical securities market value only. Does not include notional market values of the overlay or capital efficiency program**

KCERA
CASH FLOW POSITION
JULY, 2023

TREASURERS POOLED CASH

Beginning Cash Balance:			**$ 15,829,541**
Employer Contributions			$ 27,012,442.55
Employee Contributions			3,926,183
Service Purchases			142,667
Miscellaneous			512,146
Total Receipts:			**-**
Operating Expenses			(689,372)
Investment Expenses			(823,751)
Transfers-out			(35,000,000)
Total Disbursements:			**-**
Ending Cash Balance:			**10,909,857**

NORTHERN TRUST

Beginning Cash Balance:			**$ 156,297,426**
Private Markets - Distributions		2,259,765	
Commingled Funds - Distributions		5,955,887	
Hedge Funds - Distributions		63,064	
Dividend and Interest Income		1,549,261	
Interest		695,403	
Total Receipts:			**10,523,381**
Capital Calls	Orbimed	(700,000)	
Capital Calls	LBA Logistics	(3,076,923)	
Capital Calls	Linden	(2,056,572)	
Capital Calls	KSL Capital	(735,786)	
Capital Calls	Vista	(348,937)	
Capital Calls	Covenant	(3,300,000)	
Capital Calls	SRE Opportunistic	(2,800,000)	
Capital Calls	Blue Torch	(2,000,000)	
Other Expenses		(13,124)	
Total Disbursements:			**(15,031,342)**
Ending Cash Balance:			**$ 151,789,465**

KCERA
CASH FLOW POSITION
JULY, 2023

WELLS FARGO BANK

Beginning Cash Balance			**$**	**2,394,215**
Transfer In	Northern Trust	-		
Transfer In	TPC - County	30,000,000		
ACH Returns / Deletes		16,731		
Total Receipts:				**30,016,731**
ACH Benefit Payments		(31,211,710)		
Total Checks Paid		(178,490)		
Taxes Witholding Deposits		(100,054)		
Bank Services		(567)		
Total Disbursements:				**(31,490,821)**
WFB ending Balance			**$**	**920,125**

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
INVESTMENT FEES CASH FLOW REPORT
FOR THE MONTH ENDED JULY, 2023

Description	July	Total
Investment Base Fees:		
Domestic Equity:		
AllianceBernstein		0.00
Henderson Geneva Capital		0.00
Mellon Capital		0.00
International Equity:		
BlackRock		0.00
Fixed Income:		
Mellon Capital (Ag Bond)		0.00
Pacific Investment Management Company		0.00
Western Asset Management		0.00
Commodities:		
Wellington Trust Company		0.00
Real Estate:		
ASB Capital Management		0.00
Midstream Energy:		
Harvest Midstream		0.00
Overlay		
Parametric		0.00
Subtotal	**0.00**	**0.00**
Investment Professional Fees:		
Consulting:		
Abel Noser		0.00
Albourne America LLC		0.00
Cambridge Associates		0.00
Glass, Lewis & Co.	7,950.00	7,950.00
Verus		0.00
Consulting - Other Expenses		0.00
Custodial:		
The Northern Trust Co.		0.00
Legal:		
Foley & Lardner LLP		0.00
Hanson Bridgett LLP		0.00
Nossaman LLP		0.00
Due Diligence / Investment-Related Travel:		
Subtotal	**7,950.00**	**7,950.00**
Total Investment Fees	**7,950.00**	**7,950.00**

KCERA

Operating Expense Budget Status Report
For the Month Ended July 31, 2023

Expense Type	Budget FY 2023/24	Expenses	Over (Under)
Staffing			
Salaries	4,215,888.00	262,480.94	(3,953,407.06)
Benefits	2,655,190.00	176,773.67	(2,478,416.33)
Staffing Total	**6,871,078.00**	**439,254.61**	**(6,431,823.39)**
Staff Development			
Education & Professional Development	120,000.00	4,005.35	(115,994.65)
Staff Appreciation	4,000.00	-	(4,000.00)
Staff Development Total	**124,000.00**	**4,005.35**	**(119,994.65)**
Professional Fees			
Actuarial fees	100,000.00	-	(100,000.00)
Audit fees	98,275.00	-	(98,275.00)
Consultant fees	115,000.00	-	(115,000.00)
Legal fees	70,000.00	-	(70,000.00)
Professional Fees Total	**383,275.00**	**-**	**(383,275.00)**
Office Expenses			
Building expenses	124,000.00	1,201.50	(122,798.50)
Communications	84,062.00	1,927.79	(82,134.21)
Equipment lease	12,000.00	935.22	(11,064.78)
Equipment maintenance	10,100.00	-	(10,100.00)
Memberships	20,000.00	4,000.00	(16,000.00)
Office supplies & misc. admin.	80,000.00	1,467.87	(78,532.13)
Payroll & accounts payable fees	25,000.00	-	(25,000.00)
Other Services - Kern County	40,000.00	-	(40,000.00)
Postage	20,000.00	-	(20,000.00)
Subscriptions	15,000.00	-	(15,000.00)
Utilities	30,000.00	-	(30,000.00)
Office Expense Total	**460,162.00**	**9,532.38**	**(450,629.62)**
Insurance	**173,384.00**	**-**	**(173,384.00)**
Member Services			
Disability - legal fees	-	-	-
Disability - professional services	-	-	-
Disability - administration MMRO	200,000.00	-	(200,000.00)
Member communications	-	-	-
Member Services Total	**200,000.00**	**-**	**(200,000.00)**
Systems			
Audit – security & vulnerability scan	15,000.00	-	(15,000.00)
Business continuity expenses	16,050.00	-	(16,050.00)
Hardware	37,420.00	323.24	(37,096.76)
Licensing & support	140,780.00	45,868.98	(94,911.02)
Software	217,600.00	54,573.12	(163,026.88)
Website design & hosting	13,200.00	2,200.00	(11,000.00)
Systems Total	**440,050.00**	**102,965.34**	**(337,084.66)**
Board of Retirement			
Board compensation	12,000.00	-	(12,000.00)
Board conferences & training	50,000.00	-	(50,000.00)
Board elections	-	-	-
Board meetings	8,500.00	-	(8,500.00)
Board of Retirement Total	**70,500.00**	**-**	**(70,500.00)**
Depreciation / Amortization	**42,651.00**	**-**	**(42,651.00)**
Total Operating Expenses	**8,765,100.00**	**555,757.68**	**(8,209,342.32)**

Government Finance Officers Association
203 North LaSalle Street, Suite 2700
Chicago, Illinois 60601-1210
312.977.9700 *fax:* 312.977.4806

8/14/2023

Juan Gonzalez
Board Chairman
Kern County Employees' Retirement Association, California

Dear Juan:

We are pleased to notify you that your annual comprehensive financial report for the fiscal year ended June 30, 2022 qualifies for GFOA's Certificate of Achievement for Excellence in Financial Reporting. The Certificate of Achievement is the highest form of recognition in governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a government and its management.

When a Certificate of Achievement is awarded to a government, an Award of Financial Reporting Achievement (AFRA) is also presented to the individual(s) or department designated by the government as primarily responsible for its having earned the Certificate. This award has been sent to the submitter as designated on the application.

We hope that you will arrange for a formal presentation of the Certificate and Award of Financial Reporting Achievement, and give appropriate publicity to this notable achievement. A sample news release is included to assist with this effort.

We hope that your example will encourage other government officials in their efforts to achieve and maintain an appropriate standard of excellence in financial reporting.

Sincerely,

Michele Mark Levine

Michele Mark Levine
Director, Technical Services

GOVERNMENT FINANCE OFFICERS ASSOCIATION

NEWS RELEASE

FOR IMMEDIATE RELEASE

8/14/2023

For more information contact:
Michele Mark Levine, Director/TSC
Phone: (312) 977-9700
Fax: (312) 977-4806
Email: mlevine@gfoa.org

(Chicago, Illinois)—Government Finance Officers Association of the United States and Canada (GFOA) has awarded the Certificate of Achievement for Excellence in Financial Reporting to **Kern County Employees' Retirement Association** for its annual comprehensive financial report for the fiscal year ended June 30, 2022. The report has been judged by an impartial panel to meet the high standards of the program, which includes demonstrating a constructive "spirit of full disclosure" to clearly communicate its financial story and motivate potential users and user groups to read the report.

The Certificate of Achievement is the highest form of recognition in the area of governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a government and its management.

Government Finance Officers Association (GFOA) advances excellence in government finance by providing best practices, professional development, resources, and practical research for more than 21,000 members and the communities they serve.

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Kern County Employees' Retirement Association
California

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2022

Christopher P. Morrill

Executive Director/CEO

The Government Finance Officers Association of the United States and Canada

presents this

AWARD OF FINANCIAL REPORTING ACHIEVEMENT

to

Angela Kruger

Chief Financial Officer

Kern County Employees' Retirement Association, California

GOVERNMENT FINANCE OFFICERS ASSOCIATION OF THE UNITED STATES AND CANADA CORPORATION SEAL CHICAGO

The Award of Financial Reporting Achievement is presented by the Government Finance Officers Association to the department or individual designated as instrumental in the government unit achieving a Certificate of Achievement for Excellence in Financial Reporting. A Certificate of Achievement is presented to those government units whose annual financial reports are judged to adhere to program standards and represents the highest award in government financial reporting.

Executive Director

Christopher P. Morrill

Date: 8/14/2023

KCERA

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

REPORT OF SPECIAL PAY CODE CLASSIFICATIONS DESIGNATED BY KCERA CEO

SPECIAL PAY CODE – PENSIONABLE

Dept./BU	Code	Title	Details	Legal Authority
KCSCA III	UV	KCSO Unrepresented Management Longevity Pay INCLUDED FOR ALL MEMBERS	Longevity pay for Sheriff and Undersheriff. Longevity pay rates consists of 2.5% at 5 years, 10 years, 15 years and 20 years of continuous services (maximum of 10% collectively).	*Not excluded from compensation earnable by Cal. Gov. Code section 31461;* *Included in pensionable compensation by Cal. Gove. Code section 7522.34(a).*

SPECIAL PAY CODES – CORRECTION – EXPANSION OF CJ PAY NOT YET APPROVED BY BOARD OF SUPERVISORS

Dept./BU	Code	Title	Details	Legal Authority
M, D	CJ	Certification Pay INCLUDED FOR LEGACY MEMBERS; EXCLUDED FOR PEPRA MEMBERS	The designation of this pay code was reported to your Board last month. This slide clarifies that the expanded use of this pay code has not been approved by the Board of Supervisors yet. If expanded use of the code is ultimately approved, the designation will remain the same. Special pay code CJ is currently restricted to use by CAO employees. If the Board of Supervisors authorizes use of CJ pay by other eligible employees within the County, the County will provide KCERA with a list of employee classifications authorized to receive CJ pay.	*Not excluded from compensation earnable by Cal. Gov. Code section 31461;* *Excluded from pensionable compensation by Cal. Gove. Code section 7522.34(a); 7522.34(c)(7)*

Memorandum from the
Office of the Chief Executive Officer
Dominic D. Brown

Date: September 13, 2023

To: Trustees, Board of Retirement

From: Dominic D. Brown, Chief Executive Officer

Subject: **Initiation of Service Provider Evaluation Period**

The Board of Retirement's Evaluation Period Policy was established to help ensure that decisions involving the selection, retention, or termination of KCERA service providers are consistent with fiduciary standards of conduct, and that service providers being considered by KCERA are treated fairly.

An "evaluation period" may be initiated by the Chief Executive Officer ("CEO") in the following situations:

a) when a request for proposals (RFP) has been issued by KCERA or a short list of candidate firms has been identified for consideration by KCERA, or

b) the Board otherwise deems it to be in the best interest of KCERA and its members and beneficiaries to do so.

The CEO has exercised his discretion and initiated the evaluation period for the following providers:

1) Lazard Asset Management and Dalton Investments

2) BlackRock

Trustees are required to comply with the evaluation period restrictions upon receipt of this notification. (See Board Communications Policy).

> During evaluation periods, trustees shall not communicate with the specified service providers, except during board meetings, committee meetings, or KCERA-authorized due diligence visits; nor shall they accept meals, travel, hotel, or other types of gifts from the specified service providers. Notwithstanding the above, Trustees who need to communicate with such service providers for reasons unrelated to KCERA business agree to disclose such need to the Board beforehand. If circumstances do not permit timely disclosure to the Board, the trustee shall provide disclosure of the intended communication to the CEO and to the Chair or Vice-Chair.
> Service providers that breach this policy may be terminated by KCERA or disqualified from consideration in a search process. Board members who

breach this policy may be sanctioned in accordance with the KCERA Code of Conduct.

(See Evaluation Period Policy).

Pursuant to the aforementioned policies, staff recommends your Board ratify the evaluation period instituted by Chief Executive Officer Dominic Brown and delivered to the Board on September 1, 2023.

SCHEDULES OF EMPLOYER ALLOCATIONS AND PENSION AMOUNTS BY EMPLOYER

Actuarial Valuation based on June 30, 2022 Measurement Date for Employer Reporting as of June 30, 2023

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
11125 River Run Boulevard Bakersfield, CA 93311
(661) 381-7700 (661) 381-7799 fax www.kcera.org

Table of Contents

UHY LLP Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

Board of Retirement
Kern County Employees' Retirement Association
Bakersfield, California

Opinion

We have audited the accompanying schedule of employer allocations of the Kern County Employees' Retirement Association (KCERA), as of and for the year ended June 30, 2022, and related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total employer pension expense as of and for the year ended June 30, 2022 (specified row totals), included in the accompanying schedule of pension amounts by employer and related notes.

In our opinion, the accompanying schedules referred to above present fairly, in all material respects, the employer allocations and the net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total employer pension expense for KCERA, as of and for the year ended June 30, 2022, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of KCERA, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Schedules

Management is responsible for the preparation and fair presentation of the schedules in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of schedules that are free from material misstatement, whether due to fraud or error.
In preparing the schedules, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Schedules

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

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

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

Other Matter

Audited Fiduciary Net Position of the Kern County Employees' Retirement Association

We have not audited the financial statements of KCERA as of June 30, 2022. The audit of KCERA's financial statements was performed by other auditors. The fiduciary net position used to calculate the net pension liability included in the schedule of pension amounts by employer was based solely upon the amounts audited by other auditors.

Other Information

Prior-Year Net Pension Liability

The schedules of KCERA as of June 30, 2021 were audited by other auditors whose report dated May 27, 2022, expressed an unmodified opinion on those schedules. In our opinion, the net pension liability presented herein as of and for the year ended June 30, 2021, is consistent, in all material respects, with the audited schedules from which it has been derived.

Restriction on Use

Our report is intended solely for the information and use of management and the Board of Retirement of KCERA, its employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

UHY LLP

Columbia, Maryland
August 22, 2023

Kern County Employees' Retirement Association - Schedule of Employer Allocations

As of and for the year ended June 30, 2022

	Actual Payroll by Employer	Employer Payroll Percentage	Total Allocated Net Pension Liability	Employer Proportionate Share
Kern County	$ 436,142,833	71.194 %	$ 1,775,600,455	74.612 %
Kern County Hospital Authority	106,790,632	17.432 %	345,399,109	14.514 %
Kern County Superior Courts	31,144,579	5.084 %	100,732,710	4.233 %
Berrenda Mesa Water District	179,557	0.029 %	4,056,987	0.170 %
Buttonwillow Recreation and Park District	38,334	0.006 %	153,804	0.006 %
East Kern Cemetery District	133,916	0.022 %	537,298	0.023 %
Inyokern Community Services District	—	— %	113,126	0.005 %
Kern County Water Agency	6,075,829	0.992 %	24,377,444	1.024 %
Kern Mosquito and Vector Control District	1,345,994	0.220 %	5,400,397	0.227 %
North of the River Sanitation District	1,230,032	0.201 %	4,935,134	0.207 %
San Joaquin Valley Unified Air Pollution Control District	28,344,293	4.627 %	113,722,982	4.779 %
Shafter Recreation and Park District	161,443	0.026 %	647,741	0.027 %
West Side Cemetery District	233,990	0.038 %	938,815	0.039 %
West Side Mosquito and Vector Control District	405,370	0.066 %	1,626,425	0.068 %
West Side Recreation and Park District	382,447	0.062 %	1,534,454	0.064 %
Total	**$ 612,609,249**	**100 %**	**$ 2,379,776,881**	**100 %**

Kern County Employees' Retirement Association - Schedule of Pension Amounts by Employer

As of and for the year ended June 30, 2022 with Net Pension Liability as of June 30, 2021

	Kern County	Kern County Hospital Authority	Kern County Superior Courts
NET PENSION LIABILITY (ASSET) as of June 30, 2021	$ 1,404,103,571	$ 284,243,193	$ 79,900,510
NET PENSION LIABILITY (ASSET) as of June 30, 2022	1,775,600,455	345,399,109	100,732,710
Deferred Outflows of Resources			
Differences between expected and actual experience	—	—	—
Net difference between projected and actual investment earnings on pension plan investments	108,811,475	21,166,578	6,173,052
Changes of assumptions	46,245,946	8,996,004	2,623,608
Changes in proportion and differences between employer contributions and proportionate share of contributions	6,473,756	18,516,606	1,064,553
Total Deferred Outflows of Resources	161,531,177	48,679,188	9,861,213
Deferred Inflows of Resources			
Differences between expected and actual experience	63,823,917	12,415,363	3,620,835
Net difference between projected and actual investment earnings on pension plan investments	—	—	—
Changes of assumptions	—	—	—
Changes in proportion and differences between employer contributions and proportionate share of contributions	18,564,310	10,300,967	3,310,473
Total Deferred Inflows of Resources	82,388,227	22,716,330	6,931,308
Pension Expense			
Proportionate share of plan pension expense	190,788,357	37,113,151	10,823,734
Net amortization of deferred amounts and expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(12,506,131)	8,105,997	90,564
Total Employer Pension Expense	$ 178,282,226	$ 45,219,148	$ 10,914,298

Kern County Employees' Retirement Association - Schedule of Pension Amounts by Employer

As of and for the year ended June 30, 2022 with Net Pension Liability as of June 30, 2021 (continued)

	Berrenda Mesa Water District	Buttonwillow Recreation and Park District	East Kern Cemetery District
NET PENSION LIABILITY (ASSET) as of June 30, 2021	$ 4,040,127	$ 119,200	$ 404,156
NET PENSION LIABILITY (ASSET) as of June 30, 2022	4,056,987	153,804	537,298
Deferred Outflows of Resources			
Differences between expected and actual experience	—	—	—
Net difference between projected and actual investment earnings on pension plan investments	248,618	9,425	32,926
Changes of assumptions	105,665	4,006	13,994
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,056,071	3,955	39,958
Total Deferred Outflows of Resources	1,410,354	17,386	86,878
Deferred Inflows of Resources			
Differences between expected and actual experience	145,828	5,528	19,313
Net difference between projected and actual investment earnings on pension plan investments	—	—	—
Changes of assumptions	—	—	—
Changes in proportion and differences between employer contributions and proportionate share of contributions	762,375	43,993	—
Total Deferred Inflows of Resources	908,203	49,521	19,313
Pension Expense			
Proportionate share of plan pension expense	435,923	16,527	57,732
Net amortization of deferred amounts and expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	429,482	(67,523)	18,952
Total Employer Pension Expense	$ 865,405	$ (50,996)	$ 76,684

Kern County Employees' Retirement Association - Schedule of Pension Amounts by Employer

As of and for the year ended June 30, 2022 with Net Pension Liability as of June 30, 2021 (continued)

	Inyokern Community Services District	Kern County Water Agency	Kern Mosquito and Vector Control District
NET PENSION LIABILITY (ASSET) as of June 30, 2021	$ 106,775	$ 19,461,206	$ 3,865,316
NET PENSION LIABILITY (ASSET) as of June 30, 2022	113,126	24,377,444	5,400,397
Deferred Outflows of Resources			
Differences between expected and actual experience	—	—	—
Net difference between projected and actual investment earnings on pension plan investments	6,933	1,493,887	330,944
Changes of assumptions	2,946	634,916	140,655
Changes in proportion and differences between employer contributions and proportionate share of contributions	25,616	106,178	600,420
Total Deferred Outflows of Resources	35,495	2,234,981	1,072,019
Deferred Inflows of Resources			
Differences between expected and actual experience	4,066	876,247	194,117
Net difference between projected and actual investment earnings on pension plan investments	—	—	—
Changes of assumptions	—	—	—
Changes in proportion and differences between employer contributions and proportionate share of contributions	12,183	734,558	56,847
Total Deferred Inflows of Resources	16,249	1,610,805	250,964
Pension Expense			
Proportionate share of plan pension expense	12,155	2,619,357	580,273
Net amortization of deferred amounts and expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	12,109	(23,516)	207,649
Total Employer Pension Expense	$ 24,264	$ 2,595,841	$ 787,922

Kern County Employees' Retirement Association - Schedule of Pension Amounts by Employer

As of and for the year ended June 30, 2022 with Net Pension Liability as of June 30, 2021 (continued)

	North of the River Sanitation District	San Joaquin Valley Unified Air Pollution Control District	Shafter Recreation and Park District
NET PENSION LIABILITY (ASSET) as of June 30, 2021	$ 3,632,018	$ 85,354,840	$ 619,606
NET PENSION LIABILITY (ASSET) as of June 30, 2022	4,935,134	113,722,982	647,741
Deferred Outflows of Resources			
Differences between expected and actual experience	—	—	—
Net difference between projected and actual investment earnings on pension plan investments	302,432	6,969,116	39,695
Changes of assumptions	128,537	2,961,943	16,871
Changes in proportion and differences between employer contributions and proportionate share of contributions	407,192	8,374,653	130,784
Total Deferred Outflows of Resources	838,161	18,305,712	187,350
Deferred Inflows of Resources			
Differences between expected and actual experience	177,393	4,087,770	23,283
Net difference between projected and actual investment earnings on pension plan investments	—	—	—
Changes of assumptions	—	—	—
Changes in proportion and differences between employer contributions and proportionate share of contributions	95,778	1,974,668	110,012
Total Deferred Inflows of Resources	273,171	6,062,438	133,295
Pension Expense			
Proportionate share of plan pension expense	530,281	12,219,540	69,598
Net amortization of deferred amounts and expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	184,788	3,797,814	61,483
Total Employer Pension Expense	$ 715,069	$ 16,017,354	$ 131,081

Kern County Employees' Retirement Association - Schedule of Pension Amounts by Employer

As of and for the year ended June 30, 2022 with Net Pension Liability as of June 30, 2021 (continued)

	West Side Cemetery District	West Side Mosquito and Vector Control District	West Side Recreation and Park District	Total
NET PENSION LIABILITY (ASSET) as of June 30, 2021	$ 962,166	$ 1,434,582	$ 1,134,489	**$1,889,381,755**
NET PENSION LIABILITY (ASSET) as of June 30, 2022	938,815	1,626,425	1,534,454	**2,379,776,881**
Deferred Outflows of Resources				
Differences between expected and actual experience	—	—	—	**—**
Net difference between projected and actual investment earnings on pension plan investments	57,532	99,670	94,034	**145,836,317**
Changes of assumptions	24,452	42,361	39,965	**61,981,869**
Changes in proportion and differences between employer contributions and proportionate share of contributions	24,747	23,579	92,683	**36,940,751**
Total Deferred Outflows of Resources	106,731	165,610	226,682	**244,758,937**
Deferred Inflows of Resources				
Differences between expected and actual experience	33,746	58,462	55,156	**85,541,024**
Net difference between projected and actual investment earnings on pension plan investments	—	—	—	**—**
Changes of assumptions	—	—	—	**—**
Changes in proportion and differences between employer contributions and proportionate share of contributions	454,245	300,936	219,406	**36,940,751**
Total Deferred Inflows of Resources	487,991	359,398	274,562	**122,481,775**
Pension Expense				
Proportionate share of plan pension expense	100,876	174,759	164,879	**255,707,142**
Net amortization of deferred amounts and expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(102,869)	(94,309)	(114,490)	**—**
Total Employer Pension Expense	$ (1,993)	$ 80,450	$ 50,389	**$ 255,707,142**

Note 1 – DESCRIPTION OF THE ENTITY

Plan Description

The Kern County Employees' Retirement Association (KCERA) was established on January 1, 1945 by the County of Kern Board of Supervisors under the provisions of the County Employees' Retirement Law of 1937 (CERL). KCERA is a cost-sharing, multiple-employer defined benefit plan (the Plan) covering all permanent employees of the County of Kern and of the following agencies: Buttonwillow Recreation and Park District, East Kern Cemetery District, Kern County Hospital Authority, Kern County Superior Court, Kern County Water Agency, Kern Mosquito and Vector Control District, North of the River Sanitation District, San Joaquin Valley Unified Air Pollution Control District, Shafter Recreation and Park District, West Side Cemetery District, West Side Mosquito and Vector Control District, West Side Recreation and Park District, and. The Plan is administered by the Kern County Board of Retirement, which consists of nine members and two alternate members.

Pension Benefits

All regular, full-time employees of the County of Kern or contracting districts who work 50% or more of the regular standard hours required become members of KCERA effective on the first day of the payroll period following the date of hire. Safety membership includes those in active law enforcement, fire suppression, criminal investigation, detention and probation.

General members (excluding Tier III) are eligible to retire at age 70 regardless of service or at age 50 with 10 or more years of retirement service credit. A member with 30 years of service is eligible to retire regardless of age. General Tier III members are eligible to retire at age 70 regardless of service or at age 52 with 5 or more years of retirement service credit.

Safety members are eligible to retire at age 70 regardless of service or at age 50 with 10 or more years of retirement service credit. A member with 20 years of service is eligible to retire regardless of age.

The retirement benefit the member will receive is based on age at retirement, final average compensation (FAC), years of retirement service credit and benefit tier.

General member benefits for Tier I and Tier II are calculated pursuant to California Gov. Code Sections 31676.17 and 31676.01, respectively. The monthly allowance is equal to 1/50th of FAC times years of accrued retirement service credit times an age factor from Section 31676.17 (Tier I), or 1/90th of FAC times years of accrued retirement service credit times an age factor from Section 31676.01 (Tier II). General Tier III member benefits are calculated pursuant to the provisions found in California Government Code Section 7522.20(a). The monthly allowance is equal to the FAC multiplied by years of accrued retirement credit multiplied by an age factor from Section 7522.20(a).

Safety member benefits for Tier I and Tier II are calculated pursuant to California Gov. Code Sections 31664.1 and 31664, respectively. The monthly allowance is equal to 3% of FAC times years of accrued retirement service credit times an age factor from Section 31664.1 (Tier I), or 1/50th of FAC times years of accrued retirement service credit times an age factor from Section 31664 (Tier II).

For members in Tiers I and II, the maximum monthly retirement allowance is 100% of FAC. There is no FAC limit on the maximum retirement benefit for General Tier III members. However, the maximum amount of compensation earnable that can be taken into account for 2022 for members with membership dates on or after July 1, 1996 but before January 1, 2013 is $305,000. For members with membership dates on or after January 1, 2013, the maximum pensionable compensation that can be taken into account for 2022 is $134,974 for those enrolled in Social Security. These limits are adjusted on an annual basis. Members are exempt from paying member contributions and employers are exempt from paying employer contributions on compensation in excess of the annual cap.

FAC consists of the highest 12 consecutive months of pensionable pay for a General Tier I or Tier IIA member or a Safety Tier I or Tier IIA members, and the highest 36 consecutive months of pensionable pay for a General Tier IIB or Tier III member or a Safety Tier IIB member.

The member may elect an unmodified retirement allowance or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible spouse or partner is one married to or registered with the member one year prior to the effective retirement date. Certain surviving spouses or domestic partners may also be eligible if marriage or domestic partnership was at least two years prior to the date of death and the surviving spouse or domestic partner has attained age 55 on or prior to the date of death. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

Death Benefits

An active member's beneficiary is entitled to receive death benefits, which consist of accumulated contributions, plus interest, and one month's salary for each full year of service, up to a maximum of six months of salary.

If a member is vested and their death is not the result of a job-caused injury or disease, the spouse or registered domestic partner will be entitled to receive a lifetime monthly allowance equal to 60% of the retirement allowance to which they would have been entitled if they had retired with a nonservice-connected disability on the date of their death. The same choice is given to their minor children under the age of 18 (continuing to age 22 if enrolled full time in an accredited school).

If a member dies in the performance of duty, the spouse or registered domestic partner receives, for life, monthly allowance equal to at least 50% of the member's final average salary. This will only apply to minor children under the age of 18 (continuing to age 22 if enrolled full time in an accredited school).

If a member dies after retirement, a death benefit of $5,000 is payable to their designated beneficiary or the estate.

If the retirement was for service-connected or nonservice-connected disability and the member chose the unmodified allowance option, their surviving spouse, registered domestic partner or minor children will receive a monthly continuance equal to 60% of the benefit.

If the retirement was for service-connected disability, their spouse, registered domestic partner or minor children will receive a 100% continuance of the member's benefit.

Disability Benefits
A member with five years of service, regardless of age, who becomes permanently incapacitated from the performance of duty will be eligible for a nonservice-connected disability retirement. Any member who becomes permanently incapacitated for the performance of duty as a result of injury or disease arising out of and in the course of employment is eligible for a service-connected disability, regardless of service length or age.

Cost-of-Living Adjustments
An annual cost-of-living adjustment (COLA) of up to 2.0% was adopted for all retirees and continuance beneficiaries as of April 1, 1973. An additional 0.5% COLA was granted by the Ventura Settlement as of April 1, 2002, resulting in a maximum COLA of 2.5%, depending on the rate of inflation.

Supplemental Benefits
The Board of Retirement and the Board of Supervisors adopted Government Code Section 31618 on April 23, 1984, which provides for the establishment of the Supplemental Retiree Benefit Reserve (SRBR). The SRBR is used only for the benefit of future and current retired members and their beneficiaries. The supplemental benefit is not a guaranteed benefit. The distribution of the SRBR is determined by the Board of Retirement. SRBR currently provides for 82% purchasing power protection and the $5,000 death benefit.

On September 14, 2022, the Board adopted a Restructured SRBR benefit effective July 1, 2022 equal to $1.80 per year of service, but no less than the member's current SRBR benefit as of July 1, 2022. The Restructured SRBR benefit also includes a 2.5% COLA on the SRBR benefit, so long as the SRBR remains adequately funded. This plan amendment increased the NPL by$30.4 million.

Contributions
Eligible employees and their beneficiaries are entitled to pension, disability and survivors' benefits under the provision of the CERL with the establishment of KCERA on January 1, 1945. As a condition of participation under the provisions of the CERL, members are required to pay a percentage of their salaries, depending up their age at date of entry in the Plan, membership type and benefit tier.

Members are required to make contributions to KCERA regardless of the retirement plan or tier in which they are included. The average member contribution rate as of June 30, 2022 for 2021-2022 (based on the June 30, 2020 valuation) was 6.74% of compensation.

Interest is credited to member contributions semi-annually on June 30 and December 31, in accordance with Article 5.5 of the CERL. Member contributions and credited interest are refundable upon termination of membership.

The County of Kern and contracting districts contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from KCERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2022 for 2021-2022 (based on the June 30, 2020 valuation and after reflecting the phase-in of the impact of the assumption changes) was 48.78% of compensation.

Note 2 - MEASUREMENT FOCUS AND BASIS OF ACCOUNTING

Employers participating in the Plan are required to report pension information in their financial statements for fiscal periods beginning on or after June 15, 2015, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, Accounting and Financial Reporting for Pensions an Amendment of GASB Statement No. 27. In accordance with GASB Statement No. 82, Pension Issues an Amendment of GASB Statements No. 67, No. 68 and No. 73, employer-paid member contributions are classified as employee contributions for purposes of GASB Statement 68. Starting with the June 30, 2016 measurement date for the employers, employer-paid member contributions are excluded from employer contributions.

The accompanying schedules were prepared by KCERA's independent actuary and were derived from information provided by KCERA in accordance with the standards issued by the Governmental Accounting Standards Board (GASB), which is the nationally accepted standard-setting body for establishing accounting principles generally accepted in the United States of America for governmental entities. As prescribed by GASB, they are reported using the economic resources measurement focus and the accrual basis of accounting.

Employer-covered payroll KCERA received within the fiscal year ended June 30, 2022, is used as the basis for determining each employer's proportionate share reported in the Schedule of Employer Allocations. The following items for each membership class is based on the corresponding proportionate share within each membership class:

- Net Pension Liability
- Service cost
- Interest on the Total Pension Liability
- Expensed portion of the current-period benefit changes
- Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- Member contributions
- Projected earnings on plan investments
- Expensed portion of current-period differences between actual and projected earnings on plan investments
- Administrative expense
- Recognition of beginning-of-year deferred outflows of resources as pension expense
- Recognition of beginning-of-year deferred inflows of resources as pension expense

The Fiduciary Net Position of KCERA and additions to/deductions from KCERA's Fiduciary Net Position have been determined on the same basis as they are reported in KCERA's Comprehensive Annual Financial Report. Benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value. The reporting date and measurement date for the plan is June 30, 2022. For purposes of measuring the Net Pension Liability, deferred outflows of resources and deferred inflows of resources related to pensions and pension expense.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Note 3 – NET PENSION LIABILITY

The Net Pension Liability of $2,379,776,881 was measured as of June 30, 2022. The Net Pension Liability (NPL) is the Total Pension Liability reduced by the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date while the Total Pension Liability was determined based upon rolling forward the Total Pension Liability from the actuarial valuation as of June 30, 2021 to the measurement date of June 30, 2022. The Plan provisions used in the measurement of the Net Pension Liability are the same as those used in the KCERA actuarial valuation as of June 30, 2022. The Total Pension Liability and the Plan's Fiduciary Net Position include liabilities and assets held for the Supplemental Retiree Benefit Reserve (SRBR). The employers' proportions of the NPL are based on the employers' share of covered payroll for each membership class.

The NPL for each membership class is obtained from internal valuation results based on the actual participants in each membership class.

- The safety membership class has only one employer (Kern County), so all of the NPL for safety is allocated to the County.

- For general and district membership classes, the NPL is allocated based on the covered payroll within their respective classes.

  - Calculate ratio of employer's payroll to the total payroll for the membership class.
  - This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

- If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class. Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

- The negative NPL associated with the SRBR is allocated based on the actual total payroll for each employer within KCERA.

Note 4 – ACTUARIAL ASSUMPTIONS
The Total Pension Liability as of June 30, 2022 was determined by an actuarial valuation as of June 30, 2021 rolled forward to the measurement date of June 30, 2022. The actuarial assumptions used in the June 30, 2021 valuation were based on the results of an experience study for the period from July 1, 2016 through June 30, 2019. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation:	2.75%
Salary Increases:	General: 4.00% to 8.75%. Safety: 3.75% to 12.00%. Varies by service, including inflation.
Investment Rate of Return:	7.25%, net of pension plan investment expenses, including inflation.
Administrative Expenses:	0.90% of payroll allocated to both the employer and member based on the components of the total contribution rate (before expenses) for the employer and member.
Other Assumptions:	The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2016 through June 30, 2019 Actuarial Experience Study dated August 3, 2020. Unless otherwise noted, all actuarial assumptions and methods apply to members for all tiers. These assumptions were adopted by the Board.

The Entry Age Actuarial Cost Method used in KCERA's annual actuarial valuation has also been applied in measuring the Service Cost and TPL with one exception. For purposes of measuring the Service Cost and TPL, KCERA has reflected the same plan provisions used in determining the member's Actuarial Present Value of Projected Benefits. This is different from the version of this method applied in KCERA's annual funding valuation, where the Normal Cost and Actuarial Accrued Liability are determined as if the current benefit accrual rate had always been in effect.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns net of pension plan investment expenses and inflation) are developed for each major asset class. This data is combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentages and by adding expected inflation. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the chart on page 15.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return	Weighted Average
Global Equity	37%	6.51%	2.41%
Core Fixed Income	14%	1.09%	0.15%
High Yield Corporate Credit	6%	3.38%	0.20%
Emerging Market Debt Blend	4%	3.41%	0.14%
Commodities	4%	3.08%	0.12%
Core Real Estate	5%	4.59%	0.23%
Private Real Estate	5%	9.50%	0.48%
Midstream	5%	8.20%	0.41%
Capital Efficiency Alpha Pool	5%	2.40%	0.12%
Hedge Funds	10%	2.40%	0.24%
Private Equity	5%	9.40%	0.47%
Private Credit	5%	5.60%	0.28%
Cash	(5)%	0.00%	0.00%
Inflation	0%	0.00%	2.75%
Total	**100%**		**8.00%**

Note 5 – DISCOUNT RATE

The discount rates used to measure the Total Pension Liability was 7.25% as of June 30, 2022 and June 30, 2021. The projection of cash flows used to determine the discount rates assumed member contributions would be made at the current contribution rate and that employer contributions would be made at rates equal to the actuarially determined contribution rates.

For this purpose, only employee and employer contributions intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability as of both June 30, 2022 and June 30, 2021.

The discount rate assumptions have been developed without taking into consideration any impact of the 50/50 allocation of future excess earnings between the retirement and Supplemental Retiree Benefit Reserve SRBR asset pools.

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability as of June 30, 2022, calculated using a discount rate of 7.25%, and what the Net Pension Liability would be if it were calculated using a discount rate that is one point lower (6.25%) or one point higher (8.25%) than the current rate:

	1% Decrease (6.25%)	Current Rate (7.25%)	1% Increase (8.25%)
Net Pension Liability as of June 30, 2022	$3,356,289,212	$2,379,776,881	$1,576,389,656

Note 6 - AMORTIZATION OF DEFERRED OUTFLOWS AND DEFERRED INFLOWS OF RESOURCES

There are changes in each employer's proportionate share of the total Net Pension Liability (NPL) during the measurement period ended June 30, 2022. The net effect of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources for the current period is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through KCERA which is 4.77 years determined as of June 30, 2021 (the beginning of the measurement period ending June 30, 2022).

Deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as follows:

Reporting Date for Employer under GAS 68 Year Ended June 30:		
2024	$	28,342,079
2025	$	21,241,419
2026	$	(38,202,184)
2027	$	110,895,848
2028	$	—
Thereafter	$	—

Note 7 – ADDITIONAL FINANCIAL AND ACTUARIAL INFORMATION

Additional financial information supporting the preparation of the Schedule of Employer Allocations and the Schedule of Pension Amounts by Employer (including the disclosure of the Net Pension Liability and the unmodified audit opinion on the financial statements) is located in the Kern County Employees' Retirement Association's Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022. The supporting actuarial information is included in the Governmental Accounting Standards (GAS) 67 Actuarial Valuation as of June 30, 2022 and Governmental Accounting Standard (GAS) 68 Actuarial Valuation as of June 30,2022. The additional financial and actuarial information is available at www.kcera.org or by contacting KCERA's office, 11125 River Run Blvd., Bakersfield, CA 93311, or by calling (661) 381-7700.

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Memorandum from the
Office of the Chief Executive Officer
Dominic D. Brown

Date: September 13, 2023

To: Trustees, Board of Retirement

From: Dominic D. Brown, Chief Executive Officer Dominic D. Brown

Subject: **SACRS Board of Directors Meeting**
Huntington Beach, California
September 25-26, 2023

In accordance with the Travel Policy approved by the Board of Retirement on April 13, 2022, I have attached information concerning the above-captioned meeting, as follows:

- Specific information as to whether staff or members of the Board will serve as a participant – Jordan Kaufman

- Specific information concerning the estimated total travel cost involved, including the estimated costs to be borne by KCERA and those costs borne by the meeting sponsor

The meeting topics are relevant to the administration of the retirement system. Accordingly, I recommend that the Board approve the attendance of Trustee Jordan Kaufman.

Attachment

Travel Subject SACRS Board of Directors Meeting
Sponsor SACRS
Date(s) September 25-26, 2023
Location Huntington Beach, CA
Proposed Attendee(s) Jordan Kaufman

Estimated Total Travel Cost **$524.29**

Description	Computation		Kaufman	Totals	Borne By	
					KCERA	Sponsor
Registration fees		=	-	**-**	-	
Lodging expense	1 nights @ $ 300.00 /night	=	300.00	**300.00**	300.00	
Per diem meals reimbursement:	1 days @ $ 74.00 /day	=	74.00			
Less meals provided by sponsor	0 Breakfast, 1 Lunch, 1 Dinner = $58.46	=	($58.46)			$58.46
Total meals expense		=		**74.00**	15.54	
Shuttle/taxicab expense	Taxi Estimate	=		**-**	-	
Airfare	$0.00	=	$0.00	**$0.00**	-	
Vehicle-related expenses:		=	-	**-**	-	
Parking	1 days @ 20.00 /day	=	20.00	**20.00**	20.00	
Mileage	miles @ /mile (Department Head)	=	-	**-**	-	
	302 miles @ 0.625 /mile (Staff, Trustee)	=	188.75	**188.75**	188.75	
Rental car		=	-	**-**	-	
Rental car gasoline		=	-	**-**	-	
Totals		=	524.29	**$ 582.75**	**$ 524.29**	**$ 58.46**

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Memorandum from the
Office of the Chief Investment Officer
Daryn Miller

Date: September 13, 2023

To: Trustees, Board of Retirement

From: Daryn Miller, Chief Investment Officer

Subject: **On-site Due Diligence Compliance Update**

SUMMARY

On a periodic basis the investment staff performs a comprehensive review of all investment-related policy requirements to ensure that KCERA is in compliance with applicable policies.

During June 2023, the investment staff performed a policy compliance review. Upon completion of this review, the investment staff noted that KCERA was out of compliance with the Investment Policy Statement (IPS) requirement regarding on-site due diligence by the Investment Consultant. The policy states that "The Investment Consultant will meet on-site with each manager at least once every three years."

The onsite due diligence non-compliance that staff identified generally falls into three categories:

1. Legacy private market investments, where the Plan does not intend to reinvest, and investments are nearing the end of their life (3)
2. In-person meetings occurred with a manager, but were held at an off-site location, not on-site at the manager's office. For example, at a conference or event venue (3)
3. Meetings that were held virtually (10)

Note: Figures in parenthesis indicates number of instances identified.
The Plan has a total of 89 unique fund/strategy investments, with a total of 63 managers.

Given the onset of COVID-19 and the mandatory travel restrictions that were imposed by federal and state health officials, the findings on manager due diligence non-compliance was not surprising.

The COVID-19 pandemic radically accelerated the adoption of video conferencing. Many meetings that were held via phone conversation pre-COVID-19, are now done via video conferencing, and many meetings that were held in-person pre-COVID-19, are now also done via video conferencing. In a post-COVID-19 world, video conferencing has become the dominant form of communication with managers.

While we recognize appropriate situations for on-site meetings remain, and there is value that can be extracted from those meetings, we believe it should not be a policy requirement. Thus, investment staff looks to reflect this change through a revision to the IPS, which adds the flexibility to perform manager due diligence via video conferencing, as well as other avenues, but eliminates the on-site requirement.

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Updating the Investment Policy Statement (IPS)

Presented by:

Daryn Miller, CFA

Chief Investment Officer

IPS Revision Summary

01. Removing inconsistencies and improving policy language

02. Updating manager due diligence and removing watch list

03. Updating asset class descriptions, asset allocation target, ranges, and benchmarks

04. Clearly stating hedge fund return objective

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General Policy Language

- General wordsmithing and streamlining throughout the entirety of the IPS to improve consistency, clarity and promote the reader's understanding. This goal is achieved through:
  - Use of abbreviated references to "KCERA" and the "Plan"
  - Consistency in the use of uppercase and lowercase characters
  - Removing language that is redundant and/or unnecessary
  - Improving the use of "goals" and "objectives"
  - Adding more descriptive language where necessary to enhance clarity

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Rebalancing and Risk Management

- **Rebalancing**
  - Clarifying the use of derivatives, which may not be fully collateralized due to Capital Efficiency program
- **Risk Management**
  - Improving description of the risk management process
  - Consolidating steps in the risk management process

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Asset Classes and Administrative Practices

- **Asset Classes**
    - Improving description of asset classes where necessary, including the addition of language to better understand the goals and characteristics of specific asset classes within the context of the entire Plan
    - Incorporating fixed income changes from recently approved asset allocation
    - Adding return objective for hedge funds
    - For hedge funds and alpha pool reducing return objective from +400bps to +300bps, reflecting higher interest rate environment
- **Administrative Practices**
    - Enhancing language around notification of IPS violations to the Board

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Asset Allocation Target, Ranges, and Policy Benchmark

- **Asset Allocation Target and Range**
  - Updating Asset Allocation targets and fixed income sub-asset class to reflect changes approved at the August 2023 Board of Retirement meeting
  - Updating Ranges in response to the new Strategic Asset Allocation approved at the August 2023 Board of Retirement meeting
- **Policy Benchmark**
  - Updating Policy Benchmark in response to the new Strategic Asset Allocation
  - Changing the re-allocation of private real estate underweight from core fixed income to core real estate to better align beta exposure

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KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Investment Philosophy and Statutory References

- **Investment Philosophy**
  - Fine-tuning Investment Philosophy and eliminating redundancy
- **Statutory References**
  - Updating code sections where needed to reflect current code

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Manager Due Diligence

- **Due Diligence**
  - Consolidating “Initiation” and “Evaluation” steps, and streamlining search process
  - Revising requirements for on-site due diligence to include virtual due diligence assessments via video conference
  - Increasing consistency between public market and private market due diligence, where appropriate
  - Adding requirement for written summary for strategies where no investment consultant is formally providing coverage
  - Removing requirement for investment consultant on-site due diligence at least every three years.
  - Improving readability around Contracting
- **Watch List**
  - Eliminating the investment manager “Watch List” concept

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Manager Reconciliation Requirements

- **IPS - Appendix H**
    - Streamlining the process of receiving and reviewing reconciliations provided by Managers

Kern County Employees' Retirement Association
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www.kcera.org

INVESTMENT POLICY STATEMENT

~~April~~ September ~~2022~~2023

Table of Contents

MISSION STATEMENT AND PURPOSE

Mission Statement

The mission of the Kern County Employees’ Retirement Association (“KCERA”~~ or “Plan”~~) is to prudently administer the retirement benefits, invest the assets of the Association, and provide quality membership services for eligible public employees, retirees and their beneficiaries.

Purpose

This Investment Policy Statement establishes policies for the administration and investment of ~~the Kern County Employees’ Retirement Association’s~~KCERA’s p~~P~~lan assets (“Plan”). This policy formally documents the goals, objectives, and guidelines of the i~~I~~nvestment p~~P~~rogram, and is intended to allow for sufficient flexibility in the investment process to capture opportunities, yet ensure prudence, consistency, and care.

The purpose of this policy is to set forth in writing:

1. An appropriate set of goals and objectives ~~and goals~~ regarding the investment of the Plan’s assets;~~ and~~
2. The position of ~~the~~ KCERA’s b~~B~~oard (“Board) with respect to the Plan’s investment risk/return posture, including asset allocation, and
3. The establishment of investment guidelines.

Further, this policy seeks to ensure the investment of the Plan in a manner consistent with the County Employees Retirement Law of 1937 (commonly known as “the CERL,” Government Code Section 31450 et seq.) and other applicable state and federal statutes.

BACKGROUND

~~The Kern County Employees’ Retirement Association (“~~KCERA~~”)~~ is governed by the ~~County Employees Retirement Law of 1937~~ CERL. ~~It is also governed by California Government Code~~ Sections 31594 and 31595 of the CERL~~, which~~ provide for prudent person governance of the Plan. Under this law, the type and amount of Plan investments as well as the quality of securities is not specifically delineated, rather the investments made are assumed to be in the best interest of the Plan such that others with similar information would acquire similar investments. These statutory provisions are set forth below:

> It is the intent of the Legislature, consistent with the mandate of the voters in passing Proposition 21 at the June 5, 1984, Primary Election, to allow the Board of any retirement system governed by this chapter to invest in any form or type of investment deemed prudent by the Board pursuant to the requirements of Section 31595. It is also the intent of the Legislature to repeal, or amend as appropriate, certain statutory provisions, whether substantive or procedural in nature, that

> restrict the form, type, or amount of investments that would otherwise be considered prudent under the terms of that section. This will increase the flexibility and range of investment choice available to these retirement systems, while ensuring protection of the interests of their beneficiaries.

(Cal. Gov. Code §31594).

> The Board has exclusive control of the investment of the employees' retirement fund. The assets of a public pension or retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the system. Except as otherwise expressly restricted by the California Constitution and by law, the Board may, in its discretion, invest, or delegate the authority to invest, the assets of KCERA through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the Board.
>
> The Board and its officers and employees shall discharge their duties with respect to the system:
>
> a) Solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system.
>
> b) With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.
>
> c) Shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so.

(Cal. Gov. Code §31595).

KCERA was established under the provisions of the CERL~~ounty Employees' Retirement Law~~ on January 1, 1945, by the Kern County Board of Supervisors, and its management is vested in a Board of retirement.

INVESTMENT OBJECTIVES

The primary investment objectives ~~and goals~~ for the Plan shall be:

1. Earn a long-term net of fees rate of return which is equal to or exceeds the Plan's assumed rate of return;~~.~~
2. Earn a long-term net of fees rate of return which is equal to or exceeds the established benchmark ("Policy Benchmark"). The Policy Benchmark is identified in Appendix B;~~.~~ and
3. Earn a long-term net of fees rate of return which exceeds the long-term rate of inflation.

Rates of return are to be time-weighted total return.

LONG-TERM STRATEGIC ASSET ALLOCATION

The long-term strategic asset allocation (herein referred to as "asset allocation", "target asset allocation", or "strategic asset allocation") is one of the ~~single~~ most important investment decision the Board makes. The primary objective of the asset allocation decision~~policy~~ is to establish~~provide~~ an asset allocation which produces the highest expected investment return within~~in~~ a prudent level of risk ~~tolerance~~.

The Board selects an asset allocation that is predicated on a number of factors, including:

1. Actuarial considerations of the Plan, including current and projected contributions, benefit payments, assets, liabilities, and funded status;
2. Appropriate levels of risk and return, as evidenced by various quantitative techniques, including mean-variance optimization, stress testing, and scenario analysis;
3. An assessment of potential future economic conditions;
4. Long-term capital market assumptions; and
5. Liquidity considerations.

The Board's selected strategic asset allocation, including ~~approved asset classes,~~ target weights~~,~~ and allowable ranges are illustrated in Appendix A.

Rebalancing

From time to time the Plan's actual asset allocation will deviate from the strategic asset allocation. Rebalancing can occur between asset classes, within an asset class, and between investment managers, with the objective of maintaining the strategic asset allocation exposures. Rebalancing or portfolio allocation changes can also occur~~, or~~ in response to specific risks or anticipated changes in markets. The Chief Investment Officer shall determine appropriate rebalancing actions, and obtain the ~~expressed~~ written consent of the Chief Executive Officer. The Chief Executive Officer has the authority to sign and execute any trade authorization, subscription, redemption, or related documentation in order to implement rebalancing actions. When rebalancing activity occurs, the Board shall be notified of such activity at the next regularly scheduled Board meeting. Rebalancing may occur through the buying and selling of physical investments or through the use of ~~fully collateralized~~ derivatives.

Cash Flow Management

The Chief Investment Officer will monitor cash flow activity and maintain a cash flow forecast in order to ensure the payment of benefits, expenses, capital calls, and other investment activity, while also reducing friction from excess levels of cash. When liquidations of assets are necessary to meet cash flow needs, the Chief Investment Officer will determine the appropriate sources of liquidity, and will obtain the ~~expressed~~ written consent of the Chief Executive Officer. The Chief Executive Officer has the authority to sign and execute any trade authorization, redemption, or related documentation in order to implement cash flow management actions. Investment managers should receive adequate notification so that cash can be raised efficiently.

INVESTMENT MANAGER GUIDELINES

The Board has adopted the following guidelines to be used in limiting exposure to an investment manager (herein referred to as “M~~m~~anager”). The Board may override these policies under special circumstances:

1. The maximum allocation to a single active ~~m~~Manager is 12% of the Plan;~~.~~
2. The maximum allocation to a single active management product is 8% of the Plan; and~~.~~
3. No investment with any single investment strategy may exceed 10% of that ~~m~~Manager’s total assets under management.

There is no maximum allocation limitation for passive ~~m~~Managers or their passive investment products.

It is the intention of the Board to allow ~~m~~Managers full discretion within the scope of this policy, the operative fund documents, any Investment Management Agreement (“IMA) or side letter agreement, and any laws or applicable federal and state statutes or regulations that supersede these documents. ~~Specific i~~Investment guidelines for individual mandates are contained in each ~~m~~Manager’s~~ Investment Management Agreement~~ IMA.

Unless specifically provided for in the manager’s operative fund documents or investment guidelines, the following transactions are generally prohibited: purchase of non-negotiable securities, short sales, transactions on margin, use of leverage and use of options.

RISK MANAGEMENT

The Board recognizes it must accept risk to sufficiently grow assets to meet promised benefit payment obligations, and that taking risk needs to be balanced with capital preservation. The Board’s risk tolerance is a function of this perspective.

Risk

Risk is a broad concept and can generally be thought of as the likelihood of an unfavorable outcome. Investment management is a process of~~in~~ taking risk (i.e. exposing assets to potentially unfavorable outcomes). A key component of taking risk is ~~the ~~understanding ~~of ~~the relationship between positive outcomes and negative outcomes, both in terms of likelihood and magnitude.

The Plan is exposed to numerous risks, and no single metric or measure encompasses the complexity of those risks. The risk management process identifies, measures, and evaluates risks, so that risks taken are intentional~~, measured, understood,~~ and prudent.

Risk Management Process

The risk management process includes

1. I~~i~~dentifying risk;
2. ~~understanding risk;~~
3. M~~m~~easuring risk; and
4. E~~e~~valuating risk.

This process assists in determining what risks are acceptable and how to appropriately size them. The risk management process is integral to ~~all aspects of~~ the investment process, whether it be selecting a strategic asset allocation, structuring an asset class, hiring a ~~m~~Manager, rebalancing the portfolio, or managing cash flows.

Risk Metrics

The Board uses various metrics and tools to measure and understand risk. These are important elements in evaluating risk, and include standard deviation, tracking error, beta, upside capture, downside capture, stress testing, scenario analysis, and liquidity. In addition to specific metrics, various risk concepts can help understand and evaluate risk, including counterparty risk, operational risk, and execution risk.

Risk Reporting

Risk metrics are included in the quarterly investment performance report. In addition, other measures of risk are presented to the Board on an ad hoc basis when deemed necessary by the Chief Investment Officer and the ~~Investment Consultant~~investment consultant. To appropriately evaluate risk, an understanding of economic, political, and financial market environments is helpful, thus an investment landscape with this type of information is presented to the Board in conjunction with the quarterly investment performance report.

INVESTMENT PERFORMANCE REVIEW

The Board will review the investment results of the Plan quarterly. Investment performance reports will be prepared by the Plan's ~~Investment Consultant~~investment consultant. Performance will primarily be evaluated within the context of the Investment Objectives as set forth in this policy. Manager performance is to be evaluated as set forth in Appendix D.

CAPITAL EFFICIENCY

The capital efficiency program seeks to improve the returns of the Plan by using derivatives in place of physical securities in traditional markets (equity, fixed income, commodities, etc.), and then utilizing a portion of the unencumbered cash to fund investments in the alpha pool. The capital efficiency program will add value when the alpha pool achieves net of fees and expenses returns that are above the cash funding rate. The Plan can use a third-~~-~~party overlay provider to manage derivative exposure. The derivative exposure is collateralized with a combination of cash and investments.

ASSET CLASSES

The Board has decided to invest in the following asset classes:

PUBLIC EQUITY: Publicly traded global equities is a core asset class and serves the primary ~~objective~~ goal of return generation. Regional exposures include domestic, international developed, and emerging markets (including frontier markets).

FIXED INCOME: Fixed income securities are a core asset class and serves the primary ~~objectives~~ goals of liquidity as well as risk mitigation, at least to the extent that the inverse relationship between equities ~~stocks~~ and bonds ~~of the past few decades continues to~~ hold. A secondary ~~objective~~ goal is income generation and diversification.

Fixed income includes, but is not limited to, ~~3~~ two broad sub-asset classes:~~;~~ core and~~,~~ credit~~, and emerging market debt~~. The core allocation emphasizes the primary fixed income ~~objective~~ goals of liquidity and risk mitigation, while the credit allocation~~and emerging market debt~~ emphasize the secondary objectives of income generation, and diversification.

COMMODITIES: The primary goals~~objectives~~ of the commodities allocation are return generation, positive correlation to inflation~~ sensitivity~~, and diversification.

HEDGE FUNDS: The primary ~~objectives~~ goals of the hedge funds allocation are diversification, return generation, and downside protection. The hedge funds allocation will diversify across hedge fund strategies (relative value, event driven, equity long/short, and directional), and is ~~will have a low~~ expected to have low correlation to ~~core asset classes including~~ public equities and fixed income~~bonds~~. The hedge funds allocation should~~will~~ be semi-liquid, with the majority of assets liquid within 1 year, and will generally not be considered ~~as~~ a short-term liquidity source.

Objectives

1. Annualized return expectation of:
   a. 75% 3-Month Treasury Bill + 300bps;
   ~~b.~~ 25% MSCI All Country World Index (Total Return Net).
2. Annualized forecast volatility between 4% and 7%;
3. Sharpe Ratio greater than 1.0; and,
4. Forecast Beta to MSCI All Country World Index of less than 0.3.

Guidelines

1. Strategy — Ranges
   a. Relative Value — 20 - 40%

b. Event Driven 15 - 35%
c. Equity Long/Short 10 - 30%
d. Directional 15 - 35%

For purposes of investment strategy ranges, funds are decomposed into their underlying strategies.

2. No investment with any single M~~m~~anager can represent more than 15% of the hedge funds allocation.

ALPHA POOL: The primary goal~~objective~~ of the alpha pool is to generate a cash-~~-~~plus return through strategies that have low beta exposure, medium to high alpha, and expectations of~~for~~ ~~good~~ downside protection. The alpha pool is ~~will have a low~~ expected to have low correlation to ~~core asset classes including~~ public equities and fixed income~~bonds~~. The alpha pool is a key component of the capital efficiency program.

Objectives

1. Annualized return expectation of 3-MonthTreasury Bill + ~~4~~300bps;
2. Annualized forecast volatility between 3% and 6%; and,
3. Forecast Beta to MSCI All Country World Index of less than 0.2.

MIDSTREAM: The primary goals~~objectives~~ of the midstream allocation are return generation, income generation, and diversification. A secondary goal~~objective~~ is the potential for positive correlation to inflation ~~sensitivity~~.

CORE REAL ESTATE: The primary goals~~objectives~~ of the core real estate allocation are income generation, positive correlation to inflation ~~sensitivity~~, and diversification.

OPPORTUNISTIC: The primary goal~~objective~~ of the opportunistic allocation is return generation. Opportunistic~~Such~~ investments are intended to take advantage of specific market conditions, or investments that are opportunistic in nature, and may include expansion of investments in the current asset allocation or entry into strategies outside of the asset allocation following education regarding the potential investment.

Objectives

- Return expectation at least 3% higher than the assumed rate of return

Guidelines

- Individual investments may not exceed 3% of Plan at time of purchase.

PRIVATE MARKETS: The primary goals~~objectives~~ of the private market~~s~~ allocations are generally consistent with their public market counterparts noted herein, with the additional expectation of higher returns. The expectation ~~for~~ of higher returns is a function of the illiquidity, differentiated sources of return, and increased complexity~~, and administrative burden~~ in private markets versus public markets. Private market investments are illiquid and investment horizons can reach 10-15 years or more.

Private markets include three~~3~~ broad sub-asset classes~~areas~~; private equity, private credit, and private real assets (including private real estate).

CASH: The primary goals~~objectives~~ of cash are liquidity and operational efficiency. Cash exposure is defined as physical cash adjusted by the net notional exposure of (a) overlay positions, and (b) derivatives positions for the capital efficiency program. Holding some level of physical cash is necessary for the smooth operation of the Plan. The cash exposure should be minimized and an overlay program may be utilized to reduce the potential drag on performance. Holding physical cash is an important component of the capital efficiency program.

ADMINISTRATIVE PRACTICES

Review and Revisions

The ~~Investment Consultant~~investment consultant or the Chief Investment Officer shall first advise the Chief Executive Officer and then the Board of any restrictions within this policy which may prevent the ~~I~~investment ~~P~~program from meeting~~obtaining~~ the goals and objectives~~ and goals~~ set forth herein. Any violation of ~~the investment guidelines or other sections of~~ this policy discovered by the ~~Investment Consultant~~investment consultant or the Chief Investment Officer shall be reported first to the Chief Executive Officer and subsequently to the Board~~.~~ at the next regularly scheduled Board meeting.

The Board reserves the right to amend this policy at any time deemed necessary, or to comply with changes in state or federal law, or regulations.

POLICY REVIEW AND HISTORY

1) This policy was:
   a) Adopted by the Board on April 9, 2014.
   b) Amended by the Board on March 9, 2016; March 13, 2019; May 1, 2019; April 1, 2020; December 9, 2020; and April 13, 2022.

APPENDIX A – ASSET ALLOCATION AND ALLOWABLE RANGES

Asset Class	Target	Range
Public Equity	33~~7~~%	23~~32~~ – 45~~6~~%
Domestic		12~~6~~ – 28~~7~~%
International Developed		5~~8~~ – 18%
Emerging Market		0~~1~~ – 9%
Fixed Income	25~~4~~%	15~~20~~ – 35~~4~~%
Core	15~~4~~%	10~~2~~ – 25%
Credit	10~~6~~%	5~~3~~ – 10~~9~~%
~~Emerging Market Debt~~	~~4%~~	~~1 – 7%~~
Commodities	4%	0 – 8~~6~~%
Hedge Funds	10%	5 – 15%
Alpha Pool	8~~5~~%	2~~0~~ – 10~~7~~%
Midstream	5%	0 – 8~~7~~%
Core Real Estate	5%	2~~3~~ – 8~~7~~%
Opportunistic	0%	0 – 10%
Private Markets	18~~5~~%	0 – 33~~0~~%
Private Equity	5%	0 – 10%
Private Credit	8~~5~~%	0 – 13~~0~~%
Private Real Estate	5%	0 – 10%
Cash	-8~~5~~%	-10~~7~~ - 5%

APPENDIX B – POLICY BENCHMARK

Asset Class	Weight	Benchmark
Equity	33~~7~~.0%	MSCI All Country World Investable Market Index (Total Return Net)
Fixed Income	25~~4~~.0%	Blend †
Core	15~~4~~.0%	3% ICE BofAML 7-10 Year US Treasury Index 4% ICE BofAML US Treasury 10+ 4% Bloomberg Barclays US Aggregate Total Return Value Unhedged USD Index 4% Bloomberg US Corporate Credit 1-3 Year Index
Credit	10~~6~~.0%	5% Securitized (50% Bloomberg Non-Agency CMBS Index; 33.33% Bloomberg ABS Index; 16.67% JP Morgan CLOIE AA Index) ~~Intercontinental Exchange Bank of America US High Yield Master II Index~~ 2.5% Morningstar LSTA Leverage Loan Index 2.5% JP Morgan Emerging Market Bond Index Global Diversified
~~Emerging Market Debt~~	~~4.0%~~	~~50% J.P. Morgan Emerging Market Bond Index Global Diversified &~~ ~~50% J.P. Morgan Government Bond Index-Emerging Markets Global Diversified~~
Commodities	4.0%	Bloomberg Commodity Index
Hedge Funds	10.0%	7.5% 3-Month Treasury Bill + ~~4~~300bps & 2.5% MSCI All Country World Index (Total Return Net~~Gross~~)
Alpha Pool	8.0%	3-Month Treasury Bill + ~~4~~300bps
Midstream	5.0%	Alerian Midstream Energy~~-~~ Index
Core Real Estate	5.0%	NCREIF-Open End Diversified Core Equity
Opportunistic	0.0%	Assumed rate of return + 300bps
Private Equity	5.0%	A~~a~~ctual time-weighted Private Equity returns ††
Private Credit	8~~5~~.0%	A~~a~~ctual time-weighted Private Credit returns ††
Private Real Estate	5.0%	A~~a~~ctual time-weighted Private Real Estate returns ††
Cash	-8.0%	3-Month Treasury Bill

† Fixed Income Benchmark is a blend of the fixed income sub-asset class benchmarks and corresponding target weights.
†† The Policy Benchmark uses actual private market asset class weights each rounded to the nearest whole percentage point. The difference in actual weight versus target is allocated to the private market's public market "equivalent" (private equity to public equity; private credit to core fixed income and private real estate to core real estate~~fixed income~~).

APPENDIX C – INVESTMENT PHILOSOPHY

Governance

- Governance is the process of establishing and maintaining effective decision-making authority, responsibility, and accountability.
- Effective governance adds value and is a critical element of a successful investment program.
- An effective governance framework includes delegation of decision-making authority to the most capable resources.
- An essential ~~The most important~~ role of the Board is to establish, maintain, and monitor clear and consistent policies of operation.
- ~~The investment program requires adequate resources, expertise, focus, and consistency in approach~~

Risk

- The primary investment risk for the Plan is that long-term investment returns, together with reasonable and sustainable contributions, are insufficient to meet financial obligations over the long-term.
- Achieving investment goals requires investment risk taking and accepting that losses can and will likely occur.
- Investment management is risk management and the two are inherently linked.~~;~~ ~~risk~~ Risk and long-term returns are strongly correlated.
- Risk is multi-faceted and not fully quantifiable.
- Investment ~~Financial asset~~ returns are fueled by multiple sources of risk.

Asset Allocation

- The long-term strategic asset allocation is the key determinant of the Plan's overall risk and return~~; s~~. Structure and ~~investment m~~Manager selection impact returns on the margin.
- The liability profile, sponsor position, funded status, and tolerance for adverse outcomes, should form the basis for establishing an appropriate level of risk ~~and return objectives~~ for the Plan.
- The global opportunity set is dynamic, and a tactical approach to identifying opportunities can add value.~~;~~ H~~h~~owever, a well-defined and adequately resourced process needs to be present.

Investment Horizon

- The long-term nature of the liabilities generally implies a long-term investment horizon.~~;~~ T~~t~~hat said, at times short-term market conditions should be considered and balancing the short-term with the long-term is appropriate.
- Having a long-term investment horizon is an advantage, if utilized appropriately.
- A long-term investment horizon can lend itself to investing in illiquid assets and the opportunity to earn higher returns.

Diversification

- Diversification improves the stability of investment returns and the long-term risk-adjusted return of the portfolio.
- ~~Diversification means that at any given time a particular asset class or market, as a standalone investment, performed better than a diversified portfolio~~
- Diversification spreads risk across many dimensions including but not limited to, asset class, strategy, industry, market, style, geography, time~~-~~frame, and economic sensitivity.

Market Efficiency, Structure, and Manager Selection

- Structure should not cause an asset class to meaningfully deviate from its intended role or purpose.
- Markets are competitive and dynamic.~~;~~ D~~d~~ifferent markets have varying levels of efficiency, and some markets are more conducive to excess returns than others.
- Skill to generate active risk-adjusted returns over a benchmark (alpha) is rare and difficult to identify in advance and consistently capture.
- Value can be added through ~~m~~Manager selection, provided that ~~m~~Manager selection is well resourced with skill, experience, and focus, and utilizes a rigorous and consistent ~~manager~~ due diligence process.
- Passive investments reduce some forms of risk and cost, and potentially improve net returns~~;~~ ~~u~~Utilizing passive investments in both efficient and inefficient markets~~,~~ can be an appropriate decision.

Costs

- Fees, ~~and~~ expenses, and transaction costs can have a significant impact on long-term compounded returns and must be clearly justified and carefully managed.
- Investments should be evaluated on an expected net of fees basis.~~;~~ H~~h~~owever, an understanding that fees are certain, while returns are not, should be appreciated.
- ~~Transaction costs can be impactful, and a clear philosophy, and process can help mitigate unwarranted costs~~

Other

- Value is created by building an organization with in-depth knowledge and experience in global markets~~,~~ and draws on the expertise of a network of external partners.
- A successful investment program requires adequate resources, expertise, focus, and consistency in approach.
- ~~Internal r~~Resources are constrained.~~;~~ D~~d~~etermining appropriate areas to focus and deploy resources is critical to adding value.
- The Plan's people and partners drive success.~~;~~ D~~d~~evelop and retain internal capital,~~;~~ foster a collaborative team-oriented culture~~,~~ that values integrity, excellence, and humility.
- Seek arrangements which ensure alignment of interest with agents and partners and collaborate broadly.

- Attractive risk-adjusted returns can be achieved by being an early adopter in strategies, assets, markets, technologies, and approaches.
- Derivatives and leverage can be efficient tools when utilized prudently.

APPENDIX D – MANAGER DUE DILIGENCE, SELECTION, MONITORING AND TERMINATION

This policy establishes the guidelines for selecting, monitoring, and terminating ~~m~~Managers. This policy aims to retain a high degree of flexibility in how it is applied to ~~m~~Managers. The goal is to implement a process which finds a balance between two undesirable outcomes:

1. Retaining ~~m~~Managers with no value-adding capabilities; and,
2. Terminating ~~m~~Managers with value-adding capabilities

Due to the significant costs involved in replacing ~~m~~Managers, and due to the substantial probability of selecting a value-detracting ~~m~~Manager as a replacement for an existing ~~m~~Manager, this policy is somewhat biased toward avoiding terminating ~~m~~Managers with value-adding capabilities.

Manager Search Process – Public Markets

1. ~~Initiation: The Chief Investment Officer will coordinate with the Investment Consultant to initiate a search process.~~
2. Initiation and Evaluation: The Chief Investment Officer will coordinate with the ~~Investment Consultant~~investment consultant regarding due diligence. ~~will produce investment due diligence~~ A written due diligence report will be produced, which articulates the opportunity, rationale, and risk of the investment. Due diligence may include on-site visits~~,~~ or may be performed virtually via video conference. ~~materials for all managers to be considered. Every manager that the Chief Investment Officer and Investment Consultant recommend to the Board must have undergone on-site due diligence not more than one year prior to the recommendation to the Investment Committee. On-site due diligence is to be conducted by the Investment Consultant. The Investment Consultant will produce a written summary recommendation report, which is to be presented to the Investment Committee. The Investment Consultant's report will provide the rationale for retaining the recommended manager, and will also indicate the manager's role in the portfolio.~~
3. Investment Committee Approval: A recommendation memo will be presented to the Investment Committee. With the guidance of the Chief Investment Officer and ~~Investment Consultant~~the investment consultant, the Investment Committee will determine whether ~~or not~~ to approve the investment~~recommendation~~ and to recommend the investment to the Board. At times, timing considerations will require that an investment ~~recommendation is~~ be recommended directly to the Board~~,~~ and will not be presented to the Investment Committee.
4. Board~~Final~~ Approval: A~~The Investment Committee's~~ recommendation memo will be presented to the Board for final approval. It is generally understood that the approval is subject to negotiating acceptable terms and conditions with the ~~m~~Manager.

Manager Search Process – Private Markets

The Private Markets program will be managed according to an annual ~~business~~ plan produced by the ~~Investment Consultant~~investment consultant whose main components will encompass an update on the private markets program, a recap of prior year activity, ~~an analysis of the investment environment,~~ a review of the Plan's private market ~~investment~~ strategy, a review of the annual pacing plan, and a forward calendar of prospective ~~m~~Managers or strategies. The annual plan will serve as a guide to ensure that target allocations are managed, proper diversification is implemented, and overall private market investments are in line with portfolio goals. It is recognized that market environments can change and deviations from the annual plan may be necessary.~~,~~

The overall search process will be generally in line with pubic markets:

1. Initiation and Evaluation: Guided by the pacing plan and forward calendar, the Chief Investment Officer will coordinate with the ~~Investment Consultant~~investment consultant regarding due diligence. A written due diligence report will be produced, which articulates the opportunity, rationale, and risk of the investment. Due diligence may include on-site visits~~,~~ or may be performed virtually via video conference.~~to move forward with a recommendation for a private market investment. The Investment Consultant will produce an investment due diligence report, which should contain at minimum, rationale for committing to the manager and the role the investment will play within the private markets allocation~~.
2. Investment Committee Approval: A recommendation memo will be presented to the Investment Committee. With the guidance of the Chief Investment Officer and ~~Investment Consultant~~investment consultant, the Investment Committee will determine whether or not to approve the investment~~recommendation~~ and to recommend the investment to the Board. At times, timing considerations will require that an investment ~~recommendation is~~ be recommended directly to the Board~~,~~ and ~~will~~ not be presented to the Investment Committee.
3. Board ~~Final~~ Approval: A~~The Investment Committee's~~ recommendation memo, will be presented to the Board for final approval. It is generally understood that the approval is subject to negotiating acceptable terms and conditions with the ~~m~~Manager.

Contracting – Public and Private Markets

Managers shall acknowledge in writing their recognition and acceptance of their role as a fiduciary to the Plan and adherence to an industry-~~-~~accepted standard of care, ~~to which the manager will be held to a fiduciary relationship between the manager and the Board,~~ which may be established by contract or operation of law. ~~(e.g., by registration of the manager as an investment advisor with the U.S. Securities and Exchange Commission)~~. Managers must further agree to adhere to appropriate federal and state legislation governing the Plan and agree to be covered by appropriate and adequate insurance coverage~~s~~.

Manager~~'~~s retained by the Board shall be compensated by a formula contained in the manager's operative fund documents or Investment Management Agreement. No public markets ~~m~~Manager retained by the Board shall receive a payment of commission or other fees on a particular investment transaction~~.~~ ; provided that, performance fees paid to Managers, as documented and agreed to by and between KCERA and the Manager are allowed. Further, ~~m~~Managers must disclose to ~~Staff~~staff any indirect compensation received in addition to its fees as a result of servicing the Plan. Additionally, alternative ~~investment m~~Managers will be required to disclose fee information per §~~6254.26~~7928.710 and §7514.7.

Ongoing Monitoring – Public and Private Markets

Manager evaluation relies on the ongoing review of qualitative and quantitative factors. These factors will be monitored on an ongoing basis in order for the Chief Investment Officer and the ~~Investment Consultant~~investment consultant to apprise the Board of changes which could warrant a change in the ~~m~~Manager's suitability. A key objective of this policy is the timely identification of signs of adverse changes in a ~~m~~Manager's organization or investment process. Factors to monitor include performance, attribution, key contributors and detractors from performance, portfolio positioning and exposures, key positions and investment thesis, changes in the investment team or process, changes in investment product line-up, assets under management and capital flows, administrative or operational changes, and other potential changes in the business.

No less than quarterly the ~~Investment Consultant~~investment consultant reviews each traditional public market Manager~~investment~~ of the Plan and produces a written summary, which is provided to ~~Staff~~staff. In the case of alternative Managers including private market Managers ~~investments~~, a review and written summary is produced at least annually. In the case where no investment consultant formally covers the investment, staff will produce a written summary. ~~The Investment Consultant will also meet on-site with each manager at least once every three years.~~

Value-adding ~~m~~Managers will experience adverse circumstances, such as underperformance, personnel changes, and loss of assets under management. When ~~m~~Managers experience such events, ~~Staff~~staff and the ~~Investment Consultant~~investment consultant will evaluate whether appropriate action was taken by the ~~m~~Manager, what impact the action could have ~~upon the portfolio in the future~~, and what other actions may be considered.

~~**Watch-List – Public Markets**~~

~~The Board desires to hold managers accountable for the performance of the assets over which they exercise discretion. The Board shall establish and maintain an official manager watch-list ("Watch-List). If a manager fails to accomplish the investment objectives over a full market cycle (typically three to five years), the manager may be placed on the Watch-List or terminated.~~

~~The Chief Investment Officer or Investment Consultant may recommend to the Investment Committee if a manager should be placed on the Watch-List. Managers that~~

~~the Board places on the Watch-List will continue to be monitored by the Board until it is determined that removal from the Watch-List or termination of the manager is warranted.~~

~~Factors that may warrant being placed on the Watch-List include but are not limited to, changes within a manager's organization, significant deviations in performance from expectations, changes in investment philosophy or process, and style drift.~~

Termination – Public Markets

The Board may terminate a ~~m~~Manager for any reason. The Chief Investment Officer or ~~Investment Consultant~~investment consultant may recommend to the Investment Committee if a ~~m~~Manager should be terminated, and upon approval by the Investment Committee, a recommendation for termination will be presented to the Board for final approval.

Should a situation arise whereby a ~~m~~Manager is no longer deemed appropriate for the Plan ~~for any reason~~ by the Chief Investment Officer, with concurrence from the ~~Investment Consultant~~investment consultant, and there is insufficient time to present the issue to the Investment Committee or Board, pursuant to the Board of Retirement Charter or Investment Committee Charter, the Board authorizes the Chief Investment Officer, with the ~~expressed~~ written consent of the Chief Executive Officer and advice from the ~~Investment Consultant~~investment consultant, to terminate and replace the ~~m~~Manager with an appropriate "alternate strategy" as expeditiously as possible and in accordance with reasonable due diligence procedures. The "alternate strategy" is intended to be employed temporarily until a permanent replacement can be presented to the Board. When such activity occurs, the ~~Investment Committee and the~~ Board shall be notified as appropriate, either between Board meetings or at the next regularly scheduled Board meeting. For purposes of this document, "alternate strategy" refers to cash, derivatives, or a low-cost index fund employing a similar investment objective as the terminated ~~m~~Manager.

Manager reporting requirements

All ~~m~~Managers

- Updated Form ADV - Part 2 on an annual basis

All public markets

- Monthly account statement and NAV
- Monthly gross and net performance
- Performance commentary~~letter~~ at least quarterly
- Positioning, exposure or risk report at least quarterly
- Audited Annual Financial Statements (for fund investments)

Public market investments through separately managed accounts

- Each quarter, managers shall provide a letter certifying compliance with the portfolio guidelines from the Investment Management Agreement, and compliance with regulatory requirements. Managers are required to advise

~~Staff~~staff and the ~~Investment Consultant~~investment consultant in writing of any violation;

- Annually, managers shall provide a written report detailing the name of each brokerage institution which received commissions from the Plan as the result of the discretionary trading authority bestowed upon the manager by the Board. The report shall also include for each brokerage firm: the number of shares, average cost per share traded, and the commissions paid.
- Managers are required to advise ~~Staff~~staff and the ~~Investment Consultant~~investment consultant in writing of any need for changes to the portfolio guidelines; and
- Managers are required to comply with the reporting requirements of the Trading Policy, as detailed in Appendix E
- Managers are required to comply with the reporting requirements of the Asset Pricing Policy, as detailed in Appendix G

Private markets

- Quarterly account statement and NAV
- Quarterly performance measures including IRR, and multiples
- Quarterly update of contributions, distributions, and uncalled capital
- Quarterly performance ~~letter~~commentary
- Quarterly fund composition, positioning, or exposure reports
- Audited Annual Financial Statements (for fund investments)

APPENDIX E – TRADING POLICY

The Board has determined that trading costs represent a significant expense to the Plan. The Board has therefore established policies in order to control these costs, and to monitor the level and effectiveness of the trading activity of the Plan.

Best Price and Execution Standard

1. Notwithstanding anything to the contrary, all trading of securities will be placed by ~~m~~Managers with broker-dealers with the aim of obtaining the best price and best execution, taking into account all factors influencing best execution, as well as the value of all services received or savings obtained by the Plan related thereto, or by the ~~m~~Managers, for the benefit of the Plan.
    a. The policy of best price and best execution is intended to mean that ~~m~~Managers shall use professional judgment in the selection of broker- dealers and the commissions paid. Managers should be prepared to provide evidence that they are attempting to deliver investment results at the lowest possible level of transaction costs, including the market impact of their trades, and considering the value of all services provided to the Plan for its commission dollars.
    b. The policy of best price and best execution is intended to provide the most favorable overall results for the Plan.
    c. Broker-dealers, as referenced herein, include firms which customarily perform trades for an institutional clientele. Such broker-dealers may trade on the floor of the various national and regional stock exchanges~~,~~ or may trade in the third and fourth markets performing transactions outside of the securities exchanges.
2. Inasmuch as trading costs contribute to the gains and losses on the securities held by the Plan, and therefore contribute to the portfolio performance of each ~~m~~Manager, all trades will be placed by ~~m~~Managers at their discretion. Such trades may include fixed income transactions placed on an agency basis. All such trades will be placed within the following general guidelines, consistent with the best price and best execution standard.
    a. Managers may direct a portion of total annual transactions to broker- dealers who provide the ~~m~~Managers with research. In selecting among these broker-dealers to execute transactions, the ~~m~~Managers shall consider all factors relative to best execution. Such factors should include, but are not limited to, the following:
        i. price of security;
        ii. the commission rate;
        iii. size and difficulty of the order;
        iv. reliability, integrity, and financial condition of broker-dealer;
        v. general execution and operational capabilities or competing broker-dealers;
        vi. ~~m~~Manager's investment style; and
        vii. brokerage and research services provided.

3. When placing trades with broker~~-/~~dealers, ~~m~~Managers will emphasize minimizing commission costs directly and not seeking sources of value to the Plan through ancillary research services. In selecting these broker~~-/~~dealers to execute transactions, the ~~m~~Manager will consider all factors relative best execution. Such factors should include, but are not limited to, the following:
   a. price of security;
   b. the commission rate;
   c. size and difficulty of the order;
   d. reliability, integrity, and financial condition of broker-dealer;
   e. general execution and operational capabilities or competing broker-dealers; and,
   f. the ~~m~~Manager's investment style.

Trading Analysis

For separately managed account investments, ~~m~~Managers will allow to be performed an analysis of the trading costs of their respective account with the various classes of trading described herein. The Board may engage third parties to independently evaluate the ~~m~~Manager's trading costs and practices to assess whether or not they are achieving best execution. This analysis will be provided to ~~Staff~~staff no less than every three years.

1. The analysis will summarize and evaluate the cost effectiveness of the various broker-dealers utilized by the ~~m~~Manager, specifically reporting commissions charged per share traded, and an estimate of the total costs incurred in these transactions.
2. The analysis will evaluate instances of higher commissions per share with respect to the many factors affecting best execution~~,~~ and shall consider other services or research provided to the ~~m~~Manager.
3. The analysis will report trading performance by broker-dealer and by investment management account.

APPENDIX F – PROXY VOTING POLICY

Because the proxy vote ~~("Proxy")~~ is an asset of the Plan, it must be managed prudently and for the exclusive benefit of the Plan. It is the intent of this policy to lay out a broad set of guidelines within which ~~P~~proxies must be voted to maximize shareholder value.

Guidelines

For all equity oriented separately managed accounts, a proxy voting service provider is retained to vote all proposals submitted to stockholders in accordance with this policy. All commingled investment fund ~~P~~proxies are voted by the respective ~~m~~Manager of each fund in accordance with the ~~m~~Manager's proxy guidelines.

Due to the significant resources required to properly manage a proxy voting program, the Board has chosen to delegate the proxy voting decision to a third-party provider of proxy voting services and to follow that provider's detailed proxy voting guidelines.

The obligations of the third-party provider are as follows:

1. With regard to timely execution of specified proxy votes on the Plan's behalf, including corporate account set up, vote execution reporting and record keeping, and compliance with U.S. SEC and Department of Labor ERISA standards, as applicable, the third party shall carry out its duties and obligations to vote the Plan's proxies in accordance with the standards of fiduciary responsibility set forth in the CERL;
2. The third-party shall cast votes after careful consideration of the issues; and
3. The third-party shall describe the rationale for its votes.

The overarching and universal guideline is that proxies must be voted in the best interest of the Plan and its beneficiaries and in order to maximize shareholder value. In following this broad, all-encompassing guideline, the third-party provider shall follow its own detailed guidelines, which provide specific instruction on how to vote proxies in alignment with and support of the following key principles:

1. A board of directors that serves shareholder interests;
2. Transparency and integrity in financial reporting;
3. A strong link between compensation and performance; and
4. A governance structure that clearly supports shareholder interests.

The third-party provider's detailed guidelines may change over time. A copy of the current guidelines shall be maintained by ~~Staff~~staff.

Monitoring

The third-party service provider shall provide monthly reports to ~~Staff~~staff, which include a list of all proxies voted on behalf of the Plan, along with the rationale for the votes. On an annual basis, ~~Staff~~staff will provide the Board with a consolidated report summarizing the previous year's proxy voting activity.

APPENDIX G – ASSET PRICING POLICY

This policy provides a process for the valuation of securities in separately managed accounts where the prices listed by the Plan's master custodian bank ("Custodian") are substantially different from the ~~m~~Manager's prices for those same securities. The Board recognizes that there are coverage limitations for security prices as provided by the Custodian's pricing matrix and third-~~-~~party pricing provider prices. In those situations, where pricing is disputed between the ~~m~~Manager and the Custodian, the approach outlined in this policy will be implemented.

The Custodian will provide official pricing for all of the Plan's separately managed accounts with the following exceptions:

1. issue specific market values may be priced by the ~~m~~Manager where no reliable third~~-~~-party pricing source is available; and
2. disputed issue prices may use the price provided by the ~~m~~Manager when the ~~m~~Manager provides the average of at least three dealer prices (bid-side).

In the case of disputed issue prices, ~~Staff~~staff may, in accordance with this policy, direct the ~~m~~Manager to provide its price to the Custodian and may direct the Custodian to accept the ~~m~~Manager's price as the official price for that issue. Valuation documentation should contain the following:

1. sources and/or quantitative calculation used to determine the respective issue prices;
2. percentage difference between ~~m~~Manager's price relative to the price generated by the master trustee bank; and
3. aggregate percentage of the portfolio's market value for the securities priced by the ~~m~~Manager.

Monthly reports including the above documentation must be sent by the ~~m~~Manager to ~~Staff~~staff, the Custodian, and the ~~Investment Consultant~~investment consultant five days after receipt of the statement from the Custodian.

Securities held in commingled accounts are valued according to the pricing policy of the individual commingled fund ~~m~~Manager.

All ~~m~~Managers shall provide a copy of their pricing policy and pricing matrix to ~~Staff~~staff.

APPENDIX H – MANAGER RECONCILIATION REQUIREMENTS

The Board seeks to ensure greater accuracy through the implementation of a reconciliation reporting process. The Plan's separately managed account M~~m~~anagers shall provide written acknowledgment of the accuracy of the Custodian's records, and it is the responsibility of the ~~m~~Manager to reconcile with the Custodian all discrepancies in cash and holdings. The reconciliation report will list the assets and liabilities of the account that have discrepancies for both the number of shares/par value and pricing. The ~~m~~Manager's reconciliation report must be received by ~~Staff~~staff within 30 days of the close of the reporting month.

For traditional ~~m~~Managers who charge incentive fees, the ~~m~~Managers are responsible for reconciling its portfolio return and benchmark calculation~~ to ~~. ~~the Investment Consultantinvestment consultant~~. The reconciliation report will provide the ~~m~~Manager's monthly returns~~, the Investment Consultantinvestment consultant's monthly returns~~ as well as the incentive fee calculation for the quarter. The report will show both gross and net-of-fees returns. The manager's reconciliation report must be received by ~~Staff~~staff along with the invoice billed for the quarter.

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INVESTMENT POLICY STATEMENT

September 2023

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MISSION STATEMENT AND PURPOSE

Mission Statement

The mission of the Kern County Employees' Retirement Association ("KCERA") is to prudently administer the retirement benefits, invest the assets of the Association, and provide quality membership services for eligible public employees, retirees and their beneficiaries.

Purpose

This Investment Policy Statement establishes policies for the administration and investment of KCERA's plan assets ("Plan"). This policy formally documents the goals, objectives, and guidelines of the investment program, and is intended to allow for sufficient flexibility in the investment process to capture opportunities, yet ensure prudence, consistency, and care.

The purpose of this policy is to set forth in writing:

1. An appropriate set of goals and objectives regarding the investment of the Plan;
2. The position of KCERA's board ("Board) with respect to the Plan's investment risk/return posture, including asset allocation; and
3. The establishment of investment guidelines.

Further, this policy seeks to ensure the investment of the Plan in a manner consistent with the County Employees Retirement Law of 1937 (commonly known as "the CERL," Government Code Section 31450 et seq.) and other applicable state and federal statutes.

BACKGROUND

KCERA is governed by the CERL. Sections 31594 and 31595 of the CERL provide for prudent person governance of the Plan. Under this law, the type and amount of Plan investments as well as the quality of securities is not specifically delineated, rather the investments made are assumed to be in the best interest of the Plan such that others with similar information would acquire similar investments. These statutory provisions are set forth below:

> It is the intent of the Legislature, consistent with the mandate of the voters in passing Proposition 21 at the June 5, 1984, Primary Election, to allow the Board of any retirement system governed by this chapter to invest in any form or type of investment deemed prudent by the Board pursuant to the requirements of Section 31595. It is also the intent of the Legislature to repeal, or amend as appropriate, certain statutory provisions, whether substantive or procedural in nature, that restrict the form, type, or amount of investments that would otherwise be considered prudent under the terms of that section. This will increase the flexibility and range of investment choice available to these retirement systems, while ensuring protection of the interests of their beneficiaries.

(Cal. Gov. Code §31594).

The Board has exclusive control of the investment of the employees' retirement fund. The assets of a public pension or retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the system. Except as otherwise expressly restricted by the California Constitution and by law, the Board may, in its discretion, invest, or delegate the authority to invest, the assets of KCERA through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the Board.

The Board and its officers and employees shall discharge their duties with respect to the system:

a) Solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system.
b) With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.
c) Shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so.

(Cal. Gov. Code §31595).

KCERA was established under the provisions of the CERL on January 1, 1945, by the Kern County Board of Supervisors, and its management is vested in a Board of retirement.

INVESTMENT OBJECTIVES

The primary investment objectives for the Plan shall be:

1. Earn a long-term net of fees rate of return which is equal to or exceeds the Plan's assumed rate of return;
2. Earn a long-term net of fees rate of return which is equal to or exceeds the established benchmark ("Policy Benchmark"). The Policy Benchmark is identified in Appendix B; and
3. Earn a long-term net of fees rate of return which exceeds the long-term rate of inflation.

Rates of return are to be time-weighted total return.

LONG-TERM STRATEGIC ASSET ALLOCATION

The long-term strategic asset allocation (herein referred to as “asset allocation”, “target asset allocation”, or “strategic asset allocation”) is one of the most important investment decisions the Board makes. The primary objective of the asset allocation decision is to establish an asset allocation which produces the highest expected investment return with a prudent level of risk.

The Board selects an asset allocation that is predicated on a number of factors, including:

1. Actuarial considerations of the Plan, including current and projected contributions, benefit payments, assets, liabilities, and funded status;
2. Appropriate levels of risk and return, as evidenced by various quantitative techniques, including mean-variance optimization, stress testing, and scenario analysis;
3. An assessment of potential future economic conditions;
4. Long-term capital market assumptions; and
5. Liquidity considerations.

The Board’s selected strategic asset allocation, including target weights and allowable ranges are illustrated in Appendix A.

Rebalancing

From time to time the Plan’s actual asset allocation will deviate from the strategic asset allocation. Rebalancing can occur between asset classes, within an asset class, and between investment managers, with the objective of maintaining the strategic asset allocation exposures. Rebalancing or portfolio allocation changes can also occur in response to specific risks or anticipated changes in markets. The Chief Investment Officer shall determine appropriate rebalancing actions, and obtain the written consent of the Chief Executive Officer. The Chief Executive Officer has the authority to sign and execute any trade authorization, subscription, redemption, or related documentation in order to implement rebalancing actions. When rebalancing activity occurs, the Board shall be notified of such activity at the next regularly scheduled Board meeting. Rebalancing may occur through the buying and selling of physical investments or through the use of derivatives.

Cash Flow Management

The Chief Investment Officer will monitor cash flow activity and maintain a cash flow forecast in order to ensure the payment of benefits, expenses, capital calls, and other investment activity, while also reducing friction from excess levels of cash. When liquidations of assets are necessary to meet cash flow needs, the Chief Investment Officer will determine the appropriate sources of liquidity and will obtain the written consent of the Chief Executive Officer. The Chief Executive Officer has the authority to sign and execute any trade authorization, redemption, or related documentation in order to implement cash flow management actions. Investment managers should receive adequate notification so that cash can be raised efficiently.

INVESTMENT MANAGER GUIDELINES

The Board has adopted the following guidelines to be used in limiting exposure to an investment manager (herein referred to as "Manager"). The Board may override these policies under special circumstances:

1. The maximum allocation to a single active Manager is 12% of the Plan;
2. The maximum allocation to a single active management product is 8% of the Plan; and,
3. No investment with any single investment strategy may exceed 10% of that Manager's total assets under management.

There is no maximum allocation limitation for passive Managers or their passive investment products.

It is the intention of the Board to allow Managers full discretion within the scope of this policy, the operative fund documents, any Investment Management Agreement ("IMA) or side letter agreement, and any laws or applicable federal and state statutes or regulations that supersede these documents. Investment guidelines for individual mandates are contained in each Manager's IMA.

Unless specifically provided for in the manager's operative fund documents or investment guidelines, the following transactions are generally prohibited: purchase of non-negotiable securities, short sales, transactions on margin, use of leverage and use of options.

RISK MANAGEMENT

The Board recognizes it must accept risk to sufficiently grow assets to meet promised benefit payment obligations, and that taking risk needs to be balanced with capital preservation. The Board's risk tolerance is a function of this perspective.

Risk

Risk is a broad concept and can generally be thought of as the likelihood of an unfavorable outcome. Investment management is a process of taking risk (i.e. exposing assets to potentially unfavorable outcomes). A key component of taking risk is understanding the relationship between positive outcomes and negative outcomes, both in terms of likelihood and magnitude.

The Plan is exposed to numerous risks, and no single metric or measure encompasses the complexity of those risks. The risk management process identifies, measures, and evaluates risks, so that risks taken are intentional and prudent.

Risk Management Process

The risk management process includes:

1. Identifying risk;
2. Measuring risk; and
3. Evaluating risk.

This process assists in determining what risks are acceptable and how to appropriately size them. The risk management process is integral to the investment process, whether it be selecting a strategic asset allocation, structuring an asset class, hiring a Manager, rebalancing the portfolio, or managing cash flows.

Risk Metrics

The Board uses various metrics and tools to measure and understand risk. These are important elements in evaluating risk, and include standard deviation, tracking error, beta, upside capture, downside capture, stress testing, scenario analysis, and liquidity. In addition to specific metrics, various risk concepts can help understand and evaluate risk, including counterparty risk, operational risk, and execution risk.

Risk Reporting

Risk metrics are included in the quarterly investment performance report. In addition, other measures of risk are presented to the Board on an ad hoc basis when deemed necessary by the Chief Investment Officer and the investment consultant. To appropriately evaluate risk, an understanding of economic, political, and financial market environments is helpful, thus an investment landscape with this type of information is presented to the Board in conjunction with the quarterly investment performance report.

INVESTMENT PERFORMANCE REVIEW

The Board will review the investment results of the Plan quarterly. Investment performance reports will be prepared by the Plan's investment consultant. Performance will primarily be evaluated within the context of the Investment Objectives as set forth in this policy. Manager performance is to be evaluated as set forth in Appendix D.

CAPITAL EFFICIENCY

The capital efficiency program seeks to improve the returns of the Plan by using derivatives in place of physical securities in traditional markets (equity, fixed income, commodities, etc.), and then utilizing a portion of the unencumbered cash to fund investments in the alpha pool. The capital efficiency program will add value when the alpha pool achieves net of fees and expenses returns that are above the cash funding rate. The Plan can use a third-party overlay provider to manage derivative exposure. The derivative exposure is collateralized with a combination of cash and investments.

ASSET CLASSES

The Board has decided to invest in the following asset classes:

PUBLIC EQUITY: Publicly traded global equities is a core asset class and serves the primary goal of return generation. Regional exposures include domestic, international developed, and emerging markets (including frontier markets).

FIXED INCOME: Fixed income securities are a core asset class and serves the primary goals of liquidity as well as risk mitigation, at least to the extent that the inverse relationship between equities and bonds hold. A secondary goal is income generation and diversification.

Fixed income includes, but is not limited to, two broad sub-asset classes: core and credit. The core allocation emphasizes the primary fixed income goals of liquidity and risk mitigation, while the credit allocation emphasize the secondary objectives of income generation, and diversification.

COMMODITIES: The primary goals of the commodities allocation are return generation, positive correlation to inflation, and diversification.

HEDGE FUNDS: The primary goals of the hedge funds allocation are diversification, return generation, and downside protection. The hedge funds allocation will diversify across hedge fund strategies (relative value, event driven, equity long/short, and directional), and is expected to have low correlation to public equities and fixed income. The hedge funds allocation should be semi-liquid, with the majority of assets liquid within 1 year, and will generally not be considered a short-term liquidity source.

Objectives

1. Annualized return expectation of:
    a. 75% 3-Month Treasury Bill + 300bps; and
    b. 25% MSCI All Country World Index (Total Return Net).
2. Annualized forecast volatility between 4% and 7%;
3. Sharpe Ratio greater than 1.0; and,
4. Forecast Beta to MSCI All Country World Index of less than 0.3.

Guidelines

1. Strategy

Strategy	Ranges
a. Relative Value	20 - 40%
b. Event Driven	15 - 35%
c. Equity Long/Short	10 - 30%
d. Directional	15 - 35%

For purposes of investment strategy ranges, funds are decomposed into their underlying strategies.

2. No investment with any single Manager can represent more than 15% of the hedge funds allocation.

ALPHA POOL: The primary goal of the alpha pool is to generate a cash-plus return through strategies that have low beta exposure, medium to high alpha, and expectations of downside protection. The alpha pool is expected to have low correlation to public equities and fixed income. The alpha pool is a key component of the capital efficiency program.

Objectives

1. Annualized return expectation of 3-MonthTreasury Bill + 300bps;
2. Annualized forecast volatility between 3% and 6%; and,
3. Forecast Beta to MSCI All Country World Index of less than 0.2.

MIDSTREAM: The primary goals of the midstream allocation are return generation, income generation, and diversification. A secondary goal is the potential for positive correlation to inflation.

CORE REAL ESTATE: The primary goals of the core real estate allocation are income generation, positive correlation to inflation, and diversification.

OPPORTUNISTIC: The primary goal of the opportunistic allocation is return generation. Opportunistic investments are intended to take advantage of specific market conditions, or investments that are opportunistic in nature, and may include expansion of investments in the current asset allocation or entry into strategies outside of the asset allocation following education regarding the potential investment.

Objectives

- Return expectation at least 3% higher than the assumed rate of return

Guidelines

- Individual investments may not exceed 3% of Plan at time of purchase.

PRIVATE MARKETS: The primary goals of the private market allocations are generally consistent with their public market counterparts noted herein, with the additional expectation of higher returns. The expectation of higher returns is a function of the illiquidity, differentiated sources of return, and increased complexity in private markets versus public markets. Private market investments are illiquid and investment horizons can reach 10-15 years or more.

Private markets include three broad sub-asset classes; private equity, private credit, and private real assets (including private real estate).

CASH: The primary goals of cash are liquidity and operational efficiency. Cash exposure is defined as physical cash adjusted by the net notional exposure of (a) overlay positions, and (b) derivatives positions for the capital efficiency program. Holding some level of physical cash is necessary for the smooth operation of the Plan. The cash exposure should be minimized and an overlay program may be utilized to reduce the potential drag on performance. Holding physical cash is an important component of the capital efficiency program.

ADMINISTRATIVE PRACTICES

Review and Revisions

The investment consultant or the Chief Investment Officer shall first advise the Chief Executive Officer and then the Board of any restrictions within this policy which may prevent the investment program from meeting the goals and objectives set forth herein. Any violation of this policy discovered by the investment consultant or the Chief Investment Officer shall be reported first to the Chief Executive Officer and subsequently to the Board at the next regularly scheduled Board meeting.

The Board reserves the right to amend this policy at any time deemed necessary, or to comply with changes in state or federal law, or regulations.

POLICY REVIEW AND HISTORY

1) This policy was:
    a) Adopted by the Board on April 9, 2014.
    b) Amended by the Board on March 9, 2016; March 13, 2019; May 1, 2019; April 1, 2020; December 9, 2020; and April 13, 2022.

APPENDIX A – ASSET ALLOCATION AND ALLOWABLE RANGES

Asset Class	Target	Range
Public Equity	33%	23 – 45%
Domestic		12 – 28%
International Developed		5 – 18%
Emerging Market		0 – 9%
Fixed Income	25%	15 – 35%
Core	15%	10 – 25%
Credit	10%	5 – 10%
Commodities	4%	0 – 8%
Hedge Funds	10%	5 – 15%
Alpha Pool	8%	2 – 10%
Midstream	5%	0 – 8%
Core Real Estate	5%	2 – 8%
Opportunistic	0%	0 – 10%
Private Markets	18%	0 – 33%
Private Equity	5%	0 – 10%
Private Credit	8%	0 – 13%
Private Real Estate	5%	0 – 10%
Cash	-8%	-10 - 5%

APPENDIX B – POLICY BENCHMARK

Asset Class	Weight	Benchmark
Equity	33.0%	MSCI All Country World Investable Market Index (Total Return Net)
Fixed Income	25.0%	Blend †
Core	15.0%	3% ICE BofAML 7-10 Year US Treasury Index 4% ICE BofAML US Treasury 10+ 4% Bloomberg Barclays US Aggregate Total Return Value Unhedged USD Index 4% Bloomberg US Corporate Credit 1-3 Year Index
Credit	10.0%	5% Securitized (50% Bloomberg Non-Agency CMBS Index; 33.33% Bloomberg ABS Index; 16.67% JP Morgan CLOIE AA Index) 2.5% Morningstar LSTA Leverage Loan Index 2.5% JP Morgan Emerging Market Bond Index Global Diversified
Commodities	4.0%	Bloomberg Commodity Index
Hedge Funds	10.0%	7.5% 3-Month Treasury Bill + 300bps & 2.5% MSCI All Country World Index (Total Return Net)
Alpha Pool	8.0%	3-Month Treasury Bill + 300bps
Midstream	5.0%	Alerian Midstream Energy Index
Core Real Estate	5.0%	NCREIF-Open End Diversified Core Equity
Opportunistic	0.0%	Assumed rate of return + 300bps
Private Equity	5.0%	Actual time-weighted Private Equity returns ††
Private Credit	8.0%	Actual time-weighted Private Credit returns ††
Private Real Estate	5.0%	Actual time-weighted Private Real Estate returns ††
Cash	-8.0%	3-Month Treasury Bill

† Fixed Income Benchmark is a blend of the fixed income sub-asset class benchmarks and corresponding target weights.
†† The Policy Benchmark uses actual private market asset class weights each rounded to the nearest whole percentage point. The difference in actual weight versus target is allocated to the private market's public market "equivalent" (private equity to public equity; private credit to core fixed income and private real estate to core real estate).

APPENDIX C – INVESTMENT PHILOSOPHY

Governance

- Governance is the process of establishing and maintaining effective decision-making authority, responsibility, and accountability.
- Effective governance adds value and is a critical element of a successful investment program.
- An effective governance framework includes delegation of decision-making authority to the most capable resources.
- An essential role of the Board is to establish, maintain, and monitor clear and consistent policies of operation.

Risk

- The primary investment risk for the Plan is that long-term investment returns, together with reasonable and sustainable contributions, are insufficient to meet financial obligations over the long-term.
- Achieving investment goals requires investment risk taking and accepting that losses can and will likely occur.
- Investment management is risk management and the two are inherently linked. Risk and long-term returns are strongly correlated.
- Risk is multi-faceted and not fully quantifiable.
- Investment returns are fueled by multiple sources of risk.

Asset Allocation

- The long-term strategic asset allocation is the key determinant of the Plan's overall risk and return. Structure and Manager selection impact returns on the margin.
- The liability profile, sponsor position, funded status, and tolerance for adverse outcomes, should form the basis for establishing an appropriate level of risk for the Plan.
- The global opportunity set is dynamic, and a tactical approach to identifying opportunities can add value. However, a well-defined and adequately resourced process needs to be present.

Investment Horizon

- The long-term nature of the liabilities generally implies a long-term investment horizon. That said, at times short-term market conditions should be considered and balancing the short-term with the long-term is appropriate.
- Having a long-term investment horizon is an advantage, if utilized appropriately.
- A long-term investment horizon can lend itself to investing in illiquid assets and the opportunity to earn higher returns.

Diversification

- Diversification improves the stability of investment returns and the long-term risk-adjusted return of the portfolio.
- Diversification spreads risk across many dimensions including but not limited to, asset class, strategy, industry, market, style, geography, timeframe, and economic sensitivity.

Market Efficiency, Structure, and Manager Selection

- Structure should not cause an asset class to meaningfully deviate from its intended role or purpose.
- Markets are competitive and dynamic. Different markets have varying levels of efficiency, and some markets are more conducive to excess returns than others.
- Skill to generate active risk-adjusted returns over a benchmark (alpha) is rare and difficult to identify in advance and consistently capture.
- Value can be added through Manager selection, provided that Manager selection is well resourced with skill, experience, and focus, and utilizes a rigorous and consistent due diligence process.
- Passive investments reduce some forms of risk and cost, and potentially improve net returns. Utilizing passive investments in both efficient and inefficient markets can be an appropriate decision.

Costs

- Fees, expenses, and transaction costs can have a significant impact on long-term compounded returns and must be clearly justified and carefully managed.
- Investments should be evaluated on an expected net of fees basis. However, an understanding that fees are certain, while returns are not, should be appreciated.

Other

- Value is created by building an organization with in-depth knowledge and experience in global markets and draws on the expertise of a network of external partners.
- A successful investment program requires adequate resources, expertise, focus, and consistency in approach.
- Resources are constrained. Determining appropriate areas to focus and deploy resources is critical to adding value.
- The Plan’s people and partners drive success. Develop and retain internal capital, foster a collaborative team-oriented culture that values integrity, excellence, and humility.
- Seek arrangements which ensure alignment of interest with agents and partners and collaborate broadly.
- Attractive risk-adjusted returns can be achieved by being an early adopter in strategies, assets, markets, technologies, and approaches.
- Derivatives and leverage can be efficient tools when utilized prudently.

APPENDIX D – MANAGER DUE DILIGENCE, SELECTION, MONITORING AND TERMINATION

This policy establishes the guidelines for selecting, monitoring, and terminating Managers. This policy aims to retain a high degree of flexibility in how it is applied to Managers. The goal is to implement a process which finds a balance between two undesirable outcomes:

1. Retaining Managers with no value-adding capabilities; and,
2. Terminating Managers with value-adding capabilities

Due to the significant costs involved in replacing Managers, and due to the substantial probability of selecting a value-detracting Manager as a replacement for an existing Manager, this policy is somewhat biased toward avoiding terminating Managers with value-adding capabilities.

Manager Search Process – Public Markets

1. Initiation and Evaluation: The Chief Investment Officer will coordinate with the investment consultant regarding due diligence. A written due diligence report will be produced, which articulates the opportunity, rationale, and risk of the investment. Due diligence may include on-site visits or may be performed virtually via video conference.
2. Investment Committee Approval: A recommendation memo will be presented to the Investment Committee. With the guidance of the Chief Investment Officer and the investment consultant, the Investment Committee will determine whether to approve the investment and to recommend the investment to the Board. At times, timing considerations will require that an investment be recommended directly to the Board and will not be presented to the Investment Committee.
3. Board Approval: A recommendation memo will be presented to the Board for final approval. It is generally understood that the approval is subject to negotiating acceptable terms and conditions with the Manager.

Manager Search Process – Private Markets

The Private Markets program will be managed according to an annual plan produced by the investment consultant whose main components will encompass an update on the private markets program, a recap of prior year activity, a review of the Plan's private market strategy, a review of the annual pacing plan, and a forward calendar of prospective Managers or strategies. The annual plan will serve as a guide to ensure that target allocations are managed, proper diversification is implemented, and overall private market investments are in line with portfolio goals. It is recognized that market environments can change and deviations from the annual plan may be necessary.

The overall search process will be generally in line with pubic markets:

1. Initiation and Evaluation: Guided by the pacing plan and forward calendar, the Chief Investment Officer will coordinate with the investment consultant regarding due diligence. A written due diligence report will be produced, which articulates the opportunity, rationale, and risk of the investment. Due diligence may include on-site visits or may be performed virtually via video conference.
2. Investment Committee Approval: A recommendation memo will be presented to the Investment Committee. With the guidance of the Chief Investment Officer and investment consultant, the Investment Committee will determine whether or not to approve the investment and to recommend the investment to the Board. At times, timing considerations will require that an investment be recommended directly to the Board and not be presented to the Investment Committee.
3. Board Approval: A recommendation memo, will be presented to the Board for final approval. It is generally understood that the approval is subject to negotiating acceptable terms and conditions with the Manager.

Contracting – Public and Private Markets

Managers shall acknowledge in writing their recognition and acceptance of their role as a fiduciary to the Plan and adherence to an industry-accepted standard of care, which may be established by contract or operation of law. Managers must further agree to adhere to appropriate federal and state legislation governing the Plan and agree to be covered by appropriate and adequate insurance coverage.

Managers retained by the Board shall be compensated by a formula contained in the manager's operative fund documents or Investment Management Agreement. No public markets Manager retained by the Board shall receive a payment of commission or other fees on a particular investment transaction; provided that, performance fees paid to Managers, as documented and agreed to by and between KCERA and the Manager are allowed. Further, Managers must disclose to staff any indirect compensation received in addition to its fees as a result of servicing the Plan. Additionally, alternative Managers will be required to disclose fee information per §7928.710 and §7514.7.

Ongoing Monitoring – Public and Private Markets

Manager evaluation relies on the ongoing review of qualitative and quantitative factors. These factors will be monitored on an ongoing basis in order for the Chief Investment Officer and the investment consultant to apprise the Board of changes which could warrant a change in the Manager's suitability. A key objective of this policy is the timely identification of signs of adverse changes in a Manager's organization or investment process. Factors to monitor include performance, attribution, key contributors and detractors from performance, portfolio positioning and exposures, key positions and investment thesis, changes in the investment team or process, changes in investment product line-up, assets under management and capital flows, administrative or operational changes, and other potential changes in the business.

No less than quarterly the investment consultant reviews each traditional public market Manager of the Plan and produces a written summary, which is provided to staff. In the case of alternative Managers including private market Managers, a review and written summary is produced at least annually. In the case where no investment consultant formally covers the investment, staff will produce a written summary.

Value-adding Managers will experience adverse circumstances, such as underperformance, personnel changes, and loss of assets under management. When Managers experience such events, staff and the investment consultant will evaluate whether appropriate action was taken by the Manager, what impact the action could have, and what other actions may be considered.

Termination – Public Markets

The Board may terminate a Manager for any reason. The Chief Investment Officer or investment consultant may recommend to the Investment Committee if a Manager should be terminated, and upon approval by the Investment Committee, a recommendation for termination will be presented to the Board for final approval.

Should a situation arise whereby a Manager is no longer deemed appropriate for the Plan by the Chief Investment Officer, with concurrence from the investment consultant, and there is insufficient time to present the issue to the Investment Committee or Board, pursuant to the Board of Retirement Charter or Investment Committee Charter, the Board authorizes the Chief Investment Officer, with the written consent of the Chief Executive Officer and advice from the investment consultant, to terminate and replace the Manager with an appropriate "alternate strategy" as expeditiously as possible and in accordance with reasonable due diligence procedures. The "alternate strategy" is intended to be employed temporarily until a permanent replacement can be presented to the Board. When such activity occurs, the Board shall be notified as appropriate, either between Board meetings or at the next regularly scheduled Board meeting. For purposes of this document, "alternate strategy" refers to cash, derivatives, or a low-cost index fund employing a similar investment objective as the terminated Manager.

Manager reporting requirements

All Managers

- Updated Form ADV - Part 2 on an annual basis

All public markets

- Monthly account statement and NAV
- Monthly gross and net performance
- Performance commentary at least quarterly
- Positioning, exposure or risk report at least quarterly
- Audited Annual Financial Statements (for fund investments)

Public market investments through separately managed accounts

- Each quarter, managers shall provide a letter certifying compliance with the portfolio guidelines from the Investment Management Agreement, and compliance with regulatory requirements. Managers are required to advise staff and the investment consultant in writing of any violation.
- Annually, managers shall provide a written report detailing the name of each brokerage institution which received commissions from the Plan as the result of the discretionary trading authority bestowed upon the manager by the Board. The report shall also include for each brokerage firm: the number of shares, average cost per share traded, and the commissions paid.
- Managers are required to advise staff and the investment consultant in writing of any need for changes to the portfolio guidelines; and
- Managers are required to comply with the reporting requirements of the Trading Policy, as detailed in Appendix E
- Managers are required to comply with the reporting requirements of the Asset Pricing Policy, as detailed in Appendix G

Private markets

- Quarterly account statement and NAV
- Quarterly performance measures including IRR, and multiples
- Quarterly update of contributions, distributions, and uncalled capital
- Quarterly performance commentary
- Quarterly fund composition, positioning, or exposure reports
- Audited Annual Financial Statements (for fund investments)

APPENDIX E – TRADING POLICY

The Board has determined that trading costs represent a significant expense to the Plan. The Board has therefore established policies in order to control these costs, and to monitor the level and effectiveness of the trading activity of the Plan.

Best Price and Execution Standard

1. Notwithstanding anything to the contrary, all trading of securities will be placed by Managers with broker-dealers with the aim of obtaining the best price and best execution, taking into account all factors influencing best execution, as well as the value of all services received or savings obtained by the Plan related thereto, or by the Managers, for the benefit of the Plan.
   a. The policy of best price and best execution is intended to mean that Managers shall use professional judgment in the selection of broker-dealers and the commissions paid. Managers should be prepared to provide evidence that they are attempting to deliver investment results at the lowest possible level of transaction costs, including the market impact of their trades, and considering the value of all services provided to the Plan for its commission dollars.
   b. The policy of best price and best execution is intended to provide the most favorable overall results for the Plan.
   c. Broker-dealers, as referenced herein, include firms which customarily perform trades for an institutional clientele. Such broker-dealers may trade on the floor of the various national and regional stock exchanges or may trade in the third and fourth markets performing transactions outside of the securities exchanges.
2. Inasmuch as trading costs contribute to the gains and losses on the securities held by the Plan, and therefore contribute to the portfolio performance of each Manager, all trades will be placed by Managers at their discretion. Such trades may include fixed income transactions placed on an agency basis. All such trades will be placed within the following general guidelines, consistent with the best price and best execution standard.
   a. Managers may direct a portion of total annual transactions to broker-dealers who provide the Managers with research. In selecting among these broker-dealers to execute transactions, the Managers shall consider all factors relative to best execution. Such factors should include, but are not limited to, the following:
      i. price of security;
      ii. the commission rate;
      iii. size and difficulty of the order;
      iv. reliability, integrity, and financial condition of broker-dealer;
      v. general execution and operational capabilities or competing broker-dealers;

vi. Manager's investment style; and
vii. brokerage and research services provided.

3. When placing trades with broker-dealers, Managers will emphasize minimizing commission costs directly and not seeking sources of value to the Plan through ancillary research services. In selecting these broker-dealers to execute transactions, the Manager will consider all factors relative best execution. Such factors should include, but are not limited to, the following:
   a. price of security;
   b. the commission rate;
   c. size and difficulty of the order;
   d. reliability, integrity, and financial condition of broker-dealer;
   e. general execution and operational capabilities or competing broker-dealers; and,
   f. the Manager's investment style.

Trading Analysis

For separately managed account investments, Managers will allow to be performed an analysis of the trading costs of their respective account with the various classes of trading described herein. The Board may engage third parties to independently evaluate the Manager's trading costs and practices to assess whether or not they are achieving best execution. This analysis will be provided to staff no less than every three years.

1. The analysis will summarize and evaluate the cost effectiveness of the various broker-dealers utilized by the Manager, specifically reporting commissions charged per share traded, and an estimate of the total costs incurred in these transactions.
2. The analysis will evaluate instances of higher commissions per share with respect to the many factors affecting best execution and shall consider other services or research provided to the Manager.
3. The analysis will report trading performance by broker-dealer and by investment management account.

APPENDIX F – PROXY VOTING POLICY

Because the proxy vote is an asset of the Plan, it must be managed prudently and for the exclusive benefit of the Plan. It is the intent of this policy to lay out a broad set of guidelines within which proxies must be voted to maximize shareholder value.

Guidelines

For all equity oriented separately managed accounts, a proxy voting service provider is retained to vote all proposals submitted to stockholders in accordance with this policy. All commingled investment fund proxies are voted by the respective Manager of each fund in accordance with the Manager's proxy guidelines.

Due to the significant resources required to properly manage a proxy voting program, the Board has chosen to delegate the proxy voting decision to a third-party provider of proxy voting services and to follow that provider's detailed proxy voting guidelines.

The obligations of the third-party provider are as follows:

1. With regard to timely execution of specified proxy votes on the Plan's behalf, including corporate account set up, vote execution reporting and record keeping, and compliance with U.S. SEC and Department of Labor ERISA standards, as applicable, the third party shall carry out its duties and obligations to vote the Plan's proxies in accordance with the standards of fiduciary responsibility set forth in the CERL;
2. The third-party shall cast votes after careful consideration of the issues; and
3. The third-party shall describe the rationale for its votes.

The overarching and universal guideline is that proxies must be voted in the best interest of the Plan and its beneficiaries and in order to maximize shareholder value. In following this broad, all-encompassing guideline, the third-party provider shall follow its own detailed guidelines, which provide specific instruction on how to vote proxies in alignment with and support of the following key principles:

1. A board of directors that serves shareholder interests;
2. Transparency and integrity in financial reporting;
3. A strong link between compensation and performance; and
4. A governance structure that clearly supports shareholder interests.

The third-party provider's detailed guidelines may change over time. A copy of the current guidelines shall be maintained by staff.

Monitoring

The third-party service provider shall provide monthly reports to staff, which include a list of all proxies voted on behalf of the Plan, along with the rationale for the votes. On an annual basis, staff will provide the Board with a consolidated report summarizing the previous year’s proxy voting activity.

APPENDIX G – ASSET PRICING POLICY

This policy provides a process for the valuation of securities in separately managed accounts where the prices listed by the Plan's master custodian bank ("Custodian") are substantially different from the Manager's prices for those same securities. The Board recognizes that there are coverage limitations for security prices as provided by the Custodian's pricing matrix and third-party pricing provider prices. In those situations, where pricing is disputed between the Manager and the Custodian, the approach outlined in this policy will be implemented.

The Custodian will provide official pricing for all of the Plan's separately managed accounts with the following exceptions:

1. Issue specific market values may be priced by the Manager where no reliable third-party pricing source is available; and
2. Disputed issue prices may use the price provided by the Manager when the Manager provides the average of at least three dealer prices (bid-side).

In the case of disputed issue prices, staff may, in accordance with this policy, direct the Manager to provide its price to the Custodian and may direct the Custodian to accept the Manager's price as the official price for that issue. Valuation documentation should contain the following:

1. Sources and/or quantitative calculation used to determine the respective issue prices;
2. Percentage difference between Manager's price relative to the price generated by the master trustee bank; and
3. Aggregate percentage of the portfolio's market value for the securities priced by the Manager.

Monthly reports including the above documentation must be sent by the Manager to staff, the Custodian, and the investment consultant five days after receipt of the statement from the Custodian.

Securities held in commingled accounts are valued according to the pricing policy of the individual commingled fund Manager.

All Managers shall provide a copy of their pricing policy and pricing matrix to staff.

APPENDIX H – MANAGER RECONCILIATION REQUIREMENTS

The Board seeks to ensure greater accuracy through the implementation of a reconciliation reporting process. The Plan's separately managed account Managers shall provide written acknowledgment of the accuracy of the Custodian's records, and it is the responsibility of the Manager to reconcile with the Custodian all discrepancies in cash and holdings. The reconciliation report will list the assets and liabilities of the account that have discrepancies for both the number of shares/par value and pricing. The Manager's reconciliation report must be received by staff within 30 days of the close of the reporting month.

For traditional Managers who charge incentive fees, the Managers are responsible for reconciling its portfolio return and benchmark calculation. The reconciliation report will provide the Manager's monthly returns as well as the incentive fee calculation for the quarter. The report will show both gross and net-of-fees returns. The manager's reconciliation report must be received by staff along with the invoice billed for the quarter.

KCERA
KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Date: September 13, 2023

To: Trustees, Board of Retirement

From: Daryn Miller, CFA, Chief Investment Officer
Rafael A. Jimenez, Investment Analyst II

Subject: **Japan Equity Investment**

RECOMMENDATION

Japan public equity is an attractive opportunity given a) positive fundamentals and structural change including corporate governance reform that creates the opportunity to unlock shareholder value, and b) *cheap* valuations on both an absolute basis and relative to other developed market peers.

Staff recommends a $100M investment in the *Lazard Japanese Equity* strategy ("Lazard") and a $50M investment in the *Dalton Japan Long Only* strategy ("Dalton") subject to negotiating terms and conditions. The funding source for the allocation to Japanese equity will primarily be *Mellon DB SL World ex-US Index Fund*.

CORE-SATELLITE

Staff believes a "core-satellite" approach allows the Plan to capture the breadth of the Japan opportunity while minimizing potential overlap between managers. The "core" manager (Lazard) is characterized by investing across the Japanese market-cap spectrum with an emphasis on large-cap stocks. Given the exposure to larger companies, Lazard can be expected to exhibit a higher correlation to the benchmark than the "satellite" manager (Dalton). Lazard is expected to invest in companies that are positioned to benefit from the structural changes in Japan and incorporate engagement in its investment philosophy. Dalton is expected to employ a more active approach to corporate engagement as the manager will focus on identifying companies in the small and mid-cap (SMID) space where the investment team can leverage its resources to maximize value for minority shareholders.

The investment strategies employed by Lazard and Dalton are complementary to each other on both a quantitative and qualitative basis. The strategies have historically exhibited a negative correlation of excess returns over continuous and rolling time periods.

INTERNATIONAL DEVELOPED EQUITY ALLOCATION

The Plan's long-term strategic asset allocation includes a 33% allocation to Global Public Equity. International Developed Equity is a sub-asset class within Global Public Equities. The Plan's Global Public Equity allocation is benchmarked to the MSCI ACWI IMI index, and the International

Developed Equity allocation is benchmarked to the MSCI World ex U.S. IMI index. As of July 31st, Japan represents 5.96% of the Global Public Equity benchmark

The recommended investments in Lazard and Dalton will have effects on portfolio risk at both the equity level and Plan level, which staff has modeled and analyzed through the Venn portfolio risk analytics system.

Please find Exhibits in the Appendix section at the end of this memorandum.

Assuming the investment in Lazard and Dalton is funded through a partial redemption of the passive Mellon World ex-US Index Fund, historical volatility of the equity composite portfolio is reduced from 16.70% to 16.30%. In addition, the Public Equity historical tracking error increases from 1.34% to 1.56%. The Plan expects to be compensated for the additional level of tracking error risk through a higher return from both Japan equity beta and active management.

Current Allocation

	Market Value	% of Intl. Dev. Equity Portfolio
International Developed Equity		
Mellon DB SL World ex-US Index Fund	543,635,634	82.90%
Cevian Capital II	39,766,590	6.06%
American Century Non-US Small Cap	72,375,070	11.04%
Total International Developed Equity	655,777,294	

*Market Values as of 7/31/2023

Proposed Allocation

	Market Value	% of Intl. Dev. Equity Portfolio
International Developed Equity		
Mellon DB SL World ex-US Index Fund	393,635,634	60.03%
Cevian Capital II	39,766,590	6.06%
American Century Non-US Small Cap	72,375,070	11.04%
Lazard Japanese Equity	100,000,000	15.25%
Dalton Japan Long Only	50,000,000	7.62%
Total International Developed Equity	655,777,294	

*Market Values as of 7/31/2023

THE JAPAN OPPORTUNITY

Corporate Governance Reform: The foundation for stronger corporate governance can be traced back to the implementation of Japan's Shareholder Stewardship Code in 2014, which was followed by the Tokyo Stock Exchange (TSE) introducing a Corporate Governance Code in 2015. The adoption of these codes established principles for institutional investors to behave as responsible financial stewards of capital. Prior to the introduction of these documents, Japanese institutional investors were criticized for being too lenient with corporations and overtly passive in their policies (e.g., blindly voting in line with management). Prior to Prime Minister Abe, it was notoriously difficult to persuade management to enact changes for the benefit of shareholders.

The TSE has been proactive at enacting further governance reform with the objective of improving capital efficiency and the investability of publicly traded Japanese corporations. In 2022, the TSE restructured the exchange into three sections (Prime, Standard and Growth) in an effort to use the listing requirement of each section to improve corporate value and promote sustainable growth. In 2023, the TSE released further guidance for Prime and Standard-listed companies in order to avoid being delisted.

The TSE's latest initiative includes language around improving dialogue with shareholders and conducting management that is conscious of the cost of capital and share prices. The latter is exemplified through the TSE's requirement for companies with a price-to-book ratio (P/B) below 1 to disclose their action plans to increase this ratio. The TSE is not looking for companies to resort to temporary measures to strengthen shareholder returns. Instead, it is the intention of the exchange to incentivize companies to generate returns on invested capital that exceed the cost of capital in order to achieve sustainable growth over the longer term.

Shareholder Value and Engagement: The recent history of corporate governance reforms has been the catalyst for corporate Japan to turn its attention to the minority shareholder. The TSE reforms in particular have increased management's receptiveness toward engagement and created an environment whereby investors, including investment managers, can work collaboratively with companies to increase shareholder value. Management of Japanese companies is increasingly looking to investment managers for guidance on improving capital efficiency as these companies seek to comply with listing requirements set forth by the TSE.

Investors have the ability to be at the forefront of these improvements through building constructive relationships with management and active engagement. Japanese companies, which have historically been cash-rich, are committed to returning cash back to shareholders in the form of dividends and share buybacks in an effort to simultaneously improve capital efficiency and improve shareholder returns. Furthermore, Japanese companies have also seen improvements in ROE through net profit margin improvement as corporations have been receptive to both passing on higher prices to the consumer and cost reduction. Investors can expect further ROE improvement as improvements in capital allocation lead to a higher asset turnover ratio.

This year's annual general meeting (AGM) season between shareholders and Japanese executives has perhaps been the most active in the country's history. Japanese companies are receiving more shareholder proposals than ever before, including an increasing number of companies receiving proposals for the first time. The increasing number of companies being engaged by activist investors is congruent with the number of activist funds that have entered Japan.

Valuation: Japanese valuations are one of the cheapest relative to other developed market countries and on an absolute basis compared to its own history. It is important to note that the Japanese equity market has experienced robust EPS growth over the last decade, but valuations have been adversely affected by price multiple contraction over the same period. EPS growth in Japan over the last decade is comparable to the S&P 500 and significantly exceeds the growth of MSCI Europe. However, the contraction of P/E multiples have resulted in the current depressed valuations for Japan. Valuations look attractive given the potential combination of continued earnings growth and multiple expansion.

Inefficient Market: Japan is characterized by being an inefficient market that an effective active manager can exploit to generate alpha. Many Japanese stocks lack sell-side coverage. Research analysts provide coverage for approximately 55% of TOPIX constituents, whereas 100% of S&P 500 companies and 98% of MSCI Europe companies have sell-side coverage.

Additional Tailwinds: The Japanese market is subject to additional macro-economic, geographic, and regulatory tailwinds which could provide further support for the investment thesis. The introduction of inflation to an economy marked by decades of deflation is of significance for the potential positive effects on equity returns and the Japanese Yen. Japan's core inflation rate came in at 3.3% for the month of June, marking the 15th straight month that inflation has remained above the Bank of Japan's (BOJ) 2% target. This year's *Shunto* negotiations between major corporations and unions resulted in a wage increase of 2.1%, which is more than double the market expectation going into the negotiation. This is important as the Shunto negotiations have been regarded as a determining factor for the BOJ to normalize monetary policy. If the inflationary trend remains moderate it could prove to be a tailwind for equities as corporations pass on higher prices to the consumer and revenues and profits grow.

The BOJ has embraced inflation and maintained its ultra-loose monetary policy in an effort to allow higher prices to become entrenched in the economy. In the July BOJ Monetary Policy Meeting, the central bank announced "greater flexibility" in its approach to Yield Curve Control (YCC). The BOJ will allow the yield on 10-year JGBs to fluctuate 50 bps on either side of its 0% target but will purchase JGBs at 1%. This effectively expands the tolerance band by an additional 50 bps. The "flexibility" has been construed by many as a precursor to monetary policy tightening and elimination of negative interest rate policy. An adjustment to Japan's short-term interest rate target should prove constructive for the Japanese Yen as the interest rate differential between Japan and the rest of the world should result in the Yen strengthening.

Data from China has demonstrated that the re-opening of their economy following the COVID-19 pandemic has been muted and growth has failed to meet investor expectations. China's slower than expected recovery, geopolitical tensions, and supply chain restructuring have resulted in allocators shifting capital out of China and into Japan. This backdrop should prove to be supportive for fund flows into Japan – a country that is under-owned in institutional portfolios relative to the MSCI ACWI index.

The Kishida administration has announced reforms (Basic Policies for Economic and Fiscal Management and Structural Reform 2023) in an effort to transform Japan into an "asset management nation". The government is creating incremental demand for equities by incentivizing the transition of assets from cash deposits to investment; a shift that can help with the creation and preservation of wealth in an inflationary environment. The policy has the potential to result in additional fund flows and a positive impact on valuations as Japanese investors increase their allocation to domestic equity.

LAZARD JAPANESE EQUITY – ANALYSIS

Firm: Lazard Asset Management LLC ("Lazard") is a wholly owned subsidiary of Lazard Frères & Co. LLC, which was founded in 1848. Lazard's asset management division was established in 1970 and in 2000 merged with the other subsidiaries in order to better serve its clients. Lazard is headquartered in New York, New York and maintains affiliate offices in 17 countries across the world, consistent with the ability to offer the benefits of an international network and global perspective. The firm has 932 employees, including 320 investment professionals.

Lazard currently manages approximately $203B in assets and $3.7B in dedicated Japanese equity strategies. The Lazard Japanese Equity strategy represents $1.5B in assets under management (AUM) and has a track record dating to 1998. Lazard's specializes in relative value global equity investing; 61% of firm AUM is invested in global, international, and emerging markets equity strategies. Institutional clients represent 71% of Lazard's AUM, including $15B managed for domestic public fund clients.

Investment Philosophy & Performance: The investment philosophy for Lazard can be described as a core approach that is not restricted to either a *value* or *growth* style that seeks to earn a return greater than TOPIX through the identification of asymmetric payoff opportunities. Investment opportunities are identified through a fundamental, valuation discipline that considers the downside of each potential investment relative to the upside. The strategy seeks to understand the scenario discounted by a stock's market price and targets the inclusion of securities with a maximum 20% downside potential, but at least 50 – 60% upside potential. Fundamental analysis identifies the company-specific catalysts for value creation. The strategy has historically rotated between exposure to both growth and value depending on where the potential for asymmetric return exists. The strategy is characterized by its flexible investment approach, lower volatility than the broader Japanese market, and integration of Japanese and Western perspectives.

Lazard's portfolio is structured in a manner such that holdings can be classified into three pillars, each with its own thesis. The first pillar consists of high-quality companies that are competitive in the international landscape thereby providing a more diverse source of revenue generation. In this pillar, the team identifies undervalued companies that possess catalysts for growth. The second pillar is comprised of companies with strong domestic demand, pricing power and differentiated businesses. The team focuses on creating value for these corporations and its shareholders through engagement on corporate governance and capital allocation. The final and smallest pillar by portfolio holdings is the designated exposure to banks. Banks are positioned to benefit from returning capital to shareholders and potential macro-economic tailwinds, such as the transition from deflation to inflation.

The strategy incorporates an all-cap mandate to achieve its objective of identifying opportunities for asymmetric return generation. Historically, the portfolio has maintained a market cap profile that is consistent with TOPIX – primarily a large-cap strategy (74.8%) with some exposure to the mid-cap segment (20.7%) as of the end of Q2. The portfolio construction process results in the selection of 45

– 65 companies that reflect the team's highest conviction ideas. Historical concentration in the 10 largest positions has ranged between 29.2% and 35.3%.

The past 10 years of investment performance demonstrate that the Lazard Japanese Equity strategy has been able to generate solid investment results in a consistent and repeatable manner during periods of both growth and value outperformance. The strategy has been able to achieve a consistent pattern of returns with lower volatility than the market, as evidenced by the attractive active risk or risk that can be attributed to active management decisions. The strategy has delivered performance in the top decile over 3 and 5-year trailing periods relative to peers and an information ratio of 1.11 between January 2020 and December 2022. The commitment to pursuing asymmetric return opportunities is evidenced by the strategy's ability to capture more than 110% of the market's upside in the previous 3, 5, and 10-year trailing periods, while capturing less than 100% of the market's downside over the same time periods.

Portfolio Managers & Team: June-Yon Kim is the lead Portfolio Manager for the Lazard Japanese Equity strategy and has been with Lazard since 2019. Mr. Kim counts on 27 years of investment experience and assumed the role of lead portfolio manager on April 1st, 2023. Prior to his appointment as lead Portfolio Manager, he was the co-lead Portfolio Manager for four years alongside Timothy Griffen. Mr. Kim is American and is based out of Tokyo, Japan.

The Japanese Equity team consists of 8 investment professionals, including 5 members who are based out of Tokyo. The team is organized by sector coverage which allows each analyst to become an expert within their respective sector and foster relationships with the management of companies they cover. The analysts based in Japan speak the language and have a deep understanding of Japanese culture, which allows the team to engage more constructively and exert greater influence over corporate governance initiatives.

Compensation for the Japanese Equity team consists of an annual salary and discretionary bonus predicated on performance relative to the benchmark and the applicable peer group. The team engages in a revenue sharing arrangement with Lazard which allows for more direct alignment of incentives with the strategy. The team's annual salaries are deducted from the revenue share pool and bonuses are sourced from the remaining profit as determined by the principals of the team. Most Lazard investment professionals receive a portion of their compensation in deferred awards of Lazard restricted stock units, which creates the opportunity for employees to share in the continued success of the firm and align the interest of employees even more closely with the clients they serve.

Vehicle and Terms: Staff recommends the investment in Lazard to be structured in a separately managed account (SMA) vehicle. In an SMA, the Plan will hold the underlying securities that the portfolio holds. Lazard has proposed a competitive management fee of 30 basis points on all assets.

Risks and Considerations: Key person risk is an evident consideration for the strategy based on the role that Mr. Kim assumes in the investment decision-making process. This risk is partially mitigated by the tenure of the Japanese Equity Team, including the presence of Timothy Griffen with whom Mr. Kim served as co-lead portfolio manager.

DALTON JAPAN LONG ONLY – ANALYSIS

Firm: Dalton Investments ("Dalton") is a value-oriented, global investment management firm committed to capital preservation and long-term growth. Dalton was established in 1999 and the firm has been focused on Asian and Global equities since inception. The firm is headquarters in Los Angeles, California and maintains foreign affiliates in Tokyo, Hong Kong, Mumbai, and Sydney.

Dalton currently manages approximately $3.3B across a range of strategies for a diverse group of clients, including institutions, pension funds, foundations, and family offices. The Dalton Japan Long Only strategy represents $2,328M in assets under management and has a track record dating to July 1996. Pension clients represent 28.78% of Dalton's total AUM.

Dalton is employee-owned and intends to remain so in perpetuity. The firm believes in the importance of young, talented members of its team becoming owners of the business in order to promote the alignment of interest with the success and continuity of the firm. The firm has 38 employees; 17 employees are dedicated investment professionals.

Investment Philosophy & Performance: The investment philosophy for Dalton can be described as a value approach to investment with a focus on identifying companies with a strong *alignment of interest* between management and shareholders. The investment opportunities that exhibit the highest alignment with minority shareholders tend to be in "owner-operator" companies. In order to achieve the alignment of interest between management and minority shareholders, Dalton seeks to invest in companies where senior management and/or the founders own a significant amount of stock in the companies which they operate. Dalton's mantra is that a management team with a material investment in the company it operates results in decision-making and capital allocation policies that benefit all stakeholders, including the minority shareholder. The corporate governance reforms that have been promoted by the Japanese government and TSE have allowed for the expansion of Dalton's investable universe beyond owner-operators and into select "salary man" companies. The structural reform over the last several years has encouraged the firm's investment team to be more robust in its approach to engagement and also improved the receptiveness of Japanese corporations to constructive collaboration with Dalton to maximize the value of their corporation. Dalton's investment in salary man companies is driven by the opportunity to enhance the alignment of interest, thereby maximizing value for the minority shareholder and compounding stock return.

Dalton employs a value investment approach and aims to invest in companies with a track record of effective capital management and rewarding minority shareholders, and in companies that exhibit a significant "margin of safety" to valuation. Portfolio construction is a fundamental, bottom-up process that considers the intrinsic value of each potential investment. Dalton's investment philosophy places significant importance on capital preservation and will only invest capital in securities that trade at a material discount to intrinsic value.

The strategy is not limited to investing in any particular segment of the Japanese market-cap spectrum; however, the strategy has historically maintained a large exposure to small and mid-cap companies and a significant underweight to large-cap companies. The concentration in small and mid-cap companies is driven by the alignment of interest that tends to be manifested in smaller companies where owner-operators are incentivized to adopt shareholder-friendly behavior. The gradual increase in exposure to large-cap companies has coincided with the expansion of Dalton's investment universe to salary man companies. It's important to note that the vast majority of excess return relative to the MSCI Japan Index can be attributed to the strategy's exposure to small and mid-cap stocks. Although the team has identified an increasing number of opportunities in larger companies, the expectation is for most investment ideas to continue to come from the small and mid-cap portion of the market cap spectrum. In order to minimize the potential for security overlap with Lazard, the recommendation is for Dalton's mandate to include a constraint that prevents investment in companies with a market capitalization in excess of $25B.

The strategy's guidelines permit between 24 – 40 securities to be held in the portfolio and the historical concentration in the 10 largest positions is 50%. The portfolio includes an allocation to a closed-end fund, Nippon Active Value Fund (NAVF). The closed-end fund was launched in 2020 with the intention of implementing a more activist approach to engagement with Japanese companies. NAVF primarily invests in companies with market capitalizations under $1B that create private equity co-investment opportunities through leveraged buyout (LBO) acquisitions. Exposure to NAVF has historically been sized at a portfolio weight of 5%.

The past 10 years of investment performance demonstrate that the Dalton Japan Long Only Strategy has been able to generate solid investment results on both an absolute basis and relative to its benchmark. The team at Dalton has been able to generate alpha in years where both a bias toward value and growth have outperformed the broader index. The strategy has been able to achieve attractive risk-adjusted returns by maintaining a conservative level of active risk. The commitment to capital preservation and prudent investment of capital is evidenced by the strategy's downside capture ratio consistently below 95 in the previous 3, 5, and 10-year trailing periods. Furthermore, investors in the strategy have been able to achieve an asymmetrically positive return profile that captures more of the upside relative to the broader market and less of the downside.

Portfolio Managers & Team: James B. Rosenwald III, CFA is the Chief Investment Officer at Dalton Investments and the Senior Portfolio Manager for the Japan Long Only strategy. Mr. Rosenwald has 41 years of investment experience and has been the key decision maker since inception in 1996. Mr. Rosenwald is based out of Los Angeles, California and is responsible for directing the firm's Asia research staff, including the Japan research team based in Tokyo.

The Japan research team counts on 5 designated analysts based out of Tokyo that are "on-the-ground". A strong local presence is instrumental to the implementation of a successful investment strategy given the cultural nuances of investing in Japan. The analysts on the research team are of Japanese origin and possess excellent command of not only the language, but also the culture. This allows the team to engage in a constructive manner during the ongoing face-to-face meetings with management of portfolio companies. The Japan research team collaborates closely with the Asia ex-Japan team to better understand the opportunity set and headwinds for Japanese companies conducting business throughout Asia.

The portfolio manager's compensation is a combination of an annual salary and bonus. It's important to note that Mr. Rosenwald owns 51% of Dalton Investments through Rosenwald Capital Management. The firm's investment analysts are compensated through the combination of a moderate fixed salary and a discretionary bonus payment, which for a successful analyst could amount to multiples of their base salary.

One of the most important pillars of Dalton's investment philosophy is the *alignment of interest* between the management of portfolio companies and shareholders. Dalton applies the same philosophy to its own investment team who have a significant portion of their wealth invested in the firm's strategies alongside clients. Dalton is able to achieve this alignment of interest by asking its investment professionals to invest at a minimum 50% of their annual pre-tax bonus compensation into Dalton strategies. Approximately 2% of the firm's total AUM is accounted for by Dalton employees.

Vehicle and Terms: Staff recommends the investment in Dalton to be structured in a Delaware Statutory Trust (DST) commingled vehicle, for which the Plan would be the seed investor. Staff has negotiated a competitive fee structure that has the potential to become more attractive as new investors enter the fund. In order to limit overlap with the core manager, staff recommends the mandate include a constraint that prevents investment in companies with a market capitalization greater than $25B.

Risks and Considerations: There is a clear degree of key person risk inherent in the strategy based on the reliance on Mr. Rosenwald as the key decision-maker. This concern is marginally mitigated through the culture that Mr. Rosenwald has fostered and tenure of the Japan Research Team, particularly the integration of Shiro Hayashi (Director of Japan Research).

RISK TO THE JAPAN THESIS

The risks to our investment thesis include foreign currency risk, broader macro-economic risk, and the concern that developments on corporate governance reform fail to lead to permanent change.

Similar to the Plan's other investments in Global Public Equity, the investments in Japan will be pursued on a currency unhedged basis. The interest rate differential between Japan and the U.S. and other economic factors have driven the recent Yen depreciation. The weaker Yen has proven to be a tailwind for export-driven companies as Japanese goods have become comparatively cheaper than global competitors and earnings are repatriated. Inbound tourism has also been a beneficiary of a weaker Yen as Japan becomes a cheaper travel destination. Investors can expect for the interest rate differential to compress as both the U.S. and Japan pursue the *normalization* of their monetary policy. However, the risk that Yen weakness persists is a headwind for investors in an unhedged strategy. The investment team is currently evaluating the suitability of implementing a foreign currency overlay strategy at a broader Plan level, but a decision has not been made at this time.

Additional macro-economic considerations that could pose downside risk include Japan's Debt-to-GDP ratio, sensitivity to the global economy, and inflation. Japan has historically maintained high levels of sovereign debt relative to its GDP, which is a concern as the debt needs to be serviced and repaid. The possibility exists for interest payments to increase as interest rates rise, however this risk is mitigated by the notion that any BOJ rate hike will be measured and gradual. Furthermore, the vast majority of Japanese government bonds (approximately 92% in 2021) are held by domestic investors, and more than half are held by the BOJ. The Japanese economy is more cyclical than other developed countries and exhibits greater sensitivity to the global economy. The cyclicality of Japan is largely driven by the export-centric nature of its economy and exposure to foreign revenue. This risk is partially mitigated by thoughtful exposure to export-oriented and domestic-oriented companies, which can be achieved through exposure to the entirety of the market cap spectrum. It should also be noted that while inflationary pressures in Japan are currently above the BOJ's target, the current level of inflation is conducive to growth and consumption provided that the level remains moderate.

Japan Exchange Group (JPX) CEO, Hiromi Yamaji, has stated that the market is positioned to absorb future BOJ rate hikes if accompanied by stable inflation.

Another risk to the investment thesis is the potential that the structural reform initiatives are fleeting and result in a false dawn. Global investors have historically been under-allocated to Japanese equity as a sequence of macroeconomic reforms and valuation compression have led to uninspiring investment results. However, there is conviction that recent developments will be fruitful. The framework for stronger corporate governance, introduced by Abenomics, has been established and is gaining momentum. Japanese companies are committed to improving shareholder returns and the potential for the return of excess capital is immense. Furthermore, transformation is being institutionalized as evidenced by the TSE's reforms. Japanese companies have dealt with the headwind of a strong yen for decades. However, due to accommodative monetary policy, Japanese companies have become more competitive in the global landscape and the currency headwind has become a tailwind. The introduction of inflationary pressure in a country marked by persistent deflation is also constructive as it could lead to increased consumption and investment.

INVESTMENT PROCESS
Staff launched a Request for Proposal (RFP) with the objective of hiring an investment manager(s) to provide dedicated exposure to a long-only publicly traded Japanese active investment strategy. The RFP was launched on February 10th, 2023, and the deadline for submission was on March 8th, 2023. The RFP received submissions from 21 investment managers for 23 individual strategies. Staff conducted preliminary conversations with all the managers who met the minimum requirement set forth by the RFP to understand the strategy's team, investment philosophy and process. Staff identified the strategies that warranted further consideration through a combination of qualitative and quantitative factors. Staff conducted an additional interview with 8 managers to better understand historical performance, risk considerations, and environments where the strategy can be expected to under or overperform. Staff identified finalists for the *Core* and *Satellite* allocations and communicated the short list of potential managers to Verus, who separately undertook their own assessment of the strategies. Staff arrived at an investment decision after thoughtful consideration of performance, expected future performance, investment methodology and the complementary aspects of each manager. Verus' is supportive of Staff's investment recommendation and arrived at a conclusion independently of Staff.

VERUS
Verus undertook an independent assessment of the recommended managers to determine their institutional quality and provided a complementary memorandum that is supportive of Staff's recommendation. The Verus memorandum is appended to this document.

SUMMARY
Japan has long been regarded by global investors as a futile destination for equity investment. Following the burst of the Japanese asset price bubble over three decades ago, Japan has been viewed as a poor destination for capital given the sub-optimal capital structure of its corporations, poor corporate governance, and lack of importance placed on shareholder value. However, corporate Japan is undergoing structural change that is reversing these precedents and transforming the Japanese landscape into one that is rich for equity investment on the basis of: corporate governance reform driven by Japan's primary stock exchange, the potential for shareholder value maximization through corporate engagement, and attractive valuation. Furthermore, the thesis for investing in

Japan is supported by broader macro-economic tailwinds that are either currently in motion or can be expected to develop in the short to intermediate time horizon. The recommended core-satellite investment allows the Plan to capture the present opportunity in Japan and earn a return consistent with or potentially greater than the objective of the Public Equity allocation.

APPENDIX

Equity Level Risk (Analysis Period June 2020 – July 2023)

Historical Performance	Current Equity Portfolio	Proposed Equity Portfolio
Volatility (Analysis Period)	16.70%	16.30%
Tracking Error (Analysis Period)	1.34%	1.56%
Max Drawdown (Analysis Period)	-25.02%	-24.79%

Forecast Performance	Current Equity Portfolio	Proposed Equity Portfolio
Volatility	15.67%	15.32%

Plan Level Risk (Analysis Period June 2020 – July 2023)

Historical Performance	Current Plan Portfolio	Proposed Plan Portfolio
Volatility (Analysis Period)	9.37%	9.45%
Tracking Error (Analysis Period)	2.75%	2.71%
Max Drawdown (Analysis Period)	-12.66%	-12.96%

Forecast Performance	Current Plan Portfolio	Proposed Plan Portfolio
Volatility	8.18%	8.25%

Correlation of Excess Return

Analysis Period Jan 2013 - Dec 2022

Excess Return Correlation	Lazard Japanese Equity	Dalton Japan Long Only
Lazard Japanese Equity	1.00	
Dalton Japan Long Only	**-0.35**	1.00

Analysis Period Jan 2013 - Dec 2015

Excess Return Correlation	Lazard Japanese Equity	Dalton Japan Long Only
Lazard Japanese Equity	1.00	
Dalton Japan Long Only	**-0.12**	1.00

Analysis Period Jan 2016 - Dec 2019

Excess Return Correlation	Lazard Japanese Equity	Dalton Japan Long Only
Lazard Japanese Equity	1.00	
Dalton Japan Long Only	**-0.39**	1.00

Analysis Period Jan 2020 - Dec 2022

Excess Return Correlation	Lazard Japanese Equity	Dalton Japan Long Only
Lazard Japanese Equity	1.00	
Dalton Japan Long Only	**-0.52**	1.00

Memorandum

To: Board of Retirement, Kern County Employees' Retirement Association
cc: KCERA Investment Staff
From: Scott J. Whalen, CFA, CAIA, Executive Managing Director and Senior Consultant
Date: September 13, 2023
RE: Dedicated Japan Equity Mandate

Background and Evaluation Process
KCERA's investment strategy includes a policy allocation to global equity of 33%. Japan makes up approximately 6% of the global equity opportunity set on a market-cap-weighted basis, which means that approximately 2% of KCERA's total policy portfolio is allocated to Japan equity.

Late last year, KCERA Investment Staff launched a research initiative to explore the potential value of introducing a Japan-only equity mandate to increase the allocation to Japan equity within the portfolio. Based on that research, Staff identified two areas where a Japan-only mandate is expected to add incremental value;

1) Outperforming Beta where Japan is expected to exceed a cap-weighted global benchmark, given cheap absolute and relative valuations, combined with a number of positive trends, e.g., regulatory, governance, earnings; and

2) A rich alpha opportunity, given a relatively inefficient market and the opportunity to create value through corporate engagement.

Once Staff became convinced of the validity of the investment thesis, they turned their attention to implementation. A thorough RFP-based investment manager search and a detailed implementation analysis was carried out in multiple stages, including:

- Review of 25 separate investment strategy proposals from 23 managers;
- 19 introductory manager calls;
- Deep quantitative analysis;
- 8 follow-up calls;
- 4 due diligence interviews;
- Manager structure analysis; and
- Mandate sizing analysis.

Based on this work, Staff is recommending $150 million dedicated Japan-only equity mandate split between two complementary managers.

Verus Participation

Verus supported KCERA Investment Staff through the evaluation process by providing requested quantitative data to augment KCERA-generated statistics, conducting independent due diligence on finalist candidates, and providing insight and additional analytical rigor to the manager structure and mandate sizing decisions.

Verus Position

Verus has been constructive on the Japan story for several years and have advocated for a Japan-only equity mandate for those of our clients that have expressed interest. Following our review of the evaluation work of KCERA's Investment Staff and the independent work conducted by Verus research, we are supportive of Staff's recommendation.

Memorandum

To:	Board of Retirement, Kern County Employees' Retirement Association
cc:	KCERA Investment Staff
From:	Scott J. Whalen, CFA, CAIA, Executive Managing Director and Senior Consultant
Date:	September 13, 2023
RE:	Transition Management

Background

At the August 9th meeting of the KCERA Board of Retirement, the Board approved an adjustment to the Plan's strategic asset allocation. Verus and KCERA Investment Staff are recommending the use of a dedicated transition manager as a best practice to ensure the transition event is conducted as efficiently as possible and transition cost is minimized.

KCERA Investment Staff is further recommending BlackRock as the preferred provider for this particular transition event, based largely on BlackRock's focused expertise in fixed income and the fact that this transition will be focused on movement within this asset class. Verus concurs with this recommendation, based on our due diligence of BlackRock's transition management capabilities, summarized below.

Due Diligence Review

FIRM BACKGROUND AND HISTORY

BlackRock was founded in 1988, initially focusing on risk management and fixed income asset management for institutional clients. The transition management ("TM") service offering was launched in 1993 and today provides transition services ranging from comprehensive cost analysis and interim asset management to full fiduciary transition management.

TRANSITION MANAGER SERVICES OVERVIEW

BlackRock considers the development and growth of their TM service as a natural extension of the index and active investment management business they are best known for. The BlackRock Transition Management Team consists of 62 professionals located in six offices worldwide (San Francisco, New York, London, Budapest, Hong Kong and Tokyo), all operating on a proprietary global technology platform, named Aladdin. Aladdin acts as the operational core of BlackRock's TM service, organizing the transition coordinators, trading research, trading desks and compliance teams.

BlackRock's live trading desks across 24 countries is critical to the success of their TM service. Maintaining in-house trading and operations staff on the ground in multiple markets around the world enables access to liquidity and supports operational efficiency and also preserves client confidentiality.

BlackRock uses the T-standard benchmark to measure performance of each transition event. This is an industry standard measure of implementation shortfall and provides the clearest measure of overall cost of a transition event. Following a transition event, BlackRock will provide fully attributed performance using the T-standard benchmark for comparative purposes.

BlackRock is competitive with respect to commissions component of the overall fee. However, there could be an additional cost for project management, depending on the complexity of the transition, which will need to be negotiated. All rates and charges are fully disclosed and agreed upon prior to the assignment.

AREAS OF EXPERTISE/DIFFERENTIATION

BlackRock was one of the first organizations to establish a dedicated team to offer transition management services. While this group is separate and distinct from the rest of the organization, it can leverage the trading and execution services established to support various groups firmwide.

They are the only transition manager that trades from a buy side perspective, meaning that they use an asset manager model when planning transition events. They complete all trades on an agency-only basis and use their affiliated broker dealer, BlackRock Execution Services (BES), to allow for commission recapture.

BlackRock highlights the continuing development of their technology, including improvements to their proprietary platform, Aladdin, as a competitive advantage. This includes the development of custom solutions focused on a total portfolio approach, emphasizing portfolio construction and asset allocation strategies. This holistic approach is useful when planning a multi-asset transition such as the one KCERA will be undertaking.

POTENTIAL CONCERNS

BlackRock is one of the largest asset managers in the world with over $9 trillion of AUM. Given that asset management dwarfs the transition management business, a concern would be the prioritization of asset management trades over transition management. This concern is mitigated by BlackRock's well-documented and detailed compliance and conflict-of-interest protocols and procedures.

Recommendation

BlackRock offers a robust trading platform with a global footprint and has broad expertise trading across all asset classes and specific expertise in fixed income. In addition, their long history in the transition management space and their holistic approach establishes them as a premier provider of transition management services. We concur with Staff's recommendation to use BlackRock Transition Management Services for its upcoming transition event.

***Past performance is no guarantee of future results**. This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other "forward-looking statements." No assurance can be given that future results described or implied by any forward-looking information will be achieved. Investing entails risks, including possible loss of principal.*
Verus – also known as Verus Advisory™.

Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: JUNE 30, 2023

Investment Performance Review for

Kern County Employees’ Retirement Association

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Verus
PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS
3RD QUARTER 2023
Investment Landscape

Verus business update

Since our last Investment Landscape webinar:

— Verus hired four employees:

- **Dan Hougard, FSA**, Associate Director | Actuarial Services (Chicago)
- **Chibueze Odoh**, Public Markets Analyst (Seattle)
- **Madison Martin**, Performance Analyst (Seattle)
- **Palmer Pederson**, Performance Analyst (Seattle)

— In addition, we've partnered with Rainier Scholars for a summer internship position. Rainier Scholars is a program that offers a pathway to college graduation for underrepresented communities.

- **Moses Dagmawi**, Summer Intern (Seattle)

Recent Verus research

Visit: verusinvestments.com/research

Annual research

2023 REAL ASSETS OUTLOOK

In our Outlook last year, we said, “We believe inflation will likely begin falling later in 2022.” And though that turned out to be true, we came to that conclusion because we believed the Fed would choke off the pressures of inflation. Coming into 2023, it appeared as though inflation would continue to retreat lower, but unexpected price increases have complicated the picture. There are now banking instability issues, geopolitics, a softening economy, and a dozen other headline issues weighing on investors’ minds.

We believe the Fed will keep policy tight until inflation returns to their target level. We expect rates to stay higher for longer, which could present challenges and opportunities across private markets which have broadly failed to adjust equity values for the new higher-rate environment.

The Verus 2023 Real Assets Outlook includes insights around the following trends:

— Dislocations in Commercial Real Estate

— Elevated valuations in Infrastructure

— Declining interest in Natural Resources

Topics of interest

PRIVATE REAL ESTATE IN TAFT-HARTLEY PORTFOLIOS

Taft-Hartley pension funds in the United States often make allocations to private real estate with the dual objectives of generating robust returns and supporting union workers by investing in “labor-friendly" real estate strategies. There is occasionally a misconception that investing in labor-friendly real estate strategies involves sacrificing performance.

In this Topic of Interest whitepaper, we examine core real estate manager performance over time using the North American Building Trades Report Card to identify whether a performance difference does in fact exist. We conclude, based on the data, that labor-friendly private real estate performance has been competitive with the broader private real estate universe and that significant return was not sacrificed when investing in labor-friendly strategies during the period examined.

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2nd quarter summary

THE ECONOMIC CLIMATE

— Real GDP increased at a 2.0% rate in Q1 (1.8% growth year-over-year). The slowdown from the prior quarter reflected weaker inventory buildups and slower business investment. An upturn in consumer spending was the greatest support to economic growth, as consumption has ticked along at a steady rate.

— The unemployment rate remained very tight at 3.6% in June. The workforce appears to be experiencing a healthy, and possibly low pain, rebalancing of resources. Many workers are returning to the workforce while fewer job openings are being posted. Both of these effects reduce the mismatch between *workers available* and *available jobs*.

PORTFOLIO IMPACTS

— The U.S. consumer has shown resiliency. Household budgets have been strained by high inflation and a jump in interest rates; however, the boom in wealth over the past decade, fueled by a substantial bull market in stocks and in residential real estate, may provide a cushion in the next downturn. It remains unclear whether the U.S. will face recession in the near-term.

— The Cboe VIX implied volatility index fell to a surprisingly low level, despite broad expectations of recession, regional bank risks, and other not-yet-known consequences of liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter.

THE INVESTMENT CLIMATE

— The Fed implemented an additional rate hike to a new range of 5.00–5.25%, but longer-term U.S. interest rates remain anchored. This has resulted in the most deeply inverted U.S. yield curve since the early 1980s at -1.06% (defined as 10-year UST yield minus 2-year UST yield).

— Inflation fell further in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI at 4.8%. Weakening energy prices have had a big impact on overall inflation levels, though prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story.

ASSET ALLOCATION ISSUES

— Global equities persisted in their upward trajectory during Q2 (MSCI ACWI +6.2%). International developed markets underperformed domestic equities (S&P 500 +8.7%, MSCI EAFE +3.0%,), as did emerging markets (MSCI EM +0.9%). U.S. equities rallied for a third consecutive quarter. A surge in AI-focused hype helped drive an expansion in the valuations of large tech firms.

— Growth stocks (+12.8%) outpaced value (+4.1%) once again, bringing the year-to-date performance differential to +23.9%. Sector-specific drivers, including product launches and upward adjustments to company guidance among Information Technology (+18.6%) mega-caps, drove growth stocks higher. Over recent years, certain style factors have exhibited some of the wildest swings in history.

Equity & credit markets performed strongly during Q2

A variety of risks hang overhead, though markets appear to be expecting a "soft landing"

What drove the market in Q2?

“U.S. inflation cooled in June for the 12th straight month”

HEADLINE CONSUMER PRICE INFLATION (YEAR-OVER-YEAR)					
Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**
6.4%	6.0%	5.0%	4.9%	4.1%	3.0%

Article Source: CNN, July 12th, 2023

“Top U.S. banks raise dividends after sailing through Fed stress tests”

KBW REGIONAL BANKING INDEX (MONTHLY RETURN)					
Jan	**Feb**	**Mar**	**Apr**	**May**	**June**
2.9%	0.5%	-20.6%	-3.6%	-8.7%	7.1%

Article Source: Reuters, June 30th, 2023

“This classic recession indicator just hit its lowest level since 1981”

10-YEAR U.S. TREASURY YIELD MINUS 2-YEAR U.S. TREASURY YIELD					
Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**
-0.68%	-0.79%	-0.64%	-0.56%	-0.56%	-0.89%

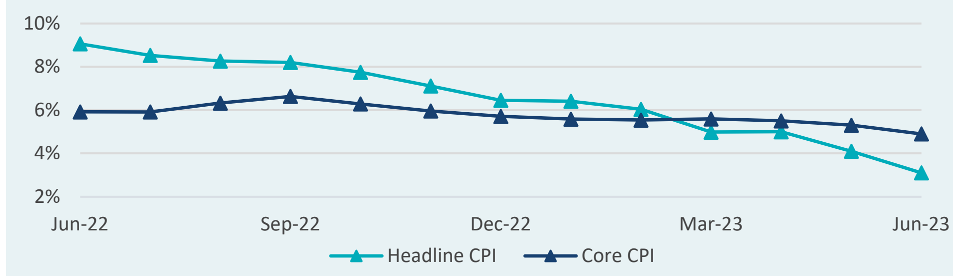
Article Source: CNBC, July 7th, 2023

“Fed pauses interest rate hikes, signals two more increases likely…”

FED FUNDS TARGET RATE – UPPER BOUND					
Q1 22	**Q2 22**	**Q3 22**	**Q4 22**	**Q1 23**	**Q2 23**
0.50%	1.75%	3.25%	4.50%	5.00%	5.25%

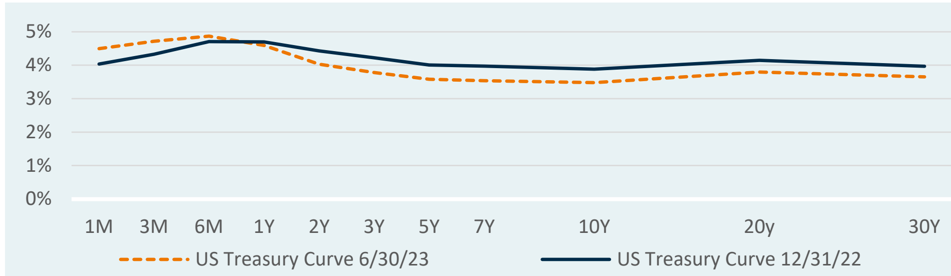
Article Source: USA Today, June 14th, 2023

U.S. HEADLINE VS. CORE INFLATION (YEAR-OVER-YEAR)



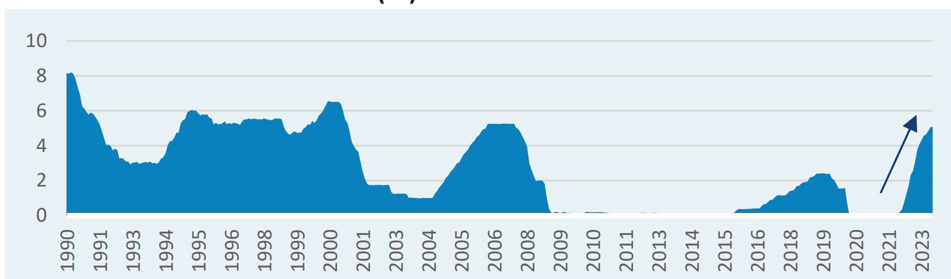
Source: FRED, as of 6/30/23

DEEP U.S. YIELD CURVE INVERSION



Source: Bloomberg, as of 6/30/23

EFFECTIVE FED FUNDS RATE (%)



Source: FRED, as of 6/30/23

Economic environment

U.S. economics summary

— Real GDP increased at a 2.0% rate in the first quarter of 2023 (1.8% growth year-over-year). The slowdown reflected weaker inventory buildups and slower business investment. Despite loftier inflation and higher interest rates, many economic signals are positive and/or improving.

— Inflation fell further in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI at 4.8%. Weaker energy prices have had a large impact on overall inflation levels, though prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story.

— The U.S. consumer has shown resiliency, with spending moving along at a moderate pace—at 2.1% year-over-year in May. These consumption patterns will be worth watching, as spending is the largest driver of economic growth.

— The Fed released its annual banking stress test results, which was applicable to the "too big to fail" class of banks. Results helped ease banking concerns as all 23 banks passed.

— The unemployment rate remained very tight at 3.6% in June. The workforce appears to be experiencing a healthy, and possibly low pain, rebalancing of resources. Many workers are returning to the workforce at the same time that fewer job openings are posted. Both of these effects reduce the mismatch between the total number of workers available relative to available jobs.

— Consumer sentiment improved slightly during the second quarter by most measures but remains pessimistic. The University of Michigan Consumer Sentiment survey showed that the outlook has improved due to factors such as the debt ceiling resolution and falling inflation.

	Most Recent	**12 Months Prior**
Real GDP *(YoY)*	1.8% *3/31/23*	3.7% *3/31/22*
Inflation *(CPI YoY, Core)*	4.8% *6/30/23*	8.9% *6/30/22*
Expected Inflation *(5yr-5yr forward)*	2.3% *6/30/23*	2.1% *6/30/22*
Fed Funds Target Range	5.00–5.25% *6/30/23*	1.50–1.75% *6/30/22*
10-Year Rate	3.81% *6/30/23*	2.98% *6/30/22*
U-3 Unemployment	3.6% *6/30/23*	3.6% *6/30/22*
U-6 Unemployment	6.9% *6/30/23*	6.7% *6/30/22*

GDP growth

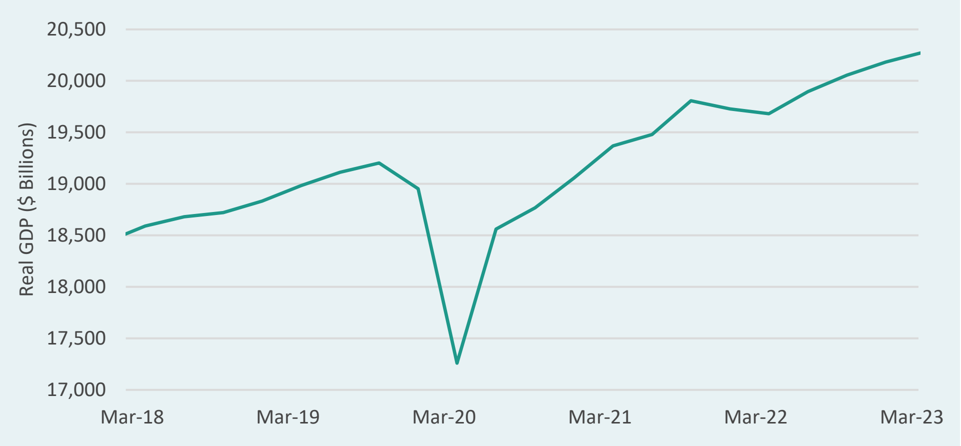
Real GDP increased at a 2.0% rate in the first quarter of 2023 (1.8% growth year-over-year). The slowdown from the prior quarter reflected weaker inventory buildups and slower business investment. An upturn in consumer spending was the greatest support to economic growth, as consumption has ticked along at a steady rate despite higher costs of borrowing. Second quarter GDP growth is expected to be 2.3%, according to the Atlanta Fed GDPNow forecast, as of July 10th.

Growth varied across industries, with service-producing industries producing 2.6% growth, government-related growing 2.7%, and goods-producing industry growth falling by -0.7%.

The economy has increasingly shown signs of resilience, casting doubt on whether a recession is imminent. Markets seem to be interpreting this resilience as a negative development, due to implications for even tighter monetary policy and a more aggressive Federal Reserve in the fight against inflation. This *bad news is good news* dynamic was illustrated on July 6th when ADP's National Employment Report indicated that 497,000 private sector jobs were added in June—double the expected number. This strong report sent bond yields higher and equity markets lower.

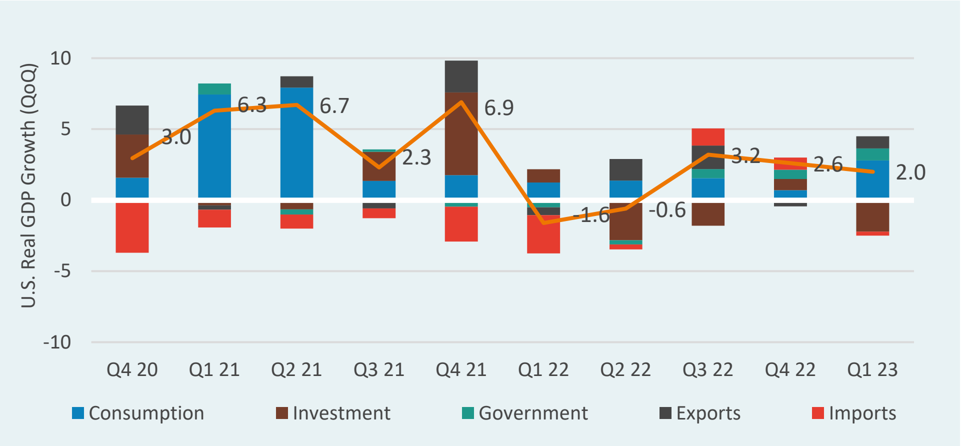
The U.S. economy continues to show resilience despite aggressive monetary tightening & low consumer confidence

U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 3/31/23

U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 3/31/23

Inflation

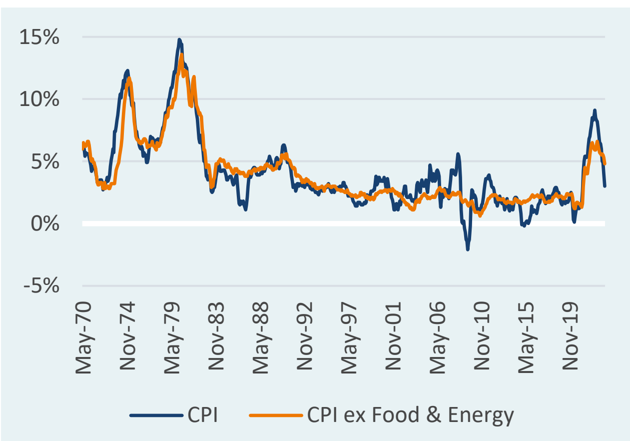
Inflation has continued to move lower in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI (ex-food & energy) at 4.8%. Weaker energy prices have had a significant impact on overall inflation levels, as well as *base effects* as larger price moves of 2022 begin to fall out of the official twelve-month inflation calculation. In recent months, prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story. Inflation concerns are now centered on core inflation (ex-food & energy) which remains stubbornly high and has shown fewer signs of abating.

Earlier in the U.S. inflationary cycle business input costs were rising faster than wages which contributed to an environment where real household incomes were falling (wages not keeping up with goods and services prices). Recently this trend has reversed. This may lead to an environment in which households are benefiting from inflation as wages rise faster than inflation in the prices of goods and services.

In past editions of this document, we predicted that inflation (CPI) was very likely to fall to around 4% in Q2 for technical reasons related to the twelve-month window with which inflation is calculated. These effects have played out as expected.

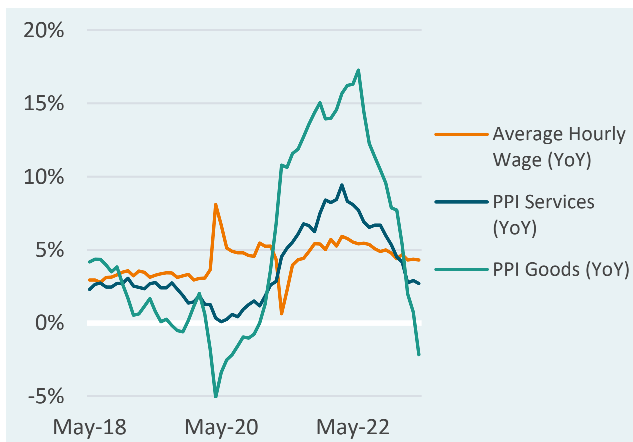
U.S. inflation continues to fall, though persistent monthly core inflation (ex-food & energy) is a concern

U.S. CPI (YOY)



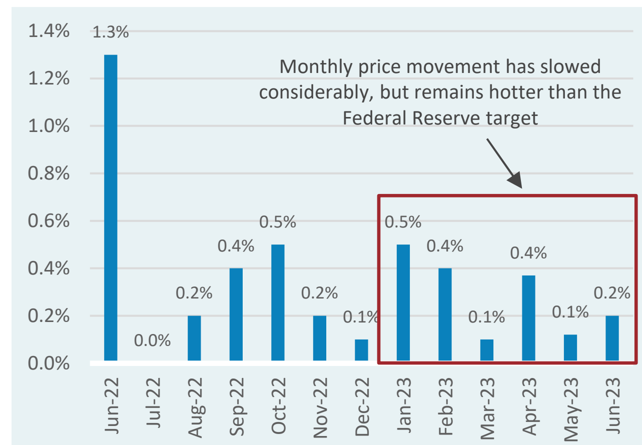
Source: BLS, as of 6/30/23

HIGHER PRICES MAY NOW BENEFIT CONSUMERS



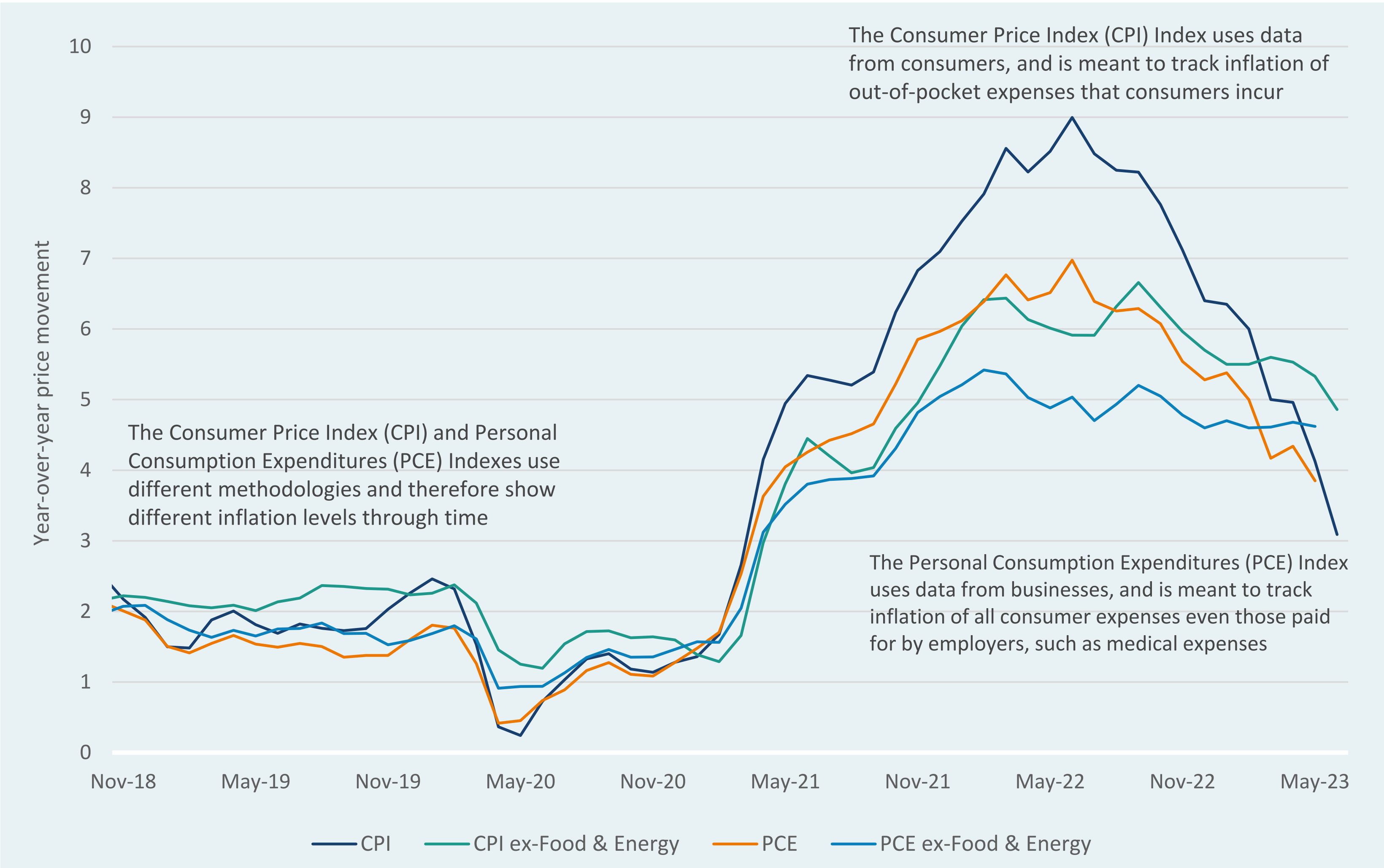
Source: FRED, BLS, as of 5/31/23

MONTHLY PRICE MOVEMENT



Source: BLS, as of 6/30/23

How are inflation conditions evolving?



U.S. inflation continues to fall, though persistent monthly core inflation (ex-food & energy) is a concern

Source: FRED, Verus, PCE data as of 5/31/23, CPI data as of 6/30/23

Labor market

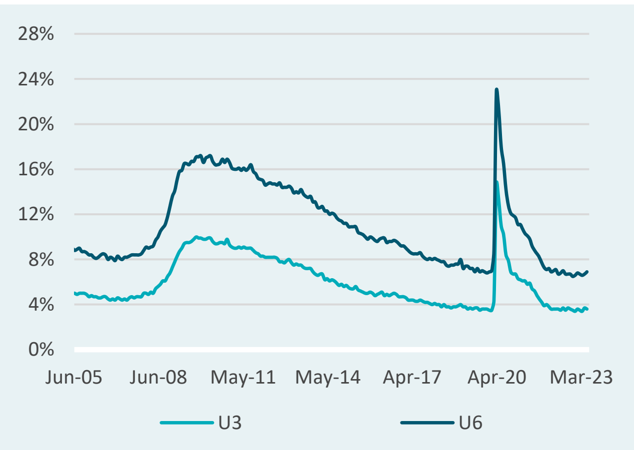
The unemployment rate remained very tight at 3.6% in June, despite far higher interest rates, liquidity withdrawal from the Federal Reserve, and concerns of a possible recession.

Labor participation rates further recovered over the quarter as many workers who had left the labor force during the pandemic are once again seeking employment. This recovery has been highly concentrated in the core age cohort (25-54 years). In fact, the labor participation rate of this age group has surpassed the pre-pandemic level. Workers aged 55 and older have overall not been returning to the workforce. Participation of these workers has actually declined slightly over the past year.

Overall, the workforce appears to be experiencing a healthy, and possibly relatively low pain, rebalancing of resources. Many workers are returning to the workforce at the same time that fewer job openings are posted. Both of those effects reduce the mismatch between the number of *workers available* and the *available jobs*. These unique dynamics could allow for a reduction in labor market tightness without a major cycle of layoffs, while potentially also helping ease inflation pressure if a looser labor market helps dampen wage growth.

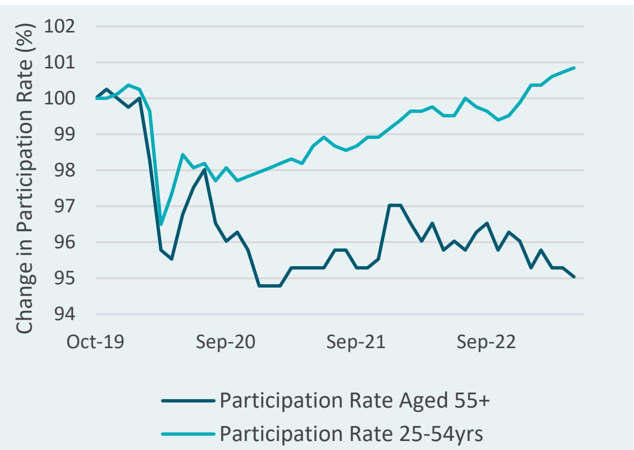
Many workers who left the labor force during the pandemic are returning to the job market, helping to rebalance labor conditions

U.S. UNEMPLOYMENT



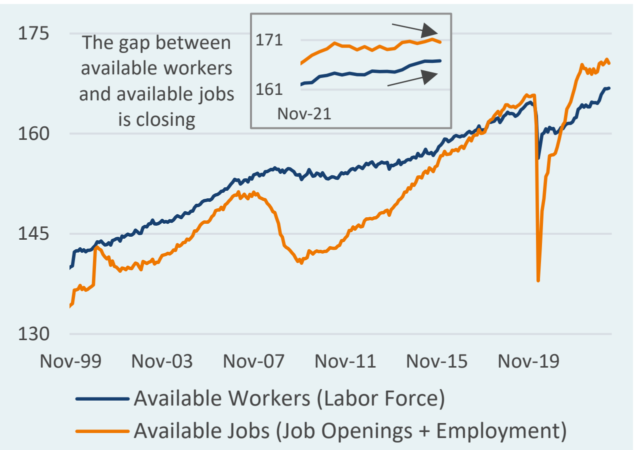
Source: FRED, as of 6/30/23

LABOR FORCE PARTICIPATION RATE



Source: FRED, as of 6/30/23

WORKERS AVAILABLE VS. AVAILABLE JOBS



Source: BLS, as of 5/31/23

The consumer

The U.S. consumer has shown resiliency, with real (inflation-adjusted) personal consumption expenditures moving along at a moderate pace—at 2.1% year-over-year in May. These consumption patterns will be worth watching, as spending is the largest driver of economic growth and is likely the greatest determinant of whether recession occurs in the near-term.

Personal savings rates remain depressed, but this does not seem to be resulting in stronger spending behavior. We suspect lower savings rates are at least partly a product of high inflation and falling real (inflation-adjusted) incomes.

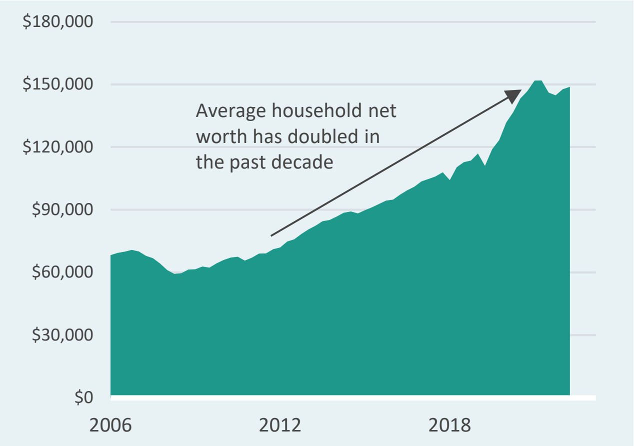
Household budgets have come under strain due to high inflation in recent years and a sharp increase in interest rates which impacted borrowing costs. However, it is important to contrast this with the fact that Americans have experienced a boom in wealth and prosperity over the past decade, fueled by substantial bull markets in stocks and in residential real estate, among other assets. This wealth may serve as somewhat of a unique buffer against economic weakness.

The vast wealth created over the past decade may serve as a unique buffer against economic weakness

REAL PERSONAL SPENDING

Source: FRED, as of 5/31/23

AVERAGE HOUSEHOLD NET WORTH



Source: FRED, as of 1/31/23

PERSONAL SAVINGS RATE

Source: FRED, as of 5/31/23

Sentiment

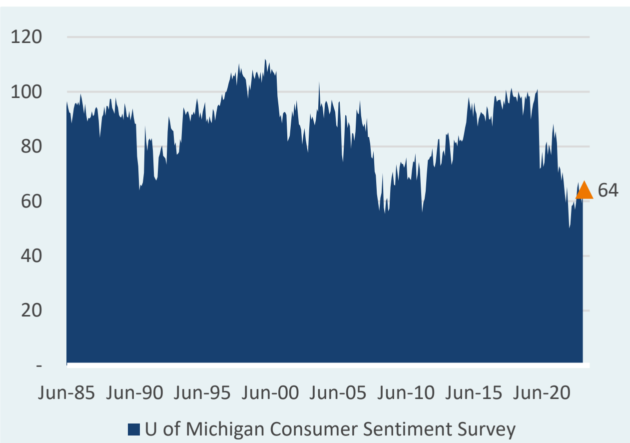
Consumer sentiment improved slightly during the second quarter by most measures but remains pessimistic. The University of Michigan Consumer Sentiment survey showed that the outlook has brightened due to factors such as the debt ceiling resolution and falling inflation.

Consumer confidence as indicated by the Conference Board improved materially, although confidence readings reflect levels typically associated with recession within the next year. According to the Conference Board survey, responses suggested a more positive outlook for family finances, better labor market conditions, and further declines in inflation. Across age cohorts, Americans younger than age 35 expressed the largest gains in optimism.

The NFIB Small Business Optimism index improved slightly but remains at very depressed levels. Difficulties in hiring qualified employees and high inflation were the greatest small business concerns in June. Fewer business owners reported plans to increase prices, perhaps an indication of easing inflation pressure.

Sentiment improved during Q2 but remains poor by most measures

CONSUMER SENTIMENT

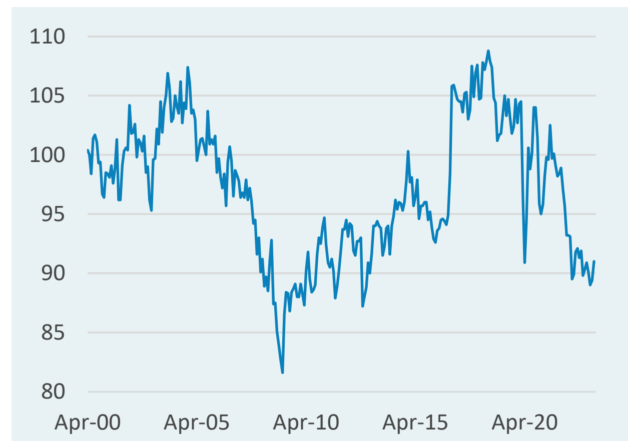


Source: University of Michigan, as of 6/30/23

CONFERENCE BOARD CONSUMER CONFIDENCE

Source: Conference Board, as of 6/30/23

NFIB SMALL BUSINESS SENTIMENT



Source: NFIB, as of 6/30/23

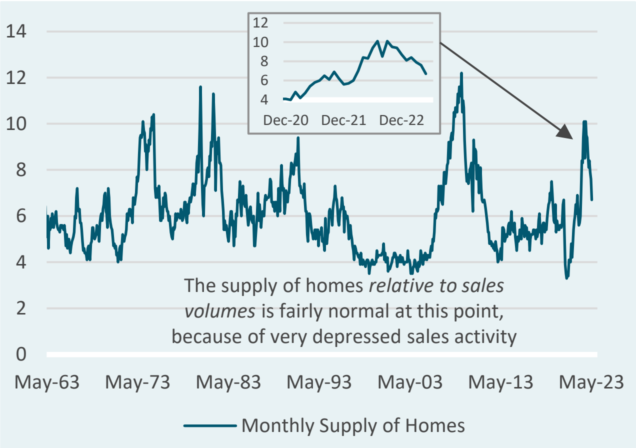
Housing

The U.S. housing market continues to face difficult conditions. High mortgage rates and extremely poor affordability have led to the slowest existing home sales activity since the depths of the bear market following the 2008-2009 Housing Crisis. However, conditions are currently very different from that time, as there are few signs of distressed sales. Many sellers are simply refusing to list their homes rather than selling at lower prices—effectively reducing available inventory. Additionally, many potential sellers with very low mortgage interest rates are choosing not to list their homes due to the high financial costs of giving up their low mortgage rate. These dynamics have contributed to very low housing supply, effectively providing an ongoing support to higher home values.

Together, very low home inventories and weak sales activity have resulted in a fairly normal supply of homes *relative to demand*. It remains to be seen whether the market will experience a cooling and leveling off in the near-term, or whether price depreciation will need to occur to rebalance the market and incentivize potential buyers to make a purchase.

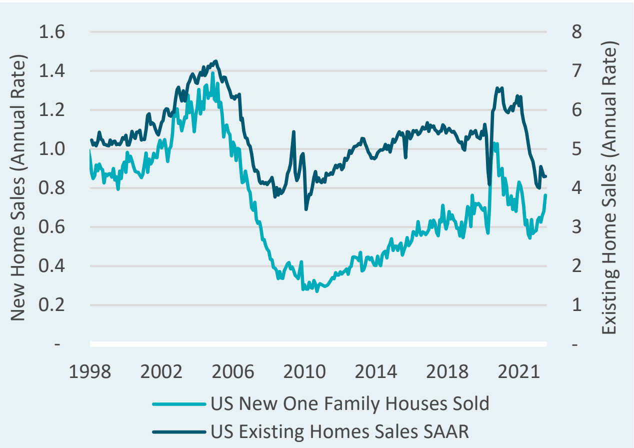
Home sales have slowed to a crawl as affordability is poor, and potential sellers don’t want to lose their low interest rates

HOUSING SUPPLY



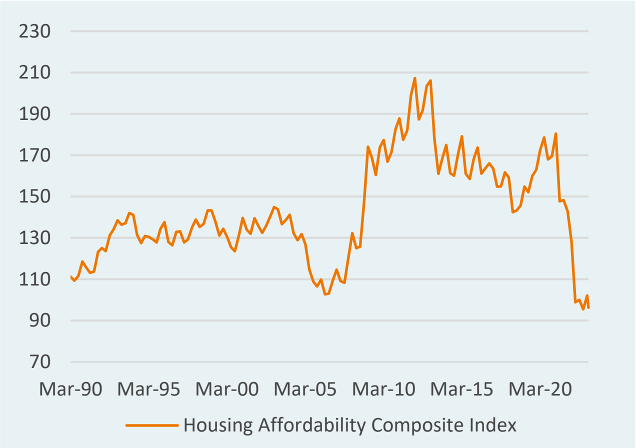
Source: FRED, as of 5/31/23

HOME SALES: NEW & EXISTING (MILLIONS)



Source: FRED, as of 5/31/23

HOUSING AFFORDABILITY



Source: FRED, as of 4/30/23

International economics summary

— Developed-economy growth has slowed materially. Many countries faced heavy risks, including energy crises, inflation uncertainty, contracting government spending, and higher interest rates. However, many areas have fared better than initially feared, helping to boost the performance of international equities. The IMF forecasts a pronounced slowing of growth in developed economies from 2.7% in 2022 to 1.3% in 2023, and a relatively unchanged emerging market growth rate from 4.0% to 3.9%.

— Unlike the Federal Reserve's recent pause, many central banks have opted for more rate hikes amid backdrops of relative economic strength and persistent inflation. In June, the Bank of England voted 7-2 for a +50bps increase while the European Central Bank and Bank of Canada hiked +25bps. The ECB also raised core inflation projections to 5.4% through year-end and lowered GDP growth to 0.9% for the year.

— On June 16th, the Bank of Japan announced that they would keep their low-rate policy unchanged. The dovish stance, including expectations for cooling inflation, was negative for the yen. Following the announcement, the yen weakened through month-end to finish -2.5% lower against the dollar.

— Inflation fell further across developed countries and has dropped surprisingly quickly in the emerging markets. China now faces a 0% inflation rate and risks of deflation, while inflation in Brazil has fallen from over 11% in late 2022 to below 4% in May. Further declines in prices could create new market risks as deflation has serious economic implications, especially in heavily debt-burdened nations.

Area	**GDP (Real, YoY)**	**Inflation (CPI, YoY)**	**Unemployment**
United States	1.8% *3/31/23*	3.0% *6/30/23*	3.6% *6/30/23*
Eurozone	1.0% *3/31/23*	5.5% *6/30/23*	6.5% *5/31/23*
Japan	1.3% *3/31/23*	3.2% *5/31/23*	2.6% *5/31/23*
BRICS Nations	4.9% *3/31/23*	4.2% *3/31/23*	4.8% *12/31/22*
Brazil	4.0% *3/31/23*	3.9% *5/31/23*	8.3% *5/31/23*
Russia	(1.8%) *3/31/23*	2.5% *5/31/23*	3.2% *5/31/23*
India	6.1% *3/31/23*	4.8% *6/30/23*	7.7% *5/31/23*
China	4.5% *3/31/23*	0.0% *6/30/23*	5.2% *5/31/23*

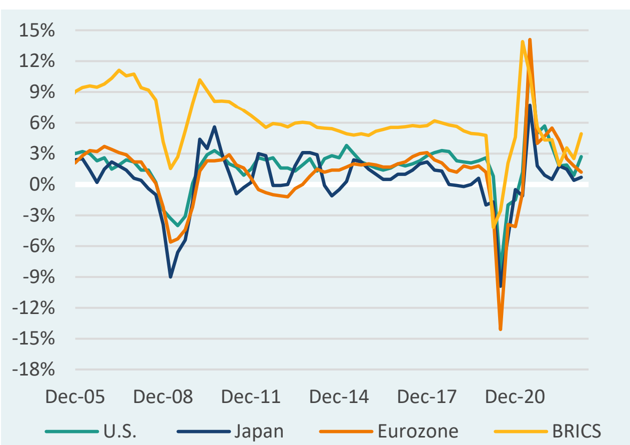
NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy. The Chinese unemployment rate represents the monthly surveyed urban unemployment rate in China.

International economics

Developed economies have suffered a material slowdown in growth, though not as dramatic as economists had feared at the beginning of the year. All twenty countries of the Eurozone have now entered a technical recession, on the back of a significant contraction in government spending as well as central bank rate hikes. Meanwhile, as many developed economies cope with stagnating growth, emerging economies have fared better overall, despite the more moderate growth rate of China. The IMF forecasts a pronounced slowing of growth in developed economies from 2.7% in 2022 to 1.3% in 2023, and a relatively unchanged rate of growth of emerging markets from 4.0% to 3.9%.

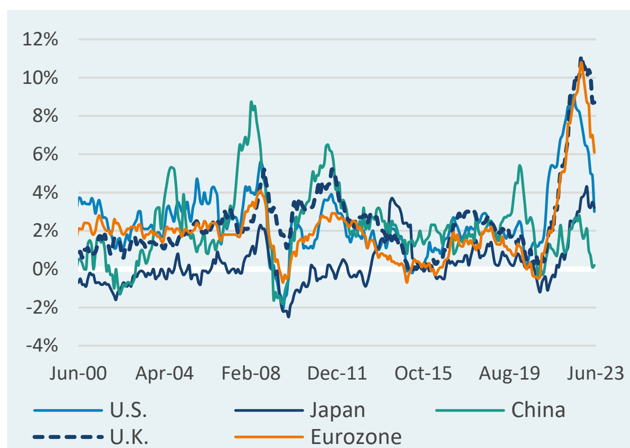
Inflation has subsided in many developed countries and dropped surprisingly quickly across emerging markets. China now faces a 0% inflation rate and risks of deflation, while inflation in Brazil has fallen from over 11% in late 2022 to below 4% in May. Further declines in prices could create new market risks as deflation has serious economic implications, especially in heavily debt-burdened nations. Deflation creates an environment where debt loads are *growing* on an inflation-adjusted basis.

REAL GDP GROWTH (YOY)



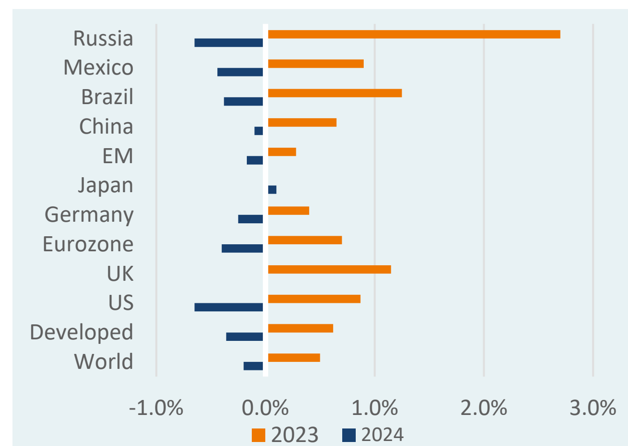
Source: Bloomberg, as of 3/31/23

INFLATION (CPI YOY)



Source: Bloomberg, as of 6/30/23 – or most recent release

GROWTH FORECASTS: CHANGES OVER PAST 6M



Source: Bloomberg median of economist estimates, as of 6/22/23

Fixed income rates & credit

Fixed income environment

— The 10-year U.S. Treasury yield increased during the quarter from 3.48% to 3.81%, reversing the decline experienced during Q1. Despite an additional rise in short-term interest rates, longer-term interest rates remain anchored. This has resulted in the most deeply inverted yield curve since the early 1980s at -1.06% (10-year Treasury yield minus 2-year Treasury yield).

— The Federal Reserve opted to keep interest rates stable in June, but signaled two more rate hikes were ahead in 2023. Some referred to this messaging as a “hawkish pause”. Despite cooling inflation, the Fed appears concerned about strong ongoing labor market conditions and persistent monthly price rises. Markets are pricing in a high likelihood of a +25bps July hike.

— Historically, equities and bonds have experienced negative correlation (moved in opposite directions through time). In 2022, both equities and bonds suffered losses as the Fed continued tightening monetary policy. Following the failure of SVB, the asset classes seems to have resumed negative correlation behavior.

— During the second quarter, higher quality credit and U.S. Treasuries saw mild losses. Riskier credit performed very well as credit spreads have stayed surprisingly tight. Longer duration investment grade corporate bonds disappointed, returning -0.3%.

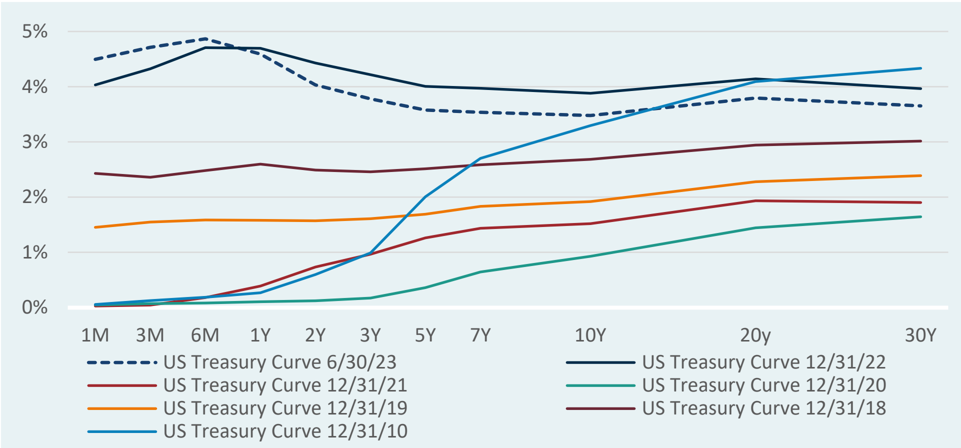
— Despite concerns related to the future path of Federal Reserve rate hikes, interest rate volatility declined during the quarter as indicated by the ICE BofA “MOVE” Index, which measures the volatility priced into U.S. Treasury bonds. While inflation has moderated in recent quarters, the market may need to price in additional rate hikes should it remain above the Federal Reserve's target of roughly 2%, which could contribute to further volatility.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	(0.8%)	(0.9%)
Core Plus Fixed Income (Bloomberg U.S. Universal)	(0.6%)	0.0%
U.S. Treasuries (Bloomberg U.S. Treasury)	(1.4%)	(2.1%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	1.7%	9.1%
Bank Loans (S&P/LSTA Leveraged Loan)	3.1%	10.7%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	2.5%	11.4%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	2.2%	7.4%
Mortgage-Backed Securities (Bloomberg MBS)	(0.6%)	(1.5%)

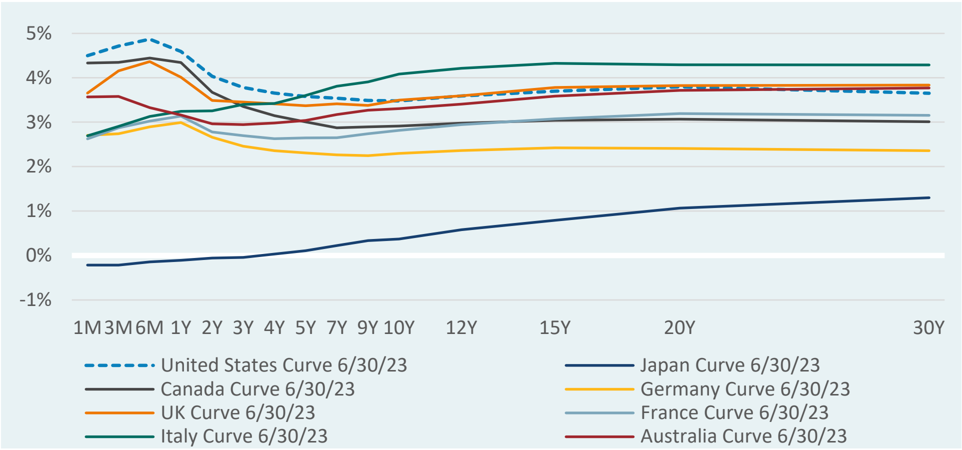
Source: Bloomberg, as of 6/30/23

Yield environment

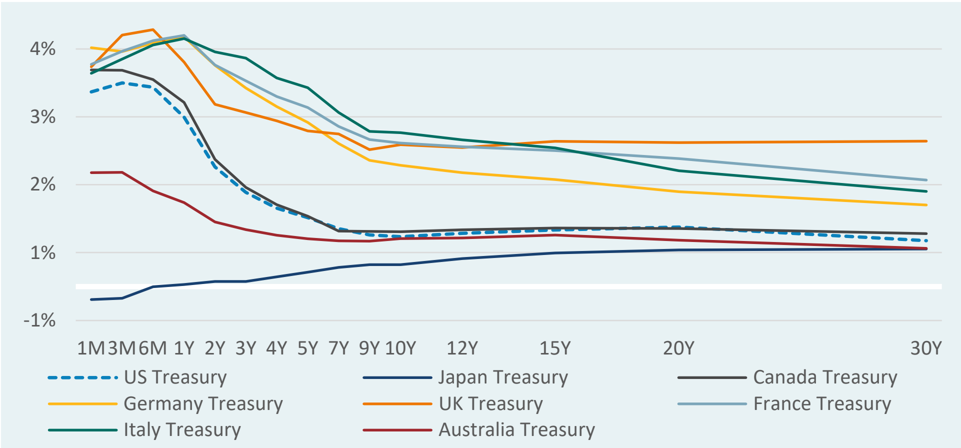
U.S. YIELD CURVE



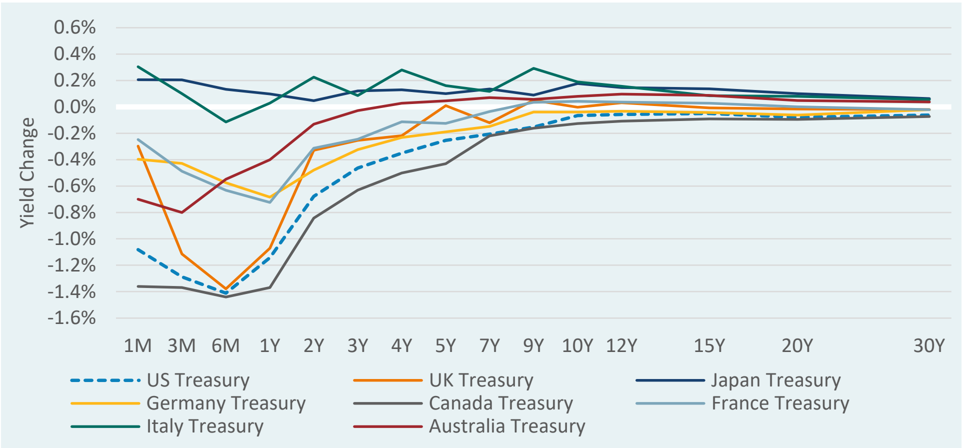
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/23

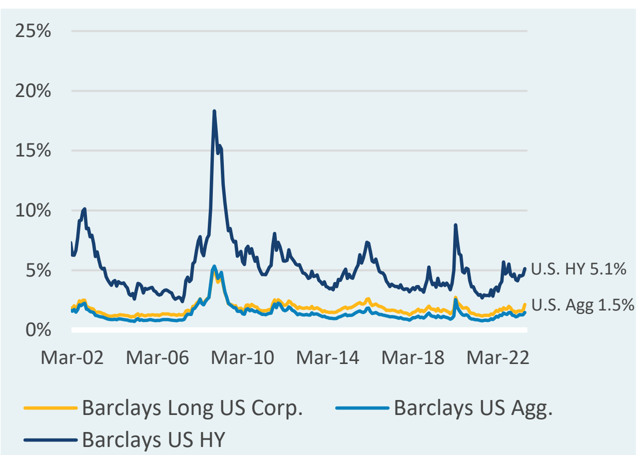
Credit environment

During the second quarter, fixed income markets delivered mixed results with lower-quality credits such as bank loans and high yield bonds outperforming higher-quality credits. Bank loans posted strong returns for the period, delivering 3.1%, followed by high-yield bonds which returned 1.7%. Longer duration investment grade corporate bonds disappointed, returning -0.3%.

Within high-yield bonds, lower quality CCC-rated bonds continued their strong run, outperforming BB- and B-rated bonds. CCC-rated bonds returned 4.7% during the period compared to 1.8% and 0.8% for B-rated and BB-rated bonds, respectively. Bank loans delivered strong returns during the period as investors favored shorter-duration assets given the expectation of interest rate rises. Lower-quality bank loans also outperformed higher-quality loans, with CCC-rated loans rising 3.3% compared to 2.5% for BB-rated loans.

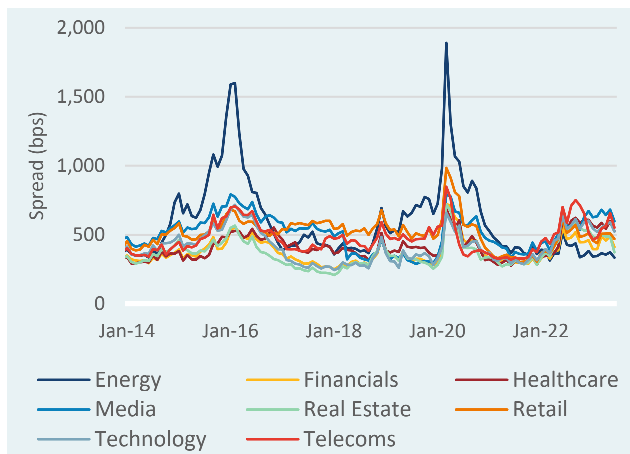
Credit spreads widened during the quarter on fears of an economic slowdown, the effects of higher interest rates, and as heightened credit stress weighed on prices. Lower-quality high-yield bond spreads rose by more than 0.6% during the period to 5.1%, while investment grade spreads increased by roughly 0.2% to 1.5%. Broadly, spreads remain close to their long-term historical averages, which suggests that investors maintain a fairly positive credit outlook. However, if the U.S. economy were to show real signs of weakening, credit spreads would likely move wider.

SPREADS



Source: Barclays, Bloomberg, as of 6/30/23

HIGH YIELD SECTOR SPREADS



Source: Bank of America, as of 6/30/23

CREDIT SPREAD (OAS)

Market	6/30/23	6/30/22
Long U.S. Corp	2.1%	1.9%
U.S. Inv Grade Corp	1.3%	1.6%
U.S. High Yield	5.1%	5.7%
U.S. Bank Loans*	5.4%	5.9%

Source: Barclays, Credit Suisse, Bloomberg, as of 6/30/23
**Discount margin (4-year life)*

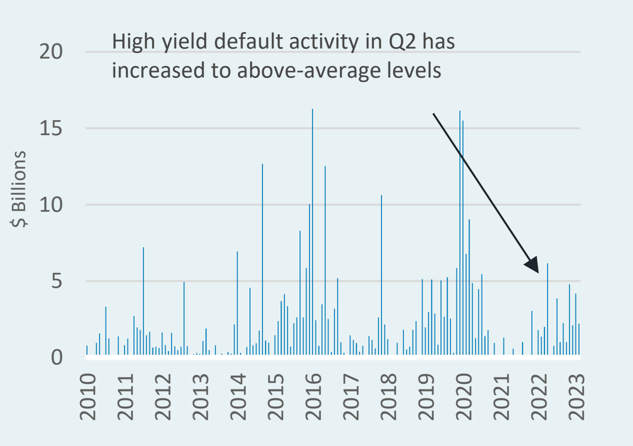
Default & issuance

Default activity, while remaining below the long-term trend, increased during the second quarter. Twelve companies defaulted, which were concentrated in the Technology, Industrial, Retail, and Financial-related sectors. A total of $32.2 billion was affected by default or distressed exchanges during Q2, up from $20.8 billion in the prior quarter. Notable company defaults included Diebold (Technology), WeWork (Financials), Westco (Industrial) and Bed, Bath & Beyond (Retail).

Past twelve-month default rates for both high-yield bonds and bank loans increased as the cost of borrowing jumped. At the end of the quarter, the trailing one-year default rate of high-yield bonds rose to 2.4%, up from 1.9% in the prior quarter. While defaults have increased, they remain below the long-term annual average of roughly 3.2% for high-yield bonds. High-yield default recovery rates fell, ending the period at 33.0%, down -11.5% from the previous quarter.

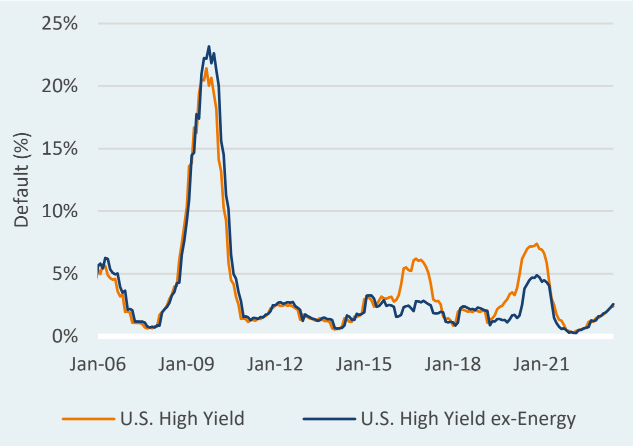
The pace of investment-grade credit issuance slowed, with $333 billion of issuance compared to $412 billion in the first quarter. Conditions were different in levered credit, which saw high-yield bond issuance accelerate to $56 billion—up from $40.2 billion in Q1. In contrast to prior years, the 2023 level of investment-grade issuance is on track to match 2022, while high-yield issuance is significantly ahead of the pace set during that same period.

U.S. HY MONTHLY DEFAULTS (PAR WEIGHTED)



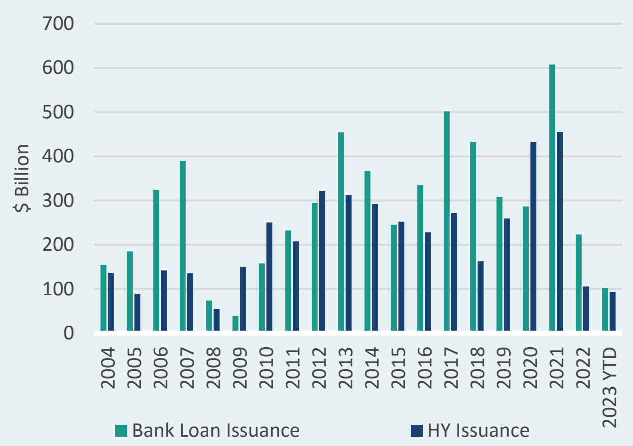
Source: BofA Merrill Lynch, as of 6/30/23

U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 6/30/23 – par weighted

DEVELOPED MARKET ISSUANCE ($ BILLIONS)



Source: BofA Merrill Lynch, all developed markets, as of 6/30/23

Equity

Equity environment

— Global equities persisted in their upward trajectory during Q2 (MSCI ACWI +6.2%). Domestic equities (S&P 500 +8.7%) outperformed both international developed (MSCI EAFE +3.0%) and emerging markets (MSCI EM +0.9%).

— U.S. equities rallied for a third consecutive quarter as mega-cap technology stocks remained top performers. A surge in AI-focused hype helped drive an expansion in the valuations of large tech firms including Nvidia and Apple – which became the first company to exceed $3 trillion in market cap.

— The effects of currency movements on portfolio performance was mixed during Q2. Varying central bank approaches to inflation have contributed to much uncertainty around the path of the U.S. dollar and therefore heightened volatility for investors with unhedged currency exposure. During the past year, currency movement led to a -2.5% loss for investors with unhedged exposure to international developed equity (MSCI EAFE unhedged +18.8%, MSCI EAFE hedged +21.3%).

— Growth stocks (+12.8%) again outpaced value (+4.1%), bringing the year-to-date performance differential to +23.9%. Over recent years, style factors (ex: small vs large, value vs growth) have exhibited some of the wildest swings in history.

— The Cboe VIX implied volatility index moved to surprisingly low levels, despite broad expectations of recession, ongoing risks of regional bank contagion, and other not-yet-known consequences of central bank liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	**(hedged)**	**(unhedged)**	**(hedged)**
U.S. Large Cap (S&P 500)	8.7%		19.6%	
U.S. Small Cap (Russell 2000)	5.2%		12.3%	
U.S. Equity (Russell 3000)	8.4%		19.0%	
U.S. Large Value (Russell 1000 Value)	4.1%		11.5%	
US Large Growth (Russell 1000 Growth)	12.8%		27.1%	
Global Equity (MSCI ACWI)	6.2%	6.2%	16.5%	17.5%
International Large (MSCI EAFE)	3.0%	5.0%	18.8%	21.3%
Eurozone (EURO STOXX 50)	4.1%	4.5%	36.3%	34.7%
U.K. (FTSE 100)	2.4%	0.0%	14.0%	10.9%
Japan (TOPIX)	4.2%	16.0%	19.4%	31.2%
Emerging Markets (MSCI Emerging Markets)	0.9%	1.6%	1.8%	3.4%

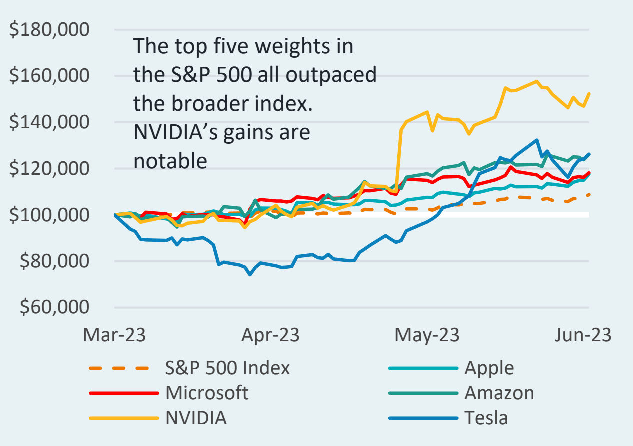
Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 6/30/23

Domestic equity

U.S. equities rallied (S&P 500 Index +8.7%) for a third consecutive quarter as mega-cap technology stocks remained top performers. A surge in AI-focused hype helped drive an expansion in the valuations of tech firms such as Apple, which became the first company to exceed $3 trillion in market cap, and Nvidia, which became the fifth trillion-dollar company in the S&P 500 following its recent ascent. This trend was apparent from the strong overall outperformance of the Information Technology sector. Breadth improved near quarter-end as investors digested a pause in Fed rate hikes and expectations for a U.S. recession eased, providing a tailwind for sectors excluded from the tech rally.

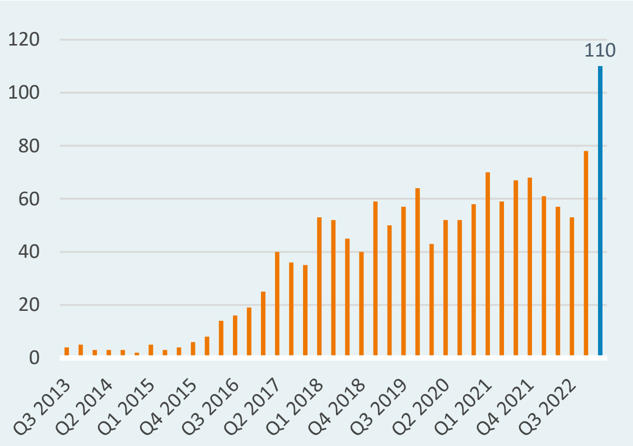
The Financial sector (+5.3%) saw some reprieve in the second quarter and recovered slightly from steep March declines which resulted from the collapse of three mid-sized banks. In its annual stress test, the Federal Reserve found the 23 largest U.S. banks capable of weathering a severe recession while proceeding with their respective lending businesses. Despite the results, the industry faces mounting headwinds including a deeply-inverted yield curve and the prospect of further Fed tightening.

GROWTH OF $100,000 QUARTER TO DATE



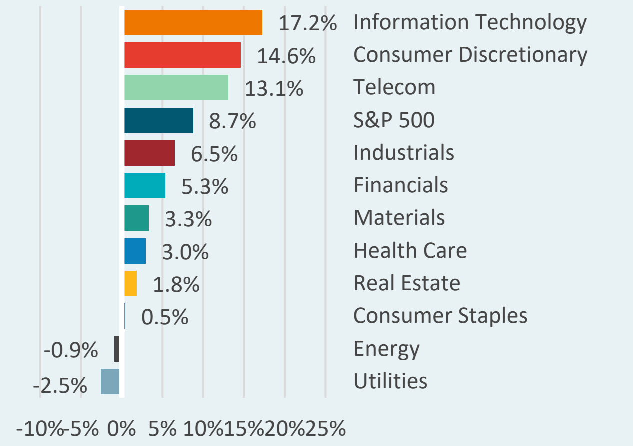
Source: Bloomberg, as of 6/30/23

OF S&P COMPANIES CITING "AI" ON EARNINGS CALLS



Source: FactSet, as of 6/30/23

Q2 2023 SECTOR PERFORMANCE



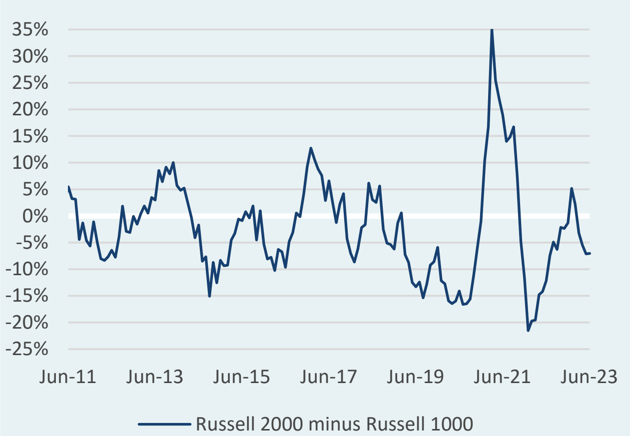
Source: Morningstar, as of 6/30/23

Domestic equity size & style

Growth stocks (+12.8%) continued to outpace value (+4.1%), bringing the year-to-date performance difference to +23.9%. Sector-specific drivers, including product launches and upward adjustments to company guidance among Information Technology (+18.6%) heavyweights, drove growth index performance. Sector behavior has persistently contributed to style factor disparity. This was evident in Q2 alongside large gains in Information Technology (+17.2%) and notable underperformance from Energy and Utilities (-0.9% and -2.5%, respectively).

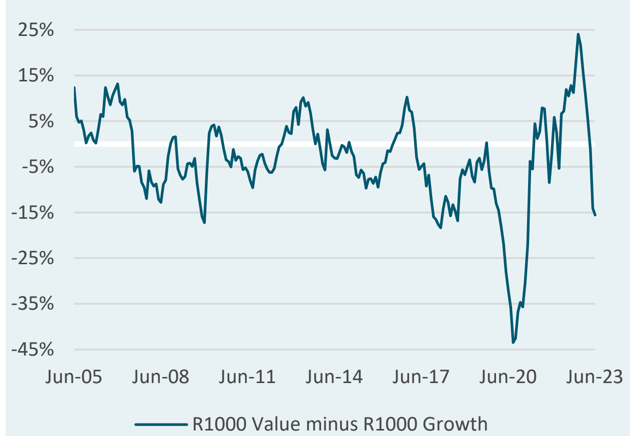
Over recent years, style factors (ex: small vs large, value vs growth) have exhibited some of the wildest swings in history. We maintain our view that factor timing should rarely be pursued for most investors. There are occasions when market mispricing offers a compelling case to tilt into a style factor, though these occasions come along perhaps every few decades rather than every few years. We believe that style investing is most appropriately pursued in a strategic manner based on each individual investor's market beliefs and long-term goals.

SMALL CAP VS LARGE CAP (YOY)



Source: FTSE, as of 6/30/23

VALUE VS GROWTH (YOY)



Source: FTSE, as of 6/30/23

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	11.5%	19.4%	27.1%
Mid Cap	10.5%	14.9%	23.1%
Small Cap	6.0%	12.3%	18.5%

Source: Bloomberg, as of 6/30/23

International developed equity

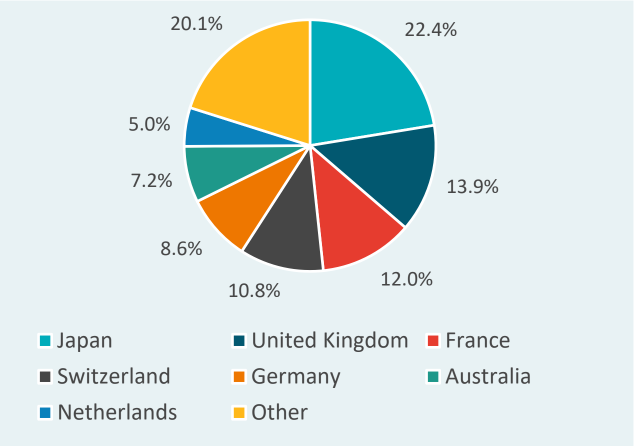
International developed equities lagged the domestic market but outpaced emerging market equities for a third straight quarter. The MSCI EAFE Index rose +3.0% in unhedged currency terms as both Asian and European equities notched gains. International developed markets have performed very well over the past year despite recession, aggressive central bank interest rate hikes, and a severe energy crisis in Europe, up +18.8% (MSCI EAFE) relative to the global opportunity set at +16.5% (MSCI ACWI). Some of this behavior may relate to Europe's energy crisis turning out less severe than originally feared. We expect that relatively cheap valuations of many markets may act as somewhat of a floor in the case of near-term equity stress, given that the gap in pricing between U.S. and non-U.S. stocks is at one of the widest levels in history.

Japanese equities (MSCI Japan +6.4%) saw broad gains after the Bank of Japan held interest rates in negative territory and economic data showed resilience in the face of weakening global demand. Additional factors, including stronger-than-expected earnings from automakers and tech conglomerates, helped boost the Nikkei Index to 33-year highs.

INTERNATIONAL DEVELOPED EQUITY

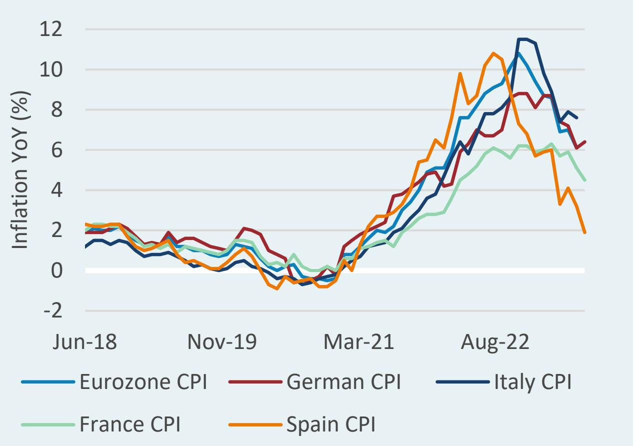
Source: MSCI, as of 6/30/23

MSCI EAFE INDEX COUNTRY DECOMPOSITION



Source: MSCI, as of 6/30/23

EUROZONE INFLATION



Source: Bloomberg, as of 6/30/23 or latest release

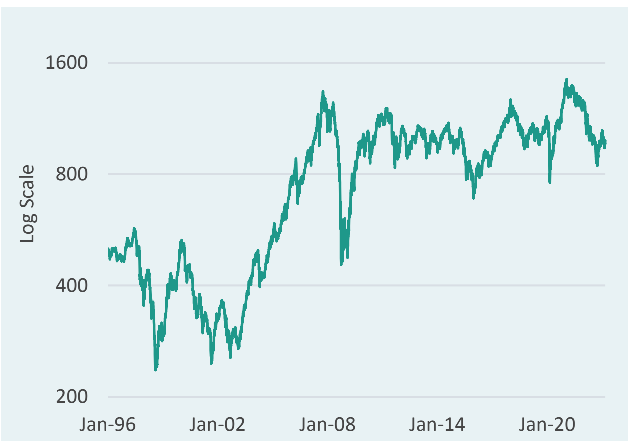
Emerging market equity

Emerging market equities lagged other global markets again in the second quarter. The MSCI EM Index finished up +0.9%, while the MSCI EAFE Index rose +3.0% and the S&P 500 gained +8.7%.

There were substantial performance differences across the emerging markets complex in Q2, ranging from Brazil's performance of +20.7% to China's -9.7%. We believe skilled active management is a preferred way to navigate risks and potentially bolster performance in this asset class.

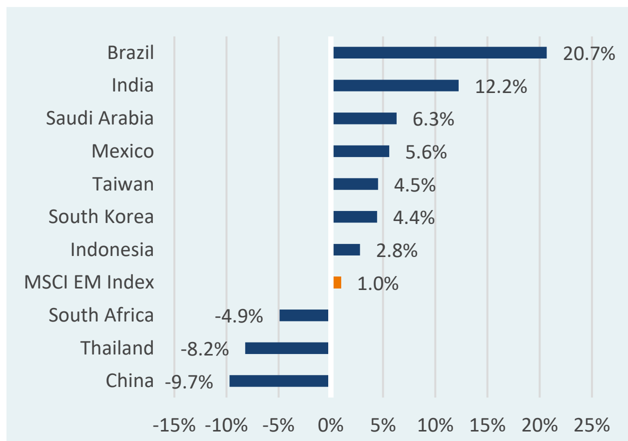
Over the past year, China's reopening provided a significant boost to equities, though not large enough to recover from previous significant losses driven by a mix of the three-year "zero-covid" policy, government crackdowns on large technology names, and knock-on effects from property market stress. Negative China sentiment has been building recently due to developments such as increasing geopolitical tensions with the U.S. (which eased on the margin following Secretary of State Blinken's visit to China), credit issues amongst property and local government financing vehicles, and a very high youth unemployment rate.

EMERGING MARKET EQUITY



Source: MSCI, as of 6/30/23

Q2 2023 MSCI COUNTRY RETURNS (USD)



Source: Bloomberg, MSCI, as of 6/30/23

MSCI CHINA INDEX

Source: MSCI, as of 6/30/23

Equity valuations

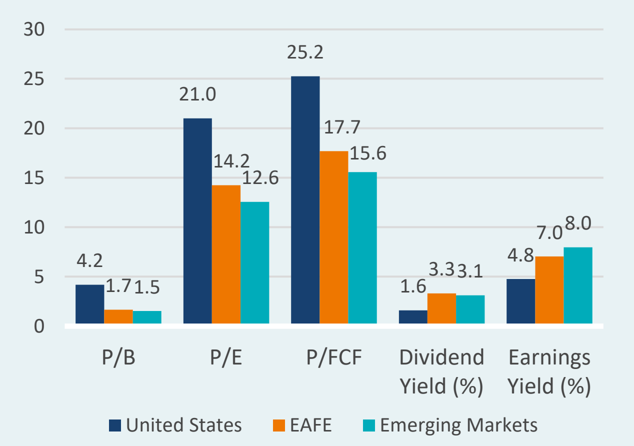
Equity valuation disparities continued to be wide. U.S. equities are priced at a 50% valuation premium (Price/Earnings) over international developed, at 21.0 and 14.2, respectively. Although domestic markets arguably face more attractive conditions on a relative basis, high valuations have historically acted as a material headwind to medium- and longer-term performance.

Emerging market equities are now priced near their longer-term average, though valuations differ considerably from country-to-country. For example, Taiwan is cheap by historical standards, with prices likely reflecting a discount for risks related to China and slowing semiconductor demand. India is richly priced relative to history, perhaps in recognition of the country's high growth and greater potential as Chinese growth has moderated.

Quickly rising interest rates should theoretically result in a sharp fall in equity valuations, in order to maintain the "equity risk premium" of stock returns over bond returns. This effect has not yet occurred, which means the yield of equity is now only slightly more than the yield of high-quality bonds. Many investors may find bonds relatively attractive (and stocks relative less unattractive) in the current environment.

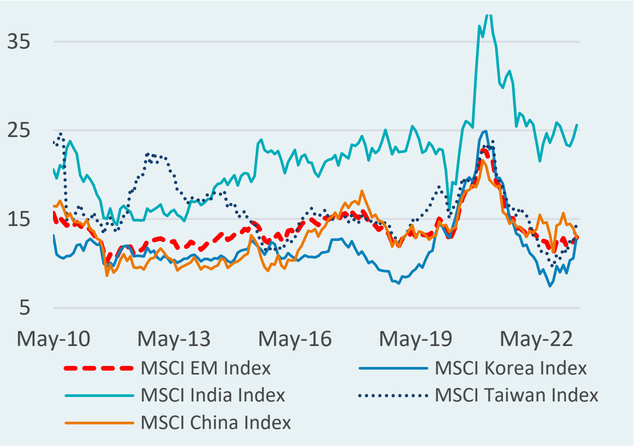
High-quality bonds are yielding nearly as much as equities, increasing the relative attractiveness of bonds

MSCI VALUATION METRICS (3-MONTH AVG)



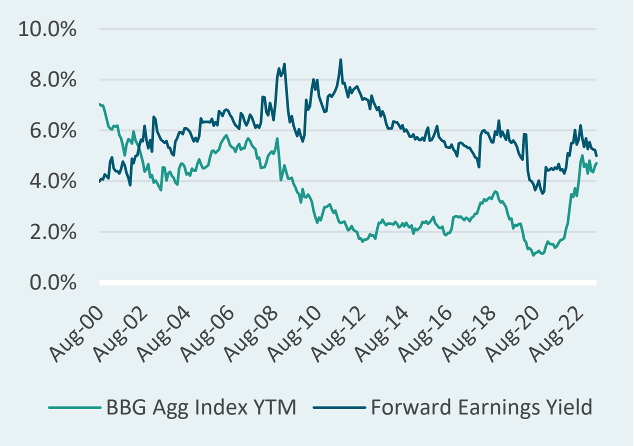
Source: Bloomberg, as of 6/30/23

P/E EMERGING MARKETS



Source: MSCI, Bloomberg, as of 5/31/23

U.S. VALUATIONS: BONDS VS. STOCKS



Source: Bloomberg, Standard & Poor's, as of 6/30/23

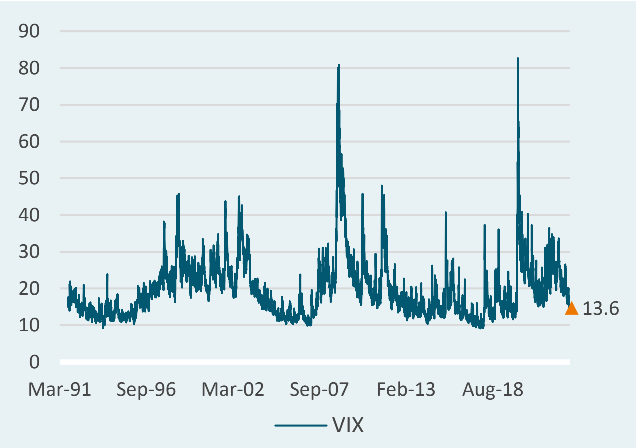
Market volatility

The Cboe VIX implied volatility index has moved to surprisingly low levels, despite broad expectations of recession, ongoing risk of regional bank contagion, and other not-yet-known consequences of central bank liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter.

The realized volatility of global equity markets has been elevated. Emerging market volatility in recent years has been lower than developed market volatility—an uncommon occurrence historically speaking. This trend has now reversed as realized risk in emerging markets surpassed most developed economy public markets.

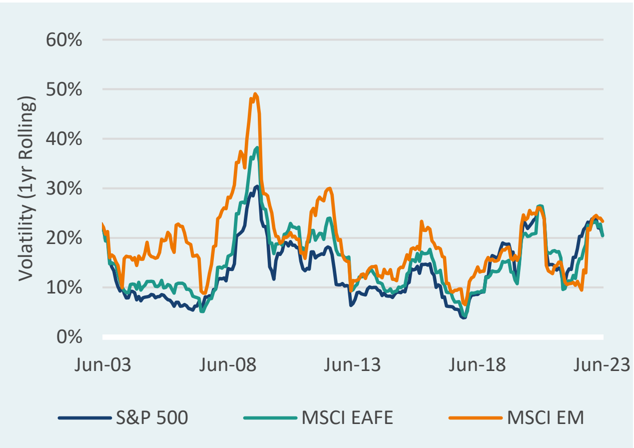
The first half of 2023 has been a truly unique environment for fixed income. Federal Reserve tightening, mass withdrawal of liquidity from the financial system, and a deeply inverted yield curve have led to elevated uncertainty and market volatility. These conditions are captured by the ICE BofA "MOVE" Index, which measures the volatility priced into U.S. Treasury bonds.

U.S. IMPLIED VOLATILITY (VIX)



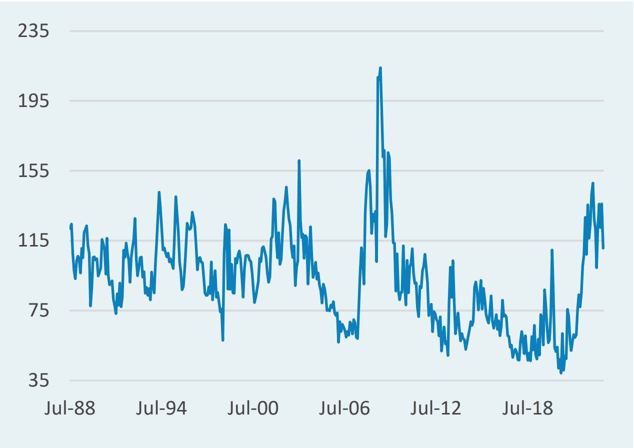
Source: Cboe, as of 6/30/23

REALIZED VOLATILITY



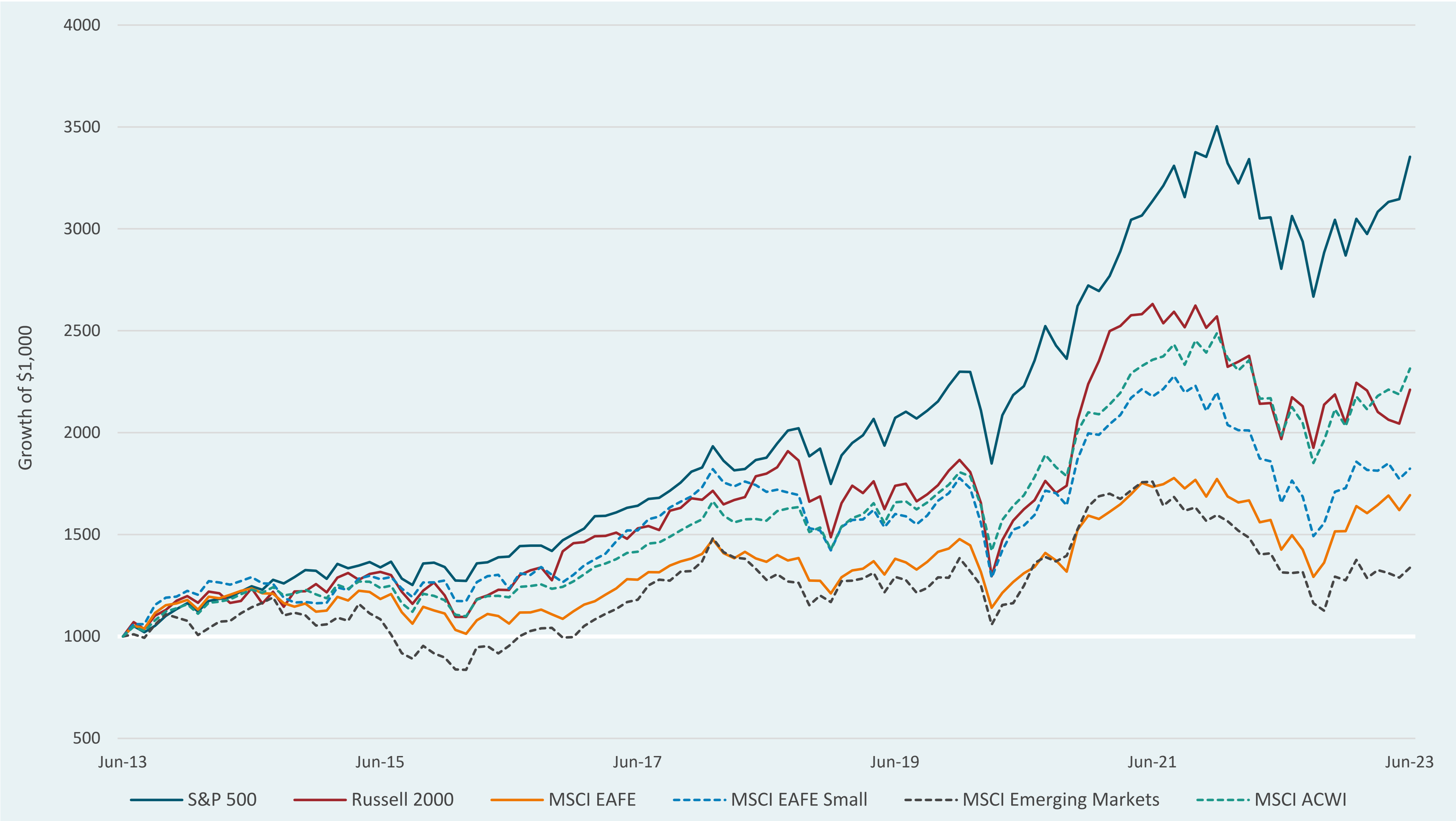
Source: S&P, MSCI, as of 6/30/23

U.S. TREASURY IMPLIED VOL ("MOVE" INDEX)



Source: Bloomberg, as of 6/30/23

Long-term equity performance



Source: MPI, as of 6/30/23

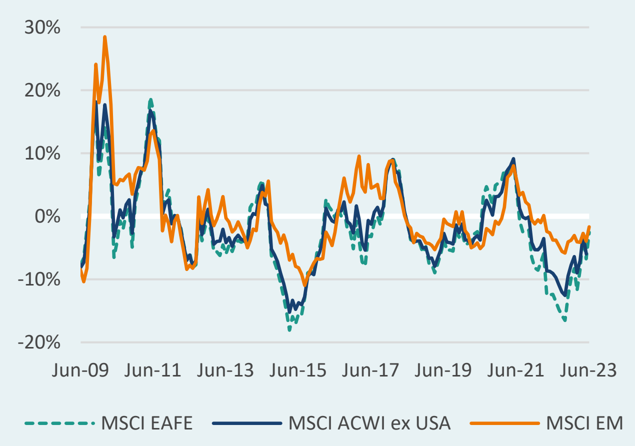
Other assets

Currency

The effects of currency volatility on portfolio performance was mixed in Q2. Overall, the value of the U.S. dollar was unchanged on a trade-weighted basis. Varying central bank approaches to fighting inflation has contributed to much uncertainty around the path of the U.S. dollar and therefore the volatility generated by currency movement for investors with unhedged currency exposure (what we refer to as "embedded currency"). During the past full year, currency movement led to a -2.5% loss for investors with unhedged exposure to international developed equity (MSCI EAFE unhedged +18.8%, MSCI EAFE hedged +21.3%).

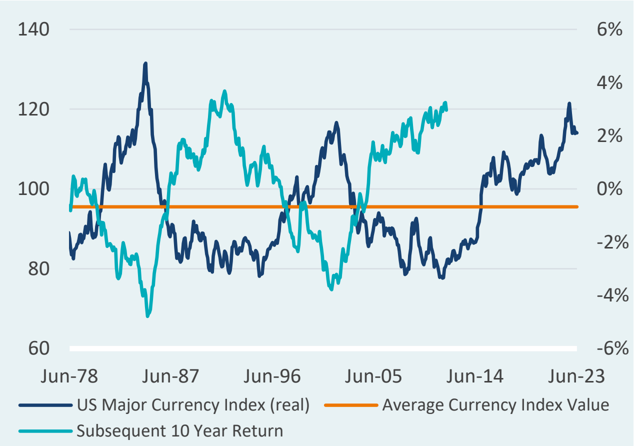
A thoughtful currency program may allow investors to reduce their total portfolio risk while also increasing long-term expected returns. The MSCI Currency Factor Mix Index—a representation of a passive investment in the currency market—has shown a positive one-year rolling return over most periods with very low volatility. This contrasts to the unhedged currency exposure that most investors own, which has demonstrated high volatility and frequent losses.

EFFECT OF CURRENCY (1-YEAR ROLLING)



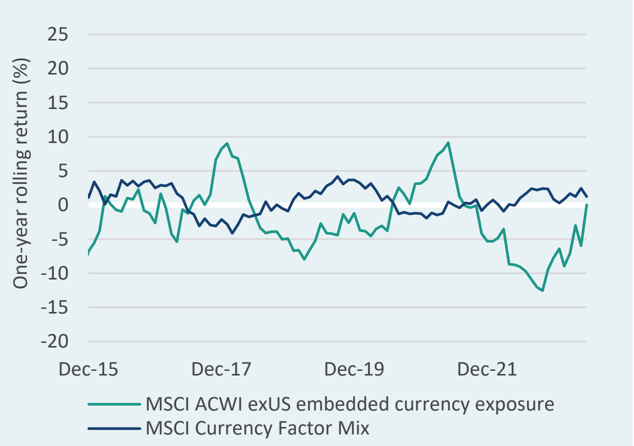
Source: MSCI, as of 6/30/23

BLOOMBERG DOLLAR SPOT INDEX



Source: Federal Reserve, as of 6/30/23

EMBEDDED CURRENCY VS CURRENCY FACTORS



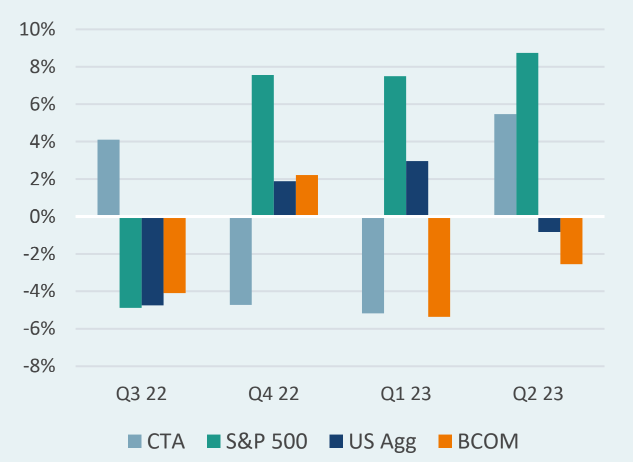
Source: Bloomberg, MSCI, as of 6/30/23

CTAs pivot, merger arbitrage gets hit

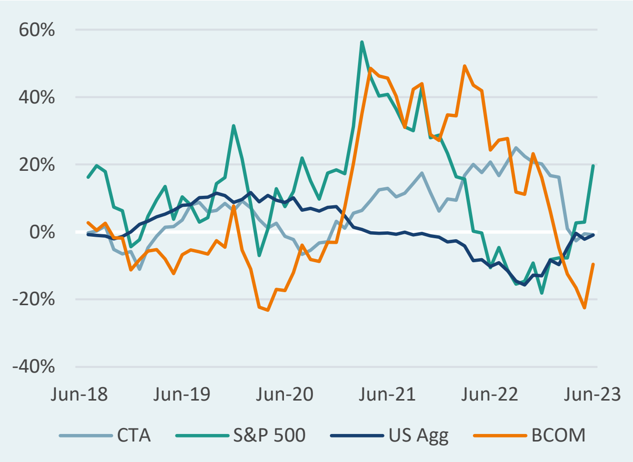
Commodity Trading Advisor (CTA) strategies, as proxied by the SocGen CTA Index, rebounded in Q2 after their worst two consecutive quarters (4Q22 through 1Q23) on record going back to the year 2000. When looking at major asset class returns for each of the last four quarters, it becomes clear that trend following strategies flipped to investing long in the equity markets after two strong quarters in a row for stocks. Trailing twelve-month returns as of the end of the quarter show fixed income at a performance inflection point and commodities bottoming out after a difficult year. Any gains in the near term for CTA strategies will likely depend on whether equity markets continue upward.

An interesting opportunity in merger arbitrage is unfolding, as an aggressive antitrust stance from the Federal Trade Commission and Chairperson Lina Kahn has pushed merger spreads to wide levels while equity markets have enjoyed a period of strong returns over the past year. Average deal spreads have increased to reflect this additional regulatory risk. Prior to this current period, the HFRI Merger Arbitrage index had only posted a negative 12-month return during COVID-19 (2020), the Global Financial Crisis (2008-2009), and the Tech Bubble (2001-2002). Each of those periods involved a recession.

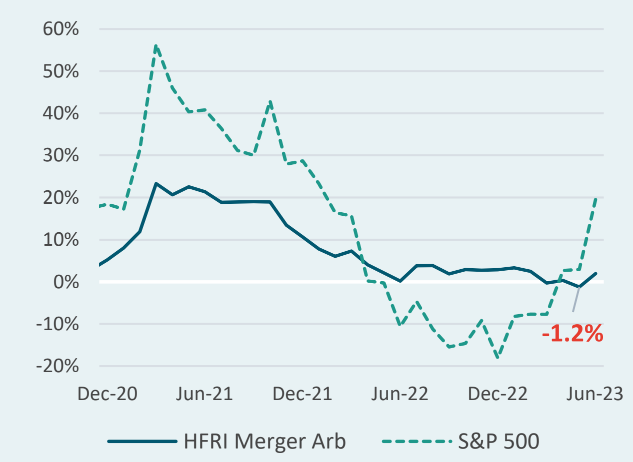
QUARTERLY RETURNS – PAST 4 QUARTERS



CTA 1-YEAR RETURNS, LAST 5 YEARS



MERGER ARB 1-YEAR RETURNS, LAST 3 YEARS



Source: HFR, MPI, Morningstar. SocGen, Data as of 6/30/23

Appendix

Periodic table of returns

BEST ↑ ↓ WORST

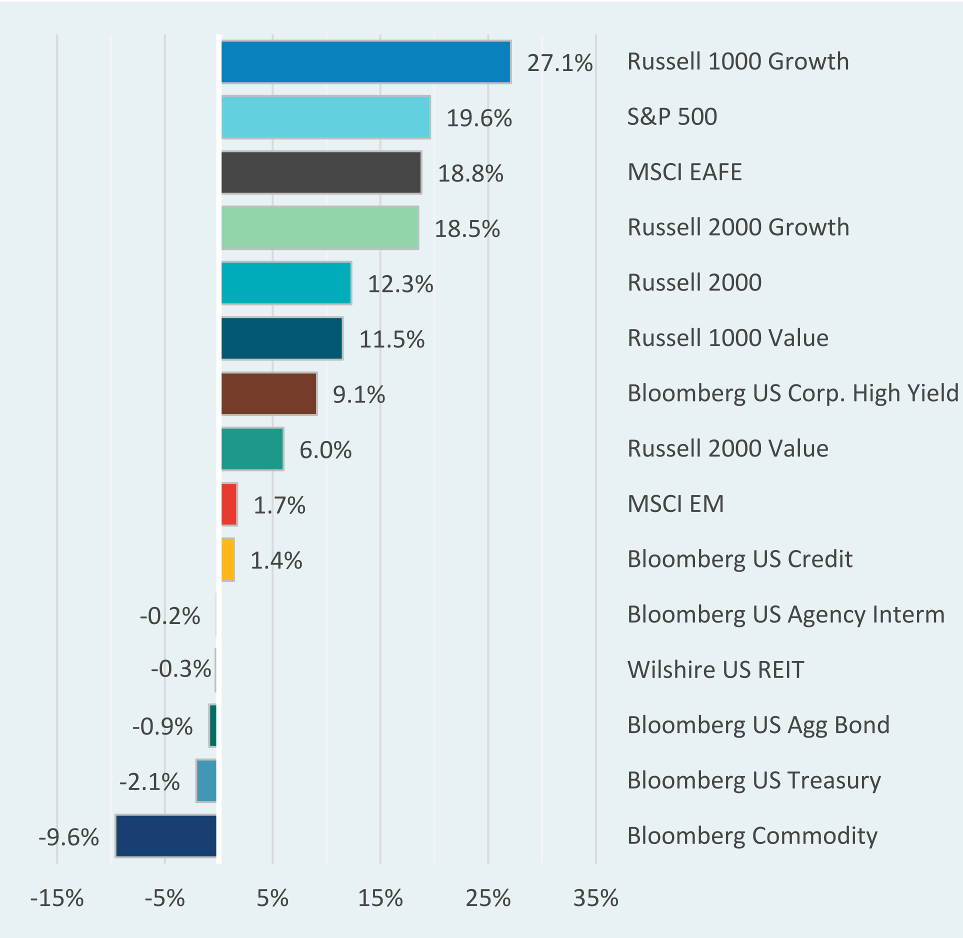
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	5-Year	10-Year
Large Cap Growth	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	29.0	15.1	15.7
Large Cap Equity	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	16.7	11.9	12.6
Small Cap Growth	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	1.5	13.6	8.1	9.2
International Equity	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	-4.7	11.7	6.7	8.8
60/40 Global Portfolio	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	-7.5	8.8	4.7	8.3
Small Cap Equity	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.4	14.0	17.7	-13.0	8.1	4.6	8.3
Large Cap Value	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.0	10.3	14.8	-14.5	5.1	4.4	7.3
Emerging Markets Equity	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	11.3	-14.5	4.9	4.2	5.5
Small Cap Value	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	-17.3	2.5	4.2	5.4
Hedge Funds of Funds	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	-19.1	2.3	3.5	3.4
Cash	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	-20.1	2.3	3.3	3.0
US Bonds	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	-20.4	2.1	1.5	1.5
Real Estate	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.5	-26.4	-1.8	0.9	0.9
Commodities	1.0	1.4	2.4	2.1	-9.8	-53.2	16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	-29.1	-7.8	0.8	-1.0

- Large Cap Equity
- Large Cap Value
- Large Cap Growth
- Small Cap Equity
- Small Cap Value
- Small Cap Growth
- International Equity
- Emerging Markets Equity
- US Bonds
- Cash
- Commodities
- Real Estate
- Hedge Funds of Funds
- 60% MSCI ACWI/40% Bloomberg Global Bond

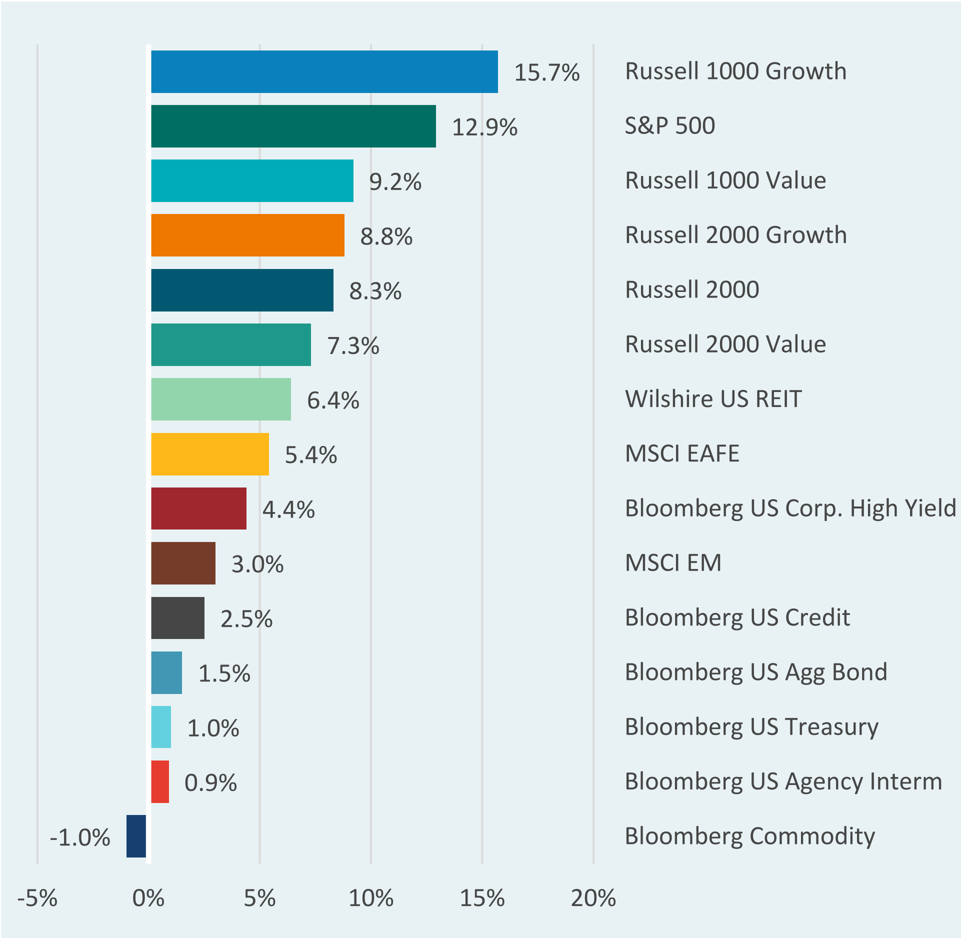
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 3/31/22.

Major asset class returns

ONE YEAR ENDING JUNE



TEN YEARS ENDING JUNE



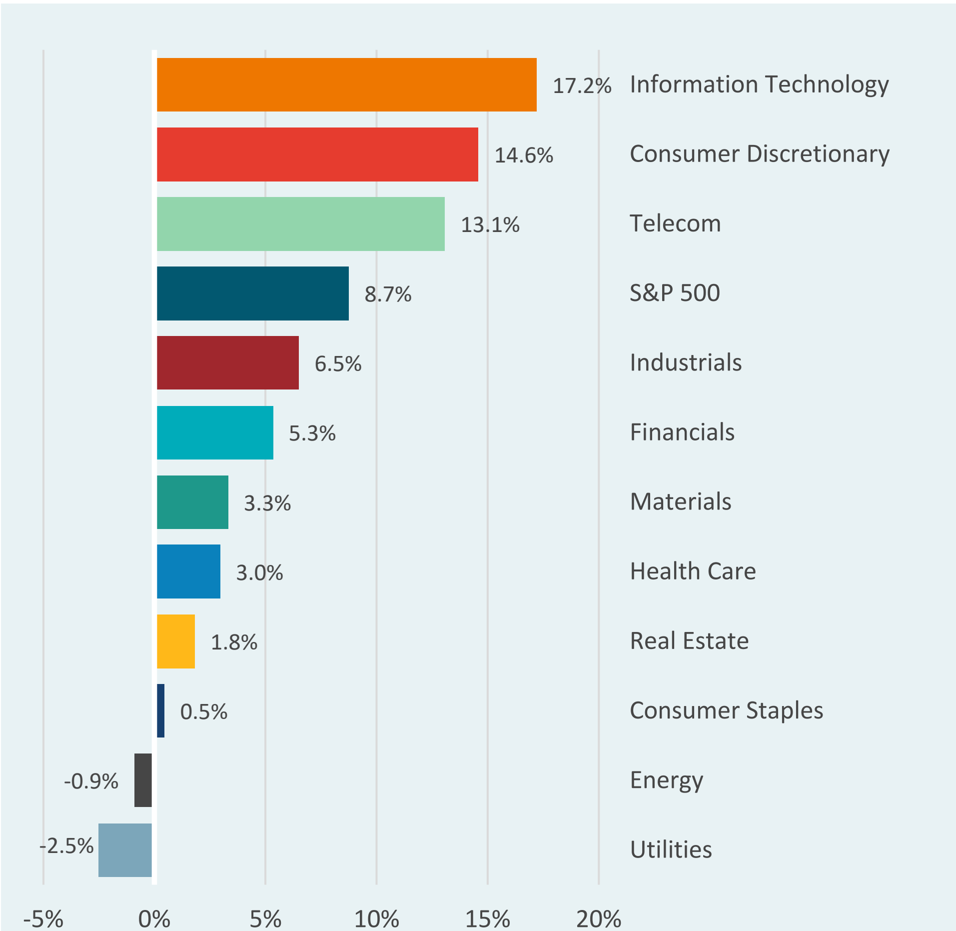
**Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.*

Source: Morningstar, as of 6/30/23

Source: Morningstar, as of 6/30/23

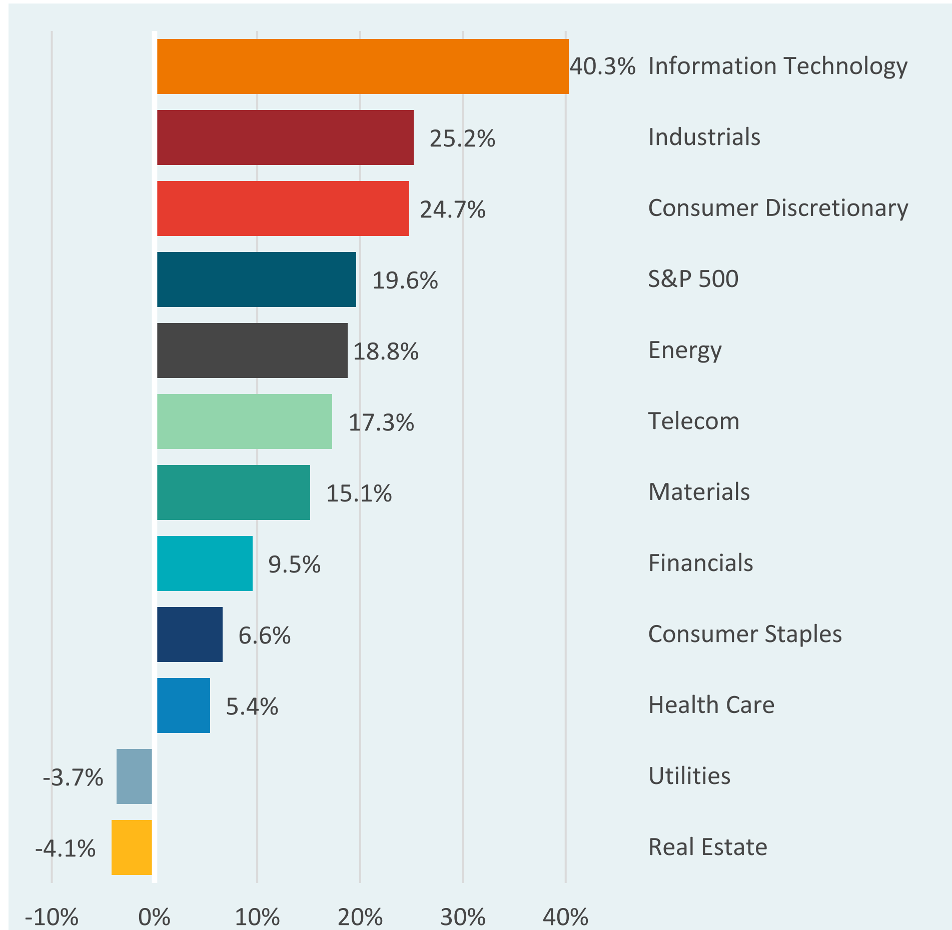
S&P 500 sector returns

QTD



Source: Morningstar, as of 6/30/23

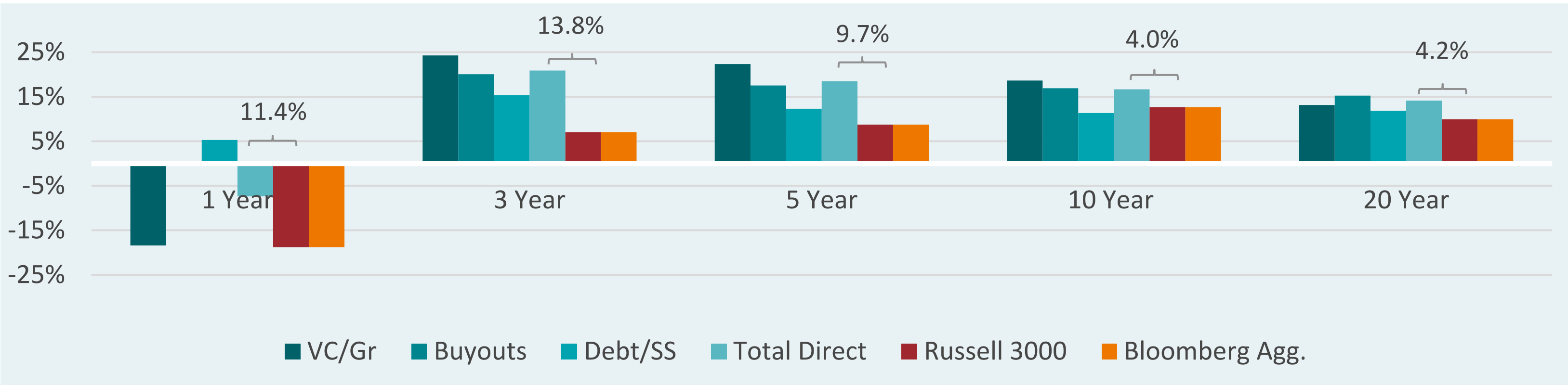
ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/23

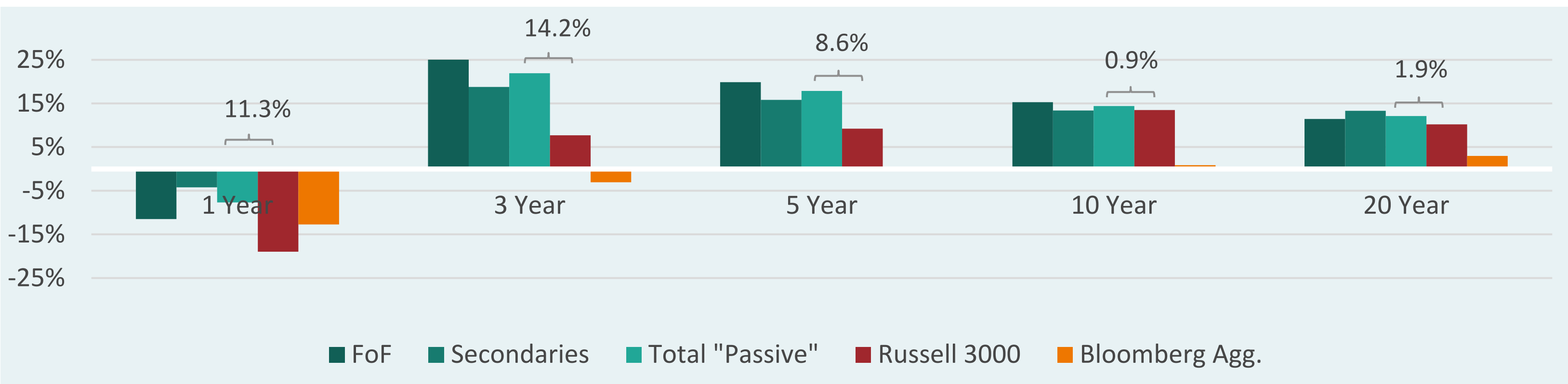
Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



Direct P.E Fund Investments outperformed comparable public equites across all time periods.

“PASSIVE” STRATEGIES

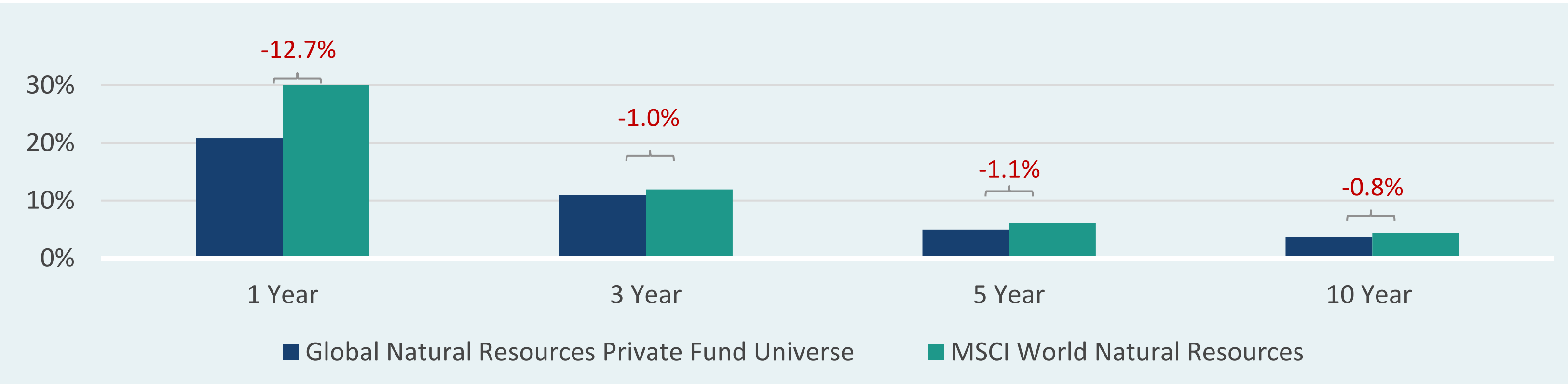


“Passive” strategies outperformed comparable public equities across all time periods.

Sources: Refinitiv PME: U.S. Private Equity Funds sub asset classes as of December 31, 2022. Public Market Equivalent returns resulted from “Total Passive” and Total Direct’s identical cash flows invested into and distributed from respective traditional asset comparable.

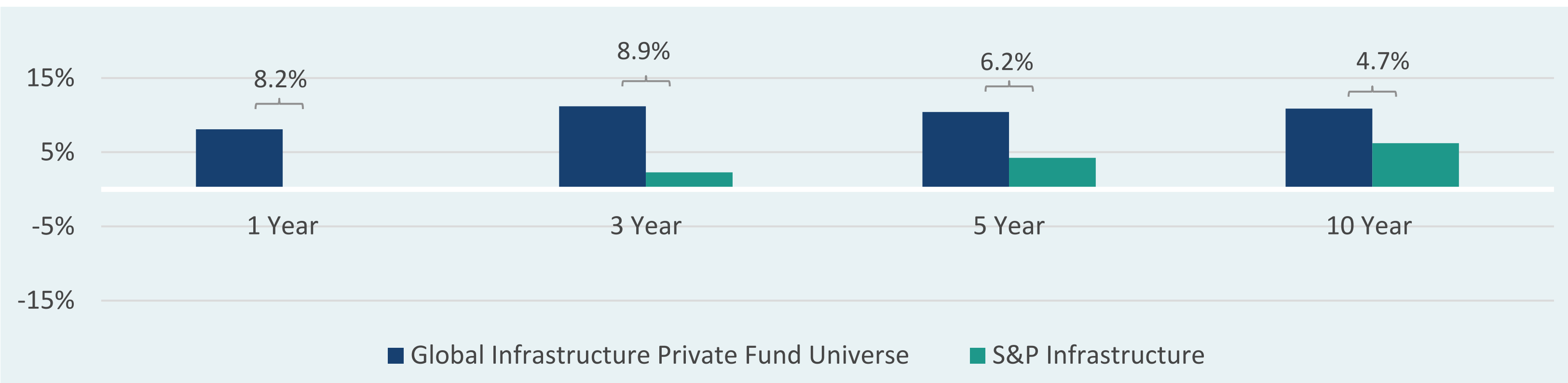
Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



N.R. funds underperformed the MSCI World Natural Resources benchmark across all periods.

GLOBAL INFRASTRUCTURE FUNDS

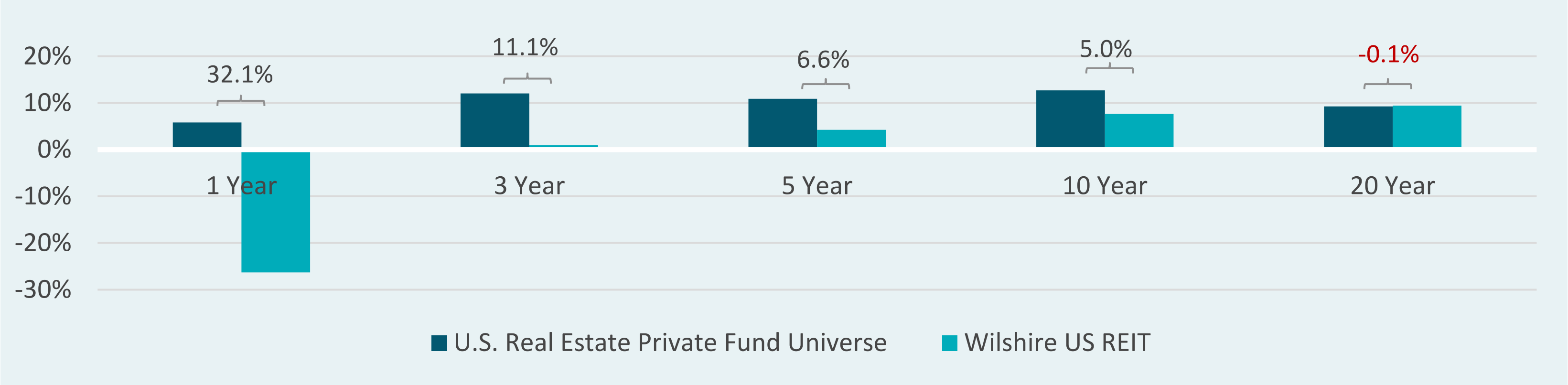


Infra. funds outperformed the S&P Infra. across all periods.

Sources: Refinitiv PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of December 31, 2022. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

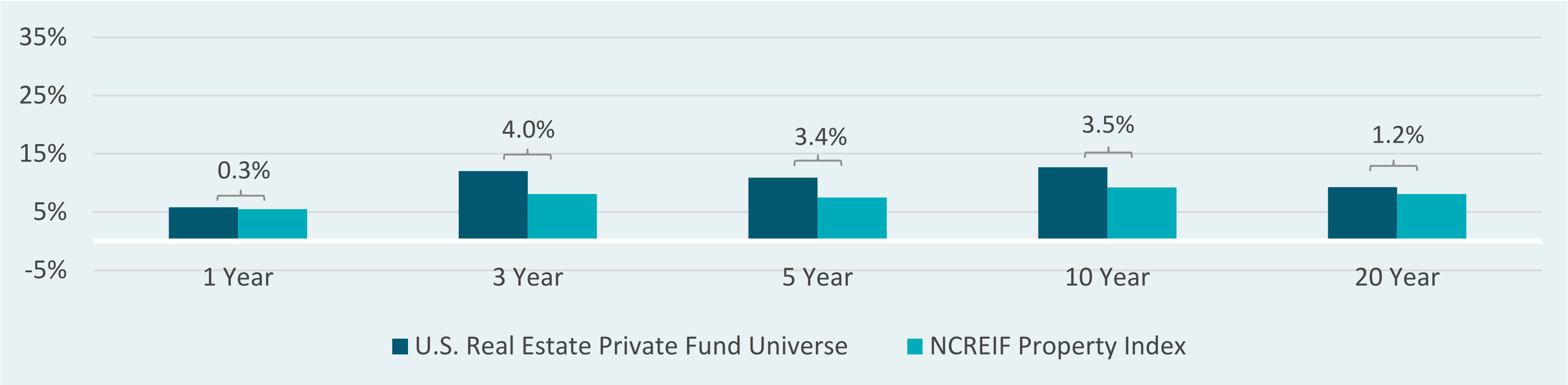
Private vs. liquid and core real estate performance

U.S. PRIVATE REAL ESTATE FUNDS VS. LIQUID UNIVERSE



U.S. Private R.E. funds outperformed the Wilshire U.S. REIT Index across all time periods, aside the 20-year

U.S. PRIVATE REAL ESTATE FUNDS VS. CORE FUNDS



U.S. Private R.E. Funds outperformed the NCREIF Property Index across all time periods.

Sources: Refinitiv PME: U.S. Real Estate universes as of December 31, 2022. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	6.6	8.7	16.9	19.6	14.6	12.3	12.9
S&P 500 Equal Weighted	7.7	4.0	7.0	13.8	15.8	10.2	11.5
DJ Industrial Average	4.7	4.0	4.9	14.2	12.3	9.6	11.3
Russell Top 200	6.2	9.9	19.4	20.9	14.6	13.2	13.5
Russell 1000	6.8	8.6	16.7	19.4	14.1	11.9	12.6
Russell 2000	8.1	5.2	8.1	12.3	10.8	4.2	8.3
Russell 3000	6.8	8.4	16.2	19.0	13.9	11.4	12.3
Russell Mid Cap	8.3	4.8	9.0	14.9	12.5	8.5	10.3
Style Index							
Russell 1000 Growth	6.8	12.8	29.0	27.1	13.7	15.1	15.7
Russell 1000 Value	6.6	4.1	5.1	11.5	14.3	8.1	9.2
Russell 2000 Growth	8.3	7.1	13.6	18.5	6.1	4.2	8.8
Russell 2000 Value	7.9	3.2	2.5	6.0	15.4	3.5	7.3

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	5.8	6.2	13.9	16.5	11.0	8.1	8.8
MSCI ACWI ex US	4.5	2.4	9.5	12.7	7.2	3.5	4.7
MSCI EAFE	4.6	3.0	11.7	18.8	8.9	4.4	5.4
MSCI EM	3.8	0.9	4.9	1.7	2.3	0.9	3.0
MSCI EAFE Small Cap	2.9	0.6	5.5	10.2	5.7	1.3	6.2
Style Index							
MSCI EAFE Growth	3.5	2.8	14.2	20.2	6.3	5.4	6.4
MSCI EAFE Value	5.6	3.2	9.3	17.4	11.3	2.9	4.1
Regional Index							
MSCI UK	3.9	2.2	8.4	13.2	12.6	2.8	3.9
MSCI Japan	4.1	6.4	13.0	18.1	5.7	3.1	5.2
MSCI Euro	6.4	3.8	19.9	32.7	11.7	5.2	6.2
MSCI EM Asia	2.7	(0.8)	4.0	(0.9)	1.2	1.2	4.7
MSCI EM Latin American	12.0	14.0	18.5	29.8	16.4	4.8	1.1

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	(0.3)	(1.4)	1.9	(1.4)	(0.1)	2.5	2.1
Bloomberg US Treasury Bills	0.4	1.2	2.3	3.6	1.2	1.5	1.0
Bloomberg US Agg Bond	(0.4)	(0.8)	2.1	(0.9)	(4.0)	0.8	1.5
Bloomberg US Universal	(0.2)	(0.6)	2.3	(0.0)	(3.4)	1.0	1.8
Duration							
Bloomberg US Treasury 1-3 Yr	(0.5)	(0.6)	1.0	0.1	(1.1)	0.9	0.8
Bloomberg US Treasury Long	(0.0)	(2.3)	3.7	(6.8)	(12.1)	(0.9)	1.8
Bloomberg US Treasury	(0.8)	(1.4)	1.6	(2.1)	(4.8)	0.4	1.0
Issuer							
Bloomberg US MBS	(0.4)	(0.6)	1.9	(1.5)	(3.7)	0.0	1.1
Bloomberg US Corp. High Yield	1.7	1.7	5.4	9.1	3.1	3.4	4.4
Bloomberg US Agency Interm	(0.5)	(0.4)	1.5	(0.2)	(2.0)	0.7	0.9
Bloomberg US Credit	0.3	(0.3)	3.1	1.4	(3.4)	1.7	2.5

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	4.0	(2.6)	(7.8)	(9.6)	17.8	4.7	(1.0)
Wilshire US REIT	5.4	3.3	6.7	(0.3)	8.6	4.4	6.4
CS Leveraged Loans	2.2	3.1	6.3	10.1	6.2	4.0	4.1
S&P Global Infrastructure	3.0	(0.1)	3.8	4.2	10.6	5.3	6.7
Alerian MLP	4.5	6.2	9.8	31.5	31.2	5.9	0.8
Regional Index							
JPM EMBI Global Div	2.2	2.2	4.1	7.4	(3.1)	0.6	2.8
JPM GBI-EM Global Div	3.3	2.5	7.8	11.4	(1.4)	0.3	(0.6)
Hedge Funds							
HFRI Composite	2.2	2.2	3.5	5.1	8.2	5.0	4.7
HFRI FOF Composite	1.2	1.5	2.3	3.7	5.0	3.3	3.4
Currency (Spot)							
Euro	2.3	0.4	2.2	4.4	(1.0)	(1.4)	(1.7)
Pound Sterling	2.6	2.8	5.7	4.7	1.0	(0.8)	(1.8)
Yen	(3.3)	(7.9)	(8.7)	(6.0)	(9.3)	(5.2)	(3.7)

Source: Morningstar, HFRI, as of 6/30/23.

Definitions

Bloomberg US Weekly Consumer Comfort Index *- tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.langerresearch.com)*

University of Michigan Consumer Sentiment Index *- A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. (www.Bloomberg.com)*

NFIB Small Business Outlook *- Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (http://www.nfib-sbet.org/about/)*

NAHB Housing Market Index – *the housing market index is a weighted average of separate diffusion induces for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula "(Good-Poor + 100)/2" to the present and future sales series and "(High/Very High-Low/Very Low + 100)/2" to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.*

Notices & disclosures

Kern County Employees' Retirement Association

Investment Performance Review

Period Ending: June 30, 2023

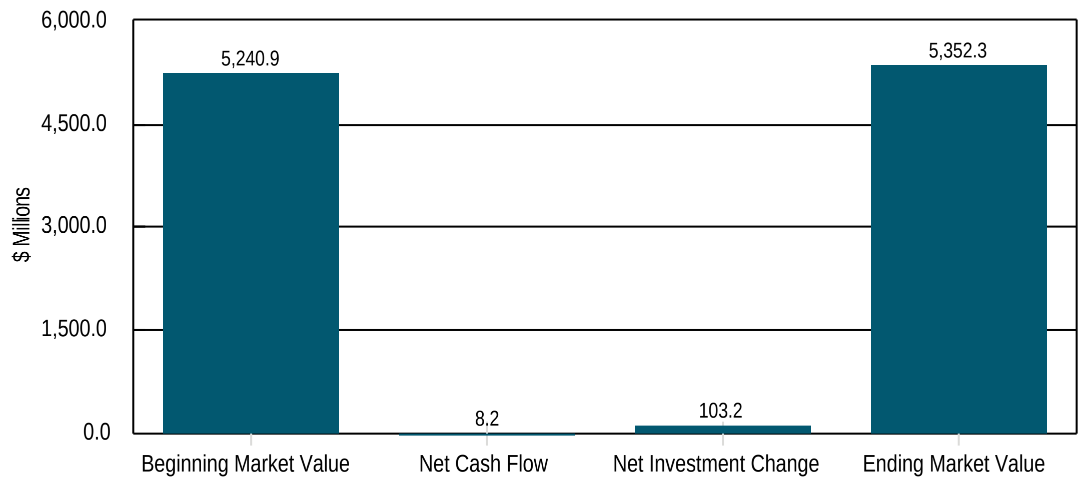
VERUSINVESTMENTS.COM

SEATTLE 206.622.3700
CHICAGO 312.815.5228
PITTSBURGH 412.784.6678
LOS ANGELES 310.297.1777
SAN FRANCISCO 415.362.3484

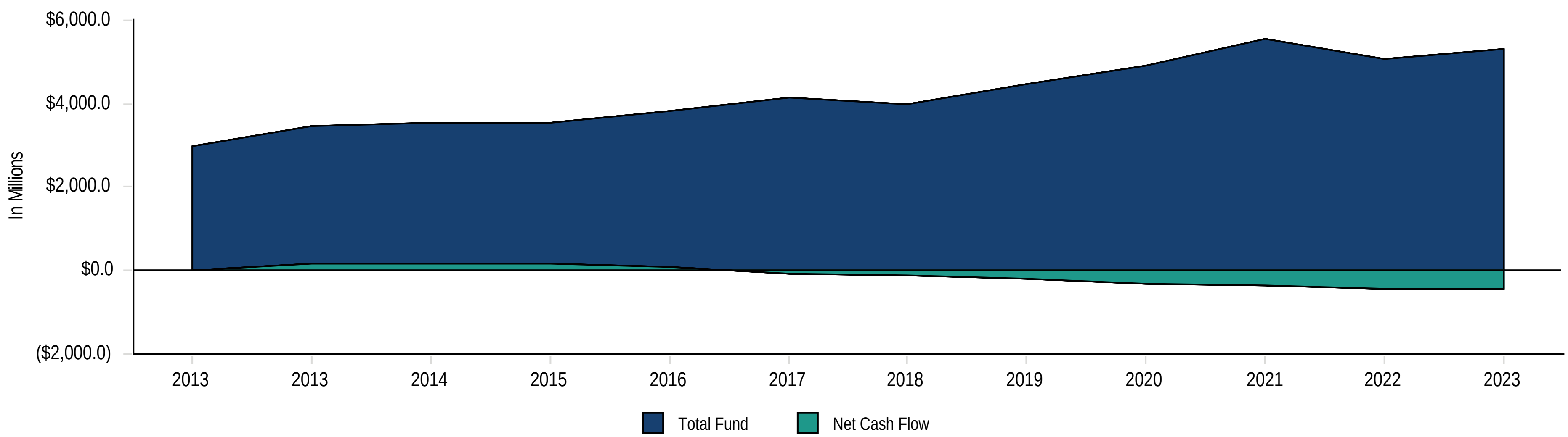
Portfolio Reconciliation

	Last Three Months
Beginning Market Value	$5,240,888,799
Net Cash Flows	$8,186,646
Net Investment Change	$103,191,295
Ending Market Value	$5,352,263,309

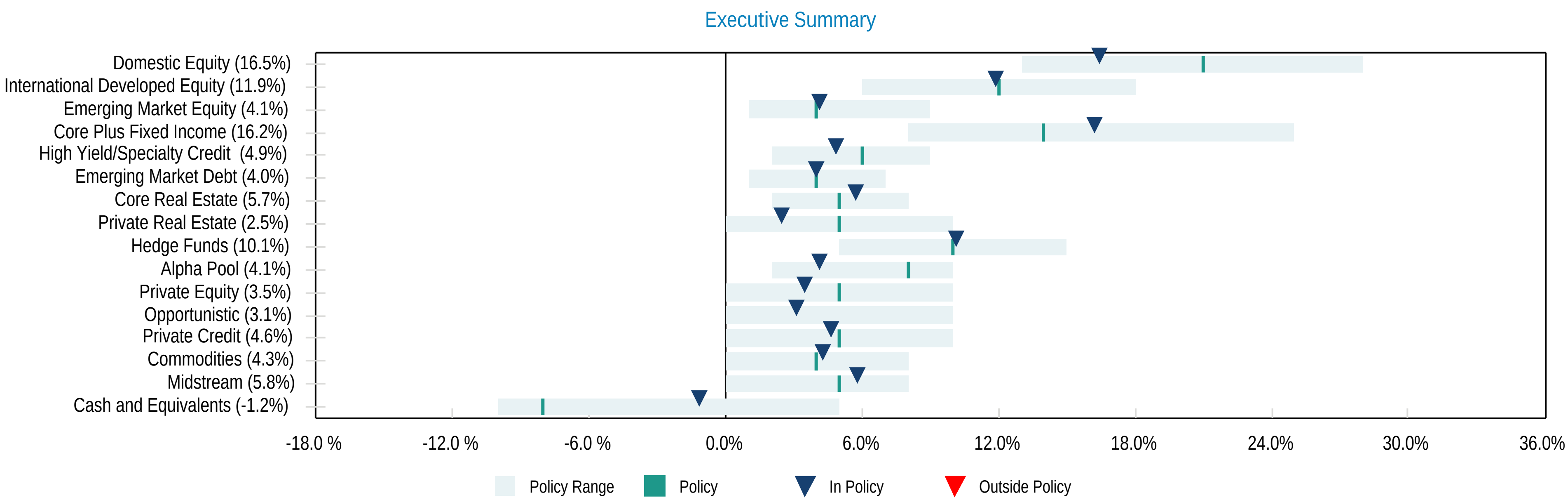
Change in Market Value
Last Three Months

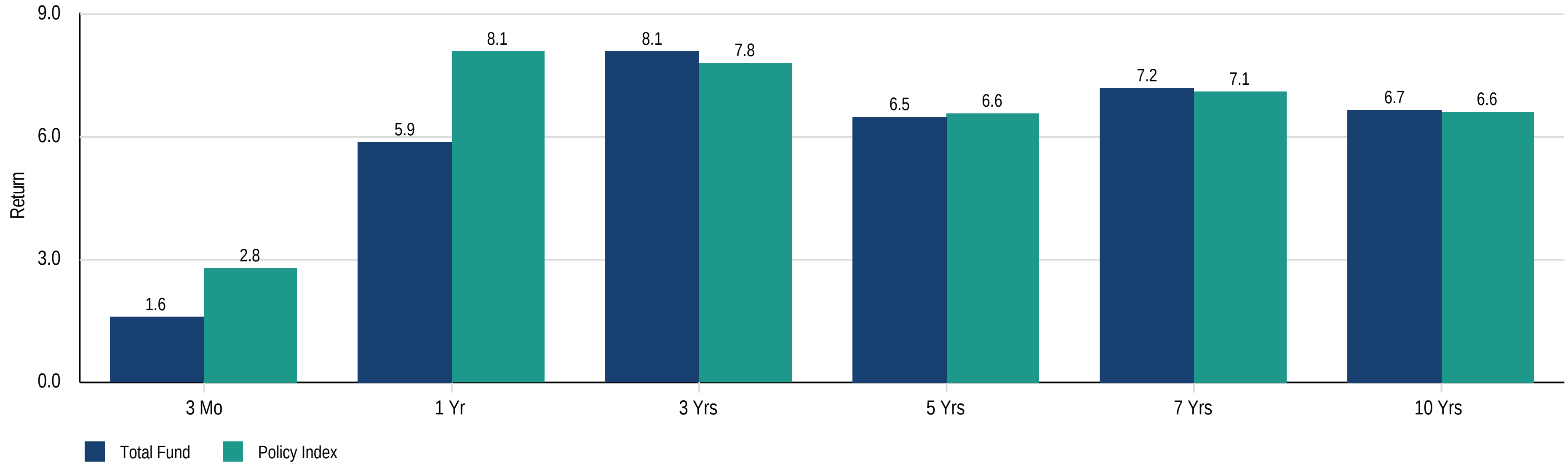


Market Value History



	Current Balance ($)	Current Allocation (%)	Policy Allocation (%)	Excess Allocation (%)	Policy Range (%)	Within IPS Range?
Equity	1,735,774,667	32.4	37.0	-4.6	26.0 - 48.0	Yes
Fixed Income	1,340,709,034	25.0	24.0	1.0	14.0 - 34.0	Yes
Core Real Estate	305,434,791	5.7	5.0	0.7	2.0 - 8.0	Yes
Hedge Funds	541,710,718	10.1	10.0	0.1	5.0 - 15.0	Yes
Alpha Pool	221,475,636	4.1	8.0	-3.9	2.0 - 10.0	Yes
Private Equity	187,538,440	3.5	5.0	-1.5	0.0 - 10.0	Yes
Private Credit	246,629,415	4.6	5.0	-0.4	0.0 - 10.0	Yes
Private Real Estate	132,005,447	2.5	5.0	-2.5	0.0 - 10.0	Yes
Commodities	228,214,624	4.3	4.0	0.3	0.0 - 8.0	Yes
Opportunistic	167,584,245	3.1	0.0	3.1	0.0 - 10.0	Yes
Midstream	308,467,836	5.8	5.0	0.8	0.0 - 8.0	Yes
Cash and Equivalents	-63,281,544	-1.2	-8.0	6.8	-10.0 - 5.0	Yes
Total	5,352,263,309	100.0	100.0	0.0		




9.0
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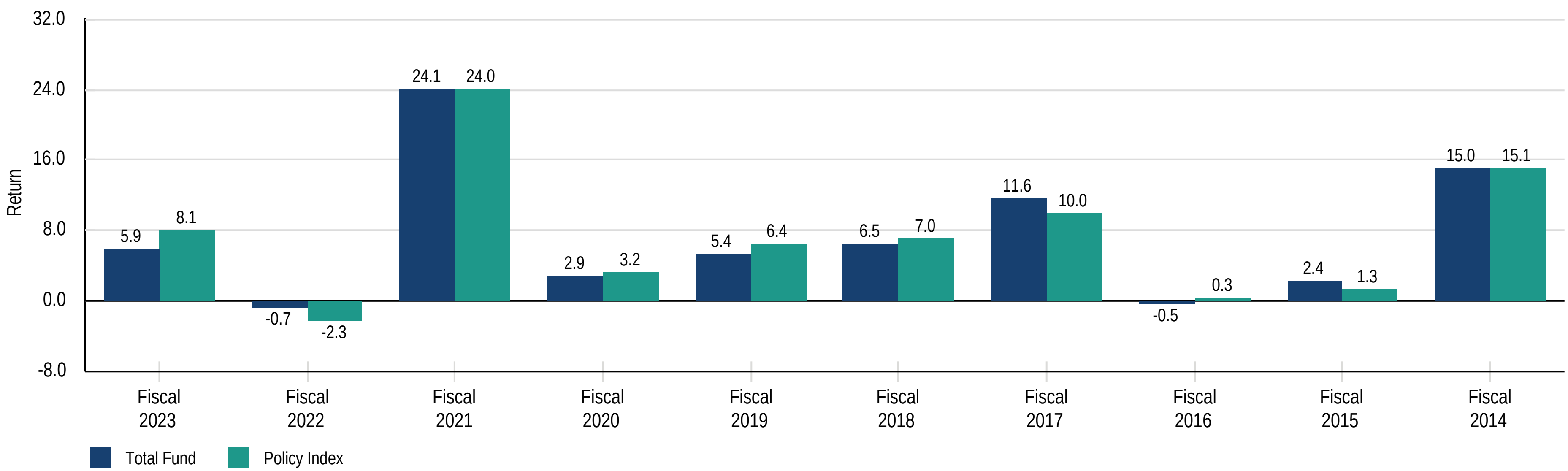
10 Yrs
Total Fund
Policy Index


32.0
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-8.0
Return
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-0.7
-2.3
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-0.5
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1.3
15.0
15.1
Fiscal 2023
Fiscal 2022
Fiscal 2021
Fiscal 2020
Fiscal 2019
Fiscal 2018
Fiscal 2017
Fiscal 2016
Fiscal 2015
Fiscal 2014
Total Fund
Policy Index

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018
Total Fund	5,352,263,309	100.0	1.6	6.1	6.1	8.4	6.8	7.1	-3.5	24.4	3.2	5.7	6.8
Policy Index			*2.8*	*8.1*	*8.1*	*7.8*	*6.6*	*6.6*	*-6.6*	*24.0*	*3.2*	*6.4*	*7.0*
InvMetrics Public DB > $1B Rank			*92*	*82*	*82*	*57*	*46*	*67*	*25*	*89*	*20*	*62*	*97*
Equity	1,735,774,667	32.4	5.3	15.9	15.9	11.7	8.1	9.7	-14.9	41.2	0.7	5.3	12.4
MSCI AC World IMI (Net)			*5.9*	*16.1*	*16.1*	*11.0*	*7.6*	*8.6*	*-16.5*	*40.9*	*1.2*	*4.6*	*11.1*
Domestic Equity	880,499,588	16.5	7.8	17.8	17.8	14.2	11.6	-	-12.0	43.6	6.3	9.2	16.1
MSCI USA IMI			*8.4*	*19.2*	*19.2*	*14.1*	*11.5*	-	*-13.7*	*44.4*	*6.7*	*9.0*	*14.9*
International Developed Equity	636,266,854	11.9	2.8	17.2	17.2	9.9	4.5	-	-17.2	37.0	-5.5	-0.6	9.1
MSCI World ex U.S. IMI Index (Net)			*2.7*	*16.3*	*16.3*	*8.9*	*4.2*	-	*-17.7*	*34.8*	*-5.1*	*0.2*	*7.7*
Emerging Markets Equity	219,007,388	4.1	2.9	5.3	5.3	5.2	0.8	-	-21.4	40.6	-10.9	0.4	4.0
MSCI Emerging Markets IMI (Net)			*1.6*	*3.2*	*3.2*	*3.6*	*1.4*	-	*-24.8*	*43.2*	*-4.0*	*0.5*	*7.9*
Fixed Income	1,340,709,034	25.0	0.1	3.1	3.1	-1.7	1.8	2.3	-12.7	5.4	6.6	7.9	0.2
Fixed Income Custom Benchmark			*-0.1*	*1.9*	*1.9*	*-2.1*	*1.3*	*2.1*	*-11.6*	*4.0*	*5.2*	*8.4*	*-0.1*
Core Plus Fixed Income	866,318,648	16.2	-1.1	-0.9	-0.9	-3.9	1.0	-	-11.2	1.0	9.5	8.0	0.0
Blmbg. U.S. Aggregate Index			*-0.8*	*-0.9*	*-0.9*	*-4.0*	*0.8*	-	*-10.3*	*-0.3*	*8.7*	*7.9*	*-0.4*
High Yield/ Specialty Credit	260,789,377	4.9	1.8	7.9	7.9	3.5	3.6	-	-9.5	13.6	0.0	7.5	3.3
ICE BofA U.S. High Yield Index			*1.6*	*8.9*	*8.9*	*3.2*	*3.2*	-	*-12.7*	*15.6*	*-1.1*	*7.6*	*2.5*
Emerging Market Debt	213,298,532	4.0	2.8	11.7	11.7	-0.6	1.0	-	-19.6	9.4	-1.2	8.5	-3.6
50 JPM EMBI Global Div / 50 JPM GBI EM Global Div			*2.3*	*9.4*	*9.4*	*-2.2*	*0.5*	-	*-20.2*	*7.1*	*-1.1*	*10.8*	*-1.9*
Commodities	228,214,624	4.3	-2.6	-6.3	-6.3	17.3	6.2	0.2	20.1	43.5	-10.7	-6.2	13.7
Bloomberg Commodity Index Total Return			*-2.6*	*-9.6*	*-9.6*	*17.8*	*4.7*	*-1.0*	*24.3*	*45.6*	*-17.4*	*-6.8*	*7.3*
Hedge Funds	541,710,718	10.1	1.7	7.5	7.5	8.7	7.2	6.2	2.8	16.3	7.3	2.6	7.6
75% 3 Month T-Bill +4% / 25% MSCI ACWI IMI			*2.6*	*7.2*	*7.2*	*5.8*	*5.8*	*5.9*	*-1.7*	*12.3*	*5.1*	*6.6*	*7.0*
Alpha Pool	221,475,636	4.1	-1.4	-0.9	-0.9	4.8	-	-	1.5	14.5	-	-	-
3 Month T-Bill +4%			*1.9*	*6.7*	*6.7*	*4.3*	-	-	*3.2*	*3.1*	-	-	-
Midstream Energy	308,467,836	5.8	3.2	20.1	20.1	-	-	-	9.6	-	-	-	-
Alerian Midstream Energy Index			*3.7*	*12.2*	*12.2*	-	-	-	*11.4*	-	-	-	-
Core Real Estate	305,434,791	5.7	-4.1	-11.9	-11.9	5.7	5.1	-	25.6	6.6	2.3	6.1	7.4
NCREIF ODCE			*-2.7*	*-10.0*	*-10.0*	*8.0*	*6.5*	-	*29.5*	*8.0*	*2.2*	*6.4*	*8.4*
Private Real Estate	132,005,447	2.5	-0.9	8.0	8.0	16.7	12.6	12.8	31.3	12.1	4.4	9.0	5.4
			-0.9	*8.0*	*8.0*	*16.7*	*12.6*	*12.8*	*31.3*	*12.1*	*4.4*	*9.0*	*5.4*
Private Equity	187,538,440	3.5	3.1	-0.5	-0.5	20.1	11.5	11.2	23.0	41.7	-10.5	10.9	7.8
			3.1	*-0.5*	*-0.5*	*20.1*	*11.5*	*11.2*	*23.0*	*41.7*	*-10.5*	*10.9*	*7.8*
Private Credit	246,629,415	4.6	2.3	2.8	2.8	2.9	4.8	-	1.2	4.8	5.5	9.7	9.3
			2.3	*2.8*	*2.8*	*2.9*	*4.8*	-	*1.2*	*4.8*	*5.5*	*9.7*	*9.3*

Policy Index: 37% MSCI ACWI IMI (Net), 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets Global Diversified, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +4%, 2.5% MSCI ACWI (Net), 8% 91 Day T-Bill + 4%, 5% NCREIF-ODCE Gross Monthly, 5% actual timeweighted Private Equity Returns, 5% actual time-weighted Private Credit Returns*, 5% actual time-weighted Private Real Estate Returns*, 5% Alerian Midstream, 0% Assumed Rate of Return +3%, -8% 3-Month T-bill and actual weights and returns of private asset classes to nearest 1%. All data prior to 2Q 2011 has been provided by the investments managers. FY: 6/30. The Equity and Fixed Income Beta Exposure return includes overlay cash and an implied hurdle rate also applied to the Alpha pool.*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018
Opportunistic	167,584,245	3.1	1.1	0.6	0.6	15.0	-	-	-5.4	59.9	-	-	-
Assumed Rate of Return +3%			*1.8*	*7.2*	*7.2*	*7.2*	-	-	*7.2*	*7.2*	-	-	-
Cash	-63,281,544	-1.2	0.5	2.3	2.3	0.7	1.0	1.5	-0.2	0.1	1.0	2.0	3.2
3 Month T-Bill			*1.2*	*3.6*	*3.6*	*1.3*	*1.6*	*1.0*	*0.2*	*0.1*	*1.6*	*2.3*	*1.4*

Policy Index: 37% MSCI ACWI IMI (Net), 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets Global Diversified, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +4%, 2.5% MSCI ACWI (Net), 8% 91 Day T-Bill + 4%, 5% NCREIF-ODCE Gross Monthly, 5% actual timeweighted Private Equity Returns, 5% actual time-weighted Private Credit Returns*, 5% actual time-weighted Private Real Estate Returns*, 5% Alerian Midstream, 0% Assumed Rate of Return +3%, -8% 3-Month T-bill and actual weights and returns of private asset classes to nearest 1%. All data prior to 2Q 2011 has been provided by the investments managers. FY: 6/30. The Equity and Fixed Income Beta Exposure return includes overlay cash and an implied hurdle rate also applied to the Alpha pool.*

Performance and Attribution

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Inception	Inception Date
Total Fund	5,352,263,309	100.0	1.6	5.9	5.9	8.1	6.5	6.7	-3.8	24.1	2.9	5.4	6.5	6.4	Jun-11
Policy Index			*2.8*	*8.1*	*8.1*	*7.8*	*6.6*	*6.6*	*-6.6*	*24.0*	*3.2*	*6.4*	*7.0*	*6.3*	
Equity	1,735,774,667	32.4	5.2	15.7	15.7	11.4	7.8	9.3	-15.1	40.7	0.3	4.8	11.8	8.8	Jun-11
MSCI AC World IMI (Net)			*5.9*	*16.1*	*16.1*	*11.0*	*7.6*	*8.6*	*-16.5*	*40.9*	*1.2*	*4.6*	*11.1*	*8.0*	
Domestic Equity	880,499,588	16.5	7.7	17.6	17.6	13.9	11.3	-	-12.2	43.2	6.0	8.8	15.5	11.3	Jul-14
MSCI USA IMI			*8.4*	*19.2*	*19.2*	*14.1*	*11.5*	-	*-13.7*	*44.4*	*6.7*	*9.0*	*14.9*	*11.1*	
Equity Beta Exposure	88,867,350	1.7	8.7	19.2	19.2	-	-	-	-11.0	-	-	-	-	12.5	Aug-20
S&P 500 Index			*8.7*	*19.6*	*19.6*	-	-	-	*-10.6*	-	-	-	-	*12.9*	
Mellon DB SL Stock Index Fund	535,890,546	10.0	8.7	19.6	19.6	14.6	12.3	-	-10.6	40.8	7.5	10.4	-	12.2	Oct-17
S&P 500 Index			*8.7*	*19.6*	*19.6*	*14.6*	*12.3*	-	*-10.6*	*40.8*	*7.5*	*10.4*	-	*12.1*	
PIMCO StocksPLUS	116,372,909	2.2	8.8	18.8	18.8	13.7	11.8	12.9	-12.8	41.7	7.7	10.6	14.1	10.6	Jul-03
S&P 500 Index			*8.7*	*19.6*	*19.6*	*14.6*	*12.3*	*12.9*	*-10.6*	*40.8*	*7.5*	*10.4*	*14.4*	*9.9*	
AB US Small Cap Value Equity	86,479,259	1.6	0.4	4.3	4.3	15.8	3.1	-	-16.1	77.5	-19.4	-6.9	13.2	6.3	Jul-15
Russell 2000 Value Index			*3.2*	*6.0*	*6.0*	*15.4*	*3.5*	-	*-16.3*	*73.3*	*-17.5*	*-6.2*	*13.1*	*6.4*	
Geneva Capital Small Cap Growth	52,889,523	1.0	5.7	15.6	15.6	7.4	8.0	-	-22.1	37.6	9.3	8.6	22.7	10.1	Jul-15
Russell 2000 Growth Index			*7.1*	*18.5*	*18.5*	*6.1*	*4.2*	-	*-33.4*	*51.4*	*3.5*	*-0.5*	*21.9*	*6.4*	
International Developed Equity	636,266,854	11.9	2.8	17.1	17.1	9.8	4.3	-	-17.3	36.7	-5.7	-0.9	8.7	4.3	Jul-14
MSCI World ex U.S. IMI Index (Net)			*2.7*	*16.3*	*16.3*	*8.9*	*4.2*	-	*-17.7*	*34.8*	*-5.1*	*0.2*	*7.7*	*3.5*	
Mellon DB SL World ex-US Index Fund	526,402,690	9.8	3.3	17.9	17.9	10.3	-	-	-16.1	35.6	-5.5	-	-	5.1	Jul-18
MSCI World ex U.S. IMI Index (Net)			*2.7*	*16.3*	*16.3*	*8.9*	*4.2*	-	*-17.7*	*34.8*	*-5.1*	*0.2*	-	*4.0*	
Cevian Capital II	38,875,436	0.7	2.7	25.3	25.3	19.1	8.1	-	-8.2	46.8	-8.2	-5.0	2.9	7.5	Dec-14
MSCI Europe (Net)			*2.7*	*21.8*	*21.8*	*10.7*	*5.2*	-	*-17.6*	*35.1*	*-6.8*	*1.9*	*5.3*	*5.0*	
American Century Non-US Small Cap	70,988,728	1.3	-1.0	7.9	7.9	-	-	-	-27.4	-	-	-	-	-3.9	Dec-20
MSCI World ex U.S. Small Cap Growth Index (Net)			*0.3*	*9.5*	*9.5*	-	-	-	*-28.6*	-	-	-	-	*-4.9*	
Emerging Markets Equity	219,007,388	4.1	2.8	4.6	4.6	4.4	0.0	-	-21.9	39.5	-11.8	-0.6	2.9	0.9	Jul-14
MSCI Emerging Markets IMI (Net)			*1.6*	*3.2*	*3.2*	*3.6*	*1.4*	-	*-24.8*	*43.2*	*-4.0*	*0.5*	*7.9*	*2.0*	
DFA Emerging Markets Value I	81,560,166	1.5	4.6	7.9	7.9	11.5	3.1	-	-12.9	47.6	-17.7	2.0	5.7	3.9	Mar-14
MSCI Emerging Markets Value (Net)			*2.5*	*4.1*	*4.1*	*6.3*	*1.2*	-	*-18.6*	*41.6*	*-15.7*	*5.0*	*4.3*	*1.8*	
AB Emerging Markets Strategic Core Equity Collective Trust	53,147,634	1.0	3.5	5.0	5.0	1.6	-0.6	-	-25.2	33.6	-5.1	-2.6	1.2	2.3	Dec-16
MSCI Emerging Markets (Net)			*0.9*	*1.7*	*1.7*	*2.3*	*0.9*	-	*-25.3*	*40.9*	*-3.4*	*1.2*	*8.2*	*4.6*	
Mellon Emerging Markets Stock Index Fund	84,299,588	1.6	0.7	1.6	1.6	2.2	-	-	-25.5	41.1	-	-	-	2.0	Jun-20
MSCI Emerging Markets (Net)			*0.9*	*1.7*	*1.7*	*2.3*	-	-	*-25.3*	*40.9*	-	-	-	*4.6*	
Fixed Income	1,340,709,034	25.0	0.0	2.9	2.9	-2.0	1.5	2.1	-13.0	5.1	6.3	7.6	-0.1	3.1	Jun-10
Fixed Income Custom Benchmark			*-0.1*	*1.9*	*1.9*	*-2.1*	*1.3*	*2.1*	*-11.6*	*4.0*	*5.2*	*8.4*	*-0.1*	*2.9*	
Core Plus Fixed Income	866,318,648	16.2	-1.1	-1.0	-1.0	-4.0	0.8	-	-11.4	0.8	9.3	7.9	-0.2	1.4	Jul-14
Bloomberg U.S. Aggregate Index			*-0.8*	*-0.9*	*-0.9*	*-4.0*	*0.8*	-	*-10.3*	*-0.3*	*8.7*	*7.9*	*-0.4*	*1.2*	
Fixed Income Beta Exposure	418,880,253	7.8	-1.5	-2.5	-2.5	-	-	-	-	-	-	-	-	-0.2	Jun-22
Bloomberg U.S. Aggregate Index			*-0.8*	*-0.9*	*-0.9*	-	-	-	-	-	-	-	-	*-2.3*	
Mellon DB SL Aggregate Bond Index Fund	161,044,998	3.0	-0.9	-0.9	-0.9	-4.0	0.7	1.5	-10.4	-0.4	8.8	7.9	-0.4	1.9	Jan-11
Bloomberg U.S. Aggregate Index			*-0.8*	*-0.9*	*-0.9*	*-4.0*	*0.8*	*1.5*	*-10.3*	*-0.3*	*8.7*	*7.9*	*-0.4*	*2.0*	

Policy Index: 37% MSCI ACWI IMI (Net), 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets Global Diversified, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +4%, 2.5% MSCI ACWI (Net), 8% 91 Day T-Bill + 4%, 5% NCREIF-ODCE Gross Monthly, 5% actual timeweighted Private Equity Returns, 5% actual time-weighted Private Credit Returns*, 5% actual time-weighted Private Real Estate Returns*, 5% Alerian Midstream, 0% Assumed Rate of Return +3%, -8% 3-Month T-bill and actual weights and returns of private asset classes to nearest 1%. All data prior to 2Q 2011 has been provided by the investments managers. FY: 6/30. The Equity and Fixed Income Beta Exposure return includes overlay cash and an implied hurdle rate also applied to the Alpha pool.*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Inception	Inception Date
PIMCO Core Plus	164,488,299	3.1	-0.8	-0.7	-0.7	-3.3	0.9	1.7	-9.9	1.1	8.7	6.3	1.0	2.2	Feb-11
Bloomberg U.S. Aggregate Index			-0.8	-0.9	-0.9	-4.0	0.8	1.5	-10.3	-0.3	8.7	7.9	-0.4	2.0	
Western Asset Core Plus	121,905,098	2.3	-0.4	0.8	0.8	-4.1	1.1	2.2	-14.5	2.4	9.3	9.4	-0.4	3.7	Jun-04
Bloomberg U.S. Aggregate Index			-0.8	-0.9	-0.9	-4.0	0.8	1.5	-10.3	-0.3	8.7	7.9	-0.4	3.2	
High Yield/ Specialty Credit	260,789,377	4.9	1.7	7.5	7.5	3.0	3.1	-	-10.0	13.1	-0.5	7.0	2.8	2.5	Jul-14
ICE BofA U.S. High Yield Index			1.6	8.9	8.9	3.2	3.2	-	-12.7	15.6	-1.1	7.6	2.5	3.5	
Western Asset High Yield Fixed Income	165,365,884	3.1	2.0	9.5	9.5	3.1	3.0	3.9	-14.1	16.5	-2.2	8.3	2.2	5.8	Jun-05
Bloomberg US HY Ba/B 2% Cap TR			1.4	8.9	8.9	2.6	3.7	4.5	-12.4	13.4	2.1	8.8	1.8	6.0	
TCW Securitized Opportunities	95,423,493	1.8	1.3	4.4	4.4	2.2	2.8	-	-4.0	6.4	2.2	5.2	4.3	3.4	Feb-16
Bloomberg U.S. High Yield - 2% Issuer Cap			1.8	9.1	9.1	3.1	3.3	-	-12.8	15.3	0.0	7.5	2.6	5.7	
Emerging Market Debt	213,298,532	4.0	2.7	11.2	11.2	-1.0	0.6	-	-19.9	9.1	-1.7	7.9	-4.2	0.3	Jul-14
50 JPM EMBI Global Div / 50 JPM GBI EM Global Div			2.3	9.4	9.4	-2.2	0.5	-	-20.2	7.1	-1.1	10.8	-1.9	0.5	
Stone Harbor Emerging Markets Debt Blend Portfolio	65,594,366	1.2	2.9	10.8	10.8	-1.4	0.4	0.4	-20.9	9.5	-1.8	8.2	-3.1	-0.1	Aug-12
50 JPM GBI-EM Global Div/ 40 JPM EMBI Global Div/ 10 JPM Corporate EM Bond Idx			2.3	9.2	9.2	-2.0	0.7	1.3	-19.5	7.2	-0.8	10.6	-1.7	1.0	
PIMCO EMD	147,704,166	2.8	2.6	11.3	11.3	-0.8	-	-	-19.2	8.7	-	-	-	-1.9	Feb-20
50 JPM EMBI Global Div / 50 JPM GBI EM Global Div			2.3	9.4	9.4	-2.2	-	-	-20.2	7.1	-	-	-	-3.4	
Commodities	228,214,624	4.3	-2.8	-7.0	-7.0	16.5	5.5	-0.4	19.4	42.5	-11.3	-6.7	13.3	-0.4	Jul-13
Bloomberg Commodity Index Total Return			-2.6	-9.6	-9.6	17.8	4.7	-1.0	24.3	45.6	-17.4	-6.8	7.3	-1.0	
Gresham MTAP Commodity Builder Fund	48,242,779	0.9	-1.8	-11.5	-11.5	17.5	4.3	-	24.7	46.8	-16.3	-9.0	12.4	-0.9	Oct-13
Bloomberg Commodity Index Total Return			-2.6	-9.6	-9.6	17.8	4.7	-	24.3	45.6	-17.4	-6.8	7.3	-1.1	
Wellington Commodities	179,971,845	3.4	-3.0	-5.2	-5.2	15.9	6.4	-	17.2	40.2	-7.5	-5.4	14.2	0.3	Sep-13
S&P GSCI Commodity Equal Weighted			-4.6	-5.5	-5.5	16.6	6.0	-	19.0	40.9	-12.4	-3.5	12.6	0.4	
Hedge Funds	541,710,718	10.1	1.5	6.8	6.8	8.4	6.9	5.6	2.8	16.1	7.0	2.5	7.6	5.9	Sep-10
75% 3 Month T-Bill +4% / 25% MSCI ACWI (net)			2.5	7.2	7.2	5.8	5.8	5.9	-1.7	12.3	5.1	6.6	7.0	5.8	
Aristeia International Limited	70,900,266	1.3	1.3	5.5	5.5	9.3	9.2	-	1.8	21.6	8.7	9.2	2.6	5.3	May-14
Brevan Howard Fund	54,344,819	1.0	-2.7	-1.0	-1.0	6.6	10.4	-	15.2	6.1	20.5	12.7	7.8	7.2	Sep-13
D.E. Shaw Composite Fund	61,264,742	1.1	2.9	11.0	11.0	19.4	17.0	14.3	29.0	19.0	15.6	11.5	11.3	14.3	Jul-13
HBK Fund II	45,043,642	0.8	0.6	7.8	7.8	7.0	5.5	-	2.3	11.0	1.5	5.5	3.0	4.5	Nov-13
Hudson Bay Cap Structure Arbitrage Enhanced Fund	81,574,491	1.5	1.0	7.7	7.7	9.9	-	-	7.7	14.2	16.2	-	-	11.3	Jun-19
Indus Pacific Opportunities Fund	46,377,701	0.9	-2.7	-0.4	-0.4	8.0	3.4	-	-8.2	38.0	15.8	-19.2	15.8	6.7	Jul-14
Pharo Macro Fund	62,959,707	1.2	2.6	1.2	1.2	-2.3	-	-	-11.1	3.5	-	-	-	-1.1	Dec-19
PIMCO Commodity Alpha Fund	71,393,658	1.3	6.4	18.3	18.3	13.6	10.1	-	8.6	14.2	4.8	5.2	10.4	11.1	Jun-16
Sculptor Domestic Partners II LP	47,851,693	0.9	3.0	8.8	8.8	0.6	-	-	-19.9	16.8	6.5	-	-	5.1	Feb-19
Alpha Pool	221,475,636	4.1	-1.4	-0.9	-0.9	4.8	-	-	1.5	14.5	-	-	-	4.8	Jul-20
3 Month T-Bill +4%			1.9	6.7	6.7	4.3	-	-	3.2	3.1	-	-	-	4.3	
Hudson Bay	63,009,820	1.2	-1.5	-1.1	-1.1	-	-	-	6.7	-	-	-	-	6.0	Aug-20
Davidson Kempner Institutional Partners	55,433,498	1.0	-1.6	-4.1	-4.1	-	-	-	-3.4	-	-	-	-	0.2	Dec-20
HBK Fund II	43,317,590	0.8	-1.9	-1.0	-1.0	-	-	-	1.3	-	-	-	-	2.1	Dec-20
Garda Fixed Income Relative Value Opportunity Fund	59,714,728	1.1	-0.7	3.6	3.6	-	-	-	-	-	-	-	-	5.0	Sep-21

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Inception	Inception Date
Midstream Energy	308,467,836	5.8	3.0	19.3	19.3	-	-	-	9.3	-	-	-	-	27.8	Sep-20
Alerian Midstream Energy Index			*3.7*	*12.2*	*12.2*	-	-	-	*11.4*	-	-	-	-	*25.2*	
Harvest Midstream	156,842,353	2.9	2.2	20.9	20.9	-	-	-	15.3	-	-	-	-	33.9	Aug-20
Alerian Midstream Energy Index			*3.7*	*12.2*	*12.2*	-	-	-	*11.4*	-	-	-	-	*24.4*	
PIMCO Midstream	151,625,483	2.8	3.9	16.9	16.9	-	-	-	2.2	-	-	-	-	22.2	Sep-20
50/25/25 Alerian Midstream/ ICE BofA US Pipeline/ ICE BofA US HY Midstream			*2.3*	*10.1*	*10.1*	-	-	-	*-0.7*	-	-	-	-	-	
Core Real Estate	305,434,791	5.7	-4.2	-12.3	-12.3	4.9	4.4	-	24.8	5.6	1.4	5.9	7.4	6.6	Oct-14
NCREIF ODCE			*-2.7*	*-10.0*	*-10.0*	*8.0*	*6.5*	-	*29.5*	*8.0*	*2.2*	*6.4*	*8.4*	*8.2*	
ASB Allegiance Real Estate Fund	165,428,514	3.1	-6.2	-13.1	-13.1	4.1	4.1	-	23.0	5.4	1.5	6.8	7.1	6.6	Sep-13
NCREIF ODCE			*-2.7*	*-10.0*	*-10.0*	*8.0*	*6.5*	-	*29.5*	*8.0*	*2.2*	*6.4*	*8.4*	*8.6*	
JPMCB Strategic Property Fund	140,006,277	2.6	-1.8	-11.3	-11.3	6.3	5.0	-	27.9	5.9	1.3	5.0	7.6	6.8	Jul-14
NCREIF ODCE			*-2.7*	*-10.0*	*-10.0*	*8.0*	*6.5*	-	*29.5*	*8.0*	*2.2*	*6.4*	*8.4*	*8.3*	
Private Real Estate	132,005,447	2.5	-0.9	7.9	7.9	16.7	12.6	12.3	31.3	12.1	4.4	9.0	5.4	12.5	Mar-11
			-0.9	*8.0*	*8.0*	*16.7*	*12.6*	*12.8*	*31.3*	*12.1*	*4.4*	*9.0*	*5.4*	*12.5*	
Private Equity	187,538,440	3.5	3.1	-0.5	-0.5	20.1	11.5	10.8	22.9	41.7	-10.5	10.9	7.8	10.7	Sep-10
			3.1	*-0.5*	*-0.5*	*20.1*	*11.5*	*11.2*	*23.0*	*41.7*	*-10.5*	*10.9*	*7.8*	*10.8*	
Private Credit	246,629,415	4.6	2.8	3.2	3.2	3.0	4.8	-	1.2	4.8	5.5	9.7	9.3	-23.3	Dec-15
			2.3	*2.8*	*2.8*	*2.9*	*4.8*	-	*1.2*	*4.8*	*5.5*	*9.7*	*9.3*	*6.9*	
Opportunistic	167,584,245	3.1	1.1	0.6	0.6	15.0	-	-	-5.4	59.9	-	-	-	9.9	Jan-20
Assumed Rate of Return +3%			*1.8*	*7.2*	*7.2*	*7.2*	-	-	*7.2*	*7.2*	-	-	-	*7.3*	
River Birch International	5,106,669	0.1	16.1	46.1	46.1	-	-	-	-	-	-	-	-	60.2	Jun-22
Assumed Rate of Return +3%			*1.8*	*7.2*	*7.2*	-	-	-	-	-	-	-	-	*7.2*	
DB Investors Fund IV	23,394,069	0.4	-8.5	-8.3	-8.3	5.5	-	-	-34.4	95.1	-	-	-	4.6	Dec-19
Assumed Rate of Return +3%			*1.8*	*7.2*	*7.2*	*7.2*	-	-	*7.2*	*7.2*	-	-	-	*7.2*	
Sixth Street TAO Partners (D)	90,733,476	1.7	4.9	4.4	4.4	16.9	-	-	9.6	39.6	-	-	-	15.5	Mar-20
Assumed Rate of Return +3%			*1.8*	*7.2*	*7.2*	*7.2*	-	-	*7.2*	*7.2*	-	-	-	*7.2*	
Aristeia Select Opportunities II	48,350,031	0.9	-2.4	-7.2	-7.2	-	-	-	-	-	-	-	-	-1.4	Jul-21
Assumed Rate of Return +3%			*1.8*	*7.2*	*7.2*	-	-	-	*7.2*	-	-	-	-	*7.2*	
Cash	-63,281,544	-1.2	0.5	2.2	2.2	0.7	1.0	1.5	-0.2	0.1	1.0	2.0	3.2	1.3	Apr-11
3 Month T-Bill			*1.2*	*3.6*	*3.6*	*1.3*	*1.6*	*1.0*	*0.2*	*0.1*	*1.6*	*2.3*	*1.4*	*0.8*	

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			IRR Analysis as of IRR date									
Vintage Year	Manager/Fund	Estimated Market Value as of 6/30/2022	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[3]	IRR Date
Private Equity												
2008	Abbott Capital PE VI	$17,490,181	$50,000,000	$49,750,000	100%	$250,000	$78,095,564	$17,231,430	1.57x	1.92x	12.8%	03/31/23
2006	Pantheon Global III	$553,189	$50,000,000	$47,300,000	95%	$2,700,000	$52,000,000	$544,562	1.10x	1.11x	1.9%	03/31/23
1998	Pantheon USA III	$45,445	$7,500,000	$7,335,000	98%	$165,000	$8,197,500	$47,064	1.12x	1.12x	1.9%	12/31/22
2002	Pantheon USA V	$383,462	$25,000,000	$24,350,000	97%	$650,000	$37,950,000	$392,019	1.56x	1.57x	9.0%	03/31/23
2004	Pantheon USA VI	$335,737	$35,000,000	$33,075,000	95%	$1,925,000	$50,623,827	$357,185	1.53x	1.54x	6.7%	03/31/23
2006	Pantheon USA VII	$6,907,588	$50,000,000	$46,600,000	93%	$3,400,000	$80,424,999	$6,715,424	1.73x	1.87x	10.1%	03/31/23
2020	Vista Foundation Fund IV	$18,058,075	$25,000,000	$18,753,571	75%	$6,246,429	$30,252	$17,834,565	0.00x	0.96x	-2.9%	03/31/23
2021	Crown Global Secondaries V Master S.C.Sp	$28,568,244	$50,000,000	$21,250,000	43%	$28,750,000	$1,550,000	$28,138,412	0.07x	1.42x	31.2%	03/31/23
2021	Brighton Park Capital Fund I	$36,029,946	$30,000,000	$28,421,941	95%	$1,578,059	$1,325,801	$35,655,157	0.05x	1.31x	14.9%	03/31/23
2021	Warren Equity Partners Fund III	$29,397,592	$32,500,000	$24,279,276	75%	$8,220,724	$508,290	$29,397,592	0.02x	1.23x	20.5%	06/30/23
2021	Peak Rock Capital Fund III	$11,921,302	$30,000,000	$11,319,783	38%	$18,680,217	$2,021,857	$11,921,302	0.18x	1.23x	25.3%	06/30/23
2021	Level Equity Growth Partners V	$6,697,065	$15,000,000	$6,715,768	45%	$8,284,232	$0	$6,697,065	0.00x	1.00x	2.6%	06/30/23
2021	Level Equity Opportunities Fund 2021	$5,529,388	$15,000,000	$5,529,385	37%	$9,470,615	$0	$5,529,388	0.00x	1.00x	12.9%	06/30/23
2022	Linden Capital Partners V LP	$7,984,801	$22,500,000	$7,885,783	35%	$14,614,217	$0	$7,984,801	N/A	N/A	10.3%	06/30/23
2022	Rubicon Technology Partners IV LP	$3,277,938	$30,000,000	$3,895,697	13%	$26,104,303	$0	$3,214,080	N/A	N/A	-69.4%	12/31/22
2022	OrbiMed Private Investments IX, LP	$320,186	$10,000,000	$500,000	5%	$9,500,000	$0	$320,186	N/A	N/A	32.0%	06/30/23
2022	Brighton Park Capital Fund II	$3,071,866	$30,000,000	$4,174,920	14%	$25,825,080	$0	N/A	N/A	N/A	N/A	N/A
2022	Linden Co-Investment V LP	$3,910,712	$7,500,000	$7,499,177	100%	$823	$0	$1,846,267	N/A	N/A	21.8%	12/31/22
2022	Warren Equity Partners Fund IV	$7,055,723	$32,500,000	$2,820,069	9%	$29,679,931	$0	N/A	N/A	N/A	N/A	N/A
2022	Accel-KKR Capital Partners VII	$0	$25,000,000	$0	0%	$25,000,000	$0	N/A	N/A	N/A	N/A	N/A
2023	LGT Crown Global Secondaries Fund VI	$0	$30,000,000	$0	0%	$30,000,000	$0	N/A	N/A	N/A	N/A	N/A
2023	Parthenon Investors VII	$0	$30,000,000	$0	0%	$30,000,000	$0	N/A	N/A	N/A	N/A	N/A
2023	WEP Co-Invest IV	$0	$10,000,000	$0	0%	$10,000,000	$0	N/A	N/A	N/A	N/A	N/A
	Total Private Equity	**$187,538,440**	$642,500,000	$351,455,371	55%	$281,044,629	$312,727,891	$173,826,499	0.89x	1.42x		
	% of Portfolio (Market Value)	3.5%										

[1](DPI) is equal to (capital returned / capital called)
[2](TVPI) is equal to (market value + capital returned) / capital called
[3]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR is provided by the Fund manager and is reflective of the Fund IRR, rather than KCERA's specific IRR.

Linden Co-Investment V LP and Brighton Park Capital Fund II, L.P added in Q1

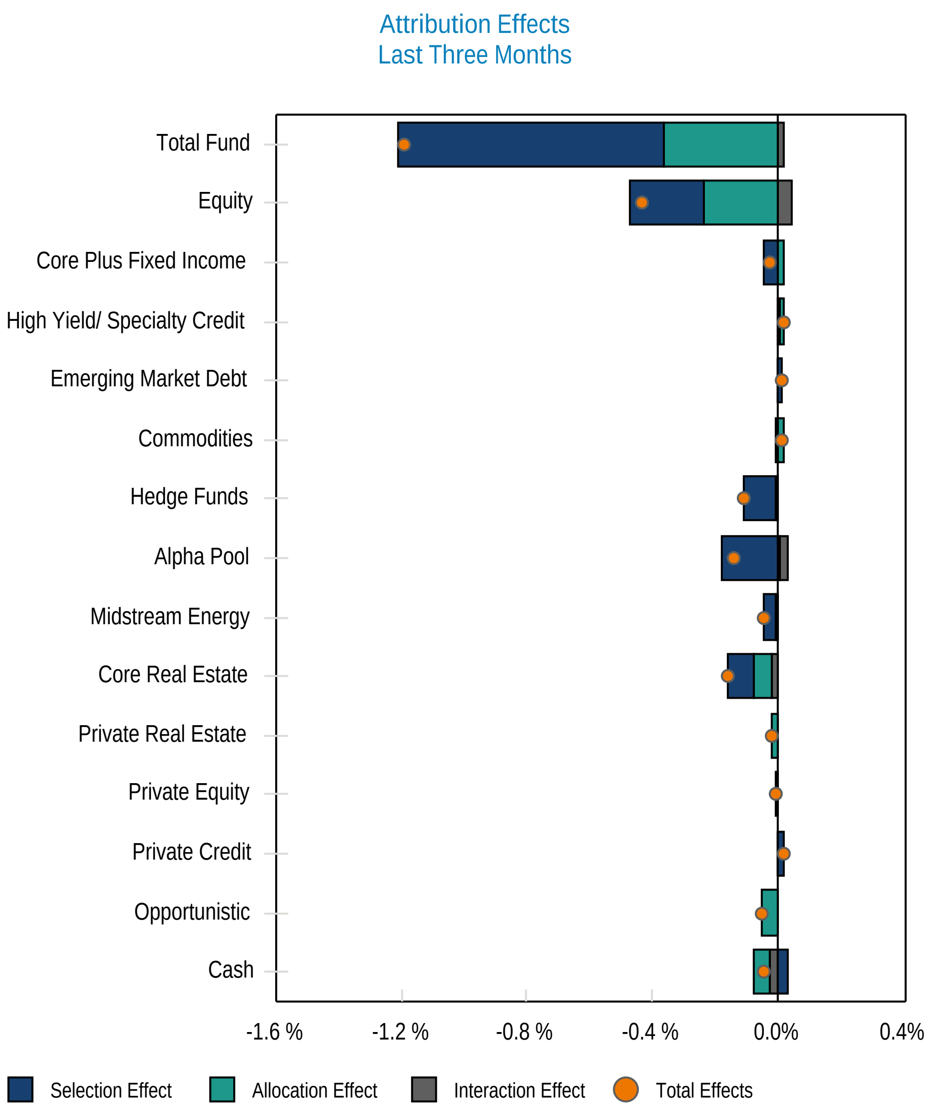
Vintage Year	Manager/Fund	Estimated Market Value 6/30/2023	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[3]	IRR Date
			IRR Analysis as of IRR date									
Private Credit												
2015	DC Value Recovery Fund IV[4]	$18,526,925	$74,360,749	$73,340,099	99%	$1,020,650	$40,330,120	$20,781,309	0.55x	0.80x	N/A	3/31/23
2017	Sixth Street TAO Partners (B)	$41,404,117	$108,035,958	$84,519,175	78%	$23,516,783	$43,279,572	$39,800,921	0.51x	1.00x	9.7%	3/31/23
2017	Brookfield Real Estate Finance Fund V	$16,752,621	$50,000,000	$36,019,917	72%	$13,980,083	$27,359,025	$16,752,621	0.76x	1.22x	6.8%	6/30/23
2018	Magnetar Constellation Fund V	$28,113,131	$60,000,000	$56,445,318	94%	$3,554,682	$41,583,529	$28,113,131	0.74x	1.23x	5.9%	6/30/23
2019	H.I.G Bayside Loan Opportunity Fund V	$43,519,452	$60,000,000	$35,821,497	60%	$24,178,503	$12,786,586	$43,519,452	0.36x	1.57x	17.4%	6/30/23
2020	Blue Torch Credit Opportunities Fund II	$16,313,371	$20,000,000	$16,613,092	83%	$3,386,908	$3,652,640	$17,526,212	0.22x	1.20x	14.2%	3/31/23
2020	Fortress Credit Opportunites Fund V Expansion	$15,507,751	$40,000,000	$13,968,710	35%	$26,031,290	$468,590	$15,507,751	0.03x	1.14x	21.2%	6/30/23
2021	Fortress Lending Fund II	$28,566,610	$40,000,000	$33,337,851	83%	$6,662,149	$7,124,926	$28,566,610	0.21x	1.07x	10.0%	6/30/23
2022	Blue Torch Credit Opportunities Fund III	$7,764,429	$40,000,000	$7,199,891	18%	$32,800,109	$83,928	$7,625,106	0.01x	1.09x	20.1%	3/31/23
2022	Fortress Lending Fund III	$23,889,989	$40,000,000	$23,232,701	58%	$16,767,299	$2,175,812	$23,889,989	0.09x	1.12x	11.8%	6/30/23
2022	OrbiMed Royalty & Credit Opportunities IV	$6,271,019	$30,000,000	$5,983,980	20%	$24,016,020	$0	$4,560,873	0.00x	1.05x	11.9%	3/31/23
2023	Ares Senior Direct Lending III	$0	$30,000,000	$0	0%	$30,000,000	$0	$0	N/A	N/A	N/A	N/A
2023	Cerberus Business Finance V	$0	$30,000,000	$0	0%	$30,000,000	$0	$0	N/A	N/A	N/A	N/A
2023	Ares Pathfinder II	$0	$30,000,000	$0	0%	$30,000,000	$0	$0	N/A	N/A	N/A	N/A
2023	Silver Point – Specialty Credit Fund III	$0	$30,000,000	$0	0%	$30,000,000	$0	$0	N/A	N/A	N/A	N/A
	Total Private Credit	**$246,629,415**	$562,396,707	$386,482,230	69%	$175,914,477	$178,844,730	$246,643,975	0.46x	1.10x		
	% of Portfolio (Market Value)	**4.6%**										

[1](DPI) is equal to (capital returned / capital called)
[2](TVPI) is equal to (market value + capital returned) / capital called
[3]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR is provided by the Fund manager and is reflective of the Fund IRR, rather than KCERA's specific IRR.
[4]Name changed from Colony Distressed Credit fund to DC Value Recovery Fund IV

									IRR Analysis as of IRR date				
Vintage Year	Manager/Fund	Estimated Market Value 6/30/2023	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[3]	IRR Date
Private Real Estate												
2014	Invesco Real Estate Value-Add Fund IV	$945,682	$50,000,000	$43,637,717	87%	$6,362,283	$56,824,750	$945,682	*1.30x*	*1.32x*	*10.5%*	06/30/23
2017	Landmark Real Estate Partners VIII	$31,583,306	$60,000,000	$40,705,385	68%	$19,294,615	$23,327,214	$31,009,306	*0.57x*	*1.35x*	*18.5%*	03/31/23
2018	Long Wharf Real Estate Partners VI	$34,525,266	$50,000,000	$49,405,352	99%	$594,648	$22,893,954	$34,525,266	*0.46x*	*1.16x*	*19.5%*	06/30/23
2020	Covenant Apartment Fund X	$33,947,463	$30,000,000	$24,007,333	80%	$5,992,667	$6,380,981	$33,947,463	*0.27x*	*1.68x*	*23.2%*	06/30/23
2021	Singerman Real Estate Opportunity Fund IV	$8,944,617	$35,000,000	$8,146,250	23%	$26,853,750	$0	$8,944,617	*0.00x*	*1.10x*	*17.6%*	06/30/23
2022	LBA Logistics Value Fund IX, L.P.	$10,287,850	$40,000,000	$11,153,846	28%	$28,846,154	$0	$10,287,850	*0.00x*	*0.92x*	*-11.9%*	06/30/23
2022	Covenant Apartment Fund XI	$9,819,829	$30,000,000	$6,300,000	21%	$38,076,924	$3,112	N/A	N/A	N/A	N/A	N/A
2022	KSL Capital Partners VI	$1,951,434	$30,000,000	$2,016,241	7%	$27,983,759	$64,806	N/A	*N/A*	*N/A*	N/A	N/A
2022	Landmark Real Estate Partners IX	$0	$40,000,000	$0	0%	$40,000,000	$0	N/A	*N/A*	*N/A*	N/A	N/A
2023	Merit Hill V	$0	$30,000,000	$0	0%	$30,000,000	$0	N/A	*N/A*	*N/A*	N/A	N/A
	Total Private Real Estate	**$132,005,447**	$395,000,000	$185,372,124	47%	$224,004,800	$109,494,818	$119,660,184	*0.59x*	*1.30x*		
	% of Portfolio (Market Value)	*2.5%*										

[1](DPI) is equal to (capital returned / capital called)
[2](TVPI) is equal to (market value + capital returned) / capital called
[3]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR is provided by the Fund manager and is reflective of the Fund IRR, rather than KCERA's specific IRR.

KSL Capital Partners VI funded in Q2



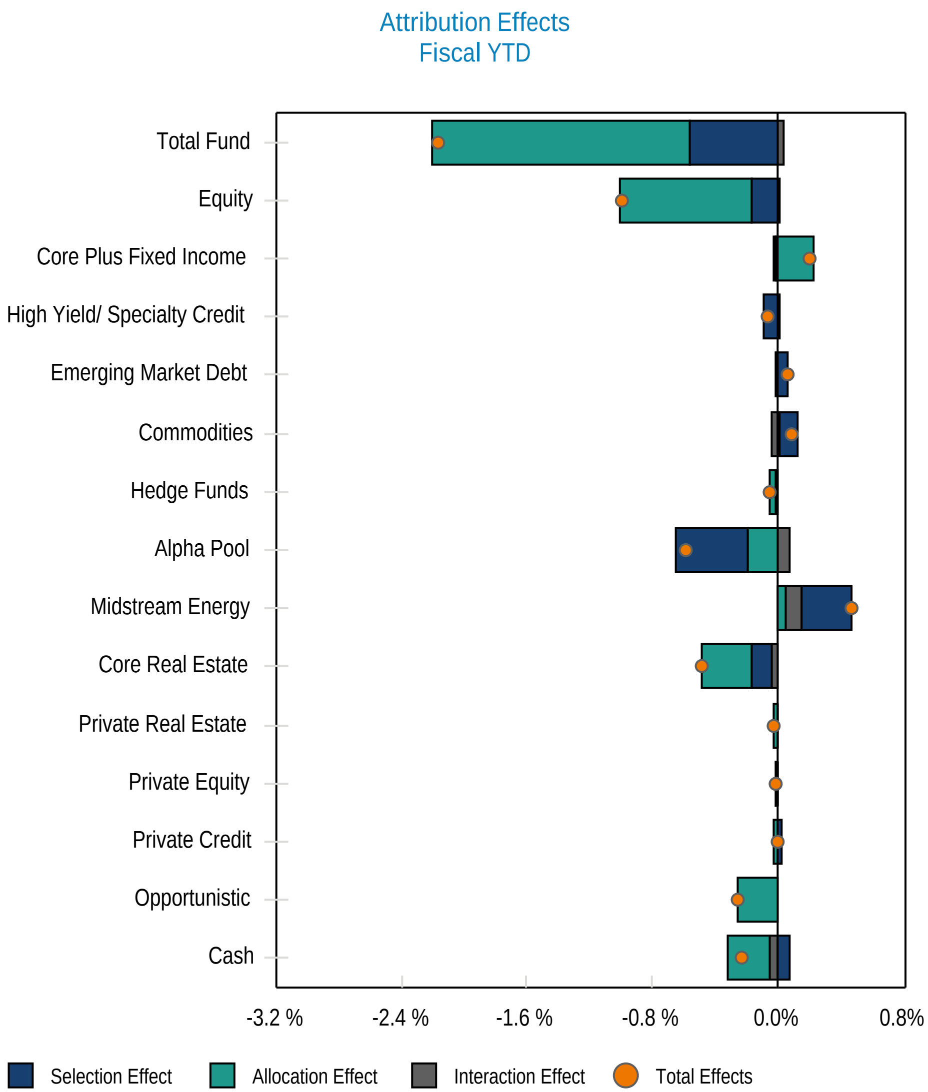
Performance Attribution

	Last Three Months
Wtd. Actual Return	1.6
Wtd. Index Return	2.8
Excess Return	-1.2
Selection Effect	-0.8
Allocation Effect	-0.4
Interaction Effect	0.0

Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Equity	5.2	5.9	-0.6	-0.3	-0.2	0.0	-0.4
Core Plus Fixed Income	-1.1	-0.8	-0.2	-0.1	0.0	0.0	0.0
High Yield/ Specialty Credit	1.7	1.6	0.1	0.0	0.0	0.0	0.0
Emerging Market Debt	2.7	2.3	0.3	0.0	0.0	0.0	0.0
Commodities	-2.8	-2.6	-0.2	0.0	0.0	0.0	0.0
Hedge Funds	1.5	2.5	-1.0	-0.1	0.0	0.0	-0.1
Alpha Pool	-1.4	2.1	-3.5	-0.2	0.0	0.0	-0.1
Midstream Energy	3.0	3.7	-0.7	-0.1	0.0	0.0	0.0
Core Real Estate	-4.2	-2.7	-1.6	-0.1	-0.1	0.0	-0.2
Private Real Estate	-0.9	-0.9	0.0	0.0	0.0	0.0	0.0
Private Equity	3.1	3.1	0.0	0.0	0.0	0.0	0.0
Private Credit	2.8	2.3	0.4	0.0	0.0	0.0	0.0
Opportunistic	1.1	1.8	-0.7	0.0	-0.1	0.0	-0.1
Cash	0.5	1.2	-0.7	0.0	-0.1	0.0	0.0
Total Fund	1.6	2.8	-1.2	-0.8	-0.4	0.0	-1.2

Weighted returns shown in attribution analysis may differ from actual returns. Negative cash allocation unable to be shown in Attribution Summary table. Wtd. Index Returns calculated from benchmark returns and weightings of each component. Selection Effect includes Other Effect in the Performance Attribution table.



Performance Attribution

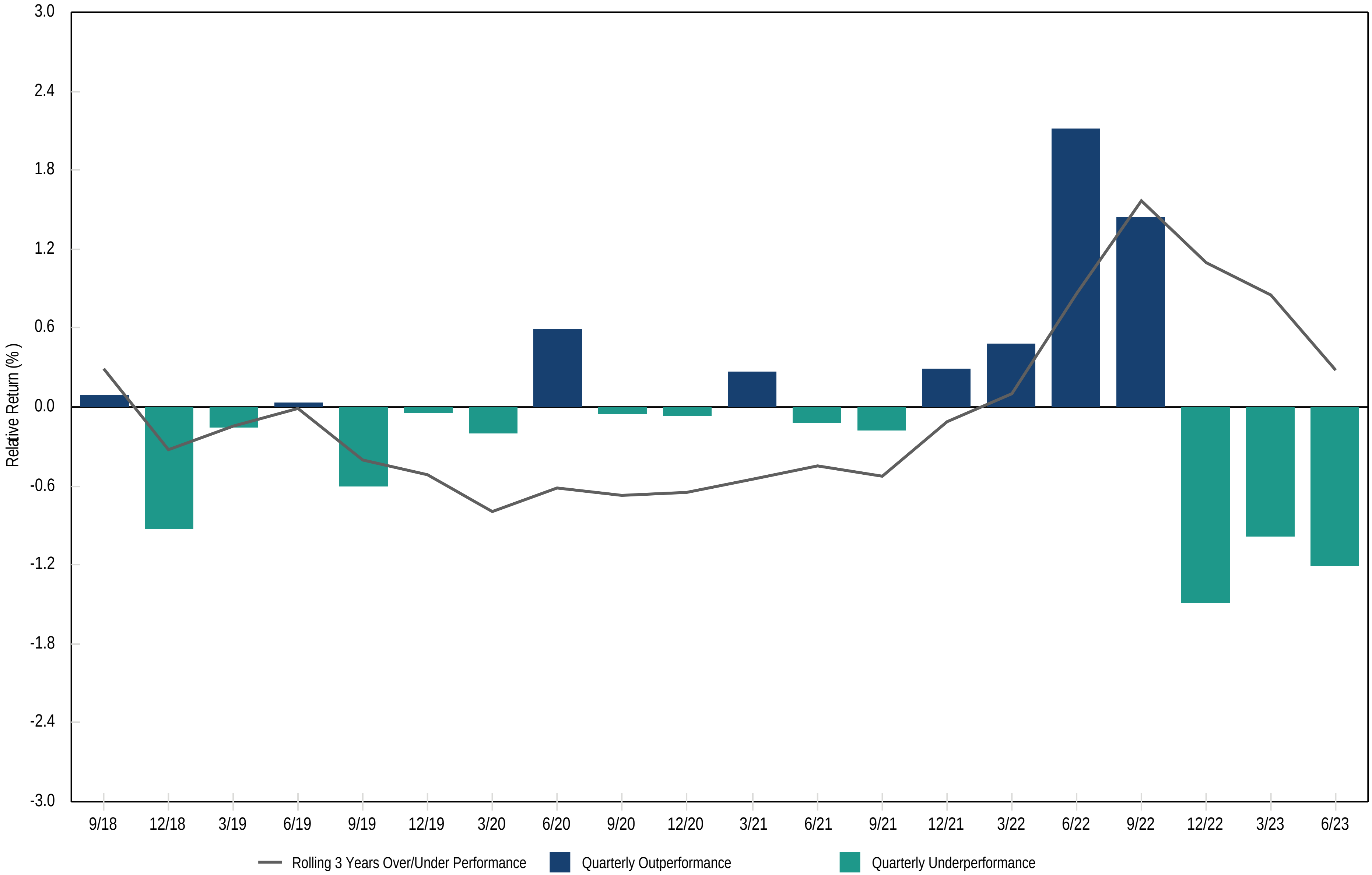
	Fiscal YTD
Wtd. Actual Return	5.9
Wtd. Index Return	8.1
Excess Return	-2.2
Selection Effect	-0.6
Allocation Effect	-1.6
Interaction Effect	0.0

Attribution Summary
Fiscal YTD

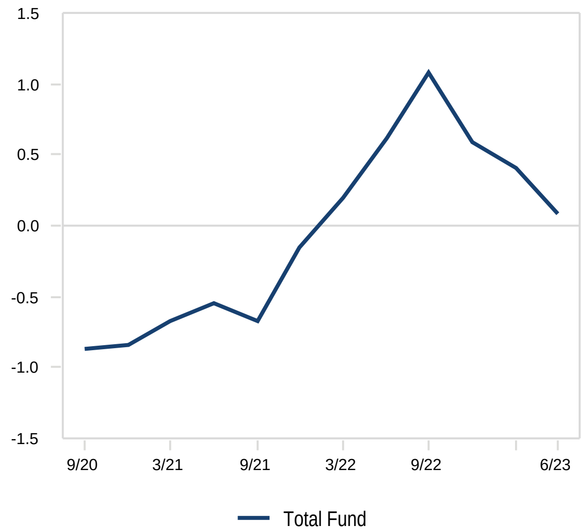
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Equity	15.7	16.1	-0.4	-0.3	-0.8	0.0	-1.0
Core Plus Fixed Income	-1.0	-0.9	-0.1	-0.1	0.2	0.0	0.2
High Yield/ Specialty Credit	7.5	8.9	-1.4	-0.1	0.0	0.0	-0.1
Emerging Market Debt	11.2	9.4	1.8	0.1	0.0	0.0	0.1
Commodities	-7.0	-9.6	2.6	0.1	0.0	0.0	0.1
Hedge Funds	6.8	7.2	-0.4	0.0	0.0	0.0	-0.1
Alpha Pool	-0.9	7.7	-8.5	-0.5	-0.2	0.1	-0.6
Midstream Energy	19.3	12.2	7.1	0.3	0.0	0.1	0.5
Core Real Estate	-12.3	-10.0	-2.3	-0.2	-0.3	0.0	-0.5
Private Real Estate	7.9	8.0	-0.1	0.0	0.0	0.0	0.0
Private Equity	-0.5	-0.5	0.0	0.0	0.0	0.0	0.0
Private Credit	3.2	2.8	0.4	0.0	0.0	0.0	0.0
Opportunistic	0.6	7.2	-6.7	0.0	-0.2	0.0	-0.2
Cash	2.2	3.6	-1.3	0.1	-0.3	-0.1	-0.2
Total Fund	5.9	8.1	-2.2	-0.6	-1.6	0.0	-2.2

Weighted returns shown in attribution analysis may differ from actual returns. Negative cash allocation unable to be shown in Attribution Summary table. Wtd. Index Returns calculated from benchmark returns and weightings of each component. Selection Effect includes Other Effect in the Performance Attribution table.

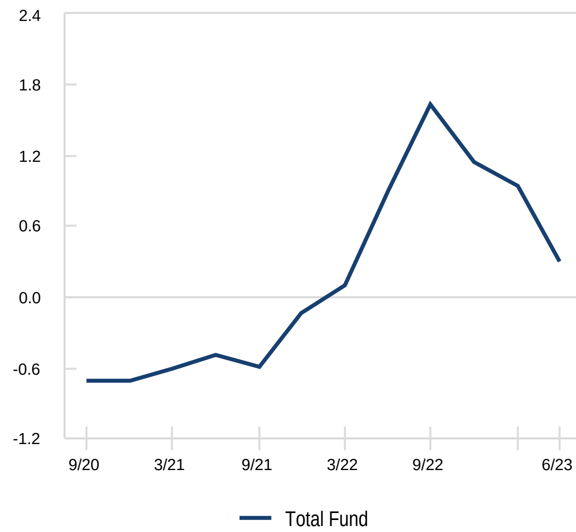
Rolling 3 Year Annualized Excess Performance



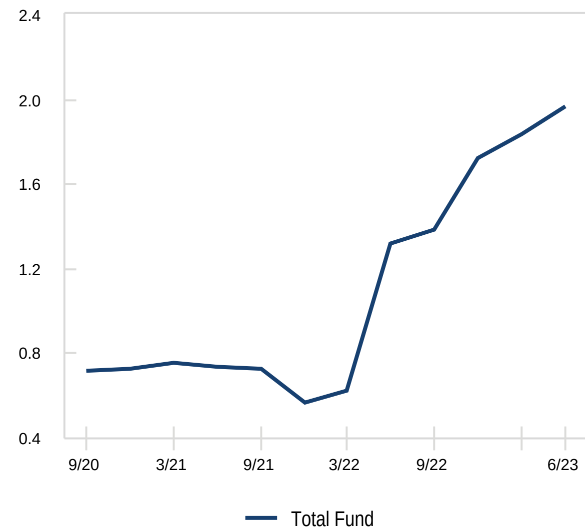
Rolling Information Ratio



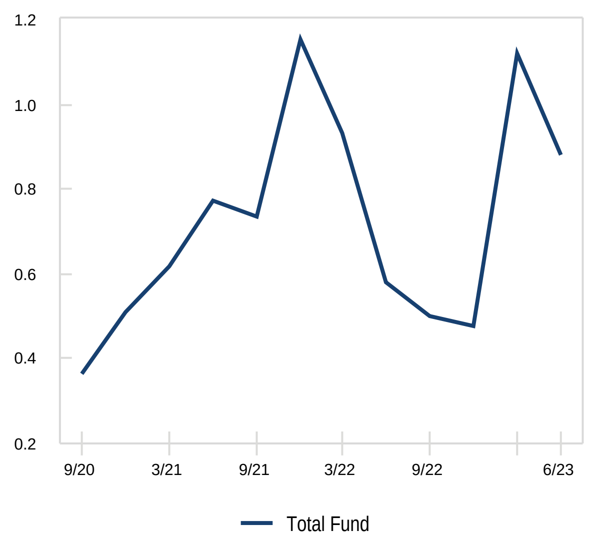
Rolling Annual Excess Benchmark Return



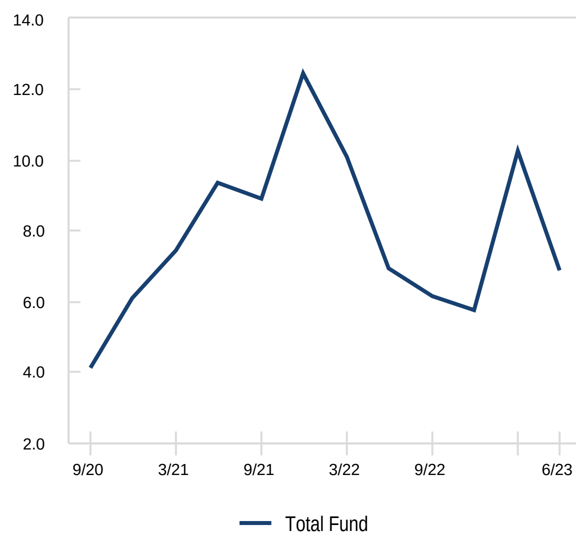
Rolling Tracking Error



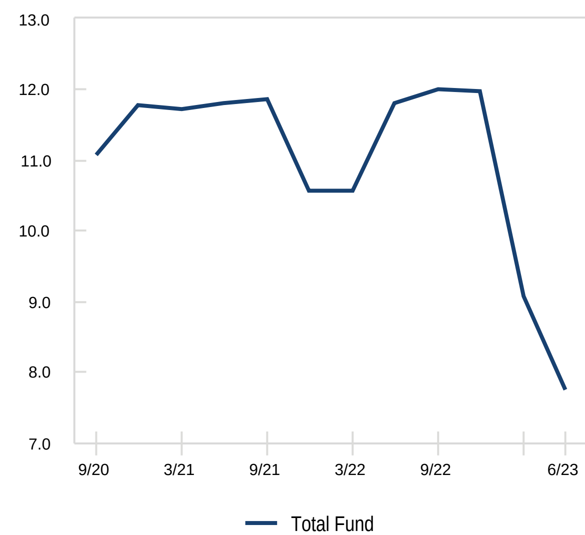
Rolling Sharpe Ratio



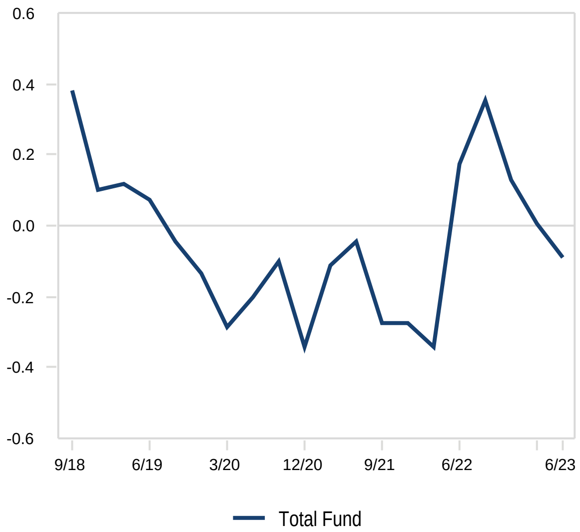
Rolling Annual Excess Risk Free Return



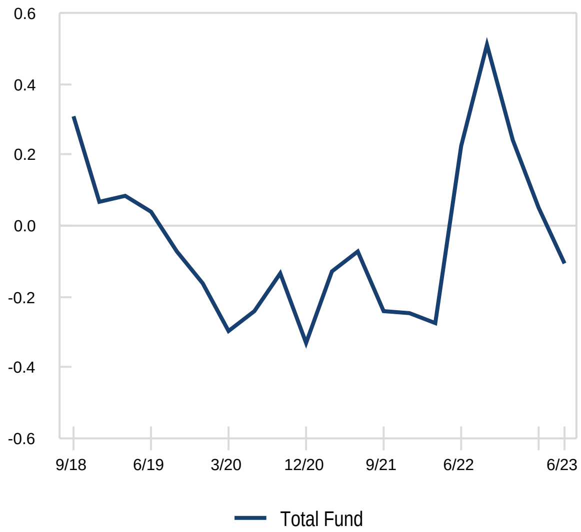
Rolling Annualized Standard Deviation



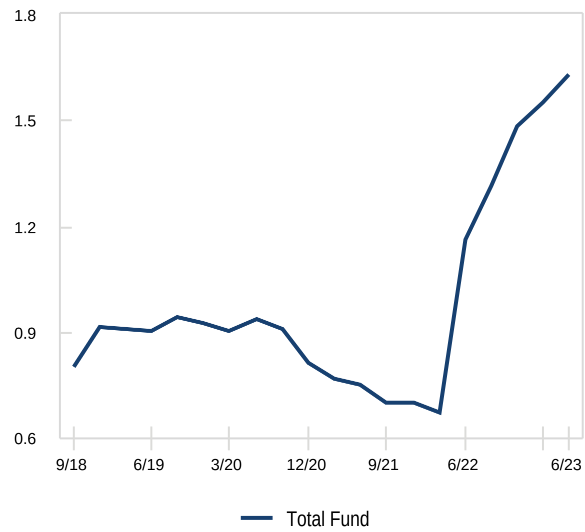
Rolling Information Ratio



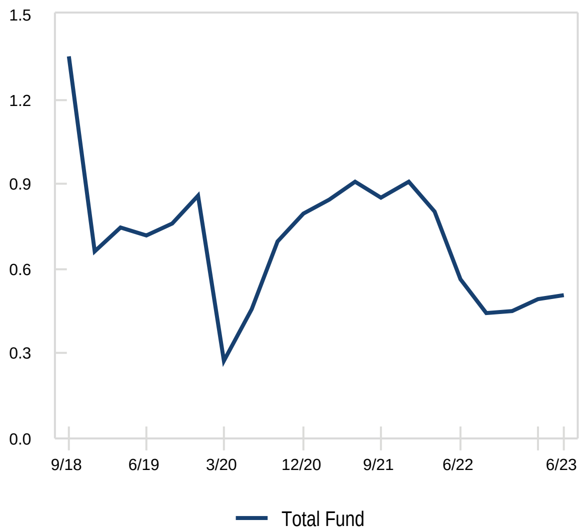
Rolling Annual Excess Benchmark Return



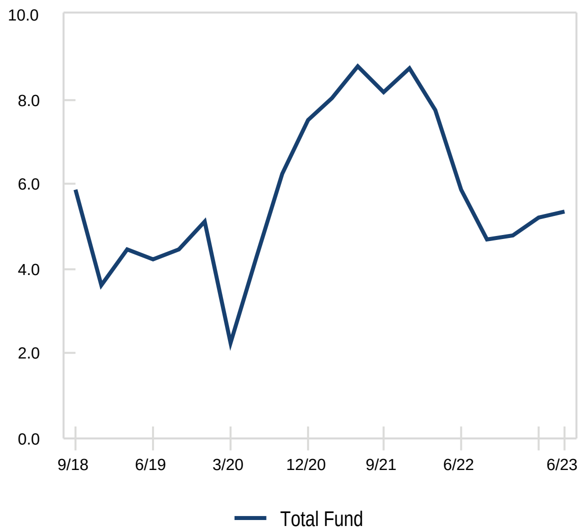
Rolling Tracking Error



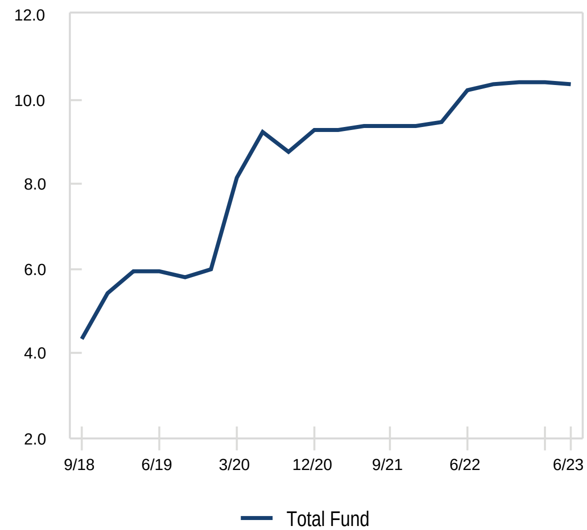
Rolling Sharpe Ratio



Rolling Annual Excess Risk Free Return



Rolling Annualized Standard Deviation



Cash Flows

Net Cash Flow: Last 1 Quarter

	Estimated Beginning Market Value	Contributions	Withdrawals	Fees	Net Transfers	Net Investment Change	Estimated Ending Market Value
Equity	1,684,531,735	874,180	-35,519,936		-1,357,464	87,246,151	1,735,774,667
Equity Beta Exposure	116,684,550	874,180	-35,519,436		-1,355,100	8,183,156	88,867,350
Mellon DB SL Stock Index Fund	492,812,772					43,077,775	535,890,546
PIMCO StocksPLUS	106,968,573					9,404,337	116,372,909
AB US Small Cap Value Equity	85,933,985		-129			545,403	86,479,259
Geneva Capital Small Cap Growth	49,961,187		-354			2,928,690	52,889,523
Mellon DB SL World ex-US Index Fund	509,554,780					16,847,909	526,402,690
Fidelity Non-US Small Cap Equity	2,371		-18		-2,364	10	
Cevian Capital II	37,835,395					1,040,041	38,875,436
American Century Non-US Small Cap	71,741,628					-752,900	70,988,728
DFA Emerging Markets Value I	77,971,643					3,588,524	81,560,166
AB Emerging Markets Strategic Core Equity Collective Trust	51,359,657					1,787,978	53,147,634
Mellon Emerging Markets Stock Index Fund	83,704,518					595,070	84,299,588
Transition Equity	676					160	837
Fixed Income	1,293,165,405	57,933,501	-1,611,356	126,904	-9,879,495	974,075	1,340,709,034
Fixed Income Beta Exposure	373,052,129	57,890,137	-1,611,356		-4,278,500	-6,172,158	418,880,253
Mellon DB SL Aggregate Bond Index Fund	162,415,284					-1,370,286	161,044,998
PIMCO Core Plus	165,702,164					-1,213,865	164,488,299
Western Asset Core Plus	122,289,114					-384,016	121,905,098
Western Asset High Yield Fixed Income	164,707,494				-2,652,752	3,311,142	165,365,884
TCW Securitized Opportunities	96,137,252			126,904	-1,963,554	1,122,891	95,423,493
Stone Harbor Emerging Markets Debt Blend Portfolio	64,653,539	43,364			-984,666	1,882,129	65,594,366
PIMCO EMD	143,907,027					3,797,139	147,704,166
Transition Fixed Income	301,401				-22	1,098	302,477
Commodities	197,553,350				35,000,000	-4,338,726	228,214,624
Gresham MTAP Commodity Builder Fund	49,142,121					-899,342	48,242,779
Wellington Commodities	148,411,229				35,000,000	-3,439,384	179,971,845
Hedge Funds	540,806,896	10,159		-96,708	-7,404,359	8,394,729	541,710,718
Aristeia International Limited	69,959,516					940,750	70,900,266
Brevan Howard Fund	55,851,429	10,159				-1,516,769	54,344,819
D.E. Shaw Composite Fund	59,530,214					1,734,528	61,264,742
HBK Fund II	44,737,059					306,583	45,043,642
Hudson Bay Cap Structure Arbitrage Enhanced Fund	80,735,699					838,792	81,574,491

	Estimated Beginning Market Value	Contributions	Withdrawals	Fees	Net Transfers	Net Investment Change	Estimated Ending Market Value
Indus Pacific Opportunities Fund	47,650,356					-1,272,655	46,377,701
Magnetar Structured Credit Fund	7,327,545				-7,404,359	76,814	
Pharo Macro Fund	61,359,040					1,600,667	62,959,707
PIMCO Commodity Alpha Fund	67,115,042			-96,708		4,375,324	71,393,658
Sculptor Domestic Partners II LP	46,540,997					1,310,695	47,851,693
Alpha Pool	219,047,320				5,450,104	-3,021,787	221,475,636
Hudson Bay	62,361,920				1,603,345	-955,445	63,009,820
Davidson Kempner Institutional Partners	54,896,123				1,406,304	-868,929	55,433,498
HBK Fund II	43,022,754				1,105,718	-810,882	43,317,590
HBK Opportunities Platform – SPAC Series	183,496				-183,496		
Garda Fixed Income Relative Value Opportunity Fund	58,583,027				1,518,232	-386,531	59,714,728
Midstream Energy	303,662,302				-4,724,373	9,529,907	308,467,836
Harvest Midstream	155,726,602				-2,563,685	3,679,436	156,842,353
PIMCO Midstream	147,935,700				-2,160,688	5,850,471	151,625,483
Core Real Estate	321,881,000		-312,521		-2,936,380	-13,197,308	305,434,791
ASB Allegiance Real Estate Fund	177,580,755				-1,187,888	-10,964,353	165,428,514
JPMCB Strategic Property Fund	144,300,244		-312,521		-1,748,492	-2,232,955	140,006,277
Private Real Estate	123,608,804				9,507,043	-1,110,400	132,005,447
Invesco Real Estate Value-Add Fund IV	1,394,290					-448,608	945,682
Landmark Real Estate Partners VIII	31,009,306				1,288,044	-714,044	31,583,306
Long Wharf Real Estate	34,044,975				416,254	64,037	34,525,266
Covenant Apartment Fund X	33,907,055				-353,750	394,158	33,947,463
Singerman Real Estate Opportunity Fund IV	8,851,934				131,250	-38,567	8,944,617
LBA Logistics Value Fund IX, L.P.	7,442,250				3,076,923	-231,323	10,287,850
Covenant Apartment Fund XI, LP	6,958,995				2,996,888	-136,054	9,819,829
KSL Capital Partners VI					1,951,434		1,951,434
Private Equity	165,827,721	4,235,654			12,305,881	5,169,184	187,538,440
Abbott VI	17,231,430					258,751	17,490,181
Pantheon Secondary III	544,562					8,627	553,189
Pantheon III	45,445						45,445
Pantheon V	392,019					-8,557	383,462

	Estimated Beginning Market Value	Contributions	Withdrawals	Fees	Net Transfers	Net Investment Change	Estimated Ending Market Value
Pantheon VI	357,185					-21,448	335,737
Pantheon VII	6,715,424				-300,000	492,164	6,907,588
Vista Foundation Fund IV	17,834,565					223,510	18,058,075
Crown Global Secondaries V Master S.C.Sp	28,138,412				-1,100,000	1,529,832	28,568,244
Brighton Park Capital Fund I	35,655,157				321,217	53,572	36,029,946
Warren Equity Partners Fund III	27,303,165				1,309,413	785,014	29,397,592
Peak Rock Capital Fund III	11,225,621				68,569	627,112	11,921,302
Level Equity Growth Partners V	4,543,921				1,576,237	576,907	6,697,065
Level Equity Opportunities Fund 2021	3,253,566				1,855,632	420,190	5,529,388
Linden Capital Partners V LP	5,472,902				2,262,173	249,726	7,984,801
Rubicon Technology Partners IV L.P.	2,681,880				681,618	-85,560	3,277,938
OrbiMed Private Investments IX, LP	366,875					-46,689	320,186
Brighton Park Capital Fund II, L.P	2,249,052				935,385	-112,571	3,071,866
Linden Co-Investment V LP	1,816,540				1,875,568	218,604	3,910,712
Warren Equity Partners Fund IV		4,235,654			2,820,069		7,055,723
Private Credit	245,458,300				-4,495,048	5,666,163	246,629,415
DC Value Recovery Fund IV	20,781,309				-2,704,635	450,251	18,526,925
Sixth Street TAO Partners (B)	39,800,921				968,605	634,591	41,404,117
Brookfield Real Estate Finance Fund V	17,621,779				-480,347	-388,811	16,752,621
Magnetar Constellation Fund V	28,836,480					-723,349	28,113,131
H.I.G. Bayside Loan Opportunity Fund V	42,185,573				-786,974	2,120,853	43,519,452
Blue Torch Credit Opportunities Fund II	17,526,212				-1,816,164	603,323	16,313,371
Fortress Credit Opportunites Fund V Expansion	13,938,158				1,280,261	289,332	15,507,751
Fortress Lending Fund II	29,190,818				-1,597,026	972,818	28,566,610
Fortress Lending Fund III	23,391,071				-758,820	1,257,738	23,889,989
OrbiMed Royalty & Credit Opportunities IV	4,560,873				1,483,980	226,166	6,271,019
Blue Torch Credit Opportunities Fund III	7,625,106				-83,928	223,251	7,764,429
Opportunistic	167,025,043				-1,280,313	1,839,516	167,584,245
DB Investors Fund IV	25,576,934					-2,182,865	23,394,069
Sixth Street TAO Partners (D)	85,955,709				532,212	4,245,555	90,733,476
Aristeia Select Opportunities II	49,530,872					-1,180,841	48,350,031
River Birch International	5,961,528					-5,961,528	

	Estimated Beginning Market Value	Contributions	Withdrawals	Fees	Net Transfers	Net Investment Change	Estimated Ending Market Value
Cash	-21,679,077	199,593,102	-217,016,138	-33,627	-30,185,596	6,039,792	-63,281,544
Short Term Investment Funds	220,711,312	74,605,452	-85,305,638	-33,627	-30,185,596	2,526,112	182,318,015
Parametric Cash Overlay	82,256,613	34,743,563	-37,632,511				79,367,664
Goldman Sachs Cash Account	-13,554,572	49,411,195	-33,424,069				2,432,554
Futures Offset	-489,736,679	40,832,893	-59,818,920			975,104	-507,747,603
Collateral Cash	835,000		-835,000				
BlackRock Short Duration Fund	177,809,249					2,538,577	180,347,826

Portfolio Reconciliation

	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Beginning Market Value	5,240,888,799	5,061,358,140	5,061,358,140	4,409,659,712	4,178,221,441	3,006,340,464
Contributions	368,758,185	2,959,971,119	2,959,971,119	9,979,430,928	13,039,142,389	19,012,108,878
Withdrawals	-360,571,539	-3,005,659,444	-3,005,659,444	-10,195,960,221	-13,390,239,667	-19,460,437,617
Fees	-3,431	-3,538,093	-3,538,093	-35,598,840	-62,450,330	-129,201,373
Net Cash Flows	8,186,646	-45,688,324	-45,688,324	-216,529,293	-351,097,278	-448,328,739
Net Investment Change	103,187,864	336,593,493	336,593,493	1,159,132,890	1,525,139,147	2,794,251,584
Ending Market Value	5,352,263,309	5,352,263,309	5,352,263,309	5,352,263,309	5,352,263,309	5,352,263,309
Net Change $	111,374,510	290,905,169	290,905,169	942,603,597	1,174,041,869	2,345,922,845

Contribution and withdrawals include transfers in and out of accounts. Ending market value is net of fees. Market value and flows do not include the Short Term Cash Account balance.

Risk Metrics

Correlation Matrix
3 Years Ending June 30, 2023

	A	B	C	D	E	F	G	H	I	J	K	L
A	1.00											
B	0.98	1.00										
C	0.95	0.98	1.00									
D	0.95	0.97	0.90	1.00								
E	0.80	0.80	0.68	0.80	1.00							
F	0.79	0.80	0.74	0.79	0.81	1.00						
G	0.65	0.68	0.62	0.66	0.70	0.96	1.00					
H	0.86	0.85	0.82	0.82	0.73	0.89	0.77	1.00				
I	0.79	0.80	0.71	0.82	0.87	0.91	0.78	0.78	1.00			
J	0.66	0.56	0.50	0.59	0.52	0.33	0.18	0.47	0.41	1.00		
K	0.58	0.52	0.49	0.53	0.45	0.27	0.10	0.47	0.37	0.48	1.00	
L	-0.12	-0.19	-0.14	-0.22	-0.27	-0.34	-0.31	-0.25	-0.39	0.06	-0.05	1.00

A = Total Fund
B = Equity
C = Domestic Equity
D = International Developed Equity
E = Emerging Markets Equity
F = Fixed Income
G = Core Plus Fixed Income
H = High Yield/ Specialty Credit
I = Emerging Market Debt
J = Commodities
K = Hedge Funds
L = Core Real Estate

Low Interaction
Moderate Interation
Moderate to High Interation
High Interaction

	Alpha	Beta	R-Squared	Return	Information Ratio	Excess Performance	Tracking Error	Sharpe Ratio	Excess Return	Standard Deviation	Sortino Ratio	Up Capture	Down Capture
Total Fund	1.7	0.8	1.0	8.1	0.1	0.3	2.4	0.9	6.9	7.8	1.5	86.8	75.5
Equity	0.6	1.0	1.0	11.4	0.3	0.4	1.1	0.7	11.0	16.8	1.0	99.9	98.0
Domestic Equity	0.0	1.0	1.0	13.9	-0.1	-0.2	1.2	0.7	13.5	18.1	1.2	98.7	98.6
International Developed Equity	1.0	1.0	1.0	9.8	0.8	0.9	1.0	0.6	9.6	17.6	0.9	101.2	97.7
Emerging Markets Equity	1.0	0.9	1.0	4.4	0.3	0.8	2.5	0.3	4.4	16.4	0.4	94.2	89.4
Fixed Income	0.2	1.0	1.0	-2.0	0.2	0.1	0.8	-0.5	-3.1	6.5	-0.6	103.7	101.4
Core Plus Fixed Income	0.0	1.0	1.0	-4.0	-0.1	-0.1	0.7	-0.8	-5.2	6.2	-1.0	104.9	103.5
High Yield/ Specialty Credit	0.6	0.7	0.9	3.0	-0.1	-0.2	2.7	0.3	1.9	6.4	0.4	73.7	66.9
Emerging Market Debt	1.4	1.0	1.0	-1.0	1.2	1.3	1.1	-0.2	-1.7	10.4	-0.2	106.1	96.2
Commodities	0.9	0.9	0.9	16.5	-0.2	-1.3	5.5	1.0	15.3	15.0	1.7	87.5	81.5
Hedge Funds	5.8	0.4	0.2	8.4	0.3	1.4	3.9	2.1	6.9	3.1	7.1	68.6	-32.5
Core Real Estate	-0.2	0.6	0.8	4.9	-0.8	-3.0	4.1	0.6	3.8	6.2	1.0	73.6	99.2
Private Real Estate	0.0	1.0	1.0	16.7	-1.0	0.0	0.0	1.7	14.6	8.4	5.0	99.8	100.0
Private Equity	0.0	1.0	1.0	20.1	-0.6	0.0	0.0	1.5	17.8	11.5	7.3	100.0	100.3
Private Credit	0.1	1.0	1.0	3.0	0.7	0.1	0.2	0.5	1.8	3.4	1.0	99.9	94.1

Data not available for time periods less than 3 years (Alpha Pool, Midstream, & Opportunistic added in 2020)

Risk Return Statistics: Last Three Years

3 Years

	Equity	MSCI AC World IMI (Net)	Core Plus Fixed Income	Bloomberg U.S. Aggregate Index	High Yield/ Specialty Credit	ICE BofA U.S. High Yield Index	Emerging Market Debt	50 JPM EMBI Global Div/ 50 JPM GBI EM Global Div	Commodities	Bloomberg Commodity Index Total Return	Hedge Funds	75% 3 Month T-Bill +4% / 25% MSCI ACWI (net)	Core Real Estate	NCREIF ODCE-monthly
RETURN SUMMARY STATISTICS														
Up Market Periods	22	22	14	14	23	23	17	17	24	24	23	23	33	33
Down Market Periods	14	14	22	22	13	13	19	19	12	12	13	13	3	3
Maximum Return	12.43	12.66	3.41	3.68	4.80	6.02	7.56	7.35	7.67	8.78	3.26	3.34	5.39	7.97
Minimum Return	-9.42	-9.65	-4.27	-4.32	-5.04	-6.81	-5.99	-5.81	-8.90	-10.77	-0.75	-2.23	-3.77	-4.97
Return	11.40	10.97	-4.03	-3.97	3.03	3.21	-0.96	-2.24	16.54	17.82	8.42	5.77	4.95	7.99
Excess Return	10.99	10.65	-5.17	-5.12	1.93	2.25	-1.69	-3.01	15.26	16.56	6.89	4.45	3.76	6.82
Excess Performance	0.43	0.00	-0.06	0.00	-0.18	0.00	1.28	0.00	-1.28	0.00	2.65	0.00	-3.05	0.00
RISK SUMMARY STATISTICS														
Beta	0.98	1.00	1.02	1.00	0.74	1.00	1.02	1.00	0.87	1.00	0.37	1.00	0.64	1.00
Upside Risk	13.78	13.88	3.80	3.74	4.93	6.30	7.16	6.80	12.93	13.53	3.85	4.03	5.23	8.30
Downside Risk	10.28	10.59	5.08	4.93	4.15	5.66	7.54	7.49	9.00	10.20	0.81	2.38	3.66	3.74
RISK/RETURN SUMMARY STATISTICS														
Standard Deviation	16.82	17.12	6.24	6.09	6.38	8.41	10.40	10.11	15.02	16.14	3.15	4.38	6.22	8.80
Alpha	0.57	0.00	0.03	0.00	0.60	0.00	1.38	0.00	0.94	0.00	6.20	0.00	-0.18	0.00
Sharpe Ratio	0.65	0.62	-0.83	-0.85	0.30	0.27	-0.16	-0.30	1.01	1.01	2.11	1.02	0.57	0.75
Excess Risk	16.82	17.11	6.20	6.04	6.38	8.40	10.28	9.98	15.17	16.33	3.26	4.38	6.57	9.05
Tracking Error	1.08	0.00	0.67	0.00	2.66	0.00	1.09	0.00	5.50	0.00	3.84	0.00	4.05	0.00
Information Ratio	0.31	-	-0.08	-	-0.12	-	1.22	-	-0.24	-	0.64	-	-0.76	-
CORRELATION STATISTICS														
R-Squared	1.00	1.00	0.99	1.00	0.95	1.00	0.99	1.00	0.88	1.00	0.27	1.00	0.83	1.00
Actual Correlation	1.00	1.00	0.99	1.00	0.97	1.00	0.99	1.00	0.94	1.00	0.52	1.00	0.91	1.00

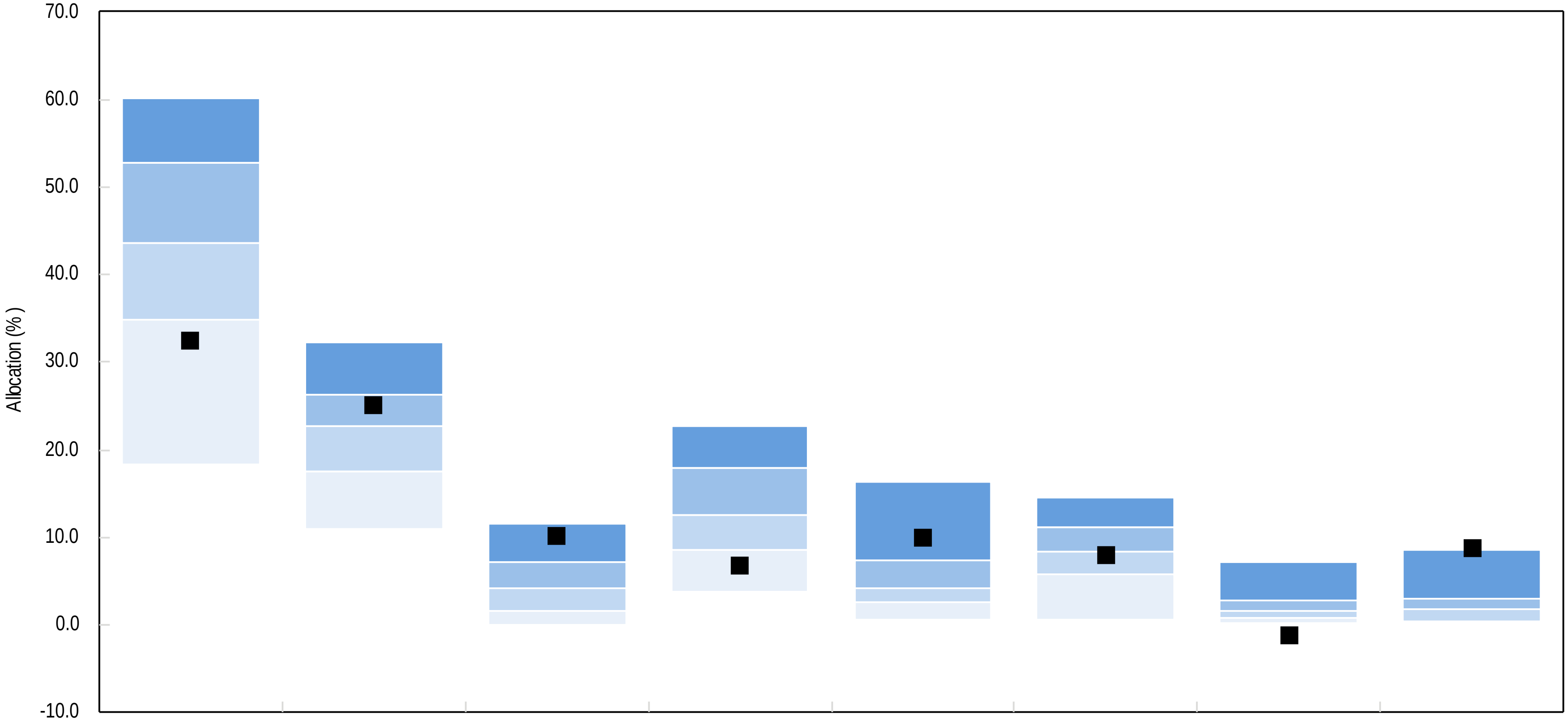
Risk Return Statistics: Last Two Years

	2 Yrs			
	Midstream Energy	Alerian Midstream Energy Index	Opportunistic	Assumed Rate of Return +3%
RETURN SUMMARY STATISTICS				
Up Market Periods	13	13	24	24
Down Market Periods	11	11	0	0
Maximum Return	11.14	11.05	5.19	0.58
Minimum Return	-11.84	-12.21	-4.04	0.58
Return	14.20	11.79	-2.48	7.25
Excess Return	13.28	11.74	-4.06	5.17
Excess Performance	2.41	0.00	-9.73	0.00
RISK SUMMARY STATISTICS				
Beta	0.85	1.00	-	-
Upside Risk	15.41	17.12	1.60	2.03
Downside Risk	11.73	14.09	5.54	0.00
RISK/RETURN SUMMARY STATISTICS				
Standard Deviation	18.87	21.82	7.80	0.00
Alpha	3.64	0.00	-	-
Sharpe Ratio	0.70	0.54	-0.52	9.16
Excess Risk	18.94	21.90	7.80	0.56
Tracking Error	4.76	0.00	7.80	0.00
Information Ratio	0.32	-	-1.18	-
CORRELATION STATISTICS				
R-Squared	0.97	1.00	-	-
Actual Correlation	0.98	1.00	-	-

Data for unavailable for positions held for less than two years.

Peer Comparison

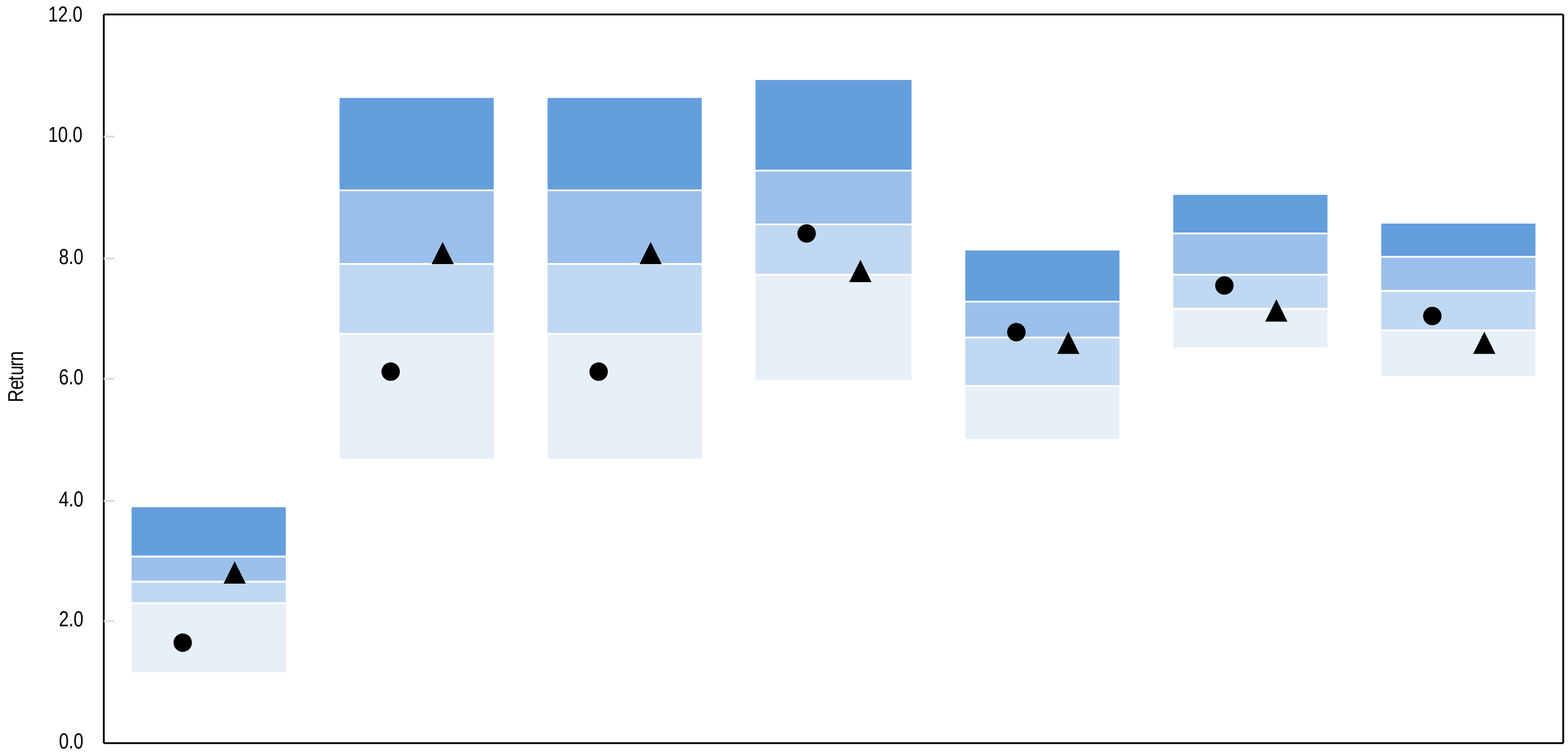
Total Plan Allocation vs. InvMetrics Public DB > $1B
As of June 30, 2023



	Total Equity	Total Fixed Income	Hedge Funds	Private Equity	Real Assets/Commod	Real Estate - Private	Cash & Equivalents	Other
■ Total Fund	32.4 (83)	25.0 (32)	10.1 (12)	6.9 (90)	10.0 (15)	8.0 (61)	-1.2	8.7 (1)
5th Percentile	60.2	32.2	11.5	22.7	16.4	14.6	7.2	8.5
1st Quartile	52.9	26.3	7.1	17.9	7.4	11.1	2.7	2.9
Median	43.7	22.7	4.2	12.5	4.2	8.4	1.5	1.8
3rd Quartile	35.0	17.6	1.6	8.7	2.5	5.7	0.7	0.3
95th Percentile	18.3	11.0	0.0	3.7	0.5	0.5	0.2	0.2
Population	86	88	44	65	51	59	70	13

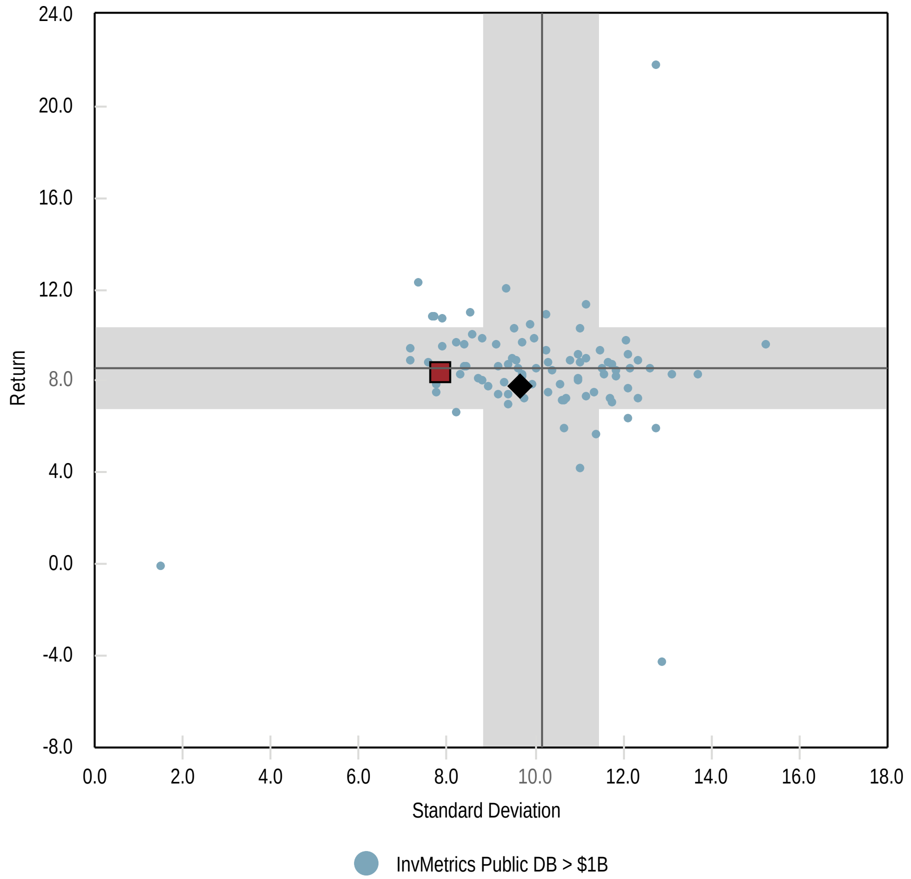
Parentheses contain percentile rankings. Other contains Alpha Pool, Opportunistic, and Private Credit. Real Estate contains Private and Core Real Estate. Real Assets contain Commodities and Midstream.

Total Fund vs. InvMetrics Public DB > $1B



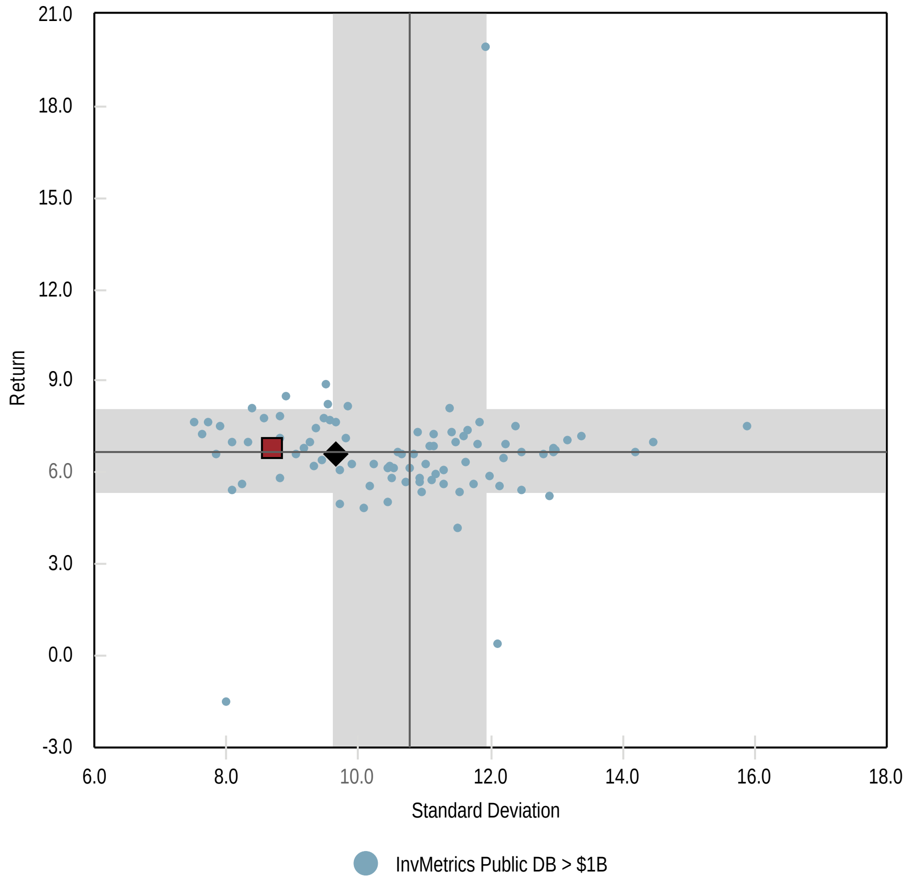
	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years
● Total Fund	1.6 (92)	6.1 (82)	6.1 (82)	8.4 (57)	6.8 (46)	7.5 (58)	7.1 (67)
▲ Policy Index	2.8 (39)	8.1 (47)	8.1 (47)	7.8 (74)	6.6 (58)	7.1 (78)	6.6 (86)
5th Percentile	3.9	10.7	10.7	11.0	8.2	9.1	8.6
1st Quartile	3.1	9.1	9.1	9.4	7.3	8.4	8.0
Median	2.7	7.9	7.9	8.6	6.7	7.7	7.5
3rd Quartile	2.3	6.8	6.8	7.7	5.9	7.2	6.8
95th Percentile	1.2	4.7	4.7	6.0	5.0	6.5	6.0
Population	104	100	100	90	89	88	84

Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2023



	Return	Standard Deviation
Total Fund	8.41	7.84
Policy Index	7.81	9.67
Median	8.56	10.14
Population	90	90

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2023



	Return	Standard Deviation
Total Fund	6.80	8.70
Policy Index	6.59	9.64
Median	6.70	10.78
Population	89	89

Other

Fund Name	Allocation Group	Overall Status	Outperformed Universe 10th percentile (1yr)	Outperformed Universe 75th percentile (1yr)	Outperformed Index (1yr)	Outperformed Median Rank (3 yrs)	Outperformed Index (3yrs)	Outperformed Median Rank (5 yrs)	Outperformed Index (5yrs)	Concern	Index Fund Tracking Error over 0.25% (1yr)
Equity Beta Exposure	Equity	🟩	-	-	-	-	-	-	-	-	✔
Russell 2000 Overlay	Equity	🟩	-	-	-	-	-	-	-	-	-
Mellon DB SL Stock Index Fund	Equity	🟩	-	-	-	-	-	-	-	-	✔
PIMCO StocksPLUS	Equity	🟩	✔	✔	⚑	✔	⚑	✔	⚑	-	-
AB US Small Cap Value Equity	Equity	🟩	✔	⚑	⚑	⚑	✔	⚑	⚑	-	-
Geneva Capital Small Cap Growth	Equity	🟩	✔	✔	⚑	✔	✔	✔	✔	-	-
Mellon DB SL World ex-US Index Fund	Equity	🟩	-	-	-	-	-	-	-	-	⚑
Fidelity Non-US Small Cap Equity	Equity	🟩	⚑	✔	✔	✔	✔	✔	✔	-	-
Cevian Capital II	Equity	🟩	-	-	-	-	-	-	-	-	⚑
American Century Non-US Small Cap	Equity	🟩	✔	⚑	⚑	-	-	-	-	-	-
DFA Emerging Markets Value I	Equity	🟩	✔	✔	✔	✔	✔	✔	✔	-	-
AB Emerging Markets Strategic Core Equity Collective Trust	Equity	🟩	✔	✔	-	⚑	-	⚑	-	-	-
Mellon Emerging Markets Stock Index Fund	Equity	🟩	-	-	-	-	-	-	-	-	-
Mellon DB SL Aggregate Bond Index Fund	Fixed Income	🟩	-	-	-	-	-	-	-	-	✔
PIMCO Core Plus	Fixed Income	🟨	✔	⚑	✔	⚑	✔	⚑	✔	P	-
Western Asset Core Plus	Fixed Income	🟩	✔	✔	✔	⚑	⚑	⚑	✔	-	-
Western Asset High Yield Fixed Income	Fixed Income	🟩	✔	✔	✔	✔	✔	✔	⚑	-	-
TCW Securitized Opportunities	Fixed Income	🟩	✔	✔	⚑	✔	⚑	✔	⚑	-	-
Stone Harbor Emerging Markets Debt Blend Portfolio	Fixed Income	🟩	✔	✔	✔	⚑	✔	⚑	⚑	P	-
PIMCO EMD	Fixed Income	🟩	✔	✔	✔	✔	✔	-	-	-	-
Gresham MTAP Commodity Builder Fund	Commodities	🟩	✔	✔	⚑	⚑	⚑	⚑	⚑	-	-
Wellington Commodities	Commodities	🟩	✔	✔	✔	⚑	⚑	✔	✔	-	-

Legend For Overall Status

No Issues	🟩
Watch	🟨
Terminate	🟥

Legend for Standards

Pass	✔
Fail	⚑

Legend for Concern

Provisional	P
Restricted	R
No Issues	--

Fund Name	Allocation Group	Overall Status	Outperformed Universe 10th percentile (1yr)	Outperformed Universe 75th percentile (1yr)	Outperformed Index (1yr)	Outperformed Median Rank (3 yrs)	Outperformed Index (3yrs)	Outperformed Median Rank (5 yrs)	Outperformed Index (5yrs)	Concern	Index Fund Tracking Error over 0.25% (1yr)
Aristeia International Limited	Hedge Funds	■	-	-	⚐	-	✔	-	✔	-	-
Brevan Howard Fund	Hedge Funds	■	-	-	⚐	-	✔	-	✔	-	-
D.E. Shaw Composite Fund	Hedge Funds	■	-	-	✔	-	✔	-	✔	-	-
HBK Fund II	Hedge Funds	■	-	-	⚐	-	✔	-	⚐	-	-
Hudson Bay Cap Structure Arbitrage Enhanced Fund	Hedge Funds	■	-	-	⚐	-	✔	-	✔	-	-
Indus Pacific Opportunities Fund	Hedge Funds	■	-	-	⚐	-	✔	-	⚐	-	-
Magnetar Structured Credit Fund	Hedge Funds	■	-	-	⚐	-	✔	-	✔	-	-
PIMCO Commodity Alpha Fund	Hedge Funds	■	⚐	✔	✔	⚐	⚐	✔	✔	-	-
River Birch International	Opportunistic	■	-	-	-	-	-	-	-	-	-
Sculptor Domestic Partners II LP	Hedge Funds	■	-	-	✔	-	⚐	-	-	-	-
Harvest Midstream	Midstream	■	✔	✔	✔	-	-	-	-	-	-
PIMCO Midstream	Midstream	■	✔	✔	✔	-	-	-	-	-	-
ASB Allegiance Real Estate Fund	Core Real Estate	■	-	-	⚐	-	⚐	-	⚐	-	-
JPMCB Strategic Property Fund	Core Real Estate	■	-	-	⚐	-	⚐	-	⚐	-	-
Invesco Real Estate Value-Add Fund IV	Private Real Estate	■	-	-	⚐	-	⚐	-	⚐	-	-
Landmark Real Estate Partners VIII	Private Real Estate	■	-	-	-	-	-	-	-	-	⚐
DB Investors Fund IV	Opportunistic	■	-	-	⚐	-	⚐	-	-	-	-
Sixth Street TAO Partners (D)	Private Credit	■	-	-	⚐	-	✔	-	-	-	-
Aristeia Select Opportunities II	Opportunistic	■	-	-	⚐	-	-	-	-	-	-

Legend For Overall Status

No Issues ■ (green)
Watch ■ (yellow)
Terminate ■ (red)

Legend for Standards

Pass ✔
Fail ⚐

Legend for Concern

Provisional P
Restricted R
No Issues --

Verus

	2023 Q2	2023 Q1	2022 Q4	2022 Q3	2022 Q2	2022 Q1	2021 Q4	2021 Q3	2021 Q2	2021 Q1	2020 Q4	2020 Q3
Total Fund	1.6	2.7	3.9	-2.4	-6.8	-0.8	3.6	0.5	5.5	3.5	8.8	4.4
Policy Index	*2.8*	*3.7*	*5.4*	*-3.9*	*-8.9*	*-1.3*	*3.3*	*0.7*	*5.7*	*3.3*	*8.8*	*4.5*

	2020 Q2	2020 Q1	2019 Q4	2019 Q3	2019 Q2	2019 Q1	2018 Q4	2018 Q3	2018 Q2	2018 Q1	2017 Q4	2017 Q3
Total Fund	10.7	-11.3	4.6	0.2	3.1	6.8	-6.4	2.3	0.3	-0.1	3.0	3.2
Policy Index	*10.1*	*-11.1*	*4.6*	*0.8*	*3.0*	*7.0*	*-5.5*	*2.2*	*0.7*	*-0.1*	*3.2*	*3.1*

	2017 Q2	2017 Q1	2016 Q4	2016 Q3	2016 Q2	2016 Q1	2015 Q4	2015 Q3	2015 Q2	2015 Q1	2014 Q4	2014 Q3
Total Fund	2.7	4.2	0.8	3.5	1.9	1.1	2.2	-5.4	0.7	2.4	0.8	-1.5
Policy Index	*2.8*	*3.5*	*0.5*	*2.9*	*2.2*	*1.8*	*1.4*	*-4.9*	*0.4*	*2.0*	*0.4*	*-1.4*

Performance Return Calculations

Performance is calculated using a Time Weighted Rates of Return (TWRR) methodology. Monthly returns are linked geometrically and annualized for periods longer than one year.

Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

Illiquid Alternatives

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

Manager Line Up

Investment Fund or Strategy	Fund Incepted	Data Source	Investment Fund or Strategy	Fund Incepted	Data Source
AB Emerging Markets Strategic Core	11/3/2016	Northern Trust	Linden Co-Investment V LP	6/30/2022	Linden
AB US Small Cap Value Equity	7/7/2015	Northern Trust	Long Wharf Real Estate	6/27/2019	Long Wharf
Abbott Capital PE VI	3/31/2008	Abbott Capital	Magnetar Constellation	11/14/2018	Magnetar
American Century Non-US Small Cap	12/15/2020	American Century	Magnetar Structured Credit	5/1/2014	Magnetar
Aristeia International Limited	5/1/2014	Northern Trust	Mellon Aggregate Bond Index Fund	1/14/2011	Mellon
ASB Real Estate	9/30/2013	ASB	Mellon EB DV Stock Index	10/18/2017	Mellon
Barclays Capital Aggregate Rebalancing Overlay	6/15/2022	Parametric	Mellon EB DV World ex-US Index	8/1/2018	Mellon
BlackRock Short Duration Fund	9/8/2021	BlackRock	Myriad Opportunities Offshore	5/19/2016	Northern Trust
Blue Torch Credit Opportunities	7/24/2020	Blue Torch	OrbiMed Royalty & Credit Opportunities	9/12/2022	OrbiMed
Brevan Howard	11/1/2013	Northern Trust	Pantheon Global III	6/30/2000	Pantheon
Brighton Private Equity	3/28/2021	Brighton	Pantheon USA III	3/31/2007	Pantheon
Brighton Park Capital Fund II, L.P	9/30/2022	Brighton	Pantheon USA V	6/30/2005	Pantheon
Brookfield Real Estate Finance Fund V	12/18/2017	Northern Trust	Pantheon USA VI	3/31/2005	Pantheon
Cevian Capital II	12/30/2014	Northern Trust	Pantheon USA VII	3/31/2005	Pantheon
DC Value Recovery fund IV	12/28/2015	Colony	Parametric Overlay/ Cap Efficiency Program	7/31/2020	Parametric
Covenant Apartment Fund X	10/29/2020	Covenant	Peak Rock Capital Fund III	7/13/2021	Peak Rock
DB Investors Fund IV	1/29/2020	DB	PIMCO Commodity Alpha	5/4/2016	PIMCO
D.E. Shaw	6/30/2013	Northern Trust	PIMCO Core Plus	1/21/2011	Northern Trust
DFA Emerging Markets Value I	3/7/2014	Northern Trust	PIMCO EMD	2/29/2020	Northern Trust
Fortress Credit Opportunities	12/17/2020	Fortress	PIMCO Midstream	10/9/2020	PIMCO
Fortress Lending Fund II	3/15/2021	Fortress	PIMCO StocksPLUS	7/14/2003	PIMCO
Garda Fixed Income Relative Value Opp	9/30/2021	Garda	Fidelity Non-US Small Cap Equity	6/10/2008	Northern Trust
Geneva Capital Small Cap Growth	7/22/2015	Geneva	River Birch	8/3/2015	Northern Trust
Gresham MTAP Commodity	9/3/2013	Gresham	Rubicon Technology Partners IV LP	11/30/2022	Rubicon
Harvest Midstream	9/28/2020	Harvest Midstream	Singerman Real Estate Opportunity Fund IV	10/27/2021	Singerman
HBK Fund II	11/1/2013	Northern Trust	Sculptor Enhanced Domestic Partners	3/26/2019	Sculptor
Henderson Smallcap Growth	7/22/2015	Northern Trust	Short Term Cash Account	12/31/2000	Northern Trust
H.I.G Bayside Loan Opportunities Fund V	7/24/2019	H.I.G. Capital	Short Term Investment Funds	6/30/2000	Northern Trust
Hudson Bay	6/7/2019	Northern Trust	Stone Harbor Emerging Markets Debt	8/8/2012	Stone Harbor
Indus Pacific Opportunities	6/30/2014	Northern Trust	TAO Contingent	4/16/2020	TPG Sixth Street
Invesco Real Estate III	6/30/2013	Invesco	TCW Securitized Opportunities	2/3/2016	TCW
Invesco Real Estate IV	12/18/2015	Invesco	Transition Equity	9/30/2010	Northern Trust
J.P. Morgan Strategic Property	7/2/2014	J.P. Morgan	Transition Fixed Income	9/30/2010	Northern Trust
KSL Capital Partners VI	4/26/2023	KSL Capital	TSSP Adjacent Opportunities Partners	11/17/2017	TPG Sixth Street
Landmark Real Estate Partners VIII	4/29/2018	Landmark	Vista Equity Partners	7/24/2020	Vista Equity
LBA Logistics Value Fund IX, L.P.	2/22/2022	LBA	Warren Equity III	4/1/2021	Warren
Level Equity Growth Partners V	11/1/2021	Level Equity	Warren Equity IV	1/1/2023	Warren
Level Equity Opportunities Fund 2021	11/1/2021	Level Equity	Wellington Alternative Investments	2/9/2023	Wellington
LGT Crown	2/1/2021	LGT	Western Asset Core Plus	5/31/2004	Northern Trust
Linden Capital Partners V LP	7/19/2022	Linden	Western Asset High Yield Fixed income	5/31/2005	Northern Trust

Policy & Custom Index Composition	
Policy Index: 4/1/2022-Present	37% MSCI ACWI IMI (Net), 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets Global Diversified, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +4%, 2.5% MSCI ACWI (Net), 8% 91 Day T-Bill + 4%, 5% NCREIF-ODCE Gross Monthly, 5% actual time-weighted Private Equity Returns*, 5% actual time-weighted Private Credit Returns*, 5% actual time-weighted Private Real Estate Returns*, 5% Alerian Midstream, 0% Assumed Rate of Return +3%, -8% 3-Month T-bill.
Policy Index: 7/1/2021-4/1/2022	37% MSCI ACWI IMI, 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 1% Bloomberg US Aggregate*, 4% Bloomberg US Aggregate, 5% Alerian Midstream, 5% 3-Month T-bill +400bps, 91 Day T-Bills, -5% 3-Month T-bill.
Policy Index: 1/1/2021-6/30/2021	37% MSCI ACWI IMI, 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 1% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 4% MSCI ACWI*, 1% Bloomberg US Aggregate*, 4% Bloomberg US Aggregate, 5% Alerian Midstream, 5% 3-Month T-bill +400bps, 91 Day T-Bills, -5% 3-Month T-bill.
Policy Index: 7/1/2020-12/31/2020	37% MSCI ACWI IMI, 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 1% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 4% MSCI ACWI*, 5% Bloomberg US Aggregate, 1% Alerian Midstream, 4% Bloomberg US Aggregate
Policy Index: 4/1/2020-6/30/2020	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 1% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 5% Bloomberg US Aggregate*.
Policy Index: 1/1/2020-3/31/2020	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 5% Bloomberg US Aggregate*.
Policy Index: 10/1/2019-12/31/2019	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 3% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 6% Bloomberg US Aggregate*.
Policy Index: 7/1/2019-9/30/2019	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 5% Bloomberg US Aggregate*.
Policy Index: 4/1/2019-6/30/2019	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 3% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 6% Bloomberg US Aggregate*.
Policy Index: 1/1/2019-3/31/2019	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 3% actual time-weighted Private Credit Returns*, 2% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 5% Bloomberg US Aggregate*.
Policy Index: 10/1/2018-12/31/2018	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 2% actual time-weighted Private Credit Returns*, 2% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 6% Bloomberg US Aggregate*.
Policy Index: 7/1/2018-9/30/2018	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 3% actual time-weighted Private Equity Returns*, 2% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 2% MSCI ACWI*, 7% Bloomberg US Aggregate*.
Policy Index: 1/1/2017- 6/30/2018	19% Russell 3000 Index, 18% MSCI ACWI ex US, 29% Bloomberg US Aggregate, 10% NCREIF-ODCE, 4% Bloomberg Commodity Index, 7.5% 91-day T-bills + 400bps, 2.5% MSCI ACWI, 5% Russell 3000 Index + 300 bps, 5% ICE BofA ML High Yield + 200 bps.
Policy Index: 4/1/2014-12/31/2016	23% Russell 3000 Index, 29% Bloomberg US Aggregate, 22% MSCI ACWI ex US,

Other Disclosures

*Private Asset actual weights, rounded to 1%, and actual time-weighted returns of Private Equity, Private Credit, Private Real Estate used in policy with the difference in weight versus target allocated to private market's public market "equivalent". Private Equity to Global Equity, Private Credit and Private Real Estate to Core Plus.

All data prior to 2Q 2011 has been provided by the investment managers.

Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment manager fees will be included in the gross of fee return calculation. Fiscal year end: 6/30.

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: Portfolio Return - [Risk-free Rate + Portfolio Beta x (Market Return - Risk-free Rate)].

Benchmark R-squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book-to-Market: The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price-to-Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

R-Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard Deviation.

Sortino Ratio: Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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The information presented may be deemed to contain forward-looking information. Examples of forward looking information include, but are not limited to, (a) projections of or statements regarding return on investment, future earnings, interest income, other income, growth prospects, capital structure and other financial terms, (b) statements of plans or objectives of management, (c) statements of future economic performance, and (d) statements of assumptions, such as economic conditions underlying other statements. Such forward-looking information can be identified by the use of forward looking terminology such as believes, expects, may, will, should, anticipates, or the negative of any of the foregoing or other variations thereon comparable terminology, or by discussion of strategy. No assurance can be given that the future results described by the forward-looking information will be achieved. Such statements are subject to risks, uncertainties, and other factors which could cause the actual results to differ materially from future results expressed or implied by such forward looking information. The findings, rankings, and opinions expressed herein are the intellectual property of Verus and are subject to change without notice. The information presented does not claim to be all-inclusive, nor does it contain all information that clients may desire for their purposes. The information presented should be read in conjunction with any other material provided by Verus, investment managers, and custodians.

Verus will make every reasonable effort to obtain and include accurate market values. However, if managers or custodians are unable to provide the reporting period's market values prior to the report issuance, Verus may use the last reported market value or make estimates based on the manager's stated or estimated returns and other information available at the time. These estimates may differ materially from the actual value. Hedge fund market values presented in this report are provided by the fund manager or custodian. Market values presented for private equity investments reflect the last reported NAV by the custodian or manager net of capital calls and distributions as of the end of the reporting period. These values are estimates and may differ materially from the investments actual value. Private equity managers report performance using an internal rate of return (IRR), which differs from the time-weighted rate of return (TWRR) calculation done by Verus. It is inappropriate to compare IRR and TWRR to each other. IRR figures reported in the illiquid alternative pages are provided by the respective managers, and Verus has not made any attempts to verify these returns. Until a partnership is liquidated (typically over 10-12 years), the IRR is only an interim estimated return. The actual IRR performance of any LP is not known until the final liquidation.

Verus receives universe data from InvMetrics, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is not static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.

ALTERNATIVE INVESTMENTS RECORDS

<u>**EXEMPT FROM PUBLIC DISCLOSURE**</u>

(CA Gov. Code §7928.710)
(CA Gov. Code §7922.000)
(CA Gov. Code §54957.5)

<u>**DO NOT REPRODUCE**</u>

<u>**DO NOT DISTRIBUTE**</u>

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COMPENSATION POLICY

PURPOSE

1) The purpose of this policy is to establish a formal compensation directive that identifies personnel needs for KCERA, including methodology of job classification, staff size, and other personnel-related items that are integral to KCERA's successful operation.

STRATEGY

2) Salaries are structured to be competitive as determined by the Chief Executive Officer (CEO) and reviewed by the Board of Retirement (Board), with individual base salaries dependent upon an employee's experience, education, knowledge, skills, and overall job performance. This policy seeks to lessen any lag in addressing salaries and provide regular and consistent review of the salary structure.

3) Policy objectives include:
   a) Bolster the workforce and enhance retention
   b) Attract new talent
   c) Motivate employees and maintain internal equity
   d) Lessen the likelihood of salary lag
   e) Nimbly react to market shifts

4) Policy objectives should be accomplished with adherence to all applicable laws and consistent with other relevant public retirement systems. This policy should be administered with the aim to effectively manage both the human and fiscal resources that support KCERA's mission and values.

5) Compensation studies will be utilized to determine KCERA's competitiveness with market practices. Labor markets fluctuate in response to the readiness of qualified workers for particular positions, as well as economic ups and downs. These changes diverge, depending upon the geographic regions, industry, and employer types. A compensation study should provide KCERA with the necessary data to compensate without undue guesswork, better anticipate market fluctuations, create peer awareness, and provide transparency to the process.

6) Compensation studies should:

a) Collect and analyze salary and benefits data from employers similar to KCERA, meaning other public retirement systems, focusing on those with organizational and operational likeness.
b) Analyze comparable jobs within comparable employers.
c) Develop any necessary guidelines deriving from the study.
d) Provide a comprehensive analysis to compensate employees in a manner that promotes attracting and retaining talent necessary to successfully execute mission.

7) The CEO will make recommendations consistent with and in furtherance of the fiduciary duties of the Board in administering the retirement system, and in accordance with applicable law. The focus should be on internal equity, basing decisions on market data. Market data herein refers to a market-based compensation study that identifies wage differences for employee classes. Trends in the market should be considered, as significant salary changes do not usually occur year to year. The goal of the market study is to follow market trends and ensure salary adjustments accurately reflect the required salary to maintain a position relative to the market.

8) The state-wide geographic vicinity of KCERA to other employers figures strongly in identifying the viable competitors in the same labor pool. It can be a strong identifier of those employers that directly compete with KCERA to recruit and retain personnel. Likewise, the economic fluctuations associated with a geographic area can be considered.

9) Comparisons to employers operating in other segments of the marketplace, such as corporate pension plans, or endowments and foundations, may be useful, as those employers may compete for employees with the same skills as those at KCERA.

10) Employer size should be viewed as an important factor in the compensation study. Choosing similarly situated employers, for example members served or assets under management, makes it more likely to find like positions within each organization to compare.

11) To keep ahead of market fluctuations and stay competitive, compensation studies will be conducted no less than every five years, with three years as the optimal time period.

12) Market studies will be used to note and interpret market trends and identify potential salary adjustments.

13) KCERA staff are classified as either:

a) Kern County Civil Service – The majority of staff are Kern County Civil Service employees, meaning their compensation is decided either through collective bargaining or Kern County guidelines and procedures. Compensation is then implemented through a salary resolution or Memorandum of Understanding adopted by the Board of Supervisors.
b) Non Civil Service – KCERA has at-will positions that exist outside the County Civil Service structure. Their positions, job duties, and compensation are established by the KCERA Board and salary adjustments are implemented through Kern County Human Resources, County Administrative Office, and the Board of Supervisors.

The goal of this policy is to ensure KCERA is competitively positioned to attract and retain the human capital necessary to successfully carry out the mission of the organization, while maintaining accountability and transparency with stakeholders and ensuring cost-effective administration.

POLICY REVIEW AND HISTORY

14) This policy shall be reviewed at least every five years.

15) This policy was:
   a) Adopted by the Board on ____________________.

KCERA

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Chief Executive Officer's Report

Presented by: Dominic D. Brown, CPA, CFE

September 2023

Office Update

- Staffing
  - Recruitments: Deputy/Senior Deputy Chief Legal Officer, KCERA Accountant I/II, Administrative Specialist/Senior Specialist, Member Services Technician
- Member Outreach: New Employee Orientation, Kern County Career Expo, Retirement Seminar
- Solar Update

Operations Activity

- Member Services
  - 25 new retirements and calculations
  - 57 death benefit calculations
  - 59 service-credit purchase calculations
  - 88 retirement estimates
  - 197 new active members
  - 90 terminations with disposition packets
  - 30 in-person appointments
  - 151 walk-ins
  - 687 phone calls
  - 204 emails
- Accounting & Reporting
  - Service Purchases – 90 days
  - Exceptions & Warnings in CPAS
- Information Technology
  - Retro Split Project
  - 2-Factor Authentication for Portal

Upcoming Events

- Finance Committee – No meetings currently scheduled
- Administrative Committee – No meetings currently scheduled
- Investment Committee – No meetings currently scheduled
- Board of Retirement – Next regular monthly meeting will be October 11, 2023

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

CIO REPORT

INVESTMENT
PROGRAM
UPDATE
September 2023

Presented by:
Daryn Miller, CFA
Chief Investment Officer

Rebalancing

AUGUST ACTIVITY

- None

Reporting period covers 08/01/2023 to 08/31/2023

Asset Class	Actual	Policy Target	Adj. Policy Target	Diff. Act. vs. Adj. Pol.
Public Equities	32.3%	33.0%	34.3%	-2.0%
Fixed Income	24.8%	25.0%	30.8%	-6.0%
Core	16.0%	15.0%	20.8%	-4.8%
Credit	8.8%	10.0%	10.0%	-1.2%
Commodities	4.5%	4.0%	4.0%	0.5%
Hedge Funds	10.2%	10.0%	10.0%	0.2%
Alpha Pool	4.2%	8.0%	8.0%	-3.8%
Midstream Energy	6.0%	5.0%	5.0%	1.0%
Core Real Estate	5.6%	5.0%	5.0%	0.6%
Private Real Estate	2.5%	5.0%	2.5%	0.0%
Private Equity	3.7%	5.0%	3.7%	0.0%
Private Credit	4.7%	8.0%	4.7%	0.0%
Opportunistic	3.2%	0.0%	0.0%	3.2%
Cash	-1.7%	-8.0%	-8.0%	6.3%
Total	100.0%	100.0%	100.0%	0.0%

Positioning

ACTUAL VS POLICY TARGET

Public Equity: underweight vs. policy target and adjusted policy target. Underweight is primarily in domestic large cap.

Core Fixed Income: overweight vs. policy target and underweight vs. adjusted policy target. Underweight vs adjusted policy target has increased due to Strategic Asset Allocation change (increasing private credit).

Private Equity and Private Real Estate: underweights continue to be reallocated to other asset classes where we see better return opportunity than Public Equity, including **Midstream**, and **Opportunistic**.

Private Credit: underweight has recently increased due to increasing the Strategic Asset Allocation Private Credit target from 5% to 8%.

Asset allocation reflects recently the Strategic Asset Allocation approved at the August 2023 Board meeting.

As of August 31, 2023. Source: KCERA.

Updates

- Venn risk analytics system update

A Conversation on Risk

During the September 5th Investment Committee meeting, staff was asked to report to the Board with thoughts regarding potential reinstatement of COVID-19 lockdowns

The risk management process includes

1. Identifying risk
2. Measuring risk
3. Evaluating risk

COVID-19 Reemergence

- Difficult to imagine lockdowns are reinstated
  - More information
  - Less fear, less uncertainty
- However, an important part of risk management is considering events that are not anticipated to occur
- Backdrop today: inflation remains a problem, but was not on the radar in 2020
  - Responses and outcomes likely different

Other Risks

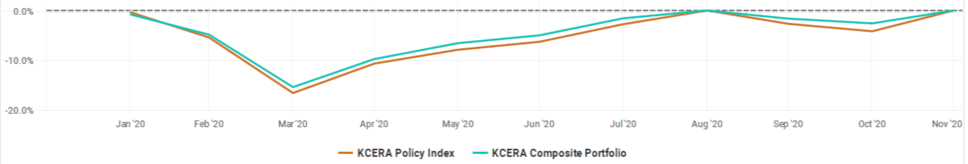
- Recession, US and/or global
- Increased geopolitical risk, and escalation of hot conflict
- Persistent inflation
- Other?

MEASURING RISK

Potential impact of a COVID-19 lockdown

Historical Drawdown

Monthly   Jan 2020 - Dec 2020



Historical Risk Summary

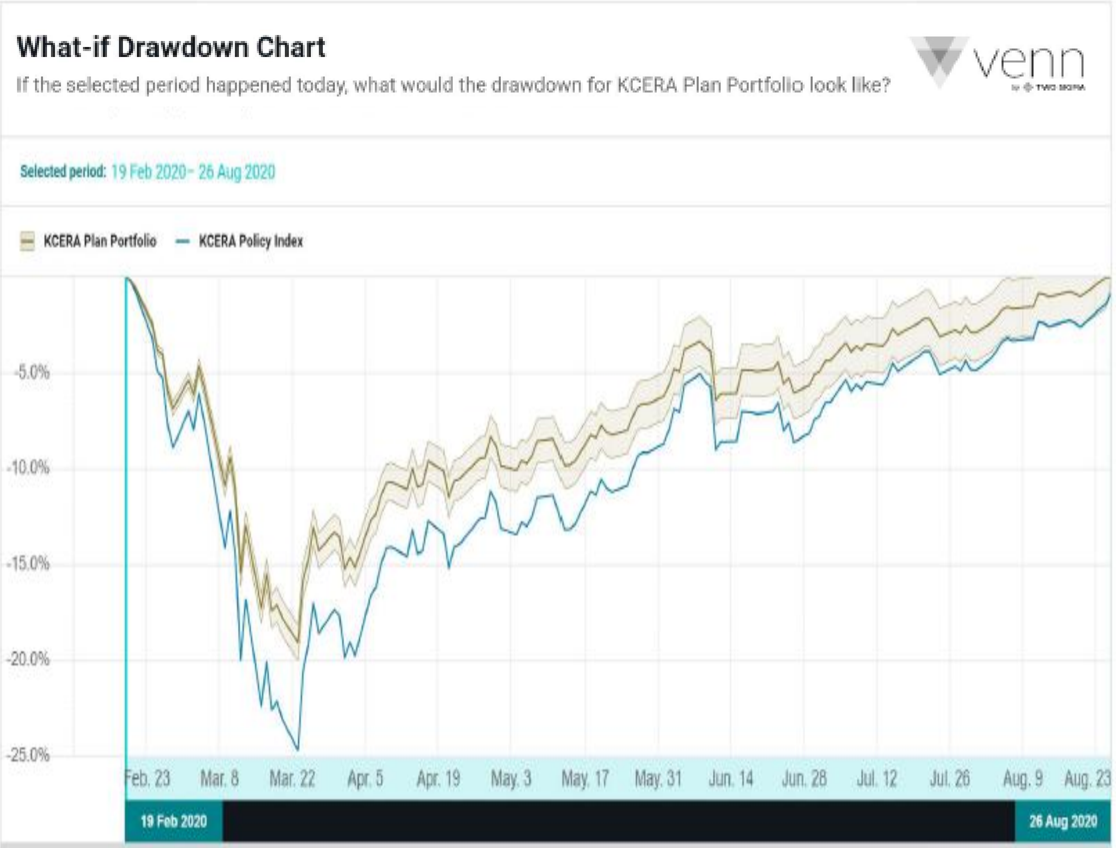
Monthly   Jan 2020 - Dec 2020

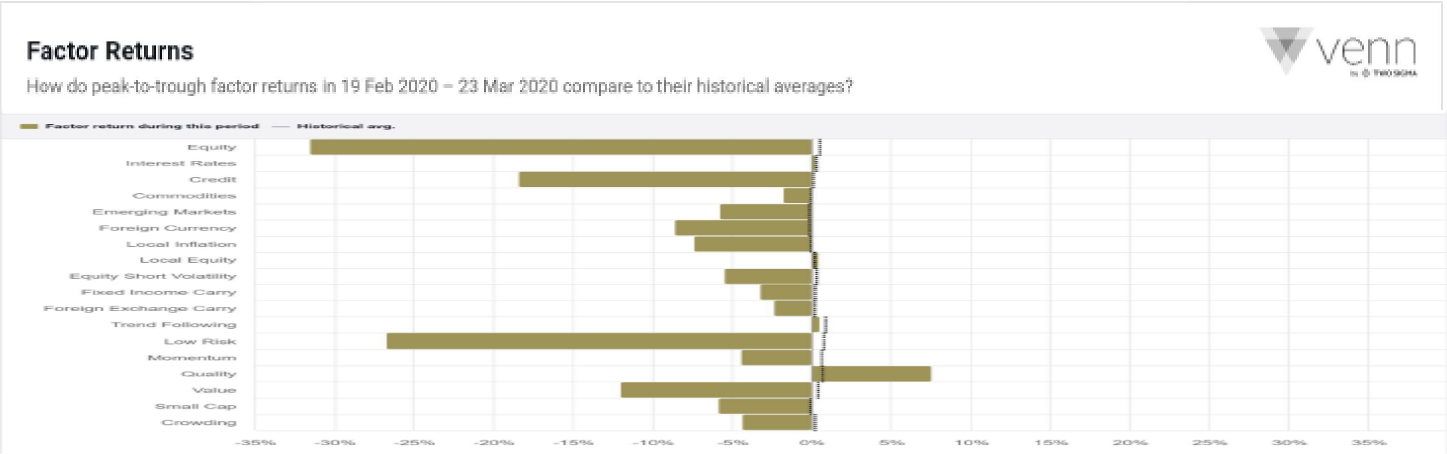
	KCERA Policy Index	KCERA Composite Portfolio
Max drawdown	-16.64%	-15.45%
Upside Volatility	16.82%	15.76%
Downside Volatility	20.55%	18.65%
CVaR (5%)	11.84%	11.13%
VaR (95%)	8.13%	7.26%
VaR (97.5%)	9.99%	9.19%
VaR (99%)	11.10%	10.36%

				KCERA Policy Index		KCERA Composite Portfolio	
	Start Date	End Date	Period Length (Mont...	Recovery Length (Months)	Return	Recovery Length (Months)	Return
COVID-19 Crisis	29 Feb 2020	31 Mar 2020	1.0	5.0	-16.3%	5.0	-14.8%

MEASURING RISK

Potential impact of a COVID-19 lockdown





KCERA
KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Key Initiatives

Enhancing return while managing risk

- Currency management
- Multi-asset research / tactical asset allocation
- Opportunistic investments
- Private Markets
- Repositioning fixed income

Investment Committee Meetings

Next meeting October —date TBD

The next IC meeting agenda will include the following items:

- TBD

The last IC meeting was held on September 5th

KCERA

KERN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

CLO Report September 2023

Jennifer Esquivel Zahry, Chief Legal Officer
Maggie Peralta-Lee, KCERA Senior Paralegal
Irma Chavez, KCERA Senior Legal Secretary
Sofia Reyes, Senior Paralegal (Retired)

Legislative Calendar

- **September 1st** – Fiscal Deadline - Bills Must Pass out of Senate Appropriations Committee of 2d House
- **September 14th** – Deadline for to Pass any Bills off the floor of the 2d House and obtain concurrence from House of Origin
- **October 14th** – Governor's last day to sign the bills on his desk

Legislative Updates

- Disability Retirement Presumptions
  - AB 1020 – Senate-In Floor Process - 3d Reading
- Remote Meeting Bills
  - AB 557 – Amended - Senate-In Floor Process – 2d Reading
  - SB 537 – Asm 3d Reading
- CERL clean up
  - SB 885 – Enrolled/Approved/Chaptered

Service Purchases

California Government Code section 31478 includes all of the following in the definition of public agency:

- **Federal** – all agencies and departments of the United States (including military)
- **State** - all agencies or departments of the state of California
- **County –** in California
- **Cities** – in California
- **Other Public Employers** – Any Local Agency Formation Commission (LAFCO).
- All others must be situated in whole or in part in Kern County – (public corporations, municipal corporations, public districts, including schools, water, fire, hospitals, etc.)

Reciprocity

- ALL CERL SYSTEMS
- ALL CALPERS PLANS
- JRS
- JRS II
- STRS
- PUBLIC AGENCY OF CALIFORNIA THAT HAS ESTABLISHED RECIPROCITY WITH CALPERS

CAL. GOV. CODE, ART. 15, 31830 ET SEQ.

September Calendar	Pending CLO Review
Operational Contracts	2
Investment/ Custodial Documents	1
Administrative Appeals – Alameda	1
Disability Matters	8
Community Property Matters	9
Staff Inquiries	32
Member Inquiries	2
Board/Committee Meetings/Staff Meetings/ Conferences	9
Post-Retirement Employment	1
Probate Matters	0
Special Projects	1

EDELSTEIN GILBERT ROBSON & SMITH

Donald B. Gilbert Michael R. Robson Trent E. Smith Jason D. Ikerd Bridget E. McGowan

September 6, 2023

TO: State Association of County Retirement Systems

FROM: Edelstein Gilbert Robson & Smith, LLC

RE: Legislative Update – September 2023

Last week, the Legislature met the fiscal committee deadline of September 1. On this day, both the Senate and Assembly Appropriations Committee held their Suspense File hearing, where they dispensed with hundreds of bills at once. The Senate held a little over 20% of the Assembly bills in this Committee while the Assembly held a little over 15% of the Senate bills that it heard on the Suspense File. Bills that are held in the Appropriations Committee are generally considered dead, aside from a small portion of bills that are held as “two year bills” that are eligible to move again early in January.

The Legislature is now in the final two weeks of session– Legislators must pass bills off the floor of the second house, and if needed, the floor of the house of origin for concurrence, before the Legislature adjourns on September 14.

The Governor will then have a month to consider the bills that were placed on his desk at the end of session. The Legislature will remain on recess until 2024, reconvening on January 3.

Senate Leadership Update

On Monday August 28, the Senate Democratic Caucus announced its next leader – Senator Mike McGuire was selected as the Senate Pro Tem Designee. Once the transition occurs, he will replace the current Pro Tem, Senator Toni Atkins, who is terming out in 2024. At this point, it is expected the transition will occur in 2024 and Senator Atkins will remain in her post for the duration of session. Senator McGuire terms out in 2026.

Legislation of Interest

SB 885 (Committee on Labor, Public Employment and Retirement). This is the annual committee omnibus bill that contains various cleanup provisions for CalSTRS, CalPERS and CERL systems. The amendments to the CERL make non-substantive, technical changes as well as conform provisions on Required Minimum Distributions to federal law under the SECURE ACT 2.0 by referencing the federal law instead of a specific age.

The Governor signed this bill into law.

AB 1020 (Grayson) – CERL Disability Presumptions. This bill would establish several new disability retirement presumptions for various injuries and illnesses in the CERL, similar to provisions that exist in the Labor Code. The bill is sponsored by the California Professional Firefighters. The author and sponsor agreed to technical clarifications proposed by SACRS that were amended into the bill in June. CSAC remains opposed to the bill.

The bill is pending a vote on the Senate Floor.

AB 1637 (Irwin) - Local Government Websites and Email Addresses. This bill requires cities and counties to use a ".gov" or ".ca.gov" domain for websites and email addresses by January 1, 2029. This bill passed out of the Senate Appropriations Committee on Friday and is now pending a vote on the Senate Floor.

Public Meeting Bills

AB 557 (Hart) - Brown Act Emergency Teleconferencing Sunset Extension. This bill would remove the sunset in current law to allow teleconferencing during certain emergencies as well as increase the time period when the Board must renew the findings of an emergency or need for social distancing from 30 days to 45 days. The bill is pending a vote on the Senate Floor.

SB 537 (Becker) - Teleconference Flexibilities. This bill would allow expanded teleconference flexibilities for multijurisdictional, cross county legislative bodies if certain requirements are met, along with adding to the list of circumstances where a member is permitted to participate remotely. The bill has been narrowed considerably as it advanced through various policy committees in each house. The bill is pending a vote on the Assembly Floor.