



San Joaquin County Employees Retirement Association

A G E N D A

**BOARD MEETING
SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION
BOARD OF RETIREMENT
FRIDAY, MARCH 8, 2024
AT 9:00 AM**

Location: Regional Transit District Board Room, 421 E. Weber Avenue, Stockton, CA 95202

The public may also attend the Board meeting live via Zoom by (1) clicking here <https://us02web.zoom.us/j/81335324715> and following the prompts to enter your name and email, or (2) calling (669) 219-2599 or (669) 900-9128 and entering Meeting ID [81335324715](https://us02web.zoom.us/j/81335324715) #.

Persons who require disability-related accommodations should contact SJCERA at (209) 468-9950 or ElainaP@sjcera.org at least forty-eight (48) hours prior to the scheduled meeting time.

1.0 ROLL CALL

2.0 PLEDGE OF ALLEGIANCE

3.0 MEETING MINUTES

- | | |
|--|----|
| 3.01 Minutes for the Board Meeting of February 9, 2024 | 05 |
| 3.02 Minutes for the Special Administrative Committee Meeting of February 9, 2024 | 09 |
| 3.03 Minutes for the CEO Performance Review Committee of February 12, 2024 | 10 |
| 3.04 Minutes for the Special Board Meeting of February 12, 2024 | 11 |
| 3.05 Minutes for Special Board Meeting of February 20, 2024 | 13 |
| 3.06 Board to consider and take possible action on minutes | |

4.0 PUBLIC COMMENT

- 4.01** The public is welcome to address the Board during this time on matters within the Board's jurisdiction, following the steps listed below. Speakers are limited to three minutes, and are expected to be civil and courteous. Public comment on items listed on the agenda may be heard at this time, or when the item is called, at the discretion of the Chair.

If joining via Zoom, Public Comment can be made in the following ways:

PC or Mac: select "Participants" in the toolbar at the bottom of your screen, then select the option to raise or lower your hand.

Mobile Device: select the "More" option in the toolbar at the bottom of your screen, then select the option to raise or lower your hand.

Tablet: select the icon labeled “Participants,” typically located at the top right of your screen, then select the hand icon next to your device in the Participants column.

If dialing in from a phone for audio only, dial *9 to “raise your hand.”

If attending in person, members of the public are encouraged to complete a Public Comment form, which can be found near the entry to the Board Room.

Except as otherwise permitted by the Ralph M. Brown Act (California Government Code Sections 54950 et seq.), no deliberation, discussion or action may be taken by the Board on items not listed on the agenda. Members of the Board may, but are not required to: (1) briefly respond to statements made or questions posed by persons addressing the Board; (2) ask a brief question for clarification; or (3) refer the matter to staff for further information.

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5.02 Board to consider and take possible action

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6.01 Board to consider and take possible action

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01 Quarterly Reports from Investment Consultant for period ended December 31, 2023

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7.04 Board to receive and file reports, discuss and give direction to staff and consultants as appropriate

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05	Pensions & Investments CalPERS exec leaving to become CEO of San Joaquin County Employees February 20, 2024	285
06	Institute for Real Estate, Inc. San Joaquin County Employees appoints new CEO February 22, 2024	286
10.0	COMMENTS	
10.01	Comments from the Board of Retirement	
11.0	CLOSED SESSION	
11.01	Public Employee Performance Evaluation California Government Code Section 54957(b) Title: Retirement Administrator/Chief Executive Officer	
12.0	RETIREMENT ADMINISTRATOR/CHIEF EXECUTIVE OFFICER COMPENSATION	287
12.01	Board to consider and take possible action	
13.0	CALENDAR	
13.01	Audit Committee Meeting March 8, 2024, immediately following Board Meeting	
13.02	Board Meeting April 12, 2024 at 9:00 a.m.	
13.03	Board Meeting May 3, 2024 at 9:00 a.m.	
13.04	Audit Committee Meeting May 17, 2024 at 12:30 p.m.	
13.05	Board Meeting June 7, 2024 at 9:00 a.m.	
13.06	Administrative Committee Meeting, June TBD	

13.07 Board Meeting July 12, 2024 at 9:00 a.m.

14.0 ADJOURNMENT



San Joaquin County Employees Retirement Association

MINUTES

BOARD MEETING SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION BOARD OF RETIREMENT FRIDAY, FEBRUARY 9, 2024 AT 9:00 AM

Location: SJCERA Board Room, 6 S. El Dorado Street, Suite 400, Stockton, California

1.0 ROLL CALL

1.01 MEMBERS PRESENT: Phonxay Keokham, Emily Nicholas, Jennifer Goodman, Steve Ding (in at 9:05 a.m.), JC Weydert (in at 9:04 a.m.), Steve Moore, Raymond McCray (out at 10:26 a.m.) and Michael Restuccia, presiding

MEMBERS ABSENT: Chanda Bassett, Michael Duffy

STAFF PRESENT: Chief Executive Officer Johanna Shick, Assistant Chief Executive Officer Brian McKelvey, Retirement Investment Officer Paris Ba, Management Analyst III Greg Frank, Information Systems Analyst II Lolo Garza, Information Systems Specialist II Jordan Regevig, Administrative Secretary Elaina Petersen

OTHERS PRESENT: Ashley Dunning of Nossaman, David Sancewich of Meketa, Graham Schmidt of Cheiron, and Brenda Kiely, Chief Deputy County Administrator

2.0 PLEDGE OF ALLEGIANCE

2.01 Led by Michael Restuccia

3.0 MEETING MINUTES

3.01 Minutes for the Board Meeting of January 12, 2024

3.02 Minutes from Special Administrative Committee Meeting January 30, 2024

3.03 The Board voted unanimously (6-0) to approved the Minutes of the Board Meeting of January 12, 2024 and Special Administrative Committee Meeting of January 30, 2024 (Motion: Keokham; Second: Goodman)

4.0 PUBLIC COMMENT

4.01 There was no public comment

5.0 CONSENT ITEMS

5.01 Service Retirements (20)

5.02 General (1)

01 Retiree Cost-of-Living Adjustment (COLA) as of April 1, 2024

02 The Board voted unanimously (6-0) to approve the consent items (Motion: Goodman; Second McCray)

6.0 INVESTMENT CONSULTANT REPORTS

6.01 Presented by David Sancewich of Meketa Investment Group

01 Manager Performance Flash Report - December 2023

02 Economic and Market Update - December 2023

6.02 Benchmark Review

6.03 The Board received and filed reports

7.0 EMPLOYER CONTRIBUTION RATE PROJECTION

7.01 Presentation by Graham Schmidt, Consulting Actuary

7.02 The Board received and filed report

8.0 STAFF REPORTS

8.01 Trustee and Executive Staff Travel

01 Conference and Event Schedule 2024

02 Summary of Pending Trustee and Executive Staff Travel

03 Summary of Completed Trustee and Executive Staff Travel

a IREI VIP Americas - Trustee Restuccia

8.02 The Board received and filed reports

8.03 Legislative Summary Report - None; No changes since 11/2023

8.04 CEO Report

In addition to the written report CEO Shick reported: 1) the contract with Assured Data Protection for disaster recovery and business continuity services has been executed; 2) there is a CEO selection meeting on February 12, 2024; 3) Chief Counsel interviews will be held on February 19; and 4) Board of Retirement elections and appointments are upcoming this year and paperwork should be available in April; these elections and appointments will be for seats three, four, eight, and the alternate retired member.

CEO Shick asked Management Analyst III Greg Frank to update the Board on the impending move: MA III Frank advised the clean out of work stations and files along with purging of old media has begun; Suite 580 at the County Administration building is set up for two staff members (with three additional work stations for use as needed), all other staff will work remotely. Moving in to the new office is contingent on the contractor meeting the deadlines. If needed, we may be able to get a temporary certificate of occupancy to enable staff to move in before the Board room is complete and continue to use the RTD Board room.

01 Declining Employer Payroll Report

8.05 The Board received and filed reports

9.0 REPORT FROM COMMITTEE(S)

9.01 Committee Chairs and staff will provide a brief summary of the meeting outcome:

01 Administrative Committee Meeting - January 30, 2024

9.02 The Board received and filed the report

10.0 CORRESPONDENCE

10.01 Letters Received (0)

10.02 Letters Sent (0)

10.03 Market Commentary/Newsletters/Articles

- 01 NCPERS PERSist
The Untold Story of Trailing Returns
October 24, 2023
- 02 Forbes
Will 2024 Be The Year Of The Pension Comeback?
December 18, 2023
- 03 BlackRock
2024 Global Outlook
December 2023
- 04 NCPERS
Monitor
January 2024
- 05 J.P. Morgan, Asset Management
2024 Year Ahead Outlook
January 2024
- 06 Chief Investment Officer
Private Credit is Changing Everything, Even Bankruptcy
January 29, 2024
- 07 NCPERS
Monitor
February 2024

11.0 COMMENTS

- 11.01** Trustee Ding shared that he has had employees of San Joaquin County tell him they are concerned with the exit of CEO Johanna Shick, wondering how she can be replaced. Trustee Ding advised that CEO Shick has great support in the community for her work in retirement and thanked her for her service.

Trustee McCray noted that SJCERA's benchmarks need review. David Sancewich of Meketa agreed and reported the annual benchmark review is coming up soon.

Trustee McCray asked staff to add him to the list of people attending SACRS in May. He also noted Pension Bridge is an excellent conference and encouraged other trustees to attend.

12.0 CLOSED SESSION

The Chair convened Closed Session at 10:07 a.m. and adjourned Closed Session and reconvened Open Session at 10:43 a.m.

- 12.01** Threat to Public Services or Facilities
California Government Code Section 54957
Consultation with: Principal Consultant Paul LeClair of Linea Secure

01 Presentation by Principal Consultant Paul LeClair of Linea Secure

12.02 The Board received and filed report

12.03 Personnel Matter

California Government Code Section 54957(b)
Employee Disability Retirement Application(s) (1)

01 Consent Item

a Marla A. Willis

Non-Service Connected Disability Retirement
Legal Process Clerk III
Superior Court

12.04 The Board voted unanimously (6-0) to approve non-service disability retirement for the applicant (Motion: Keokham; Second: Weydert)

12.05 Public Employee Performance Evaluation

California Government Code Section 54957(b)
Title: Retirement Administrator/Chief Executive Officer

12.06 The Chair pulled item 12.05 from the agenda; no discussion or action.

13.0 CALENDAR

13.01 Administrative Committee Meeting, February 9, 2024 immediately following Board Meeting

13.02 Special Board Meeting February 12, 2024 at 11:00 a.m.

13.03 Board Meeting March 8, 2024 at 9:00 a.m.

13.04 Audit Committee Meeting March 8, 2024, immediately following Board Meeting

13.05 Board Meeting April 12, 2024 at 9:00 a.m.

13.06 Board Meeting May 3, 2024 at 9:00 a.m.

13.07 Audit Committee Meeting, May TBD

13.08 Board Meeting June 7, 2024 at 9:00 a.m.

14.0 ADJOURNMENT

14.01 There being no further business the meeting was adjourned at 10:45 a.m.

Respectfully Submitted:

Michael Restuccia, Chair

Attest:

Raymond McCray, Secretary



San Joaquin County Employees Retirement Association

MINUTES

**SPECIAL ADMINISTRATIVE COMMITTEE MEETING
SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION
BOARD OF RETIREMENT
FRIDAY, FEBRUARY 9, 2024
AT 10:59 AM**

Location: SJCERA Board Room, 6 S. El Dorado Street, Suite 400, Stockton, California.

1.0 ROLL CALL

- 1.01 MEMBERS PRESENT:** Michael Restuccia, Jennifer Goodman and Phonxay Keokham presiding
MEMBERS ABSENT: Michael Duffy
STAFF PRESENT: Chief Executive Officer Johanna Shick
OTHERS PRESENT: Counsel Ashley Dunning of Nossaman

2.0 PUBLIC COMMENT

- 2.01** There was no public comment

3.0 CLOSED SESSION

The Chair convened closed Session at 11:01 a.m. and adjourned Closed Session at 12:52 p.m.

- 3.01 Personnel Matter**
California Government Code Section 54957
Public Employee Appointment
Title: Chief Executive Officer
Topic: Evaluation of Candidates

4.0 REPORT OUT OF CLOSED SESSION

- 4.01** Counsel advised there was nothing to report out of Closed Session

5.0 COMMENTS

- 5.01** There were no comments from the Board of Retirement

6.0 ADJOURNMENT

- 6.01** There being no further business, the meeting was adjourned at 12:53 p.m.

Respectfully Submitted:

Phonxay Keokham, Acting Committee Chairperson



San Joaquin County Employees Retirement Association

MINUTES

CEO PERFORMANCE REVIEW COMMITTEE MEETING SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION BOARD OF RETIREMENT MONDAY, FEBRUARY 12, 2024

AT 10:00 AM

Location: SJCERA Conference Room, 6 S. El Dorado Street, Suite 400, Stockton,
California

1.0 ROLL CALL

1.01 MEMBERS PRESENT: Michael Duffy, JC Weydert, Phonxay Keokham presiding

MEMBERS ABSENT: Chanda Bassett

STAFF PRESENT: Administrative Secretary Elaina Petersen

OTHERS PRESENT: Counsel Ashley Dunning, Nossaman

2.0 PUBLIC COMMENT

2.01 There was no public comment.

3.0 CLOSED SESSION

The Committee Chair convened Closed Session at 10:01 a.m. the Chair adjourned the Closed Session and reconvened the Open Session at 10:21 a.m.

3.01 Public Employee Performance Evaluation

California Government Code Section 54957

Title: Retirement Administrator/Chief Executive Officer

4.0 REPORT OUT OF CLOSED SESSION

4.01 Counsel advised there was nothing to report out of closed session.

5.0 COMMENTS

5.01 There were no comments from the Committee Members

6.0 ADJOURNMENT

6.01 There being no further business, the meeting was adjourned at 10:25 a.m.

Respectfully Submitted:

Phonxay Keokham, Committee Co-Chairperson



San Joaquin County Employees Retirement Association

MINUTES

SPECIAL BOARD MEETING SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION BOARD OF RETIREMENT MONDAY, FEBRUARY 12, 2024

AT 11:00 AM

Location: SJCERA Board Room, 6 S. El Dorado Street, Suite 400, Stockton, California

1.0 ROLL CALL

1.01 MEMBERS PRESENT: Phonxay Keokham, Emily Nicholas, Jennifer Goodman, Michael Duffy, JC Weydert, Steve Moore, Raymond McCray and Michael Restuccia presiding

MEMBERS ABSENT: Chanda Bassett, Steve Ding

STAFF PRESENT: Chief Executive Officer Johanna Shick, Administrative Secretary Elaina Petersen

OTHERS PRESENT: Counsel Ashley Dunning of Nossaman, Renee Ostrander, CEO Candidate

2.0 PLEDGE OF ALLEGIANCE

2.01 Led by Ray McCray

3.0 PUBLIC COMMENT

3.01 There were no public comments

4.0 CLOSED SESSION

The Chair convened closed Session at 11:03 a.m. and adjourned Closed Session at 12:16 p.m.

4.01 Personnel Matter

California Government Code Section 54957

Public Employee Appointment

Title: Chief Executive Officer

Topic: Finalist Candidate Interview(s)

5.0 REPORT OUT OF CLOSED SESSION

5.01 Counsel advised there was nothing to report out of Closed Session

6.0 COMMENTS

6.01 There were no comments from the Board of Retirement

7.0 ADJOURNMENT

7.01 There being no further business the meeting was adjourned at 12:18 p.m..

Respectfully Submitted:

Michael Restuccia, Chair

Attest:

Raymond McCray, Secretary



San Joaquin County Employees Retirement Association

MINUTES

SPECIAL MEETING SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION BOARD OF RETIREMENT

TUESDAY, FEBRUARY 20, 2024

AT 2:30 PM

Location: SJCERA Board Room, 6 S. El Dorado Street, Suite 400, Stockton, California

1.0 ROLL CALL

1.01 MEMBERS PRESENT: Phonxay Keokham, Emily Nicholas, Steve Ding, JC Weydert, Steve Moore, Michael Duffy, Raymond McCray and Michael Restuccia, presiding

MEMBERS ABSENT: Chanda Bassett, Jennifer Goodman

STAFF PRESENT: Chief Executive Officer Johanna Shick, Administrative Secretary Elaina Petersen

OTHERS PRESENT: Ashley Dunning of Nossaman (via Zoom)

2.0 PLEDGE OF ALLEGIANCE

2.01 Led by Mike Restuccia

3.0 PUBLIC COMMENT

3.01 There was no public comment

4.0 NEW BUSINESS - PROPOSED ENGAGEMENT AGREEMENT WITH CHIEF EXECUTIVE OFFICER

4.01 The Board voted unanimously (8-0) to approve the staff recommendation to approve the proposed employment agreement provisions between Renee Ostrander and the Board of Retirement for the San Joaquin County Employees' Retirement Association (SJCERA), subject to the receipt of acceptable results from the pre-employment screenings (Motion: Duffy; Second: Moore)

5.0 COMMENTS

5.01 Trustee Duffy thanked the Board, the Committee, staff and CEO Johanna Shick for the time and effectiveness of selecting the best candidate.

Trustee Restuccia made note of the amount of time, and hard work CEO Johanna Shick put into this process, and thanked her for her efforts.

Trustee Moore thanked Renee Ostrander for taking on this job and looks forward to what is next.

Trustee Weydert thanked Counsel Ashley Dunning for her work on this process and for being able to meet today.

6.0 ADJOURNMENT

6.01 There being no further business the meeting was adjourned at 2:35 p.m.

Respectfully Submitted:

Michael Restuccia, Chair

Attest:

Raymond McCray, Secretary



San Joaquin County Employees Retirement Association

PUBLIC

March 2024

5.01 Service Retirement

Consent

01	SONYA M ACEVES Member Type: General Years of Service: 14y 07m 21d Retirement Date: 1/12/2024	Senior Office Assistant Assessor
02	SEAN M ADAMS Member Type: Safety Years of Service: 22y 00m 14d Retirement Date: 1/7/2024	Correctional Officer Sheriff-Custody-Regular Staff
03	GRACE ALONZO Member Type: General Years of Service: 05y 11m 25d Retirement Date: 1/1/2024 Comments: Tier 2 member. Eligible to retire with 5 years of service credit.	Legal Technician I District Attorney
04	DEBBIE J ARAIZA Member Type: General Years of Service: 17y 10m 21d Retirement Date: 1/4/2024	Mental Health Specialist II Mental Health-Adult Outpatient
05	NATASHA ARONG Member Type: Safety Years of Service: 09y 07m 18d Retirement Date: 12/29/2023 Comments: Safety retirement after DRO split account.	Non-Member N/A
06	BRANDON M BARAWED Member Type: Safety Years of Service: 24y 00m 04d Retirement Date: 1/2/2024	Correctional Officer Sheriff-Custody-Regular Staff
07	BRUCE J CAGER Member Type: General Years of Service: 14y 01m 19d Retirement Date: 1/14/2024	Management Analyst III HSA - Admin Support
08	DOMINGO C CASUCO Member Type: General Years of Service: 08y 01m 27d Retirement Date: 1/6/2024 Comments: Tier 2 member. Eligible to retire with 5 years of service credit.	Housekeeping Service Worker Behavioral Health Admin
09	PAUL L COCOLA Member Type: Safety Years of Service: 28y 02m 21d Retirement Date: 1/1/2024	Correctional Sergeant Sheriff-Custody-Regular Staff



San Joaquin County Employees Retirement Association

PUBLIC

March 2024

- 10 RONNIE A COPLIN** Correctional Officer
Sheriff-Custody-Regular Staff
Member Type: Safety
Years of Service: 21y 11m 26d
Retirement Date: 1/2/2024
- 11 NYLA A DANSBY** Deferred Member
N/A
Member Type: General
Years of Service: 07y 09m 11d
Retirement Date: 1/1/2024
Comments: Deferred from SJCERA since April 2007. Tier 1 member with a membership date of July 19, 1999.
Eligible to retire with 10 years of membership.
- 12 NEVA M DIAZ** Deferred Member
N/A
Member Type: General
Years of Service: 13y 00m 27d
Retirement Date: 1/2/2024
Comments: Deferred from SJCERA since July 2020.
- 13 PAMELA V EDWARDS** Legal Process Clerk III
Court-Oper-Criminal-Stkn
Member Type: General
Years of Service: 25y 04m 25d
Retirement Date: 12/23/2023
- 14 COLLEEN M GALLOWAY** Senior Office Assistant
Office of the Medical Examiner
Member Type: General
Years of Service: 06y 06m 05d
Retirement Date: 12/28/2023
Comments: Tier 2 member. Eligible to retire with 5 years of service credit.
- 15 ALMA D GARZA** Deferred Member
N/A
Member Type: General
Years of Service: 02y 05m 02d
Retirement Date: 12/29/2023
Comments: Deferred from SJCERA since September 1999. Outgoing reciprocity and concurrent retirement with CalPERS.
- 16 MICHAEL T GRIGGS** Correctional Sergeant
Sheriff-Custody-Regular Staff
Member Type: Safety
Years of Service: 32y 02m 19d
Retirement Date: 1/2/2024
- 17 RICHARD J GUERRERO** Correctional Officer
Sheriff-Custody-Regular Staff
Member Type: General
Years of Service: 00y 04m 17d
Retirement Date: 1/3/2024
- 18 RICHARD J GUERRERO** Correctional Officer
Sheriff-Custody-Regular Staff
Member Type: Safety
Years of Service: 20y 11m 28d
Retirement Date: 1/3/2024



San Joaquin County Employees Retirement Association

PUBLIC

March 2024

- 19 PATRICIA M HILL** Mental Health Clinician II
Mental Health-Childrens Srvc
Member Type: General
Years of Service: 28y 10m 08d
Retirement Date: 12/30/2023
- 20 KARI A HOWE-JACQUEZ** Substance Abuse Counselor II
Substance Abuse Services
Member Type: General
Years of Service: 26y 03m 21d
Retirement Date: 1/1/2024
- 21 TODD R JOHNSON** Correctional Officer
Sheriff
Member Type: Safety
Years of Service: 25y 11m 00d
Retirement Date: 1/2/2024
- 22 KHAMKHOUNE KANNALIKHAM** Deputy Sheriff II
Sheriff-Special Svcs Division
Member Type: General
Years of Service: 06y 04m 06d
Retirement Date: 1/5/2024
- 23 KHAMKHOUNE KANNALIKHAM** Deputy Sheriff II
Sheriff-Special Svcs Division
Member Type: Safety
Years of Service: 20y 07m 11d
Retirement Date: 1/5/2024
- 24 THOMAS M LANFRANKI** Deferred Member
N/A
Member Type: General
Years of Service: 00y 11m 08d
Retirement Date: 1/2/2024
Comments: Deferred from SJCERA since April 2016. Incoming and outgoing reciprocity and concurrent retirement with CalPERS.
- 25 AUDREY G MATHERS** Deputy Director of HSA
HSA - Admin Support
Member Type: General
Years of Service: 25y 10m 05d
Retirement Date: 12/30/2023
- 26 DONNA M MATTHEW** Patient Financial Svcs Supervr
Hosp Patient Accounting
Member Type: General
Years of Service: 08y 00m 02d
Retirement Date: 1/1/2024
Comments: Tier 2 member - eligible to retire with 5 years of service credit.
- 27 RICHARD J MENDOZA** Stock Clerk II
District Attorney
Member Type: General
Years of Service: 22y 01m 28d
Retirement Date: 12/30/2023



San Joaquin County Employees Retirement Association

PUBLIC

March 2024

- 28 DANIEL G MULLINS** Deferred Member
N/A
- Member Type: General
Years of Service: 10y 01m 00d
Retirement Date: 12/22/2023
Comments: Deferred from SJCERA since July 2006. Outgoing reciprocity and concurrent retirement with CalPERS.
- 29 MICHAEL R NINO** Deferred Member
N/A
- Member Type: Safety
Years of Service: 18y 00m 24d
Retirement Date: 1/10/2024
Comments: Deferred from SJCERA since September 2021.
- 30 CAROL L REESE** Senior Office Assistant
Public Health
- Member Type: General
Years of Service: 16y 00m 01d
Retirement Date: 12/31/2023
- 31 KURT M RHOADES** Deferred Member
N/A
- Member Type: Safety
Years of Service: 11y 03m 12d
Retirement Date: 12/22/2023
Comments: Deferred from SJCERA since November 2000. Outgoing reciprocity and concurrent retirement with CalPERS.
- 32 ALAN B ROBISON** Deferred Member
N/A
- Member Type: General
Years of Service: 05y 00m 06d
Retirement Date: 12/30/2023
Comments: Deferred from SJCERA since October 2000. Outgoing reciprocity and concurrent retirement with CalPERS.
- 33 MICHAEL J SMALLEY** Deferred Member
N/A
- Member Type: General
Years of Service: 20y 07m 09d
Retirement Date: 1/4/2024
Comments: Deferred from SJCERA since March 2020.
- 34 EVELYN STEVENS** Deferred Member
N/A
- Member Type: General
Years of Service: 01y 00m 16d
Retirement Date: 12/31/2023
Comments: Deferred from SJCERA since April 2007. Outgoing reciprocity and concurrent retirement with CalPERS.
- 35 ANA M STEWART** Staff Nurse IV - Inpatient
Hosp Med Surg
- Member Type: General
Years of Service: 05y 01m 08d
Retirement Date: 12/31/2023
Comments: Tier 2 member - eligible to retire with 5 years of service credit.
- 36 PAUL H SYLVESTER** Probation Unit Supervisor
Probation
- Member Type: Safety
Years of Service: 23y 00m 15d
Retirement Date: 1/1/2024



San Joaquin County Employees Retirement Association

PUBLIC

March 2024

- 37 KIET M TO** Correctional Officer
Sheriff
Member Type: General
Years of Service: 01y 07m 23d
Retirement Date: 1/13/2024
- 38 KIET M TO** Correctional Officer
Sheriff
Member Type: Safety
Years of Service: 13y 09m 08d
Retirement Date: 1/13/2024
- 39 VICKI L WYNN** Deferred Member
N/A
Member Type: General
Years of Service: 04y 01m 18d
Retirement Date: 12/30/2023
Comments: Deferred from SJCERA since June 2003. Outgoing reciprocity and concurrent retirement with CalPERS.
- 40 DONNA W YIM** DeptInformationSystemsManager
Health Care Srvc
Member Type: General
Years of Service: 29y 10m 28d
Retirement Date: 12/31/2023



Board of Retirement Meeting
San Joaquin County Employees' Retirement Association

March 8, 2024

Agenda Item 6.0

SUBJECT: Consultants' Contracts

SUBMITTED FOR: ___ CONSENT X ACTION __ INFORMATION

RECOMMENDATION

Staff recommends the Board approve extending Cheiron's and Meketa's contracts through December 31, 2025 and then consider issuing Requests for Proposals (RFPs).

PURPOSE

To enter into agreements for actuary and general investment consulting services beyond the current contract expirations.

DISCUSSION

Cheiron

In 2006, the Board selected EFI through a competitive bid process to provide all routine and special actuarial services to SJCERA as the retained actuary. In January 2013, EFI merged with Cheiron, and SJCERA's contract was assigned to Cheiron by mutual written agreement of all parties. Later in 2019, the Board approved extending Cheiron's contract to December 31, 2024.

SJCERA's last triannual experience study, prepared by Cheiron, was for the reporting period of January 1, 2019 through December 31, 2021. The next experience study, for the period of January 1, 2022 through December 31, 2024, will be presented in the Summer of 2025, along with the actuarial valuation report. Due to the upcoming experience study and the transition in SJCERA leadership, staff recommends extending Cheiron's contract one year, to December 31, 2025.

Cheiron's proposed retainer fee for 2025 (which includes the fee for the triennial experience study) is \$170,000. This represents an 8% increase over the retainer from 2022 (the last year an experience study was performed), or a 2.6% increase per year.

The results of SJCERA's Actuary Consultant Evaluation confirm the Board and staff's satisfaction with the consulting team and services provided by Cheiron. Additionally, the most recent actuarial audit confirmed the soundness of the Cheiron's work. Extending the contract retains a well-respected, experienced vendor with significant knowledge and understanding of SJCERA, and maintains stability during a time of organizational transition.

Meketa


In 2015, the Board selected Pension Consulting Alliance (PCA) through a competitive bid process to provide general investment consulting services to SJCERA. In 2019, PCA merged with Meketa, and SJCERA's contract with PCA was assigned to Meketa by mutual written agreement of all parties. Later in 2019, the Board approved extending Meketa's contract to February 28, 2025.

The results of SJCERA's General Investment Consultant Evaluation confirm the Board and staff's satisfaction with the consulting team and services provided by Meketa. Due to reasons mentioned above and how closely the actuary and investment consultant work together, staff recommends extending Meketa's contract ten months, to the same date as Cheiron's, December 31, 2025. Extending the contract retains a well-respected, experienced resource, with significant knowledge and understanding gained from years of working with SJCERA. Further, aligning the contract end dates of these two vendors is administratively efficient.


The last year of Meketa's contract (March 1, 2024 through February 28, 2025) is \$354,000, or \$29,500 monthly. Meketa proposes extending the contract at the same rate, \$295,000 for a ten-month extension to December 31, 2025.

ATTACHMENT(S)

None



JOHANNA SHICK
Chief Executive Officer



GREG FRANK
Management Analyst III

San Joaquin County Employees' Retirement Association (SJCERA)

Q4 2023

Quarterly Report

1. Introduction
2. Portfolio Review
3. Real Estate Program
4. Economic and Market Update as of January 31, 2023
5. Disclaimer, Glossary, and Notes

Introduction

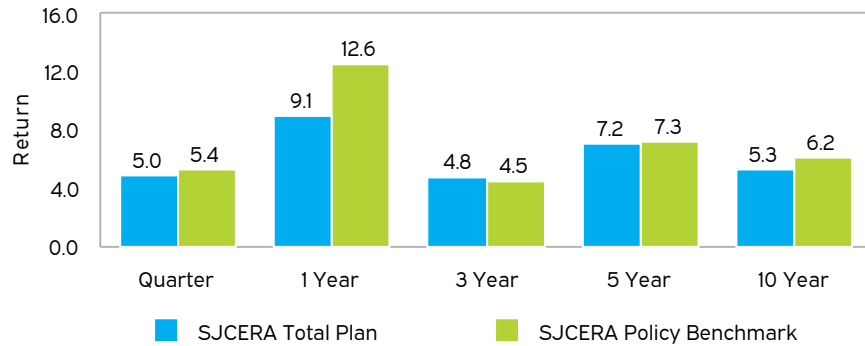
Introduction

The SJCERA Total Portfolio had an aggregate value of \$4.2 billion as of December 31, 2023. During the latest quarter, the Total Portfolio increased in value by \$183.4 million, and over the one-year period, the Total Portfolio increased by \$391.3 million. The movements over the quarter and one-year periods were primarily driven by investment returns. In the fourth quarter of 2023, negative results in October were overshadowed by strong market returns in November and December. Market sentiment at the beginning of Q4 2023 was strongly influenced by strong economic data from Q3 and expectations that interest rates would be kept higher for longer due to the resilient economy in the face of historic interest rate hikes. However, as the quarter evolved, market data came in below expectations – exacerbating the ‘bad news is good news’ paradigm, leaving market participants hopeful that the Federal Reserve would begin cutting interest rates earlier in 2024 than was previously expected. This led to strong market returns throughout November and December which served as a tailwind to SJCERA’s portfolio in Q4.

Recent Investment Performance

The Total Portfolio has underperformed the policy benchmark for the quarter, 1-, 5-, 10-, 15-, and 20-year periods by (0.4%), (3.5%), (0.1%), (0.9%), (0.8%), and (0.9%), respectively; however, it outperformed the policy benchmark over the 3-year period by 0.3% and matched the policy benchmark return of 5.6% over the trailing 25-year period. Net of fees, the Plan has outperformed the Median Public Fund for the trailing 3-year period by 0.3%; however, it has trailed the median public fund over the quarter, 1-, 5-, 10-, 15-, 20-, and 25-year periods by (1.6%), (2.3%), (1.1%), (1.0%), (1.9%), (1.5%), and (0.5%), respectively. That said, it’s important to view these returns in the context of the risk the portfolio is taking relative to that of the median public plan. The annualized standard deviation of the Plan is 3.1% lower than the median public plan with over \$1 billion in assets, (7.8% for the plan vs. 10.9% for the median public plan), and the Sharpe ratio of the Plan is 0.7 whereas the Sharpe ratio of the median public plan in the same category is 0.6.

Return Summary



Summary of Cash Flows

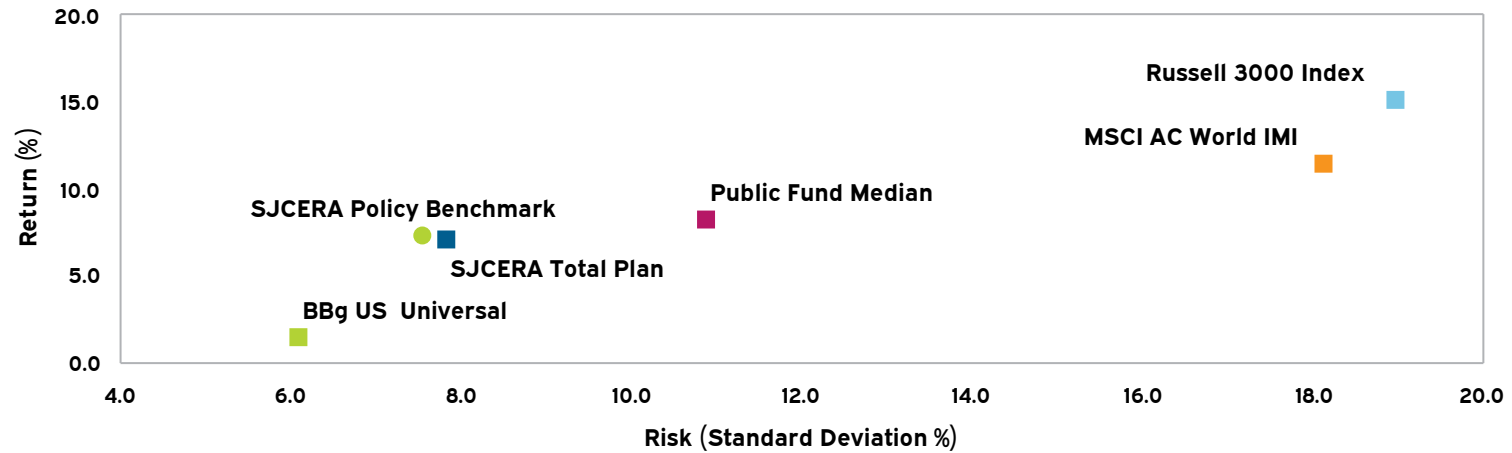
	Quarter	1 Year
SJCERA Total Plan		
Beginning Market Value	4,006,349,239	3,798,415,532
Net Cash Flow	-15,972,719	40,650,581
Net Investment Change	199,382,710	350,693,116
Ending Market Value	4,189,759,229	4,189,759,229

	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
SJCERA Total Plan - Gross	5.1	9.5	5.3	7.7	6.1	7.2	5.8	6.1
SJCERA Total Plan - Net	5.0	9.1	4.8	7.2	5.3	6.5	5.1	5.6
<i>SJCERA Policy Benchmark</i>	<u>5.4</u>	<u>12.6</u>	<u>4.5</u>	<u>7.3</u>	<u>6.2</u>	<u>7.3</u>	<u>6.0</u>	<u>5.6</u>
Excess Return (Net)	-0.4	-3.5	0.3	-0.1	-0.9	-0.8	-0.9	0.0
<i>All Public Plans > \$1B-Total Fund Median</i>	6.6	11.4	4.5	8.3	6.3	8.4	6.6	6.1

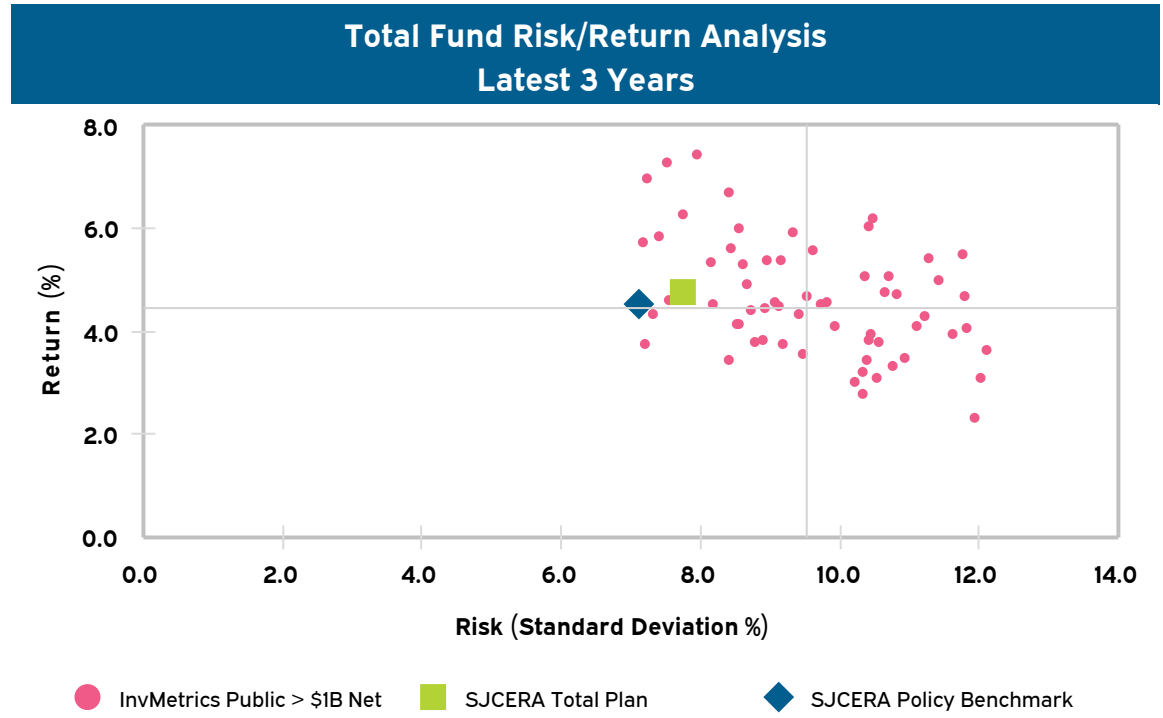
1 Investment Metrics Total Fund Public Universe >\$1 Billion, net of fees.
 2 Policy Benchmark composition is listed in the Appendix.

Risk Adjusted Return vs Peers				
	1 Yr	3 Yrs	5 Yrs	10 Yrs
SJCERA Total Plan - Net	9.12	4.78	7.16	5.34
Risk Adjusted Median	8.91	3.68	5.97	6.44
Excess Return	0.21	1.10	1.19	-1.09

5-Year Annualized Risk/Return (Net of Fees)



	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
SJCERA Total Plan	7.2	7.8	0.7
SJCERA Policy Benchmark	7.3	7.5	0.7
Median Public Fund Median	8.3	10.9	0.6
Blmbg. U.S. Universal Index	1.4	6.1	0.0
Russell 3000 Index	15.2	19.0	0.7
MSCI AC World IMI	11.5	18.1	0.6



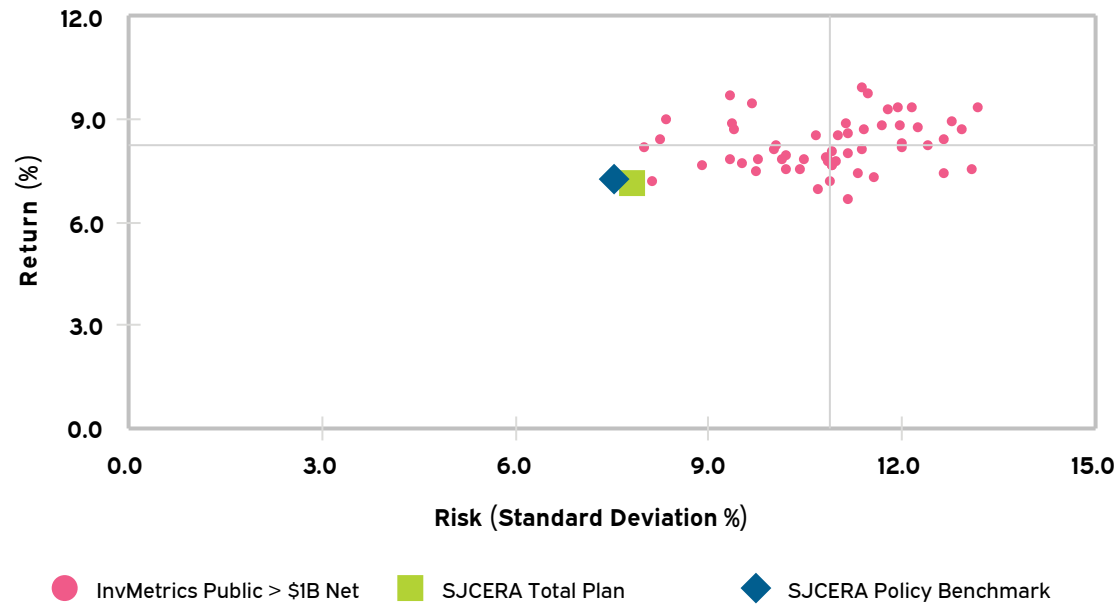
	Return	Standard Deviation	Sharpe Ratio
SJCERA Total Plan	4.8	7.7	0.4
SJCERA Policy Benchmark	4.5	7.1	0.4
All Public Plans > \$1B-Total Fund Median	4.5	9.5	0.3

1 Returns are net of fees.

2 Computed as annualized return less the risk free rate, divided by the annualized standard deviation.

3 Investment Metrics Total Fund Public Universe > \$1 Billion, net of fees.

Total Fund Risk/Return Analysis Latest 5 Years



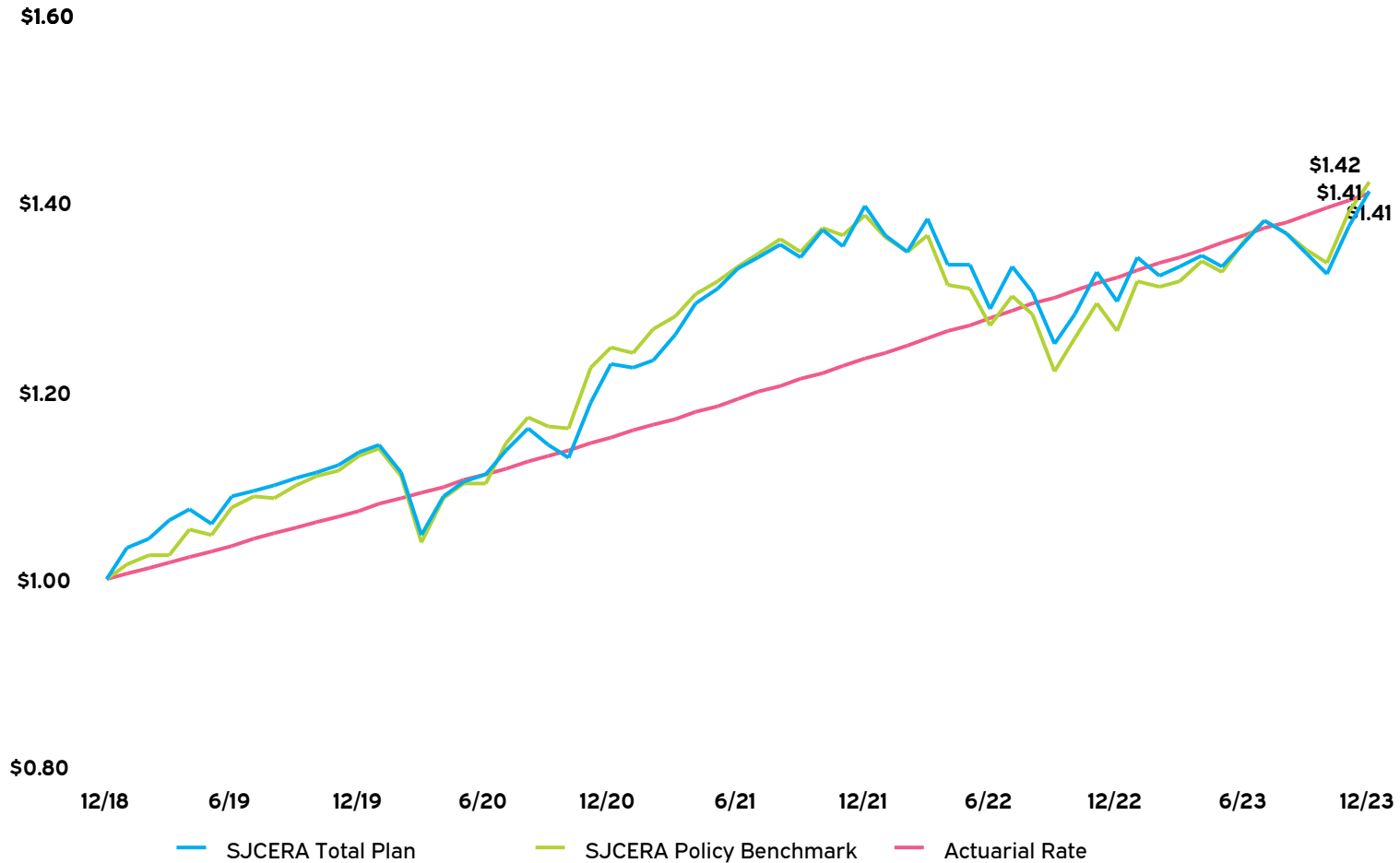
	Return	Standard Deviation	Sharpe Ratio
SJCERA Total Plan	7.2	7.8	0.7
SJCERA Policy Benchmark	7.3	7.5	0.7
All Public Plans > \$1B-Total Fund Median	8.3	10.9	0.6

1 Returns are net of fees.

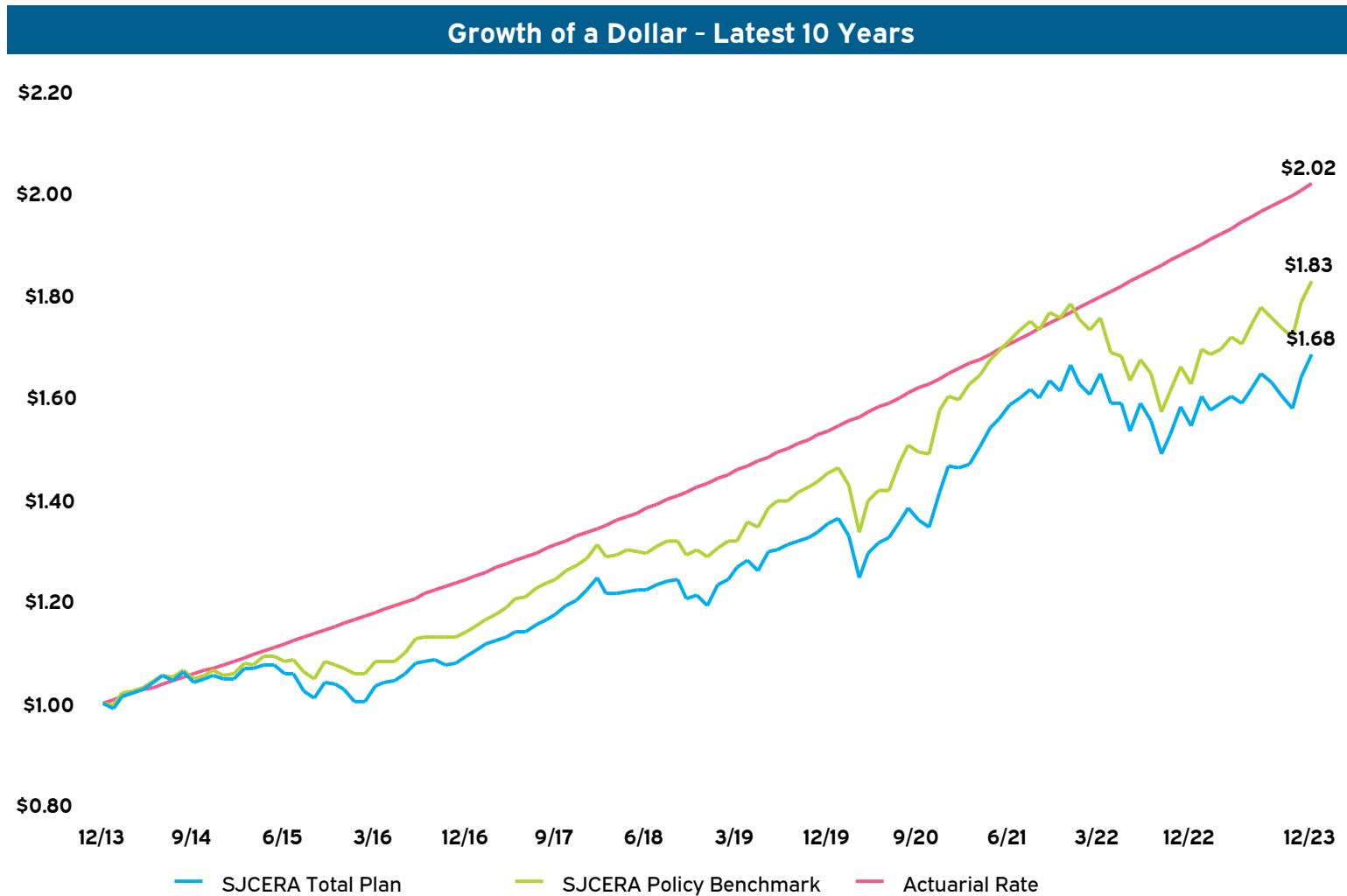
2 Computed as annualized return less the risk free rate, divided by the annualized standard deviation.

3 Investment Metrics Total Fund Public Universe > \$1 Billion, net of fees.

Growth of a Dollar - Latest 5 Years

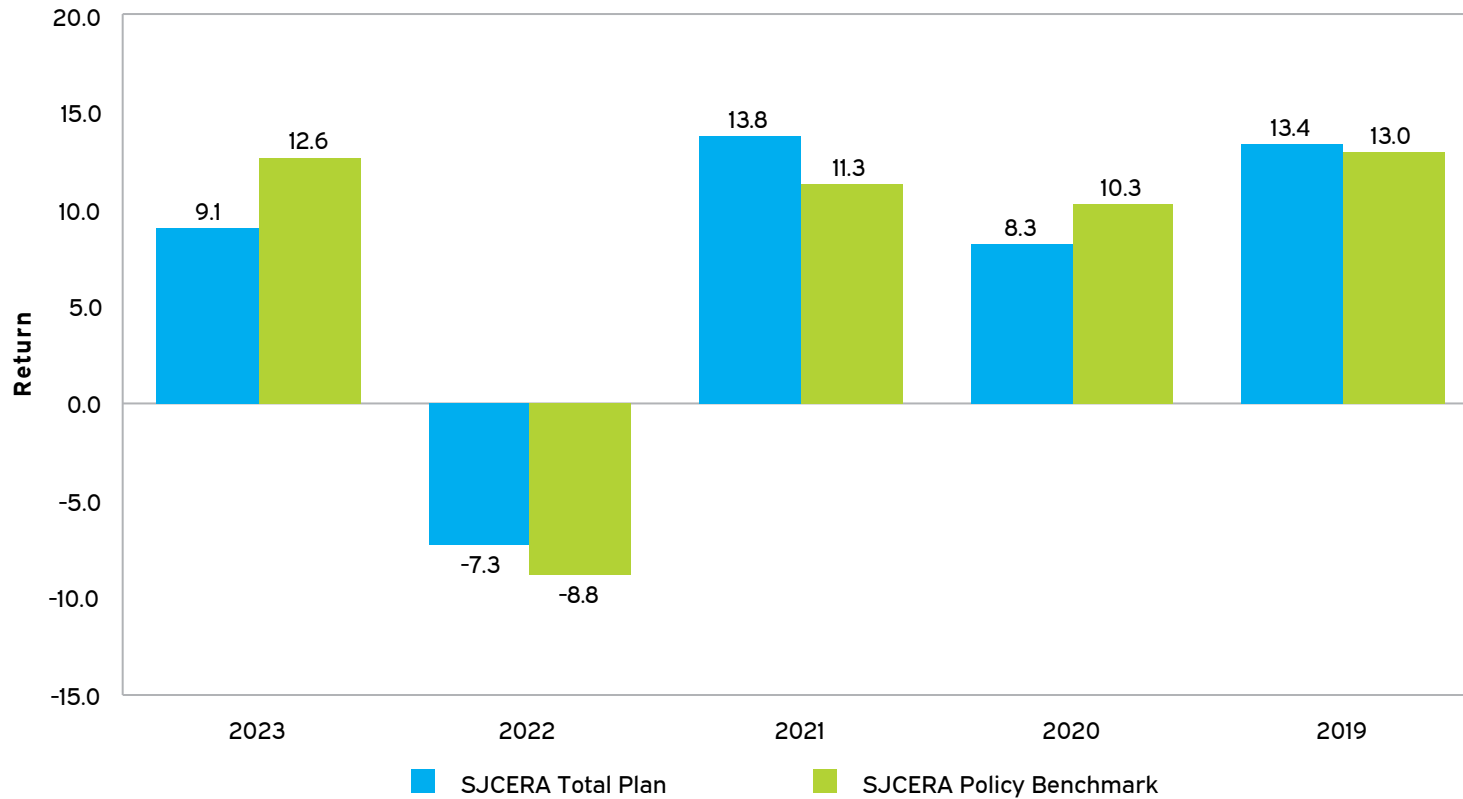


6.75% Actuarial Rate from 9/1/2022 to present. 7.0% Actuarial Rate from 1/1/2020 to 8/31/2022. 7.25% Actuarial Rate from 1/1/2018 to 12/31/2019. 7.4% Actuarial Rate from 8/1/2016 to 12/31/2017. 7.5% Actuarial Rate from 1/1/2012 to 7/31/2016. Previously 8.0%.



6.75% Actuarial Rate from 9/1/2022 to present. 7.0% Actuarial Rate from 1/1/2020 to 8/31/2022. 7.25% Actuarial Rate from 1/1/2018 to 12/31/2019. 7.4% Actuarial Rate from 8/1/2016 to 12/31/2017. 7.5% Actuarial Rate from 1/1/2012 to 7/31/2016. Previously 8.0%.

12-month Performance Overview



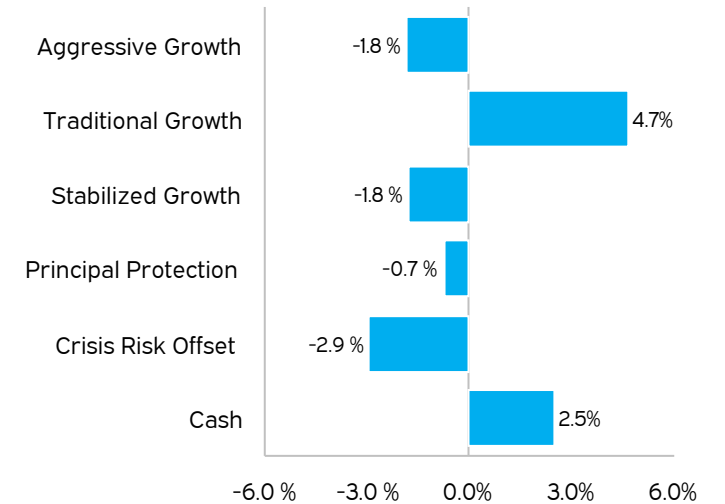
12-month absolute results have been positive four of the last five 12-month periods, net of fees. The SJCERA Total Portfolio matched or outperformed the policy target benchmark during three of these five periods, net of fees.

Portfolio Review

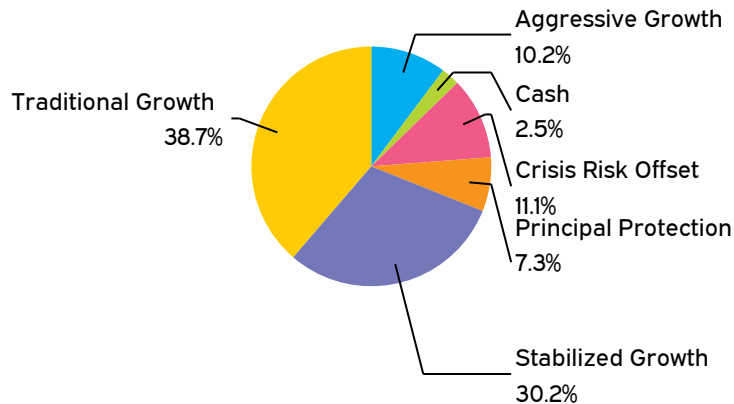
Asset Allocation | As of December 31, 2023

	Current Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)
Broad Growth	\$3,315,492,150	79.1	78.0	1.1
Aggressive Growth	\$427,447,866	10.2	12.0	-1.8
Traditional Growth	\$1,621,480,719	38.7	34.0	4.7
Stabilized Growth	\$1,266,563,565	30.2	32.0	-1.8
Diversified Growth	\$768,806,574	18.3	22.0	-3.7
Principal Protection	\$305,369,458	7.3	8.0	-0.7
Crisis Risk Offset	\$463,437,116	11.1	14.0	-2.9
Cash	\$105,460,506	2.5	0.0	2.5
Cash	\$105,460,506	2.5	0.0	2.5
Total	\$4,189,759,229	100.0	100.0	0.0

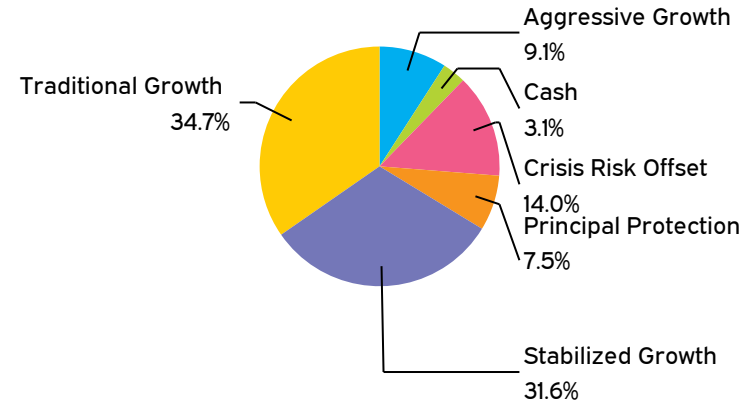
Variance vs Target Allocation (%)



As of December 31, 2023



As of December 31, 2022



Market values may not add up due to rounding
Cash asset allocation includes Parametric Overlay

Asset Class Performance Net-of-Fees | As of December 31, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
SJCERA Total Plan	4,189,759,229	100.0	5.0	9.1	4.8	7.2	5.3
<i>SJCERA Policy Benchmark</i>			5.4	12.6	4.5	7.3	6.2
Broad Growth	3,315,492,150	79.1	6.7	11.0	6.1	8.7	6.4
Aggressive Growth Lag	427,447,866	10.2	0.1	0.9	18.4	13.6	11.7
<i>Aggressive Growth Blend</i>			-2.3	4.8	8.9	7.4	8.2
Traditional Growth	1,621,480,719	38.7	11.6	22.9	6.8	10.6	7.1
<i>MSCI ACWI IMI Net</i>			11.1	21.6	5.5	12.0	8.3
Stabilized Growth	1,266,563,565	30.2	3.3	1.5	2.4	5.4	4.3
<i>SJCERA Stabilized Growth Benchmark</i>			3.0	7.2	5.3	5.9	5.5
Diversifying Strategies	768,806,574	18.3	-1.7	1.3	0.7	2.4	2.9
Principal Protection	305,369,458	7.3	7.2	7.3	-1.1	1.4	2.6
<i>Blmbg. U.S. Aggregate Index</i>			6.8	5.5	-3.3	1.1	1.8
Crisis Risk Offset Asset Class	463,437,116	11.1	-6.7	-2.4	2.3	3.2	4.2
<i>CRO Benchmark</i>			3.3	2.7	0.5	3.9	3.9
Cash and Misc Asset Class	75,733,389	1.8	0.7	3.3	1.6	1.4	1.0
<i>90 Day U.S. Treasury Bill</i>			1.4	5.0	2.2	1.9	1.2

1 Market values may not add up due to rounding.

2 Policy Benchmark composition is listed in the Appendix.

3 30% ICE BofAML US T-Bill + 4%; 52% 50% Bloomberg High Yield/50% S&P Leverage Loans; 18% NCREIF ODCE +1% Lag.

4 (1/3) Bloomberg Long Duration Treasuries; (1/3) BTOP50 Index; (1/3) 5% Annual.

Asset Class Performance Net-of-Fees | As of December 31, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Aggressive Growth Lag	427,447,866	100.0	0.1	0.9	18.4	13.6	11.7
<i>Aggressive Growth Blend</i>			-2.3	4.8	8.9	7.4	8.2
Bessemer Venture Partners Forge Fund	6,370,041	1.5	-2.6	--	--	--	--
<i>MSCI ACWI +2% Blend</i>			-2.8	--	--	--	--
Blackrock Global Energy and Power Lag	45,677,008	10.7	-0.5	10.7	9.7	--	--
<i>MSCI ACWI +2% Blend</i>			-2.8	23.8	9.5	--	--
BlackRock Global Infrastructure Fund IV, L.P.	14,165,193	3.3	-1.4	--	--	--	--
<i>MSCI ACWI +2% Lag</i>			-2.8	--	--	--	--
Lightspeed Venture Ptnrs Select V Lag	17,420,171	4.1	-1.1	-5.7	--	--	--
<i>MSCI ACWI +2% Blend</i>			-2.8	23.8	--	--	--
Long Arc Capital Fund I	22,259,650	5.2	3.4	--	--	--	--
<i>MSCI ACWI +2% Blend</i>			-2.8	--	--	--	--
Morgan Creek III Lag	4,848,671	1.1	5.7	4.0	-8.1	-10.3	--
<i>MSCI ACWI +2% Blend</i>			-2.8	23.8	9.5	9.1	--
Morgan Creek V Lag	6,157,161	1.4	-0.6	-4.9	8.4	8.9	12.5
<i>MSCI ACWI +2% Blend</i>			-2.8	23.8	9.5	9.1	9.0
Morgan Creek VI Lag	22,631,859	5.3	1.6	-1.9	14.2	14.2	--
<i>MSCI ACWI +2% Blend</i>			-2.8	23.8	9.5	9.1	--

1 Market Values may not add up due to rounding.

2 Lagged 1 quarter.

3 Q123 data not available at the time of this report. Values reported reflect Q422 market value adjusted by Q123 cash flows.

Asset Class Performance Net-of-Fees | As of As of December 31, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Ocean Avenue II Lag	32,271,035	7.5	-8.9	-14.7	29.3	22.6	16.3
<i>MSCI ACWI +2% Blend</i>			-2.8	23.8	9.5	9.1	9.0
Ocean Avenue III Lag	56,437,919	13.2	6.3	12.7	31.3	25.2	--
<i>MSCI ACWI +2% Blend</i>			-2.8	23.8	9.5	9.1	--
Ocean Avenue IV Lag	56,269,156	13.2	-0.4	9.3	33.2	--	--
<i>MSCI ACWI +2% Blend</i>			-2.8	23.8	9.5	--	--
Ocean Avenue V Lag	6,498,007	1.5	16.0	--	--	--	--
<i>MSCI ACWI +2% Blend</i>			-2.8	--	--	--	--
Non-Core Real Assets Lag	86,266,402	20.2	-1.6	-5.8	7.4	4.9	6.3
<i>NCREIF ODCE +1% lag (blend)</i>			-1.9	-12.0	7.3	5.8	8.3
Ridgemont Equity Partners IV, L.P.	14,953,520	3.5	-2.0	--	--	--	--
<i>MSCI ACWI +2% Blend</i>			-2.8	--	--	--	--
Stellex Capital Partners II Lag	35,222,073	8.2	1.9	4.5	--	--	--
<i>MSCI ACWI +2% Blend</i>			-2.8	23.8	--	--	--

1 Lagged 1 quarter.

2 Trailing Non-Core real estate performance includes returns provided by prior real estate consultant from inception through Q419.

Aggressive Growth

During the latest three-month period ending December 31, 2023, fourteen of SJCERA's fifteen aggressive growth managers outperformed their respective benchmarks. Collectively, the Aggressive Growth sleeve outperformed the Aggressive Growth Blended benchmark by 2.4%. Please note that return data for this asset class is lagged one quarter. Several of these managers are newer and are experiencing what is known as the "J-Curve Effect" while they are in the downward sloping portion of the curve.

Bessemer Venture Partners Forge Fund is a new addition to the Aggressive Growth sleeve and returned (2.6%) for the fourth quarter, outperforming the MSCI ACWI + 2% benchmark of (2.8%) for the period.

BlackRock Global Energy and Power, outperformed the MSCI ACWI +2% benchmark over the quarter and trailing 3-year periods by 2.3% and 0.2, respectively; however, it trailed the benchmark over the 1-year period by 13.1%.

BlackRock Global Infrastructure Fund IV, a new addition to the Aggressive Growth sleeve which recently called capital, outperformed the benchmark during the most recent quarter by 1.4%.

Lightspeed Venture Partners Select V, a venture capital fund that was recently added and is experiencing the J-Curve effect, outperformed its target benchmark over the quarter by 1.7% but trailed the benchmark over the 1-year period by 29.5%.

Long Arc Capital Fund I, a growth-oriented private equity manager which is new to the Aggressive Growth sleeve, recently called capital and outperformed its the benchmark by 6.2% over the fourth quarter.

Morgan Creek III outperformed its benchmark over the quarter by 8.5%; however, it trailed the benchmark over the 1-, 3- and 5-year periods by (19.8%), (17.6%), and (19.4%), respectively.

Morgan Creek V outperformed its benchmark over the quarter and trailing 10-year periods by 2.2% and 3.5%, respectively. However, it trailed the benchmark over the 1-, 3- and 5-year periods by (28.7%), (1.1%), and (0.2%), respectively.

Morgan Creek VI outperformed its benchmark over the quarter and trailing 3- and 5-year periods by 4.4%, 4.7%, and 5.1%, respectively. However, it trailed the benchmark over the 1-year period by (25.7%).

Aggressive Growth (continued)

Ocean Avenue II, trailed its benchmark over the quarter and 1-year periods by (6.1%) and (38.5%), respectively; however, it outperformed the benchmark over the 3-, 5- and 10-year periods by 19.8%, 13.5%, and 7.3%, respectively.

Ocean Avenue III, outperformed its benchmark over the quarter, 3- and 5-year periods by 9.1%, 21.8% and 16.1%, respectively; however, it underperformed the benchmark over the 1-year period by (11.1%).

Ocean Avenue IV, outperformed its benchmark over the quarter and trailing 3-year periods by 1.4% and 23.7%, respectively; however, it trailed the benchmark over the 1-year period by (14.5%).

Ocean Avenue V, a new Private Equity vintage of the veteran manager in this portfolio, recently called capital and outperformed the benchmark over the most recent quarter by 18.8%.

Non-Core Real Assets outperformed its NCREIF ODCE +1% benchmark over the quarter, 1-, and 3-year periods by 0.3%, 6.2%, and 0.1%, respectively. That said, the manager underperformed the benchmark over the trailing 5- and 10-year periods by (0.9%) and (2.0%), respectively.

Ridgemont Equity Partners, a new Private Equity manager within the asset class, outperformed the benchmark over the quarter by 0.8%.

Stellex Capital Partners II, outperformed its benchmark over the quarter by 4.7%; however, it trailed the benchmark over the 1-year period by (19.3%).

Private Appreciation

Investment Activity Statement for Since Inception by Fund

Investment	Vintage Year	Original Inv. Commitment	Gross Contributions	Management Fees	Return of Capital	Distributions	Net Income	Unrealized Appreciation	Realized Gain	Ending Market Value
Bessemer Valley Forge	2022	50,000,000	7,051,627	501,099	-	-	(681,586)	-	-	6,370,041
Blackrock Global Energy & Power III	2019	50,000,000	46,041,225	3,528,689	1,425,739	8,783,940	2,827,075	4,878,527	2,139,860	45,677,008
Blackrock Global Infrastructure IV-D	2022	50,000,000	14,746,913	272,027	-	-	(951,713)	372,305	(2,312)	14,165,193
Lightspeed Venture Partners Select V	2021	40,000,000	19,200,000	1,220,000	-	-	(1,444,149)	(335,680)	-	17,420,171
Long Arc Capital I	2022	25,000,000	20,699,057	1,663,356	-	-	(278,520)	1,827,955	11,158	22,259,650
Morgan Creek III	2015	10,000,000	9,900,000	732,233	2,325,492	717,761	(1,435,614)	(922,536)	350,074	4,848,671
Morgan Creek V	2013	12,000,000	11,520,000	780,443	5,102,450	9,671,741	(1,752,099)	1,588,508	9,574,943	6,157,161
Morgan Creek VI	2015	20,000,000	18,200,000	3,812,099	6,864,868	7,768,335	(1,350,583)	13,912,217	6,233,428	22,361,859
Ocean Avenue II*	2013	40,000,000	36,000,000	6,086,997	5,875,189	53,185,969	22,883,645	9,006,515	23,442,032	32,271,035
Ocean Avenue III	2016	50,000,000	46,500,000	7,503,174	25,500,000	29,500,000	11,652,818	26,662,420	26,622,681	56,437,919
Ocean Avenue IV	2019	50,000,000	47,500,000	4,692,799	3,250,000	24,331,637	998,972	16,091,227	19,260,594	56,269,156
Ocean Avenue V	2022	30,000,000	6,000,000	188,014	-	-	(319,396)	817,403	-	6,498,007
Ridgemont	2021	50,000,000	14,941,717	750,000	-	-	(576,645)	588,448	-	14,953,520
Stellex II	2020	50,000,000	33,909,933	2,555,966	-	2,316,219	(1,501,689)	3,637,778	1,492,270	35,222,073
Total			325,158,845	33,785,796	50,343,738	136,275,602	28,752,103	78,125,087	89,124,728	334,541,423

* Ocean II commitment started at \$30 Mil in Q213 and increased to \$40 Mil in Q114.

Asset Class Performance Net-of-Fees | As of December 31, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Traditional Growth	1,621,480,719	100.0	11.6	22.9	6.8	10.6	7.1
<i>MSCI ACWI IMI Net</i>			<i>11.1</i>	<i>21.6</i>	<i>5.5</i>	<i>12.0</i>	<i>8.3</i>
Northern Trust MSCI World	1,408,912,635	86.9	11.7	23.3	7.2	--	--
<i>MSCI World IMI Index (Net)</i>			<i>11.5</i>	<i>22.9</i>	<i>6.7</i>	<i>--</i>	<i>--</i>
PIMCO RAE Emerging Markets	93,491,740	5.8	8.9	23.1	8.8	8.3	5.4
<i>MSCI Emerging Markets (Net)</i>			<i>7.9</i>	<i>9.8</i>	<i>-5.1</i>	<i>3.7</i>	<i>2.7</i>
GQG Active Emerging Markets	72,674,462	4.5	11.3	30.0	0.3	--	--
<i>MSCI Emerging Markets (Net)</i>			<i>7.9</i>	<i>9.8</i>	<i>-5.1</i>	<i>--</i>	<i>--</i>
Invesco REIT	46,398,712	2.9	16.7	9.4	5.6	6.3	7.1
<i>FTSE NAREIT Equity REIT Index</i>			<i>16.2</i>	<i>13.7</i>	<i>7.2</i>	<i>7.4</i>	<i>7.6</i>

Market Values may not add up due to rounding.

Traditional Growth

During the latest three-month period ending December 31, 2023, the traditional growth asset class outperformed its MSCI ACWI IMI benchmark by 0.5% with all four managers outperforming their benchmarks.

Northern Trust MSCI World, the Plan's Passive Global Equity manager, outperformed its benchmark over the past quarter by 0.2% and outperformed over the 1-year period by 0.4%. The fund has also outperformed over the trailing 3-year period by 0.5%

PIMCO RAE Emerging Markets, one of SJCERA's Active Emerging Markets Equity managers, outperformed its MSCI Emerging Markets Index benchmark for the quarter, 1-, 3-, 5- and 10-year trailing time periods by 1.0%, 13.3%, 13.9%, 4.6% and 2.7%, respectively.

GQG Active Emerging Markets, outperformed its MSCI Emerging Markets benchmark over the quarter, 1-, and 3-year periods by 3.4%, 20.2%, and 5.4%, respectively.

Invesco REIT, the Plan's Core US REIT manager, outperformed the benchmark for the recent quarter by 0.5%. However, it underperformed the FTSE NAREIT Equity REIT Index for the 1-, 3-, 5- and 10-year periods by (4.3%), (1.6%), (1.1%) and (0.5%), respectively.

Asset Class Performance Net-of-Fees | As of December 31, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Stabilized Growth	1,266,563,565	100.0	3.3	1.5	2.4	5.4	4.3
<i>SJCERA Stabilized Growth Benchmark</i>			3.0	7.2	5.3	5.9	5.5
Risk Parity Asset Class	381,698,272	30.1	8.8	6.6	-3.9	3.4	2.4
<i>ICE BofAML 3mo US TBill+4%</i>			2.4	9.2	6.2	5.9	5.3
Bridgewater All Weather	201,604,788	15.9	10.8	10.7	-1.2	4.3	3.7
<i>Bridgewater All Weather (blend)</i>			2.4	9.2	6.2	5.9	5.3
PanAgora Diversified Risk Multi Asset	180,093,484	14.2	6.6	2.4	-6.5	2.5	--
<i>ICE BofAML 3mo US TBill+4%</i>			2.4	9.2	6.2	5.9	--
Liquid Credit	245,971,437	19.4	3.5	9.2	1.9	3.7	2.9
<i>50% BB US HY/50% S&P LSTA Lev Loan</i>			5.0	13.4	3.9	5.6	4.5
Neuberger Berman	103,585,856	8.2	2.9	7.8	-0.4	--	--
<i>33% ICEBofAMLUSHY /33%JPMEMBI Global Div /33% S&P LSTALevLoan</i>			6.3	12.5	1.4	--	--
Stone Harbor Absolute Return	142,385,581	11.2	3.9	10.0	3.6	4.3	3.1
<i>ICE BofA-ML LIBOR</i>			1.4	5.1	2.2	2.0	1.4
Private Credit Lag	416,042,017	32.8	1.6	0.1	4.7	3.4	3.1
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	9.8	9.4
Blackrock Direct Lending Lag	91,459,651	7.2	4.4	11.5	8.3	--	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	--	--
Crestline Opportunity II Lag	11,159,060	0.9	-4.6	-14.7	-2.8	-3.6	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	9.8	--
Davidson Kempner Long-Term Distressed Opportunities Fund V, L.P. Lag	51,002,059	4.0	2.1	1.4	9.6	--	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	--	--
HPS European Asset Value II, LP Lag	32,730,106	2.6	4.1	12.2	9.6	--	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	--	--

1 Market Values may not add up due to rounding.

2 30% ICE BofAML 3 month US T-Bill + 4%, 52% 50% BB High Yield/50% S&P Leverage Loans, 18% NCREIF ODCE +1% Lag.

Asset Class Performance Net-of-Fees | As of December 31, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Medley Opportunity II Lag	1,484,588	0.1	-9.5	0.5	-0.7	-7.6	-3.0
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	9.8	9.4
Mesa West IV Lag	30,826,114	2.4	-0.7	-19.3	-3.9	0.5	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	9.8	--
Oaktree Middle-Market Direct Lending Lag	37,484,318	3.0	4.2	5.3	11.2	12.6	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	9.8	--
Silver Point Credit III Lag	14,004,937	1.1	--	--	--	--	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			--	--	--	--	--
Silver Rock Tactical Allocation Fund Lag	28,123,425	2.2	5.8	--	--	--	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	--	--	--	--
Raven Opportunity III Lag	51,649,570	4.1	-4.4	-11.6	4.5	5.1	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	9.8	--
White Oak Summit Peer Lag	25,324,481	2.0	2.4	6.1	-1.1	1.5	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	9.8	--
White Oak Yield Spectrum Master V Lag	40,793,708	3.2	0.5	-2.2	0.8	--	--
<i>Credit Blend S&P/LSTA Lev Loan +3%</i>			4.2	16.4	11.3	--	--
Private Core Real Assets Lag	222,851,839	17.6	-2.6	-10.9	12.9	10.6	12.0
<i>NCREIF ODCE +1% lag (blend)</i>			-1.9	-12.0	7.3	5.8	8.3

1 Market values may not add up due to rounding.

2 NCREIF ODCE Net + 1% 10/1/2012-present. NCREIF Property Index previously.

3 Q422 data not available at the time of this report. Values reported reflect Q322 market value adjusted by Q422 cash flows.

Stabilized Growth

During the latest three-month period ending December 31, 2023, the Stabilized Growth sleeve of the Plan outperformed its Stabilized Growth benchmark by 0.3%. That said, ten of SJCERA's seventeen Stabilized Growth managers underperformed their benchmarks while seven outperformed. Several managers in this asset class are in the process of investing capital and may underperform as assets are invested (typically known as the J-curve effect). Included in this group is private core real assets, which trailed its benchmark this quarter.

Bridgewater All Weather, one of the Plan's Risk Parity managers, outperformed its benchmark over the quarter and 1-year periods by 8.4% and 1.5%, respectively. That said, the strategy underperformed the benchmark over the 3-, 5- and 10-year periods by (8.4%), (1.6%), and (1.6%), respectively.

PanAgora DRMA, one of the Plan's Risk Parity managers, outperformed its benchmark by 4.4% over the recent quarter. However, it trailed its benchmark over the 1-, 3- and 5-year time periods by (6.8%), (12.7%), and (3.4%), respectively.

Neuberger Berman, one of the Plan's Liquid Credit managers, underperformed its benchmark for the quarter, 1- and 3-year time periods by (3.4%), (4.7%), and (1.8%), respectively.

Stone Harbor, the Plan's Absolute Return Fixed Income manager, outperformed the benchmark over the quarter, 1-, 3-, 5- and 10-year periods by 2.5%, 4.9%, 1.4%, 2.3%, and 1.7%, respectively.

BlackRock Direct Lending, one of the Plan's newer Private Credit managers, outperformed its benchmark over the quarter by 0.2%; however, it trailed the benchmark over the 1- and 3-year periods by (4.9%) and (3.0%), respectively.

Crestline Opportunity II, the Plan's Credit, Niche Alternatives and Hedge Fund Secondaries manager, trailed its benchmark over the quarter, 1-, 3- and 5-year periods by (8.8%), (31.1%), (14.1%) and (13.4%), respectively.

Davidson Kempner, a Distressed Private Credit manager, trailed its benchmark over the quarter, 1- and 3-year periods by (2.1%), (15.0%) and (1.7%), respectively.

Stabilized Growth (continued)

HPS EU Value II, one of the Plan's newer Direct Lending managers, trailed its benchmark over the quarter, 1- and 3-year periods by (0.1%), (4.2%) and (1.7%), respectively.

Medley Opportunity II, lagged its benchmark over the quarter, 1-, 3-, 5- and 10-year time periods by (13.7%), (15.9%), (12.0%), (17.4%), and (12.4%) respectively.

Mesa West RE Income IV, one of the Plan's Commercial Mortgage managers, trailed the benchmark by (4.9%), (35.7%), (15.2%) and (9.3%) over the quarter, 1-, 3- and 5-year periods, respectively.

Oaktree, a Middle-Market Direct Lending manager, matched its benchmark over the quarter and outperformed over the 5-year period by 2.8%. However, it trailed the benchmark over the 1- and 3-year periods by (11.1%) and (0.1%), respectively.

Silver Rock Tactical Allocation Fund is a new addition to the private credit allocation which recently called capital and outperformed the benchmark by 1.6% over the most recent quarter.

Raven Opportunity III underperformed its target for the quarter, 1-, 3-, and 5-year periods by (8.6%), (28.0%), (6.8%), and (4.7%), respectively.

White Oak Summit Peer, one of the Plan's Direct Lending managers, underperformed its index over the trailing quarter, 1-, 3- and 5-year time periods by (1.8%), (10.3%), (12.4%) and (8.3 %), respectively.

White Oak Yield Spectrum Master V underperformed its benchmark over the quarter, 1- and 3-year periods by (3.7%), (18.6%), and (10.5%).

Private Core Real Assets, trailed its target over the most recent quarter by (0.7%); however, it exceeded the benchmark over the 1-, 3-, 5- and 10-year time periods by 1.1%, 5.6%, 4.8%, and 3.7%, respectively.

Asset Class Performance Net-of-Fees | As of December 31, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Principal Protection	305,369,458	100.0	7.2	7.3	-1.1	1.4	2.6
<i>Blmbg. U.S. Aggregate Index</i>			6.8	5.5	-3.3	1.1	1.8
Dodge & Cox Fixed Income	209,759,206	68.7	7.5	8.0	-1.4	2.8	3.1
<i>Blmbg. U.S. Aggregate Index</i>			6.8	5.5	-3.3	1.1	1.8
Loomis Sayles	95,610,195	31.3	6.6	5.8	--	--	--
<i>Blmbg. U.S. Aggregate Index</i>			6.8	5.5	--	--	--

¹ Market Values may not add up due to rounding.

Principal Protection

During the latest three-month period ending December 31, 2023, one of SJCERA's two Principal Protection managers outperformed the Bloomberg US Aggregate Index benchmark. That said, the asset class, as a whole, outperformed the benchmark by 40 basis points for the quarter and 1.8% over 2023.

Dodge & Cox, the Plan's Core Fixed Income manager, outperformed the US Agg by 0.7% over the final quarter of the year. It also led its benchmark by 2.5%, 1.9%, 1.7% and 1.3% for the trailing 1-, 3-, 5- and 10-year periods, respectively.

Loomis Sayles, the Plan's newest Principal Protection manager, was funded in Q1 2022 and returned 6.6% in Q4 of 2023, trailing the US Agg over the quarter by (0.2%). The Manager has outperformed the benchmark over the trailing 1-year period by 0.3%.

Asset Class Performance Net-of-Fees | As of December 31, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Crisis Risk Offset Asset Class	463,437,116	100.0	-6.7	-2.4	2.3	3.2	4.2
<i>CRO Benchmark</i>			3.3	2.7	0.5	3.9	3.9
Long Duration	116,518,012	25.1	12.5	4.1	-10.7	-1.2	--
<i>Blmbg. U.S. Treasury: Long</i>			12.7	3.1	-11.4	-1.2	--
Dodge & Cox Long Duration	116,518,012	25.1	12.5	4.1	-10.7	-1.2	--
<i>Blmbg. U.S. Treasury: Long</i>			12.7	3.1	-11.4	-1.2	--
Systematic Trend Following	224,454,543	48.4	-11.3	-6.9	9.5	7.6	7.3
<i>BTOP 50 (blend)</i>			-4.0	-1.6	7.5	6.8	3.6
Graham Tactical Trend	105,264,574	22.7	-14.7	-11.2	6.8	7.9	--
<i>SG Trend</i>			-5.1	-4.2	10.0	9.1	--
Mount Lucas	119,189,969	25.7	-8.1	-2.8	12.3	7.2	6.8
<i>BTOP 50 (blend)</i>			-4.0	-1.6	7.5	6.8	3.6
Alternative Risk Premium	122,464,561	26.4	-12.8	0.2	6.2	0.5	2.1
<i>5% Annual (blend)</i>			1.2	5.0	5.0	5.0	6.4
AQR Style Premia	62,524,112	13.5	-6.0	13.4	22.4	4.0	--
<i>5% Annual</i>			1.2	5.0	5.0	5.0	--
P/E Diversified Global Macro	59,940,449	12.9	-18.9	-10.7	6.8	-0.4	--
<i>5% Annual</i>			1.2	5.0	5.0	5.0	--

1 Market Values may not add up due to rounding.

2 (1/3) BB Long Duration Treasuries, (1/3) BTOP50 Index, (1/3) 5% Annual.

Crisis Risk Offset

During the latest three-month period ending December 31, 2023, a decidedly risk-on time for markets, all five of SJCERA's Crisis Risk Offset managers trailed their respective benchmarks. Overall, the Crisis Risk Offset sleeve returned (6.7%) over the most recent quarter, underperforming the benchmark by (10.0%).

Dodge & Cox Long Duration produced a positive quarterly return of 12.5%, which underperformed the Bloomberg US Long Duration Treasuries benchmark by (0.2%). However, the manager outperformed the benchmark over the 1- and 3- year periods by 1.0%, and 0.7%, respectively. The manager has performed in line with the benchmark over the trailing 5-year period.

Graham Tactical Trend, one of the Plan's Systematic Trend Following managers, underperformed the SG Trend Index for the quarter, 1-, 3-, and 5-year periods by (9.6%), (7.0%), (3.2%), and (1.2%).

Mount Lucas, one of the Plan's Systematic Trend Following managers, underperformed the Barclays BTOP 50 Index over the quarter and 1-year periods by (4.1%) and (1.2%), respectively. That said, it outperformed the benchmark over the 3-, 5- and 10-year periods by 4.8%, 0.4%, and 3.2%, respectively.

AQR, one of the Plan's Alternative Risk Premium managers, trailed its 5% Annual target for the quarter and 5-year periods by (7.2%) and (1.0%), respectively. That said, it outperformed the benchmark over the 1- and 3-year periods by 8.4% and 17.4%, respectively.

P/E Diversified, one of the Plan's Alternative Risk Premium managers, underperformed its 5% Annual target for the quarter, 1-, and 5-year periods by (20.1%), (15.7%), and (5.4%), respectively. However, the manager outperformed the benchmark over the 3-year period by 1.8%.

Benchmark History

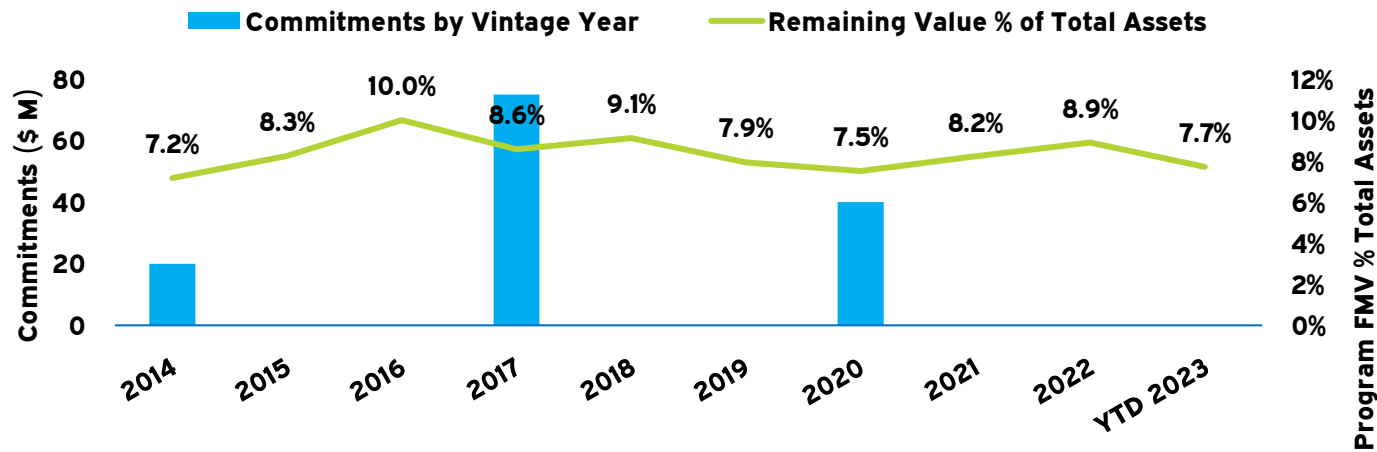
From Date	To Date	Benchmark
SJCERA Total Plan		
09/01/2023	Present	8.0% Blmbg. U.S. Aggregate Index, 34.0% MSCI AC World IMI (Net), 16.0% 50% BB US HY/50% S&P LSTA Lev Loan, 12.0% MSCI ACW +2% Lag, 7.0% NCREIF ODCE +1% lag (blend), 9.0% ICE BofAML 3mo US TBill+4%, 14.0% CRO Benchmark
04/01/2023	09/01/2023	9.0% Blmbg. U.S. Aggregate Index, 33.0% MSCI AC World IMI (Net), 16.0% 50% BB US HY/50% S&P LSTA Lev Loan, 10.0% MSCI ACW +2% Lag, 7.0% NCREIF ODCE +1% lag (blend), 10.0% ICE BofAML 3mo US TBill+4%, 15.0% CRO Benchmark
08/01/2022	04/01/2023	9.0% Blmbg. U.S. Aggregate Index, 33.0% MSCI AC World IMI (Net), 16.0% 50% BB US HY/50% S&P LSTA Lev Loan, 10.0% MSCI ACW +2% Lag, 7.0% NCREIF ODCE +1% lag (blend), 10.0% ICE BofAML 3mo US TBill+4%, 15.0% CRO Benchmark
04/01/2020	08/01/2022	10.0% Blmbg. U.S. Aggregate Index, 32.0% MSCI AC World IMI (Net), 17.0% 50% BB US HY/50% S&P LSTA Lev Loan, 10.0% MSCI ACWI +2% Lag, 6.0% NCREIF ODCE +1% lag (blend), 10.0% ICE BofAML 3mo US TBill+4%, 15.0% CRO Benchmark
01/01/2016	04/01/2020	16.0% Blmbg. U.S. Aggregate Index, 37.0% MSCI AC World Index, 2.0% ICE BofA 3 Month U.S. T-Bill, 15.0% 50% BB US HY/50% S&P LSTA Lev Loan, 10.0% MSCI ACWI +2% Lag, 14.0% ICE BofAML 3mo US TBill+4%, 6.0% CRO Benchmark
01/01/1988	01/01/2016	100.0% SJCERA Policy Benchmark
Aggressive Growth Lag		
01/01/2021	Present	50.0% MSCI ACWI +2% Lag, 50.0% NCREIF ODCE +1% lag (blend)
01/01/1990	01/01/2021	100.0% MSCI ACWI +2% Blend
Stabilized Growth		
01/01/2010	Present	52.0% 50% BB US HY/50% S&P LSTA Lev Loan, 18.0% NCREIF ODCE +1% lag (blend), 30.0% ICE BofAML 3mo US TBill+4%
Crisis Risk Offset Asset Class		
01/01/1987	Present	33.3% Barclay BTOP 50, 33.3% Blmbg. U.S. Treasury: Long, 33.4% 5% Annual

Real Estate Program
June 30, 2023

I	OVERVIEW
II	PROGRAM ACTIVITY
	Commitments
	Cash Flows
	Significant Events
III	PERFORMANCE ANALYSIS
	By Strategy and Vintage
	Across Time Periods
	Net Changes in Value
	Time-Weighted Performance
	Fund Performance: Sorted by Vintage and Strategy
IV	DIVERSIFICATION: FUND LEVEL
	Strategy
	Vintage
	Geographic Focus
V	Market Analysis
	END NOTES AND DISCLOSURES

Introduction

The Retirement Association's target allocation towards real estate assets is 17%. As of September 30, 2023, the Retirement Association had invested with 19 real estate managers (four private open-end and fifteen private closed-end). The aggregate reported value of the Retirement Association's real estate investments was \$309.1 million at quarter-end



Program Status

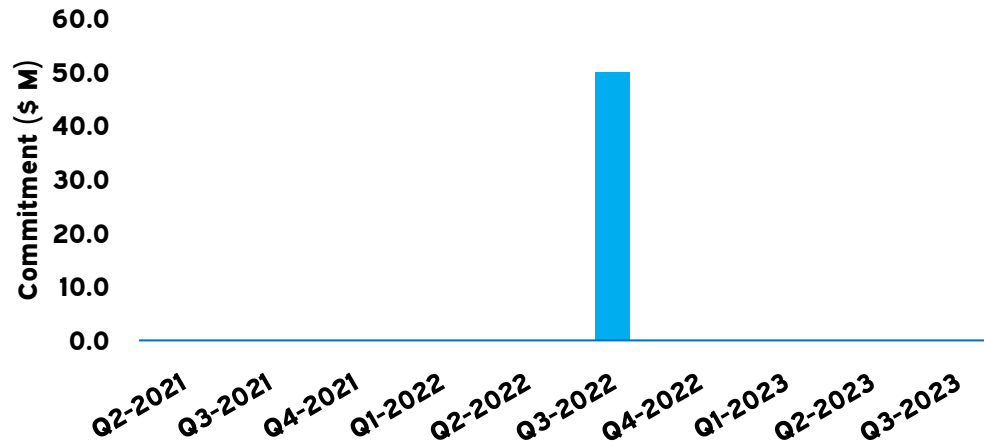
No. of Investments	19
Committed (\$ M)	551.6
Contributed (\$ M)	464.7
Distributed (\$ M)	405.2
Remaining Value (\$ M)	309.1

Performance Since Inception

	Program
DPI	0.87x
TVPI	1.54x
IRR	7.2%

Commitments

Recent Quarterly Commitments



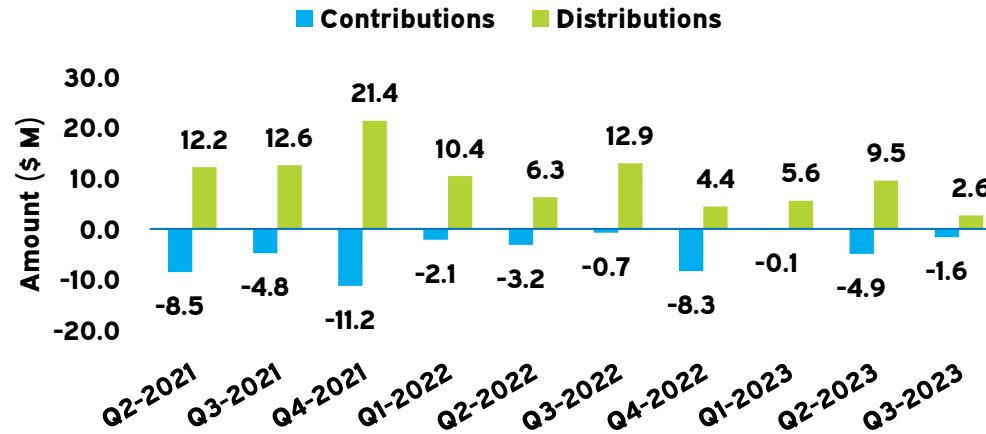
Commitments This Quarter

Fund	Strategy	Region	Amount (M)
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None to report.

Cash Flows

Recent Quarterly Cash Flows



Largest Contributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$M)
Prologis Logistics	2004	Core	North America	0.93
Greenfield VIII	2017	Opportunistic	North America	0.72
AEW EHF	2023	Core	North America	0.00

Largest Distributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$M)
Stockbridge RE III	2017	Value-Added	North America	1.59
RREEF America II	2002	Core	North America	0.44
AG Core Plus IV	2014	Value-Added	North America	0.30

Significant Events

During the third quarter, Prologis acquired two industrial assets for a combined total of \$60.1 million.

During the quarter, DWS RREEF II sold a 221,000-square-foot non-strategic suburban office asset located near Miami, FL. During the quarter, RREEF II also disposed of a non-strategic residential asset in Washington, DC.

Stockbridge Value Fund III disposed of Northview Plaza during the third quarter generating a realized IRR of 12.9% and an equity multiple of 1.9x over a six-year holding period.

Principal USPA acquired 30 additional homes within the existing scattered site single family rental portfolio, and disposed of an industrial property in New Brunswick, NJ, and Fort Lauderdale, FL. During the quarter USPA sold a grocer-anchored shopping center in Chicago, IL.

Post Q3 2023, Berkley V called \$30.8 million, bringing inception-to-date capital called to 84.4% of Fund commitments. The capital was used to pay down the floating rate subscription facility and fund working capital. The Funds investment period also ended shortly after 3Q 2023, on October 6, 2023.

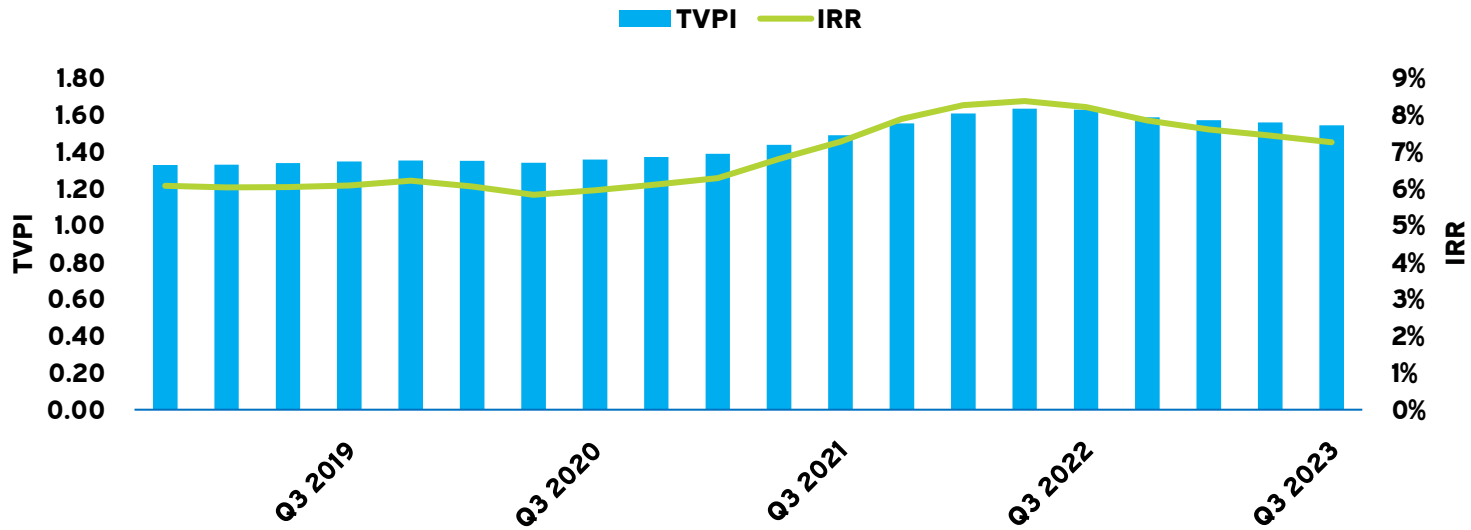
By Strategy

Group	Number	Committed (\$ M)	Contributed (\$ M)	Unfunded (\$ M)	Distributed (\$ M)	Remaining Value (\$ M)	Exposure (\$ M)	DPI (X)	TVPI (X)	IRR (%)
Core	4	170.5	128.8	50.0	36.0	222.9	272.9	0.28	2.01	7.9
Opportunistic	9	204.1	183.7	21.8	226.0	23.2	45.0	1.23	1.36	5.7
Value-Added	6	177.0	152.1	30.0	143.2	63.1	93.1	0.94	1.36	9.0
Total	19	551.6	464.7	101.8	405.2	309.1	410.9	0.87	1.54	7.2

By Vintage

Group	Number	Committed (\$ M)	Contributed (\$ M)	Unfunded (\$ M)	Distributed (\$ M)	Remaining Value (\$ M)	Exposure (\$ M)	DPI (X)	TVPI (X)	IRR (%)
Open-end Fund	4	170.5	128.8	50.0	36.0	222.9	272.9	0.28	2.01	7.9
2005	1	15.0	14.5	0.5	17.6	0.0	0.5	1.21	1.21	3.4
2006	1	30.0	30.0	0.0	20.8	0.6	0.6	0.69	0.71	-3.6
2007	4	96.0	84.0	12.0	116.2	6.7	18.7	1.38	1.46	7.4
2011	2	50.0	38.3	11.7	47.3	3.5	15.2	1.24	1.33	9.1
2012	2	36.0	33.9	2.9	49.0	0.0	2.9	1.45	1.45	12.5
2013	1	19.1	18.3	0.8	30.6	1.3	2.2	1.68	1.75	13.4
2014	1	20.0	19.0	1.8	15.0	7.3	9.1	0.79	1.17	3.8
2017	2	75.0	67.1	9.3	66.3	35.3	44.6	0.99	1.51	16.7
2020	1	40.0	30.9	12.8	6.4	31.5	44.3	0.21	1.23	13.6
Total	19	551.6	464.7	101.8	405.2	309.1	410.9	0.87	1.54	7.2

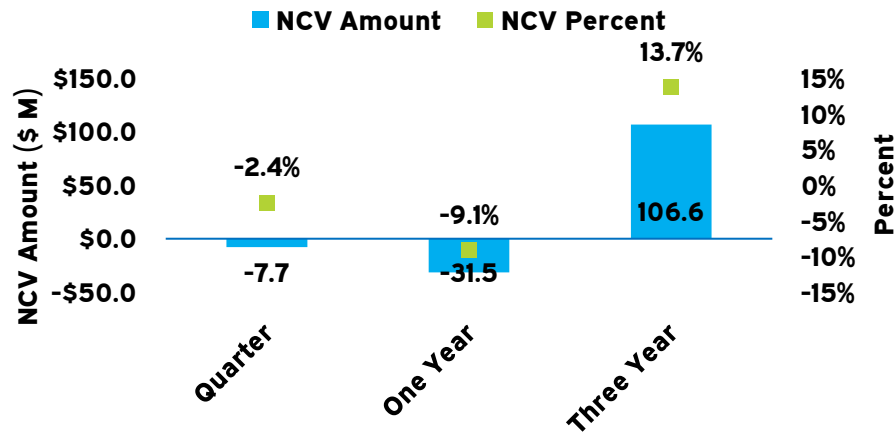
Since Inception Performance Over Time



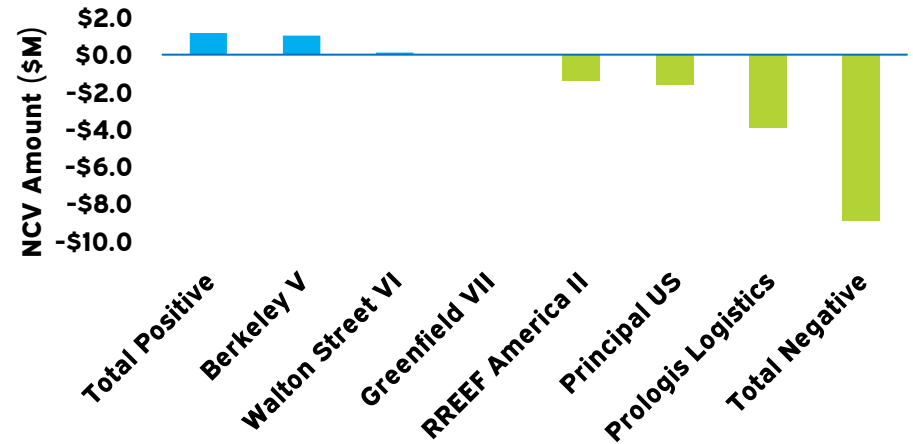
Horizon IRRs

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	-8.2	13.8	9.8	10.4	7.2
Public Market Equivalent	-0.7	0.7	-3.1	0.4	1.3

Periodic NCV



1 Quarter Drivers Of NCV

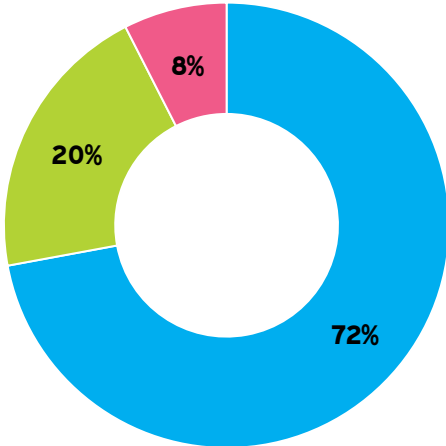


Fund Performance: Sorted By Vintage And Strategy

By Investment	Vintage	Strategy	Committed (\$ M)	Contributed (\$ M)	Unfunded (\$ M)	Distributed (\$ M)	Remaining Value (\$ M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
AEW EHF		Core	50.0	0.0	50.0	0.0	0.0	NM	NM	NM	NM
Principal US		Core	25.0	25.0	0.0	0.0	40.0	1.60	NM	6.7	NM
Prologis Logistics		Core	50.5	58.8	0.0	24.7	127.4	2.59	NM	8.6	NM
RREEF America II		Core	45.0	45.0	0.0	11.3	55.5	1.49	NM	6.2	NM
Miller GLocal Fund V	2005	Opportunistic	15.0	14.5	0.5	17.6	0.0	1.21	NM	3.4	NM
Walton Street V	2006	Opportunistic	30.0	30.0	0.0	20.8	0.6	0.71	NM	-3.6	NM
Greenfield V	2007	Opportunistic	30.0	29.6	0.4	40.7	0.0	1.38	NM	8.3	NM
Miller Global VI	2007	Opportunistic	30.0	21.1	8.9	33.4	0.0	1.58	NM	7.7	NM
Walton Street VI	2007	Opportunistic	15.0	13.3	1.7	15.2	6.7	1.65	NM	8.3	NM
Colony Realty III	2007	Value-Added	21.0	20.0	1.0	26.9	0.0	1.35	NM	5.3	NM
Greenfield VI	2011	Opportunistic	20.0	19.2	0.8	26.2	0.0	1.37	NM	9.6	NM
Almanac Realty VI	2011	Value-Added	30.0	19.1	10.9	21.2	3.4	1.29	NM	8.5	NM
Miller Global VII	2012	Opportunistic	15.0	12.1	2.9	16.1	0.0	1.33	NM	14.4	NM
Colony Realty IV	2012	Value-Added	21.0	21.7	0.0	32.9	0.0	1.51	NM	11.9	NM
Greenfield VII	2013	Opportunistic	19.1	18.3	0.8	30.6	1.3	1.75	NM	13.4	NM
AG Core Plus IV	2014	Value-Added	20.0	19.0	1.8	15.0	7.3	1.17	NM	3.8	NM
Greenfield VIII	2017	Opportunistic	30.0	25.7	5.7	25.5	14.5	1.56	NM	19.5	NM
Stockbridge RE III	2017	Value-Added	45.0	41.4	3.6	40.8	20.8	1.49	NM	15.1	NM
Berkeley V	2020	Value-Added	40.0	30.9	12.8	6.4	31.5	1.23	NM	13.6	NM
Total			551.6	464.7	101.8	405.2	309.1	1.54	NM	7.2	NM

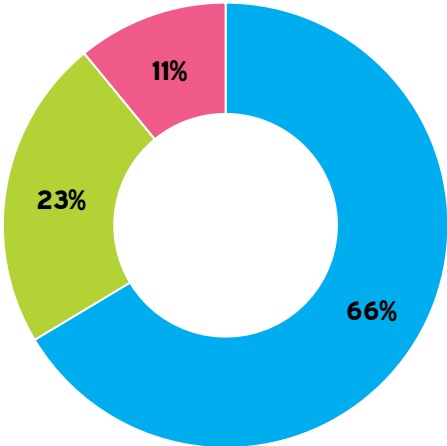
By Strategy

Percent of FMV



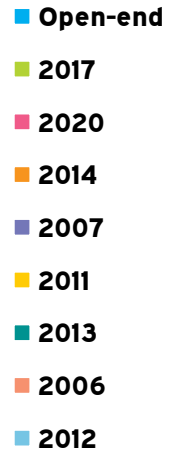
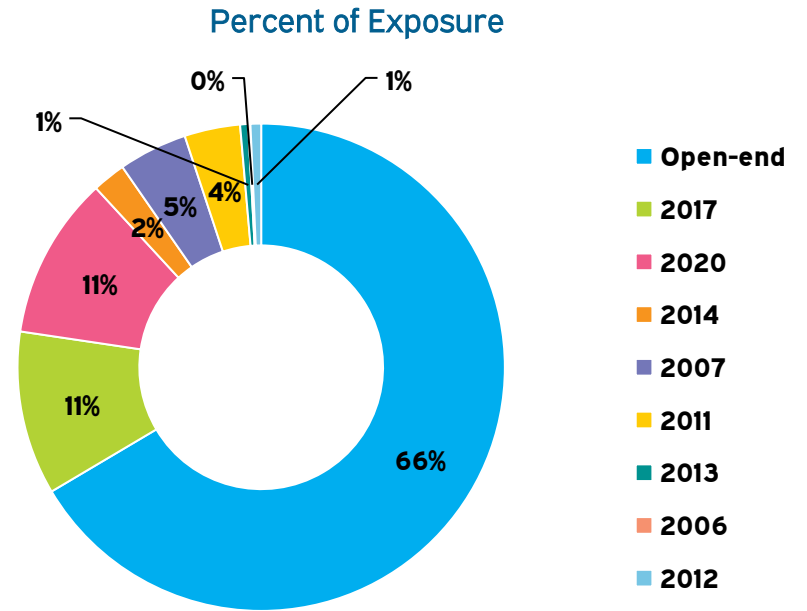
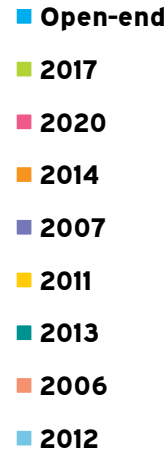
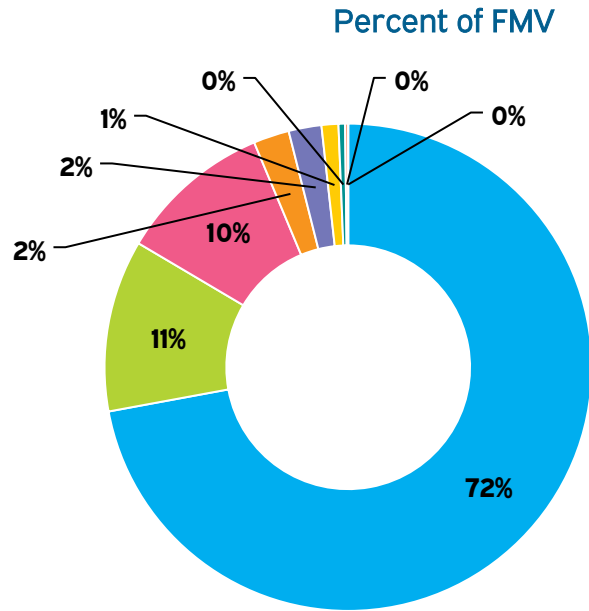
- Core
- Value-Added
- Opportunistic

Percent of Exposure



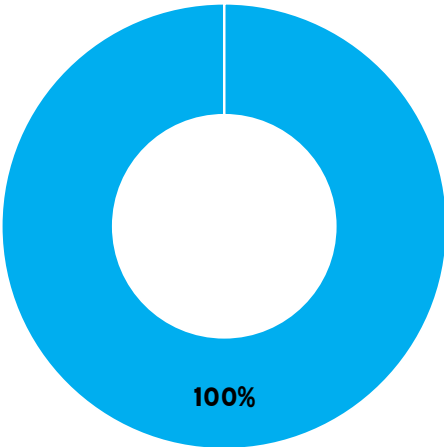
- Core
- Value-Added
- Opportunistic

By Vintage



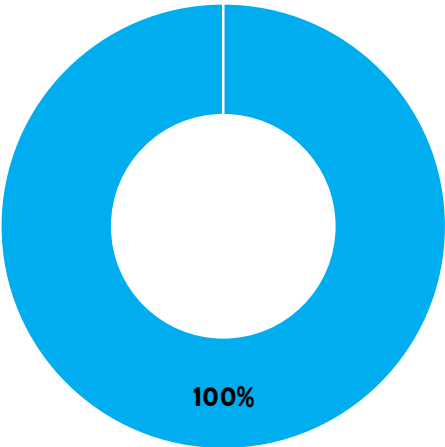
By Geographic Focus

Percent of FMV



■ North America

Percent of Exposure



■ North America

Below are details on specific terminology and calculation methodologies used throughout this report:

Committed	The original commitment amount made to a given fund. Some funds may be denominated in non-USD currencies, and such commitment amounts represent the sum of fund contributions translated to USD at their daily conversion rates plus the unfunded balance translated at the rate as of the date of this report.
Contributed	The amount of capital called by a fund manager against the commitment amount. Contributions may be used for new or follow-on investments, fees, and expenses, as outlined in each fund's limited partnership agreement. Some capital distributions from funds may reduce contributed capital balances. Some funds may be denominated in non-USD currencies, and such aggregate contributions represent the sum of each fund contribution translated to USD at its daily conversion rate.
Distributed	The amount of capital returned from a fund manager for returns of invested capital, profits, interest, and other investment related income. Some distributions may be subject to re-investment, as outlined in each fund's limited partnership agreement. Some funds may be denominated in non-USD currencies, and such aggregate distributions represent the sum of each fund distribution translated to USD at its daily conversion rate.
DPI	Acronym for "Distributed-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculation equals Distributed divided by Contributed. DPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.
Exposure	Represents the sum of the investor's Unfunded and Remaining Value.
IRR	Acronym for "Internal Rate of Return", which is a performance measurement for Private Market investments. IRRs are calculated by Meketa based on daily cash flows and Remaining Values as of the date of this report. IRRs for funds and groupings of funds are net of all fund fees and expenses as reported by fund managers to Meketa.
NCV	Acronym for "Net Change in Value", which is a performance measurement for Private Market investments. The performance calculation equals the appreciation or depreciation over a time period neutralized for the impact of cash flows that occurred during the time period.
NM	Acronym for "Not Meaningful", which indicates that a performance calculation is based on data over too short a timeframe to yet be meaningful or not yet possible due to inadequate data. Meketa begins reporting IRR calculations for investments once they have reached more than two years since first capital call. NM is also used within this report in uncommon cases where the manager has reported a negative Remaining Value for an investment.

Peer Universe

The performance for a set of comparable private market funds. The peer returns used in this report are provided by Thomson ONE, based on data from Cambridge Associates as of the date of this report. Program-level peer universe performance represents the pooled return for a set of funds of corresponding vintages and strategies across all regions globally. Fund-level peer performance represents the median return for a set of funds of the same vintage and the program's set of corresponding strategies across all regions globally. Data sets that include less than five funds display performance as "NM". Meketa utilizes the following Thomson ONE strategies for peer universes:

Infrastructure: Infrastructure

Natural Resources: Private Equity Energy, Upstream Energy & Royalties, and Timber

Private Debt: Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed

Private Equity (including Private Debt): Venture Capital, Growth Equity, Buyout, Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed

Private Equity (excluding Private Debt): Venture Capital, Growth Equity, and Buyout

Real Assets (excluding Real Estate): Infrastructure, Private Equity Energy, Upstream Energy & Royalties, and Timber

Real Assets (including Real Estate): Infrastructure, Private Equity Energy, Upstream Energy & Royalties, Timber, and Real Estate
Real Estate: Real Estate

Public Market Equivalent ("PME")

A calculation methodology that seeks to compare the performance of a portfolio of private market investments with public market indices. The figures presented in this report are based on the PME+ framework, which represents a net IRR value based on the actual timing and size of the private market program's daily cash flows and the daily appreciation or depreciation of an equivalent public market index. Meketa utilizes the following indices for private market program PME+ calculations:

Infrastructure: Dow Jones Brookfield Global Infrastructure Index

Natural Resources: S&P Global Natural Resources Index

Private Debt: Meryl Lynch High Yield Master II Bond Index

Private Equity: MSCI ACWI Investable Market Index

Real Assets (excluding Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index and S&P Global Natural Resources Index

Real Assets (including Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index, S&P Global Natural Resources Index, and Dow Jones U.S. Select Real Estate Securities Index

Real Estate: Dow Jones U.S. Select Real Estate Securities Index

Remaining Value

The investor's value as reported by a fund manager on the investor's capital account statement. All investor values in this report are as of the date of this report, unless otherwise noted. Some funds may be denominated in non-USD currencies, and such remaining values represent the fund's local currency value translated to USD at the rate as of the date of this report.

TVPI

Acronym for "Total Value-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculations represents Distributed plus Remaining Value, then divided by Contributed. TVPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.

Unfunded

The remaining balance of capital that a fund manager has yet to call against a commitment amount. Meketa updates unfunded balances for funds to reflect all information provided by fund managers provided in their cash flow notices. Some funds may be denominated in non-USD currencies, and such unfunded balances represent the fund's local currency unfunded balance translated to USD at the rate as of the date of this report.

Economic and Market Update

Data as of January 31, 2024

Commentary

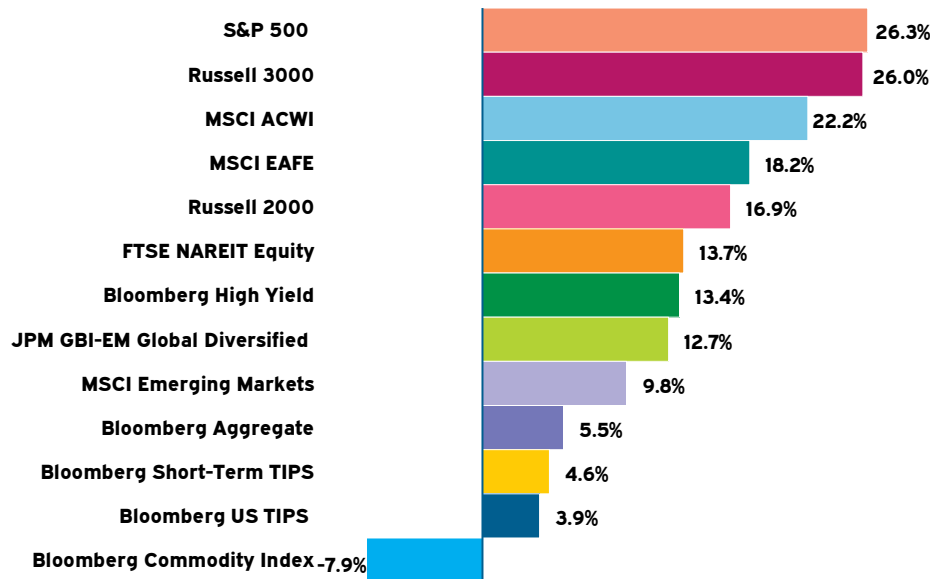
→ Markets were mixed in January after posting strong returns in 2023.

- Major central banks have largely paused interest rate hikes with expectations for many to cut rates this year. During the month there were signs though that many central banks, including the US, might not cut rates as soon as expected given strong economic data.
- In general inflation pressures have receded in most countries, but some uncertainty remains. Headline inflation fell in January in the US, but core inflation remained unchanged and elevated. China moved further into deflationary territory (-0.8%) in January.
- US equity markets (Russell 3000 index) rose 1.1% in January after a very strong 2023 (26.0%). There were mixed results across sectors, but technology continued to do well.
- Non-US developed equity markets gained 0.6% in January but 2.6% in local terms as the US dollar reversed course and strengthened during the month. The appreciation of the dollar was largely driven by strong economic data and related expectations that the Fed may delay policy rate cuts this year.
- Emerging market equity returns were also negatively influenced by the strong US dollar, but the biggest headwind in January was China (-10.6%). Emerging market equities had the weakest results for the month, down 4.6%.
- Bonds experienced selling pressure over the month, but ultimately finished the month nearly unchanged. The broad US bond market (Bloomberg Aggregate) declined (0.3%) in January.

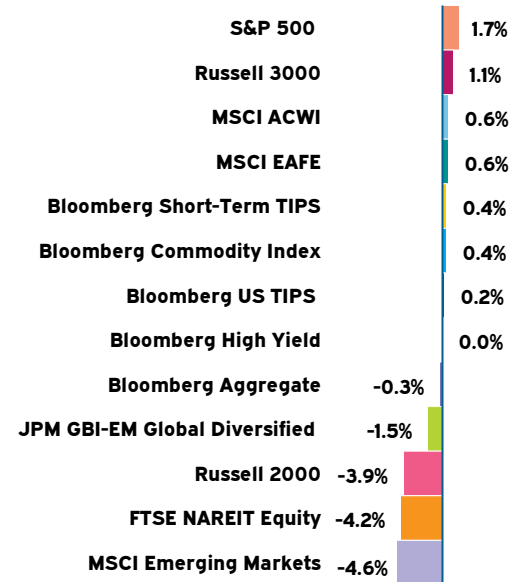
→ Looking to the rest of this year, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, the many looming elections, and the wars in Ukraine and Israel, will be key.

Index Returns¹

2023



January



→ After a strong market performance in 2023, the start of 2024 saw US large cap growth stocks continue their rally causing the S&P 500 to lead the way. Emerging market equity was the worst performer, dragged down by the continued sell-off of Chinese stocks.

→ Better than expected economic news in the US weighed on bond markets for the month with the broad US bond market (Bloomberg Aggregate) down slightly.

¹ Source: Bloomberg. Data is as of January 31, 2024.

Domestic Equity Returns¹

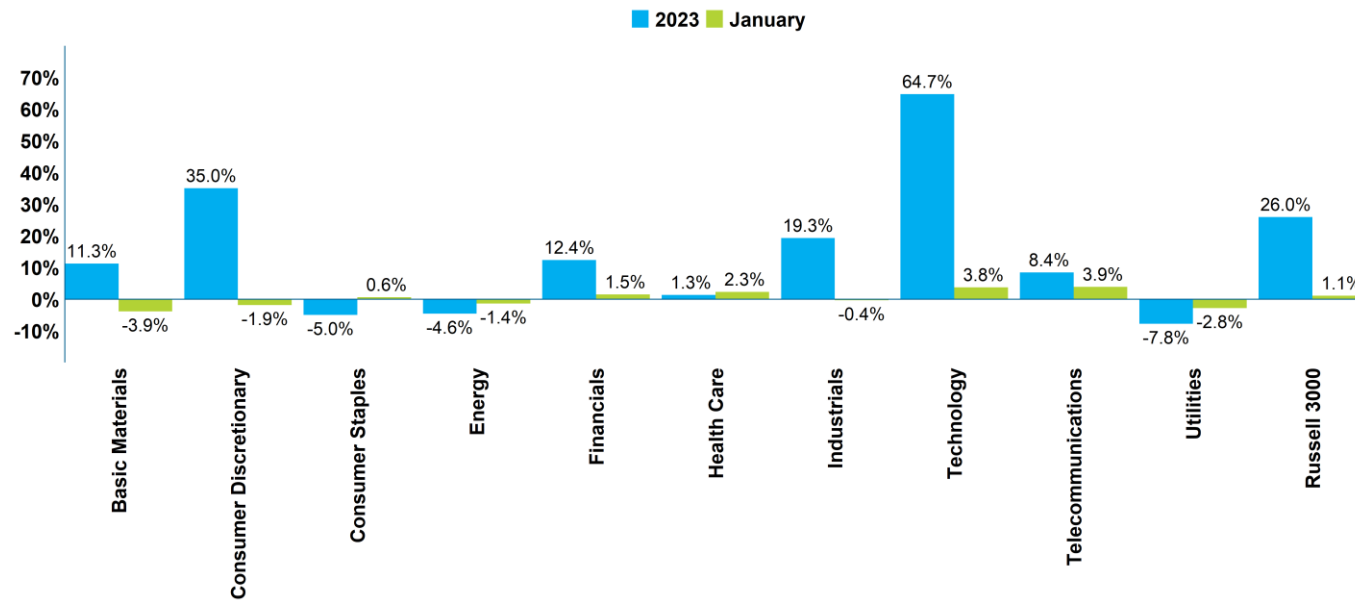
Domestic Equity	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	1.7	11.7	20.8	11.0	14.3	12.6
Russell 3000	1.1	12.1	19.1	9.1	13.5	12.0
Russell 1000	1.4	12.0	20.2	9.8	14.0	12.3
Russell 1000 Growth	2.5	14.2	35.0	10.0	18.0	15.5
Russell 1000 Value	0.1	9.5	6.1	9.2	9.3	8.8
Russell MidCap	-1.4	12.8	6.7	5.5	10.1	9.5
Russell MidCap Growth	-0.5	14.5	15.1	1.2	11.2	10.7
Russell MidCap Value	-1.8	12.1	2.4	7.8	8.6	8.2
Russell 2000	-3.9	14.0	2.4	-0.8	6.8	7.0
Russell 2000 Growth	-3.2	12.7	4.5	-6.0	6.2	7.0
Russell 2000 Value	-4.5	15.3	-0.1	4.5	6.7	6.7

US Equities: The Russell 3000 increased 1.1% in January with a one-year return of 19.1%.

- US equities built on their large gains from last year in January. Strong corporate earnings, economic data suggesting a soft landing might be achievable, and hopes for significant interest rate cuts (for most of the month) all drove results.
- Large cap stocks accounted for all the US equity market gains in January. NVIDIA, Microsoft, and Meta Platforms made up nearly 90% of the increase in the Russell 1000 index. Growth stocks outperformed value stocks across the market cap spectrum.
- While US equities advanced as a group, small and mid-cap stocks both declined in January. Banks contributed to this dynamic after a surprise loss at New York Community Bancorp rekindled fears regarding the banking system.

¹ Source: Bloomberg. Data is as of January 31, 2024.

Russell 3000 Sector Returns¹



→ In January, telecommunications (3.9%), technology stocks (3.8%), and health care (2.3%) outperformed other sectors. Traditionally defensive sector utilities (-2.8%) trailed along with basic materials (-3.9%) and energy stocks (-1.4%).

→ In 2023, technology (64.7%) and consumer discretionary (35.0%) sectors had the best results, helped respectively by artificial intelligence optimism and a healthy US consumer.

¹ Source: Bloomberg. Data is as of January 31, 2024.

Foreign Equity Returns¹

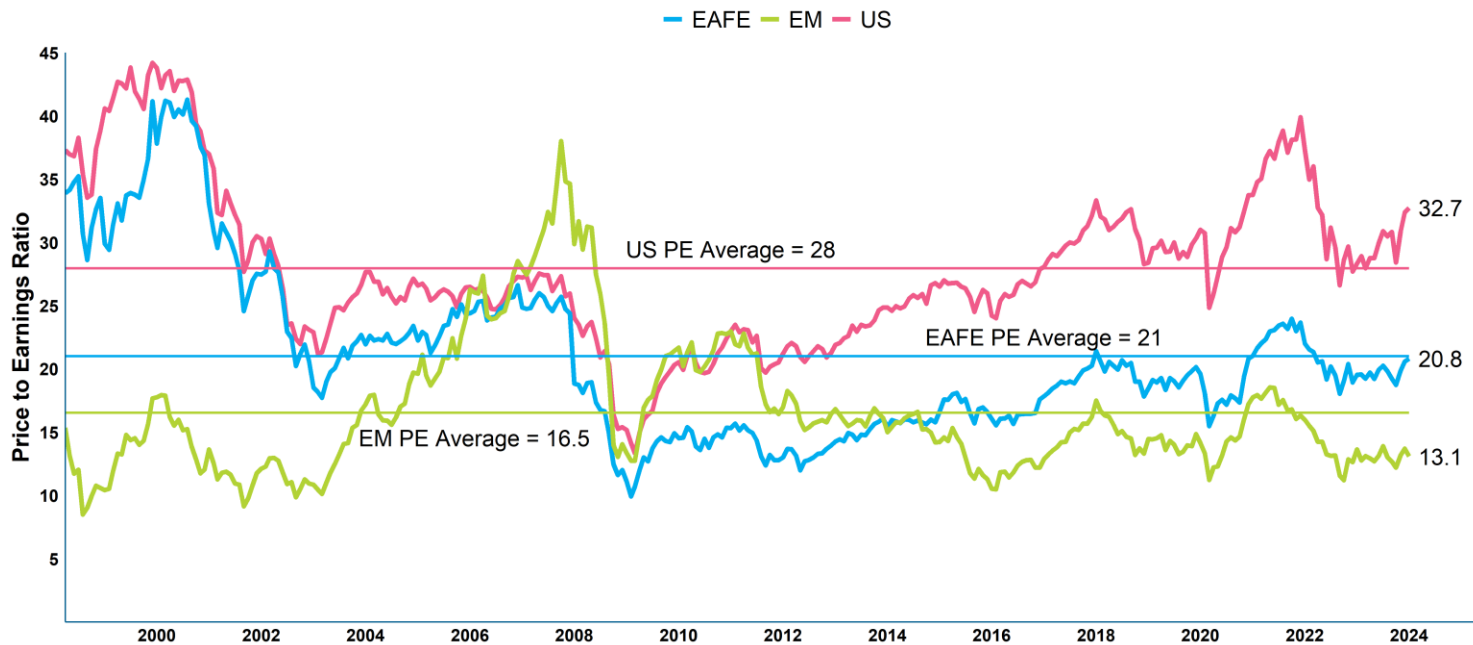
Foreign Equity	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-1.0	9.8	5.9	1.1	5.3	4.2
MSCI EAFE	0.6	10.4	10.0	4.6	6.9	4.8
MSCI EAFE (Local Currency)	2.6	5.0	12.1	9.7	8.9	7.2
MSCI EAFE Small Cap	-1.6	11.1	3.6	-1.1	4.6	4.8
MSCI Emerging Markets	-4.6	7.9	-2.9	-7.5	1.0	2.9
MSCI Emerging Markets (Local Currency)	-3.5	5.6	-0.5	-4.9	3.2	5.3
MSCI China	-10.6	-4.2	-29.0	-23.2	-6.9	0.4

Foreign Equity: Developed international equities (MSCI EAFE) gained 0.6% in January and had a one-year return of 10.0%. Emerging market equities (MSCI EM) fell -4.6% in January, and -2.9% for the trailing year.

- International developed equities saw slight gains for the month, while emerging market equities saw large losses for the same period; both were hampered by the US dollar reversing its sell-off from the end of last year. Outside of emerging markets, growth outperformed value for the month.
- Eurozone equities performed well, benefiting from ECB policy expectations, developments in the tech sector, and promising manufacturing data. U.K. equities stalled, as an unexpected increase in inflation pushed out the expected timing of rate cuts. Japan continues to see the highest returns globally over optimism on structural changes, January being no exception.
- EM equities continue to be bogged down by China (-10.6%) despite news of further stimulus by the PBOC.

¹ Source: Bloomberg. Data is as of January 31, 2024.

Equity Cyclically Adjusted P/E Ratios¹



→ In January, the US equity price-to-earnings ratio increased further above its 21st century average.

→ International market valuations were mixed in January and remain below the US. In the case of developed markets, valuations increased slightly to just below their long-term average, while emerging market valuations declined, remaining well below their average.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of January 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.

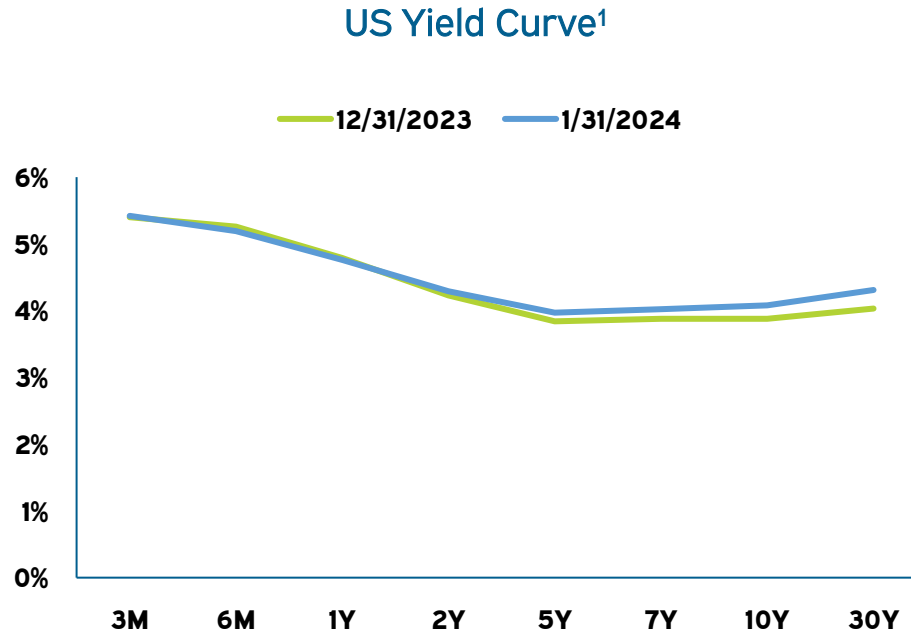
Fixed Income Returns¹

Fixed Income	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-0.2	6.8	2.7	-2.8	1.1	1.9	4.9	6.0
Bloomberg Aggregate	-0.3	6.8	2.1	-3.2	0.8	1.6	4.6	6.2
Bloomberg US TIPS	0.2	4.7	2.2	-1.0	2.9	2.2	4.2	6.9
Bloomberg Short-term TIPS	0.4	2.6	4.3	2.3	3.3	2.0	4.4	2.6
Bloomberg High Yield	0.0	7.2	9.3	1.9	4.4	4.5	7.8	3.7
JPM GBI-EM Global Diversified (USD)	-1.5	8.1	6.4	-3.3	-0.2	0.4	6.3	5.0

Fixed Income: The Bloomberg Universal index fell -0.2% in January but gained 2.7% on a one-year basis.

- Strong economic data in January and comments toward the end of the month by Federal Reserve Chair Jerome Powell hinting that rate cuts were not imminent drove rates up over the month, weighing on bonds.
- The broad US bond market (Bloomberg Aggregate) declined 0.3% for the month. The broader TIPS index rose 0.2%, while the less interest-rate-sensitive short-term TIPS index rose 0.4%.
- High yield bonds ended the month unchanged, while emerging market debt declined by 1.5%. Both asset classes produced double-digit gains last year.

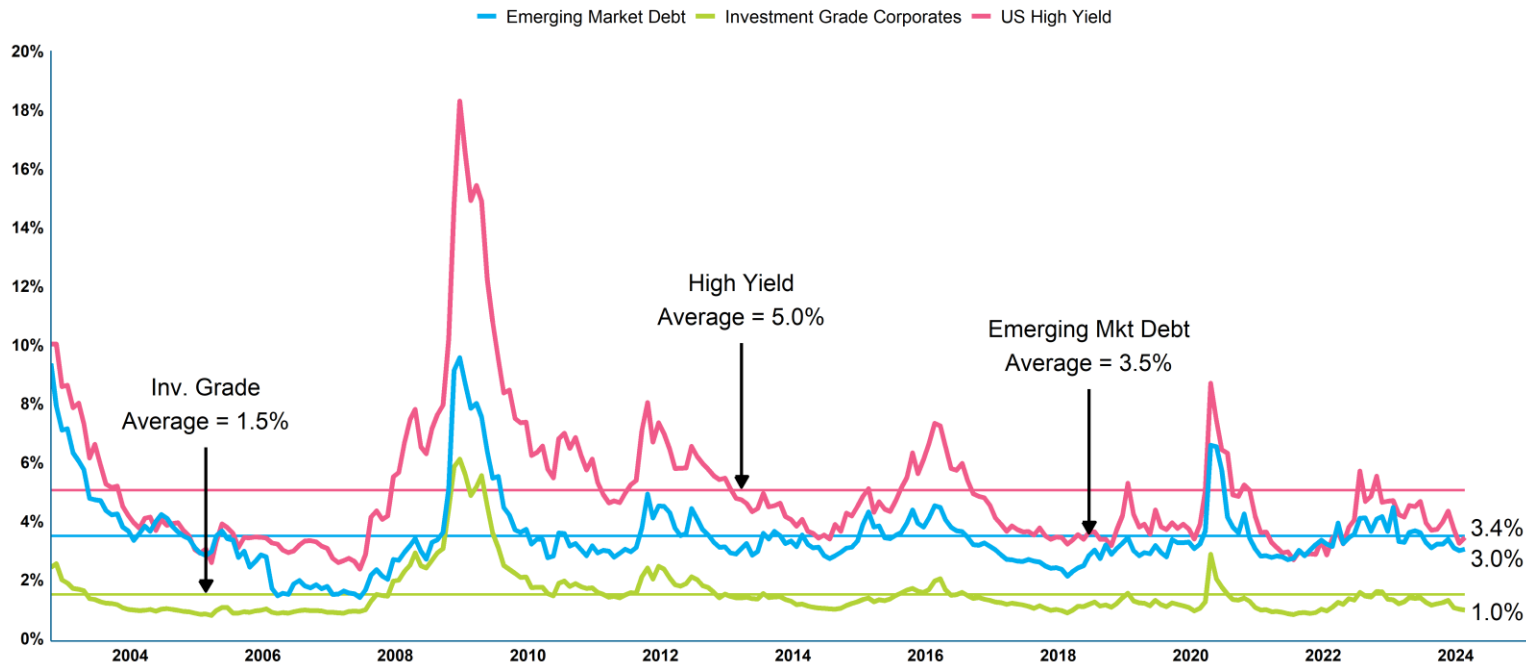
¹ Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of January 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- Both short-term and longer-term maturities ended the month largely unchanged, however, yields were volatile over the month on surprisingly strong economic data and shifts in monetary policy expectations.
- For the month, two-year Treasury yields ended at 4.2% (around 1% below the peak from October) while 10-year Treasury yields ended at 3.9%.
- The yield curve remained inverted at month-end despite a recent flattening trend. The yield spread between the two-year and ten-year Treasury was -0.3% at the end of January.

¹ Source: Bloomberg. Data is as of January 31, 2024.

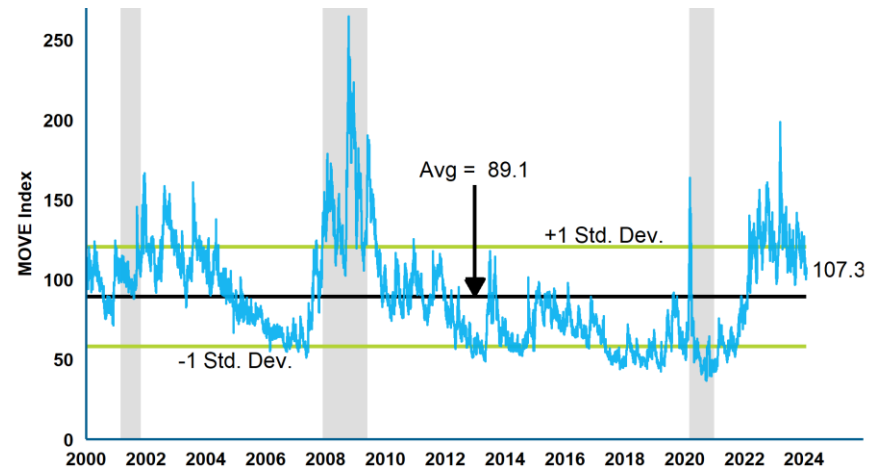
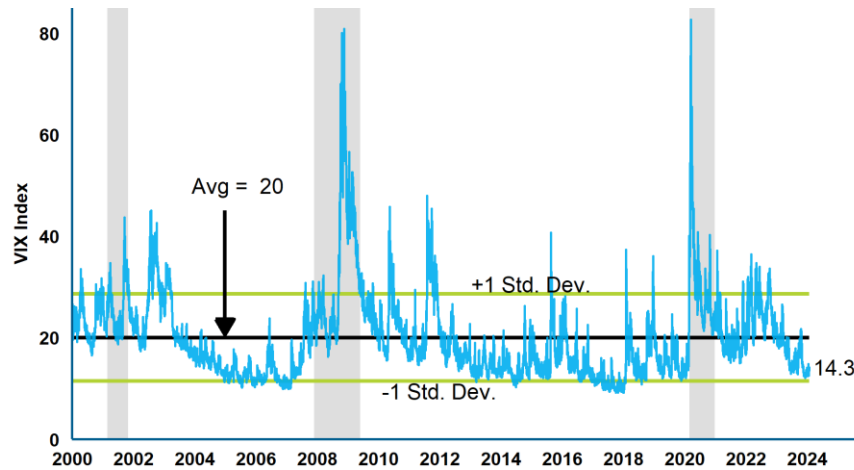
Credit Spreads vs. US Treasury Bonds¹



- Credit spreads widened slightly for high yield in January (3.2% to 3.4%) while spreads for investment grade corporate and emerging market bonds remained the same.
- Expectations of peaking policy rates and the corresponding increase in risk appetite has recently benefited credit, with spreads (the added yield above a comparable maturity Treasury) narrowing.
- All spreads remain below their respective long run averages, particularly within high yield.

¹ Sources: Bloomberg. Data is as of January 31, 2024. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

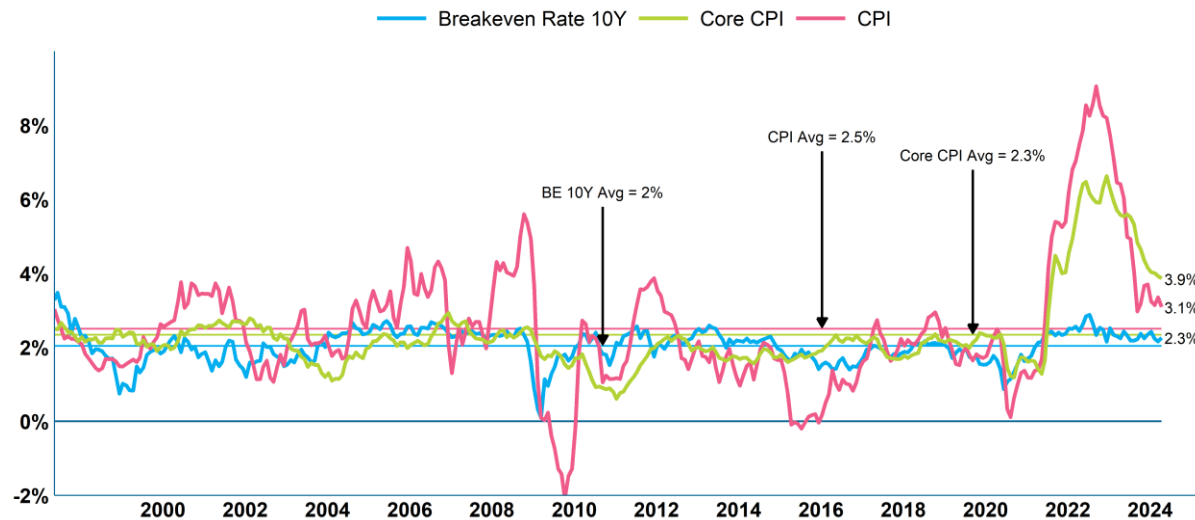
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) remains close to one standard deviation below the long-term average as the focus shifted late last year to peaking policy rates and the potential for a soft landing.
- Volatility in the bond market (MOVE) came down over the month (114.6 to 107.3) but remains elevated and well above its long-run average (89.1). The bond market remained on edge for most of 2023, driven largely by uncertainty about the ultimate path of monetary policy, as well as continued (and surprising) strength in economic data.

¹ Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of January 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and January 2024.

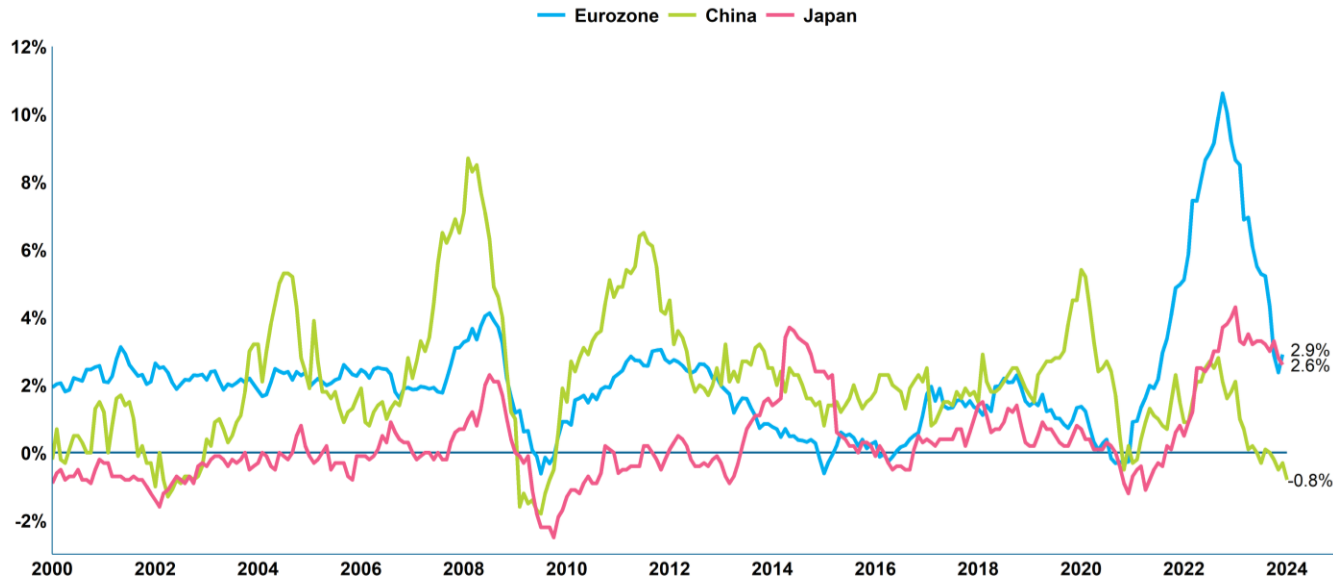
US Ten-Year Breakeven Inflation and CPI¹



- Year-over-year headline inflation declined in January (3.4% to 3.1%) but not by as much as expected (expectations were for a 2.9% reading). Month-over-month inflation came in at 0.3%, the same as last month and slightly above expectations of 0.2%. Shelter continues to keep inflation elevated, increasing 6.0% from a year prior. Food rose 2.6% over the same period, while downward pressure on energy prices continued, falling 4.6%.
- Core inflation - excluding food and energy - remained unchanged at 3.9% year-over-year (expectations were for a decline to 3.7%), with shelter costs again driving the total core index increase.
- Inflation expectations (breakevens) have remained relatively stable despite the recent significant volatility in inflation.

¹ Source: FRED. Data is as January 2024. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

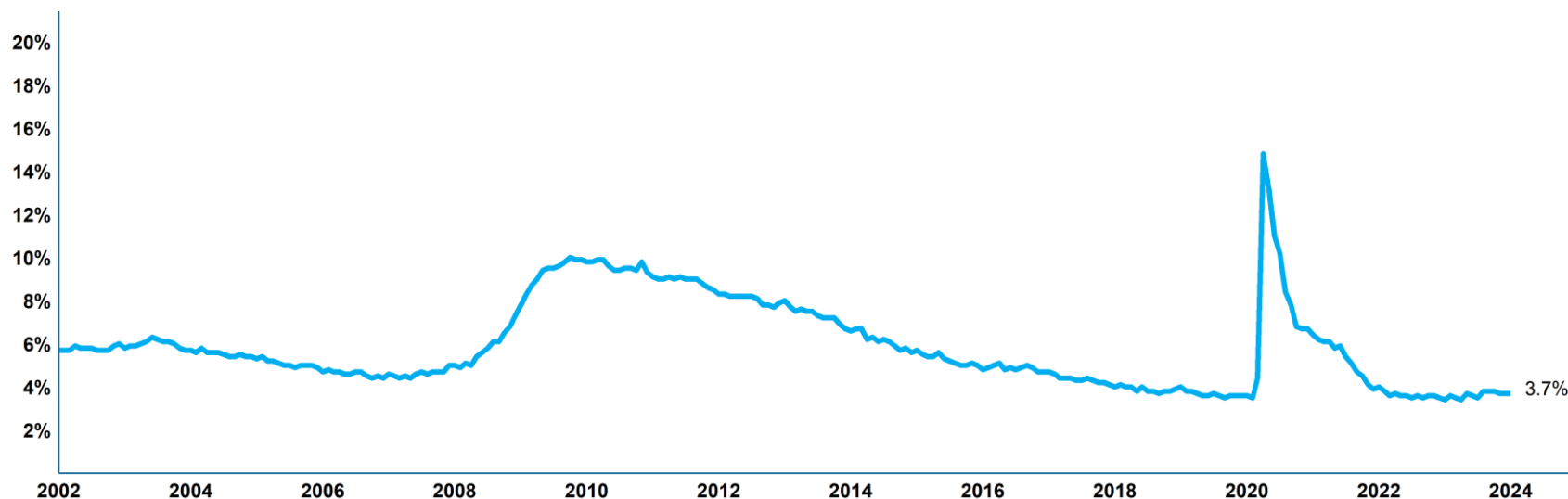
Global Inflation (CPI Trailing Twelve Months)¹



- Outside the US, inflation is also falling across major economies with China slipping further into deflation.
- In the eurozone, inflation experienced a dramatic decline last year. In January inflation rose slightly (2.8% to 2.9%) remaining below the 3.1% year-over-year level in the US.
- Inflation in Japan has slowly declined from the early 2023 peak, but it remains near levels not seen in almost a decade, largely driven by higher food prices.

¹ Source: FRED for United States CPI and Eurozone CPI. Source: Bloomberg for Japan CPI, China CPI, and Eurozone CPI. Data is as January 31, 2024, except Japan which is as of December 31, 2023.

US Unemployment¹

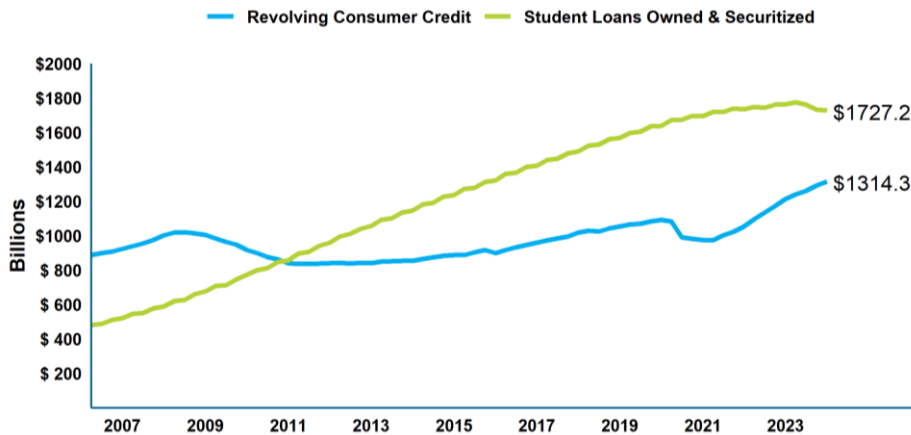


- Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- In January, the number of jobs added in the US were stronger than expected (353,000 versus 185,000) with the unemployment rate remaining at 3.7%. Payrolls from November and December of last year were also revised upward. Business and professional, health care, and retail sales jobs rose the most in January.
- The labor force participation remained relatively stable at 62.5%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%).
- The pace of hourly wage growth has declined from its peak of close to 6.0% but is above the 3.1% level of inflation. Wage growth rose at 4.5% year-on-year in January, an increase from the 4.1% level in December and above expectations of 4.1%.

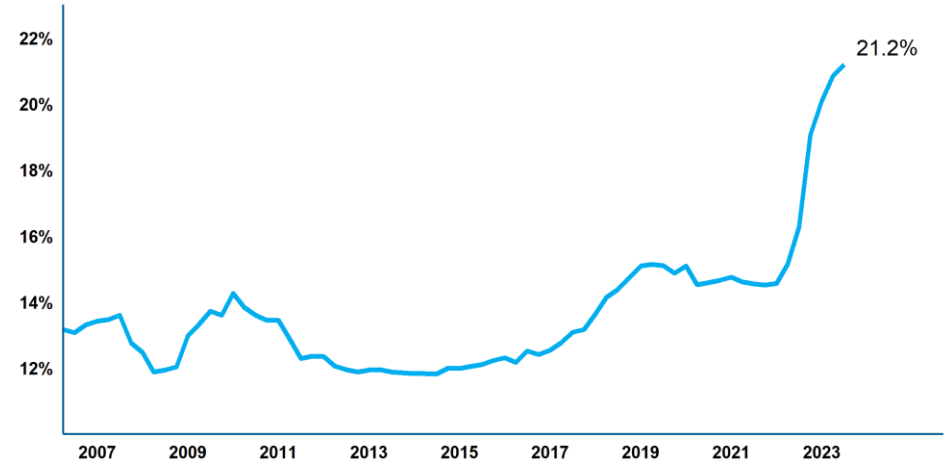
¹ Source: FRED. Data is as January 31, 2024.

US Consumer Under Stress?¹

Revolving Consumer Credit & Student Loans (\$B)



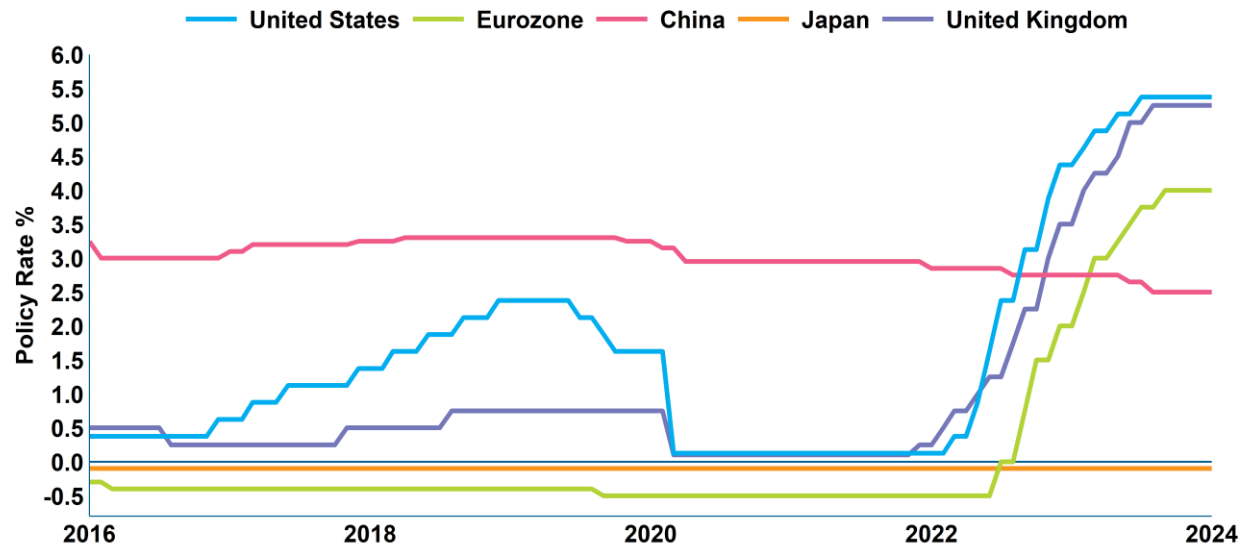
Consumer Credit Card Interest Rates (%)



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s). Recently we have also seen payment delinquencies on credit cards start to increase.
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

¹ Source: FRED. Data is as of December 31, 2023. Consumer Credit Card Rate data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.

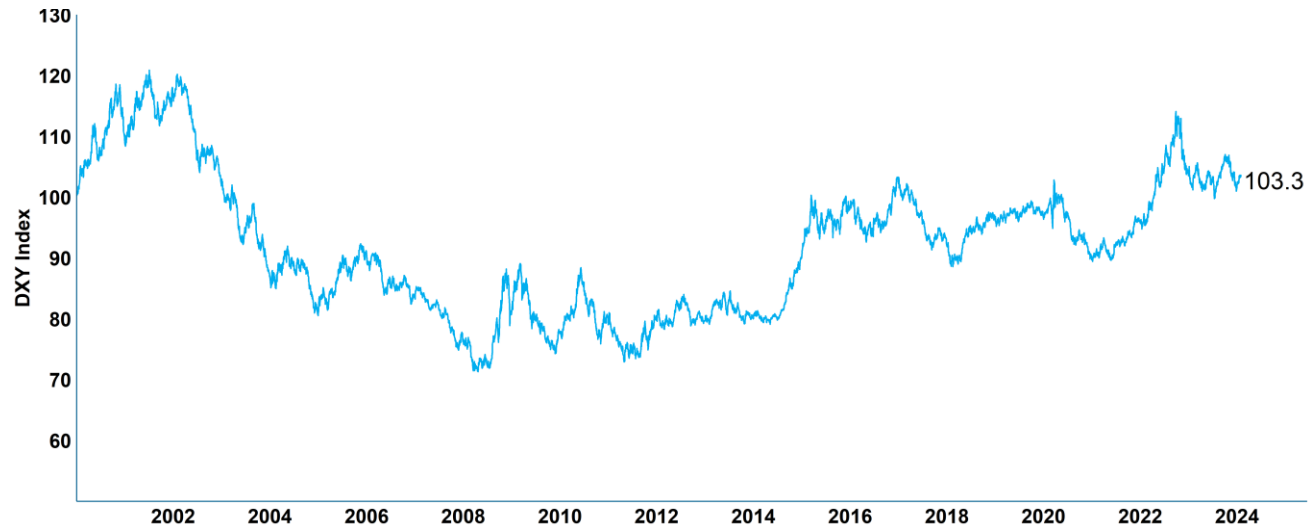
Policy Rates¹



- The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are now pricing in around four rate cuts this year down from close to seven late last year as economic data has come in above expectations. There remains a gap between the amount of rate cuts the Fed is predicting compared to the market's expectations, but it has significantly narrowed.
- The European and UK central banks also recently paused their rate increases on slowing inflation with cuts likely to follow there too. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

¹ Source: Bloomberg. Data is as of January 2024.

US Dollar vs. Broad Currencies¹



- Overall, the dollar finished last year only slightly below where it started but it was a volatile year for the US currency as expectations related to monetary policy evolved.
- Strong economic data in the US may delay policy rate cuts this year which could contribute to upward pressure on the dollar as other countries pivot to rate cuts.

¹ Source: Bloomberg. Data as of January 31, 2024.

Summary

Key Trends:

- The impact of inflation still above policy targets will remain important, with bond market volatility likely to stay high.
- Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession. In the case of the US the resolution of the disparity between market expectations for the path of interest rates versus the Fed's dot plot will be key.
- Global growth is expected to slow this year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will remain key in 2024.
- US consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- A focus for US equities going forward, will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including China's economic uncertainty and on-going weakness in the real estate sector which could spill over into key trading partners' economies. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.

Disclaimer, Glossary, and Notes

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security).

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} * (\text{market return} - \text{Risk Free Rate})]$.

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about its future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.
The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.

MEMORANDUM

TO: SJCERA Board of Retirement
FROM: Meketa Investment Group
DATE: March 8, 2024
RE: SJCERA Manager Certification Update: 4Q 2023 Overview and Responses

Summary of Responses

Meketa reviewed the SJCERA Quarterly Manager Certification Updates for the quarter ending December 31, 2023, from all funded managers. *In Meketa's opinion, of the responses we have received, the manager information reported for the quarter presents no significant concerns to the SJCERA portfolio.* Meketa's opinion is based on the written responses and on Meketa's conversations with managers that reported senior investment personnel or management departures.

The managers' responses indicate that¹:

→ All funded managers reported:

- Registered Investment Advisor in Good Standing, or are exempt,
- Compliance with Plan Investment Policy,
- Compliance with SJCERA's Manager Guidelines, or N/A,
- Reconciliation against the custodian, or N/A,
- Compliance with own internal risk management policies and procedures, and
- Delivered current ADV, SSAE-16 or equivalent Annual Financial Audits, as available.

→ Ten Managers reported litigation or regulatory investigation information (some managed by the same firm):

Almanac, Angelo Gordon, Bessemer, Blackrock, GQG, Loomis Sayles, Oaktree, Prologis, Stellex, and White Oak

→ Four managers reported investment team changes:

Crestline, GQG, Loomis Sayles, and Parametric

→ Eight managers reported material management changes:

Angelo Gordon, AQR, BlackRock, Davidson Kempner, Dodge & Cox, Loomis Sayles, Northern Trust and Principal

→ Three managers reported material business changes: (Angelo Gordon, AQR, and Stockbridge)

→ Bridgewater, DWS, Invesco, Lightspeed, Ocean Avenue, and PIMCO did not respond to the survey. However, Meketa continues to review these manager and continues to have confidence in their organizations.

¹ Managers' responses to footnoted (***) questions begin on page 6.



SJCERA Overview of Investment Mgr. Compliance Report

Manager	Sub-Segment	Q1 RIA in Good Standing; RIA	Q2 Complied with Plan Investment Policy	Q3 Complied w/ Mgr. Guidelines	Q4 Reconcile d With Custodian	Q5 Litigation	Q6 Investmen t Personnel Changes	Q7 Mgmt. Changes	Q8 Material Business Changes	Q9 Complied Internal Risk Mgmt.	Q10 Sent Fncl Strmnts
Aggressive Growth											
BlackRock	Global Infrastructure	Yes	Yes	Yes	N/A	Yes*	No	Yes*	No	Yes	Yes
BlackRock	Global Energy and Power	Yes	Yes	Yes	N/A	Yes*	No	Yes*	No	Yes	Yes
Ocean Avenue**	PE Buyout FOF	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lightspeed Partners**	Venture Growth Stage VC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Morgan Creek	Multi-Strat FOF	Yes	Yes	Yes	N/A	No	No	No	No	Yes	Yes
Stellax Capital Partners	PE Special Situations	Yes	Yes	Yes	N/A	Yes*	No	No	No	Yes	No
AG Core Plus	Pvt. Non-core RE	Yes	Yes	Yes	N/A	Yes*	No	Yes*	Yes*	Yes	Yes
Almanac Realty	Pvt. Non-core RE	Yes	Yes	Yes	No*	Yes*	No	No	No	Yes	No
Grandview	Pvt. Non-core RE	Yes	N/A	Yes	N/A	No	No	No	No	Yes	Yes
Stockbridge	Pvt. Non-core RE	Yes	Yes	Yes	Yes	No	No	No	Yes*	Yes	Yes
Walton Street	Pvt. Non-core RE	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Long Arc Capital	Growth Stage VC	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Bessemer	Venture Capital	Yes	Yes	Yes	N/A	Yes*	No	No	No	Yes	Yes
Ridgemont**	PE Buyout	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Traditional Growth											
Northern Trust	All Cap Global	Yes	Yes	Yes	Yes	No*	No	Yes*	No	Yes*	Yes
GQG	Emerging Mkts.	Yes	Yes	Yes	Yes	Yes*	Yes*	No	No	Yes	Yes
PIMCO**	Emerging Mkts.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Invesco**	REITS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stabilized Growth											
Bridgewater**	Risk Parity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PanAgora	Risk Parity	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Neuberger Berman	Opp. Credit	Yes	Yes	Yes	Yes	No	No	No	No	Yes	No
Stone Harbor	Abs. Return	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Stone Harbor	Bank Loans	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
BlackRock	Direct Lending	Yes	Yes	Yes	N/A	Yes*	No	Yes*	No	Yes	Yes

Stabilized Growth (continued)											
Crestline	Opportunistic	Yes	Yes	Yes	N/A*	No*	Yes*	No	No	Yes	Yes
Davidson Kempner	Opportunistic	Yes	Yes	Yes	Yes	No*	N/A	Yes*	No	Yes	Yes
Medley***	Direct Lending	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mesa West	Comm. Mortgage	Yes	Yes	Yes	Yes	No	No*	No	No	Yes	No
Oaktree	Leveraged Direct	Yes	Yes	Yes	Yes	Yes*	No	No	No	Yes	Yes
HPS	Direct Lending	Yes	Yes	Yes	No*	No*	No	No	No	Yes	Yes
Raven Capital	Direct Lending	Yes*	Yes	Yes	Yes*	No	No	No	No	Yes	Yes
White Oak	Direct Lending	Yes	Yes	Yes	Yes	Yes*	No*	No	No	Yes	Yes
Berkeley Partners	Value Add RE	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Principal	Pvt. Core RE	Yes	Yes*	Yes	N/A	No*	No	Yes*	No	Yes	Yes
Prologis Targeted US	Pvt. Core RE	N/A*	Yes	Yes	N/A*	Yes*	No	No	No	Yes	No
DWS / RREEF**	Pvt. Core RE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Principal Protection											
Dodge & Cox	Core Fixed Income	Yes	Yes	Yes	Yes	No*	No*	No*	No	Yes	Yes
Loomis Sayles	Core Fixed Income	Yes	Yes	Yes	Yes	Yes*	Yes*	Yes*	No	Yes	Yes
Crisis Risk Offset™											
Dodge & Cox	Long Duration	Yes	Yes	Yes	Yes	No*	No*	Yes*	No	Yes	Yes
Mount Lucas	Syst. Trend Following	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Graham	Syst. Trend Following	Yes	Yes	Yes	Yes	No*	No	No	No	Yes	Yes
AQR	Alt. Risk Premia	Yes	Yes	Yes	Yes	No*	No*	Yes*	Yes*	Yes	Yes
PE Investments	Alt. Risk Premia	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Overlay											
Parametric	PIOS Overlay Prgm	Yes	Yes	Yes	Yes	No	Yes*	Yes*	No	Yes	Yes
Consultant											
Meketa	Consultant	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes

* Detailed written response provided below

** Manager declined to provide written responses.

Performance Information through December 31, 2023									
Manager	Sub-Segment	Inception Date	Status	Benchmark	Ann. Excess (bps)		Peer Ranking		
					3 Yrs	5 Yrs	3 Yrs	5 Yrs	
Aggressive Growth									
BlackRock	Global Infrastructure	06/2023	Good Standing	MSCI ACWI +2%	n/a	n/a	n/a	n/a	
BlackRock	Global Infrastructure	7/2019	Good Standing	MSCI ACWI +2%	20	n/a	n/a	n/a	
Bessemer Forge Fund	PE Buyout	09/2023	Good Standing	MSCI ACWI +2%	n/a	n/a	n/a	n/a	
Lightspeed	Growth Stage VC	12/2023	Good Standing	MSCI ACWI +2%	n/a	n/a	n/a	n/a	
Long Arc	Growth Stage VC	06/2023	Good Standing	MSCI ACWI +2%	n/a	n/a	n/a	n/a	
Ocean Avenue II ¹	PE Buyout FOF	5/2013	Good Standing	MSCI ACWI +2%	1,980	1,350	n/a	n/a	
Ocean Avenue III ¹	PE Buyout FOF	4/2016	Good Standing	MSCI ACWI +2%	910	2,180	n/a	n/a	
Ocean Avenue IV	PE Buyout	12/2019	Good Standing	MSCI ACWI +2%	2,370	n/a	n/a	n/a	
Ocean Avenue V	PE Buyout	06/2023	Good Standing	MSCI ACWI +2%	n/a	n/a	n/a	n/a	
Morgan Creek III ⁴	Multi-Strat FOF	2/2015	Good Standing	MSCI ACWI +2%	-1,760 ⁴	-1,940 ⁴	n/a	n/a	
Morgan Creek V ¹	Multi-Strat FOF	6/2013	Good Standing	MSCI ACWI +2%	-110	-20	n/a	n/a	
Ridgmont Equity	Special Situation PE	6/2023	Good Standing	MSCI ACWI +2%	n/a	n/a	n/a	n/a	
Morgan Creek VI ¹	Multi-Strat FOF	2/2015	Good Standing	MSCI ACWI +2%	470	510	n/a	n/a	
Stellax Capital II	PE – Special Situations	7/2021	Good Standing	MSCI ACWI +2%	n/a	n/a	n/a	n/a	
AG Core Plus IV ³	Pvt. Non-core RE	2014	Good Standing	Private RE Benchmark	-1,570	-980	n/a	n/a	
Almanac Realty VI ³	Pvt. Non-core RE	2011	Good Standing	Private RE Benchmark	-960	-430	n/a	n/a	
Berkeley Partners V ³	Pvt. Non-core RE	2020	Good Standing	Private RE Benchmark	1,620	n/a	n/a	n/a	
Greenfield VII ³	Pvt. Non-core RE	2013	Good Standing	Private RE Benchmark	650	600	n/a	n/a	
Grandview ³	Pvt. Non-core RE	2018	Good Standing	Private RE Benchmark	380	n/a	n/a	n/a	
Stockbridge III ³	Pvt. Non-core RE	2017	Good Standing	Private RE Benchmark	610	n/a	n/a	n/a	
Walton Street VI ³	Pvt. Non-core RE	2007	Good Standing	Private RE Benchmark	500	-140	n/a	n/a	
Traditional Growth									
Northern Trust	All Cap Global	10/2020	Good Standing	MSCI ACWI IMI	n/a	n/a	n/a	n/a	
GQG	Emerging Mkts.	8/2020	Good Standing	MSCI Emerging Markets	n/a	n/a	n/a	n/a	
PIMCO	Emerging Mkts.	4/2007	Good Standing	MSCI Emerging Markets	1,390	460	n/a	n/a	
Invesco	REITS	8/2004	Good Standing	FTSE EPRA/NAREIT ex-US Equity	-160	-110	n/a	n/a	
Stabilized Growth									
Bridgewater ²	Risk Parity	3/2012	Good Standing	Bridgewater All Weather Blend	-740	-170	n/a	n/a	
PanAgora	Risk Parity	4/2016	Good Standing	T-Bill +4%	-1,270	-340	n/a	n/a	
Neuberger Berman ¹	Opp. Credit	2/2019	Good Standing	33% HY Const./33% S&P LSTA LL/ 33% JPMEBI Gbl Div.	-180	n/a	n/a	n/a	
Stabilized Growth (cont.)									

¹ Data is lagged 1 quarter.

³ Annual Excess returns for Private Non-Core Real Estate are as of 12/31/2023, lagged 1 quarter.

Performance Information through December 31, 2023								
Manager	Sub-Segment	Inception Date	Status	Benchmark	Ann. Excess (bps)		Peer Ranking	
					3 Yrs	5 Yrs	3 Yrs	5 Yrs
Stone Harbor ¹	Abs. Return	4/2008	Good Standing	3-Month Libor	140	230	n/a	n/a
BlackRock	Direct Lending	05/2020	Good Standing	Custom Credit Benchmark	-300	n/a	n/a	n/a
Silver Rock	Direct Lending	06/2023	Good Standing	Custom Credit Benchmark	n/a	n/a	n/a	n/a
Crestline ¹	Opportunistic	11/2013	Good Standing	CPI +6%	-1,410	-1,410	n/a	n/a
Davidson Kempner ¹	Opportunistic	10/2020	Good Standing	CPI +6%	-170	n/a	n/a	n/a
Medley ¹	Direct Lending	7/2012	Good Standing	CPI +6%	-1,200	-1,740	n/a	n/a
Mesa West IV ¹	Comm. Mortgage	3/2017	Good Standing	CPI +6%	-1,520	-1,030	n/a	n/a
Oaktree ¹	Leveraged Direct	3/2018	Good Standing	MSCI ACWI +2%	10	280	n/a	n/a
HPS	Direct Lending	8/2020	Good Standing	CPI +6%	-160	n/a	n/a	n/a
Raven Capital II ¹	Direct Lending	8/2014	Good Standing	CPI +6%	n/a	n/a	n/a	n/a
Raven Capital III ¹	Direct Lending	8/2015	Good Standing	CPI +6%	-680	-470	n/a	n/a
White Oak Summit ¹	Direct Lending	3/2016	Good Standing	CPI +6%	-1,240	-830	n/a	n/a
White Oak Yield Spectrum ¹	Direct Lending	3/2020	Good Standing	CPI +6%	-1,050	n/a	n/a	n/a
Principal ³	Pvt. Core RE	10/2015	Good Standing	Private RE Benchmark	-150	-110	n/a	n/a
Prologis Targeted US ³	Pvt. Core RE	9/2007	Good Standing	Private RE Benchmark	1,250	1,080	n/a	n/a
DWS / RREEF ³	Pvt. Core RE	4/2016	Good Standing	Private RE Benchmark	-130	-60	n/a	n/a
Principal Protection								
Dodge & Cox	Core Fixed Income	10/1990	Good Standing	BB Aggregate Bond	190	170	n/a	n/a
Loomis Sayles	Core Fixed Income	4/2022	Good Standing	BB Aggregate Bond	n/a	n/a	n/a	n/a
Crisis Risk Offset¹								
Dodge & Cox	Long Duration	2/2016	Good Standing	BB US Long Duration Treasury	70	10	n/a	n/a
Mount Lucas	Sys. Trend Following	1/2005	Good Standing	BTOP50 Index	470	40	n/a	n/a
Graham	Sys. Trend Following	4/2016	Good Standing	SG Trend	-330	-120	n/a	n/a
AQR	Alt. Risk Premia	5/2016	Good Standing	5% Annual	1,740	-100	n/a	n/a
P/E Investments	Alt. Risk Premia	7/2016	Good Standing	5% Annual	180	-540	n/a	n/a
Other								
Northern Trust	Govt. Short Term	1/1995	Good Standing	US T-Bills	-30	-30	n/a	n/a
Parametric	Long Duration	1/2020	Good Standing	n/a	n/a	n/a	n/a	n/a

¹ Data is lagged 1 quarter.

Manager Responses to Highlighted Questions

This section includes the verbatim text of the manager's response to any highlighted questions to provide more detail to the table above.

Angelo Gordon Litigation

From time to time, David Bonderman, James Coulter and Jon Winkelried (together, the "Control Group"), other TPG personnel and TPG-sponsored investment funds and their affiliated entities (including the general partner and management company of such funds) are involved in litigation and claims incidental to the conduct of our business. Most commonly such matters arise from, or relate directly to, our portfolio companies, borrowers or real estate ventures. Specifically, as a matter of course, TPG is party to various legal matters, including portfolio company shareholder suits, suits arising from portfolio company insolvency proceedings, labor and employment disputes, tort actions, or contract disputes, as well as suits arising from extensions of credit, including debtor insolvency proceedings and disputes with borrowers and other lenders. These proceedings rarely present a risk of material adverse impact to TPG's operations or our financial results. Exposure arising from these proceedings is often mitigated significantly or entirely by indemnification provisions in favor of TPG entities or personnel or available insurance coverage.

Angelo Gordon Management Changes

Richa Gulati, Chief Compliance Officer and Associate General Counsel, resigned from TPG Angelo Gordon to pursue another opportunity and her last day was Friday, October 6, 2023. The Compliance program is led by the CCO, Joann Harris, who reports to the firm's General Counsel (GC), Brad Berenson. Jenny Neslin, the AG Twin Brook Capital Income Fund ("TCAP") General Counsel & Secretary, has assumed the position of Chief Compliance Officer for TCAP.

Angelo Gordon Material Business Changes

Following the completion of our acquisition by TPG Inc. ("TPG") in November 2023, Angelo, Gordon & Co., L.P. ("TPG Angelo Gordon") is now a diversified credit and real estate investing platform within TPG. The responses provided herein reflect the business activities and operations of Angelo, Gordon & Co., L.P. prior to its acquisition. To the extent that any responses will need to be updated in light of the acquisition, these will be provided upon request when available.

Almanac Realty Reconciled with Custodian

The Fund relies on the audit exception to the Custody Rule by providing audited financials within 120 days. JP Morgan Chase is the custodian.

Almanac Realty Litigation

From time to time, Neuberger Berman and its employees are the subject of, or parties to examinations, inquiries and investigations conducted by US federal and state regulatory and other law enforcement authorities, non-US regulatory and other law enforcement authorities and self-regulatory organizations, including, but not limited to, the Securities and Exchange Commission ("SEC"), Financial

Manager Responses to Highlighted Questions (continued)

Industry Regulatory Authority (“FINRA”), the National Futures Association (“NFA”), and the Municipal Securities Rulemaking Board (the “MSRB”). Neuberger Berman routinely cooperates freely with such examinations, inquiries and investigations. Neuberger Berman is also involved, from time to time, in actual or threatened civil legal proceedings and arbitration proceedings concerning matters arising in connection with the conduct of its business. Neuberger Berman believes that none of these matters either individually or taken together, will have a material adverse impact on the firm's business. All material proceedings in which there has been a final determination against any of Neuberger Berman's US registered investment advisers or its broker-dealer are disclosed in such affiliate's Form ADV Part 1 (if a registered investment adviser), Form BD (if a registered broker-dealer) or NFA Basic (if a CFTC registrant), each of which is publicly available through the SEC at <http://www.adviserinfo.sec.gov>, FINRA at <http://www.finra.org>, or the NFA at www.nfa.futures.org, respectively.

In December 2020, the Neuberger Berman Group 401(k) Plan Investment Committee (the “Plan IC”) settled a class-action litigation related to a now-closed fund that had been previously offered in the Firm's 401(k) Plan. The settlement amount was \$17 million dollars, and as part of the settlement all claims relating to the litigation against the Plan IC and Firm were released. The Plan IC denied, and continues to deny, all allegations of wrongdoing and all liability for the allegations and claims made in the litigation. The Firm remains proud of its 401(k) Plan, which offers participants a broad range of investment options, including leading third-party managers and a brokerage window. NBAA was not a party to the litigation.

With regard to current litigation related specifically to Almanac Realty Investors, on September 14, 2020, an action was filed in Wisconsin state court (the “Wisconsin Action”) related to Vanta Commercial Properties, LLC, formerly T. Wall Properties L.L.C. (“Vanta”), a former portfolio investment (exited in November 2017) of the Partnership. The plaintiffs in that action (the “Wisconsin Plaintiffs”) allege nine “Counts”—all of which arise out of or relate to the operating agreement of Vanta – and name the Partnership, Almanac Realty Investors, LLC (“ARI”) (the predecessor-in-interest to the current manager of the Partnership) and other entities and individuals associated with the General Partner as defendants (collectively, the “Defendants”).

The principal allegations are that the Defendants engaged in a “Scheme,” involving Vanta's officers and directors, to liquidate Vanta's real estate holdings without the approval of the board of directors required under the operating agreement. Defendants believe that the lawsuit is without merit and are vigorously defending the action, including by suing in Delaware Court of Chancery (the “Delaware Action”) to enjoin the Wisconsin Plaintiffs from pursuing the Wisconsin Action. The Wisconsin Plaintiffs agreed to a voluntary stay of the Wisconsin Action pending the resolution of the Delaware Action, which the Wisconsin court entered on December 2, 2020.

On April 22, 2021, the Delaware Court of Chancery granted the motion of the Partnership (and the other Delaware plaintiffs) to permanently enjoin the Wisconsin Plaintiffs from pursuing eight of the nine

Manager Responses to Highlighted Questions (continued)

Counts in the Wisconsin Action; the Court later denied the motion as to the one remaining Count on May 19, 2021, and entered a final order as to both opinions on May 26, 2021 (the “Delaware Order”).

On June 22, 2021, the defendants in the Delaware Action (i.e., the Wisconsin Plaintiffs) filed a notice of appeal to the Delaware Supreme Court from the Delaware Order to the extent it enjoined them from pursuing eight Counts in the Wisconsin Action.

On December 15, 2021, the Delaware Supreme Court summarily affirmed the Delaware Order. On January 4, 2022, the Delaware Supreme Court issued its mandate to the Delaware Court of Chancery. On December 30, 2021, Vanta filed a motion to lift the stay of the Wisconsin Litigation and to file a proposed first amended complaint. On February 11, 2022, Vanta filed a First Amended Complaint. Also, on February 11, 2022 and following a scheduling conference, the Wisconsin Court entered an order directing Almanac to file a motion to dismiss on or before March 3, 2022, and setting a further scheduling conference for April 5, 2022.

On March 3, 2022, Almanac moved to dismiss Vanta’s remaining claim in the Wisconsin Litigation (the “Motion to Dismiss”). On August 5, 2022, the Wisconsin Court granted the Motion to Dismiss in part (as to two individual defendants), denied it in part (as to all other defendants except Almanac Realty Investors, LLC), and withheld ruling as to Almanac Realty Investors, LLC pending plaintiffs’ filing of a second amended complaint and further briefing. The Wisconsin Court ordered the plaintiffs in the Wisconsin Litigation to file a second amended complaint by September 6, 2022.

On August 19, 2022, Almanac filed a petition for leave to appeal the Wisconsin Court’s order denying the Motion to Dismiss with the Wisconsin Court of Appeals. On September 12, 2022, the Wisconsin Court of Appeals granted Almanac’s petition for leave to appeal. On September 19, 2022, VAT filed a notice of appeal of the Wisconsin Court’s order granting the Motion to Dismiss with the Wisconsin Court of Appeals.

On November 28, 2022, Almanac filed its opening brief in support of its appeal. On December 29, 2022, VAT filed its responsive appellate brief and opening brief in support of its appeal. Almanac filed its combined reply in support of its appeal and response to VAT’s appeal on January 30, 2023. VAT’s reply in support of its appeal was filed on February 14, 2023. The Wisconsin Court of Appeals heard oral argument on Almanac’s appeal on April 14, 2023.

On September 14, 2023 the Wisconsin Court of Appeals affirmed denial of our motion to dismiss, but on different grounds than the Circuit Court. The Court of Appeals also affirmed the dismissal of defendants Kaplan and Guenther, rejecting VAT’s cross-appeal.

On November 13, 2023, the Court presiding over the Wisconsin Litigation held a status conference and set a briefing and hearing schedule for currently pending and anticipated motions in the case, including Almanac’s forthcoming motion to dismiss Vanta’s Second Amended Complaint (“SAC”). The SAC

Manager Responses to Highlighted Questions (continued)

asserts claims for breach of contract, tortious interference with contract, and malicious injury to business against Almanac.

On December 18, 2023, Almanac filed a motion to dismiss all claims against Almanac in the SAC. The Court has scheduled oral argument on the motion to dismiss for March 20, 2024.

AQR Litigation

To the best of our knowledge, neither AQR nor any of AQR's Principals or employees is or has been the subject of a legal proceeding, a government inquiry, or any regulatory actions during the past quarter ending December 31, 2023, that would materially impact AQR's financial condition, its management of client assets or its provision of investment advisory services. AQR routinely engages in correspondence with, and from time to time receives document requests and inquiries from, the US Securities and Exchange Commission, The US Commodities Futures Trading Commission, the US Department of Labor and other regulatory and law enforcement agencies from various US and non-US jurisdictions. At this time, we are not aware of any inquiries or investigations that would have a material adverse effect on AQR's ability to conduct its business. Please note the historical matters set forth in item 11 of AQR's part 1 of Form ADV.

AQR Personnel Changes

Within our Macro Strategies Group investment team, which supports the strategy, there have been no senior-level (Managing Director and above) investment professional additions or departures over the past quarter ending December 31, 2023.

AQR Management Changes

Bryan Kelly (Principal, Research and Portfolio Management) joined the AQR partnership in January 2024.

Lars Nielsen (Principal, Research and Portfolio Management) departed during the quarter ending December 31, 2023.

AQR Material Business Changes

Please refer to our response directly above.

Bessemer Litigation

ONGOING MATTERS

Go Fig, Inc.

A former portfolio company in which the BVP VI Funds held a minority, non-controlling interest, Go Fig, Inc. ("Fig"), is currently engaged in bankruptcy proceedings pursuant to Chapter 7 of the Bankruptcy Code in the United States Bankruptcy Court for the Eastern District of Missouri. A creditor, GE Money Bank ("GE"), served a number of discovery requests on various parties, including the BVP VI Funds. The BVP VI Funds produced documents responsive to the discovery requests and Robert Stavis, a BVP

Manager Responses to Highlighted Questions (continued)

partner, who was a former director of Fig, appeared as BVP's representative for a deposition during mid-2008.

In October 2009, Fig's bankruptcy trustee outlined by letter its claims (a) against the BVP VI Funds and Rob Stavis for "aiding and abetting a breach of fiduciary duty" by others and (b) against Rob Stavis for a breach of a duty of loyalty and good faith. Based on advice received from our outside special legal counsel in Delaware, Morris Nichols Arsht & Tunnell, and litigation counsel in Missouri, Stinson Leonard Street, we believe that any such claims would be difficult to pursue, are not supported by legal precedent and are without merit.

In January 2014, the BVP VI Funds signed a settlement agreement with the bankruptcy trustee, providing for a full release of claims in exchange for a one-time payment by the BVP VI Funds of \$95,000. While the settlement agreement is technically awaiting court approval, the matter has been dormant since 2014. If eventually approved, it would resolve all claims that have been, or could be, made against BVP, any BVP fund and Rob Stavis in the bankruptcy case.

Approximately half of the settlement amount is expected to be reimbursed by Houston Casualty Company, the BVP VI Funds' insurer of record for the matter. In addition, we also were advised in May 2008 that Attorneys General for the states of Texas, Georgia, Kansas, Missouri, Ohio, Kentucky, and California had separately asserted claims against Fig. Purportedly, the Attorneys General alleged that the officers and directors of Fig operated their business in violation of state and local laws governing medical practice and consumer protection statutes. No activity has occurred in such investigations of which we are aware, and neither the BVP VI Funds nor Rob Stavis have been contacted in any way by such Attorneys' General. There also were several letters threatening litigations delivered to former directors of Fig, including Rob Stavis, in the months since the initial bankruptcy filings by certain of Fig's former investors and customers. These letters generally alleged breaches of duties by directors. We believe all such claims are without merit and are not aware that any party who sent such a letter has taken any other steps to pursue litigation.

Pinterest

In November and December 2020, certain of Pinterest's executives and members of its board of directors, including BVP partner Jeremy Levine, were named as defendants in shareholder derivative lawsuits filed in the US District Court for the Northern District of California. Pinterest was also named as a nominal defendant. The lawsuits purport to assert claims for breach of fiduciary duty in connection with allegations of gender and racial discrimination at Pinterest. In addition, the lawsuits purport to assert claims for waste, abuse of control, aiding and abetting breaches of fiduciary duties, unjust enrichment, and violations of Section 14(a) of the Exchange Act. The complaints seek declaratory and injunctive relief, corporate governance changes, monetary damages, interest, disgorgement, and fees and costs.

Manager Responses to Highlighted Questions (continued)

On July 14, 2021, another shareholder derivative complaint with similar allegations was filed in the same court and was subsequently related to the earlier action. The cases were referred to a magistrate judge for mediation, and the proceedings were stayed during the pendency of that mediation.

On November 24, 2021, the parties entered into a stipulation of settlement. A final approval for the settlement was granted on May 26, 2022. The court granted a portion of the attorneys' fees sought by Plaintiffs, while another portion remains contingent on certain conditions being fulfilled within two years of the settlement approval.

In March 2021, certain of Pinterest's executives and members of its board of directors (including BVP partner Jeremy Levine) were named as defendants in a shareholder derivative lawsuit filed in the Delaware Chancery Court. Pinterest was also named as a nominal defendant. The complaint alleged that executives and members of the board breached their fiduciary duties to the company in connection with allegations of gender and racial discrimination at Pinterest. The complaint sought damages, litigation costs, and interest.

On May 10, 2021, the court stayed this lawsuit in light of the related pending case in the Northern District of California. On July 21, 2022 the matter was dismissed. Pinterest has indemnified and provided a defense to Mr. Levine in connection with the above referenced matters.

Welltok

In December 2021, a portfolio company of the BVP VIII Funds, Welltok, Inc., received e-mails and letters threatening litigations in connection with Welltok's acquisition of Wellpass, Inc. These letters that have been delivered by or on behalf of the former stockholders of Wellpass, Inc., generally allege breaches of fiduciary duties and fraud by Welltok and its directors, including BVP partner Stephen Kraus. The BVP funds are not named in these matters. We believe that any such claims are without merit and no formal litigation has been filed as of this date.

Bright Health

On January 6, 2022, a putative securities class action lawsuit was filed against Bright Health Group and certain of its officers and directors, including BVP partner Stephen Kraus, in the Eastern District of New York. The case is captioned *Marquez v. Bright Health Group, Inc. et al.*, 1:22-cv-00101 (E.D.N.Y.). The lawsuit alleges, among other things, that Bright Health Group made materially false and misleading statements regarding our business, operations, which in turn adversely affected our stock price.

An amended complaint was filed on June 24, 2022, which expands on the allegations in the original complaint and alleges a putative class period of June 24, 2021 through March 1, 2022. The amended complaint also adds as defendants the underwriters of Bright Health Group's initial public offering. The Company has served a motion to dismiss the amended complaint, which has not yet been ruled on by the court.

Manager Responses to Highlighted Questions (continued)

By letter dated January 28, 2022, Bright Health Group received a demand from a purported shareholder to inspect its books and records pursuant to Delaware law. The demand sought information related to the December 6, 2021 Investment Agreement that the Company entered into with NEA and Cigna. The Company and the shareholder's counsel executed a confidentiality agreement, and produced certain books and records in response to the demand.

On June 3, 2022, the purported shareholder filed a putative class action complaint against the Company and its Board of Directors alleging that the standstill provisions and certain transfer restrictions in the Investment Agreement breached fiduciary duties to shareholders. The case is captioned *Berger v. Adkins et al.*, 2022-0487 (Del. Ch.). The complaint seeks declaratory and injunctive relief, and an award of attorneys' fees, but does not allege damages. The Company filed a motion to dismiss the complaint, which has not yet been ruled on by the court. The parties are also currently preparing to exchange discovery. Bright Health will indemnify and provide a defense to Mr. Kraus in connection with the above referenced matters.

Joseph Cima Derivatively on Behalf of OvaScience, Inc. v. Dipp et al.

On November 9, 2016, a purported shareholder derivative action was filed in Massachusetts State court (*Cima v. Dipp*) against OvaScience and certain former officers and directors of OvaScience (including BVP Partner Stephen Kraus) and OvaScience alleging breach of fiduciary duties, unjust enrichment, abuse of control, gross mismanagement and waste of corporate assets for purported actions related to OvaScience's January 2015 follow-on public offering.

As of September 12, 2022, the parties have reached an agreement in principle and have executed a term sheet in connection with a settlement. On September 13, 2022, the parties filed a joint motion to stay the case pending settlement.

On September 15, 2022, the court issued a 90 day nisi order. The parties are in discussions regarding a potential attorney fee award. If the parties cannot reach a resolution regarding a fee award, any potential award will be determined by the Court. Any final settlement is subject to Court approval. OvaScience has been indemnifying and providing a defense to Mr. Kraus in connection with the above referenced matters.

Hyde Park Venture Partners Fund III, L.P. vs. FairXchange, LLC

Hyde Park Venture Partners Fund III, L.P. is in litigation with FairXchange, LLC. In connection with this matter, FairXchange issued a non-party subpoena to BVP in January 2023. The subpoena requests production of certain categories of documents relating to certain BVP investment activities. Please note that FairXchange is not and was never a BVP portfolio company. BVP has engaged Lowenstein Sandler to assist with this matter.

Manager Responses to Highlighted Questions (continued)

Federal Trade Commission v. Meta Platforms, Inc.

The US Federal Trade Commission (“FTC”) is in litigation with Meta Platforms, Inc. (“Meta”). In connection with this matter, Meta and the FTC each issued a non-party subpoena to BVP in March 2022 and May 2022, respectively. The subpoena requests production of certain categories of documents relating to certain BVP investment activities. We understand that a number of tech companies and venture funds may have received similar subpoenas from Meta and we believe that these requests are being made by Meta and FTC broadly to gather data for their respective cases. Please note that Meta is not and was never a BVP portfolio company. BVP has engaged Orrick Herrington and Sutcliffe to assist with this matter.

Holiday Travel Triangle

In December 2019, BVP partner Anant Vidur Puri was named, alongside certain other persons, in a Petition in the matter of: Sankalp Agarwal & Another versus Holiday Travel Triangle & Others in his capacity as a director of Holiday Travel Triangle. BVP was also named in such matter. The matter relates to the removal of the CEO from the Company and his petition to enjoin the majority shareholders from taking any action with respect to the Company (including but, not limited to, his removal from the CEO position). The defendants believe the petition to be without merit. The parties are actively working to settle the matter outside of court. To our knowledge, this matter remains unresolved at this time.

Rupify

In November 2022, BVP partner Vishal Gupta was named, alongside certain other persons, in a Petition in the matter of: Ankit Singh v. Rupify in his capacity as a director of Rupify. BVP was also named in such matter. The matter relates to the removal of an employee from the Company and its board and his petition for oppression and mismanagement as it relates to such action. The defendants believe the petition to be without merit. The parties are actively working to settle the matter outside of court. To our knowledge, this matter remains unresolved at this time.

Michael Green Matter

In September 2022, Michael Green contacted BVP claiming the BVP website violated certain of his private rights under EU GDPR and UK Data Protection Act. The matter was settled with Mr. Green in October 2022 for less than GBP2,000 and BVP’s website was updated.

Jamey Smith Matter

In December 2022, we received a letter claiming that BVP erroneously filed a 1099B with respect to a share distribution to a Mr. Jamey Smith. This alleged error allegedly triggered an IRS notice and audit for Mr. Smith. After internal review and discussion with counsels for BVP and Mr. Smith, it was determined that the allegedly IRS notice was likely a phishing attempt. The lawyers for Mr. Smith have confirmed that they consider this matter to be closed with Bessemer.

Manager Responses to Highlighted Questions (continued)

Forge Global Trademark

In December 2022, BVP received a letter from Forge Global requesting that BVP discontinue the use of BVP Forge, ForgeEdge and Forge. BVP believes the request to be without merit and has engaged counsel to dispute the request.

HISTORIC MATTERS

Blue Apron Matters

Nurlybayev v. Blue Apron Holdings, Inc. et al. (including Robert Goodman, a BVP partner and BVP's representative on the board of directors), re-captioned after class certifications as *In re Blue Apron Holdings, Inc. Securities Litigation*

In August 2017, claims were asserted against Blue Apron, a portfolio company of the BVP VIII funds, and board members, including BVP partner Robert Goodman, under Sections 11, 12(a)(2), and 15 of the Securities Act alleging, among other things, that the defendants made false and misleading statements in the Company's registration statement and prospectus.

On August 11, 2020, the parties held a mediation after which they entered into a memorandum of understanding on August 14, 2020 regarding a proposed settlement.

On October 28, 2020, the Company entered into a stipulation and agreement of settlement to resolve the class action litigation. Under the terms of the settlement, a payment of \$13.3 million is to be made by the Company and/or its insurers in exchange for the release of claims against the defendants and other released parties by the lead plaintiff and all settlement class members and for the dismissal of the action with prejudice. The settlement was approved and entered on May 3, 2021. Mr. Goodman has not incurred any out-of-pocket expenses in connection with the settlement.

Ivan v. Blue Apron Holdings, Inc.

In August 2017, claims were asserted under Sections 11, 12(a)(2), and 15 of the Securities Act alleging, among other things, that the defendants made false and misleading statements in the Company's registration statement and prospectus. The case was consolidated into *Nurlybayev* under the Private Securities Litigation Reform Act during lead plaintiff selection process.

Chaudhry v. Blue Apron Holdings, Inc.

In August 2017, claims were asserted under Sections 11 and 15 of the Securities Act alleging, among other things, that the defendants made false and misleading statements in the Company's registration statement and prospectus. The case was voluntarily dismissed on December 20, 2017.

Manager Responses to Highlighted Questions (continued)

Speiser v. Blue Apron Holdings, Inc.

In August 2017, claims were asserted under: (1) Sections 10(b) of the Exchange Act and Rule 10b5 promulgated thereunder, (2) Section 20(a) of the Exchange Act, (3) Section 11 of the Securities Act, and (4) Section 15 of the Securities Act alleging, among other things, that the defendants made false and misleading statements in the Company's registration statement and prospectus. The case was voluntarily dismissed on October 4, 2017.

Sciabacucchi v. Salzberg et al. (including Robert Goodman, a BVP partner and BVP's representative on the board of directors)

In December 2017, claims were asserted against Blue Apron, Roku, and Stitch Fix alleging violations of Delaware law by including in their Certificates of Incorporation clauses purporting to require shareholders to bring all claims under the Securities Act of 1933 in federal court only. Seeks declaratory judgment that clause is invalid. Final judgment in Defendants' favor was entered on April 24, 2020.

Chute et al. v. Blue Apron Holdings, Inc., et al. (including Robert Goodman, a partner of Bessemer Venture Partners and BVP's representative on the board of directors)

Claims asserted in New York state court under Sections 11, 12(a)(2), and 15 of the Securities Act alleging, among other things, that the defendants made false and misleading statements in the Company's registration statement and prospectus.

The case was voluntarily dismissed by plaintiffs of September 15, 2020 and subsequently re-filed in the US District Court for the Eastern District of New York on October 2, 2020. In December 2020, the Company reached a settlement which led to the stipulated dismissal with prejudice of this case with no admission of fault by Company or its board members. Mr. Goodman has not incurred any out-of-pocket expenses in connection with the settlement.

Bernardi v. Blue Apron Holdings, Inc. et al (including Robert Goodman, a partner of Bessemer Venture Partners and BVP's representative on the board of directors)

Claims asserted in New York state court under Sections 11, 12(a)(2), and 15 of the Securities Act alleging, among other things, that the defendants made false and misleading statements in the Company's registration statement and prospectus. The case was voluntarily dismissed on May 12, 2021.

Jeffrey Peters, Derivatively on Behalf of Nominal Defendant Blue Apron Holdings, Inc. v. Blue Apron Holdings, Inc. et al, Case No. 1:20-cv-02627 (E.D.N.Y. June 12, 2020).

In June 2020, a shareholder derivative action was brought against certain current and former board members of Blue Apron, including Robert Goodman, asserting that the defendants made false and misleading statements and/or omitted material information in the Company's registration statement and prospectus.

Manager Responses to Highlighted Questions (continued)

On June 22, 2021, the court dismissed the action but, at the request of Plaintiff, retained jurisdiction solely for the purpose of adjudicating Plaintiff's counsel's anticipated application for fees and expenses.

On July 27, 2021, the Company and Plaintiff's counsel reached a private agreement concerning Plaintiff's counsel's claim for fees and costs without the need for court intervention. Mr. Goodman has not incurred any out-of-pocket expenses in connection with the private agreement. Blue Apron has been indemnifying Mr. Goodman and providing a defense in connection with all the above referenced matters.

Brad Johnson vs. Deer Management Co. LLC

In October 2010, a former employee in BVP's IT department, Brad Johnson, filed a lawsuit in the San Mateo Superior Court against Bessemer Venture Partners management company alleging certain causes of action based on his claim that he was improperly classified as an exempt employee and was in fact, a non-exempt employee who was entitled to overtime pay. He further alleged that he was not provided a statutorily required itemized pay stub setting forth his overtime hours and that the company's failure to pay him overtime pay violated California Business and Professions Code Section 17200 as it was an unlawful and unfair business practice not to pay such overtime to him. In order to avoid extensive litigation costs, BVP's management company agreed to settle the matter in May 2011 in exchange for a settlement payment to the plaintiff of less than \$200,000. In connection with the settlement, the case was dismissed with prejudice, and mutual releases were exchanged.

Cornerstone OnDemand: Ali Hansraj v. Adam L Miller et al.

On May 15, 2018, a shareholder derivative suit was filed against current and former directors of Cornerstone OnDemand (including BVP partner Byron Deeter) in Los Angeles Superior Court, claiming the company's non-employee director compensation is or was too high. Cornerstone OnDemand was a BVP VI portfolio company.

The parties entered into a full, confidential settlement of all disputes. The matter was resolved before a formal complaint was served on BVP partner Byron Deeter. None of BVP, any BVP fund or Mr. Deeter had any out-of-pocket costs in connection with the litigation or settlement.

Delivery Agent

On March 8, 2017, plaintiffs Rising Tide I & II, LLC filed a complaint in the US District Court for the Northern District of California, against nine former directors or officers of Delivery Agent, Inc. (a portfolio company of the BVP VI funds), as well as against BVP partner David Cowan individually. The plaintiffs asserted claims of securities fraud, common law fraud, and alleged control person liability against Mr. Cowan in connection with plaintiffs' purchases of Delivery Agent securities from 2014 to 2016.

Mr. Cowan moved for dismissal of the claims against him. By order dated November 3, 2017, the district court granted Mr. Cowan's motion to dismiss. While leave was given to the plaintiff to amend as to all of the dismissed claims, Rising Tide's amended complaint filed on December 15, 2017 abandoned any claim

Manager Responses to Highlighted Questions (continued)

against Mr. Cowan. Thus, there was no liability to BVP, any BVP fund or David Cowan in connection with the dismissal of the litigation claims against Mr. Cowan in this matter.

On July 13, 2018, plaintiff John Abdo, who like Rising Tide has filed a related securities fraud case against the Delivery Agent defendants (which does not include BVP or Mr. Cowan) in the US District Court for the Northern District of California, purported to serve BVP with a thirdparty discovery subpoena in the underlying action. BVP objected to the subpoena requests in their entirety on August 17, 2018.

On September 28, 2018, BVP served supplemental objections and responses to the subpoena confirming that BVP is not aware of any insurance coverage and/or indemnity agreement by which Bessemer is or would be obligated in any capacity to Christian Borchert, a former Delivery Agent, Inc. director and named defendant in the underlying action.

On March 5, 2019, counsel for Mr. Borchert sent BVP a demand letter seeking purported insurance coverage and/or indemnity in regard to the conduct at issue in the underlying action. Based on the nature of the subpoena requests and BVP counsel's interactions with counsel for the parties in the underlying litigation, we believe the parties to the underlying case may have speculated as to liability against BVP or the BVP VI investment funds pursuant to a theory of indemnification on the purported grounds that Mr. Borchert was acting on behalf of BVP. However, based on the information that we currently have, we believe any such assertion would be baseless.

On May 30, 2019, the parties to the underlying action entered a stipulation agreeing to extend certain prior case deadlines, including the deadline for a party to file a motion to add claims or parties. Pursuant to the parties' stipulation, the district court entered a case management order on May 30, 2019, providing that the deadline to file a motion to add new claims or parties be continued to July 8, 2019. The parties failed to file any new or amended complaint as of that July 8, 2019 deadline to add BVP as a party to the case or that otherwise asserted a claim against BVP. As of this date, BVP considers the matter resolved.

DocsApp

A former employee of Phasroz Technologies Limited (aka "DocsApp") filed a lawsuit in October 2018 against DocsApp and certain other persons (including former BVP investment professional Raghav Bahl) in India courts seeking a sum of approximately 2,135,625 Indian Rupees, which is equivalent to approximately 30,000 US Dollars, with interest from the date of filing of the suit until the date of realization and for other consequential relief. The claim was in relation to monies allegedly owed to the plaintiff in connection with his employment with DocsApp. It's our understanding that the BVP investment professional was named as a defendant in the matter due to his service on DocsApp board of directors. This matter has been settled and to our knowledge none of BVP, any BVP fund or Mr. Bahl had any out-of-pocket costs in connection with the litigation or settlement.

Manager Responses to Highlighted Questions (continued)

Eloqua

In January 2013, several breach of fiduciary duties claims were brought against certain board members of BVP portfolio company Eloqua, including Byron Deeter. These matters were dismissed in early 2013 with no finding of wrongdoing or liability to BVP or Mr. Deeter

Exclara, Inc.

In March 2012, a portfolio company of BVP VI funds, Exclara, Inc. ("Exclara"), was sold. Following the transaction, a legal action was filed in the Superior Court of California, County of Santa Clara, naming as defendants Exclara, Shri Dodani, president, and CEO of Exclara, certain former directors of Exclara (including former BVP partner, Umesh Padval), and certain former preferred shareholders of Exclara (including the BVP VI funds).

The complaints alleged, among other things, wrongful termination, and breach of contract. In March 2013, the parties reached a settlement, releasing all claims, in exchange to a payment to the plaintiff in the amount of \$225,000, and the case against all defendants was dismissed. The costs of settlement were paid out of the escrow account established in connection with the sale of Exclara, given that the claims were determined to be an indemnifiable matter in connection with the merger, with no other out of pocket liability to BVP, any BVP fund or Mr. Padval.

Insmed

In February 2014, a breach of fiduciary duty claim was brought against certain board member of BVP portfolio company Insmed, including Stephen Kraus. This matter was closed in October 2011 with no finding of wrongdoing or liability to BVP or Mr. Kraus.

Intego Litigation

BVP VI Funds were collectively the majority shareholders in a closely held Delaware corporation, Neutral Holdings, Inc. ("NHI"), which owned software companies Intego SA and Intego, Inc. BVP partner Jeremy Levine served on the Board of NHI. During 2009, complaints were filed in the United States District Court for the Southern District of New York by Transeo S.A.R.L. and Philippe Gelblat against the BVP VI Funds and their general partner, Deer VI & Co. LLC (collectively, the "BVP VI Entities") and Jeremy Levine, among others. The plaintiff's, who were minority shareholders affiliated with or associated with Intego's founder, Laurent Marteau, asserted a number of claims against the BVP VI Entities and Jeremy Levine, including allegations of breach of fiduciary duty, breach of contract, and breach of the implied covenant of good faith and fair dealing in connection with Marteau's separation as an officer of NHI and as an officer and director of Intego.

During 2014, all parties to the litigation entered into a full, confidential settlement of all disputes. In connection with that settlement, the parties released all claims and counterclaims against one another, Transeo and Gelblat relinquished their respective ownership interests in NHI, and NHI paid or caused to be paid \$3mm to Transeo. None of BVP, any BVP fund or Jeremy Levine had out of pocket cost in connection with the litigation or settlement, with such costs being paid by NHI or via insurance proceeds.

Manager Responses to Highlighted Questions (continued)

Lifelock Inc. Matters

David Cowan, a BVP partner and a former member of the Lifelock, Inc. Board of Directors, was named in the following shareholder derivative and class actions (Lifelock, Inc. was a portfolio company of the BVP VI entities):

1. Manthagodu v. Davis, et al, Case No. CV2015-054087 (filed September 23, 2015)
2. Gassel v. Davis et al., Case No. 2:15-cv-02173-SRB (US District Court for the District of Arizona, filed October 28, 2015)
3. City of Pontiac General Employees' Retirement Sys. V. Guthrie et al. (Arizona Superior Court, January 22, 2016)
4. Jiawei v. Davis, et al. (Arizona Superior Court, January 26, 2016)
5. Sprouse v. Davis, et al. (Arizona Superior Court, February 1, 2016)
6. Stein and Munson v. Davis et al. (Arizona Superior Court, March 23, 2016)

All such actions were either voluntarily dismissed or consolidated. The consolidated action was captioned In re: Lifelock, Inc. Derivative Litigation. On June 30, 2016, the parties entered into a proposed settlement stipulation with lead plaintiff. In the proposed settlement stipulation, the lead plaintiff agreed to dismissal, with prejudice, and release of any and all related stockholder claims against Lifelock and its current and former directors, officers, employees, and agents (including Mr. Cowan).

In December 2016, two separate shareholder class action lawsuits were filed, one in Arizona Superior Court (Minzer v. Davis, et al) and one in the US District Court for the District of Arizona (Parshall v. Lifelock). Following supplemental disclosure, both actions were voluntarily dismissed. There was no liability to BVP, any BVP fund or David Cowan in connection with the resolution of any of the aforementioned matters.

LivSpace

BVP partner Vishal Gupta received a summons from the local police in his capacity as a director of Livspace Pte. pursuant to a criminal complaint filed by a person who conducts business with a subsidiary of Livspace Pte. in India. Mr. Gupta is not an accused person in the complaint and has only been asked to furnish information. The matter has been settled and the complaint has been quashed by the court.

Matrimony.com: Rajan Desai and Real Soft, Inc. v. Infonauts et al. The matter was initiated when a civil lawsuit was brought against a former India based BVP portfolio company Bharatmatrimony.com ("Matrimony.com"), related corporate entities, and its founder. The plaintiffs in the matter claimed an equity interest in Matrimony.com based on a term sheet pre-existing BVP's investment in Matrimony.com. The plaintiffs claimed their alleged equity stake was unlawfully extinguished via fraudulent corporate transactions, and that they were entitled to but never offered a right of first refusal to invest in Matrimony.com. After two years of litigation, the plaintiffs added as defendants

Manager Responses to Highlighted Questions (continued)

Matrimony.com's venture capital investors, including BVP entities. BVP's motion to dismiss the claim against it was granted in 2014, concluding the matter as it related to BVP without liability to BVP, any BVP fund or BVP individuals.

Millennial Media Matters

Public Employees' Retirement System of Mississippi v. Millennial Media, Inc., et al. On September 30, 2014, the Public Employees' Retirement System of Mississippi, as a stockholder of Millennial Media, Inc. ("MM"), filed a putative securities class action in the federal district court in the Southern District of New York against MM, its current and former officers and directors, its pre-IPO venture capital investors, and the underwriters of its initial public offering and secondary offering. BVP VII funds and BVP partner Robert Goodman, as a director of MM, were included this group of defendants. The matter was voluntarily dismissed with no liability to BVP, any BVP fund or Mr. Goodman.

Parshall v. Millennial Media, Inc. et al.

On September 9, 2015, the first of several related class actions were filed in the Court of Chancery of the State of Delaware against MM, the members of MM's board (including BVP partner Robert Goodman), AOL, Inc. ("AOL") and others. All complaints alleged that the members of MM's board breached their fiduciary duties to MM's stockholders by agreeing to a merger pursuant to which AOL would acquire MM. All of such matters were either voluntarily dismissed or were dismissed by the relevant courts without any liability to BVP, any BVP fund or Mr. Goodman.

Netsmart Technologies Litigation

Bessemer Venture Partners was named as a defendant in a series of actions related to the BVP VI funds "going private" acquisition of Netsmart Technologies, together with Insight Venture Partners and other defendants (including the former directors of Netsmart Technologies). The cases were dismissed in October 2008, without liability to BVP, any BVP fund or BVP individuals or other determinations of wrongdoing.

OvaScience Matters Heather Carlson et al v OvaScience Inc. et al. Castellanos v. OvaScience, Inc. et. al.

On October 9, 2015, a putative class action lawsuit was filed in the Suffolk County Superior Court in the Commonwealth of Massachusetts ("Suffolk Superior Court") against a former portfolio company of the BVP VII funds, OvaScience, several of the Company's officers and directors (including BVP partner Stephen Kraus), and certain of the underwriters of the Company's January 2015 follow-on public offering of common stock (the "Carlson Action"). The plaintiffs purported to represent those persons who purchased shares of common stock pursuant or traceable to the January 2015 follow-on public offering.

The plaintiffs alleged, among other things, that the defendants made false and misleading statements and failed to disclose material information in the Company's January 2015 Registration Statement and

Manager Responses to Highlighted Questions (continued)

incorporated offering materials. Plaintiffs alleged violations of Sections 11, 12 and 15 of the Securities Act and sought, among other relief, unspecified compensatory damages, rescission, pre-and post-judgment interest and fees, costs, and disbursements.

On February 26, 2016, a second putative class action lawsuit was filed in the Suffolk Superior Court (Castellanos v. OvaScience, Inc., et al.), alleging substantially the same claims against the same parties as the Carlson Action. On April 4, 2016, the Suffolk Superior Court granted the parties' joint motion to consolidate the Carlson Action with the Castellanos Action (referred to hereinafter as the "Carlson/Castellanos Case") and appoint co-lead plaintiffs and ordered the co-lead plaintiffs to file an amended consolidated complaint. On June 17, 2016, co-lead plaintiffs filed the amended consolidated complaint asserting similar allegations and alleging violations of the same sections of the Securities Act of 1933 as the original complaint.

On November 24, 2017, the OvaScience defendants prevailed on a summary judgment motion against all plaintiffs except one, Westmoreland County Employee Retirement System ("Westmoreland"). This order left Westmoreland as the only remaining plaintiff in the abovedescribed actions, referred to as Westmoreland County Employee Retirement System v. OvaScience, Inc. et. al.

On April 18, 2018, the court entered a final judgment dismissing Westmoreland's claims in this action without prejudice following Westmoreland's motion for voluntary dismissal without prejudice. Separately, Westmoreland filed a class action lawsuit in the United States District Court for the District of Massachusetts against OvaScience, several of the Company's officers and directors (including BVP partner Stephen Kraus), and certain of the underwriters from the Company's January 2015 follow-on public offering of common stock. The action is substantially similar to Carlson/Castellanos Case described above.

On August 24, 2018, Westmoreland filed a stipulation and proposed order, signed by counsel for all parties, voluntarily dismissing the case without prejudice. Under the terms of the stipulation, Westmoreland agreed that it will not re-file or reassert its claims under the '33 Act that were alleged in the complaint and will pursue damages, if any, only as a member of the putative class in a separate case, Dahhan, which alleges violations of Sections 10(b) and 20(a) of the '34 Act. The court entered an order approving the stipulation on August 28, 2018. Neither Stephen Kraus, BVP nor the BVP funds are parties to the Dahhan action.

SEC investigation of OvaScience

The US Securities and Exchange Commission ("SEC") conducted a confidential, non-public investigation of a former portfolio company of the BVP VII funds, OvaScience, Inc. ("OvaScience"). In connection with the SEC's investigation of OvaScience, it issued subpoenas to BVP and Stephen Kraus, a BVP partner, in the fall of 2017. The subpoenas requested production of a number of documents relating to BVP's investment in OvaScience and compliance practices generally, as well as Mr. Kraus' service on the

Manager Responses to Highlighted Questions (continued)

OvaScience board of directors. BVP and Mr. Kraus completed productions in March 2018 and have not received any follow up communications since such submissions.

Sendgrid Matters

Rosenblatt v. Sendgrid Inc. et al

Chen v. Sendgrid Inc. et al

Two lawsuits were filed challenging the disclosures made in connection with Sendgrid's proposed merger with Twilio. One lawsuit was filed in federal court in Colorado (Chen) and one filed in federal court in Delaware (Rosenblatt). Strike suits such as these accompany nearly every publicly announced deal. The Plaintiffs allege that the disclosures in the registration statement (that was filed with the SEC on November 21, 2018) were materially false and misleading and, as a result, threaten to enjoin the proposed merger unless the defendants (which included BVP director Byron Deeter) make additional disclosures. The claims were voluntarily dismissed in February 2019.

VeriSign derivative stockholder complaint

In July 2006, a stockholder derivative complaint (Parnes v. Bidzos, et al., and VeriSign) was filed against VeriSign, Inc. ("VeriSign") and certain of its current and former officers and directors, including BVP partner David Cowan, related to VeriSign's historical stock option grants. VeriSign was a portfolio company of the BVP III funds. Two other derivative actions were filed, one in United States District Court for the Northern District of California (Port Authority v. Bidzos, et al., and VeriSign), and one in state court (Port Authority v. Bidzos, et al., and VeriSign) in August 2006, with similar allegations.

In May 2007, a class action (Mykityshyn v. Bidzos, et al., and VeriSign) was also filed against VeriSign and certain current and former officers and directors, including David Cowan, which alleged false representations and disclosure failures regarding certain historical stock option grants. The identical case was filed in state court under a two separate names (Pace v. Bidzos, et al. and Mehdian v. Bidzos, et al.).

Ultimately, the aforementioned actions were consolidated, and the parties involved agreed to a global settlement that required VeriSign to make corporate governance reforms and pay nominal damages, with no individual contributions or any finding of wrongdoing by David Cowan or any other individual defendant. David Cowan no longer serves on the board of VeriSign.

VistaCare Section 16 Matter: Bruh v. Bessemer Venture Partners III L.P. and VistaCare, Inc.

In September 2003, this action was filed against BVP III and VistaCare, Inc. ("VistaCare") alleging a violation of Section 16(b) of the Securities and Exchange Act of 1934, as amended. The material facts of the case were that (i) BVP III held Series A-1 Preferred Stock of VistaCare prior to the closing of VistaCare's initial public offering ("VistaCare IPO"); (ii) these A-1 shares were automatically converted to common stock of VistaCare prior to the VistaCare IPO; and (iii) the common stock was sold within 6 months of the date of the IPO. Section 16(b) enables disgorgement of "short-swing profits" from directors, officers and 10% shareholders as the result of a purchase and sale of securities within a

Manager Responses to Highlighted Questions (continued)

six-month period. BVP III's position was that the automatic conversion of its stock did not constitute a "purchase" for purposes of Section 16(b) and that, even if the automatic reclassification were a "purchase", BVP III would be exempt from the Section 16(b) by virtue of SEC Rule 16b-7, which explicitly exempts reclassifications.

In August 2005, the District Court granted summary judgment in favor of BVP III, holding that the automatic conversion of BVP III's stock did not constitute a "purchase" under Section 16(b), resulting in final judgment in favor of BVP III and the dismissal the action. The plaintiff appealed and, in September 2006, the Second Circuit affirmed the District Court's opinion in favor of BVP III, holding that the conversion was a reclassification exempt from Section 16(b) liability. The plaintiff later filed a petition with the US Supreme Court for a writ of certiorari, which was denied, concluding the matter as it related to BVP without liability to BVP, any BVP fund or BVP individuals.

Xtreme Power, Inc.

An April 28, 2015 demand letter was directed to the individual former directors and/or officers of a BVP VII portfolio company, XTreme Inc., and affiliated entities, that alleged each had violated fiduciary duties to XTreme entities or had committed acts of negligence or gross negligence, waste, or otherwise engaged in malfeasance with respect to the XTreme entities.

In January 2016, this lawsuit was filed in the matter, naming former BVP partner, Umesh Padval, one of the defendants. Later, in December 2016, the Court dismissed all claims against Mr. Padval without liability to BVP, any BVP fund or Mr. Padval.

BlackRock Litigation

Yes. As a global investment manager, BlackRock Inc., and its various subsidiaries including BlackRock Financial Management, Inc. ("BFM") may be subject to regulatory oversight in numerous jurisdictions including examinations and various requests for information. BFM's regulators routinely provide it with comment letters at the conclusion of these examinations in which they request that BFM correct or modify certain of its practices. In all such instances, BFM has addressed, or is working to address, these requests to ensure that it continues to operate in compliance with applicable laws, statutes and regulations.

BFM also receive subpoenas or requests for information in connection with regulatory inquiries and/or investigations by its various regulators. None of these matters has had or are expected to have any adverse impact on BFM's ability to manage its clients' assets. Please refer to BlackRock's Form ADV and SEC disclosures for additional information on regulatory matters concerning BFM or BlackRock as a whole.

BlackRock, Inc. and its various subsidiaries, including BFM, also have been subject to certain business litigation that has arisen in the normal course of their business. Our litigation has included a variety of claims, some of which are investment-related. None of BlackRock's prior litigation has had, and none of

Manager Responses to Highlighted Questions (continued)

its pending litigation currently is expected to have, an adverse impact on BlackRock's ability to manage client accounts.

BlackRock Management Level Changes

We have also united four growth regions outside the Americas under a new International business structure, led by Rachel Lord, to provide a unified leadership of our businesses across these regions (Europe, the Middle East, India, and Asia Pacific).

With Rachel stepping into this new role, Susan Chan will become Head of Asia Pacific.

Charles Hatami, who will remain Global Head of the Financial and Strategic Investors Group, reporting to Mark Weidman, will take on a new role as the Head of the Middle East region, reporting to Rachel, and will join the Global Executive Committee.

The European leadership structure is unchanged and now reports to Rachel, though Sandy Boss, COO of the Global Client Business, will become the Chair of the UK, reporting to Rachel Lord as well. Ruth Weiss succeeds Sandy as GCB's COO.

Departures:

Salim Ramji, Head of EII, has decided that he will be pursuing a new career path outside the firm

Existing GEC members with additional responsibilities or impacted businesses:

Stephen Cohen, Head of EMEA, will lead our new Global Product Solutions Business as the Chief Product Officer. He will remain on the GEC in his new capacity,

Samara Cohen, CIO of EII, will lead the EII business and will remain a part of the GEC in her new capacity.

Rachel Lord, Head of APAC, will lead the new International Business structure and will remain on the GEC in her new capacity.

Crestline Litigation

Crestline is from time to time involved in various disputes or other litigation in connection with our business activities or as part of the investment process in particular, but without limitation, where transactions involve investments subject to a bankruptcy process. None of the foregoing are material.

Crestline Investment Personnel Changes

Abu Jalloh joined in December 2023 as an Analyst responsible for underwriting and asset management.

Davidson Kempner Litigation

Nothing material as it relates to our role as an investment manager. Given we are distressed investors, we are in constant court proceedings about our investments.

Manager Responses to Highlighted Questions (continued)

Davidson Kempner Management Changes

As of 12/31/23 the President of the firm, Eric Epstein, has retired. We are not replacing Mr. Epstein with another President at this time; however, Melanie Levine was promoted to Head of Global Sales as Mr. Epstein's successor. Mr. Epstein also oversaw the following back office functions: Legal, HR and Technology – these functions will now report into Gabe Schwartz, Co-Deputy Executive Managing Member.

Daniel Boehm was promoted to Managing Member

A new title was introduced at the firm: Non-Managing Member. This new leadership role is intended to give additional responsibility, leadership, and transparency.

Senior Leadership will incorporate both managing and non-managing members.

Five people were promoted to the non-managing member class: Melanie Levine, James Li, Greg Feldman, Romain Ferron, and Punit Patel.

Dodge & Cox Litigation

Dodge & Cox, by the nature of its business, may receive third-party subpoenas in the normal course of doing business and may also become involved in civil litigation. Nevertheless, as of quarter end, Dodge & Cox and its officers/employees have not been involved in any material litigation during the relevant time period. Dodge & Cox has not been investigated by any regulator or involved in any regulatory enforcement action during the relevant time period.

Dodge & Cox Investment Personnel Changes

Dodge & Cox has experienced an extremely low level of personnel turnover throughout our history. There were no additions to the investment team during the quarter. As announced last year, Tom Dugan, Senior Vice President and Director of Fixed Income retired on December 31, 2023 after 29 years of distinguished service at Dodge & Cox. Tom also served on the Dodge & Cox Board of Directors and USFIC. On January 1, 2024, Lucy Johns, Senior Vice President and Associate Director of Fixed Income, succeeded Tom Dugan as Director of Fixed Income.

Dodge & Cox Management Personnel Changes

Dodge & Cox has experienced an extremely low level of personnel turnover throughout our history. There were no additions to the investment team during the quarter. As announced last year, Tom Dugan, Senior Vice President and Director of Fixed Income retired on December 31, 2023 after 29 years of distinguished service at Dodge & Cox. Tom also served on the Dodge & Cox Board of Directors.

Gradual and thoughtful transition of leadership is a hallmark of our firm. To ensure continuity of our investment philosophy, research process, and culture, we gradually evolve the composition of our Investment Committees, which are the teams responsible for managing our investment strategies. We select Investment Committee members based on their long-term contributions to our research and

Manager Responses to Highlighted Questions (continued)

investment processes as analysts and members of our Sector Committees, and their demonstrated interest in portfolio strategy.

Consistent with our customary practice each January, we are announcing changes to Dodge & Cox's leadership team and our Investment Committees as follows:

Investment Leadership

On January 1, 2024, Lucy Johns, Senior Vice President and Associate Director of Fixed Income, succeeded Tom Dugan as Director of Fixed Income.

Investment Committees

US Fixed Income Investment Committee (USFIIC)

Tom Dugan stepped down from the USFIIC when he retired on December 31, 2023.

For additional information, please see Announcement dated January 11, 2024, Employee Update -Investment Professionals exhibit, and Experienced and Stable Investment Team exhibit for composition of our investment team.

GQG Litigation

To GQG's knowledge, during the past quarter, there have not been, and GQG does not expect, any criminal, civil, regulatory or administrative proceedings involving GQG that would likely have a material adverse impact on GQG. .

GQG Investment Team Changes

During 4Q 2023, Investment Analyst, Siddharth Jain, was promoted to Deputy Portfolio Manager on all GQG strategies. Two (2) analysts departed the firm. In addition, GQG expanded the number of analysts participating in the Firm's Analyst Development Program

None of the changes described above are anticipated to have a material impact to the portfolio(s) or to the investment management services provided by GQG.

Graham Litigation

To the best of the firm's knowledge, Graham, either directly or through its funds, has not been the subject of a legal proceeding or investigation by a government agency or other regulatory body, other than with respect to inquiries of a routine or general nature, sweep examination, or audit, the effect of which was in each case immaterial to the financial condition or operations of Graham and its funds.

HPS Custodian Reconciliation

We expect SJCERA's account to be reconciled with the Fund's Administrator for the fourth quarter of 2023 by March 2024.

Manager Responses to Highlighted Questions (continued)

HPS Litigation

To our knowledge, there are no litigations involving the Firm that HPS believes will have a material adverse effect upon the Firm.

Loomis Sayles Litigation

Loomis Sayles is a defendant in a civil complaint initially filed in April 2014. The complaint alleges that Loomis Sayles misclassified a software engineer as an independent contractor, when he should have been an employee of Loomis Sayles under applicable Massachusetts statute. The complaint purports to represent a class of unnamed technology contractors the plaintiff claims were misclassified as contractors. In its answer, Loomis Sayles denied all the allegations. Loomis Sayles believes the plaintiff's case has no merit, and intends to vigorously defend its position in this matter. The plaintiff represented and certified that he was an employee in fact of a sub vendor, and his employer represented and certified to Loomis Sayles that it complied with all state and federal tax and employment laws applicable to the employment of this individual. Depositions began in January 2015. Discovery ended in late May 2015 and dispositive motions, including a motion for class certification by the plaintiff and a motion for summary judgment by Loomis Sayles, were filed at the end of June 2015. A hearing on various motions was held in September 2016. The judge denied plaintiff's motion for class certification and Loomis Sayles' motion for summary judgment. In April 2018, the trial judge issued a directed verdict in Loomis Sayles' favor, and the plaintiff appealed the verdict in May 2018. The Massachusetts Court of Appeals heard oral arguments in the case in September 2019 and in January 2020 reversed the directed verdict, remanding the case for retrial. In February 2020, Loomis Sayles appealed this decision to the Massachusetts Supreme Judicial Court. The appeal was denied. The retrial began on September 27, 2022 and concluded on October 4, 2022. A jury verdict in favor of Loomis Sayles on the dispositive first question (Standing) was rendered on October 5, 2022 and the judgment entered on October 19, 2022. The plaintiff appealed on November 16, 2022 and filed his appellate brief in May 2023. The plaintiff raised three issues on appeal: (i) the Superior Court's framing of a verdict question on standing, (ii) the Court's framing of jury instruction on standing, and (iii) the Court's jury instruction on damages. Loomis Sayles filed its responsive brief on June 30, 2023. Plaintiff-appellant's reply brief was filed on August 11, 2023, and oral arguments were made before the Appellate Court on December 1, 2023. The parties now await the Appellate Court to issue its opinion.

In August 2022, Loomis Sayles Trust Company, LLC ("LSTC") filed a class action complaint against Citigroup in the United States District Court for the Southern District of New York ("Court") alleging Citigroup's failure to properly execute trades as LSTC's broker. On March 18, 2022, Loomis Sayles engaged Citigroup to execute certain transactions on behalf of the Loomis Sayles Growth Equity Strategies portfolios. The complaint alleges that Citigroup failed to achieve best execution in connection with two large orders among the transactions resulting in harm to certain of LSTC's funds and to certain clients of Loomis Sayles (collectively with LSTC, "Loomis Sayles"). Loomis Sayles believes Citigroup failed to meet its legal obligations to take diligent and reasonable efforts to maximize the economic benefit to LSTC's affected funds and the clients of Loomis Sayles. In the complaint, LSTC alleges that Citigroup failed to discharge its fiduciary duty, including its duty of care, by failing to achieve best execution on these orders. The complaint further alleges that Citigroup's conduct resulted in significantly dislocated prices on the executed trades. It is important to note that this complaint is

Manager Responses to Highlighted Questions (continued)

specific to the failed execution of two trades and does not extend to other aspects of Loomis Sayles' work with Citigroup. Loomis Sayles intends to continue to engage constructively with Citigroup on other client matters, but determined that litigation in this instance is necessary to protect clients that were impacted by these transactions.

All fact discovery for the case, including depositions of each party, document production and expert depositions, has been completed. In November 2022, Citigroup filed a motion to dismiss the complaint. In February 2023, the Court converted the motion to dismiss to a motion for summary judgment. On July 28, 2023, the Court denied Citigroup's converted motion for summary judgment (without prejudice to renew upon the submission of additional evidence). The Court also ordered the parties to engage in private mediation which took place on September 21, 2023. The confidential mediation was unsuccessful. As with most large litigations, the parties are free to pursue mediation again as the litigation progresses.

In October 2023, the Court set the schedule for the next phase of the litigation and established a briefing schedule for Citigroup's anticipated summary judgment motion, while deferring LSTC's class certification motion and the setting of a trial date.

On November 1, 2023, Citigroup filed its motion for summary judgment arguing that it complied with the trading instructions and any duty it owed. On November 30, 2023, LSTC filed its opposition to Citigroup's motion for summary judgment arguing that the case must go to the jury for resolution, and Citigroup filed a reply brief on December 21, 2023.

Loomis Sayles Investment Personnel Changes

In October, John Bell, bank loans portfolio manager on the Full Discretion Team, announced that he will be retiring in February 2024. Upon his retirement, co-portfolio managers Michael Klawitter and Heather Young will continue to co-manage the firm's bank loan portfolios.

Loomis Sayles Management Personnel Changes

John Russell, chief human resources officer, senior counsel and member of the Board of Directors, retired in December. He will be succeeded in his chief human resources officer role by Debbie Lewis, the former deputy chief human resources officer.

Mesa West Investment Personnel Changes

Turnover in the ordinary course of business has occurred among junior to mid-level employees.

Northern Trust Litigation

As one of the world's largest asset managers, NTI occasionally receives requests for information from government and regulatory agencies. NTI frequently does not know if such requests are related to a formal government or regulatory investigation or, assuming an investigation is underway, whether NTI is a target of such investigation or simply thought to be in possession of information pertinent to such investigation. NTI is not currently involved in any government or regulatory investigation or proceeding that would have a material impact on its ability to provide advisory services to its clients.

Northern Trust Management Level Changes

Manager Responses to Highlighted Questions (continued)

SENIOR MANAGEMENT CHANGES

As a result of the constantly changing landscape of asset management, we believe the occasional organizational changes are a natural progression and necessary in order to adapt to new market and regulatory environments. The most recent changes to senior personnel are the following:

2024

January; Suzanne Casey joins Sunitha C. Thomas, CFA, as co-head of the Wealth Client Group, bringing over 30 years of intermediary distribution experience to the role. She will report directly to Daniel Gamba and join the NTAM Executive Group.

2023

December; Garrett Cox has been named Chief of Staff for Asset Management, reporting directly to Daniel Gamba. Garrett will be responsible for overseeing all matters as it relates to the Office of the President, including helping drive strategic priorities and initiatives – across the firm – and overseeing engagements with key external and internal stakeholders.

December; James Rippey has joined the Asset Management COO leadership team as COO of EMEA region (pending regulatory approval), reporting to Archana Kumar and John McCareins. James will continue to serve as International Chief Risk Officer covering EMEA and APAC during this transition period.

December; After more than 20 years with Northern Trust, Chris Shipley, Chief Investment Strategist for North America and co-portfolio manager for the Northern Funds Global Tactical Asset Allocation Fund (BBALX), is leaving Northern Trust to pursue other interests. As result, Anwiti Bahuguna, Ph.D., and Daniel B. Ballantine, CFA have been added to the fund as portfolio managers.

December; Jane Karpinski, previously Chief Audit Executive, will serve as Global Head of Regulatory Affairs. In this newly created role, Jane will be responsible for overseeing the enhancement of risk management and controls, remediation of regulatory and audit findings and administration of regulatory affairs. Jane will report to Mike O'Grady and become a member of the Corporation's Management Group. Lauren Allnutt, Corporate Controller, replaces Jane as Chief Audit Executive.

November; Guido Baltussen joined NTAM as Head of Quantitative Strategies, International. Previously Head of Equity Factor Investing and Co-head of Quantitative Fixed Income in Robeco, Guido will report to Michael Hunstad, NTAM Deputy CIO and CIO Global Equities. He will be based in the Amsterdam office.

October; Sunitha Thomas, CFA, rejoined NTAM after spending more than 15 years managing client portfolios for Northern Trust Wealth Management. In this newly created role, Sunitha will co-head our Wealth Client Group. She has a BA in Economics from University of Chicago and an MBA from The Wharton School of the University of Pennsylvania. Sunitha will report directly to Daniel Gamba and join NTAM Executive Group.

Please see above.

Manager Responses to Highlighted Questions (continued)

Northern Trust Internal Risk Management Compliance

Yes

Risk assessments are performed continuously by both first and second lines of defense under the Northern Trust Corporation Enterprise Risk Management Framework and in relation to Northern Trust Asset Managements' management of various funds. Risks are identified, and key risk measures are aggregated, analyzed, reported, and discussed day-to-day by management, as well as most formally at various governance forums. Examples of high-level risks that are identified and measured include, but are not limited to: 1) concentration and volatility of underlying investments, including in relation to stressed scenarios; 2) supporting operations and technology, including resilience; 3) workforce and talent; and 4) alignment with critical strategic initiatives, including in relation to peers.

Risk Management is engaged in the identification and management of operational, fiduciary and strategic risks on behalf of Northern Trust Asset Management and a wide range of credit/counterparty, market and investment risks on behalf of clients. Key Risk Programs administered to support risk management include, but are not limited to:

- Risk Reporting
- Operational Loss Event Data Program
- Risk & Control Self-Assessments
- Credit, Liquidity and Market Risk Programs
- New Investment Product and Strategy Vetting
- Model Risk Management Program

In line with the continuous risk assessment and administering key risk programs, Asset Management identifies unique risks and corresponding drivers; assesses inherent risk levels, the corresponding control environment, and residual risk trends; and forecasts how a risk will respond in business-as-usual and stressed environments. Where the assessment of the control environment does not lead to a residual risk rating or trend that supports achievement of business objectives in line with risk appetite, actions plans are developed to change existing controls, design and implement new controls, or otherwise determine how risk can be alternatively managed (e.g., avoidance, transfer, insure). Progress against action plans are governed, including through councils and committees, and risk measures are aggregated and reported to demonstrate progress against risk appetite.

Oaktree Litigation

Oaktree is subject to the authority of a number of US and non-US regulators, including the US Securities and Exchange Commission ("SEC") and the Financial Industry Regulatory Authority ("FINRA"), and those authorities regularly conduct examinations of Oaktree and make other inquiries. No regulatory action to date has had a material adverse financial impact upon Oaktree or any of the funds it manages and Oaktree is not aware of any pending regulatory enforcement action that might reasonably be expected to have such an effect.

Manager Responses to Highlighted Questions (continued)

On April 6, 2023, FINRA commenced a routine examination of OCM Investments, LLC ("OCM Investments"), a wholly-owned subsidiary of Oaktree and a SEC-registered broker-dealer and member of FINRA. The examination concluded on August 25, 2023 with no findings.

Principal Compliance with SJCERA IPS

Yes, we verify that the portfolio is currently, and has been during the past quarter, in compliance with the investment policy guidelines/offering document governing the management of the investment.

Principal Real Estate (the "Manager") is responsible for the day-to-day investment management of the Principal US Property Separate Account (the "Account"). The Manager acknowledges and accepts that it is a fiduciary under ERISA for those assets under its management for the Account, including certain assets of San Joaquin County Employees Retirement Association ("SJCERA"). The Trustees have decided to utilize the Account as the investment instrument for certain assets of SJCERA. The Trustees acknowledge that the Investment Policy Statement of SJCERA differ from the exact investment objectives, policies and restrictions of the Account. No material changes have been made to the investment policy guidelines governing the management of the Account, though the guidelines are reviewed and potentially revised on at least an annual basis.

Principal Litigation

Given the size and scope of our operations we are occasionally involved in litigation, both as a defendant and as a plaintiff. However, management does not believe that any pending litigation will have a material adverse effect on our business, financial position or net income. Please see our public filings for details. Also, regulatory bodies, such as the SEC, the Financial Industry Regulatory Authority, the Department of Labor and other regulatory bodies regularly make routine inquiries and conduct examinations or investigations concerning our compliance with, among other things, securities laws, ERISA and laws governing the activities of investment advisors. While the outcome of any regulatory matter cannot be predicted, management does not believe that any regulatory matter will have a material adverse effect on our business, financial position or our ability to fully perform our duties to clients.

Principal Management Personnel Changes

Indraneel (Indy) Karlekar, head of global research and portfolio strategies, Principal Real Estate, departed the firm to pursue an outside opportunity on December 22, 2023. Indy was with the firm for 10 years spanning 2013-2023. Principal is committed to providing the highest level global real estate research, data, and analytics perspectives across the full spectrum of real estate. Our experienced team, including Arthur Jones, Madhan Rengarajan, Daniel Tomaselli, and Armel Traore dit Nignan, will continue to support this work providing clients with valuable insights, as they have done for many years, as we conduct a search to fill this important role. Until a successor is named, Pat Bailey, COO of real estate, will assume leadership for the global research and analytics functions on an interim basis.

Manager Responses to Highlighted Questions (continued)

Parametric Investment Personnel Changes

During the fourth quarter of 2023, Justin Horner, Portfolio Manager, left the firm.

Parametric Management Personnel Changes

As announced in early May 2023, Brian Langstraat transitioned out of the CEO role on December 31, 2023, and into a Senior Advisor role on January 1, 2024. Brian has worked at Parametric for over 33 years and served as CEO for over 22 years.

As Senior Adviser, Brian supports Tom Lee, Co-President and Chief Investment Officer, Ranjit Kapila, Co-President and Chief Operating Officer, and the Parametric team as they expand their leadership roles.

Prologis Registered Investment Advisor Status

Investment advisors are required to register with the SEC as a Registered Investment Advisor (RIA) if they are in the business of providing advice or issuing reports or analyses regarding securities. The SEC has stated that direct interests in real estate are not securities. Prologis' vehicles invest in real estate directly. For example, USLF does not invest in the stock of other real estate companies or in other public or private funds that own real estate – USLF invests in real estate directly. Because USLF invests in real estate directly and because the SEC has stated that direct real estate investments are not securities, we have with the advice of external legal counsel determined that Prologis is not required to register as an RIA.

The ultimate parent company of Prologis is Prologis, Inc. which is a publicly traded company on the NYSE. As a publicly traded company, Prologis is subject to SEC reporting and the corporate governance and legal requirements applicable to other US public companies. In addition, the general partner of USLF is Prologis, L.P., which is the operating subsidiary through which Prologis Inc. carries out the vast majority of its operations. Prologis, L.P. is large and well-capitalized

Prologis Litigation

Yes - Prologis, Inc. is a publicly traded company with global operations. In the normal course of business, from time to time, Prologis may be involved in legal actions relating to the ownership and operations of its properties. Management does not expect that the liabilities, if any, that may ultimately result from such legal actions would have a material adverse effect on the financial position, results of operations, or cash flows of Prologis. As of December 31, 2023, there were no material pending legal proceedings to which the Fund is a party or of which any of its properties is the subject that Prologis anticipates would have a material effect upon the Fund's financial condition or operations. In addition, except as has been previously disclosed in public filings, as of December 31, 2023, there were no material pending legal proceedings to which Prologis is a party or of which any of its properties is the subject that Prologis anticipates would have a material effect upon its financial condition or operations. Additionally, during the past one year, to its knowledge, Prologis has not been the subject of any investigation for violation or potential violation of applicable law by the SEC or other regulatory organization which could result in a material adverse effect on the company or its

Manager Responses to Highlighted Questions (continued)

investors. Item 401(f) of the SEC's Regulation S-K requires Prologis to report certain legal proceedings that are material to an evaluation of the ability or integrity of any director or persons nominated to become directors. None of the events described in Item 401(f) of Regulation S-K have occurred with respect to any director or executive officer of Prologis (including Former ProLogis or Former AMB) during the past ten years.

Raven Capital Custodian Reconciliation

SS&C Technologies, Inc. reconciles all cash to the balances maintained with the fund's bank, JP Morgan, formerly First Republic Bank. Additionally, Raven's operations team will track daily cash movements for the fund and will reconcile them to SS&C's books and records as well. SJCERA's investment in the Raven Asset-Based Opportunity Fund III has historically been audited annually by RSM US LLP. Due to the MetLife acquisition on March 1, 2023, an independence conflict with RSM US LLP was triggered. As a result, Raven has switched auditors to Deloitte & Touche LLP, which is MetLife Inc.'s primary auditor. Deloitte & Touche LLP will be auditing Raven's investment vehicles on an annual basis moving forward.

Stellex Litigation

Stellex was named in a litigation matter related to a portfolio company former employee dispute. Stellex was purely a named party and there were no claims against Stellex. The case was stayed by the plaintiff as the parties worked towards a settlement.

Stockbridge Material Business Changes

On October 31, 2023, the firm closed on a strategic internal transaction involving Core and Value Advisors, LLC ("CVA") and Stockbridge Capital Group ("Stockbridge"). CVA is now wholly owned by Stockbridge, with day-to-day management of CVA delegated to Sol Raso as CVA's Executive Managing Director. Stockbridge and CVA continue to operate as two separate registered investment advisors under one common ownership structure, and no changes were made to investment committees or operational protocols. This restructuring was facilitated by a minority, non-controlling interest in Stockbridge by the National Pension Service of Korea ("NPS").

White Oak Litigation

Other than as noted below or in White Oak's Form ADV, there is no present or pending regulatory action or litigation brought by or against the firm or any of its principals or investment professionals, other than routine regulatory examinations and legal proceedings in connection with the normal course of originating and managing a portfolio of direct loans.

On July 2, 2022, White Oak's former client filed a lawsuit in the Southern District of New York against White Oak's co-founders, Andre Hakkak and Barbara McKee. The former client's claims against Mr. Hakkak and Ms. McKee are duplicative of the claims that the former client raised against White Oak in the arbitration, which are discussed below. In the lawsuit, the former client alleges that Mr. Hakkak and Ms. McKee personally violated ERISA and participated in the breaches alleged against White Oak in the arbitration. Mr. Hakkak and Ms. McKee dispute the former client's claims, including that they

Manager Responses to Highlighted Questions (continued)

violated ERISA or assisted White Oak in violating ERISA, and dispute that they have any liability to the former client. On August 3, 2023, the court granted Mr. Hakkak and Ms. McKee's motion to compel arbitration of the claims brought against them and the case was stayed.

White Oak Investment Team Changes

For 4Q23, we had no joiners at the Managing Director level and above at White Oak Global Advisors. Christopher Gouskos, Managing Director (Originations) and Kevin Cox, Managing Director (Underwriting) were hired by WOGA's affiliate, White Oak Commercial Finance.

DISCLOSURES:

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SJCERA Quarterly Manager Review Schedule

Manager	Strategic Class	Sub-Segment	Under Review	Last Rvw	Next Rvw	Most Recent Visit to Meketa/SJCERA	Mgr. Meeting with SJCERA	Mgr. Location
AEW	Stabilized Growth	Core Real Estate			Jun-24	10/6/2022		Boston, MA
Angelo Gordon	Aggressive Growth	Value Added Real Estate		May-23		10/6/2022		New York, NY
Almanac Realty VI	Aggressive Growth	Value Added Real Estate		May-21	May-24			New York, NY
AQR	Diversifying Strategies	Alternative Risk Premia		Jul-19	Apr-24	10/12/2023		Stamford, CT
BlackRock	Stabilized Growth, PC	Direct Lending		Mar-23		3/30/2023		San Francisco, CA
BlackRock	Aggressive Growth	Infrastructure			Jul-24	10/6/2022	8/22/2019	New York, NY
Berkeley Partners	Aggressive Growth	Private Real Estate		Jun-23		6/1/2023	6/1/2023	San Francisco, CA
Bridgewater (AW)	Stabilized Growth, RP	Risk Parity			Sep-24	7/29/2020	10/6/2017	Westport, CT
Crestline	Stabilized Growth, PC	Opportunistic		Feb-23		7/22/2020	6/7/2019	Fort Worth, TX
Davidson Kempner	Stabilized Growth, PC	Opportunistic		Aug-23		8/29/2023		New York, NY
Dodge & Cox	Diversifying Strategies, PP	Core Fixed Income		Oct-21	May-24	10/6/2022		San Francisco, CA
Dodge & Cox	Diversifying Strategies, CRO	Long Duration			May-24	6/3/2020		San Francisco, CA
GQG	Traditional Growth	Emerging Markets		Jan-23		10/12/2023		San Francisco, CA
Graham	Diversifying Strategies, CRO	Systematic Trend Following		Aug-23		10/6/2022		Rowayton, CT
Greenfield/Grandview V, VI, VII	Aggressive Growth	Opportunistic Real Estate		May-23		10/6/2022		Greenwich, CT
HPS EU	Stabilized Growth, PC	Direct Lending		Jun-23		10/12/2023		New York, NY
Invesco	Traditional Growth	REITs, Core US		Feb-24		10/12/2023		Atlanta, GA
LongArc Capital	Aggressive Growth	Private Equity		Nov-22		10/12/2023		New York, NY
Loomis Sayles	Principal Protection	Core Fixed Income		Oct-23		10/6/2022		Kansas City, MO
Lightspeed	Aggressive Growth	Private Equity			May-24	10/6/2022		Menlo Park, CA
Medley	Stabilized Growth, PC	Direct Lending		Jan-24		12/1/2022		San Francisco/New York
Mesa West III & IV	Stabilized Growth, PC	Comm. Mortgage		Oct-21	Apr-24	10/12/2023	8/22/2019	Los Angeles, CA
Miller Global VI, VII	Aggressive Growth	Opportunistic Real Estate		Mar-20	Mar-24			Denver, CO
Morgan Creek III, V, & VI	Aggressive Growth	Multi-Strat FOF			Apr-24	8/22/2019	8/22/2019	Chapel Hill, NC
Mount Lucas	Diversifying Strategies, CRO	Systematic Trend Following		Mar-23		10/12/2023	2/12/2021	Newton, PA
Northern Trust	Traditional Growth	MSCI World IMI				10/6/2022		Chicago, IL
Northern Trust	Cash	Collective Govt. Short Term				10/6/2022		Chicago, IL
Neuberger Berman	Stabilized Growth, LC	Global Credit		Oct-21	Mar-24	10/12/2023		Chicago, IL
Oaktree	Stabilized Growth, PC	Leveraged Direct Lending			Jan-24	10/12/2023		New York, NY
Ocean Avenue	Aggressive Growth	PE Buyout FOF		Oct-21	May-24	10/12/2023		Santa Monica, CA
P/E Diversified	Diversifying Strategies	Alternative Risk Premia		Sep-23		10/6/2022		Boston, MA
PanAgora	Stabilized Growth, RP	Risk Parity		Nov-23		10/6/2022		Boston, MA
Parametric	Cash	Cash Overlay		Apr-23		4/4/2023		Minneapolis, MN
PIMCO (RAE)	Traditional Growth	Emerging Markets				10/6/2022	8/1/2023	Newport Beach, CA
Principal US	Stabilized Growth, RE	Core Real Estate			Mar-24	10/6/2022		Des Moines, IA
Prologis	Stabilized Growth, RE	Core Real Estate		Oct-22	Feb-24	10/12/2023		San Francisco, CA
Raven III	Stabilized Growth, PC	Direct Lending		Feb-23	Mar-24		2/23/2018	New York, NY
Ridgmont	Aggressive Growth	Private Equity			Jun-24	10/12/2023		Charlotte, NC
RREEF America II	Stabilized Growth, RE	Core Real Estate		Dec-23		10/12/2023		Kansas City, MO
SilverRock	Stabilized Growth, PC	Private Credit					12/1/2022	New York, NY
SilverPoint	Stabilized Growth, PC	Private Credit				10/12/2023		Greenwich, CT
Stellex Capital	Aggressive Growth	Private Equity		Dec-23	Mar-24	10/12/2023	5/8/2020	New York, NY
Stockbridge RE III	Aggressive Growth	Value Added Real Estate		Jul-22	Sep-24			San Francisco, CA
Stone Harbor	Stabilized Growth, LC	Absolute Return		Apr-23		10/12/2023	2/3/2021	New York, NY
Walton Street	Aggressive Growth	Opportunistic Real Estate		Mar-20	Jan-24			Chicago, IL
White Oak Summit Peer	Stabilized Growth, PC	Direct Lending		Jan-24	Jun-24			San Francisco, CA
White Oak Yield Spectrum	Stabilized Growth, PC	Direct Lending		Jan-24		7/24/2020	6/7/2019	San Francisco, CA

*General Meketa Review LC = Liquid Credit; PC = Private Credit; PP = Principal Protection; CRO = Crisis Risk Offset; RP = Risk Parity;

Managers Approved - Waiting to be funded

Liquidated Managers

KBI	Global Equity	Global Equity -Terminated
Bridgewater	Risk Parity	Real Assets - Terminated
Parametric	Risk Parity	Risk Parity - Terminated
Legato	Global Equity	Small Cap Growth -Terminated
Marinus	Credit	Credit HF - Terminated
Bridgewater	Crisis Risk Offset	Pure Alpha - Terminated
Stone Harbor	Credit	Bank Loans - Temrinated
Prima	Principal Protection	Commercial MBS - Terminated
BlackRock x4	Global Equity	US Equity x2; Non-US Developed; Non-US REIT -Terminated
Capital Prospects	Global Equity	Global Equity -Terminated
PIMCO (RAFI)	Global Equity	Global Equity -Terminated
DoubleLine	Principal Protection	Principal Protection -Terminated
Raven	Opportunity Fund II	Stablized Growth - Fund Liquidated
Lombard	Diversifying Strategies	Alternative Risk Premia

Date Terminated

2016	Dublin, Ireland
2016	Westport, CT
2016	Minneapolis, MN
2017	San Francisco, CA
2018	Westport, CT
2019	Westport, CT
2019	New York, NY
2020	Scarsdale, NY
2020	San Francisco, CA
2020	Stamford, CT
2019	Newport Beach, CA
2022	Los Angeles, CA
2022	New York, NY
2023	New York, NY

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)¹

January 2024

Commitment (\$000)	Sub-Segment	Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date
TOTAL PLAN¹		\$ 4,213,686,654	100.0%	100.0%	0.5	7.3	0.5	5.7	5.0	6.6	7.6	Apr-90
<i>Policy Benchmark⁴</i>					-0.2	6.3	-0.2	7.8	4.6	6.9	7.4	
<i>Difference:</i>					0.7	1.0	0.7	-2.1	0.4	-0.4	0.1	
<i>75/25 Portfolio⁵</i>					0.1	13.4	0.1	11.6	3.5	8.3	6.9	
<i>Difference:</i>					0.4	-6.1	0.4	-5.8	15	-1.7	0.7	
Broad Growth		\$ 3,326,010,923	78.9%	78.0%	0.3	9.1	0.3	6.6	6.3	7.7	8.2	Jan-95
Aggressive Growth Lag²		\$ 422,364,784	10.0%	12.0%	0.1	0.1	0.9	0.9	18.4	13.6	-1.9	Feb-05
<i>Aggressive Growth Blend⁶</i>					-2.3	-2.3	4.8	4.8	8.9	7.4	8.5	
<i>Difference:</i>					0.7	0.2	-6.3	-3.7	4.5	5.8	-1.9	
BlackRock Global Energy&Power Lag³	\$50,000	Global Infrastructure	\$ 45,899,643	1.1%	-0.5	-0.5	10.7	10.7	9.7	--	10.4	Jul-19
<i>MSCI ACWI +2% Lag</i>					6.9	6.9	19.4	19.4	13.7	--	12.4	
<i>Difference:</i>					-7.3	-7.3	-8.8	-8.8	-4.0	--	-2.0	
BlackRock Infrastructure³	\$50,000	Global Infrastructure	\$ 13,958,849	0.3%	-1.4	-1.4	--	--	--	--	-9.0	Mar-23
<i>MSCI ACWI +2% Lag</i>					-2.8	-2.8	--	--	--	--	12.1	
<i>Difference:</i>					1.4	1.4	--	--	--	--	-21.1	
Bessemer Venture Partners Forge Fund³	\$50,000	PE Buyout	\$ 6,370,041	0.2%	-2.6	-2.6	--	--	--	--	--	Sep-23
<i>MSCI ACWI +2% Lag</i>					-2.8	-2.8	--	--	--	--	--	
<i>Difference:</i>					0.2	0.2	--	--	--	--	--	
Lightspeed Venture Ptr Select V Lag³	\$40,000	Growth-Stage VC	\$ 19,020,050	0.5%	-1.1	-1.1	-5.7	-5.7	--	--	-11.9	Jun-22
<i>MSCI ACWI +2% Lag</i>					6.9	6.9	19.4	19.4	--	--	-2.3	
<i>Difference:</i>					-8.0	-8.0	-25.2	-25.2	--	--	-9.6	
Long Arc Capital Fund Lag³	\$25,000	Growth-Stage VC	\$ 22,259,650	0.5%	3.4	3.4	--	--	--	--	-3.0	Apr-23
<i>MSCI ACWI +2% Lag</i>					6.9	6.9	--	--	--	--	27.4	
<i>Difference:</i>					-3.5	-3.5	--	--	--	--	-30.4	
Oaktree Special Situations Lag³	\$40,000	PE Buyout	\$ -	0.0%	---	---	---	---	---	---	---	Mar-24
<i>MSCI ACWI +2% Lag</i>					---	---	---	---	---	---	---	
<i>Difference:</i>					---	---	---	---	---	---	---	
Ocean Avenue II Lag³	\$40,000	PE Buyout FOF	\$ 32,271,035	0.8%	-8.9	-8.9	-14.7	-14.7	29.3	22.6	15.7	May-13
<i>MSCI ACWI +2% Lag</i>					6.9	6.9	19.4	19.4	13.7	10.2	9.6	
<i>Difference:</i>					-15.8	-15.8	-34.2	-34.2	15.5	--	6.1	
Ocean Avenue III Lag³	\$50,000	PE Buyout FOF	\$ 53,687,919	1.3%	6.3	6.3	12.7	12.7	31.3	25.2	24.3	Apr-16
<i>MSCI ACWI +2% Lag</i>					6.9	6.9	19.4	19.4	13.7	10.2	9.8	
<i>Difference:</i>					-0.6	-0.6	-6.7	-6.7	17.6	--	14.5	
Ocean Avenue IV Lag³	\$50,000	PE Buyout	\$ 56,269,156	1.3%	-0.4	-0.4	9.3	9.3	33.2	--	31.0	Dec-19
<i>MSCI ACWI +2% Lag</i>					-2.8	-2.8	23.8	23.8	9.5	--	10.8	
<i>Difference:</i>					2.4	2.4	-14.5	-14.5	23.7	--	20.2	
Ocean Avenue V Lag³	\$30,000	PE Buyout	\$ 6,498,007	0.2%	16.0	16.0	--	--	--	--	2.9	Jun-23
<i>MSCI ACWI +2% Lag</i>					6.9	6.9	--	--	--	--	15.1	
<i>Difference:</i>					9.1	9.1	--	--	--	--	-12.2	
Morgan Creek III Lag³	\$10,000	Multi-Strat FOF	\$ 4,848,671	0.1%	5.7	5.7	4.0	4.0	-8.1	-10.3	-4.9	Feb-15
<i>MSCI ACWI +2% Lag</i>					6.9	6.9	19.4	19.4	13.7	10.2	9.7	
<i>Difference:</i>					-1.2	-1.2	-15.4	-15.4	-21.9	-20.5	-14.6	
Morgan Creek V Lag³	\$12,000	Multi-Strat FOF	\$ 5,557,161	0.1%	-0.6	-0.6	-4.9	-4.9	8.4	8.9	11.9	Jun-13
<i>MSCI ACWI +2% Lag</i>					6.9	6.9	19.4	19.4	13.7	10.2	9.6	
<i>Difference:</i>					-7.5	-7.5	-24.3	-24.3	-5.3	-1.3	2.3	
Morgan Creek VI Lag³	\$20,000	Multi-Strat FOF	\$ 22,031,859	0.5%	1.6	1.6	-1.9	-1.9	14.2	14.2	9.0	Feb-15
<i>MSCI ACWI +2% Lag</i>					6.9	6.9	19.4	19.4	13.7	10.2	9.7	
<i>Difference:</i>					-5.2	-5.2	-21.4	-21.4	0.5	4.0	-0.7	

¹Returns are preliminary and are finalized during each quarterly reporting cycle. Monthly returns since previous quarter are provided by the managers. Market values are provided by Northern Trust.

²Total class returns are as of 12/31/23, and lagged 1 quarter.

³Manager returns are as of 12/31/23, and lagged 1 quarter. Since Inception date reflects one quarter lag.

⁴9/1/23 to present benchmark is 34% MSCI ACWI IMI, 8% BB Aggregate Bond Index, 16% 50% BB High Yield/50% S&P Leveraged Loans, 7% NCREIF ODCE +1% Lag; 9% T-Bill +4%, 12% MSCI ACWI +2% Lag, 14% CRO Custom Benchmark. Prior to 9/1/23 benchmark is legacy policy benchmark.

⁵4/1/20 to present 75% MSCI ACWI, 25% BB Global Aggregate. Prior to 4/1/20 60% MSCI ACWI, 40% BB Global Aggregate.

⁶1/1/2021 to present 50% MSCI ACWI +2%, 50% NCREIF ODCE +1%

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)¹

January 2024

	Commitment (\$000)	Sub-Segment	Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date
Aggressive Growth Lag (continued)													
Ridgemont Equity Partners Lag³	\$50,000	Special Situations PE	\$ 14,953,520	0.4%		-2.0	-2.0	--	--	--	--	6.1	Apr-23
MSCI ACWI +2% Lag						6.9	6.9	--	--	--	--	27.4	
Difference:						-8.9	-8.9	--	--	--	--	-21.2	
Stellex Capital Partners II Lag³	\$50,000	Special Situations PE	\$ 35,545,235	0.8%		1.9	1.9	4.5	4.5	--	--	2.5	Jul-21
MSCI ACWI +2% Lag						-2.8	-2.8	23.8	23.8	--	--	1.5	
Difference:						4.7	4.7	-19.3	-19.3	--	--	1.0	
Opportunistic Private Real Estate⁴													
Greenfield VII³	\$19,100	Opportunistic Pvt. RE	\$ 1,343,355	0.0%		2.5	2.5	7.4	-4.6	13.8	11.8	12.0	Oct-14
NCREIF ODCE + 1% Lag Blend						-1.9	-1.9	-12.0	-12.0	7.3	5.8	11.2	
Difference:						4.4	4.4	19.4	7.4	6.5	6.0	0.8	
Grandview³	\$30,000	Opportunistic Pvt. RE	\$ 14,487,779	0.3%		-0.4	-0.4	-12.4	-8.2	11.1	--	16.0	Apr-18
NCREIF ODCE + 1% Lag Blend						-1.9	-1.9	-12.0	-12.0	7.3	5.8	8.8	
Difference:						1.5	1.5	-0.4	3.8	3.8	--	7.2	
Walton Street VI³	\$15,000	Opportunistic Pvt. RE	\$ 6,708,140	0.2%		1.6	1.6	4.8	10.3	12.3	4.4	8.1	Jul-09
NCREIF ODCE + 1% Lag Blend						-1.9	-1.9	-12.0	-12.0	7.3	5.8	11.0	
Difference:						3.5	3.5	16.8	22.3	5.0	-1.4	-2.9	
Value-Added Private Real Estate													
AG Core Plus IV³	\$20,000	Value-Added Pvt. RE	\$ 7,340,287	0.2%		-9.9	-9.9	-23.0	-31.2	-8.3	-2.7	-0.4	Sep-15
NCREIF ODCE + 1% Lag Blend						-1.9	-1.9	-12.0	-12.0	7.3	5.8	10.6	
Difference:						-8.0	-8.0	-11.0	-19.2	-15.6	-8.5	-11.0	
Almanac Realty VI³	\$30,000	Value-Added Pvt. RE	\$ 3,436,232	0.1%		-8.1	-8.1	-12.9	-11.0	-2.3	-8.5	16.7	Feb-13
NCREIF ODCE + 1% Lag Blend						-1.9	-1.9	-12.0	-12.0	7.3	5.8	12.1	
Difference:						-6.2	-6.2	-0.9	1.0	-9.6	-14.3	4.6	
Berkeley Partners Fund V, LP³	\$40,000	Value-Added Pvt. RE	\$ 31,522,143	0.7%		3.3	3.3	6.5	1.7	23.5	--	23.5	Aug-20
NCREIF ODCE + 1% Lag Blend						-1.9	-1.9	-12.0	-12.0	7.3	5.8	10.4	
Difference:						5.2	5.2	18.5	13.7	16.2	--	13.1	
Stockbridge RE II³	\$45,000	Value-Added Pvt. RE	\$ 20,767,905	0.5%		-3.4	0.7	1.8	20.2	13.4	--	11.2	Jul-18
NCREIF ODCE + 1% Lag Blend						-1.9	-1.9	-12.0	-12.0	7.3	5.8	9.2	
Difference:						-1.5	2.6	13.8	32.2	--	--	2.0	

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²MSCI ACWI IMI Net as of 4/1/2020, MSCI ACWI Gross prior.

³Manager returns are as of 12/31/23, and lagged 1 quarter. Since Inception date reflects one quarter lag.

⁴Market value includes Greenfield V \$15,783; Greenfield VI \$21,768, and Walton V \$623,011

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)¹

January 2024

Commitment (\$000)	Sub-Segment	Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date
Traditional Growth³		\$ 1,631,499,039	38.7%	34.0%	0.6	16.2	0.6	15.3	7.2	9.0	9.1	Jan-95
<i>MSCI ACWI IMI Net²</i>					0.2	15.2	0.2	13.5	5.6	10.4	7.8	
Difference:					0.4	1.0	0.4	1.8	1.6	-1.4	1.2	
Global Equity		\$ 1,587,574,023	37.7%									
Northern Trust MSCI World IMI	<i>All Cap Global</i>	\$ 1,419,437,750	33.7%		0.7	16.2	0.7	15.6	7.7	--	10.0	Sep-20
<i>MSCI World IMI Net</i>					0.8	16.2	0.8	15.4	7.2	--	9.5	
Difference:					0.0	0.1	0.0	0.3	--	--	0.4	
SJCERA Transition	<i>All Cap Global</i>	\$ 3,118	0.0%		NM	NM	NM	NM	--	--	NM	Jul-20
Emerging Markets		\$ 168,133,155										
GQG Active Emerging Markets	<i>Emerging Markets</i>	\$ 74,641,415	18%		2.7	18.3	2.7	27.3	0.7	--	6.1	Aug-20
<i>MSCI Emerging Markets Index Net</i>					-4.6	7.0	-4.6	-2.9	-7.5	--	-0.5	
Difference:					7.3	11.3	7.3	30.3	--	--	6.6	
PIMCO RAE Fundamental Emerging Markets	<i>Emerging Markets</i>	\$ 93,491,740	2.2%		0.0	15.0	0.0	16.8	8.3	6.6	5.4	Apr-07
<i>MSCI Emerging Markets Index Net</i>					-4.6	7.0	-4.6	-2.9	-7.5	1.0	2.7	
Difference:					4.6	8.0	4.6	19.7	15.8	5.6	2.7	
REITS		\$ 43,925,017	1.0%									
Invesco All Equity REIT	<i>Core US REIT</i>	\$ 43,925,017	1.0%		-5.3	13.7	-5.3	-5.8	3.9	3.0	7.4	Aug-04
<i>FTSE NAREIT Equity Index</i>					-4.2	16.5	-4.2	-1.5	5.7	4.1	7.3	
Difference:					-1.2	-2.7	-1.2	-4.3	-1.7	-1.2	0.1	
Stabilized Growth		\$ 1,272,147,100	30.2%	32.0%	-0.1	3.9	-0.1	-1.2	2.4	4.9	3.7	Jan-05
Risk Parity		\$ 376,264,056	8.9%		-1.4	9.6	-1.4	-1.6	-4.2	2.1	3.1	
<i>T-Bill +4%</i>					0.8	2.3	0.8	9.3	6.4	6.0	4.9	
Difference:					-2.2	7.3	-2.2	-10.9	-10.6	-3.9	-1.9	
Bridgewater All Weather	<i>Risk Parity</i>	\$ 198,859,860	4.7%		-1.4	11.1	-1.4	1.9	-1.6	3.1	3.6	Mar-12
<i>T-Bill +4%</i>					0.8	2.3	0.8	9.3	6.4	6.0	5.1	
Difference:					-2.1	8.8	-2.1	-7.4	-7.9	-2.9	-1.6	
PanAgora Diversified Risk Multi-Asset	<i>Risk Parity</i>	\$ 177,404,196	4.2%		-1.5	8.0	-1.5	-5.3	-6.9	1.0	2.7	Apr-16
<i>T-Bill +4%</i>					0.8	2.3	0.8	9.3	6.4	6.0	5.7	
Difference:					-2.2	5.6	-2.2	-14.6	-13.3	-5.0	-3.0	
Liquid Credit		\$ 250,480,607	5.9%		1.8	5.9	1.8	8.1	2.5	3.5	2.3	
<i>50% BB High Yield, 50% S&P/LSTA Leveraged Loans</i>					0.3	6.0	0.3	10.2	3.8	5.0	5.6	
Difference:					1.5	-0.1	1.5	-2.1	-1.3	-1.4	-3.3	
Neuberger Berman	<i>Global Credit</i>	\$ 107,026,432	2.5%		3.3	7.2	3.3	7.8	0.7	3.0	3.0	Feb-19
<i>33% ICE BofA HY Constrained, 33% S&P/LSTA LL, 33% JPM EMBI Gbl Div.</i>					-0.1	7.1	-0.1	8.9	1.3	3.4	3.4	
Difference:					3.4	0.1	3.4	-1.2	-0.7	--	-0.4	
Stone Harbor Absolute Return	<i>Absolute Return</i>	\$ 143,454,175	3.4%		0.8	4.9	0.8	8.3	3.8	3.9	3.1	Oct-06
<i>3-Month Libor Total Return</i>					0.5	1.4	0.5	5.2	2.3	2.1	1.6	
Difference:					0.3	3.5	0.3	3.1	1.5	1.9	1.5	

¹Returns are preliminary and are finalized during each quarterly reporting cycle. Monthly returns since previous quarter are provided by the managers. Market values are provided by Northern Trust.

²MSCI ACWI IMI Net as of 4/1/2020, MSCI ACWI Gross prior.

³Total Market Value includes DoubleLine \$57 and SJCERA Transition \$3,171.

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)¹

January 2024

Commitment (\$000)	Sub-Segment	Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date
Private Credit Lag² <i>S&P/LSTA Leveraged Loans +3% Blend</i> Difference:		\$ 422,985,367	10.0%		1.6 4.2 -2.6	1.6 4.2 -2.6	0.1 16.4 -16.3	0.1 16.4 -16.3	4.7 11.3 -6.6	3.4 9.8 -6.6	3.5 9.2 -5.7	
Ares Pathfinder Fund II Lag³ <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Asset Backed	\$ -	0.0%		---	---	---	---	---	---	---	Feb-24
BlackRock Direct Lending Lag³ <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Direct Lending	\$ 88,369,651	2.1%		4.4 4.2 0.2	4.4 4.2 0.2	11.5 16.4 -4.9	11.5 16.4 -4.9	8.3 11.3 -3.0	-- -- --	8.8 10.6 -1.8	May-20
Mesa West RE Income IV Lag³ <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Comm. Mortgage	\$ 30,826,114	0.7%		-0.7 4.2 -4.9	-0.7 4.2 -4.9	-19.3 16.4 -35.7	-19.3 16.4 -35.7	-3.9 11.3 -15.2	0.5 9.8 -9.3	2.6 9.5 -7.0	Mar-17
Crestline Opportunity II Lag³ <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Opportunistic	\$ 11,159,060	0.3%		-4.6 4.2 -8.8	-4.6 4.2 -8.8	-14.7 16.4 -31.1	-14.7 16.4 -31.1	-2.8 11.3 -14.1	-3.6 9.8 -13.4	1.9 9.4 -7.5	Nov-13
Davidson Kempner Distr Opp V Lag³ <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Opportunistic	\$ 51,002,059	0.0%		2.1 4.2 -2.2	2.1 4.2 -2.2	1.4 16.4 -15.0	1.4 16.4 -15.0	9.6 11.3 -1.7	-- -- --	15.9 11.2 4.7	Oct-20
Oaktree Middle Market Lag³ <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Leveraged Direct	\$ 37,484,318	0.9%		4.2 4.2 0.0	4.2 4.2 0.0	5.3 16.4 -11.1	5.3 16.4 -11.1	11.2 11.3 -0.1	12.6 9.8 2.8	10.7 9.6 1.1	Mar-18
HPS EU Asset Value II Lag³ <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Direct Lending	\$ 32,730,106	0.8%		4.1 4.2 -0.1	4.1 4.2 -0.1	12.2 16.4 -4.2	12.2 16.4 -4.2	9.6 11.3 -1.7	-- -- --	6.2 11.1 -5.0	Aug-20
Raven Opportunity III Lag³ <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Direct Lending	\$ 51,649,570	1.2%		-4.4 4.2 -8.6	-4.4 4.2 -8.6	-11.6 16.4 -28.0	-11.6 16.4 -28.0	4.5 11.3 -6.8	5.1 9.8 -4.7	2.8 9.4 -6.6	Nov-15
Medley Opportunity II Lag² <i>S&P/LSTA Leveraged Loans +3% Blend³</i> Difference:	Direct Lending	\$ 1,484,588	0.0%		-9.5 4.2 -13.7	-9.5 4.2 -13.7	0.5 16.4 -15.9	0.5 16.4 -15.9	-0.7 11.3 -12.0	-7.6 9.8 -17.4	-2.0 9.3 -11.3	Jul-12
Silver Point Credit III Lag² <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Sub-Sector	\$ 18,019,705	0.4%		-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	Nov-23
SilverRock Tactical Allocation Lag² <i>S&P/LSTA Leveraged Loans +3% Blend⁴</i> Difference:	Direct Lending	\$ 34,223,586	0.8%		5.8 4.2 1.6	5.8 4.2 1.6	-- -- --	-- -- --	-- -- --	-- -- --	5.8 9.6 -3.8	Jul-23
White Oak Summit Peer Fund Lag² <i>S&P/LSTA Leveraged Loans +3% Blend³</i> Difference:	Direct Lending	\$ 25,242,902	0.6%		2.4 4.2 -1.9	2.4 4.2 -1.9	6.1 16.4 -10.4	6.1 16.4 -10.4	-1.1 11.3 -12.4	1.5 9.8 -8.4	3.7 9.5 -5.8	Mar-16
White Oak Yield Spectrum Master V Lag² <i>S&P/LSTA Leveraged Loans +3% Blend³</i> Difference:	Direct Lending	\$ 40,793,708	1.0%		0.5 4.2 -3.7	0.5 4.2 -3.7	-2.2 16.4 -18.6	-2.2 16.4 -18.6	0.8 11.3 -10.5	-- -- --	2.2 10.6 -8.4	Mar-20
Core Private Real Estate Lag		\$ 222,417,070	5.3%									
Principal US² <i>NCREIF ODCE + 1% Lag Blend</i> Difference:	Core Pvt. RE	\$ 39,961,260	0.9%		-3.9 -1.9 -2.0	-3.9 -1.9 -2.0	-8.8 -12.0 3.2	-14.4 -12.0 -2.4	5.8 7.3 -1.5	4.7 5.8 -1.1	6.6 10.1 -3.5	Jan-16
Prologis Logistics² <i>NCREIF ODCE + 1% Lag Blend</i> Difference:	Core Pvt. RE	\$ 127,352,283	3.0%		-2.3 -1.9 -0.4	-2.3 -1.9 -0.4	-3.0 -12.0 9.0	-8.0 -12.0 4.0	19.8 7.3 12.5	16.6 5.8 10.8	12.2 8.9 3.3	Dec-07
RREEF America II² <i>NCREIF ODCE + 1% Lag Blend</i> Difference:	Core Pvt. RE	\$ 55,538,296	1.3%		-2.4 -1.9 -0.5	-2.4 -1.9 -0.5	-11.2 -12.0 0.8	-14.5 -12.0 -2.5	6.0 7.3 -1.3	5.2 5.8 -0.6	6.4 9.8 -3.4	Jul-16

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²Total class returns are as of 12/31/23, and lagged 1 quarter.

³Manager returns are as of 12/31/23, and lagged 1 quarter. Since Inception date reflects one quarter lag.

⁴9% Annual until 6/30/2018; CPI +6% Annual 7/1/2018 - 3/31/2022; S&P/LSTA Leveraged Loans +3% thereafter.

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)¹

January 2024

Commitment (\$000)	Sub-Segment	Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date
Diversifying Strategies		\$ 780,144,538	18.5%	22.0%	1.5	1.0	1.5	1.9	1.2	2.7	6.0	Oct-90
Principal Protection <i>BB Aggregate Bond Index</i>		\$ 304,933,098	7.2%	8.0%	-0.1	9.0	-0.1	3.5	-1.2	1.3	5.8	Oct-90
Difference:					0.3	8.2	0.3	2.1	-3.2	0.8	5.3	
Dodge & Cox <i>BB Aggregate Bond Index</i>		\$ 209,455,419	5.0%		-0.1	9.3	-0.1	4.1	-1.3	2.5	6.6	Oct-90
Difference:					0.1	1.1	0.1	2.0	1.9	1.7	1.2	
Loomis Sayles <i>BB Aggregate Bond Index</i>		\$ 95,477,621	2.3%		-0.1	8.3	-0.1	2.3	--	--	-1.2	Mar-22
Difference:					0.1	0.1	0.1	0.2	--	--	0.3	
Crisis Risk Offset <i>CRO Custom Benchmark²</i>		\$ 475,211,440	11.3%	14.0%	2.6	-3.5	2.6	0.8	3.3	3.8	6.1	Jan-05
Difference:					-0.2	4.9	-0.2	0.2	0.9	3.9	4.7	
Long Duration <i>BB US Long Duration Treasuries</i>		\$ 114,316,764	2.7%		-1.5	16.3	-1.5	-4.2	-10.2	-1.6	-1.0	
Difference:					0.7	0.3	0.7	1.1	0.8	0.2	0.1	
Dodge & Cox Long Duration <i>BB US Long Duration Treasuries</i>		\$ 114,316,764	2.7%		-1.5	15.8	-1.5	-4.6	-10.3	-1.6	-1.0	Feb-16
Difference:					0.7	-0.1	0.7	0.7	0.7	0.2	0.1	
Systematic Trend Following <i>BTOP50 Index</i>		\$ 227,746,120	5.4%		1.5	-9.1	1.5	-3.7	9.4	8.8	8.3	
Difference:					0.2	-6.9	0.2	-3.4	1.0	1.3	3.5	
Mt. Lucas Managed Futures - Cash <i>BTOP50 Index</i>		\$ 118,136,374	2.8%		-0.9	-8.5	-0.9	-1.0	10.1	8.0	7.9	Jan-05
Difference:					1.3	-2.2	1.3	-0.3	8.4	7.5	4.8	
Graham Tactical Trend <i>SG Trend Index</i>		\$ 109,609,746	2.6%		4.1	-9.7	4.1	-6.5	8.6	9.5	3.2	Apr-16
Difference:					2.5	-6.1	2.5	-5.2	-2.3	-0.6	-1.3	
Alternative Risk Premia <i>5% Annual</i>		\$ 133,148,556	3.2%		8.7	-7.3	8.7	12.8	8.8	1.8	7.6	
Difference:					8.3	-8.5	8.3	7.8	3.8	-3.2	1.4	
AQR Style Premia <i>5% Annual</i>		\$ 68,974,393	1.6%		10.3	7.2	10.3	23.4	23.8	5.8	3.5	May-16
Difference:					9.9	6.0	9.9	18.4	18.8	0.8	-1.5	
PE Diversified Global Macro <i>5% Annual</i>		\$ 64,174,163	1.5%		7.1	-19.1	7.1	7.2	8.9	0.7	2.2	Jun-16
Difference:					6.7	-20.3	6.7	2.2	3.9	-4.3	-2.8	
Cash³ <i>US T-Bills</i>		\$ 77,770,292	1.8%	0.0%	0.4	0.8	0.4	3.5	1.8	1.5	2.4	Sep-94
Difference:					0.0	-0.5	0.0	-1.7	-0.5	-0.5	0.0	
Northern Trust STIF <i>US T-Bills</i>		\$ 65,659,405	1.6%		0.4	1.0	0.4	4.4	2.0	1.6	2.6	Jan-95
Difference:					0.0	-0.4	0.0	-0.7	-0.3	-0.3	0.2	
Parametric Overlay⁴ <i>Cash Overlay</i>		\$ 29,760,902	0.7%		0.0	0.0	0.0	0.0	--	--	0.0	Jan-20

¹Returns are preliminary and are finalized during each quarterly reporting cycle. Monthly returns since previous quarter are provided by the managers. Market values are provided by Northern Trust.

²Benchmark is (1/3) BB Long Duration Treasuries, (1/3) BTOP50 Index, (1/3) 5% Annual.

³Includes lagged cash.

⁴Given daily cash movement returns may vary from those shown above.

Economic and Market Update

January 2024 Report

Commentary

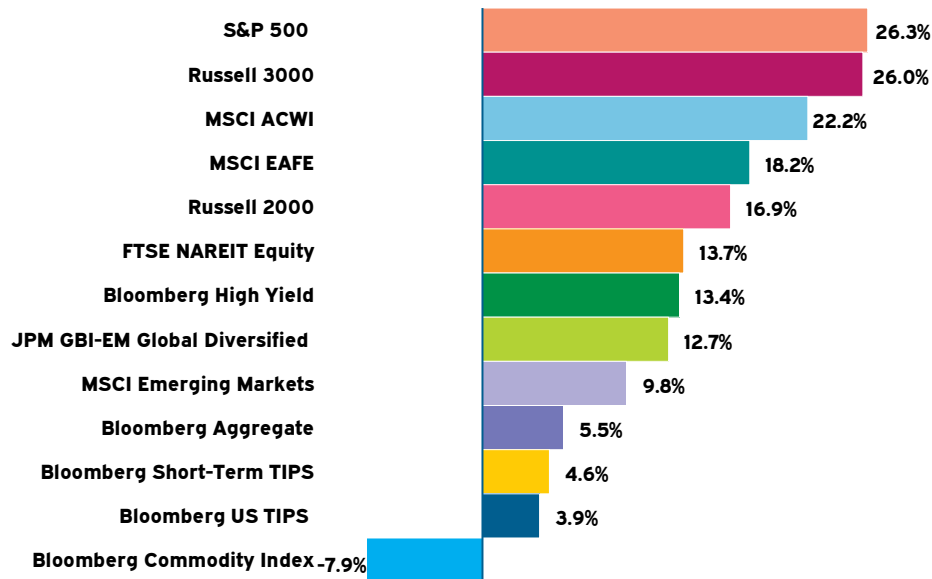
→ Markets were mixed in January after posting strong returns in 2023.

- Major central banks have largely paused interest rate hikes with expectations for many to cut rates this year. During the month there were signs though that many central banks, including the US, might not cut rates as soon as expected given strong economic data.
- In general inflation pressures have receded in most countries, but some uncertainty remains. Headline inflation fell in January in the US, but core inflation remained unchanged and elevated. China moved further into deflationary territory (-0.8%) in January.
- US equity markets (Russell 3000 index) rose 1.1% in January after a very strong 2023 (26.0%). There were mixed results across sectors, but technology continued to do well.
- Non-US developed equity markets gained 0.6% in January but 2.6% in local terms as the US dollar reversed course and strengthened during the month. The appreciation of the dollar was largely driven by strong economic data and related expectations that the Fed may delay policy rate cuts this year.
- Emerging market equity returns were also negatively influenced by the strong US dollar, but the biggest headwind in January was China (-10.6%). Emerging market equities had the weakest results for the month, down 4.6%.
- Bonds experienced selling pressure over the month, but ultimately finished the month nearly unchanged. The broad US bond market (Bloomberg Aggregate) declined (0.3%) in January.

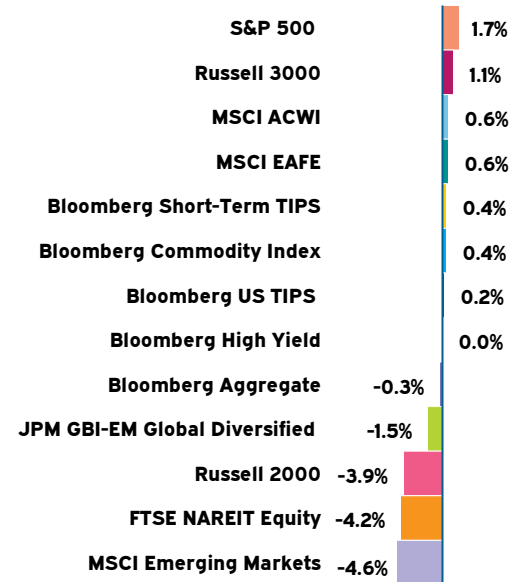
→ Looking to the rest of this year, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, the many looming elections, and the wars in Ukraine and Israel, will be key.

Index Returns¹

2023



January



→ After a strong market performance in 2023, the start of 2024 saw US large cap growth stocks continue their rally causing the S&P 500 to lead the way. Emerging market equity was the worst performer, dragged down by the continued sell-off of Chinese stocks.

→ Better than expected economic news in the US weighed on bond markets for the month with the broad US bond market (Bloomberg Aggregate) down slightly.

¹ Source: Bloomberg. Data is as of January 31, 2024.

Domestic Equity Returns¹

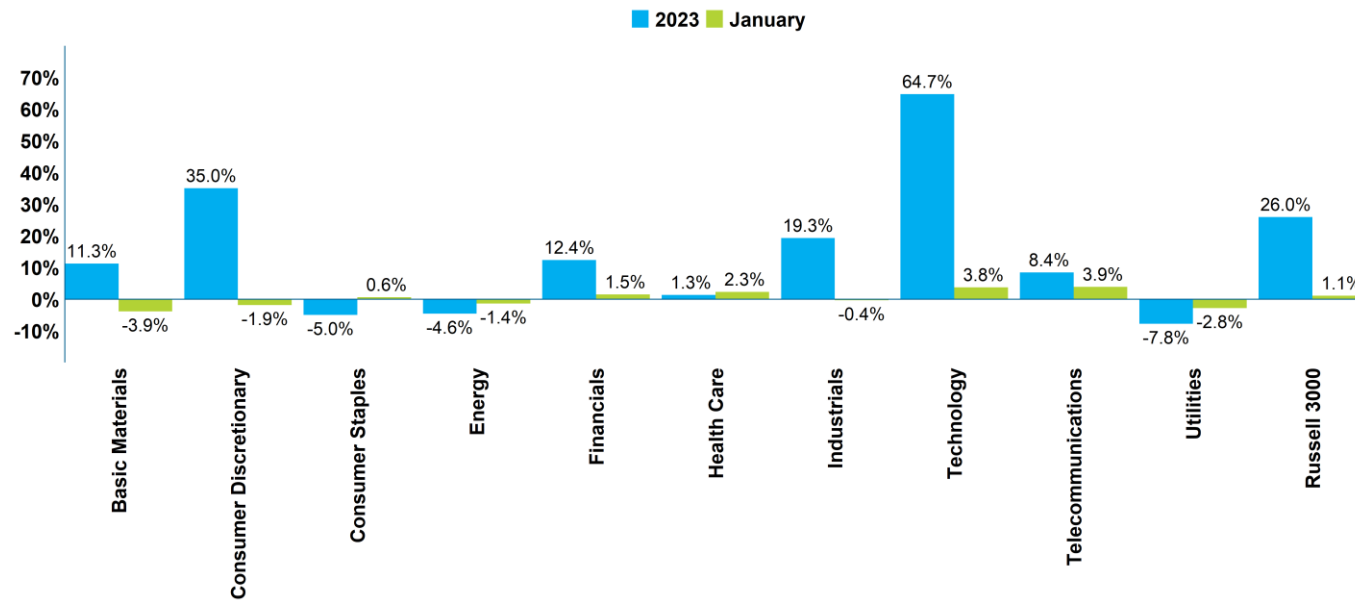
Domestic Equity	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	1.7	11.7	20.8	11.0	14.3	12.6
Russell 3000	1.1	12.1	19.1	9.1	13.5	12.0
Russell 1000	1.4	12.0	20.2	9.8	14.0	12.3
Russell 1000 Growth	2.5	14.2	35.0	10.0	18.0	15.5
Russell 1000 Value	0.1	9.5	6.1	9.2	9.3	8.8
Russell MidCap	-1.4	12.8	6.7	5.5	10.1	9.5
Russell MidCap Growth	-0.5	14.5	15.1	1.2	11.2	10.7
Russell MidCap Value	-1.8	12.1	2.4	7.8	8.6	8.2
Russell 2000	-3.9	14.0	2.4	-0.8	6.8	7.0
Russell 2000 Growth	-3.2	12.7	4.5	-6.0	6.2	7.0
Russell 2000 Value	-4.5	15.3	-0.1	4.5	6.7	6.7

US Equities: The Russell 3000 increased 1.1% in January with a one-year return of 19.1%.

- US equities built on their large gains from last year in January. Strong corporate earnings, economic data suggesting a soft landing might be achievable, and hopes for significant interest rate cuts (for most of the month) all drove results.
- Large cap stocks accounted for all the US equity market gains in January. NVIDIA, Microsoft, and Meta Platforms made up nearly 90% of the increase in the Russell 1000 index. Growth stocks outperformed value stocks across the market cap spectrum.
- While US equities advanced as a group, small and mid-cap stocks both declined in January. Banks contributed to this dynamic after a surprise loss at New York Community Bancorp rekindled fears regarding the banking system.

¹ Source: Bloomberg. Data is as of January 31, 2024.

Russell 3000 Sector Returns¹



→ In January, telecommunications (3.9%), technology stocks (3.8%), and health care (2.3%) outperformed other sectors. Traditionally defensive sector utilities (-2.8%) trailed along with basic materials (-3.9%) and energy stocks (-1.4%).

→ In 2023, technology (64.7%) and consumer discretionary (35.0%) sectors had the best results, helped respectively by artificial intelligence optimism and a healthy US consumer.

¹ Source: Bloomberg. Data is as of January 31, 2024.

Foreign Equity Returns¹

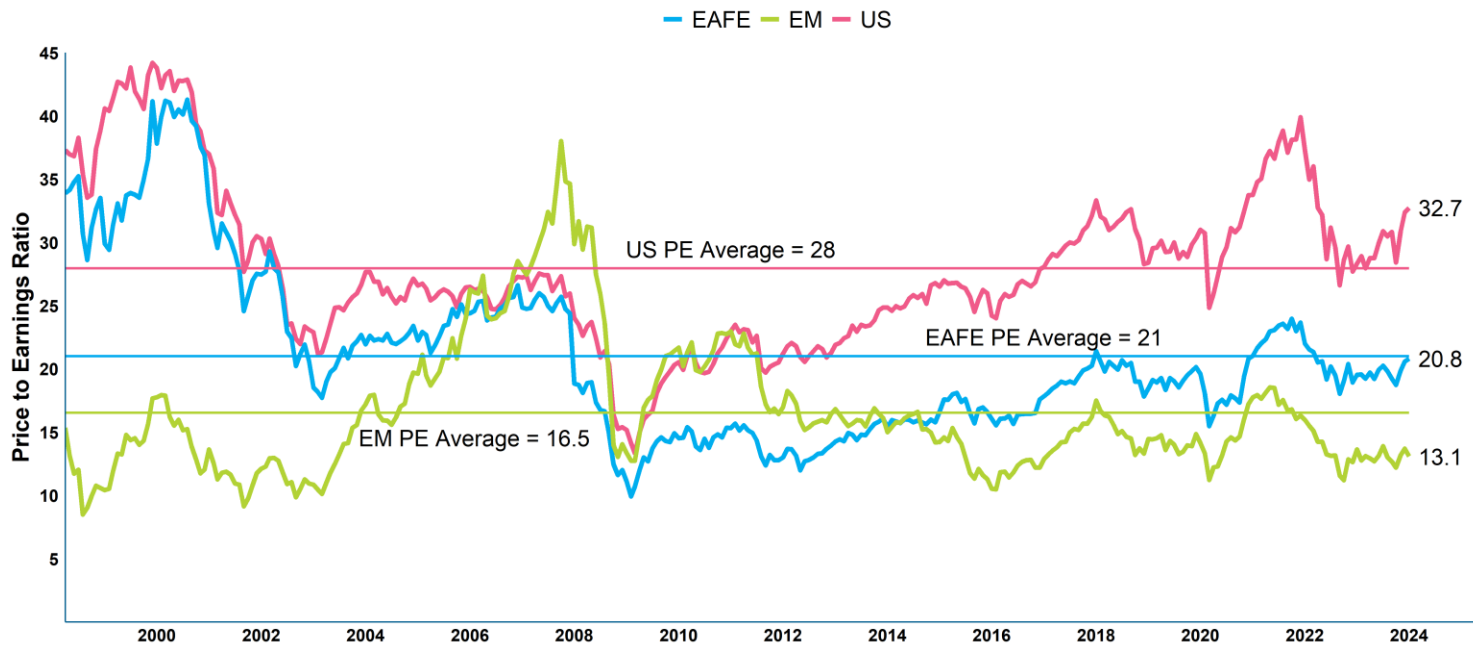
Foreign Equity	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-1.0	9.8	5.9	1.1	5.3	4.2
MSCI EAFE	0.6	10.4	10.0	4.6	6.9	4.8
MSCI EAFE (Local Currency)	2.6	5.0	12.1	9.7	8.9	7.2
MSCI EAFE Small Cap	-1.6	11.1	3.6	-1.1	4.6	4.8
MSCI Emerging Markets	-4.6	7.9	-2.9	-7.5	1.0	2.9
MSCI Emerging Markets (Local Currency)	-3.5	5.6	-0.5	-4.9	3.2	5.3
MSCI China	-10.6	-4.2	-29.0	-23.2	-6.9	0.4

Foreign Equity: Developed international equities (MSCI EAFE) gained 0.6% in January and had a one-year return of 10.0%. Emerging market equities (MSCI EM) fell -4.6% in January, and -2.9% for the trailing year.

- International developed equities saw slight gains for the month, while emerging market equities saw large losses for the same period; both were hampered by the US dollar reversing its sell-off from the end of last year. Outside of emerging markets, growth outperformed value for the month.
- Eurozone equities performed well, benefiting from ECB policy expectations, developments in the tech sector, and promising manufacturing data. U.K. equities stalled, as an unexpected increase in inflation pushed out the expected timing of rate cuts. Japan continues to see the highest returns globally over optimism on structural changes, January being no exception.
- EM equities continue to be bogged down by China (-10.6%) despite news of further stimulus by the PBOC.

¹ Source: Bloomberg. Data is as of January 31, 2024.

Equity Cyclically Adjusted P/E Ratios¹



→ In January, the US equity price-to-earnings ratio increased further above its 21st century average.

→ International market valuations were mixed in January and remain below the US. In the case of developed markets, valuations increased slightly to just below their long-term average, while emerging market valuations declined, remaining well below their average.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of January 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.

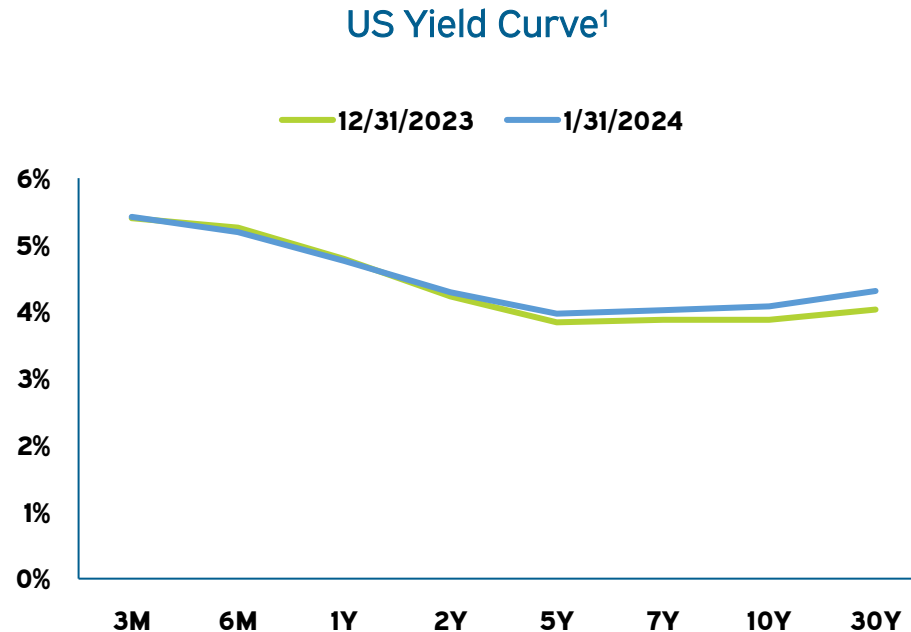
Fixed Income Returns¹

Fixed Income	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-0.2	6.8	2.7	-2.8	1.1	1.9	4.9	6.0
Bloomberg Aggregate	-0.3	6.8	2.1	-3.2	0.8	1.6	4.6	6.2
Bloomberg US TIPS	0.2	4.7	2.2	-1.0	2.9	2.2	4.2	6.9
Bloomberg Short-term TIPS	0.4	2.6	4.3	2.3	3.3	2.0	4.4	2.6
Bloomberg High Yield	0.0	7.2	9.3	1.9	4.4	4.5	7.8	3.7
JPM GBI-EM Global Diversified (USD)	-1.5	8.1	6.4	-3.3	-0.2	0.4	6.3	5.0

Fixed Income: The Bloomberg Universal index fell -0.2% in January but gained 2.7% on a one-year basis.

- Strong economic data in January and comments toward the end of the month by Federal Reserve Chair Jerome Powell hinting that rate cuts were not imminent drove rates up over the month, weighing on bonds.
- The broad US bond market (Bloomberg Aggregate) declined 0.3% for the month. The broader TIPS index rose 0.2%, while the less interest-rate-sensitive short-term TIPS index rose 0.4%.
- High yield bonds ended the month unchanged, while emerging market debt declined by 1.5%. Both asset classes produced double-digit gains last year.

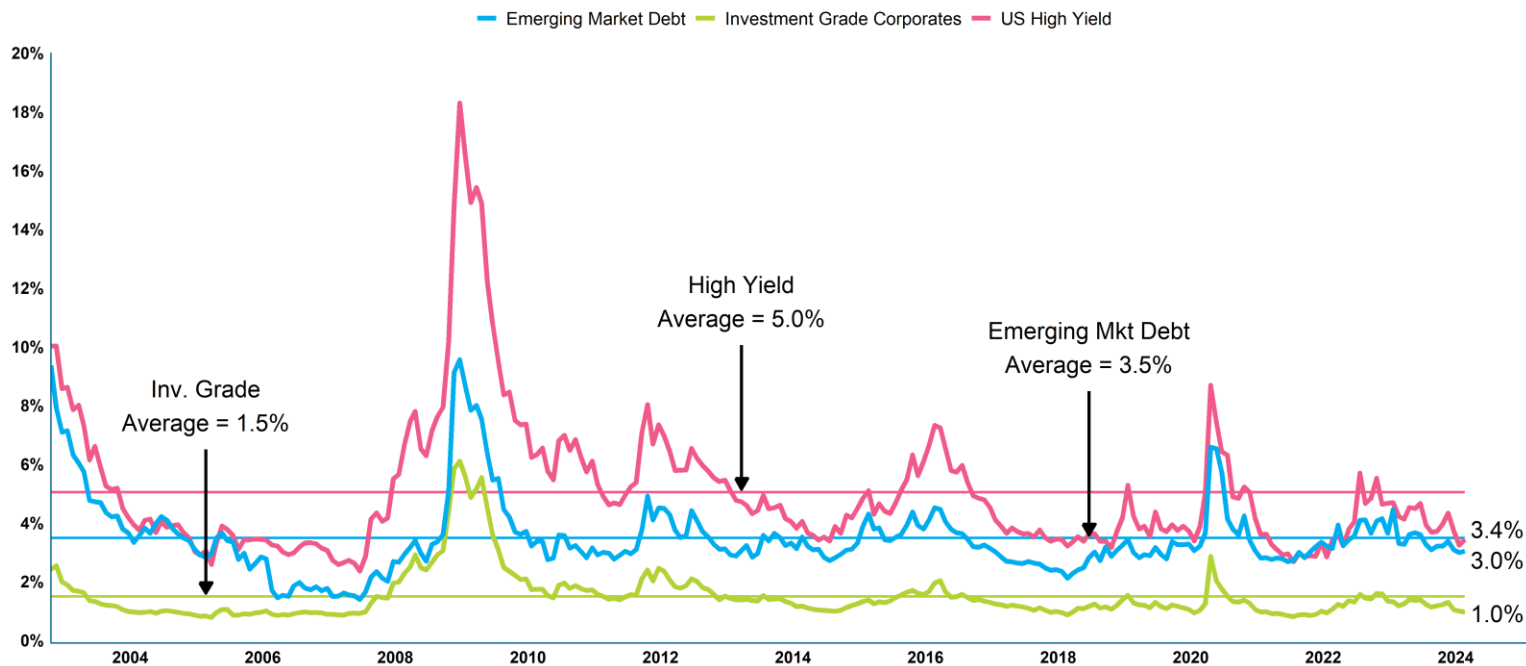
¹ Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of January 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- Both short-term and longer-term maturities ended the month largely unchanged, however, yields were volatile over the month on surprisingly strong economic data and shifts in monetary policy expectations.
- For the month, two-year Treasury yields ended at 4.2% (around 1% below the peak from October) while 10-year Treasury yields ended at 3.9%.
- The yield curve remained inverted at month-end despite a recent flattening trend. The yield spread between the two-year and ten-year Treasury was -0.3% at the end of January.

¹ Source: Bloomberg. Data is as of January 31, 2024.

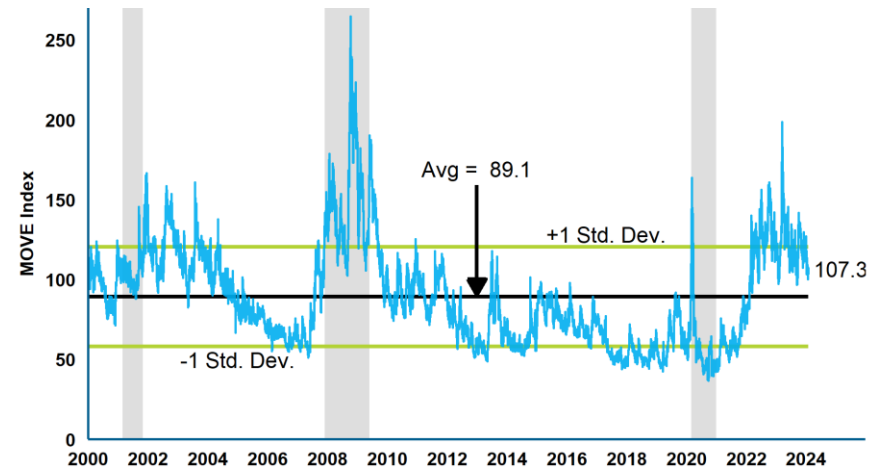
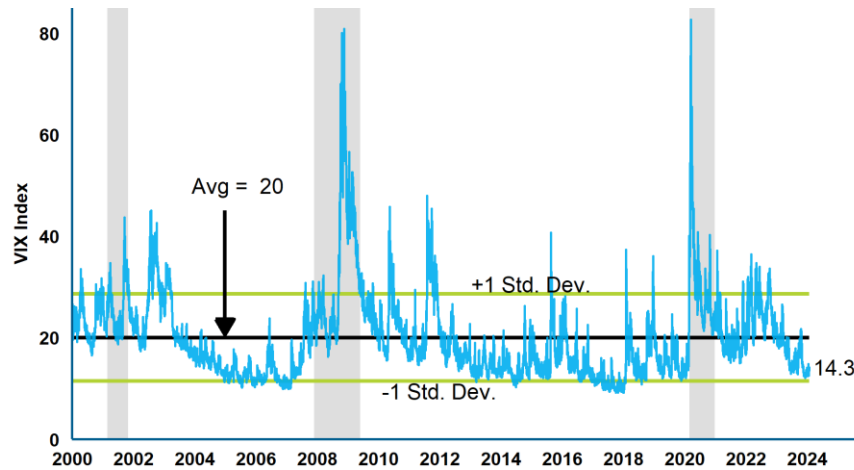
Credit Spreads vs. US Treasury Bonds¹



- Credit spreads widened slightly for high yield in January (3.2% to 3.4%) while spreads for investment grade corporate and emerging market bonds remained the same.
- Expectations of peaking policy rates and the corresponding increase in risk appetite has recently benefited credit, with spreads (the added yield above a comparable maturity Treasury) narrowing.
- All spreads remain below their respective long run averages, particularly within high yield.

¹ Sources: Bloomberg. Data is as of January 31, 2024. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

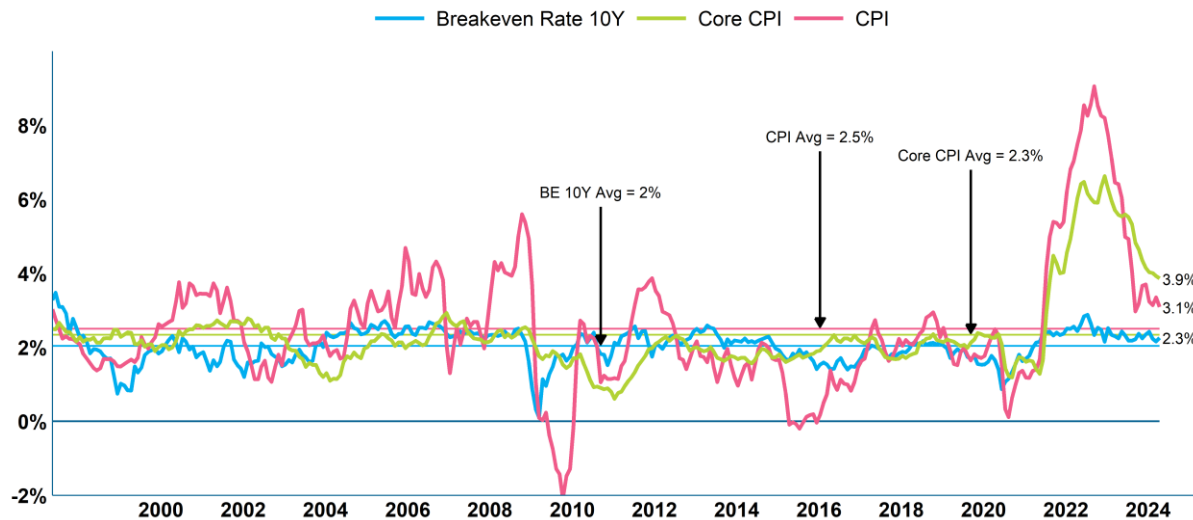
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) remains close to one standard deviation below the long-term average as the focus shifted late last year to peaking policy rates and the potential for a soft landing.
- Volatility in the bond market (MOVE) came down over the month (114.6 to 107.3) but remains elevated and well above its long-run average (89.1). The bond market remained on edge for most of 2023, driven largely by uncertainty about the ultimate path of monetary policy, as well as continued (and surprising) strength in economic data.

¹ Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of January 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and January 2024.

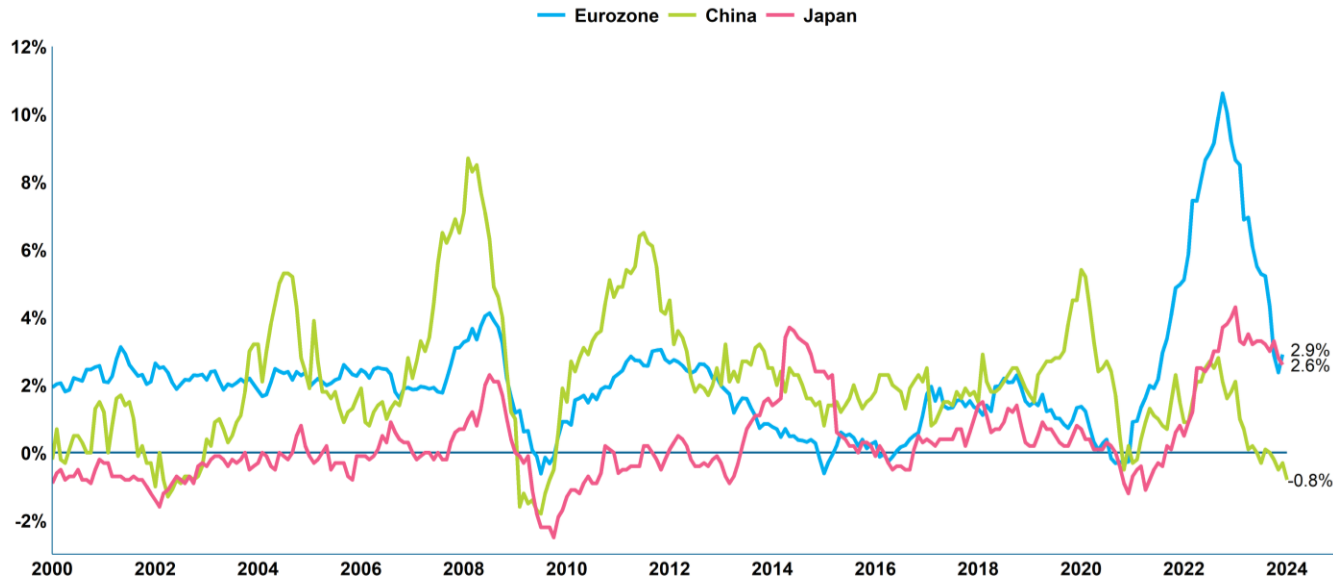
US Ten-Year Breakeven Inflation and CPI¹



- Year-over-year headline inflation declined in January (3.4% to 3.1%) but not by as much as expected (expectations were for a 2.9% reading). Month-over-month inflation came in at 0.3%, the same as last month and slightly above expectations of 0.2%. Shelter continues to keep inflation elevated, increasing 6.0% from a year prior. Food rose 2.6% over the same period, while downward pressure on energy prices continued, falling 4.6%.
- Core inflation - excluding food and energy - remained unchanged at 3.9% year-over-year (expectations were for a decline to 3.7%), with shelter costs again driving the total core index increase.
- Inflation expectations (breakevens) have remained relatively stable despite the recent significant volatility in inflation.

¹ Source: FRED. Data is as January 2024. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

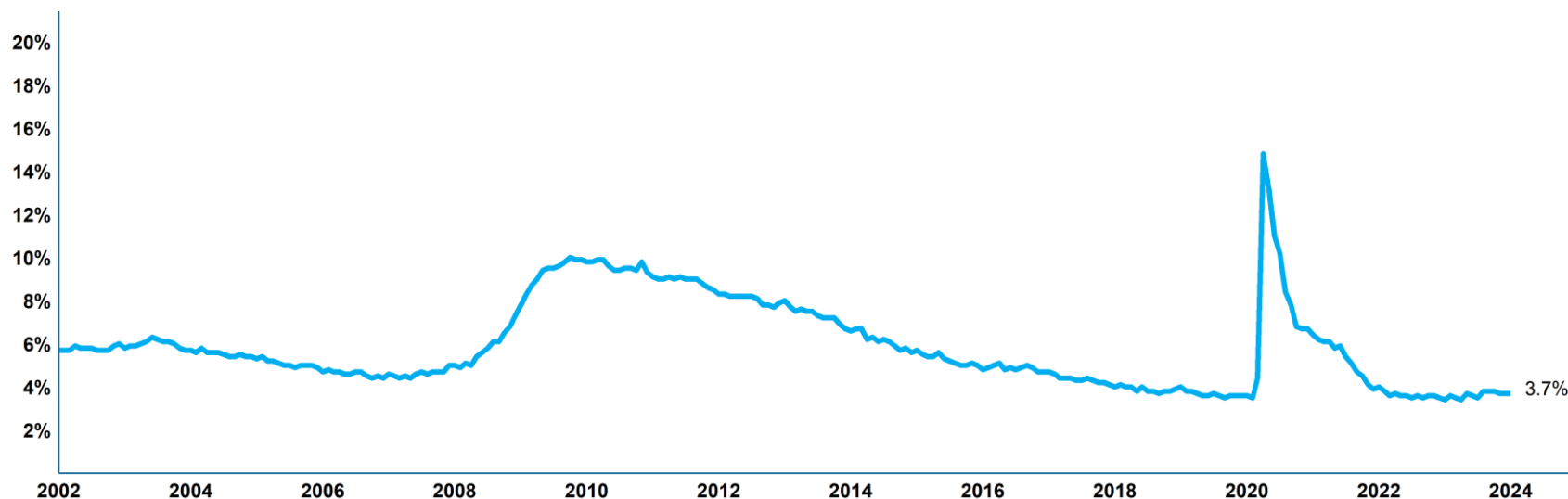
Global Inflation (CPI Trailing Twelve Months)¹



- Outside the US, inflation is also falling across major economies with China slipping further into deflation.
- In the eurozone, inflation experienced a dramatic decline last year. In January inflation rose slightly (2.8% to 2.9%) remaining below the 3.1% year-over-year level in the US.
- Inflation in Japan has slowly declined from the early 2023 peak, but it remains near levels not seen in almost a decade, largely driven by higher food prices.

¹ Source: FRED for United States CPI and Eurozone CPI. Source: Bloomberg for Japan CPI, China CPI, and Eurozone CPI. Data is as January 31, 2024, except Japan which is as of December 31, 2023.

US Unemployment¹

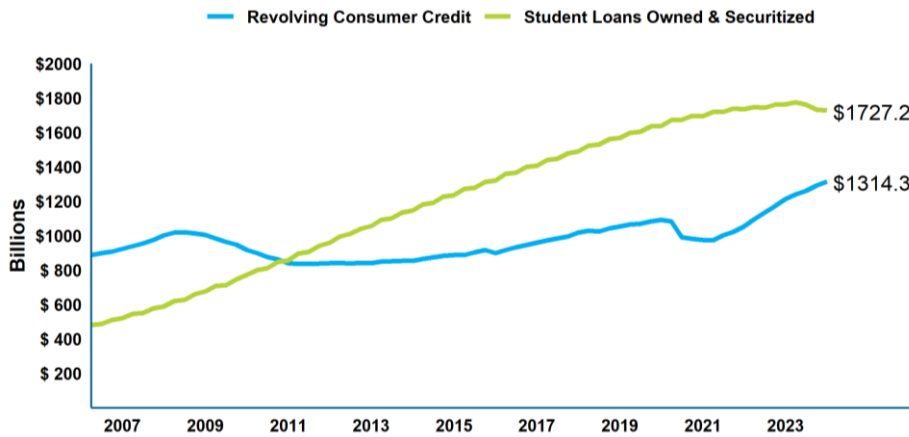


- Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- In January, the number of jobs added in the US were stronger than expected (353,000 versus 185,000) with the unemployment rate remaining at 3.7%. Payrolls from November and December of last year were also revised upward. Business and professional, health care, and retail sales jobs rose the most in January.
- The labor force participation remained relatively stable at 62.5%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%).
- The pace of hourly wage growth has declined from its peak of close to 6.0% but is above the 3.1% level of inflation. Wage growth rose at 4.5% year-on-year in January, an increase from the 4.1% level in December and above expectations of 4.1%.

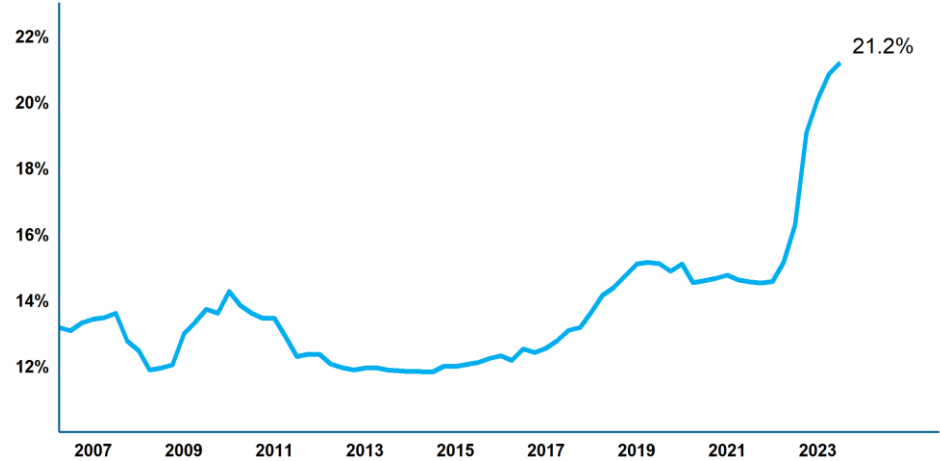
¹ Source: FRED. Data is as January 31, 2024.

US Consumer Under Stress?¹

Revolving Consumer Credit & Student Loans (\$B)



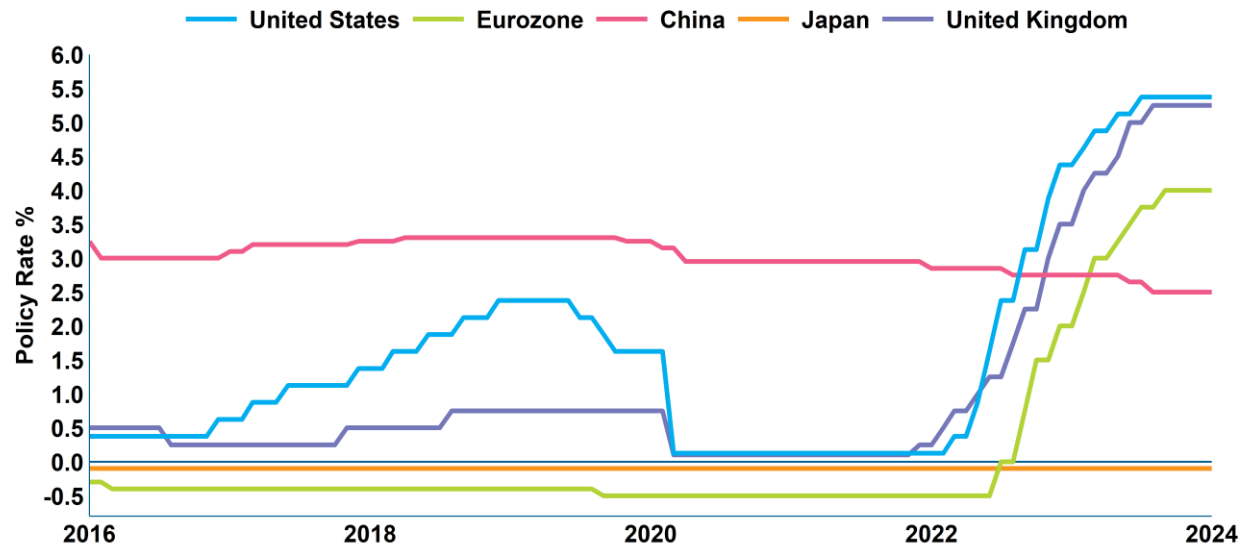
Consumer Credit Card Interest Rates (%)



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s). Recently we have also seen payment delinquencies on credit cards start to increase.
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

¹ Source: FRED. Data is as of December 31, 2023. Consumer Credit Card Rate data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.

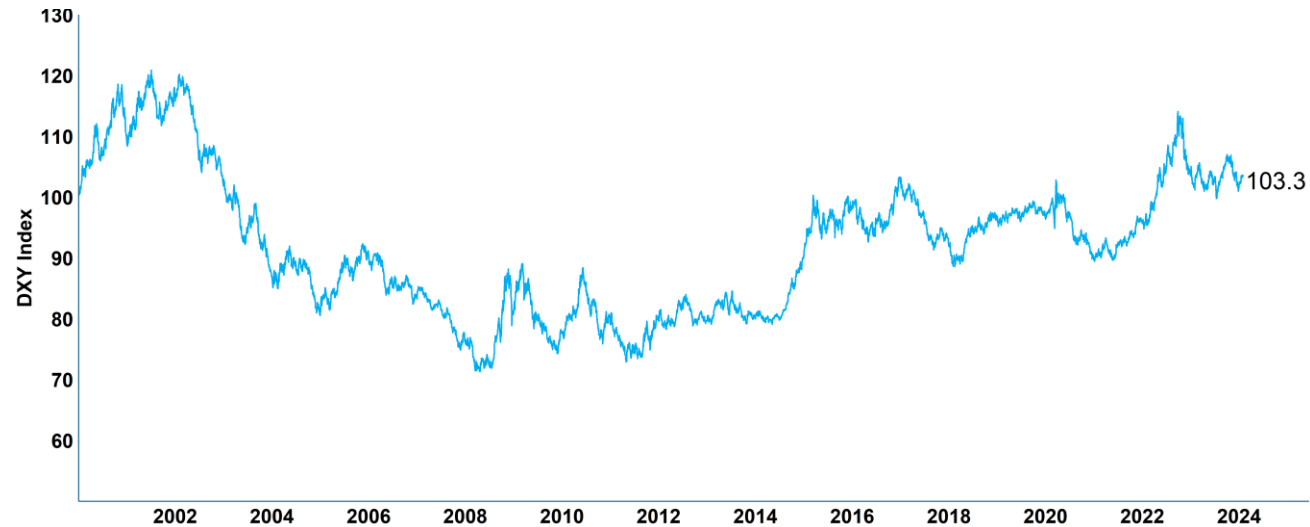
Policy Rates¹



- The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are now pricing in around four rate cuts this year down from close to seven late last year as economic data has come in above expectations. There remains a gap between the amount of rate cuts the Fed is predicting compared to the market's expectations, but it has significantly narrowed.
- The European and UK central banks also recently paused their rate increases on slowing inflation with cuts likely to follow there too. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

¹ Source: Bloomberg. Data is as of January 2024.

US Dollar vs. Broad Currencies¹



- Overall, the dollar finished last year only slightly below where it started but it was a volatile year for the US currency as expectations related to monetary policy evolved.
- Strong economic data in the US may delay policy rate cuts this year which could contribute to upward pressure on the dollar as other countries pivot to rate cuts.

¹ Source: Bloomberg. Data as of January 31, 2024.

Summary

Key Trends:

- The impact of inflation still above policy targets will remain important, with bond market volatility likely to stay high.
- Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession. In the case of the US the resolution of the disparity between market expectations for the path of interest rates versus the Fed's dot plot will be key.
- Global growth is expected to slow this year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will remain key in 2024.
- US consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- A focus for US equities going forward, will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including China's economic uncertainty and on-going weakness in the real estate sector which could spill over into key trading partners' economies. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.

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San Joaquin County Employees Retirement System

March 8, 2024

2024 Capital Markets Expectations

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Executive Summary

Executive Summary

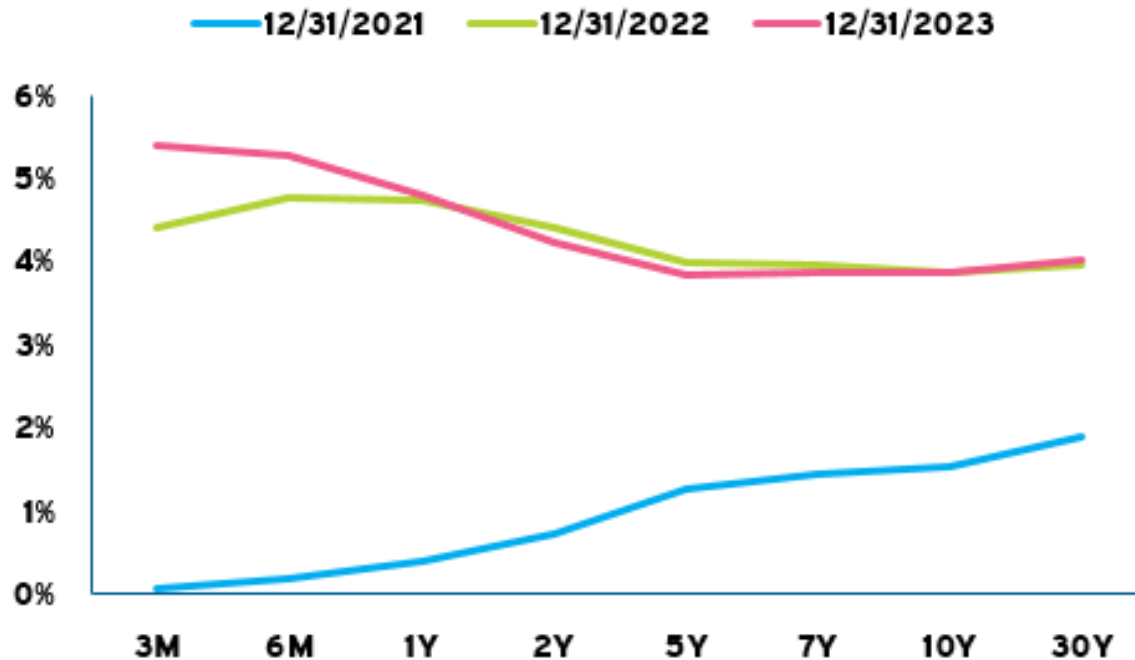
- We update our capital markets expectations each year in January.
 - Changes are driven by many factors, including interest rates, credit spreads, cap rates, and equity prices.
- 2023 was a volatile year for most investors, but ultimately most asset classes experienced positive returns, including double-digit gains for many risky assets.
- With the notable exception of China's markets, global bond and equity markets rallied at the end of the year, posting strong gains as inflation pressures eased and central banks appeared to be turning away from tightening policies.
 - Despite short-term interest rates climbing, the yield on most Treasury bonds finished the year near where they started it.
 - Credit spreads tightened, especially for lower quality credit such as high yield. The result is lower expected returns for many credit-oriented assets.
 - Most equity markets rallied in 2023, generally at a much faster pace than the gain in earnings. Hence many equity markets were trading at higher valuations at year-end, thus reducing their forward-looking returns.
- Our 10-year CMEs continue to be lower than our 20-year CMEs for the vast majority of asset classes, partly due to a higher assumed "risk-free" rate in the future.
- The net result is a meaningful decrease in return assumptions for most assets over the 10-year horizon, with much more mixed and modest changes at the 20-year horizon.

Market Overview

Rising Interest Rates

- Except for the short end of the curve, the US Treasury yield curve was little changed in 2023 from where it began the year.
- The market expects the Federal Reserve to reverse course and start lowering short-term rates in 2024, believing that the actions taken thus far to fight inflation have been sufficient.

US Yield Curve



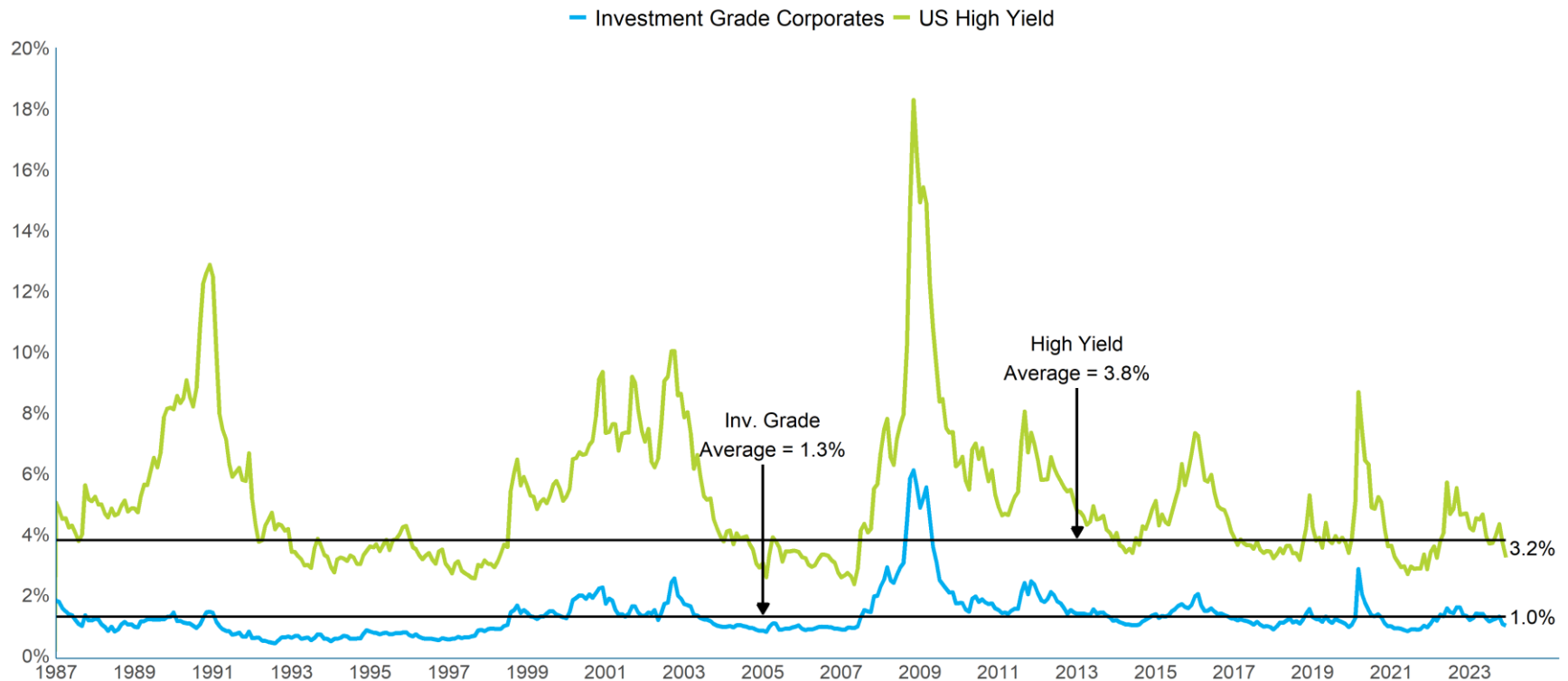
Source: Bloomberg. Data is as of December 31, 2023.

Narrower Credit Spreads

→ Credit spreads tightened slightly in 2023, though they remain close to their long-term averages.

- Lower quality credit spreads experienced a more substantial tightening. The spread for high yield bonds declined from 469 bp to 323 bp.

US Investment Grade and High Yield Credit Spreads



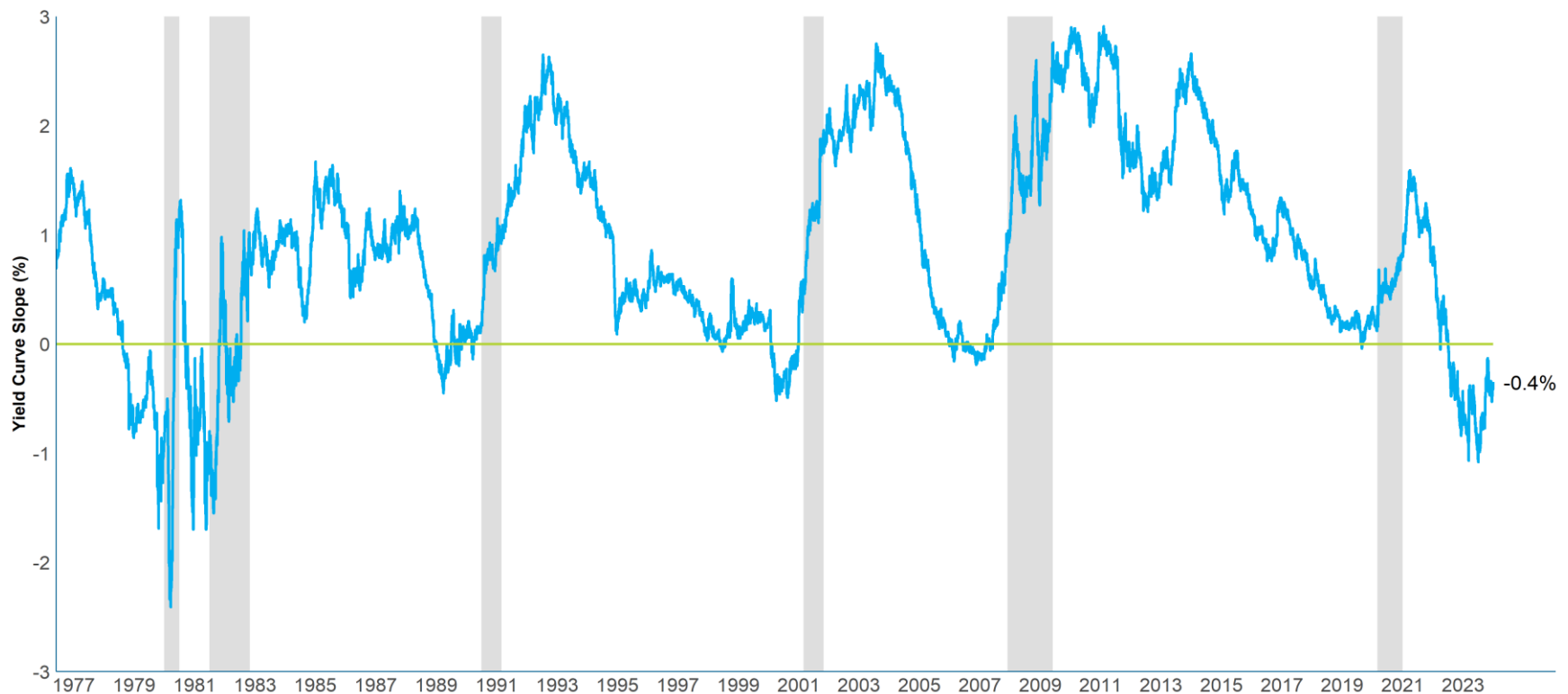
Source: Bloomberg. High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg US Corporate Investment Grade Index. Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year US Treasury yield. Data is as of December 31, 2023.

Inverted Yield Curve

→ The yield curve began the year in inverted territory, and it remained there throughout the year.

- The 2-10 spread has not been inverted for such an extended period in over forty years.

Yield Curve Slope (Ten Minus Two)



Source: FRED. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield. Data is as of December 31, 2023.

Similar or Lower Yields

- Short-term interest rates are higher than one year ago, while the 10-year Treasury yield ended the year where it started it.
- Similar levels of interest rates combined with tighter credit spreads to result in slightly lower yields for most sectors of the global bond market.

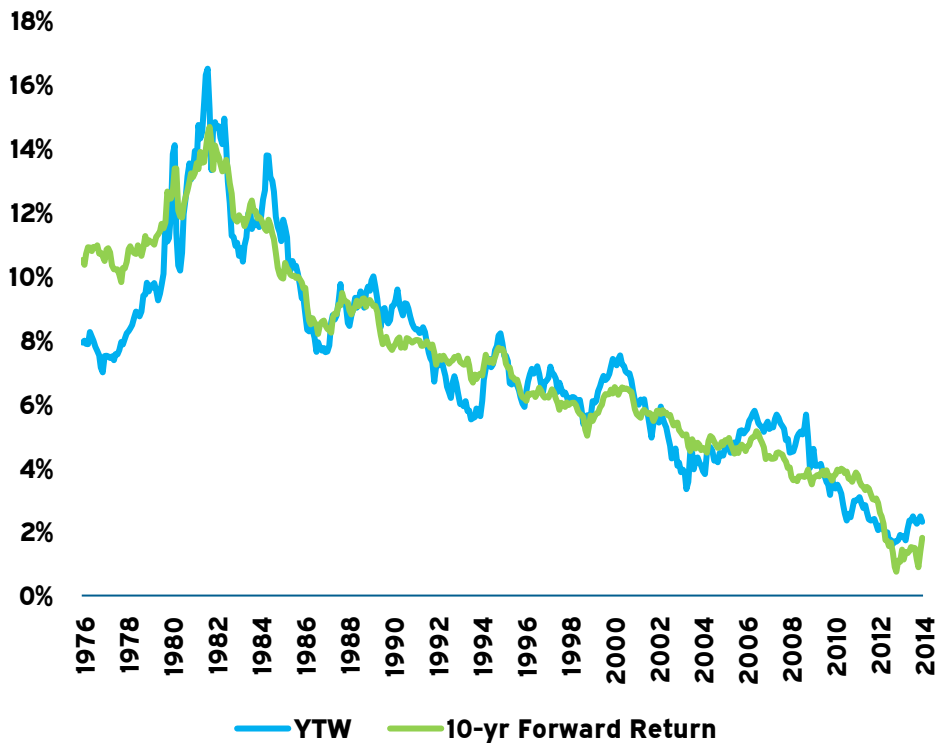
Index	Yield to Worst 12/31/23 (%)	Yield to Worst 12/31/22 (%)
Fed Funds Rate	5.25-5.50	4.25-4.50
10-year Treasury	3.88	3.88
Bloomberg Aggregate	4.53	4.68
Bloomberg Corporate	5.06	5.42
Bloomberg Securitized	4.72	4.75
Bloomberg Global Aggregate	3.51	3.73
Bloomberg EM Local Currency Government	4.08	4.42
Bloomberg EM Hard Currency Aggregate	6.77	7.26
Bloomberg US Corporate High Yield	7.59	8.96

Source: Bloomberg. Data is as of December 31, 2023 and December 31, 2022.

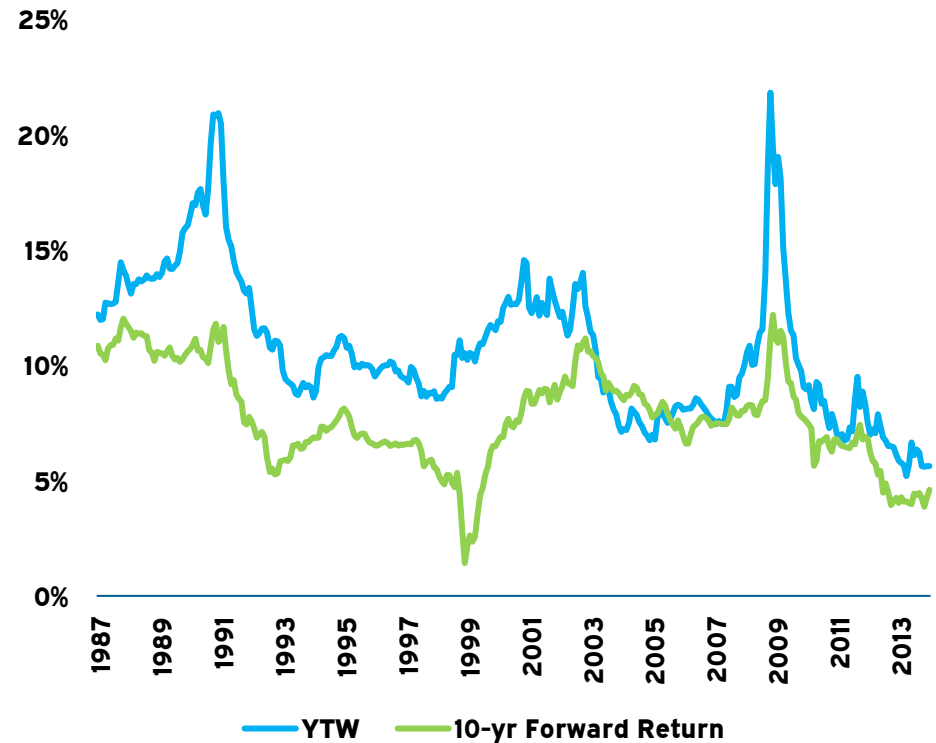
Yields Drive Future Returns

→ Changes in interest rates matter because yields are a very good predictor of future returns for bonds¹, at least over a 10-year horizon.

YTW and Returns for Investment Grade Bonds



YTW and Returns for High Yield Bonds



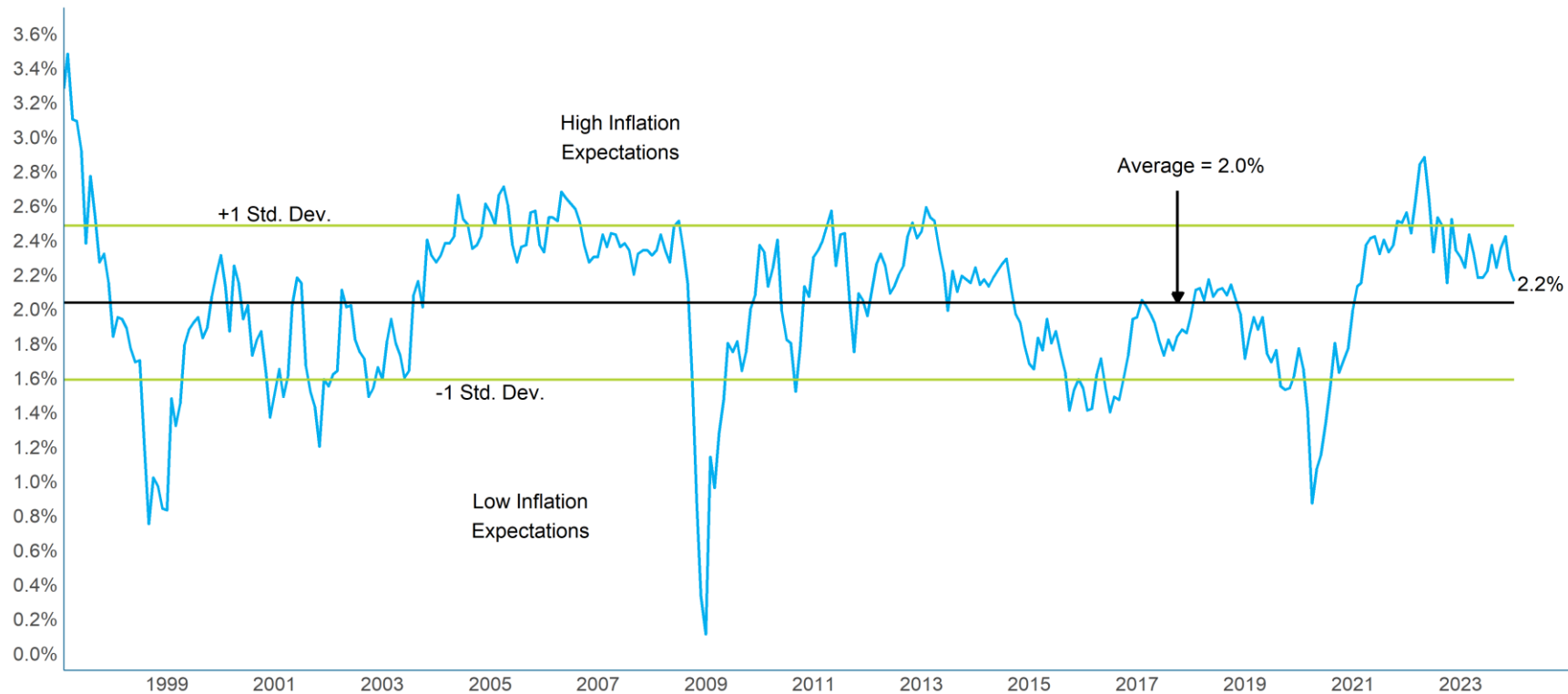
¹ When predicting returns for bonds, default risk should also be taken into account. For example, defaults are why the return for high yield bonds have generally been below the starting yield.
Source: Bloomberg Aggregate and Bloomberg High yield indices. Data is as of December 31, 2023.

Slightly Lower Inflation Expectations

→ After substantial changes in inflation expectations in recent years, the market's expectations for inflation were little changed at the end of 2023.

- The 10-year BEI rate dropped from 2.3% to 2.2%. The 5-year BEI was slightly lower, at 2.1%.

Ten-Year Breakeven Inflation

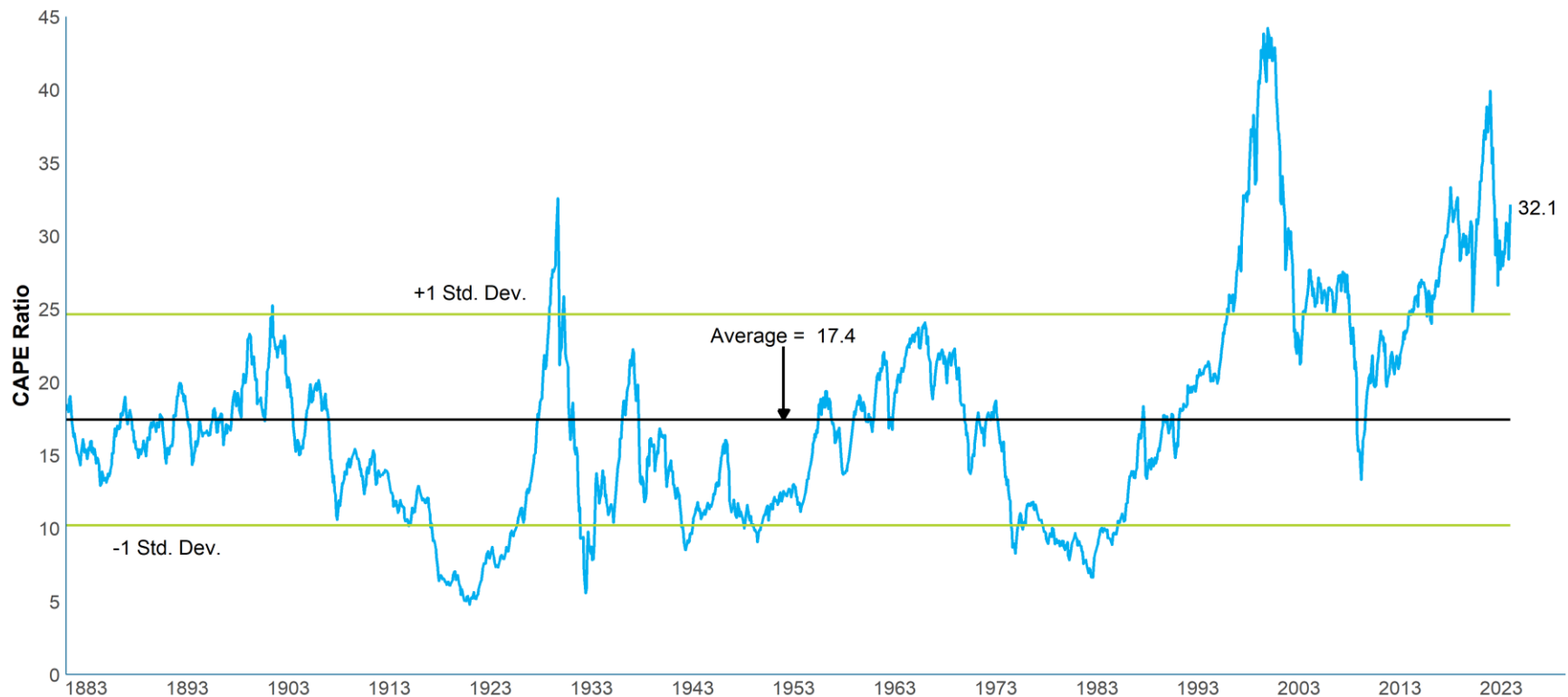


Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA). Data is as of December 31, 2023.

Higher Prices for US Equities

- US stocks had a very good year, with the S&P 500 index gaining 26.3%.
- Valuations increased and remain elevated relative to their long-term history, though they are much nearer their average for the past 30 years.

US Equity Cyclically Adjusted P/E

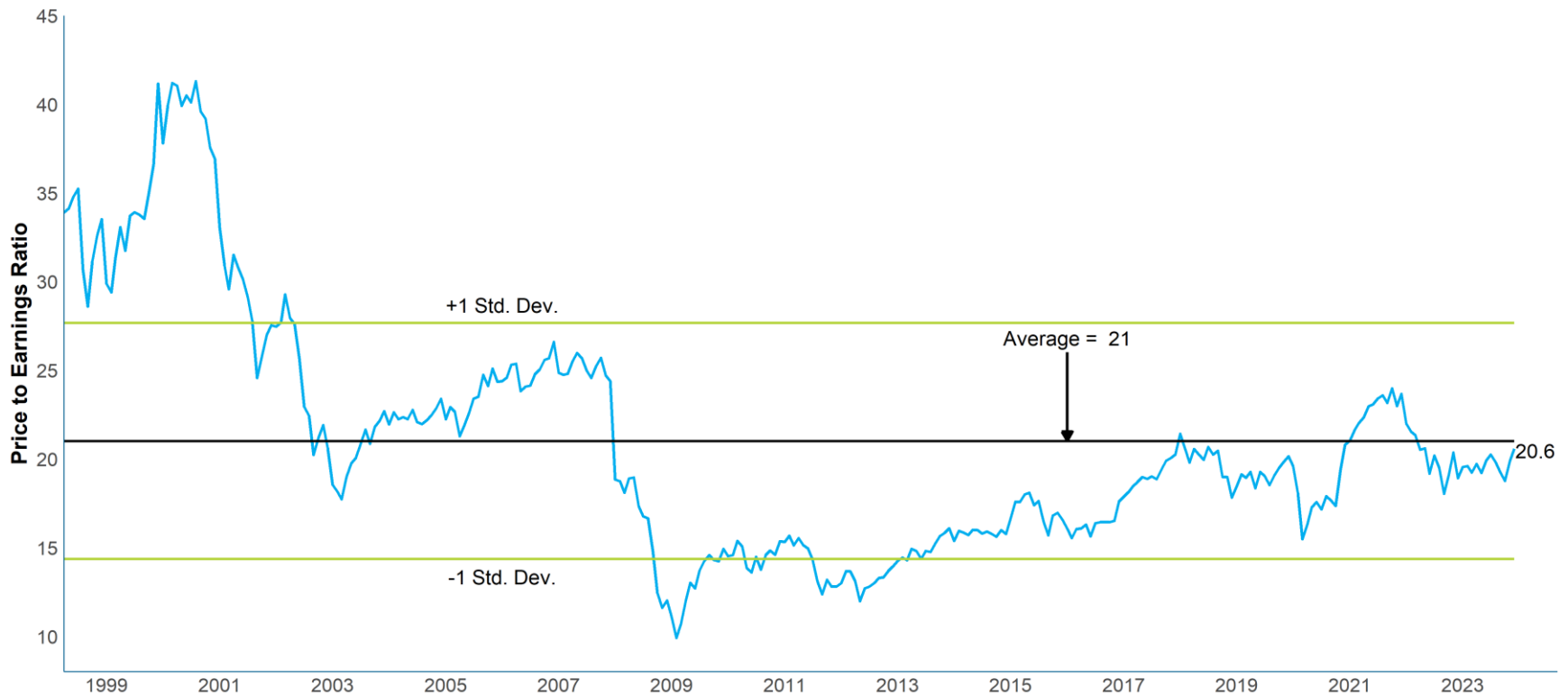


Source: Robert Shiller, Yale University, and Meketa Investment Group. Data is as of December 31, 2023 for the S&P 500 Index.

Slightly Higher Prices in Non-US Equities, too

- EAFE equities gained 18.2% in USD terms in 2023, benefiting slightly from a currency tailwind.
- Despite increasing from one year ago, EAFE valuations remain close to their 25-year historical average.

Developed International Equity Cyclically Adjusted P/E

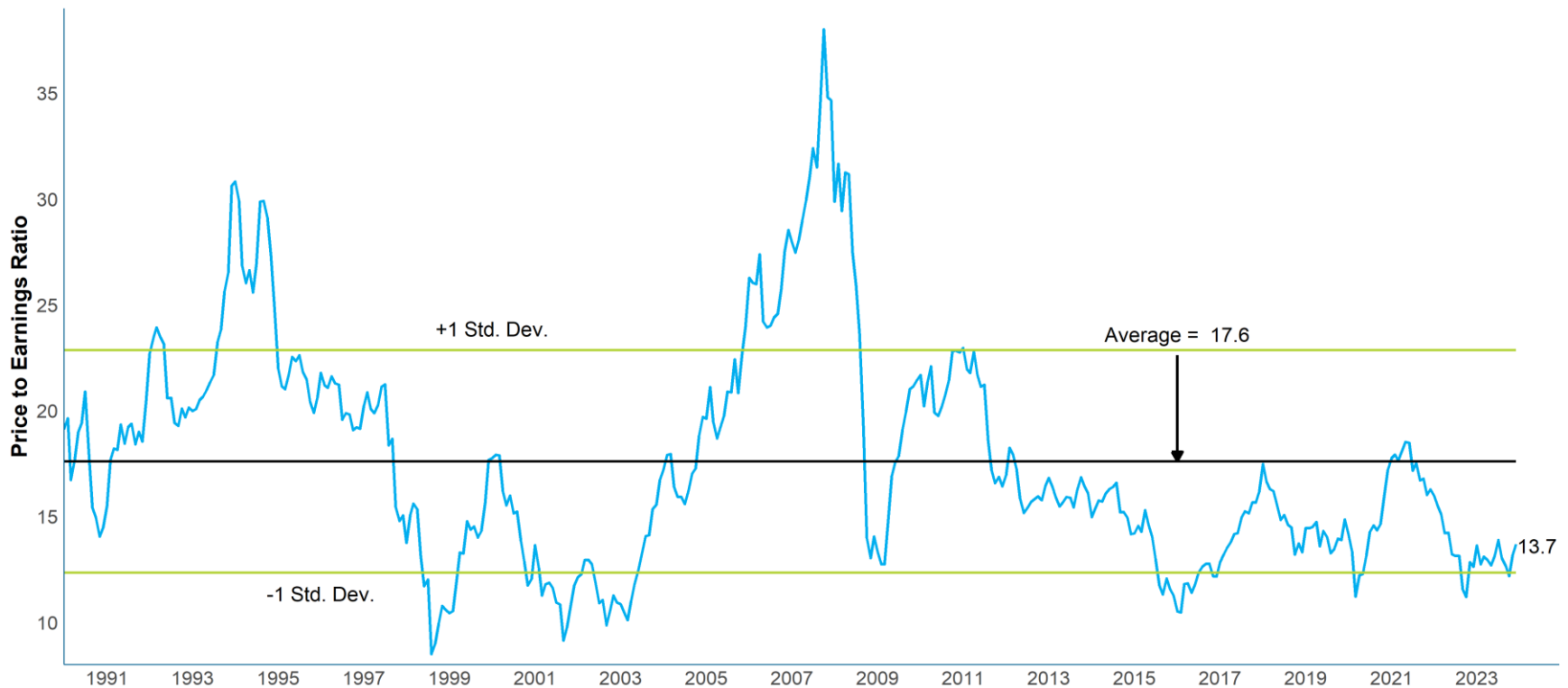


Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of December 31, 2023.

And Slightly Higher Prices in Emerging Market Equities

- Emerging market equities gained 9.8% in 2023, despite Chinese equities declining 11.2%.
- EM equity valuations remain well below their long-term average, though there is a significant difference between EM ex-China and China valuations.

Emerging Market Equity Cyclically Adjusted P/E



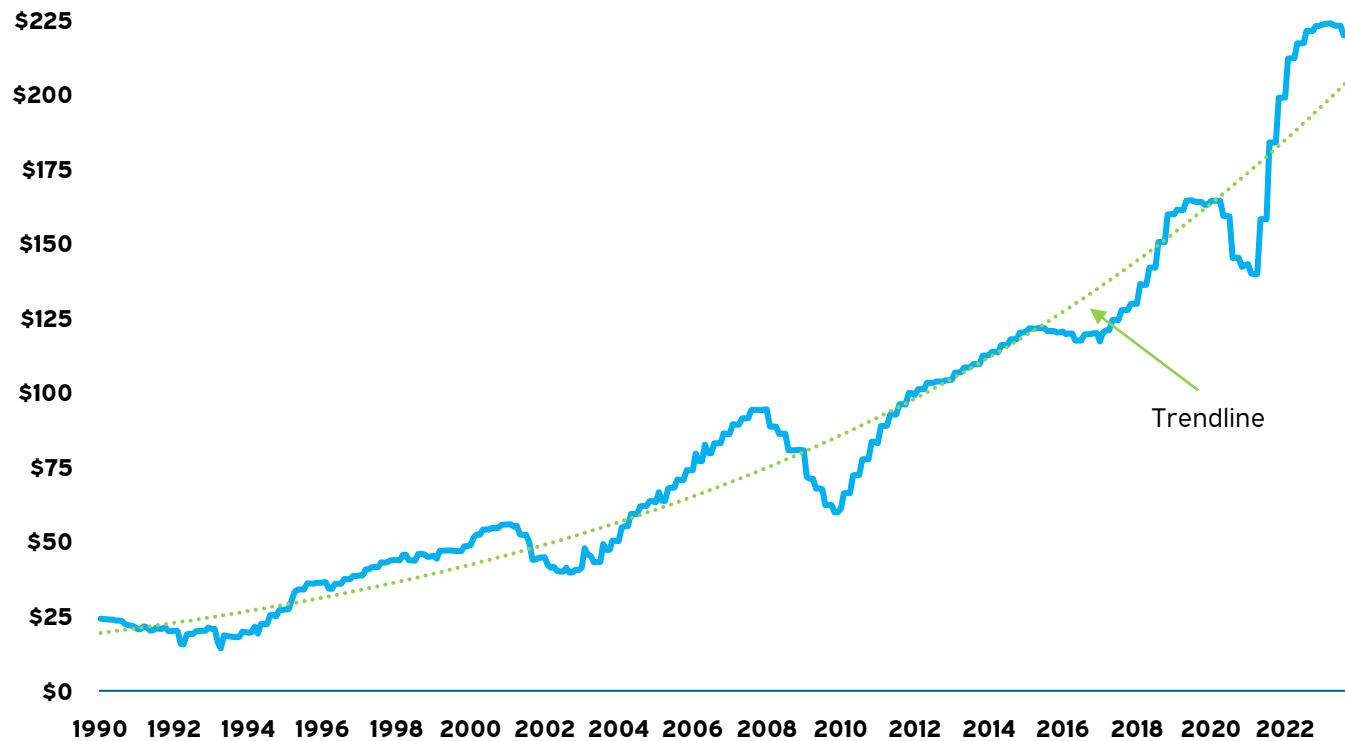
Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.. Data is as of December 31, 2023.

US Earnings Growth

→ S&P 500 earnings (EPS) growth was relatively flat for the year.

- EPS peaked in 2q23 and appears to have declined slightly since.

S&P 500 Earnings Per Share



Source: S&P 500 Index data from Bloomberg. Represents trailing 12-month "as reported" earnings per share. Data is as of December 31, 2023.

The Link between Economic Growth and Expected Returns

→ We have long assumed that long-term earnings growth is linked to economic growth.

- However, either one can exceed the other.

	US Nominal GDP Growth Per Annum	US Corporate Earnings Growth Per Annum	S&P 500 EPS Growth Per Annum
Since 1990	4.8%	6.9%	6.8%
Since 2010	4.7%	5.2%	9.9%

→ Corporate profits can comprise a higher or lower share of the GDP pie.

- In the US, corporate profits have grown faster than the rest of the economy.

→ Net issuance vs buybacks affects EPS.

- In the US, net shareholder buybacks have resulted in EPS growing faster than earnings.

→ Intervention by the state & structural inefficiencies also affect earnings growth.

- The degree to which maximizing shareholder wealth is a primary motivation varies by market.
 - This can take many different forms, such as state-owned enterprises, state-controlled enterprises, and direct intervention by the state (see China).
- Corruption, graft, nepotism, lack of property rights or clear rule of law, can all affect the link between economic growth and earnings growth.

Source: Federal Reserve Economic Data, S&P. Corporate earnings defined as Corporate Profits After Tax (with IVA and CCAAdj). Seasonally Adjusted Annual Rate for Nominal GDP. Data is as of September 30, 2023.

Earnings Growth

→ EPS has grown faster than earnings in the US in recent years, acting as a tailwind.

→ This is primarily due to companies using excess cash to buy back their shares.¹

EPS with no change in shares	EPS with 2% reduction in shares
\$1,578 bil / 10.5 mil shares = \$150.3 per share	\$1,578 bil / 10.3 mil shares = \$153.2 per share

→ Over ten years, this can have a significant compounding effect.

EPS with 2% reduction in shares for ten years

\$1,578 bil / 8.6 mil shares
= \$183.9 per share²

→ Data shows that this trend is almost two decades long.³

→ This bucks the longer-term trend (still common in non-US markets) of companies being net issuers of shares.

¹ Buying back shares reduces the denominator in the Earnings per Share equation, thus increasing the result of the calculation. The example shown is illustrative.

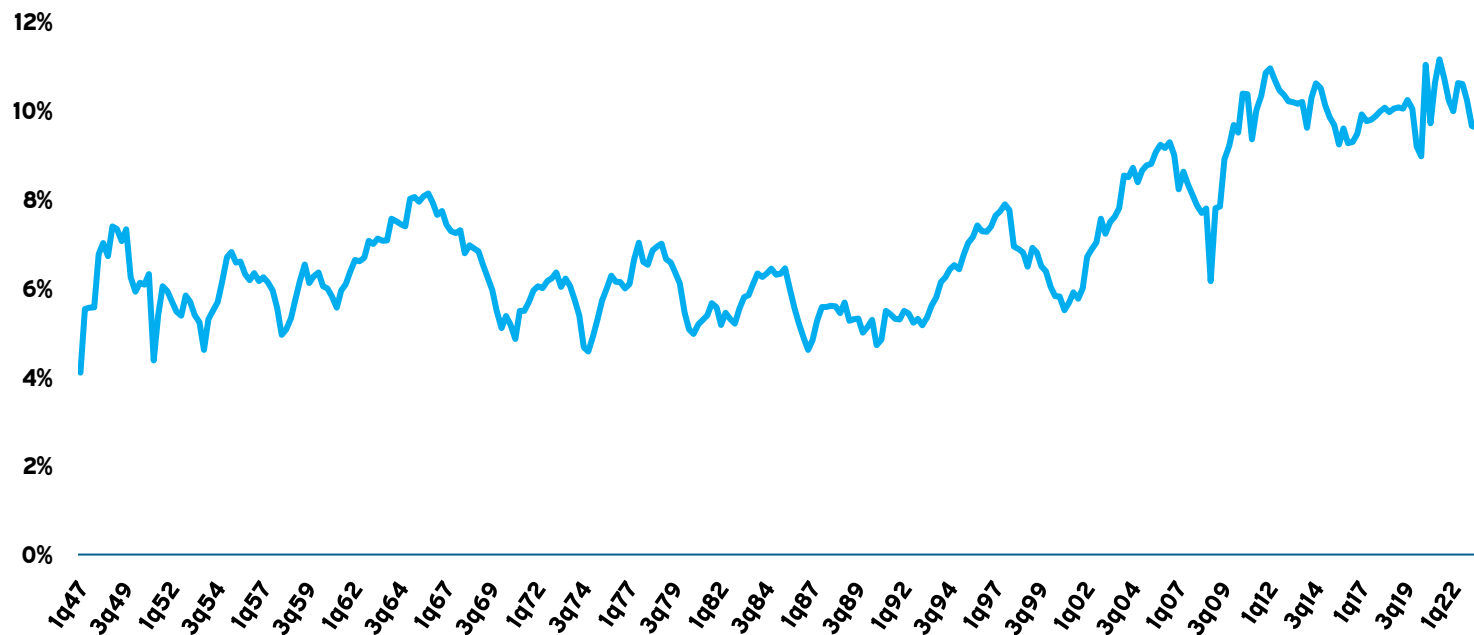
² Throughout this document, numbers may not sum due to rounding

³ Source: Yardeni research

US Profitability

- The strong post-2000 growth in US earnings is linked in part to profits consuming a greater proportion of the economic pie.
 - Since 2000, corporate profits averaged 9.1% of GDP, vs 6.1% prior to that.
- Justifying higher future earnings growth implies that profits will continue to comprise a higher percentage of GDP.

Corporate Profits as a % of GDP

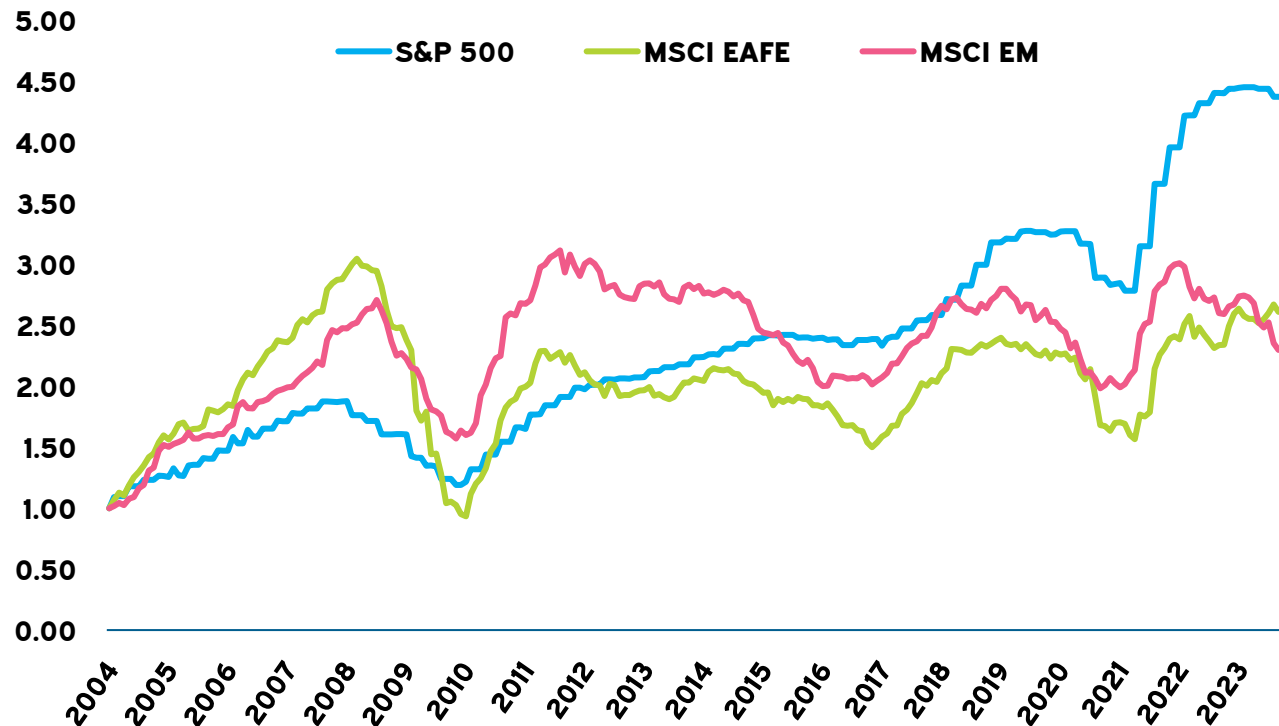


Source: Meketa analysis of FRED data. Series uses Seasonally Adjusted Annual Rate for Nominal GDP and Corporate Profits After Tax with Inventory Valuation Adjustment (IVA) and Capital Consumption Adjustment (CCAdj). Data is from 1q1947 through 3q2023.

EPS Growth

- EPS growth for the EAFE and Emerging Markets indices has been essentially zero since 2011.
 - Meanwhile, US EPS growth has been strong over the past two decades.
- There has been a meaningful difference in EPS growth for the US versus other global markets, and it has not been due to a difference in GDP growth.

20-Year EPS Growth, indexed to \$1



Source: Meketa analysis of MSCI and Bloomberg data. Series uses Trailing 12-month earnings per share in local currency. As of December 31, 2023.

Impact of Interest Rates on Equity Valuations

- Looking at price-earnings (or PE10, or PB) ratios alone results in many equity markets looking expensive, at least relative to their historical average.
 - The picture may look somewhat different when accounting for interest rates.
- The level of interest rates affects valuations when discounting future cash flows (or earnings).
- This time value of money concept can be quantified by using the dividend discount model (DDM).
 - The DDM calculates a present value for the stock market based on interest rates.
- The low rates of the 2010's drove up valuations, a trend that was reversed by the sharp increase in rates in 2022.
- Using the DDM approach, developed equity markets look more attractively priced than they do from a PE10 perspective, despite the higher rates of the last two years.

Correction in Prices Needed to Return to Historical Average

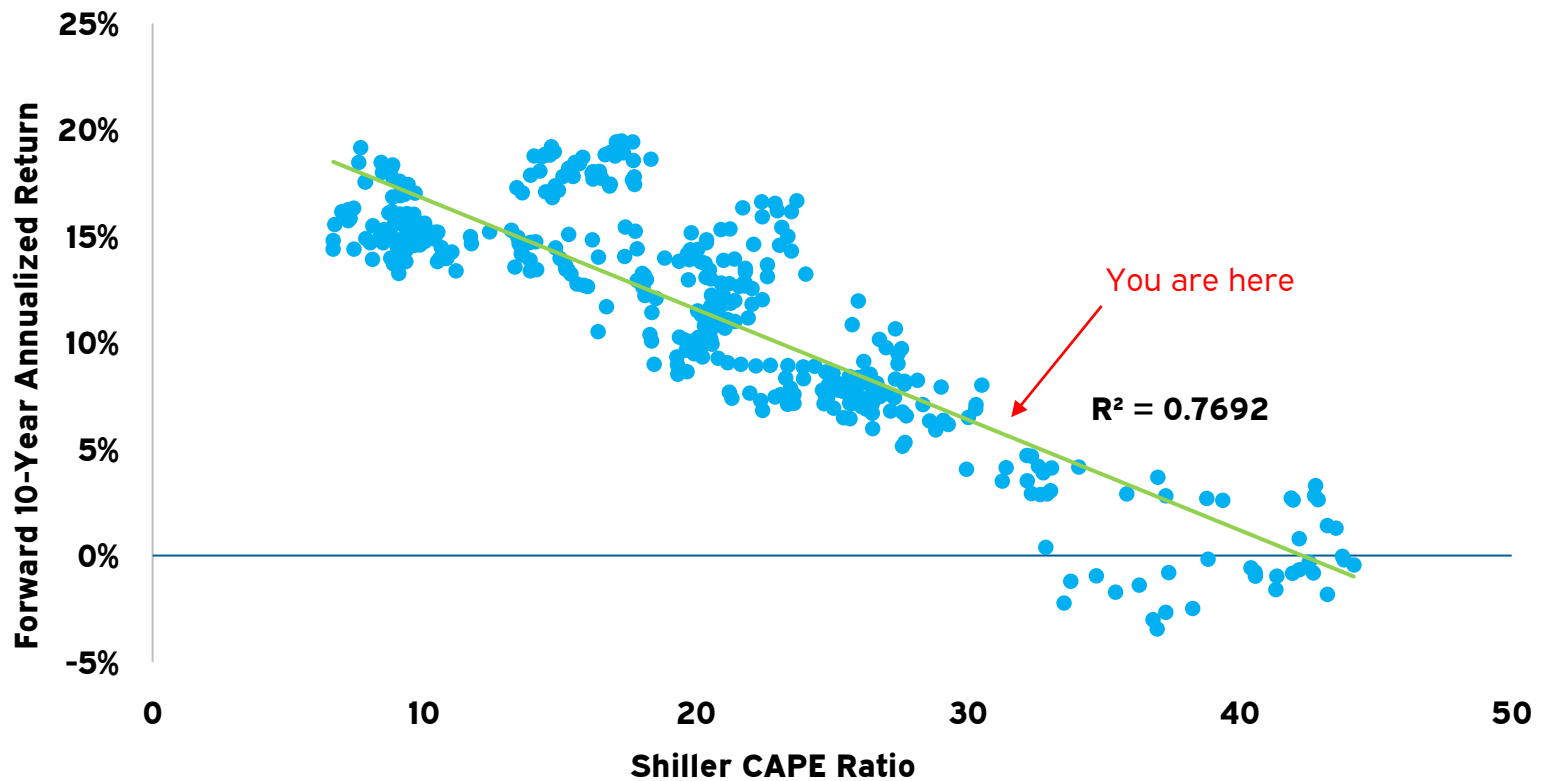
	US Equities (%)	EAFE Equities (%)	EM Equities (%)
Using PE10	-21.2	-10.3	3.9
Adjusting for Rates	-6.1	-7.9	-6.9

Source: Meketa analysis of MSCI and Bloomberg data.

Impact of Equity Prices on Returns

- Relative prices have been indicative of future equity returns.
- Higher prices have led to lower future returns, and vice versa.

US Equities: Shiller CAPE vs. Forward 10-Year Returns



Source: Robert Shiller, Yale University, and Meketa Investment Group. Data is based on monthly returns and Cyclically Adjusted P/E ratio on S&P 500 Index for the period from January 1980 through December 2023.

Valuations High for Growth Stocks

- After a reversal of the trend in 2022, large growth stocks outperformed large value by more than 30% in 2023.
- Value stocks appear to have better relative valuations, though the gap in pricing is still far from the peaks of the dot-com bubble.

US Growth P/E vs. Value P/E

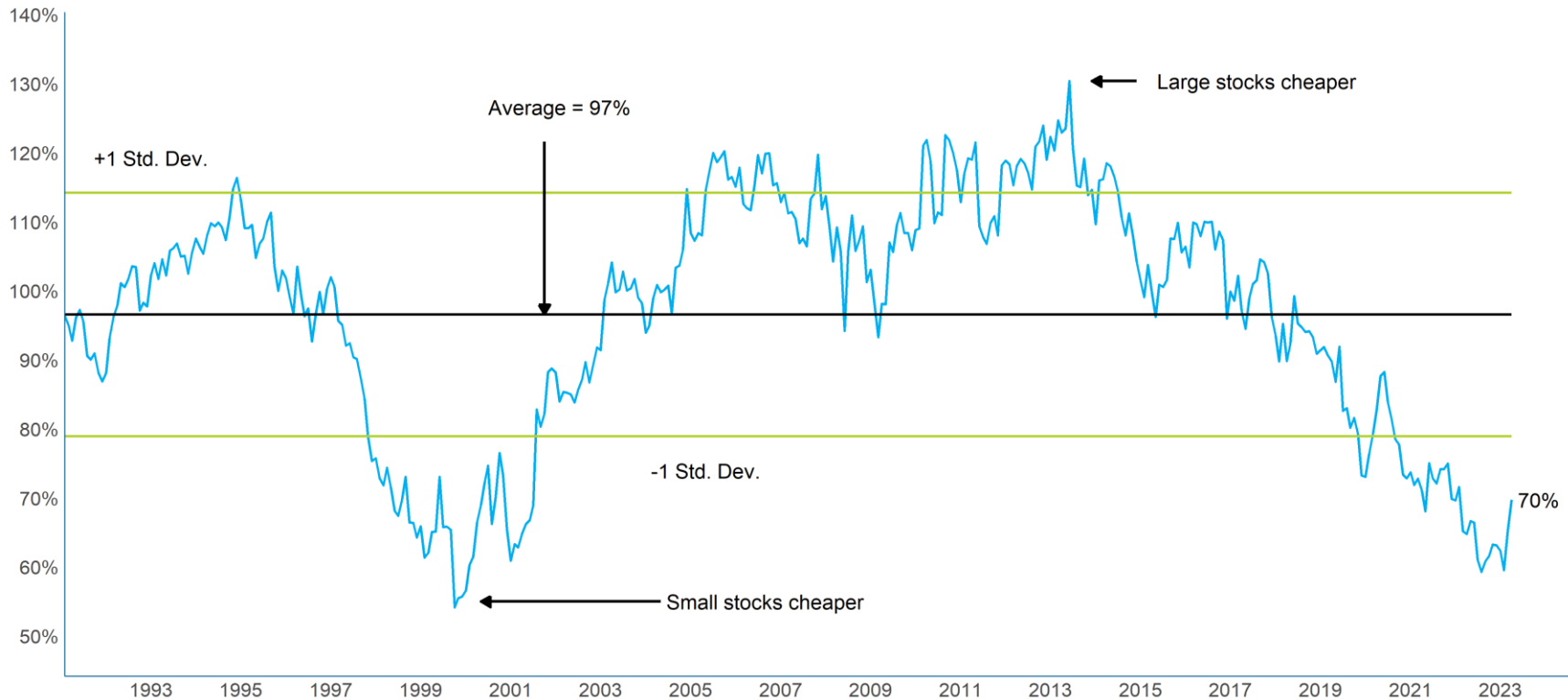


Source: Bloomberg, Russell, and Meketa Investment Group. Growth P/E (Russell 3000 Growth Index) vs. Value P/E. (Russell 3000 Value Index). Earnings figures represent 12-month "as reported" earnings. Data as of December 31, 2023.

Small Cap Valuations Remain Low

- Large cap stocks outperformed small cap stocks in 2023.
- Small cap stocks continue to trade at low valuations relative to their long-term history versus large cap stocks.

US Small Cap P/E vs. Large Cap P/E



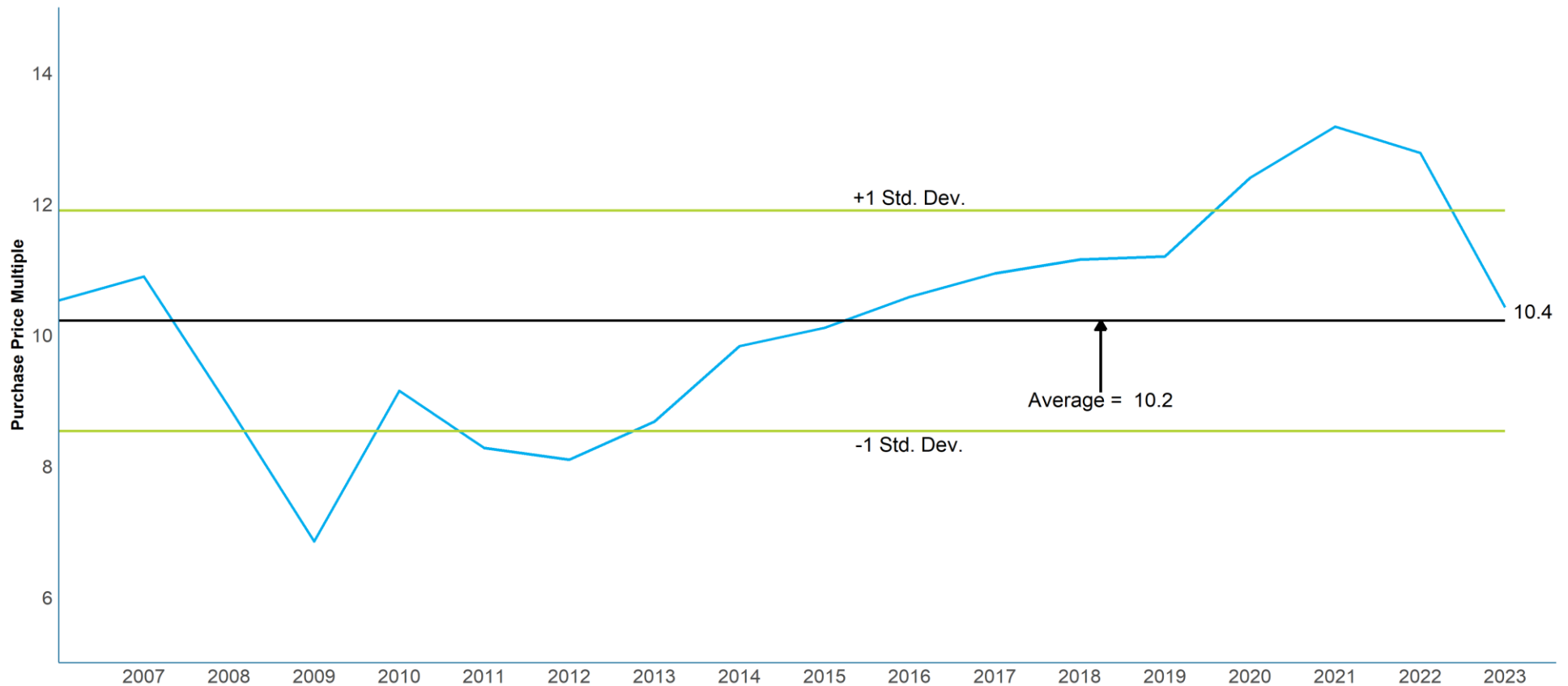
Source: Bloomberg, Russell, and Meketa Investment Group. Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index). Earnings figures represent 12-month "as reported" earnings. Data as of December 31, 2023.

Private Equity Prices Coming Back Down

→ EBITDA multiples fell in the first half of 2023 for buyouts.

- Valuations remained above their post-GFC average.

Private Equity Multiples

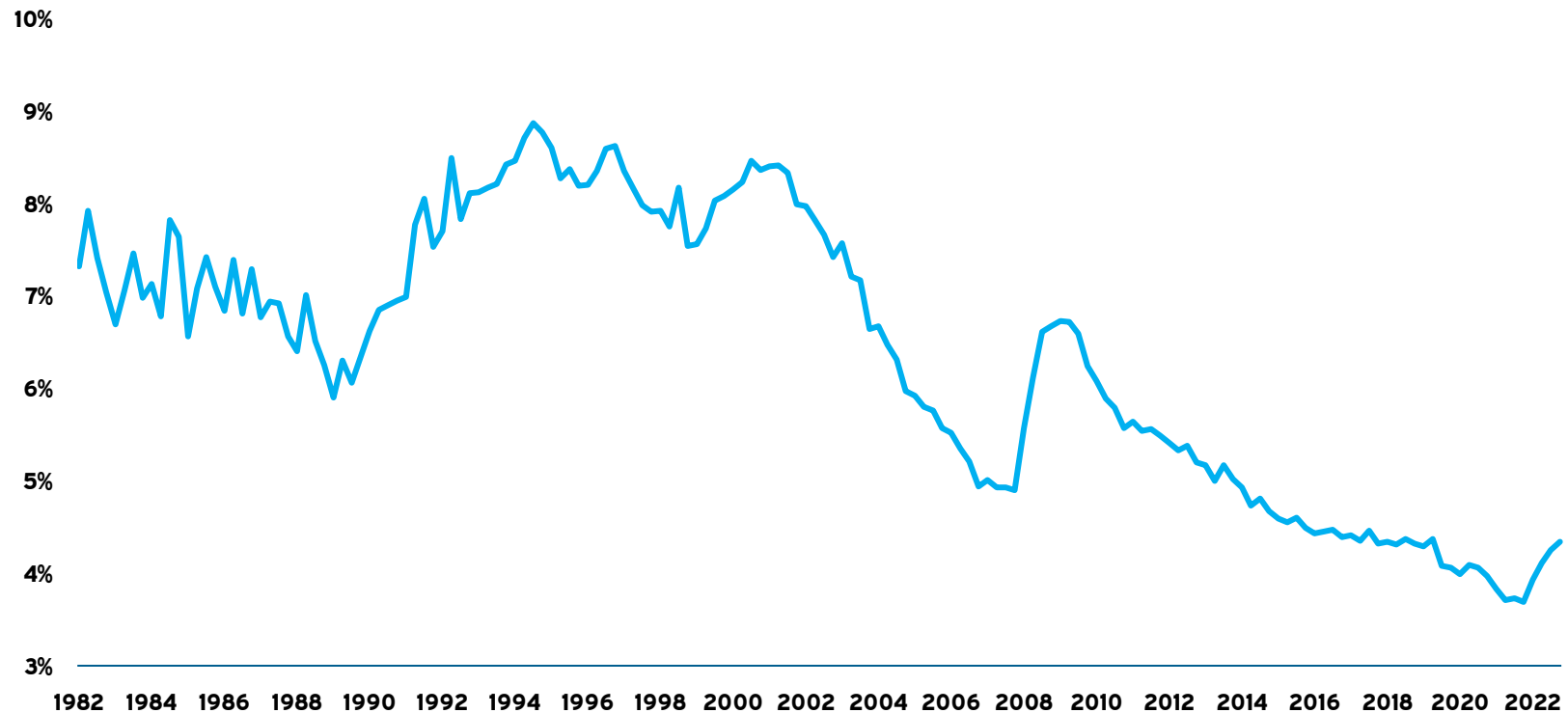


Source: Preqin Median EBITDA Multiples Paid in All LBOs, as of June 30, 2023.

Real Estate Valuations Improving

- After a nearly 30-year decline, cap rates for core real estate appear to have bottomed in 2022.
 - Cap rates rebounded in 2023, reflecting changes in valuations.
- Cap rates are similar to an earnings yield for equities in that they may be indicative of future returns.

Core Real Estate Cap Rates



Source: NCREIF NPI value-weighted cap rates. As of September 30, 2023.

2024 Expected Returns and Changes from Prior Years

10-year Geometric Expected Returns Rate Sensitive

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
Cash Equivalents	2.4	3.1	-0.7	Lower projected short-term rates
Short-term Investment Grade Bonds	3.8	3.8	0.0	
Investment Grade (Core) Bonds	4.6	4.8	-0.2	Slightly lower yields
Intermediate Government Bonds	4.0	3.7	0.3	Slightly higher yields
Long-term Government Bonds	4.3	4.3	0.0	
Mortgage-Backed Securities	4.7	4.7	0.0	
Investment Grade Corporate Bonds	5.2	5.6	-0.4	Tighter spreads
Long-term Corporate Bonds	5.2	5.3	-0.1	Tighter spreads
Short-term TIPS	3.8	3.9	-0.1	Slightly lower inflation expectations
TIPS	4.3	4.3	0.0	
Long-term TIPS	4.7	4.7	0.0	
Global ILBs	4.3	4.7	-0.4	Slightly lower inflation expectations
Foreign Bonds	3.1	3.8	-0.7	Slightly lower yields
<i>US Inflation</i>	<i>2.4</i>	<i>2.5</i>	<i>-0.1</i>	<i>Slightly lower near-term economist and market projections</i>

10-year Geometric Expected Returns
Credit

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
High Yield Bonds	6.5	8.0	-1.5	Tighter spreads
Higher Quality High Yield	6.0	7.1	-1.1	Tighter spreads
Bank Loans	6.5	7.6	-1.1	Tighter spreads
Collateralized Loan Obligations(CLOs)	8.1	8.0	0.1	Slightly higher yields
Convertible Bonds	5.2	6.1	-0.9	Tighter spreads
Emerging Market Bonds (major)	7.0	6.7	0.3	Higher yields
Emerging Market Bonds (local)	6.3	6.4	-0.1	
Private Debt	9.2	9.4	-0.2	Less extreme distressed pricing
Direct Lending	8.2	8.5	-0.3	Lower assumed leverage
Asset Based Lending	9.7	9.4	0.3	Lower average fees
Special Situations Lending	9.7	10.8	-1.1	Less extreme distressed pricing

10-year Geometric Expected Returns Equities

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
US Equity	6.9	7.8	-0.9	Higher valuations
US Small Cap	8.4	8.7	-0.3	Higher valuations
Developed Non-US (EAFE) Equity	7.7	10.1	-2.4	Higher valuations, lower projected earnings growth
Dev. Non-US Small Cap	8.8	10.5	-1.7	Higher valuations
Emerging Market Equity	7.6	10.3	-2.7	Higher valuations, lower projected earnings growth
Emerging Market Small Cap	7.4	10.0	-2.6	Higher valuations, lower dividend yields
Emerging Market ex-China	7.8	10.7	-2.9	Higher valuations, lower projected earnings growth
China Equity	7.1	9.0	-1.9	Lower projected earnings growth
Frontier Market Equity	9.6	11.2	-1.6	Higher valuations, lower projected growth & dividends
Global Equity	7.2	8.8	-1.6	Higher valuations
Low Volatility Equity	6.5	7.9	-1.4	Higher valuations
Private Equity	9.9	9.7	0.2	Mixed valuations and slightly lower borrowing costs
Buyouts	9.5	9.4	0.1	Mixed valuations and slightly lower borrowing costs
Growth Equity	10.4	10.1	0.3	Mixed valuations and slightly lower borrowing costs
Venture Capital	10.8	10.4	0.4	Lower valuations

10-year Geometric Expected Returns
Real Estate & Infrastructure

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
Real Estate	6.3	5.9	0.4	Higher cap rates
US REITs	5.6	6.4	-0.8	Lower yields, some price reversion expected
Core Private Real Estate	4.8	4.3	0.5	Higher cap rates
Value-Added Real Estate	7.3	6.5	0.8	Higher cap rates
Opportunistic Real Estate	8.4	7.6	0.8	Higher cap rates
Infrastructure	7.4	6.9	0.5	Lower borrowing costs, model changes
Infrastructure (Public)	8.0	8.0	0.0	
Infrastructure (Core Private)	6.5	6.4	0.1	
Infrastructure (Non-Core Private)	8.0	7.4	0.6	Lower borrowing costs

10-year Geometric Expected Returns
Natural Resources & Commodities

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
Natural Resources	7.8	NA		90% private, 10% public
Natural Resources (Public)	8.3	7.8	0.5	Improved relative valuations
Natural Resources (Private)	7.7	8.6	-0.9	Higher valuations
Energy	9.1	9.3	-0.2	
Mining	8.6	9.8	-1.2	Higher valuations
Timberland	5.5	5.7	-0.2	Slightly higher valuations
Farmland	5.0	3.9	1.1	Improved valuations, higher income expectations
Sustainability	8.4	9.2	-0.8	Higher valuations
MLPs	6.6	5.2	1.4	Improved relative valuations
Gold Mining	8.0	9.0	-1.0	Higher valuations
Gold (Metal)	2.4	2.5	-0.1	Slightly lower inflation expectations
Commodities	4.9	6.3	-1.4	Lower projected cash yield, negative roll return

10-year Geometric Expected Returns Alternative Strategies (Other)

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
Hedge Funds	4.5	5.4	-0.9	Lower cash/credit yield, higher valuations
Long-Short	3.2	4.2	-1.0	Higher valuations, lower projected cash yield
Event Driven	7.0	7.7	-0.7	Higher valuations, lower projected cash yield
Global Macro	4.2	5.2	-1.0	Higher valuations, lower yield, tighter spreads
CTA – Trend Following	3.8	3.9	-0.1	
Fixed Income/L-S Credit	5.0	6.3	-1.3	Tighter spreads
Relative Value/Arbitrage	5.6	6.2	-0.6	Lower projected cash yield
Long Vol	0.7	1.0	-0.3	
Insurance Linked Strategies	5.3	5.7	-0.4	Lower yield
Alternative Risk Premia	4.8	5.5	-0.7	Lower projected cash yield
Risk Parity (10% vol)	6.3	7.8	-1.5	Higher equity valuations, tighter spreads
TAA	5.3	5.6	-0.3	Higher equity valuations, tighter spreads
Digital Currencies	2.4	2.4	0.0	

20-year Geometric Expected Returns Rate Sensitive

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
Cash Equivalents	2.5	2.9	-0.4	Lower projected short-term rates
Short-term Investment Grade Bonds	3.7	3.5	0.2	
Investment Grade (Core) Bonds	4.8	4.7	0.1	
Intermediate Government Bonds	4.1	3.7	0.4	Slightly higher yields
Long-term Government Bonds	5.0	5.0	0.0	
Mortgage Backed Securities	4.9	4.6	0.3	
Investment Grade Corporate Bonds	5.4	5.4	0.0	
Long-term Corporate Bonds	6.0	5.7	0.3	
Short-term TIPS	3.7	3.6	0.1	
TIPS	4.7	4.5	0.2	
Long-term TIPS	5.2	5.2	0.0	
Global ILBs	4.7	4.7	0.0	
Foreign Bonds	3.9	4.0	-0.1	Slightly lower yields
<i>US Inflation</i>	2.8	2.6	0.2	Higher long-term inflation expectations

20-year Geometric Expected Returns Credit

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
High Yield Bonds	6.8	7.3	-0.5	Tighter spreads
Higher Quality High Yield	6.4	6.7	-0.3	Tighter spreads
Bank Loans	6.6	7.0	-0.4	Tighter spreads
Collateralized Loan Obligations (CLOs)	7.2	7.2	0.0	
Convertible Bonds	6.2	6.4	-0.2	Tighter spreads
Emerging Market Bonds (major)	6.8	6.4	0.4	Higher yields
Emerging Market Bonds (local)	6.2	6.0	0.2	
Private Debt	9.2	9.0	0.2	
Direct Lending	8.4	8.3	0.1	Lower assumed leverage
Asset Based Lending	9.4	9.0	0.4	Lower average fees
Special Situations Lending	9.9	10.2	-0.3	Less extreme distressed pricing

20-year Geometric Expected Returns Equities

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
US Equity	8.5	8.7	-0.2	Higher valuations
US Small Cap	9.4	9.3	0.1	
Developed Non-US (EAFE) Equity	8.9	9.8	-0.9	Higher valuations, lower projected earnings growth
Dev. Non-US Small Cap	9.5	10.1	-0.6	Higher valuations
Emerging Market Equity	8.9	10.0	-1.1	Higher valuations, lower projected earnings growth
Emerging Market Small Cap	8.9	10.0	-1.1	Higher valuations, lower dividend yields
Emerging Market ex-China	9.0	10.3	-1.3	Higher valuations, lower projected earnings growth
China Equity	8.6	9.3	-0.7	Lower projected earnings growth
Frontier Market Equity	10.0	10.7	-0.7	Higher valuations, lower projected growth & dividends
Global Equity	8.7	9.2	-0.5	Higher valuations
Low Volatility Equity	7.8	8.3	-0.5	Higher valuations
Private Equity	11.2	11.0	0.2	Mixed valuations and slightly lower borrowing costs
Buyouts	10.8	10.7	0.1	Mixed valuations and slightly lower borrowing costs
Growth Equity	11.5	11.2	0.3	Mixed valuations and slightly lower borrowing costs
Venture Capital	12.0	11.6	0.4	Lower valuations

20-year Geometric Expected Returns
Real Estate & Infrastructure

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
Real Estate	8.0	7.8	0.2	Higher cap rates
US REITs	7.8	8.0	-0.2	Lower yields
Core Private Real Estate	6.9	6.5	0.4	Higher cap rates
Value-Added Real Estate	9.0	8.3	0.7	Higher cap rates
Opportunistic Real Estate	10.3	9.6	0.7	Higher cap rates
Infrastructure	9.0	8.3	0.7	Lower borrowing costs, model changes
Infrastructure (Public)	9.1	8.8	0.3	
Infrastructure (Core Private)	8.0	7.8	0.2	
Infrastructure (Non-Core Private)	10.0	9.5	0.5	Lower borrowing costs

20-year Geometric Expected Returns Natural Resources & Commodities

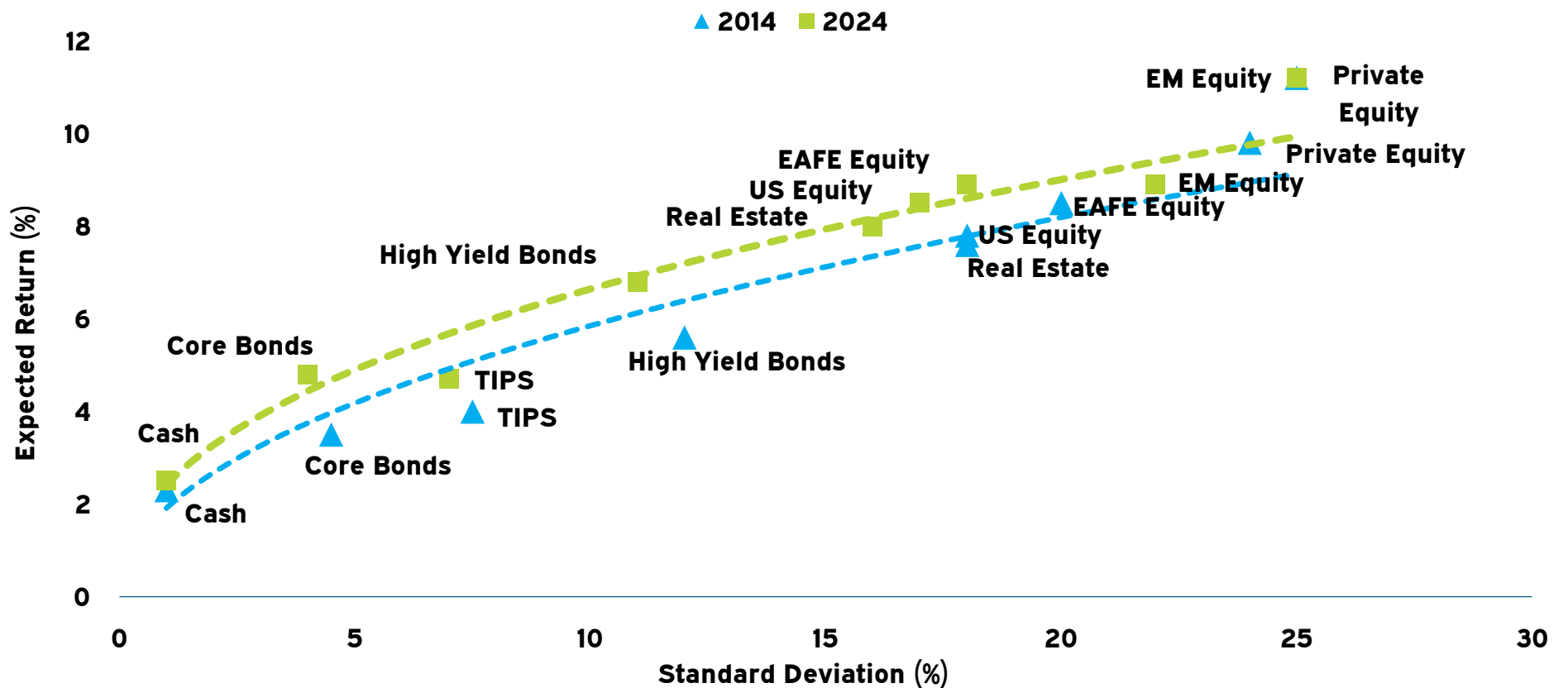
	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
Natural Resources	9.3	NA		90% private, 10% public
Natural Resources (Public)	9.2	8.7	0.5	Improved relative valuations
Natural Resources (Private)	9.3	9.8	-0.5	Higher valuations
Energy	10.4	10.4	0.0	
Mining	9.9	10.2	-0.3	Higher valuations
Timberland	7.3	7.4	-0.1	
Farmland	7.0	6.5	0.5	Improved valuations, higher income expectations
Sustainability	10.0	10.3	-0.3	Higher valuations
MLPs	8.4	7.4	1.0	Improved relative valuations
Gold Mining	9.5	9.7	-0.2	Higher valuations
Gold (Metal)	3.5	3.3	0.2	Slightly higher long-term inflation expectations
Commodities	5.3	5.7	-0.4	Lower cash yield

20-year Geometric Expected Returns
Alternative Strategies (Other)

	2024 E(R) (%)	2023 E(R) (%)	Δ From 2023 (%)	Notes
Hedge Funds	5.8	6.1	-0.3	Lower cash/credit yield, higher equity valuations
Long-Short	5.3	5.6	-0.3	Higher valuations, lower projected cash yield
Event Driven	7.6	7.7	-0.1	Higher valuations, lower projected cash yield
Global Macro	5.4	5.7	-0.3	Higher valuations, lower cash yield, tighter spreads
CTA – Trend Following	4.7	4.8	-0.1	
Fixed Income/L-S Credit	6.1	6.5	-0.4	Tighter spreads
Relative Value/Arbitrage	6.5	6.7	-0.2	Lower projected cash yield
Long Vol	1.2	1.1	0.1	
Insurance Linked Strategies	6.2	6.2	0.0	
Alternative Risk Premia	5.2	5.6	-0.4	Lower projected cash yield
Risk Parity (10% vol)	7.2	7.7	-0.5	Higher equity valuations, tighter credit spreads
TAA	6.1	5.7	0.4	Model changes
Digital Currencies	3.5	3.3	0.2	

The Big Picture: Higher Return for Similar Risk¹

- The relationship between long-term return expectations and the level of risk accepted is not static.
- The higher interest rates of the last two years mean that many investors should be able to take on less risk than they have over the past decade if they want to achieve their target returns.



¹ Expected return and standard deviation are based upon Meketa Investment Group's 2014 and 2024 20-year capital market expectations.

Structural Changes and FAQs

Structural Changes for 2024

→ We added the following “asset classes” (total now at 109):

- Short-term government bonds
- Municipal bonds

→ We added several private market “aggregates” to distinguish between those that include and exclude a public markets component:

- Real estate (private)
- Natural resources
- Infrastructure (private)

Model Changes for 2024

- We reweighted multiple composites to reflect a blend of the market opportunity and a typical Meketa portfolio.
- New weightings for Infrastructure composite.
 - Decreased core and increased non-core.
- New weightings for Private Debt composite.
 - Decreased direct lending, increased asset based lending.
- New weightings for Real Estate composite.
 - Decreased opportunistic, increased debt.
- New weightings for Natural Resources composite.
 - Decreased Energy, increased timber and farmland.
- New weightings for TAA composite.
 - Added bank loans and foreign bonds
 - Increased US equity, decreased non-US equities, high yield, and TIPS.

Model Changes for 2024 (continued)

- We reduced the cap for the magnitude of currency impact from +/- 100 bp to +/- 50 bp per annum.
 - Currency movements are the portion of our CME's that we probably have the least confidence in (hence why we have capped them historically).
 - This affects any asset class that has foreign currency exposure. There are a few asset classes (e.g., foreign bonds, foreign equities, EMD local) that are 100% non-USD and hence feel the full 50 bp impact.
 - There are ~25 other asset classes that have some sort of global component (e.g., global equities, buyouts, natural resources) and hence experienced a more modest impact of 0-20 bp.
- We increased the % of GDP growth that translates to EPS growth for the US (which flowed through to a smaller increase for global equities) and for EAFE small cap, while decreasing it for all other equity markets.
 - Over the past twenty years, most markets have seen EPS growth keep pace with GDP growth.
 - However, this has not been the case for the past ten years, and the US has been an outlier in this regard.
 - Over the past ten years, US earnings per share has continued to grow faster than nominal GDP (6.8% per annum versus 5.0%).
 - Annualized EPS growth over the ten years for EAFE was 3.1% and for EM was -1.4% (with China at -2.8%).
- We added fintech to our VC valuation model.
- We added Taiwan and deleted Russia from our currency impact models.
- For measuring historical volatility (and correlations), we extended our look-back period from 15 years to 20 years, so as to continue to include the GFC in our analysis.
- In addition, Bloomberg changed the way they calculated earnings, which resulted in varied impacts on our equity models.

FAQs for 2024

How do these CMEs compare to prior years' assumptions?

- To help evaluate this, we created a weighted average of expected returns for the asset classes that comprise a typical institutional portfolio.¹
- The value of the expected return for the portfolio is not a precise expected return (i.e., it has not been run via MVO), but the magnitude of the change is what is relevant.
- In short, the average of 20-year expected returns is 20 basis points lower than last January.

Year	Weighted Average Expected Return (%)	Change from Prior Year (%)
2024	8.0	-0.2
2023	8.2	+1.7
2022	6.5	+0.4
2021	6.1	-0.7
2020	6.8	-0.6
2019	7.4	+0.7
2018	6.7	-0.2

¹ The weights are as follows: 10% investment grade bonds, 3% LT government bonds, 4% TIPS, 3% high yield, 2% bank loans, 3% EM debt, 3% private debt, 25% US equity, 12% EAFE equity, 8% EM equity, 10% private equity, 10% real estate, 2% natural resources, 3% infrastructure, 2% hedge funds.

FAQs for 2024 (continued)

What is driving the changes from last year?

- The changes relative to last year are being driven by what happened in the market.
- Credit spreads tightened, leading to lower yields, thus decreasing expected returns for fixed income assets.
- Most equity markets rallied, pushing them to higher valuations, thus reducing their forward-looking returns.
- Lower anticipated borrowing costs had a positive impact on assets that use leverage.
- Lower anticipated cash yields hurt expected returns for hedge funds and related asset classes.
- The long downward trend in cap rates for real estate reversed, pushing up their expected returns.
- Higher anticipated long-term interest rates also provide a tailwind in our 20-year projections, as the bridge from 10 to 20 years is made via a risk premium being added to a (higher) future risk-free rate.
 - The risk-free rate jumped from 4.17% to 4.64%.

How do Meketa's CMEs compare to peers?

- We believe our CMEs are in the same ballpark as our peers.
- We generally cite the survey conducted each year by Horizon Actuarial Services for making peer comparisons, as it is the most comprehensive survey of CMEs of which we are aware.
 - However, this survey is usually not published until July or August.
- It is important to distinguish between intermediate term assumptions (e.g., 7-10 years) and long-term assumptions (e.g., 20-30 years) when making these comparisons.

FAQs for 2024 (continued)

Did volatility expectations change?

- Not systematically, though many public equity asset classes saw a 1% drop in expected volatility.
- The biggest change was a 5% increase in the broad infrastructure category. This was entirely due to our change in the composite weighting that substantially increased non-core versus core infrastructure.
- Our methodology includes a 20-year look back, which includes the volatile years of 2022, 2020 and 2008.

Did Meketa make any qualitative adjustments?

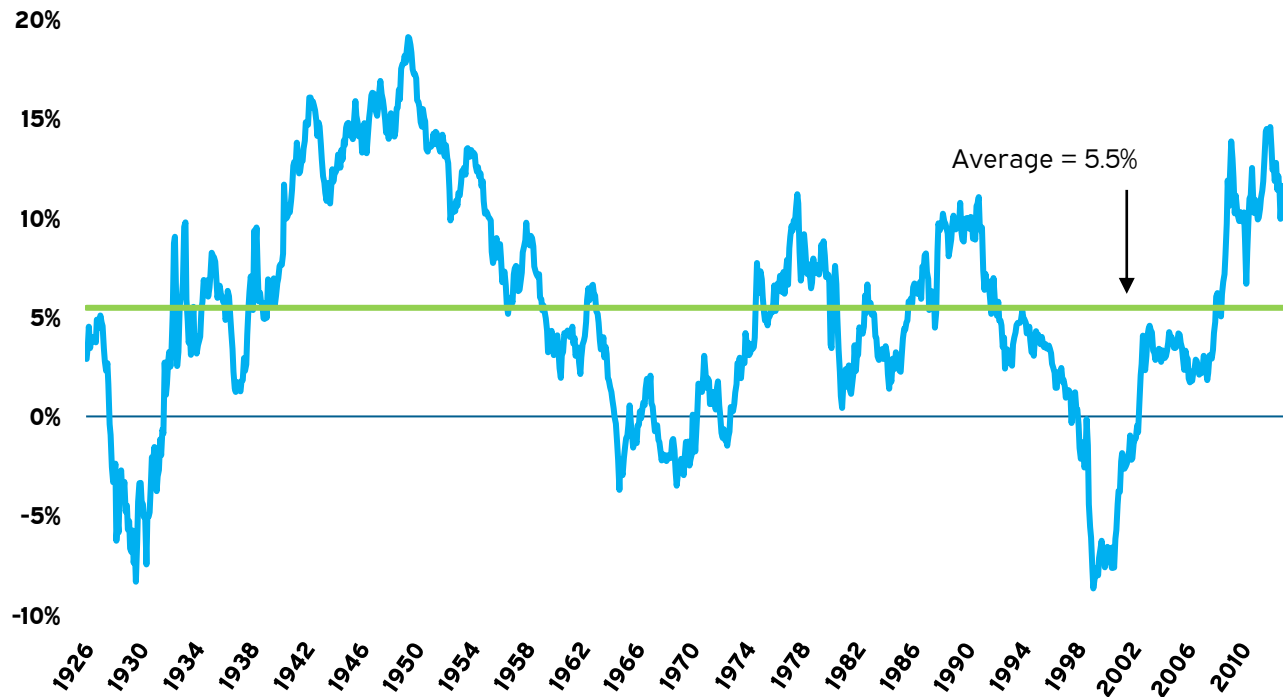
- As usual, we made some qualitative adjustments to the CMEs.
- We made a decrease to high yield real estate debt, as our model relies upon public markets data that is limited and perhaps not fully representative.
- We made an adjustment to farmland as the high inflation of the last two years was causing the real income portion of our model to predict long-term income that seemed unrealistic.

FAQs for 2024 (continued)

Is Meketa comfortable with the equity risk premium implied by the CMEs?

- Yes. We assume a 5.5% risk premium for US equities over 10-year Treasuries.
- Historically, the risk premium for the S&P 500 over the yield for the 10-year Treasury has averaged 5.5%, though the range has varied considerably.

US Equity Risk Premium over 10-year Treasury¹



¹ Represents the ten-year risk premium for the S&P 500 index over the 10-year Treasury yield at the start of the period. Data is through December 31, 2023.

FAQs for 2024 (continued)

Is Meketa assuming that interest rates will go up or down?

- We use the market's projections for future rates, based on what was priced in at the time of our analysis.
- For example, the market is projecting that the ten-year Treasury will be yielding approximately 4.6% in ten years, versus 4.2% as of 12/31/23.
- By contrast, the FOMC is expecting the Fed Funds Rate to fall to ~2.9% by 2026, implying a return to a more normally shaped yield curve.

What is the steepness of the yield curve you imply?

- Just as our equity models assume mean reversion in pricing, our bond models assume a kind of mean reversion in the shape of the yield curve over the next ten years.
 - The yield on the 10-year Treasury has averaged 150 bp over that for T-bills since 1934.
 - The 2-10 spread has averaged 88 bp since 1976.

Why is the expected return for cash dropping when short-term rates increased during 2023?

- Our expected returns are long-term projections, not just what we are projecting for the next year or two.
- Many economists (and futures markets) are expecting short-term rates to drop rather significantly over the next 18-24 months.
- Most of the horizon will be at these new, lower rates (i.e., rates that are lower than they were one year ago).

FAQs for 2024 (continued)

Why do longer duration fixed income assets have a higher 20-year versus 10-year expected return, while the reverse is the case for shorter duration bonds?

- The majority of asset classes have a higher return assumption for the 20-year period due to the increase in the risk-free rate (recall that we use a risk premia approach for years 11-20).
- This tends not to be the case for our shorter duration fixed income assets due to the return to a more normally shape yield curve over the next ten years that is implied by the model.
 - That is, the higher risk premia we use for longer duration bonds implies a more normal term structure to the yield curve in years 11-20.

Why did the 10-year expected returns for private real estate increase while it went down for REITs?

- For the second year in a row, cap rates and REIT yields moved in opposite directions.
 - Cap rates are now back above REIT yields.
- Higher cap rates pushed up our expected returns for core and non-core real estate, while lower yields pushed down our expected returns for REITs.

FAQs for 2024 (continued)

How does Meketa arrive at its inflation assumption? Is it based on a combination of breakeven rates and other data?

→ Most of our economic projections come from the IMF's World Economic Outlook. Their inflation projections are in the table below.

- They are projecting slightly elevated inflation for the US in 2024, followed by benign levels thereafter.

→ We combine the five-year average for the US with the 5-year-5 inflation swap (i.e., what the market is projecting 5-year inflation will be five years from now), to arrive at our 10-year number.

Inflation Estimates

	2024	2025	2026	2027	2028	5-Year Average	5-yr-5 Inflation Swap	10-year Inflation Estimate
US	2.8	2.4	2.2	2.1	2.1	2.3	2.5	2.4
Euro Area	3.7	2.4	2.2	2.0	2.0	2.5	2.3	2.4
UK	3.7	2.1	2.0	2.0	2.0	2.4	3.4	2.8
Japan	2.9	1.9	1.6	1.6	1.6	1.9		1.6
China	1.7	2.2	2.2	2.2	2.2	2.1		2.9

Sources: IMF World Economic Outlook, October 2023; Bloomberg.

FAQs for 2024 (continued)

Why did the spread for private equity over public equity increase?

- Valuations increased to a greater extent for public equities (e.g., PE ratios) than they did for private equity (e.g., EBITDA multiples).
- Of note, the private equity data (as always) is through 9/30.
 - It is possible that buyout multiples will “catch up” with public equity valuations in 2024, but this has not always been the case historically.

How does Meketa look at valuations for venture capital?

- Venture capital tends to be focused on a smaller part of the broad economy, concentrating mostly on a few sectors such as technology and healthcare.
- To get a feel for how VC is currently priced, we create a proxy composed of public market indices that focus on these sectors.
- The proxy is currently composed of: the NASDAQ; Pharma, Biotech & Life Sciences; IT Services; financial technology; and Clean Tech/Environment. The composition and weightings have changed over time.
- That said, we take our VC model with a large grain of salt, as there is very little private market data available.

FAQs for 2024 (continued)

Do we still expect US earnings to grow faster than the broad economy?

→ Yes, until/unless there is a structural shift, perhaps due to political events, US companies are likely to earn a greater share of economic growth than they have over the post-WWII era.

What is causing the significant decrease in 10-year expected returns for non-US equities?

→ First, the reduction in our cap on foreign exchange impact is effectively cutting 50 bp from each asset class that is primarily denominated in a currency other than USD.

→ There was a bit of a disconnect in most overseas markets this past year, with prices rising much more than earnings grew. Hence valuations are higher, which lowers expected returns.

→ We also reduced the % of GDP growth that we expect to translate to EPS growth by varying degrees for foreign markets (many have produced little to no EPS growth over the past ten years).

How is your outlook on China affecting your expected returns?

→ Our outlook for China has continued to decline due to a number of factors, including:

- The lack of a post-Covid re-opening economic rebound
- A shift in prioritization by the CCP to favor Marxism over growth
- Geopolitical tensions and “de-risking” by Western investors
- Real estate and debt challenges

→ As a result, we are placing a greater discount on Chinese (and hence, emerging market) growth translating to EPS growth.

- This serves as a drag on expected returns for EM and Chinese equities.

FAQs for 2024 (continued)

What effect do we expect net buybacks to have, if any?

- We believe US companies will continue to be net buyers of their shares over the next decade, but to a lesser extent than they have for the past decade. This will be a net tailwind.
- We expect other markets to be net issuers of shares (i.e., this will be dilutive to shareholder wealth). This is most pronounced in emerging markets, due to their anticipated growth.

Why do we believe US companies will be net buyers of their stock for an extended period, and why does that matter?

- There are several reasons why we can/should believe US companies will be net buyers of their stock for an extended period (e.g., the next ten years), and why that may change.
- First, it would be a continuation of a nearly two-decade trend that CFOs have decided it is in their interest to prioritize buybacks over dividends or other uses of cash.
 - This could obviously change, but the catalyst for this is not obvious nor apparently on the horizon.
- The second factor is if labor finally starts clawing back a larger portion of GDP.
 - This clearly could happen, but despite an incredibly tight labor market, it is not happening (at least not yet). Rather, companies have had success passing on their higher labor costs to their customers and hence maintaining their profitability.
- This matters in our models because it impacts what portion of GDP growth translates to EPS growth.
 - If companies are more profitable and they are buying back shares, this will be much more beneficial to EPS than if companies are less profitable and are diluting their shares (e.g., via new issuance).

FAQs for 2024 (continued)

Do we consider inflation when building expected returns for real assets like real estate, infrastructure, and natural resources?

→ Yes, inflation is a component for the vast majority of these assets, and their growth is generally linked to inflation in our models.

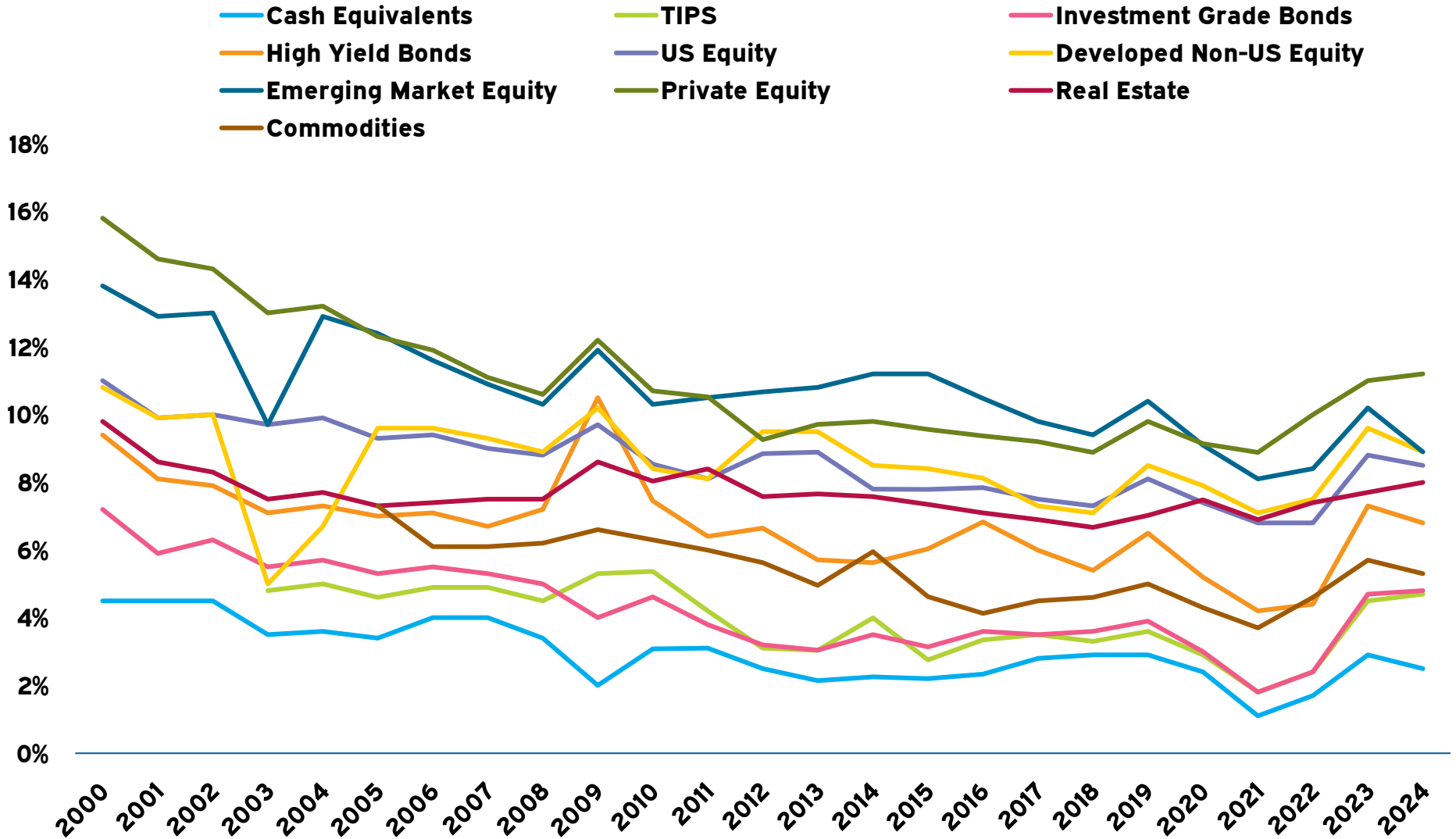
How are you accounting for the distinctly non-linear return profile of Long Vol?

→ We assume that the payoff of a long vol strategy is significantly and positively skewed during periods of poor equity market returns.

- In particular, we analyze the historical distribution of returns during periods when equity markets increase or decrease by 10%.

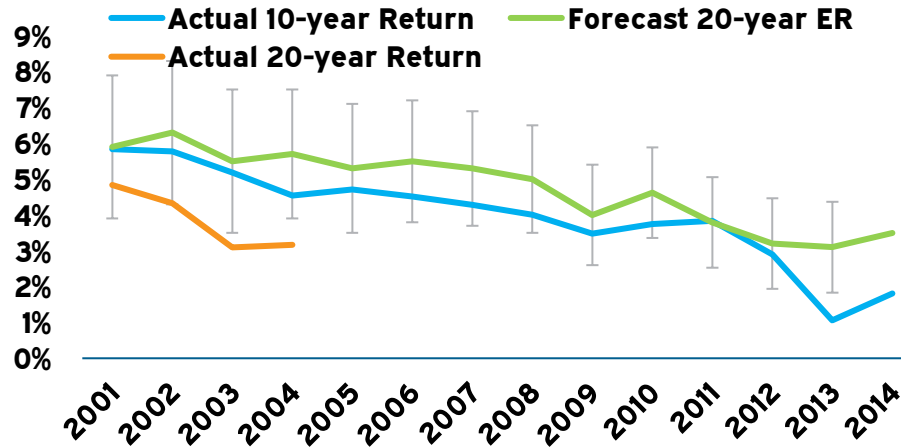
→ However, the average return in most years is driven by the effective “insurance premium” investors pay for this strategy.

Our 20-year CMEs since 2000

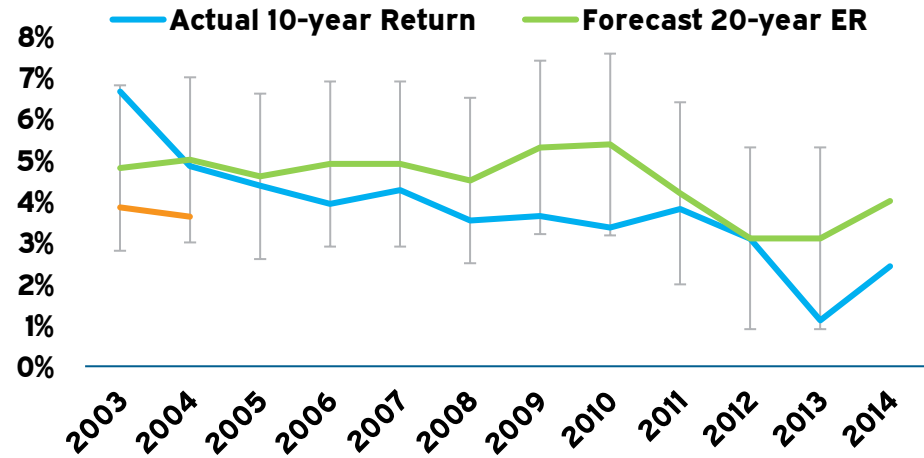


Our Track Record

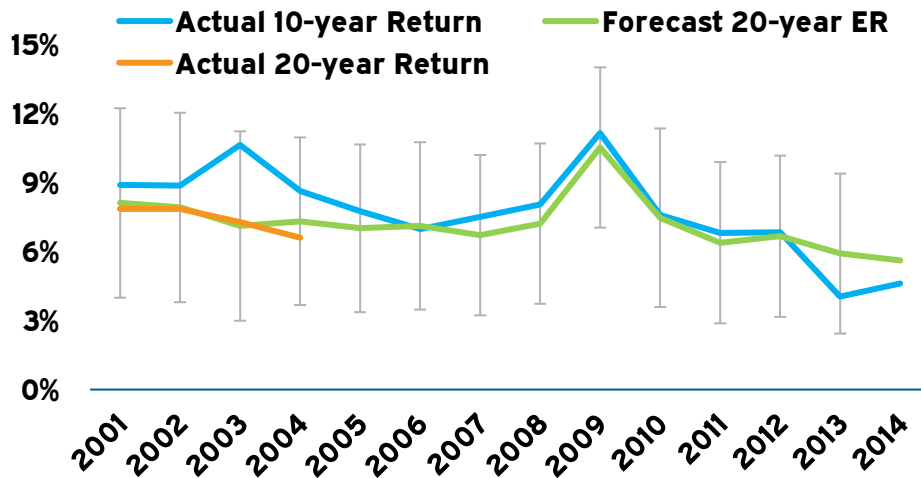
Investment Grade Bonds



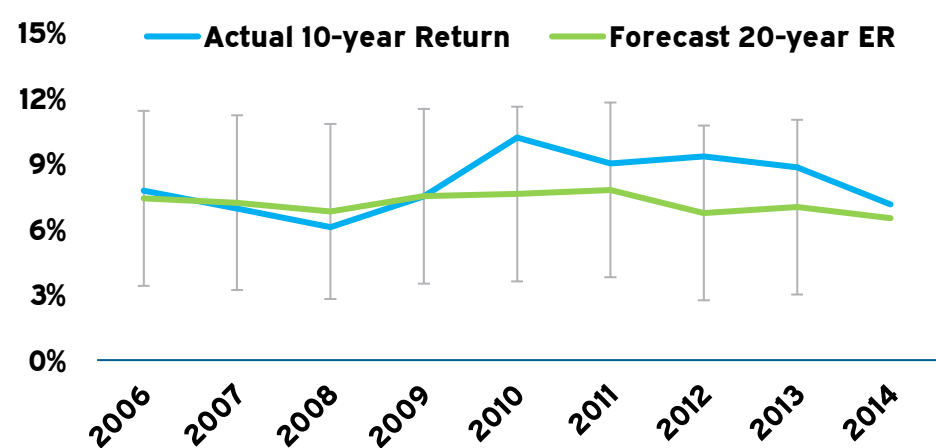
TIPS



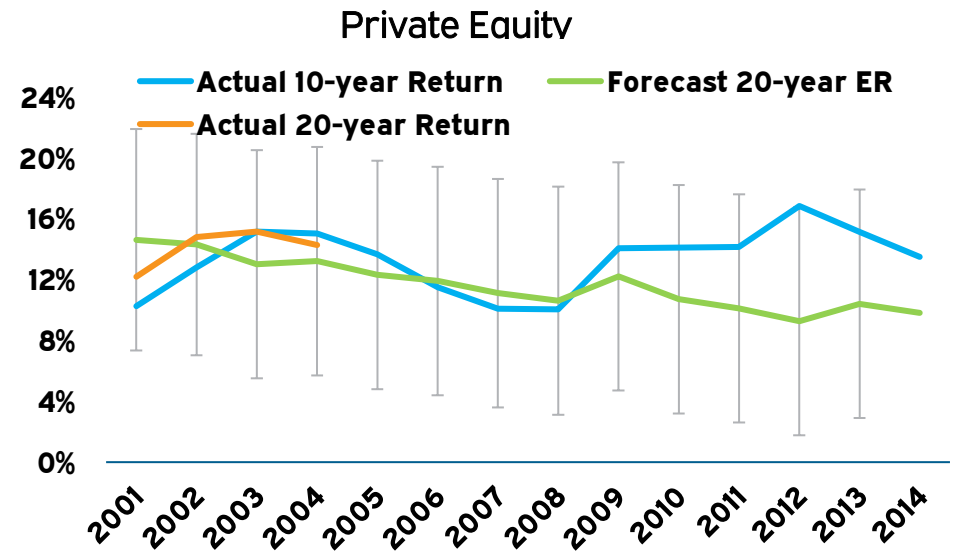
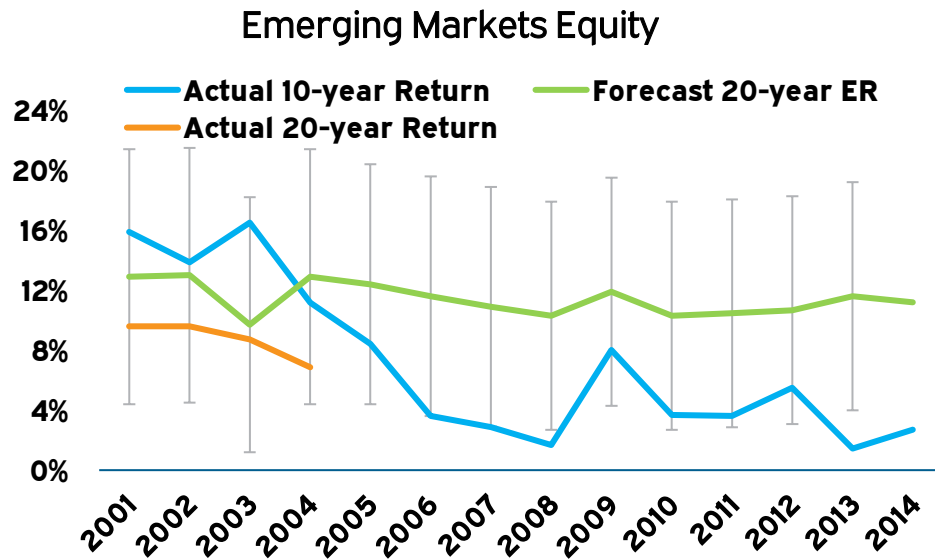
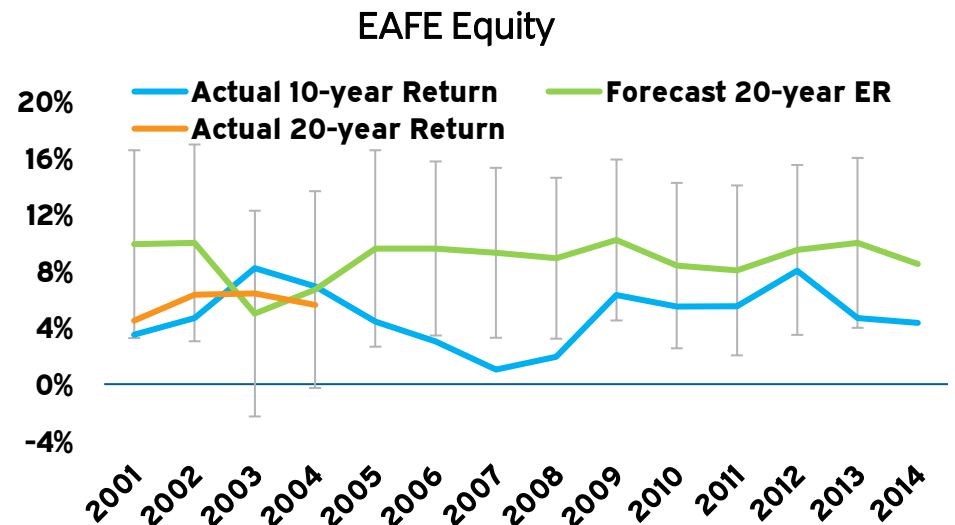
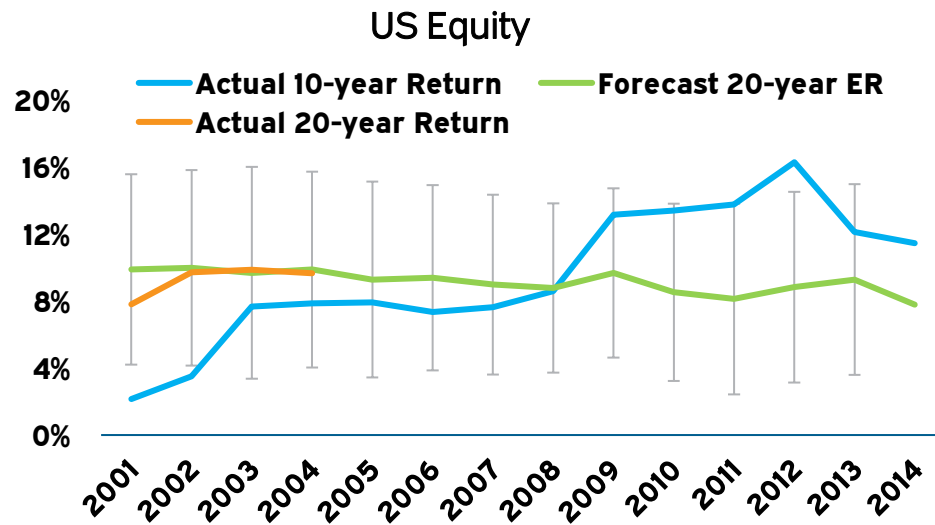
High Yield Bonds



Core Real Estate



Our Track Record (continued)



Three Long-term Themes:
The Impact of AI, China and Deglobalization

Thinking about Broad AI Impacts

Prepare for Multiple Futures



- Developments in AI since 2017 have been occurring at a rapid pace and with unexpected discoveries (i.e., “emergent capabilities”).
- Predicting what the actual developments will be and their corresponding impacts on economies/societies will be very challenging.
- Staying up-to-date on major developments and preparing for multiple futures is prudent.
- Research and predictions from industry insiders, economists, political scientists, etc., all indicate a high degree of uncertainty regarding impacts of AI.

Note: this graphic was created using generative AI.

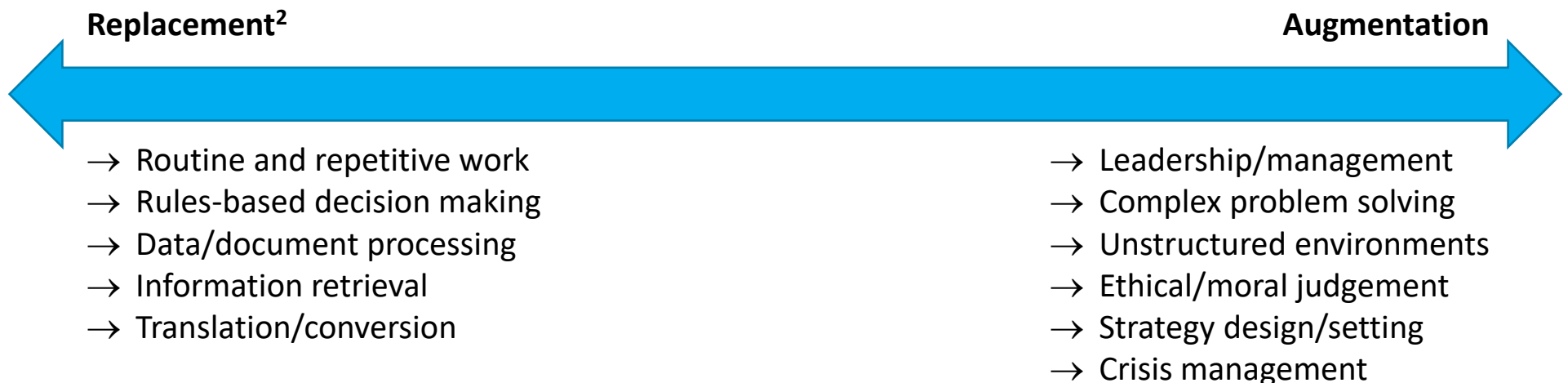
“Automation Anxiety”

- History is full of examples of workers fearing their jobs would be displaced by technology.
- While this fear has been a continual occurrence, research has shown that it tends to be overstated, especially during the initial introduction of the technology.¹
- This is not to say that all jobs will be safe – any form of technological advance will displace certain jobs.
- The difference with generative AI, however, is that it is the first technology that will likely impact “white collar” jobs and possibly even the arts and other creative industries.

¹ For example, a 2016 paper by a Boston University economist examined 271 occupations that were listed in the 1950 census. Only one was eliminated by 2010. “How Computer Automation Affects Occupations: Technology, Jobs, and Skills,” James Bessen, Boston University School of Law, Revised Working Paper, October 2016

Replacement vs. Augmentation

- While job replacement is an understandable fear, it is better to think of it as a spectrum of replacement to augmentation.
- *“Our findings indicate that approximately 80% of the U.S. workforce could have at least 10% of their work tasks affected by the introduction of GPTs, while around 19% of workers may see at least 50% of their tasks impacted. The influence spans all wage levels, with higher-income jobs potentially facing greater exposure.”¹*



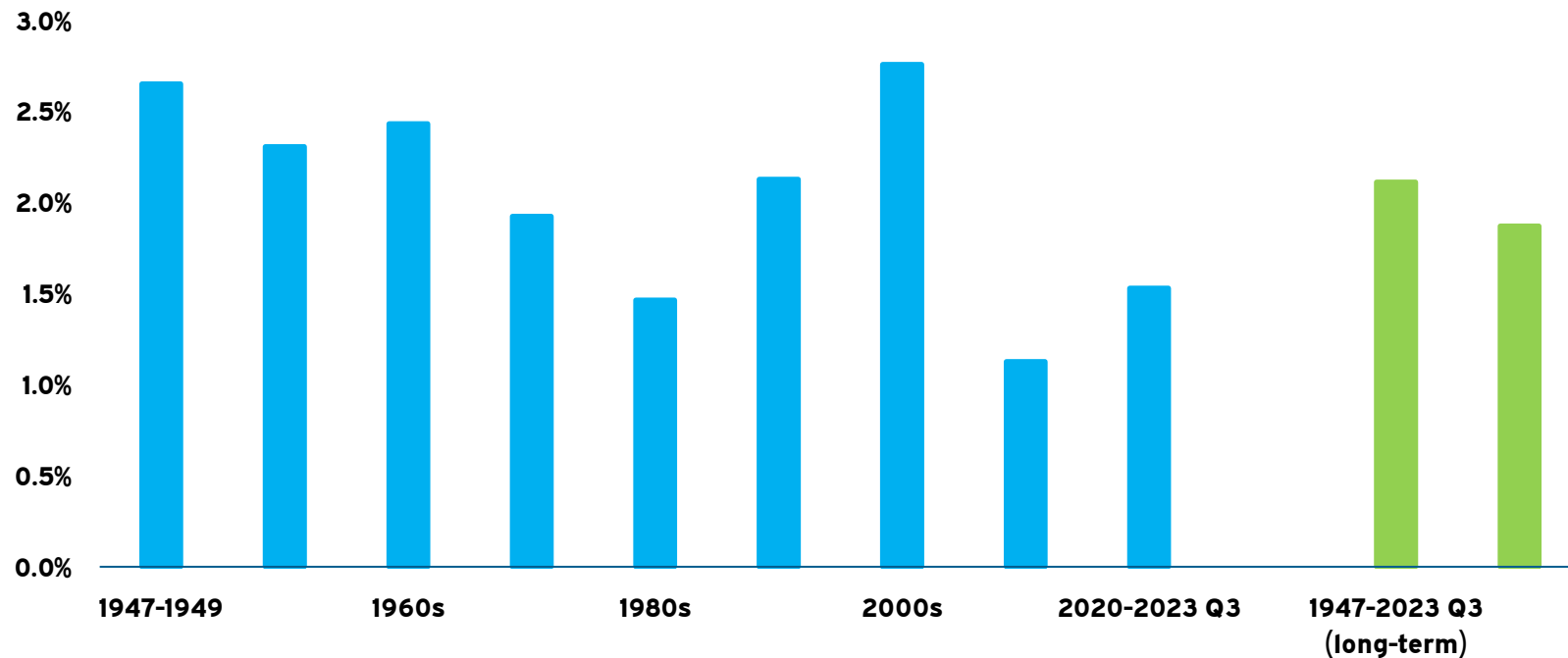
¹ Source: OpenAI (creator of ChatGPT), GPTs are GPTs: An early look at the labor market impact potential of large language models, Open AI, March 2023.

² Concepts regarding replacement and augmentation are adapted from presentations from Toffler Associates.

Impact on Productivity

- Any form of automation/labor savings inherently improves productivity.
- As discussed earlier, accurate forecasts for the impact of AI are challenging.
- Example productivity forecast impacts are currently in the 0-1% range, per annum.
- This would represent a meaningful increase from the long-term historical average (~2.1%).

Annualized Nonfarm Business Sector Productivity, 1947 - 2023 Q3¹

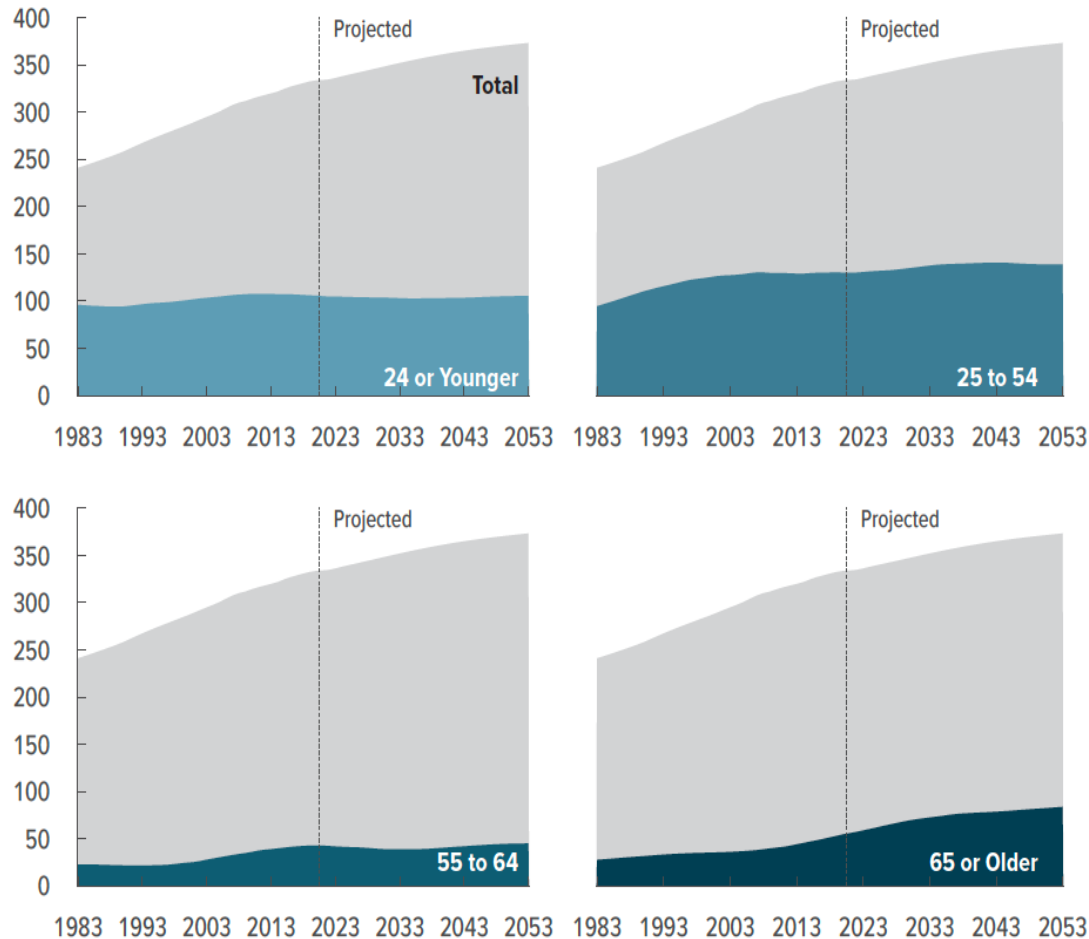


¹Source: FRED. Represents Nonfarm Business Sector: Labor Productivity (Output per Hour) for All Workers, Index 2012=100, Quarterly, Seasonally Adjusted.

Silver Lining of AI Potential

Population, by Age Group

Millions of People



- Even excluding potential discoveries that may benefit society (e.g., healthcare, biotech, climate emissions, etc.), there is an underdiscussed benefit of AI: mitigating the demographic headwinds faced by many developed nations.
- For example, the aging population of the United States (highlighted in the graphics on the left) will require a reconfiguration of the nation's workforce.
- AI can help fill positions/tasks that societies may be unable to fill otherwise.

Source: Congressional Budget Office and US Census Bureau, as of January 2023

China

Why the Pessimism on China?

- The anticipated economic rebound from exiting zero-COVID did not materialize.
- Real estate bubble is getting worse, not better.
- Investors have responded by voting with their feet.
- Xi's policies seem to be backfiring.

Chinese Growth Disappointed in 2023

- China exited their zero-COVID policy in late 2022.
- Many investors and economists alike anticipated a surge in growth as the economy re-opened.
- But the economic rebound did not materialize.
- Growth projections are being ratcheted down.
- Major causes include:
 - Debt overhang in the property sector – nearly ¼ of China’s economy.
 - Exports are lagging.



Source: FactSet as of December 31, 2023. Represents quarter-over-quarter Real GDP growth, seasonally adjusted, provided by the China National Bureau of Statistics.

Property Market Turns from Tailwind to Headwind

- The issue is systemic.
- Both the private and public sectors are heavily indebted.
- The worst problems are with property developers and local governments.
- In 2021, it was Evergrande; in 2023, it is Country Garden.
- Old model:
 - CCP sold land to developers, filling local government coffers in the process.
 - This allowed CCP to spend freely while taking on more debt themselves.
 - Local governments are responsible for ~85% of expenditures.
 - Developers borrowed heavily and pre-sold properties to finance their acquisitions.
 - No other good savings options, so ~70% of household wealth is tied up in the property market.
- Current status:
 - Housing prices falling.
 - Some property owners now refusing to make payments on unfinished properties.
 - This can turn into a vicious cycle where developers do not have the cash flow to complete projects.

CCP Reaction Has Not Been Helpful

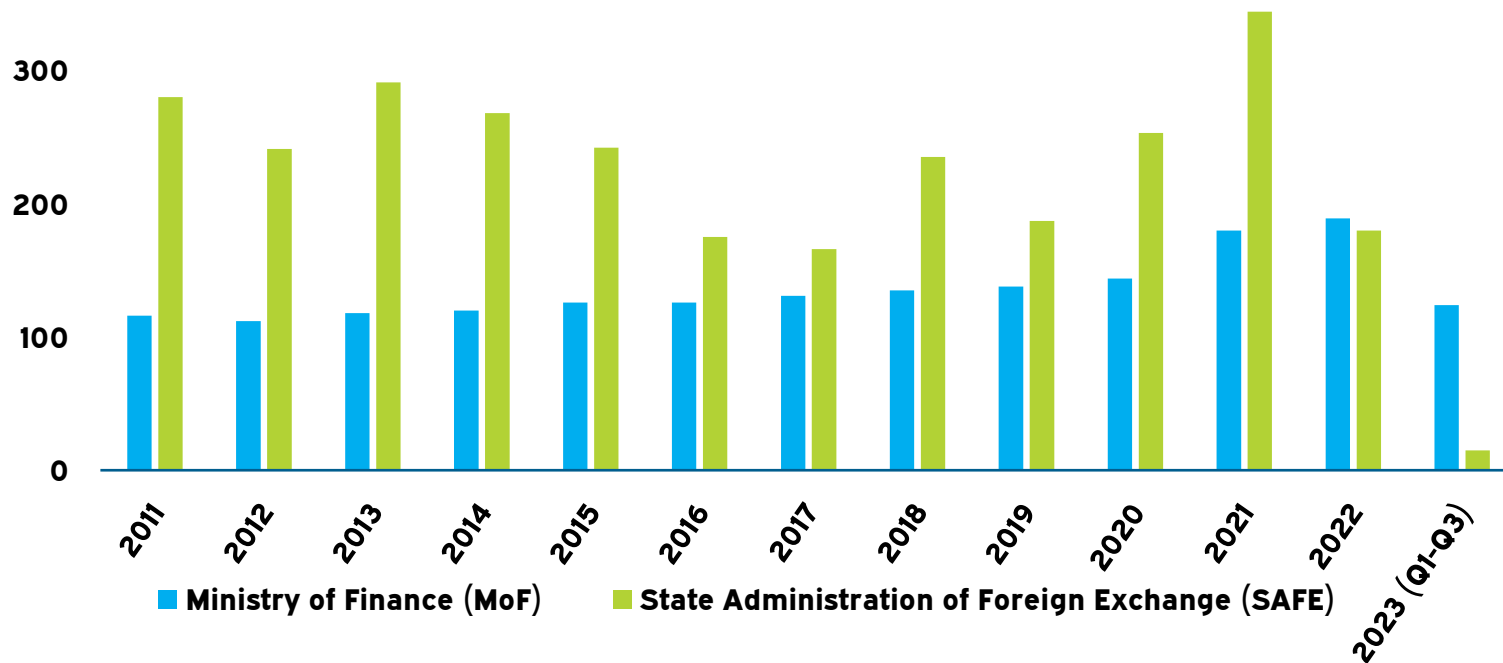
- Focus has become national security, not growth.
- Emphasizing nationalistic policies and self-sufficiency.
- CCP has clamped down on foreign businesses (e.g., office raid, iPhone restrictions).
- Wants to reign in the debt bubble, so little/no support for property developers.
- PBoC providing minimal stimulus.
- Relationships with trading partners and neighbors are becoming increasingly strained.
- Many investors and business have responded by seeking to reduce their ties to China.
- Missing and replaced ministers signal challenges at the top of party leadership.

*If growth continues to falter, China will face a choice:
backtrack or double down on security and repression*

Investor Concerns turn into Portfolio Flows

→ In Q3 2023, China recorded its first quarterly decline in direct investments since 1998 (-\$11.8B).¹

Foreign Direct Investment Inflows to China 2011-2023 (USD in Billions)²

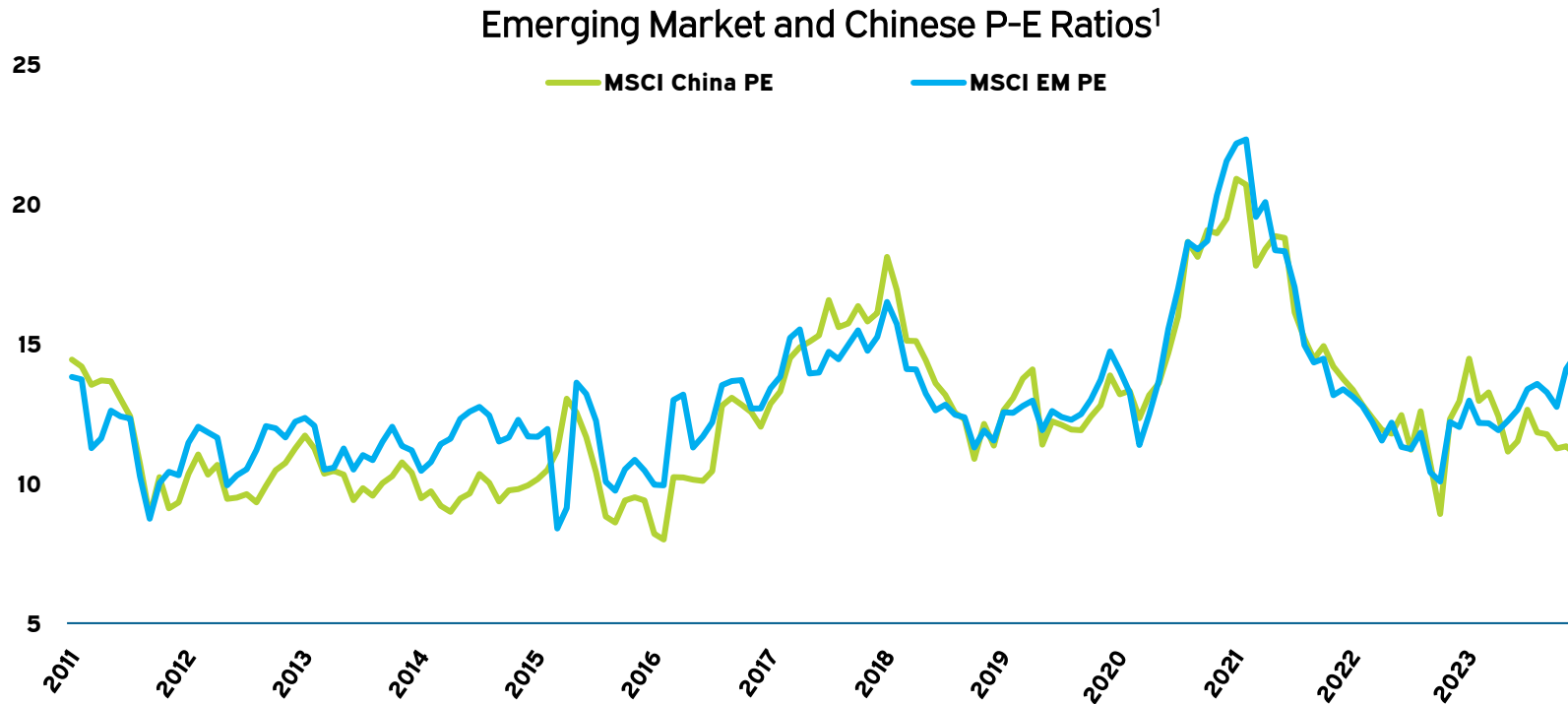


¹ Source: Reuters, "West's de-risking starts to bite China's prospects," November 27, 2023. Article based on preliminary balance of payment data as of September 30, 2023.

² Source: Peterson Institute for International Economics, N. Lardy "Foreign direct investment is exiting China, new data show," November 17, 2023. SAFE tracks net FDI while the Ministry of Finance tracks gross inflows.

Cheap...for a Reason?

- Investors' lack of confidence in the economy and CCP policies continues to weigh on Chinese asset prices.
- While the general mood has clearly soured on Chinese equities, pricing has grown more attractive.
 - P-E ratios for China and the broader emerging market index diverged in 2023.
- An important question is: Do valuations fairly represent the risks?



¹ Source: Bloomberg, as of December 31, 2023. Indices used: MSCI China, MSCI Emerging Markets.

Deglobalization

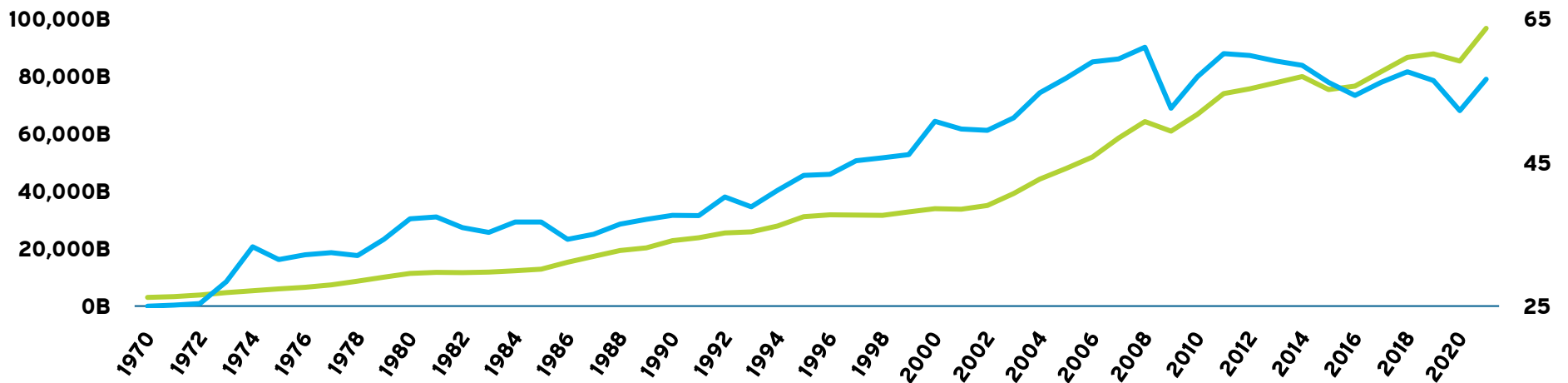
Introduction: Deglobalization

- We may be entering a period of deglobalization.
- The primary catalysts were COVID and the war in Ukraine.
 - Corporations and countries want to better secure their interests.
 - Many are seeking to “de-risk” their supply chains.
 - They are doing so both by limiting and changing with whom they trade.
- More recently, national security policy is placing limits on trade, particularly of technology.
- The result may be a halt or even an outright reversal of the globalization.
 - The historical benefits of globalization included higher growth and lower prices.
- Hence, deglobalization may affect price stability, interest rates, economic growth, and investment returns.

Historical Impact of Globalization: Trade & Growth

Annual Global Trade and GDP (1970 – 2021)

— World GDP (\$B) — World Trade (% of GDP) (Right Axis)



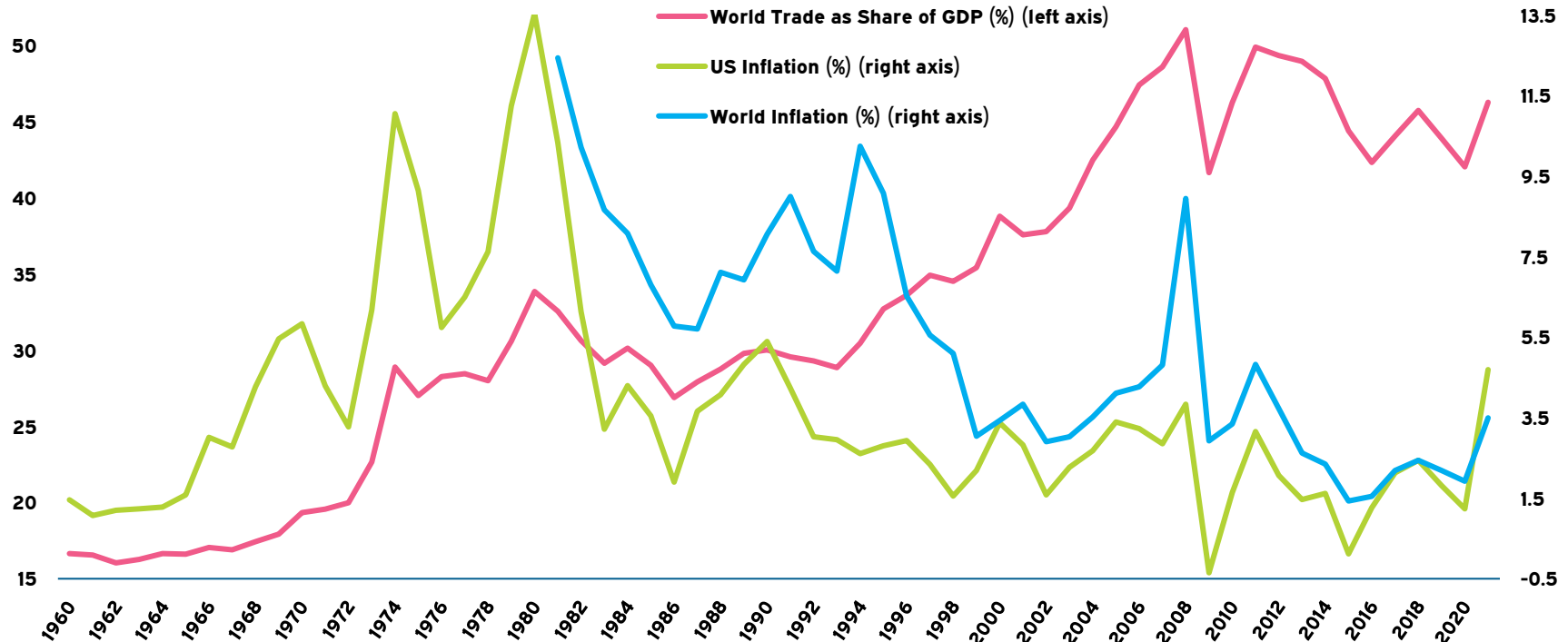
→ The fifty-year period that started in 1970 saw extraordinary growth in trade and GDP.

- Global trade grew from 20% of global GDP in 1970 to a peak of over 50% in 2008.
 - Trade accelerated in the 1990s as countries adopted trade liberalization policies.
- Global GDP grew from \$2.9 T to \$85.1 T between 1970 and 2020.
 - Developing nations were able to compete on the basis of comparative advantage.
 - Multinationals took advantage of low-cost goods and labor, as well as new markets.

Sources: World Bank and United Nations Conference on Trade & Development Trade Analysis Information System ("UNCATD TRAINS") and FRED as of December 2022.

Historical Impact of Globalization: Inflation & Global Capital Markets

Global Trade and Global Inflation (1970 – 2021)



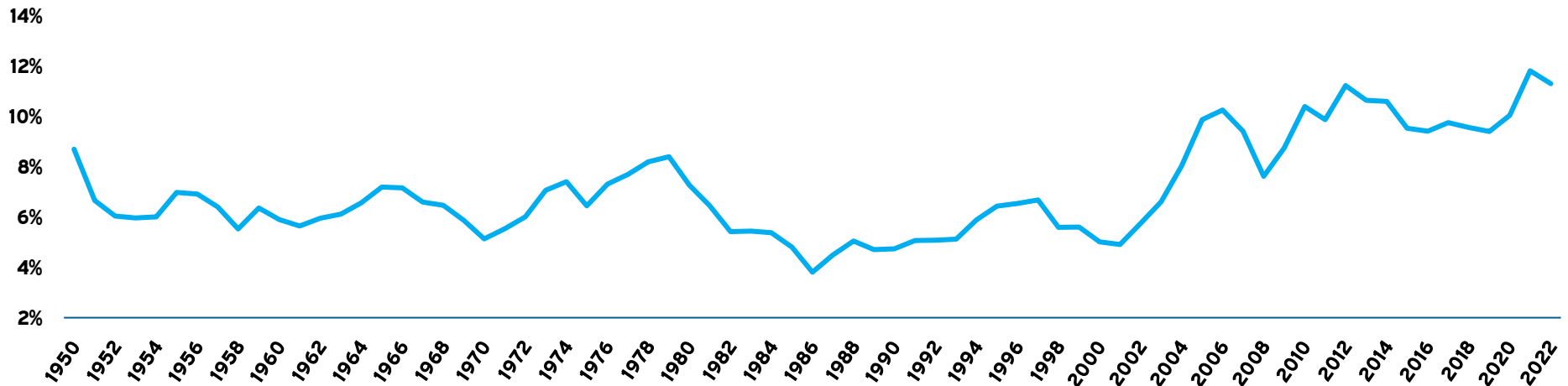
- Globalization increased competition across borders and helped drive down prices for labor and goods.
 - Between 1980 and 2021, the US enjoyed its longest period of low and stable inflation in modern history.
 - Between 2000 and 2020, global inflation averaged just 3.4% well below its post-WWII levels.
- Economic stability and falling inflation helped foster global capital markets.
 - The MSCI ACWI index grew from 2,187 companies in 2000 to 2,966 companies in 2021.

Sources: World Bank and United Nations Conference on Trade & Development Trade Analysis Information System ("UNCATD TRAINS") and FRED. Inflation, consumer prices for the World. Annual data as of September 2022.

Historical Impact of Globalization: Growth & Profitability

- Globalization helped increase living standards and reduce global poverty.
 - The percent of the global population living on less than \$2 a day declined from 42% to less than 10%.
 - China saw over 400 million people move out of extreme poverty between 1980 and 2013.
- Global corporate profits also rose, due in large part to the lower relative costs for materials and labor.
 - US corporate profits increased from 5% of US GDP in the early 1980s to over 10% of US GDP in 2022.

US Corporate Profits as Share of GDP



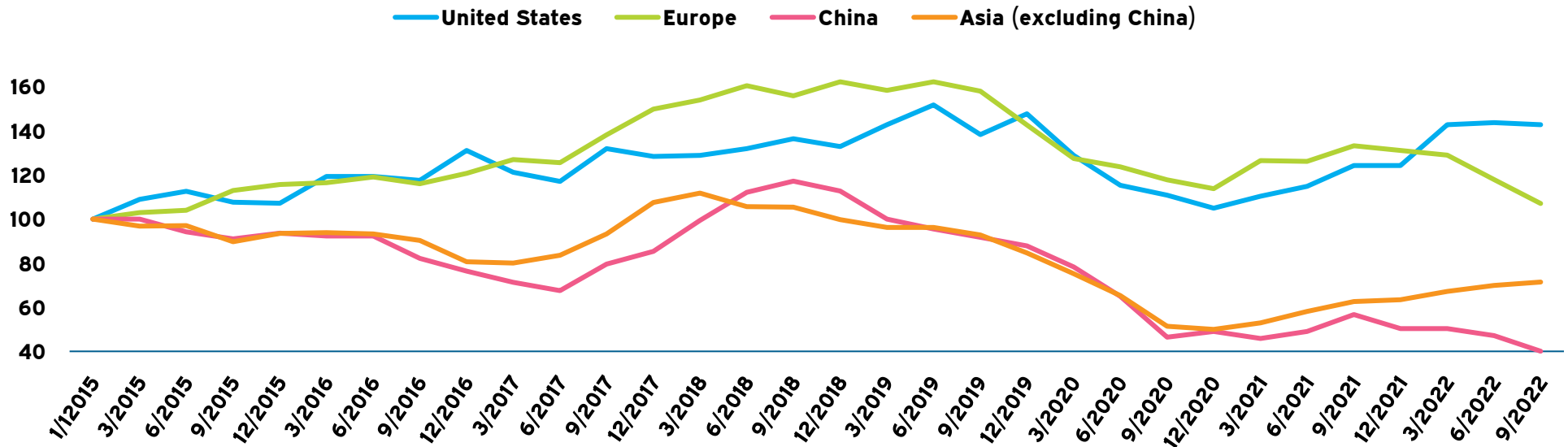
Source: World Bank UNCATD TRAINS as of March 2023. Annual data through 2019.

Source: IMF, S. Jain-Chandra et al., "Inequality in China - Trends, Drivers, and Policy Remedies," June 2018. Between 1980 and 2015 the number of Chinese people in the lowest decile of income declined by 86%.

Source: Meketa analysis of data from FRED. Corporate Profits After Tax (without IVA and CCAAdj), Seasonally Adjusted Annual Rate, and Gross Domestic Product, Seasonally Adjusted Annual Rate.

Shift Away From China

Number of Global Foreign Direct Investments By Region (2015 – 2022)



- The global pandemic revealed dependence on China for critical supplies and goods.
- Global corporations shift to China +1, China +2, and friend-shoring strategies.
 - Prioritizing supply chain resiliency over low-cost suppliers.
- Much of the relocated distribution has remained in Southeast Asia.

Source: IMF World Economic Outlook April 2023. Chapter 4. Geoeconomic Fragmentation and Foreign Direct Investment. Number of investments with four-quarter moving average.

Resource Security & National Security

- Specialization and efficiency dominated corporate and public investment decisions since the 1990s.
 - But this also introduced fragility, leaving supply chains vulnerable to shocks.
- Russia's invasion created food and energy insecurity.
- Nations reacted by focusing on self-sufficiency.
 - Europe decoupled itself from Russian natural gas.
- Nations are also re-drawing trade and political relationships based on shared security concerns.
- The Russian invasion re-invigorated NATO.
- The US attitude to China's rise has shifted from engagement and cooperation to strategic decoupling.
 - China's trade practices reduced the US appetite for diplomatic and economic engagement.
 - Protectionist policies that were implemented during the Trump administration were extended by Biden.
- The Biden administration has gone further by embracing policies that re-shoring.
 - The CHIPS Act and Inflation Reduction Act (IRA) mark re-emergence of US national industrial policies.

Deglobalization's Likely Economic Ramifications

- A reversal in the half-century trend toward globalization is likely to have major consequences.
- The tailwinds that drove down costs for labor and raw materials might turn into headwinds.
- Companies are increasingly willing to trade efficiency for greater resiliency in their supply chains.
 - Further, geopolitical tensions and sanctions are guiding investment decisions.
 - New supply chain configurations demand new investment and sourcing from friendly suppliers.
- Reconfiguring supply chains can be costly.
 - Reshoring or friend-shoring production may incur additional labor and capex costs.
 - It may also result in lower return on investment for corporations.
- The higher cost of capital and higher wages could negatively impact corporate earnings.
 - Likewise, they could lead to higher levels of global inflation.

Deglobalization's Risks to Investment Returns

- The pace and depth of deglobalization is unknowable.
- We modeled possible outcomes of deglobalization using scenario analysis.
- We considered four potential deglobalization scenarios.
 - Our most optimistic scenario is that governments will rediscover their pro-trade multilateralism, which could reboot globalization.
 - Our next scenario resembles the current situation, extending the current drift of regionalism and rerouting of global trade and capital flows within trade blocs.
 - Our third scenario considers what might happen if outright deglobalization becomes prevalent.
 - Our final scenario is the most bearish, as it ponders the consequences of a military blockade and embargoes related to a military conflict over Taiwan.
- Based on our analysis, a well-diversified institutional portfolio might experience a decline in expected returns of between -0.5% and -1.5% per annum in all but the worst-case scenario.

Conclusions

- A reversal in the half-century trend toward globalization is likely to have major consequences.
- Deglobalization could have significant impacts on global growth, inflation, and politics.
 - Reduced economic integration could lead to a decline in trade, investment, and innovation.
 - This could ultimately lead to slower economic growth.
 - Reduced economic integration could lead to higher prices.
 - Companies will likely face higher production costs and trade barriers.
 - Deglobalization could lead to a rise in nationalism and protectionism.
 - Countries may seek to protect domestic industries and reduce dependence on foreign trade.
- The combination of lower growth and higher inflation would pose challenges for investors.

Summary Data

Return and Risk Data

Asset Class	10-year Expected Return (%)	20-year Expected Return (%)	Standard Deviation (%)	11-20 year Risk Premia ¹ (%)
Cash Equivalents	2.4	2.5	1.0	-2.0
Investment Grade Bonds	4.6	4.8	4.0	0.4
Long-term Government Bonds	4.3	5.0	12.0	1.0
TIPS	4.3	4.7	7.0	0.4
High Yield Bonds	6.5	6.8	11.0	2.5
Bank Loans	6.5	6.6	10.0	2.0
Emerging Market Debt (local)	6.3	6.2	12.0	1.5
Private Debt	9.2	9.2	15.0	4.6
US Equity	6.9	8.5	17.0	5.5
Developed Non-US Equity	7.7	8.9	18.0	5.4
Emerging Non-US Equity	7.6	8.9	22.0	5.5
Global Equity	7.2	8.7	17.0	5.5
Private Equity	9.9	11.2	25.0	7.8
Real Estate	6.3	8.0	16.0	5.3
Infrastructure	7.4	9.0	18.0	6.1
Commodities	4.9	5.3	17.0	1.0
Hedge Funds	4.5	5.8	7.0	2.5
Inflation	2.4	2.8		-1.5

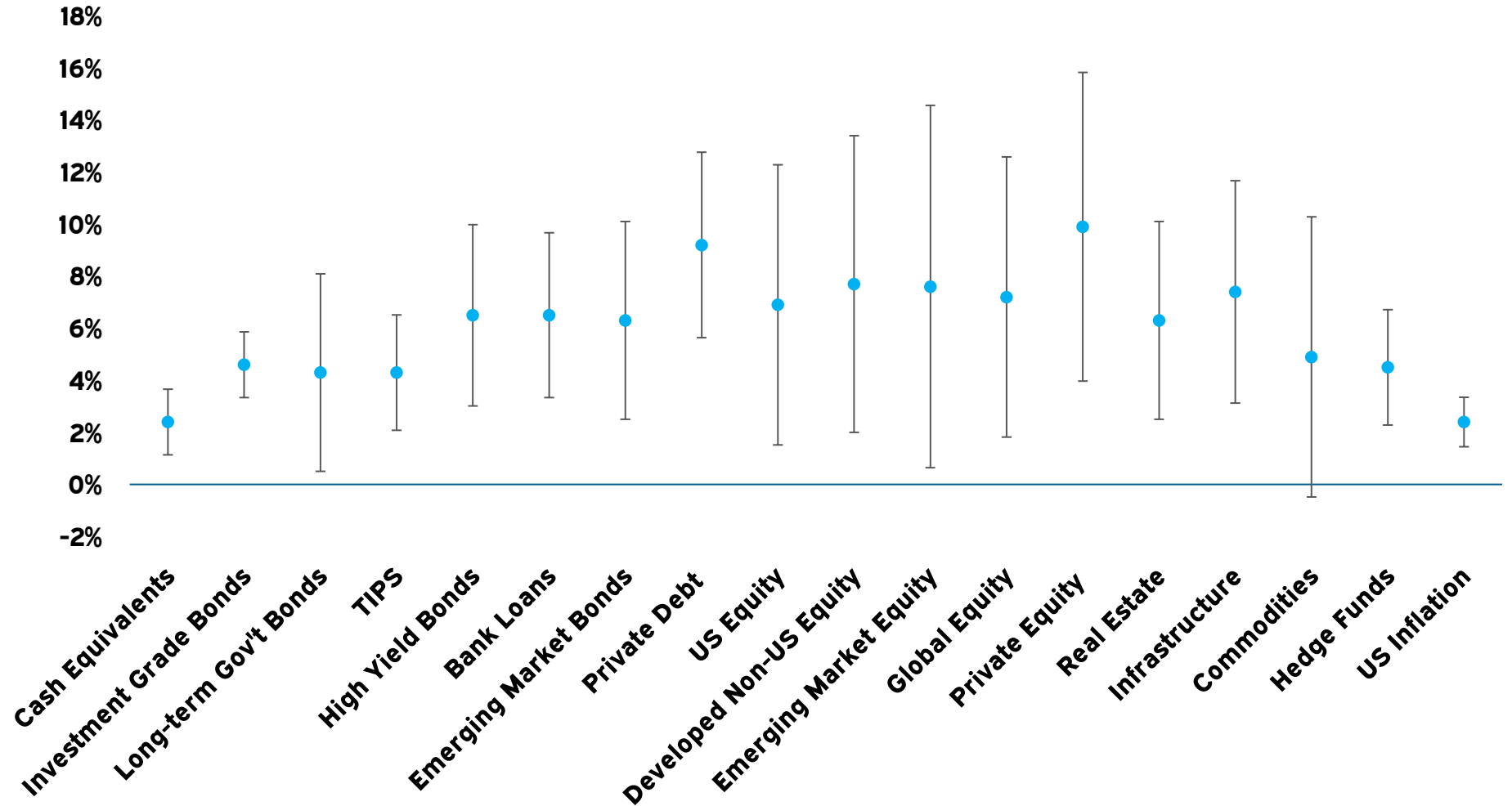
¹ Risk Premia are calculated relative to the market's projection for the yield on the 10-year Treasury in ten years..

Correlation Data

	Inv. Grade Bonds	Long-term Gov't Bonds	TIPS	High Yield Bonds	US Equity	Dev. Non-US Equity	Em. Market Equity	Private Equity	Real Estate	Commod.	Infra.	Hedge Funds
Investment Grade Bonds	1.00											
Long-term Government Bonds	0.86	1.00										
TIPS	0.77	0.61	1.00									
High Yield Bonds	0.35	-0.04	0.46	1.00								
US Equity	0.22	-0.10	0.30	0.76	1.00							
Developed Non-US Equity	0.26	-0.09	0.33	0.76	0.88	1.00						
Emerging Market Equity	0.27	-0.05	0.36	0.72	0.74	0.86	1.00					
Private Equity	0.00	-0.10	0.03	0.66	0.90	0.83	0.79	1.00				
Real Estate	0.26	0.06	0.17	0.56	0.53	0.49	0.43	0.49	1.00			
Commodities	0.00	-0.23	0.28	0.47	0.46	0.55	0.58	0.23	0.15	1.00		
Infrastructure	0.31	0.14	0.32	0.65	0.64	0.68	0.60	0.51	0.61	0.41	1.00	
Hedge Funds	0.12	-0.20	0.30	0.78	0.80	0.83	0.81	0.53	0.47	0.64	0.61	1.00

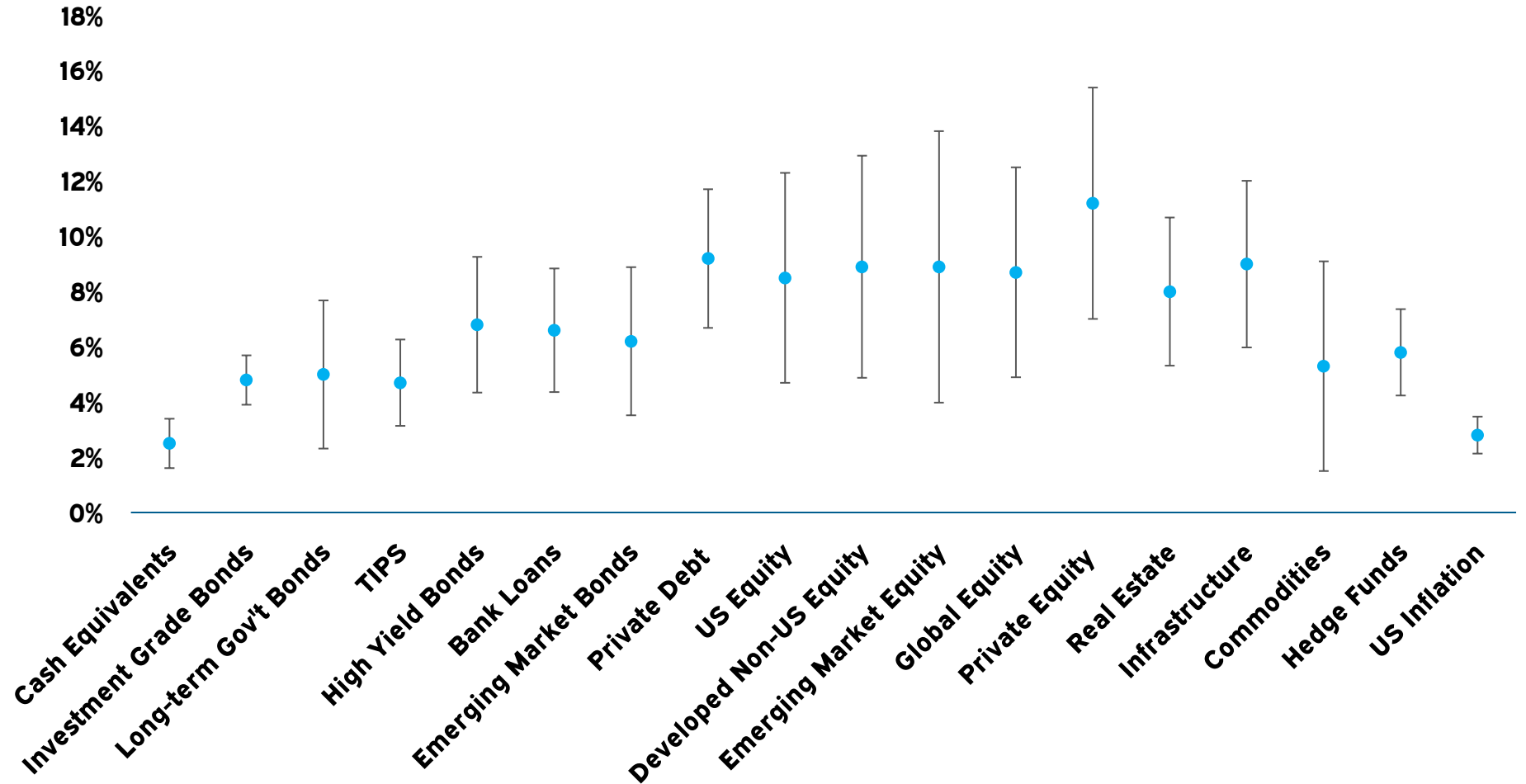
10-Year Return Expectations

10-year Forecasts and Likely Range



20-Year Return Expectations

20-year Forecasts and Likely Range



2023 Peer Survey

- Annually, Horizon Actuarial Services, LLC publishes a survey of capital market assumptions that they collect from various investment advisors.¹
- The Horizon survey is a useful tool to determine whether a consultant's expectations for returns (and risk) are reasonable.

Asset Class	Horizon 10-Year Average (%)	Meketa 10-Year (%)	Horizon 20-Year Average (%)	Meketa 20-Year (%)
Cash Equivalents	3.4	3.1	3.2	2.9
TIPS	4.1	4.3	4.1	4.5
US Core Bonds	4.7	4.8	4.8	4.7
US High Yield Bonds	6.4	8.0	6.5	7.3
Emerging Market Debt	6.3	6.5	6.4	6.2
Private Debt	8.2	9.4	8.2	9.0
US Equity (large cap)	6.9	7.8	7.4	8.7
Developed Non-US Equity	7.5	10.1	7.8	9.8
Emerging Non-US Equity	8.2	10.3	8.6	10.0
Private Equity	9.5	9.7	10.1	11.0
Real Estate	6.0	5.9	6.3	7.8
Infrastructure	7.0	6.9	7.1	8.3
Commodities	5.0	6.3	4.9	5.7
Hedge Funds	6.0	5.4	6.2	6.1
Inflation	2.6	2.5	2.5	2.6

¹ The 10-year horizon included all 42 respondents to the survey, and the 20-year horizon included 27 respondents. Figures are based on Meketa's 2023 CMEs.

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MEMORANDUM

TO: SJCERA Board of Retirement
FROM: Meketa Investment Group (Meketa)
DATE: March 8, 2024
RE: Total Portfolio Expected Return Update – 2024 Assumptions

Summary

At least once per year, Meketa generates forward-looking capital market assumptions (“CMAs”) to provide clients with our best estimates of long-term returns, volatilities, and correlations across a wide range of asset classes/strategies. These CMAs are then used in complex asset-liabilities studies as well as in more straight-forward asset allocation reviews. Additionally, one of the primary uses of these updated CMAs is to allow clients to review the expected return and volatility of their current and long-term policy target portfolios. Through this exercise, clients are able to obtain a general understanding of the positioning of their policy portfolio and whether it is still aligned with their long-term objectives.

Based on Meketa’s 2024 Capital Market Assumptions, the SJCERA investment portfolio is well structured to perform above its 6.75% actuarial objective over the long-term.

Discussion

SJCERA completed the comprehensive Asset-Liability Study in 2022 that culminated in a new long-term policy portfolio. In addition, the Board lowered the assumed rate of return from 7.00% to 6.75%.

At the beginning of each year, Meketa develops capital market assumptions for a wide range of asset classes/strategies (in 2024 this equated to 112 different asset classes/strategies). These assumptions are developed using a multitude of quantitative and qualitative inputs, and this development process is updated each year with additional data sets and more refined approaches/models. Meketa develops assumptions for both 10-year (i.e., intermediate) and 20-year (i.e., long-term) timeframes. For the purposes of this memorandum, Meketa mapped the 10-year and 20-year assumptions to both the long-term policy targets in order to generate expected return and volatility metrics for the respective portfolios.¹ The long-term policy targets that were used can be found on the following page. The expected return and volatility metrics for the long-term policy targets are also presented. The underlying assumptions that were used are presented in this document.²

¹ This exercise utilized standard mean-variance calculations which slightly differ from the simulation approaches used in SURS A/L studies.

² Please also refer to the accompanying presentation deck discussing Meketa’s 2024 Capital Market Assumptions.

Policy Targets and Expected Return/Risk

Classes/Strategies	2024 Long-term Policy Targets (%)
BROAD GROWTH	80
<u>Traditional Growth</u>	34
Public Equity	34
<u>Stabilized Growth</u>	30
Core Real Estate	9
Risk Parity	6
Liquid Credit	7
Private Credit	8
<u>Non-Traditional Growth</u>	16
Private Equity	8
Non-Core Real Assets	8
PRINCIPAL PROTECTION	7
CRISIS RISK OFFSET	13
<i>Total</i>	<i>100</i>
Expected Return (10-year)*	7.2
Expected Return (20-year)*	8.4
Annual Volatility	11.5

* Expected returns consist of passive management in liquid markets classes and median net performance in illiquid markets classes.

As detailed in the table above, the SJCERA investment portfolio is positioned to generate an expected return of 7.2%-8.4% depending on the investment horizon. When examining the portfolio from holistic perspective, Meketa believes that the portfolio remains prudently constructed to achieve and/or modestly exceed the actuarial rate without assuming unnecessary risk. It is important to note that the expected return of the portfolio and the actuarial assumed investment return do not need to be equal at all times, however, they should be similar to one another and directionally track over time.

2023/2024 Comparison of Return Assumptions*

Composite/Asset Class /Strategy	2023	2024	Difference (%)
	Expected Return: 20-Year Geometric (%)	Expected Return: 20-Year Geometric (%)	
Traditional Growth			
Global Equity	9.2	8.7	-0.5
Stabilized Growth			
Core Real Estate	6.5	6.9	0.4
Risk Parity	7.7	7.2	-0.5
Liquid Credit (High Yield)	7.3	6.8	-0.5
Private Credit	9.0	9.2	+0.2
Non-Traditional Growth			
Private Equity	11.0	11.2	+0.2
Value Add Real Estate	8.3	8.3	0.0
Opportunistic Real Estate	9.6	9.6	0.0
Principal Protection			
Investment Grade Bonds	4.7	4.8	+0.1
Crisis Risk Offset			
Long US Treasuries	5.0	5.0	0.0
Systematic Trend Following	4.8	4.7	-0.1
Alternative Risk Premia	5.6	5.2	-0.4
Total Portfolio	8.6	8.4	-0.2

*Expected returns consist of passive management in liquid markets classes and median net performance in illiquid markets classes.



Correlation Assumptions

	Cash Equivalents	Investment Grade Bonds	Long-term Government Bonds	Private Debt	Global Equity	Private Equity	Core Private Real Estate	Value-Added Real Estate	Opportunistic Real Estate	CTA (Trend Following)	Alternative Risk Premia (ARP)	Risk Parity (10% vol)
Cash Equivalents	1.00											
Investment Grade Bonds	0.12	1.00										
Long-term Government Bonds	0.15	0.83	1.00									
Private Debt	0.10	0.20	-0.20	1.00								
Global Equity	-0.22	0.15	-0.23	0.70	1.00							
Private Equity	0.10	0.00	-0.10	0.80	0.80	1.00						
Core Private Real Estate	0.20	0.25	0.10	0.35	0.35	0.40	1.00					
Value-Added Real Estate	0.15	0.20	0.00	0.40	0.45	0.45	0.90	1.00				
Opportunistic Real Estate	0.10	0.15	-0.05	0.45	0.55	0.50	0.85	0.90	1.00			
CTA (Trend Following)	0.09	0.10	0.17	0.00	0.04	0.00	0.00	0.00	0.00	1.00		
Alternative Risk Premia (ARP)	-0.17	0.24	0.19	0.15	0.12	0.10	-0.02	0.03	0.09	0.37	1.00	
Risk Parity (10% vol)	-0.15	0.52	0.19	0.35	0.75	0.20	0.30	0.25	0.25	0.17	0.20	1.00

2024 CONFERENCES AND EVENTS SCHEDULE

<u>2024</u> <u>EVENT DATES</u>	<u>EVENT TITLE</u>	<u>EVENT SPONSOR</u>	<u>LOCATION</u>	<u>REG. FEE</u>	<u>WEBLINK FOR MORE INFO</u>	<u>EST. BOARD EDUCATION HOURS</u>
Mar 27 - Mar 29	Advanced Principles of Pension Governance for Trustees	CALAPRS	UCLA LUSKIN CENTER	\$3250	calaprs.org	16
Apr 29 - May 1	Public Funds Roundtable	Institutional Investor	Los Angeles, CA	\$0	institutionalinvestor.com	15
Apr 15 - Apr 17	Pension Bridge The Annual 2024	withintelligence	Half Moon Bay	\$0	withintelligence.com	12.5
Apr 15 - Apr 18	PIMCO Institute Educational Seminar	PIMCO	Newport Beach, CA	\$0	pimco.com	21.5 hrs
Apr 15 - Apr 19	Investment Strategies and Portfolio Mgmt.	Wharton	Philadelphia, PA	\$13250	executiveeducation.wharton.upenn.edu	40
May 3 - May 3	Trustee Roundtable	CALAPRS	virtual	TBD	calaprs.org	4*
May 6 - May 9	Portfolio Concepts and Mgmt.	Wharton	Philadelphia, PA	\$6150	www.ifebp.org	32
May 7 - May 10	SACRS Spring Conference	SACRS	Santa Barbara	TBD	sacrs.org	11*
May 19 - May 22	2024 Annual Conference and Exhibit	NCPERS	Seattle, WA	\$1110	ncpers.com	TBD
May 24 - May 24	Virtual Attorneys Round Table	CALAPRS	Virtual	TBD	calaprs.org	4*
May 28 - May 30	2024 Lightspeed Annual Meeting	Lightspeed	Napa, CA	\$0	annualmeetings.splashthat.com	N/A
Jun 17 - Jun 19	Chief Officers Summit	NCPERS	Seattle, WA	\$1000	ncpers.com	N/A
Jun 21 - Jun 21	Administrators Roundtable	CALAPRS	No. Cal	TBD	ncpers.com	N/A
Jul 14 - Jul 17	SACRS/UC Berkeley Program	SACRS	Berkeley, CA	\$3000	sacrs.org	24*
Jul 22 - Jul 24	Advanced Investment Management	Wharton	San Francisco	\$6150	www.ifebp.org	24
Aug 26 - Aug 29	Principles of Pension Governance for Trustees	CALAPRS	TBD	TBD	calaprs.org	TBD
Sep 17 - Sep 19	Fiduciary Investors Symposium	top1000funds	Stanford	TBD	top1000funds.com	TBD
Sep 25 - Sep 27	Administrators Institute	CALAPRS	Carmel	TBD	calaprs.org	N/A
Oct 11 - Oct 11	Trustee Roundtable	CALAPRS	TBD	TBD	calaprs.org	TBD
Oct 14 - Oct 18	Investment Strategies and Portfolio Mgmt.	Wharton	Philadelphia, PA	\$13250	executiveeducation.wharton.upenn.edu	40

* Estimates based on prior agendas



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Summit Education

Candid conversations and the exchange of ideas are the heartbeat of the NCPERS Chief Officers Summit. This exclusive event draws together pension CEOs and CIOs to address their most pressing challenges and promising opportunities. [Click here for more on the Summit.](#)

Preliminary Agenda

**As of February 1, 2024*

MONDAY, JUNE 17

2:00 PM – 6:00 PM REGISTRATION

3:30 PM – 3:45 PM 2024 CHIEF OFFICERS SUMMIT WELCOME ADDRESS

3:45 PM – 6:00 PM GENERAL SESSION I: Introduction

3:45 PM – 5:00 PM **Around the Horn: Who, What, and Why?**

- Each attendee introduces him or herself, their plan, and what they would like to get out of the Chief Officers Summit.

5:00 PM – 6:00 PM **Identifying and Evaluating International and Domestic Geopolitical Risks**

- Seasoned observers of domestic and international affairs will provide analysis of risks to factor in the coming year.

EMCEE: Debby Cherney, San Bernardino County Employees' Retirement Association

6:30 PM – 9:00 PM WELCOME RECEPTION & DINNER

TUESDAY, JUNE 18

7:00 AM – 5:30 PM REGISTRATION

7:00 AM – 8:00 AM BREAKFAST

8:00 AM – 10:00 AM GENERAL SESSION II

8:00 AM – 9:00 AM **When Policymakers Give You Lemons: The How To's of Making them Palatable**

- Learn from those who have implemented policies not of their choosing or not in the best interest of the plan. Those who traversed through this latest mine field of proxy access, divestments, and ESG/anti-ESG will share their lessons learned, pitfalls to avoid, and rules to abide by when negotiating with policymakers or implementing these thorny issues.

SPEAKERS: Craig Slaughter, West Virginia Investment Management Board (Invited); Alan Conroy, Kansas Public Employees Retirement System (Invited)

EMCEE: Richelle Sugiyama, Public Employee Retirement System of Idaho

9:00 AM – 10:00 AM **COLAs in an Elevated Inflation Environment**

- A panel including an actuary, plan leader, and practitioner will discuss their approaches and recommendations to funding for and providing COLAs to retirees.

EMCEE: Sam Masoudi, Wyoming Retirement System

10:00 AM – 10:15 AM REFRESHMENT BREAK

10:15 AM – 12:30 PM TRACK I

	CEO TRACK I	CIO TRACK I
10:15 AM – 11:00 AM	<p>CEO Evaluations: The Good, The Bad, and The Ugly</p> <ul style="list-style-type: none"> • Hear from a plan CEO, plan HR director, and recruitment professional on how evaluations are being conducted, the pros/cons of them, and how to improve your process. <p><i>SPEAKERS: TBD</i></p> <p><i>EMCEE: Steve Delaney, Orange County Employees Retirement System</i></p>	<p>Benchmarking Public Plan Costs: How Do We Rank?</p> <ul style="list-style-type: none"> • Hear from a leading benchmarking firm on how public pensions compare on their metrics. <p><i>SPEAKER: Christopher Doll, CEM Benchmarking (Invited)</i></p> <p><i>EMCEE: Rod June, Los Angeles City Employees Retirement System</i></p>

11:00 AM – 11:45 AM	<p>Plan and Plan Sponsor Entanglements: Governance and Structural Difficulties</p> <ul style="list-style-type: none"> • The session discusses common issues such as plan staff classifications or plan sponsor control over plan functions. • Conversations on ways to mitigate issues caused by entanglements. <p><i>SPEAKERS: Eli Martinez, Montgomery County Employee Retirement Plans</i></p> <p><i>EMCEE: Kristi Paczkowski, City of Knoxville Employees' Pension System</i></p>	<p>Investment Consultants: A Conversation on Practices that Work</p> <ul style="list-style-type: none"> • From general to specialty consultants to manager monitoring process to selecting new consultants, this session begins with a panel of your peers comparing their processes. • Then the dialogue opens to the attendees to solicit your frustrations and successes in order to crowdsource key takeaways. <p><i>SPEAKERS: TBD</i></p> <p><i>EMCEE: Ryan Wagner, Dallas Police & Fire Pension System</i></p>
11:45 AM – 12:30 PM	<p>Tricks of the Trade</p> <ul style="list-style-type: none"> • CEOs will share their hacks and other surprising successes that have helped them and their system. <p><i>SPEAKERS: TBD</i></p> <p><i>EMCEE: Steve Delaney, Orange County Employees Retirement System</i></p>	<p>Technology to Enhance Efficiencies in the Back Office</p> <ul style="list-style-type: none"> • Learn about the latest technologies helping plans with automating processes, extracting data, performing repetitive operations (reconciliations), but also looking at possible downside to this new technology such as potential loss of jobs. <p><i>SPEAKERS: Florida SBA (Invited); Cogito (Invited)</i></p> <p><i>EMCEE: Sam Masoudi, Wyoming Retirement System</i></p>

12:30 PM – 1:30 PM NETWORKING LUNCH

1:45 PM – 4:30 PM TRACK II

	CEO TRACK II	CIO TRACK II
1:45 PM – 2:30 PM	<p>Who Has Your Data?</p> <ul style="list-style-type: none"> • Recent high-profile data breaches have drawn attention to the cybersecurity risks your plan faces, with increased scrutiny of vendor practices and the liabilities tied to data management practices. • Hear from plan IT professionals, security consultants, and other experts on where your data is housed and how to limit your exposure. <p><i>SPEAKER: TBD</i></p> <p><i>EMCEE: Erin Leonard, Minnesota State Retirement System</i></p>	<p>Co-Investments in Private Markets: A Candid Discussion</p> <ul style="list-style-type: none"> • This session will cover various considerations and implementation options for PE co-investments. <p><i>SPEAKER: TBD</i></p> <p><i>EMCEE: Kevin Killeavy, Montgomery County Employee Retirement Plans</i></p>

2:30 PM – 3:15 PM	<p>Effective Use of Dashboards and Visualization Platforms</p> <ul style="list-style-type: none"> Find out how plans are using data analytics and other tools to increase internal efficiencies and to help educate boards and external stakeholders. <p><i>SPEAKERS: Debby Cherney, San Bernardino County Employees' Retirement Association</i></p> <p><i>EMCEE: Regina Story, Oklahoma City Employees Retirement System</i></p>	<p>Private Credit: Issuers' Perspectives</p> <ul style="list-style-type: none"> Listen as issuers of debt discuss their views on private credit vs. other forms of debt. <p><i>SPEAKERS: Laura Holson, New Mountain Capital (Invited); Peter Hecht, AQR (Invited)</i></p> <p><i>EMCEE: Jason Malinowski, Seattle City Employees' Retirement System</i></p>
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3:15 PM – 3:30 PM REFRESHMENT BREAK

	CEO TRACK	CIO TRACK
3:30 PM - 4:30 PM	<i>Facilitated Small Group Discussions</i>	<i>Facilitated Small Group Discussions</i>

4:30 PM – 5:30 PM **GENERAL SESSION III: Return Assumptions and De-Risking Portfolios**

- A panel of academics and actuaries will debate what are reasonable return assumptions and discuss how to de-risk in an elevated inflationary environment.

SPEAKERS: Jean-Pierre Aubry, Boston College (Invited)

EMCEE: Jason Malinowski, Seattle City Employees' Retirement System

6:00 PM – 9:00 PM NETWORKING RECEPTION & DINNER

WEDNESDAY, JUNE 19

7:00 AM – 12:00 PM REGISTRATION

7:00 AM – 8:00 AM BREAKFAST

8:00 AM – 8:45 AM **GENERAL SESSION IV: How Far Have DEI Advanced and What More Needs to be Done**

- In recognition and celebration of Juneteenth, the nation's newest federal Holiday, a panel of public plan leaders will discuss how DEI is incorporated into their systems and what further work needs to be done.

SPEAKERS: Tim Johnson, Jacksonville Police & Fire Pension Fund; Erin Leonard, Minnesota State Retirement System; Eli Martinez, Montgomery County Employee Retirement Plans; Richelle Sugiyama, Public Employee Retirement System of Idaho

EMCEE: Sam Austin, NEPC (Invited)

8:45 AM – 10:15 AM TRACK III

	CEO TRACK III	CIO TRACK III
8:45 AM – 9:30 AM	<p>Are We Preparing Our Participants for Financial Success in Retirement?</p> <ul style="list-style-type: none"> A panel including a plan executive, DC provider, and behavioral economist will share their views on how to engage participants early and educate them on their retirement needs. <p><i>SPEAKERS: Tim Johnson, Jacksonville Police & Fire Pension Fund</i></p> <p><i>EMCEE: Regina Story, Oklahoma City Employees Retirement System</i></p>	<p>How to Protect Against Inflation with Imperfect Tools</p> <ul style="list-style-type: none"> Speakers will discuss their views on how to position portfolios to hedge for inflation. <p><i>SPEAKERS: TBD</i></p> <p><i>EMCEE: Kevin Killeavy, Montgomery County Employee Retirement Plans</i></p>
9:30 AM - 10:15 AM	<p>Embracing Neurodiversity for Competitive Advantage</p> <ul style="list-style-type: none"> Many people with neurological conditions such as autism spectrum disorder and dyslexia have extraordinary skills. Yet they often struggle to fit the profiles sought by employers. Learn about HR reforms needed to access neurodiverse talent to boost productivity. <p><i>SPEAKERS: TBD</i></p> <p><i>EMCEE: Erin Leonard, Minnesota State Retirement System</i></p>	<p>Simplifying Portfolios: What Are We Getting for Complexity?</p> <ul style="list-style-type: none"> In the current high-yield environment, the speaker will provide his views on what advantages simplified portfolios provide. <p><i>SPEAKERS: Mark Higgins, Institutional Advisor (Invited)</i></p> <p><i>EMCEE: Richelle Sugiyama, Public Employee Retirement System of Idaho</i></p>

10:15 AM – 10:30 AM REFRESHMENT BREAK

	CEO TRACK	CIO TRACK
10:30 AM – 11:15 AM	<p>Operational Excellence: The Illinois Municipal Retirement Fund Experience</p> <ul style="list-style-type: none"> The Baldrige Program oversees the nation's only Presidential award for performance excellence. Hear about IMRF's pursuit of the Baldrige award and the factors that plans should consider if they intend to follow suit. <p><i>SPEAKERS: Illinois Municipal Retirement Fund (Invited)</i></p> <p><i>EMCEE: Eli Martinez, Montgomery County Employee Retirement Plans</i></p>	<p>Succession Planning & Mentoring Junior Investment Staff</p> <ul style="list-style-type: none"> Hear from those who have best practices & culture on these related but different critical processes to develop the next generation of investment leaders. Perspectives from mid- and small market plans operating with constraints on staff and resources. <p><i>SPEAKERS: TBD</i></p> <p><i>EMCEE: Rod June, Los Angeles City Employees' Retirement System</i></p>

11:15 AM – 12:00 PM **GENERAL SESSION V: Elderly Fraud and Other Scams Plans Should be Aware Of**

- Financial fraud committed against seniors is estimated to cost around \$3 billion annually. State and local retirees, whose Personally Identifiable Information (PII) are more exposed, are attractive targets. Learn about the most prevalent elderly fraud and scams to better understand how to protect your participants.

SPEAKER: Memphis Field Office of the FBI (Invited)

EMCEE: Kristi Paczkowski, City of Knoxville Employees' Pension System

12:00 PM – 12:15 PM CLOSING REMARKS & 2025 PLANNING

Event Registration

Annual Conference & Exhibition (ACE)

Center for Online Learning

Chief Officers Summit

- » About the Summit
- » Summit Education
- » Summit Registration

FALL Conference

Legislative Conference

NCPERS Accredited Fiduciary (NAF) Program

NCPERS University

Pension Communications Summit

Program for Advanced Trustee Studies (PATS)

Public Pension Funding Forum

Public Pension HR Summit

Public Safety Conference

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**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SUMMARY OF PENDING TRUSTEE AND EXECUTIVE STAFF TRAVEL**

2023					
Event Dates	Sponsor / Event Description	Location	Traveler(s)	Estimated Cost	BOR Approval Date
4/15-4/18/2024	PIMCO Institute Educational Seminar	Newport Beach, CA	P. Ba	\$1,800	1/12/2024
5/7-10/2024	SACRS Spring Conference	Santa Barbara, CA	R. McCray, P. Ba, R. Ostrander	\$3,900.00	N/A
5/6-9/2024	Wharton Portfolio Concepts and Mgmt.	Wharton, PA	B. McKelvey	\$9,501.40	Pending
5/28-5/30/2024	Lightspeed Annual Meeting	Napa, CA	P. Ba	\$96	Pending
7/22-24/24	Wharton Advanced Investment Mgmt.	San Francisco	B. McKelvey	\$7,553	Pending

May 28 – May 30, 2024

LIGHTSPEED 2024 ANNUAL MEETINGS

[REGISTER](#)

Details

We are pleased to be returning to Napa, California for our 2024 Annual Meeting. The meeting will be held at Stanly Ranch. A livestream will also be available for LPs unable to join us in person.

We look forward to sharing updates on Lightspeed, our funds and our portfolio companies, and to spending time with many of you in person. Given space constraints, we ask LPs to limit attendees to two individuals per organization.

We hope you can join us!

Schedule

May 28

12:00 pm -
2:00 pm Emergence

6:00 pm -
9:00 pm Meet & Greet Reception

May 29

8:00 am -
9:00 am Breakfast

9:00 am -
1:00 pm Lightspeed India Partners
Annual Meeting

1:00 pm -
2:00 pm Lunch

2:00 pm -
5:30 pm Lightspeed China Partners
Annual Meeting

6:30 pm -
7:30 pm Welcome Reception

7:30 pm -
9:30 pm Welcome Dinner

May 30

8:00 am -
9:00 am Breakfast

9:00 am -
1:00 pm Lightspeed Venture Partners
Annual Meeting

1:00 pm -
2:00 pm Lunch

2:30 pm -
5:30 pm Lightspeed Faction Annual
Meeting

About Emergence

Emergence brings together Lightspeed LPs and a curated and diverse set of high quality emerging managers from the Venture Capital ecosystem who we at Lightspeed have worked closely with and think highly of given their unique networks, focus and team. You'll get a chance to hear from each emerging manager and schedule follow ups as appropriate.

Hotel Details

All attendee accommodations will be booked at one of the hotels below. Your confirmation code and hotel assignment will be shared at a later date.

– Stanly Ranch | 200 Stanly Crossroad,
Napa, CA 94559

– Carneros | 4048 Sonoma Hwy, Napa,
CA 94559

**For attendees of the LSVP meeting, the night of May 29th is covered by Lightspeed.

**If you are attending the LSCP and/or LSIP meetings, your hotel stay for the nights of May 28th and May 29th are covered by Lightspeed.

*Guests will be billed individually should they choose to extend their stay outside of the stated covered room nights for applicable meetings.

Meeting Location

**Stanly Ranch, Auberge Resorts
Collection**
200 Stanly Crossroad
Napa, CA 94559

Portfolio Concepts and Management

Monday, May 6 - Thursday, May 9, 2024
Wharton, Philadelphia, PA



• [REGISTER](#)

Portfolio management is a complex task with numerous decisions on how to allocate money in your fund. Portfolio Concepts and Management provides the core principles of portfolio theory and investment performance measurement, offering practical tools and experiences to help you make reliable investment management decisions. This program offers lecture/discussion sessions, problem solving exercises and small-group case study sessions in a 3½-day format. Grow confidence in your ability to evaluate investments with a broad, fundamental understanding of investment products and practices.

Outline

- Introduction and Overview of Financial Assets
- Fundamentals of Portfolio Theory
- Performance Evaluation
- Managing Pensions in a Risky Global Environment
- Fundamentals of Valuation
- Macroeconomic Issues and Financial Markets
- Asset Allocation and Impacts of Risk on Return
- Case Study Discussion

Without reservation, I would recommend this program to all trustees. These short few days of learning have instilled a great deal of confidence in my ability as a trustee as well as in my skill to more accurately oversee my plan's financial objectives, goals, course, and individual selections.

Adolfo Felix Retirement Board Vice President Water & Power Employee Retirement Plan Los Angeles, California

Benefits of Attending

- Learn the fundamental concepts needed for effective portfolio oversight.
- Obtain a solid grounding in the principles of modern portfolio theory.
- Gain practical experience needed to make sound investment management decisions.
- Apply what you have learned in an interactive case study.
- Learn from world-class faculty who are skilled educators and researchers, award-winning authors and leading authorities.

Who Should Attend

This program is intended for those who have little experience with investment-related course work.

Fiduciaries from both defined benefit and defined contribution plans who represent various industries, sizes and geographic areas (United States and Canada), including

- Multiemployer and public plan trustees
- Administrators and fund staff
- Human resources and benefits professionals
- Corporate officers and executives
- Finance personnel

- Investment professionals

Speakers

Speakers will be announced soon.

Continuing Education



Educational sessions at this program may qualify for CEBS continuing professional education (CPE) credit.

Visit www.cebs.org/compliance for more information.

Continuing Education credit for additional professions and designations MAY be available for attendance at live sessions. You must register for the program and request CE credit at least 60 days prior to the beginning of the program so that the Foundation can seek preapproval from the governing agency.

Register early and save!

Through 3/25/2024
After 3/25/2024

Member
US \$6,150.00
US \$6,450.00

Advanced Investment Management

Monday, July 22 - Wednesday, July 24, 2024

Wharton West | San Francisco, San Francisco, CA



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Advanced Investments Management is for those who have a solid grasp of investment management fundamentals and are looking for the next step in their education. Participants will learn the latest trends in performance analysis and management, discussing advanced asset-allocation topics. The 3 day program is held every other year at Wharton *San Francisco* and the format is part lecture/discussion and part interactive case study.

Outline

- Introduction, Performance Analysis, Strategy Evaluation, Asset Allocation
- Alternative Investments, Global Markets and International Investing
- International Investing, Investment Policy

This program provides very comprehensive, relevant, and valuable knowledge to be gained.

Wharton classes are always impressive. Classroom settings make me more attentive, and instructors try to reach out to everyone.

Maria Frica Pangelinan Trustee Marianas Public Land Trust Saipan, Mariana Islands

While there are no formal prerequisites for this program, those without prior knowledge of fundamental investment theory will most likely find this program too advanced and are encouraged to register for the [Portfolio Concepts and Management program](#).

Who Should Attend

Fiduciaries from both defined benefit and defined contribution plans who represent various industries, sizes and geographic areas (United States and Canada), including

- Multiemployer and public plan trustees
- Administrators and staff
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Register early and save!

	Member
Through 6/10/2024	US \$6,150.00
After 6/10/2024	US \$6,450.00



2024 LEGISLATION

Last Updated: 3/01/2024

BILL NO.	AUTHOR	DESCRIPTION	LAST ACTION DATE	LOC	SPONSOR
Legislation Impacting SJCERA:					
AB 739	Lackey	This bill would increase the PEPRA condition for suspending contributions to a defined benefit plan from 120% funded to 130% funded.	02/01/24	Assembly Filed with Chief Clerk pursuant to Joint Rule 56	
AB 2183	Jones-Sawyer	This bill would make nonsubstantive changes to PEPRA provisions.	02/08/24	Assembly From Printer. May be heard in committee by March 9	
AB 2284	Grayson	This bill would allow a system who has not defined "grade" to mean a number of employees considered together because they share similarities in job duties, schedules, unit recruitment requirements, work location, collective bargaining unit, or other logical work-related groups.	02/09/24	Assembly From Printer. May be heard in committee by March 10	
AB 2404	Lee	This bill would make nonsubstantive changes to Brown Act provisions.	02/13/24	Assembly From Printer. May be heard in committee by March 14	
AB 2474	Lackey	This bill would authorize monthly benefit to be delivered to a prepaid account. This bill would also define the "account of the retired member or survivor of a deceased retired member" to include an account held in a living trust or an income-only trust, and other considerations. This bill would also consider a retiree's retirement allowance an overpayment subject to collection if the retiree works beyond the 960 hour limit and continues to receive their monthly benefit payment. The bill would not preclude the retirement system from taking additional action to reinstate the person as a member of the system or terminate or suspend their retirement allowance.	02/14/24	Assembly From Printer. May be heard in committee by March 15	
AB 2715	Boerner	This bill would authorize a closed session to consider/evaluate matters related to cybersecurity, provided that any action taken on those matters is done in open session.	02/15/24	Assembly From Printer. May be heard in committee by March 16	
AB 2770	Committee on Public Employment and Retirement	This bill would extend the PTSD presumption repeal from January 1, 2025 to January 1, 2029.	02/16/24	Assembly From Printer. May be heard in committee by March 17	

BILL NO.	AUTHOR	DESCRIPTION	LAST ACTION DATE	LOC	SPONSOR
AB 3025	Valencia	This bill would make a nonsubstantive change to CERL provision relating to "compensation earnable".	02/17/24	Assembly From Printer. May be heard in committee by March 18	
SB 1189	Limon	This bill would modify CERL to authorize the Board of Retirement to appoint a chief technology officer.	02/21/24	Senate Comm. on L.P.E. & R	
Other Bills of Interest:					
SB 300	Seyarto	This bill would require the Legislative Analyst to prepare a pension fiscal impact on any PERS bill introduced on or after January 1, 2024.	02/01/24	Senate Returned to Secretary of Senate pursuant to Joint Rule 56	
Federal Legislation:					
None to report.					
2024 TENTATIVE State Legislative Calendar					
Feb 16	Last day for new bills to be introduced				
Mar 21 -					
Apr 1	Spring Recess begins upon adjournment				
May 24	Last day for bills to be passed out of the house of origin				
Jun 15	Budget Bill must be passed by midnight				
Jul 3 -					
Aug 5	Summer Recess upon adjournment provided budget bill passed				
Aug 23	Last day to amend bills on the floor				
Aug 31	Last day for each house to pass bills; Final Recess begins upon adjournment				
Sept 30	Last day for Governor to sign or veto bills.				



San Joaquin County Employees' Retirement Association

March 1, 2024

TO: Board of Retirement

FROM: Johanna Shick 
Chief Executive Officer

SUBJECT: Chief Executive Officer Report

Strengthen the long-term financial health of the Retirement Plan

As of January, SJCERA has \$4.2 billion assets under management. As noted last month, SJCERA's 2023 annual return of 9.1%, is anticipated to increase our funded ratio to the 70% range.

Optimize the investment manager lineup

- *Evaluate the portfolio for investment efficiency (e.g., fees, risk, return, consolidation)*
BlackRock Infrastructure Fund IV Annual Investor Meeting. Investment Officer Paris Ba attended the BlackRock Infrastructure Fund IV's year-end investor meeting virtually in February. SJCERA made a \$50 million commitment to the fund in 2023, and the fund is currently in fund raising/investment period. Infrastructure Fund IV is targeted to deliver non-correlated returns in the form of contractual cash flows, and they focus on the "3Ds": Decarbonization, Decentralization, and Digitization. The fund continues to make new investments driven by 1) low carbon transition; 2) significant demand for new digital infrastructure to support the growth in artificial intelligence; 3) fragmentation of traditional supply chains, which is changing infrastructure needs in various parts of the world; and 4) the evolution of traditional financing sources, i.e., private lending replacing bank lending. As of the fourth quarter of 2023, Infrastructure Fund IV had made six investments, the fund is valued above cost and is marked at 1.1x gross MOIC (Multiples on Invested Capitals).

Private Real Estate Valuations Artificially High?: Investment Officer Paris Ba is reviewing the private real estate class and has included several articles on valuations in the March Board meeting reading materials. Prologis (one of our real estate managers) authored the research article, "A Valuation Lag Too Significant to Ignore," which argues open-ended fund valuation in the last two years were slow to reflect deteriorating underlying valuation fundamentals and prices from transactions, and concluding the industry-wide valuation lag total correction is likely more than 20% in private real estate.

The National Association of Real Estate Investment Trusts (NAREIT) research articles ("Real Estate Cap Rates, Appraisals, and the Ostrich Effect", and "Office and Apartments Sectors Magnify Cap Rate Disparities") also found significant discrepancies between public and private real estate valuations, especially the appraisal values, with private appraisal cap rates being particularly slow to adjust to current market conditions. For investors, this results in artificially high investment management fees, as most fees are based on some measure of asset under management.

Lastly, the JP Morgan article "The role of cap rates in real estate" provides a refresher on the real estate market and the calculation of cap rates.

Modernize the operations infrastructure

- *Program and test 2024 planned processes*
Retirement Services Supervisor Melinda DeOliveira and Retirement Services Associate Ron Banez began the second cycle of User Acceptance Testing (UAT) on February 19. This UAT cycle includes nine Business System Requirements (BSR) for testing covering functionality for Employers, Reciprocal

Agencies, Employment History, Service Purchase Time, Pay period and Bargaining Unit Maintenance. Testing will continue into early March. The next UAT cycle is scheduled to happen in May 2024.

- *Deliver project milestones as scheduled on PAS project plan*
Overall, the project is progressing as planned. It is on schedule, there have been no changes in project scope, and there are no new risks or issues to report at this time.

Improve technology for business operations

- *Complete Mac to Windows transition*
Our transition to Windows is complete with the final laptop being deployed February 23. Fully transitioning to Windows before moving out of the office with all staff began working remotely, is a huge accomplishment for the entire Information Technology team. In addition to the new laptops, a new VPN was installed and configured to facilitate better management and improved security.

Align resources and organizational capabilities

Develop and implement a workforce planning process

- *Implement CEO succession plan*
 - *Hire, orient, train new CEO*
Incoming CEO Renee Ostrander will begin work on Monday, March 4 and will attend the March 8 Board meeting. During our three-week cross training period, in addition to orienting her to the CEO duties and processes, I plan to introduce her to each of our employers and County Supervisors, and have her meet individually with each of the trustees and staff to hear their thoughts about what is going well, and areas SJCERA could improve.
- *Hire, orient, train new Chief Counsel*
Incoming Chief Counsel Aaron Zaheen will begin work on Monday March 11. Both interim General Counsel Ashley Dunning and SJCERA's former County Counsel, Jason Morrish have reached out to him and offered their support and assistance.

Enhance education and development across all levels of the organization

- *Regularly inform staff of available training opportunities*
Each month, Administrative Secretary, Elaina Petersen, sends staff the training catalog of available County-sponsored courses. In addition, staff attended the following trainings:
 - *General technical training (Excel, Microsoft 365, PowerPoint, etc.)*
Administrative Secretary Elaina Petersen attended "Prevention and Control of Absenteeism and Abuse of Leave" on February 29, 2024. More than 25% of staff have already completed the Information Systems Division's annually required "Inside Man: KnowBe4" training series, well ahead of the December 31 deadline.
 - *Industry- or job-specific training (CALAPRS trainings/roundtables, customer service)*
Staff attended the following industry-specific trainings: CALAPRS Benefits Roundtable February 15: Assistant CEO Brian McKelvey, Retirement Services Supervisor Melinda DeOliveira, Retirement Services Associate Ron Banez, Retirement Services Associate Andrea Bonilla; CALAPRS Administrators Roundtable, February 8: Assistant CEO Brian McKelvey; CALAPRS General Assembly March 2-5: Brian McKelvey;

Seamlessly manage move to new location

- *Move in time to avoid diminishment of County payment and within budget*
The move was fully completed as of February 27, two days ahead of the deadline to receive the full County payment. Staff's last day in the office was February 23, the movers moved all boxes and furniture tagged for moving on February 26, and on February 27, the copy machines and a few last pieces of IT hardware were moved. On February 28, Greg Frank and I conducted a final walk through on February 28 to verify the move was complete, after which I sent the County notice confirming

completion of our move. The County has agreed to handle the sale and/or disposal of any surplus property we leave behind at no cost to SJCERA.

- *Maintain business operations without interruption*

On Saturday, February 9, Information Systems Manager Adnan Khan and Information Systems Analyst II Lolo Garza successfully moved SJCERA production servers to the County Administration Data Center as a temporary location until the new building is ready for occupancy. This move also allowed SJCERA the flexibility to address our evolving work situations: (1) working at 6 S. El Dorado Street with some staff working remotely (2) all staff working remotely with a rotating crew working in the County Administration building from February 26 until we move into the new office. Kudos to Management Analyst III Greg Frank and Information Systems Manager Adnan Khan for identifying and implementing all the logistics necessary to pull this off. The temporary office at the County Administration building is fully functional, with a reception area, front desk, and five fully functional work stations. Impressive job!

- *Effectively communicate move to members, employers, and stakeholders*

Signs have been posted at 6 S. El Dorado informing visitors that SJCERA has moved to a temporary office, in Suite 580 of the County Administration Building. Our website's What's New page has also been updated (as pictured in this report.) These are in addition to a payroll insert for active members, notices on all sent emails, and (because most of our visitors are retirees), three retiree notices: in the annual newsletter inserted with their March 1 payment, a notice in RPESJC's newsletter, and a message on their earnings statement.

SJCERA Moved February 26, 2024

Temporary location:

As of February 26, SJCERA's new temporary location is 44 N. San Joaquin St., Suite 580 (County Administration Building), Stockton, CA 95202

New permanent location:

After the office remodel is complete, SJCERA's new permanent location will be 220 E. Channel St. (Adjacent to Coy Garage), Stockton, CA 95202

Check back here for updates on our location and move.

I worked in the Suite 580 location the afternoon of February 27, and we had quite a few member visitors. I can confidently state that members who wish to meet with staff are able to find us.

Employee of the Month

Retirement Services Associate, Andrea Bonilla was announced at the February 14 All Staff Meeting. Andrea was instrumental in all SJCERA Disability cases in 2023. Her attention to detail, great customer service, and diligence in follow-up and coordination of all cases earned her Employee of the Month.

Conclusion

It's a bittersweet time for me: sweet as I anticipate my first day of retirement on Saturday, March 23, 2024 after more than 30 years of public service; bitter because I will miss working with SJCERA's trustees, staff, members, employers, and other key stakeholders. I've learned so much from each of you, and have been truly honored to work with such an impressive team. Together, we made decisions and implemented initiatives that strengthened SJCERA's funding, operations, and working relationships.

True to form, however, I'm goal oriented to the very end, so I am working hard to wrap up the last few outstanding projects before my last day on March 22. In particular, I'd like to see us moved into our new facility before I go! Inevitably, there will be some projects that will still be in process. I will brief incoming CEO Renee Ostrander on those items, and I am confident that with her at the helm, supported by the leadership team of Assistant CEO Brian McKelvey, and incoming Chief Counsel Aaron Zaheen, Investment Officer Paris Ba, Benefits Supervisor Melinda DeOliveira, Financial Officer Carmen Murillo, and IT Manager Adnan Khan, and our team of experienced staff, SJCERA is in very good hands. In my



experience, there is no challenge the team has been unable to surmount. It has been my honor to work with them and I have every confidence in their continued success. So, in conclusion, thank you and good-bye. The last seven years has been the highlight of my career. I wish each of you, and the organization as a whole, all the best.





SJCERA is Moving



February 26, 2024



Permanent Location

220 E. Channel St. (Adjacent to Coy Garage)



SJCERA's New
Permanent Location

Possible Temporary Location (If moving is delayed)

44 N. San Joaquin St., Suite 580

5th Floor of County Administration Building

If you're coming to SJCERA's office in late February or March, visit www.sjcera.org to confirm physical location

FEBRUARY 2024

A Valuation Lag too Significant to Ignore

Open-end fund valuations in the last two years were slow to reflect deteriorating underlying valuation fundamentals, such as higher borrowing costs and wider risk premiums, as well as price discovery from transactions. The cumulative 12% write-down in logistics asset values in the NCREIF ODCE and Open-End Fund Indices in 2022 and 2023 does not appear to reflect reality at the time. In fact, appraised values across U.S. logistics real estate only began to decline in aggregate in the fourth quarter of 2022, lagging real-time deal-making and displaying a more than nine-month lag of equity and debt-market repricing.

While there is no doubt that this is a complex environment, Prologis believes this complexity needs to be captured in the valuation process. Currently, pricing metrics from transactions show that open-end fund valuations across the industry have become irreflectively high, resulting in a valuation lag that is detrimental to key stakeholders, specifically fund limited partners (LPs).



As investors and others consider the benefits of investing in private equity open-ended funds, they should be aware that:

- Accurate and timely valuations are critical to the functioning of the private real estate industry. For open-end funds, incoming and exiting investors transacting on appraisal-based net asset value (NAV) should expect that share issuances and redemptions at NAV are based on a rigorous and thoughtful assessment of market values.
- A disciplined approach to determining fund NAV also protects LP interests because most asset management and performance fees are appraisal based and are key inputs into regulatory and credit ratios.
- A persistent valuation lag has significant reputational risk for appraisal service firms and general partners (GPs) if investor stakeholder interests are not regarded.

Prologis believes increased scrutiny of fund appraisal policies, practices and outside oversight would improve NAV-based pricing discovery, investor liquidity and performance benchmarking while reducing the perception of GP conflict of interest on valuation-based fees.

The role and responsibility of fund GPs

At Prologis, we like to consider the LP perspective since we are not just the fund GP but are an LP investor as well. LP investors rely on GP expertise and fund management oversight of quarterly NAV-based transactions to be fair for all investors throughout each phase of the market cycle. Some key responsibilities of GPs concerning valuations include:

- Ensuring fairness when executing NAV-based fund transactions.
- Engaging multiple independent valuation service providers to develop a diverse perspective from experts with deep experience in the relevant specific markets on quarterly asset values.
- Providing a high degree of market clearing fund liquidity on a timely basis.

Many GPs rely on third parties to determine fair value accurately. In a normally functioning transaction environment, real-time transactions and ongoing negotiations are valid valuation approaches. In the absence of this information, appraisers should strive to reflect the best estimate for a market clearing price (willing buyer, willing seller) and place greater reliance on other pricing indicators, such as cost of capital and financing activity, just as an investor would.



A more holistic examination suggests the industry-wide valuation lag exceeds the market by roughly 10%

Transaction activity fell sharply in 2022 and 2023, limiting visibility for traditional valuation techniques. In times like these, the industry must look across the broader financial markets to assess where willing buyers and sellers would meet. In this particular environment, it would suggest that the valuation landscape was markedly lower than what was being reflected in appraised values. While appraised values declined by 12%, there was a growing body of transactional evidence that indicated cumulative value declines were 20% (or perhaps more). The rationale for the decline includes:

1

Interest rate normalization argued for greater real estate return normalization.

The U.S. 10-year government bond yield rose to 3.85% as of the end of December 2023, up from its COVID-era low of 0.55% and its 2010-2019 average of 2.40%. Appraisal cap rates on in-place income, meanwhile, rose roughly 75 bps from their COVID low and offered historically low spreads to interest rates (negative spreads) going back more than 30 years. While appraisal discount rates are more difficult to observe, they appear to be in the high-6 to mid-7 percentage range, offering a roughly 200-250 bps spread to 10-year government bond yields, which is also low compared to historical averages and likely insufficient to attract capital to the industry.

3

Broad private-industry market data showed a varying picture, although the most informed sources revealed a meaningful decline in market values.

Transaction volumes were down over 50% in 2023 from 2022, providing less pricing clarity than normal. As of October, Green Street's Commercial Price Index pegged industrial values to be 15% off the peak, whereas the NCREIF-NPI Industrial subindex was only down by 8%. Additional context comes from asset sales brokers: For example, Cushman and Wakefield's semiannual investor survey reported 175 bps of cap rate expansion from peak.

2

Liquid pricing for real estate investment trusts (REITs) also indicated meaningful change in industrial values.

REIT share prices declined 22% from peak in April 2022 to December 2023. Cap rates, as implied by share prices, rose 180 bps. As the divergence between public and private valuations became extreme, NAREIT published a note called "**the Ostrich Effect**" in September 2023, identifying that private market participants ignored a problem in the hopes it would go away.

4

Individual transactions validated a more significant write-down than reflected.

Notwithstanding the marked decline in transaction activity, there was a market for good-quality real estate across all regions during the second half of 2023. Our review of closed transactions and frequent conversations with market participants indicates pricing of high-7 to mid-9% internal rates of return (IRRs), cap rates on market rents between 5.5 and 7% and a cap rate with in-place net operating incomes (NOIs) in the high-4 to low-5 percentage range. Earlier in the year, multiple portfolios greater than \$1B priced with higher valuations, although those transactions are now out of date and not relevant for year-end pricing, given both the passage of time and subsequent financial market volatility (and in the case of one transaction, required creative seller financing to close). **The cumulative weight of this evidence points to a 10%, or more, valuation lag.**

Operating in a rapidly evolving market environment


Quarterly valuations are widely lagging real-time market sentiment, comparable sales and increased investor-yield requirements. In an environment with limited transaction activity, appraisers should strive to reflect the best estimate for a market-clearing price (willing buyer, willing seller) just as an investor would. Appraisers must place greater emphasis on other pricing indicators, such as cost of capital and financing activity. Additionally, overconcentration and reliance on one firm providing valuations oversight limits the diversity of market perspectives. Recent news of further consolidation of service providers raises concerns of a monopoly-like market share across open funds that compounds existing concentration risks.


GP outsourcing of valuations management does not diminish their responsibility to ensure NAV-based transactions are fair to all LPs (new, existing and redeeming investors). These valuations drive asset management and performance fees and calculate entry and exit bases. Valuations are important for the accurate calculation of regulatory and credit ratios.

A lagging recognition of write-downs disproportionately favors redeeming investors. To the degree investors can find liquidity, limited redemption funding provided by GPs reduces the volume of NAV-based market-clearing transactions. Persistently lagging valuations delay the observation of a market bottom and discourage new capital commitments from investing at a compelling investment basis.


Roadmap for the industry

We see an opportunity for key industry stakeholders to rethink how market values are determined.

- 

GPs can play a more active role, holding valuation service providers to a higher level of accountability for minimizing the lag on behalf of their investor partners. Appraisal conclusions used to calculate fund NAVs should reflect fair value for both incoming and exiting investors. Allowing valuations to lag also impacts management and performance-based fees paid by LPs, potentially creating unnecessary conflicts of interest and reputational risk for managers.
- 

LPs should collectively require fund values that reflect market sentiment, transactional evidence and the cost of capital. They should scrutinize values and ask for reconciliations of changes in valuations with changes in transaction comparables and the market environment. In a market with fewer closed transactions between willing buyers and sellers, LPs should require GPs to develop procedures that give their independent appraisers access to the relevant asset sale brokerage companies and contacts, with an emphasis on information regarding transactions under negotiation and closed within the most recent two to three months.

Further, a common set of definitions should be codified to describe transaction comparables. In open-end vehicles, LPs and GPs should debate and reconsider whether investor interests are best served by the continued reliance on a single firm to provide valuation oversight in favor of modernized valuation policies that rely on a greater diversity of valuation perspectives. LPs and their consultants should revisit whether fund valuation policies and procedures are working as needed.
- 

The Appraisal Institute and its independent appraiser membership need to recognize the critical role they play and think more like an investor to determine fair market pricing. They must advocate for, and defend, value conclusions based on a wider array of market inputs when transactions volumes are more limited.

At Prologis, we are committed to the pursuit of industry best practices. While we acknowledge that fund appraisal policies can be both art and science, we believe open-end fund stakeholders can help advocate for more transparent and real time fund net asset values. We believe this collective action will strengthen the trust investors have in the open-end fund as a key holding in their portfolio.

Forward-Looking Statements

This material should not be construed as an offer to sell or the solicitation of an offer to buy any security. We are not soliciting any action based on this material. It is for the general information of customers of Prologis.

This report is based, in part, on public information that we consider reliable, but we do not represent that it is accurate or complete, and it should not be relied on as such. No representation is given with respect to the accuracy or completeness of the information herein. Opinions expressed are our current opinions as of the date appearing on this report only. Prologis disclaims any and all liability relating to this report, including, without limitation, any express or implied representations or warranties for statements or errors contained in, or omissions from, this report.

Any estimates, projections or predictions given in this report are intended to be forward-looking statements. Although we believe that the expectations in such forward-looking statements are reasonable, we can give no assurance that any forward-looking statements will prove to be correct. Such estimates are subject to actual known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those projected. These forward-looking statements speak only as of the date of this report. We expressly disclaim any obligation or undertaking to update or revise any forward-looking statement contained herein to reflect any change in our expectations or any change in circumstances upon which such statement is based.

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About Prologis Research

Prologis' Research department studies fundamental and investment trends and Prologis' customers' needs to assist in identifying opportunities and avoiding risk across four continents. The team contributes to investment decisions and long-term strategic initiatives, in addition to publishing white papers and other research reports. Prologis publishes research on the market dynamics impacting Prologis' customers' businesses, including global supply chain issues and developments in the logistics and real estate industries. Prologis' dedicated research team works collaboratively with all company departments to help guide Prologis' market entry, expansion, acquisition and development strategies.

About Prologis

Prologis, Inc. is the global leader in logistics real estate with a focus on high-barrier, high-growth markets. As of December 31, 2023, the company owned or had investments in, on a wholly-owned basis or through co-investment ventures, properties and development projects expected to total approximately 1.2 billion square feet (114 million square meters) in 19 countries. Prologis leases modern logistics facilities to a diverse base of approximately 6,700 customers principally across two major categories: business-to-business and retail/online fulfillment.

Nareit

Real Estate Cap Rates, Appraisals, and the Ostrich Effect

August 28, 2023

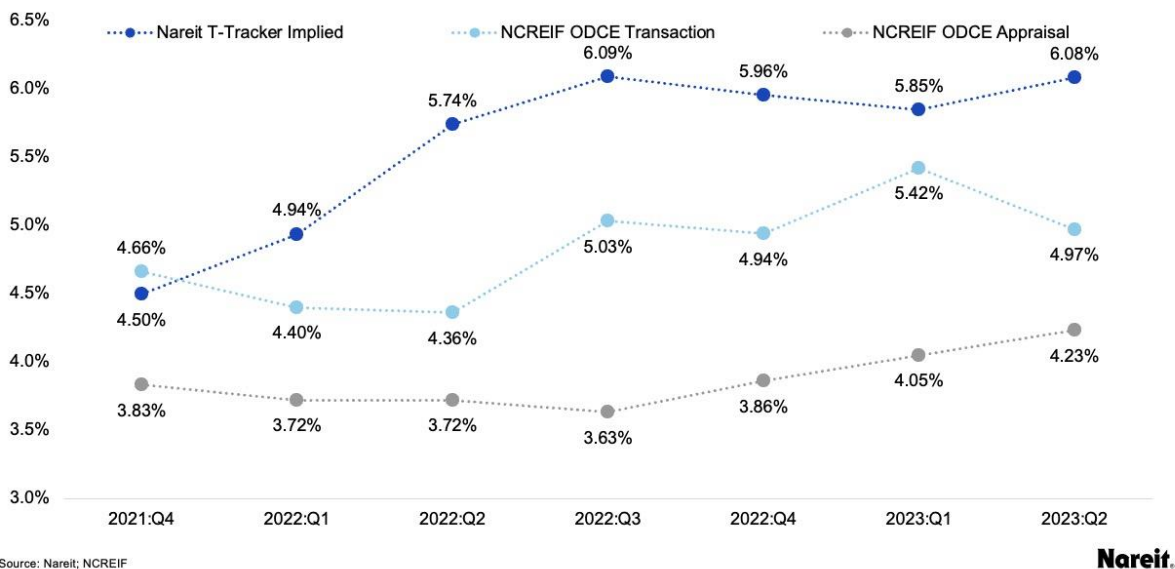
A common myth tells us that ostriches bury their heads in the sand when faced with danger. While not true, the phrase “burying your head in the sand” has become a popular idiom to describe an individual who ignores the existence of a problem with the hope that it will just go away. Financial market volatility index pioneer Dan Galai and his co-author Orly Sade coined the term the “ostrich effect” in a 2006 article in *The Journal of Business*. The expression describes investor behavior where risky situations are avoided by pretending that they do not exist. Their paper finds that some investors prefer, and are willing to pay for, the “bliss of ignorance.”

Heads in the Sand? Private Appraisal Cap Rates

With the current economic and capital market landscapes marked by uncertainty, the ostrich effect may aptly describe the behavior of many private institutional real estate investment managers and appraisers as it relates to their valuation practices. Despite surges in the 10-year Treasury yield and property debt rates, and corresponding material increases in public implied and private transaction cap rates, private appraisal cap rates have only increased slightly. While private real estate investors may find comfort in the resultant modest declines in appraised property values, these adjustments provide a false sense of security as they fail to reflect market realities.

A [recent Nareit market commentary](#) highlighted the divergence in U.S. public and private real estate markets via differences in cap rates. It found that the narrowing spread between REIT implied and private transaction cap rates demonstrated progress in the real estate price discovery process, but the continuing wide gap between REIT implied and private appraisal cap rates showed that the wheels of progress turn slowly. Newly released data from the Nareit Total REIT Industry Tracker Series, or T-Tracker®, shine a light on the current state of the property valuation adjustment process and its progress.

Public and Private Real Estate Cap Rates



The chart above displays public (REIT implied) and private (transaction and appraisal) real estate cap rates from the fourth quarter of 2021 to the second quarter of 2023 using data from Nareit’s T-Tracker and the National Council of Real Estate Investment Fiduciaries (NCREIF). The NCREIF transaction and appraisal cap rates solely focused on properties from open end diversified core equity (ODCE) funds. All the cap rate calculations used historical (backward-looking) net operating incomes.

A review of the chart shows that the REIT implied cap rate was consistent over the last four quarters, staying close to 6%. The recent drop in the NCREIF ODCE transaction cap rate reflected the marketplace’s limited sales activity, particularly for some property sectors. A closer look at the data revealed that there were no office transactions in the second quarter of 2023; all four traditional property types were represented in the transaction cap rate composite in the previous quarter. While the REIT implied and private transaction cap rates meaningfully responded to changing market conditions, the private appraisal cap rate has been incredibly slow to adjust to current market conditions. It had measured—and possibly managed—increases from the third quarter of 2022 to the second quarter of 2023, averaging just 20 basis points per quarter.

Real Costs of Pretending

Some investors may find the modest declines in appraised property value reassuring, particularly during times of uncertainty, but these reassurances come at substantial costs. For markets, these actions act as impediments to the price discovery process and limit transaction market liquidity. For investors, these actions result in real hard costs related to artificially high investment management fees, as most fees are based on some measure of assets under management.

The modest and measured value adjustments in property appraisals have been token gestures; they may have acknowledged the property valuation problem, but they have failed to address its severity. Unfortunately, ignoring the gravity of a situation does not make it go away. This type of behavior may be akin to burying one's head in the sand, perhaps with one eye out. These actions have impeded the market's price discovery process, limited transaction market liquidity, and incurred real hard costs on investors in the form of artificially high investment management fees. Despite these costs, the current observed appraisal behavior is unlikely to change due to its ability to bolster returns, limit volatility, and maintain fee levels in uncertain times. At times, ignorance can, in fact, be bliss.

Nareit

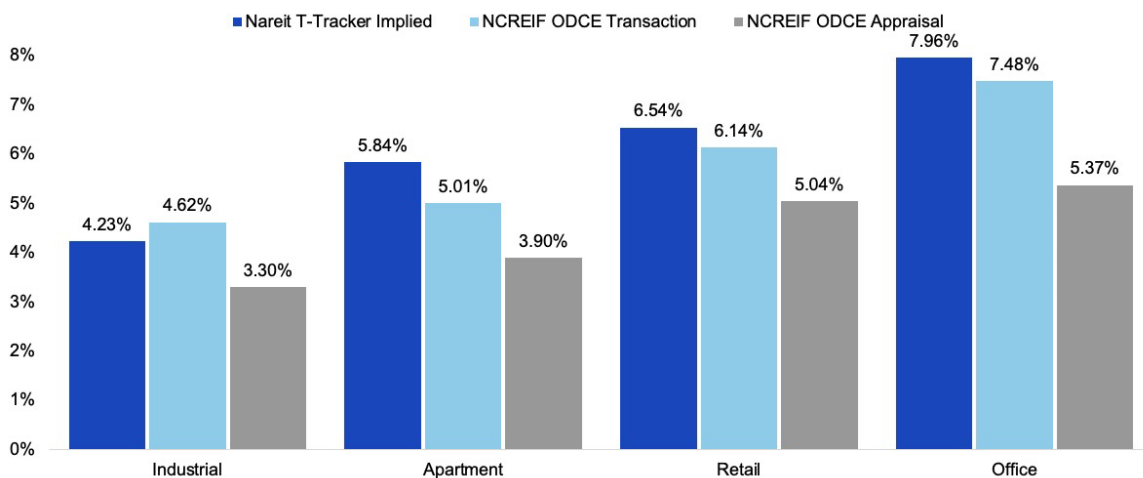
Office and Apartment Sectors Magnify Cap Rate Disparities

September 12, 2023

A [recent Nareit market commentary](#) highlighted that the “ostrich effect,” an investor behavior where risky situations are avoided by pretending that they do not exist, may aptly describe the attitudes of many private institutional real estate investment managers and appraisers when it comes to their valuation practices. It found that despite meaningful increases in REIT implied and private transaction cap rates, as well as debt rates, private appraisal cap rates have been slow to adjust to current market conditions. These actions have incurred real costs. They have impeded the market’s price discovery process, limited transaction market liquidity, and obliged investors to pay artificially high investment management fees.

Examining sector-specific public and private cap rates highlights the differences between market and appraisal-based valuations across the four traditional property types. With many private institutional real estate investment managers and appraisers continuing to bury their heads in the sand when it comes to their valuation practices, denial is not just a river in Egypt.

Public and Private Type Cap Rates



Sources: Nareit; NCREIF. *Cap rates reflect 2023:Q2 data ex Retail and Office transaction cap rates which reflect 2023:Q1 data.

Nareit.

The chart above displays the latest available public (REIT implied) and private (transaction and appraisal) real estate cap rates for the four traditional property types using data from the Nareit Total REIT Industry Tracker Series (T-Tracker®) and the National Council of Real Estate Investment Fiduciaries (NCREIF). The NCREIF transaction and appraisal cap rates solely focused on properties from open end diversified core equity (ODCE) funds. All cap rates reflect data from the second quarter of 2023 except for the retail and office NCREIF ODCE transaction cap rates, which are from the first quarter of 2023. Retail and office transaction cap rates were unavailable in the second quarter of 2023 due to a lack of sufficient or no transactions.

Demonstrating progress in the valuation adjustment process, the gaps between REIT implied and transaction cap rates have been attempting to close with changes in *both* REIT and private market valuations. In contrast, the spreads between REIT implied and appraisal cap rates have remained wide as property appraisals have been slow to adjust to current market conditions. Case in point, on a quarterly basis, the industrial appraisal cap rate has been lower than the U.S. 10-year Treasury yield since the second quarter of 2022.

Sector-specific differences between REIT implied and appraisal cap rates can capture the varying disparities found in market and appraisal-based real estate valuations. Of the four property types, office had the largest differential at 259 basis points. The differences for apartments, retail, and industrial were 194, 150, and 93 basis points, respectively. Although the spreads exhibited considerable variation, the potential valuation impacts associated with private appraisal cap rates moving to REIT implied cap rates were more similar. All else equal, closing the gaps for the industrial and retail sectors would require private value write-downs of more than 20%; the declines would need to exceed 30% for the apartment and office property types.

The great divides found in each of the property types are indicative of serious disparities between today's market and appraisal-based real estate valuations, particularly for the office and apartment sectors. Recognizing that significant rises in appraisal cap rates are warranted, further material write-downs are likely on the horizon for the private real estate market. These potential declines diminish the attractiveness of private real estate funds by creating an impediment for new or increasing investment and providing an impetus for existing investors to exit. At the same time, they may increase the appeal of public real estate investment, as U.S. public equity REITs more accurately reflect current market valuations.

REAL ESTATE

The role of cap rates in real estate

Key takeaways

- It's critical to analyze like-kind comparables, such as property type, location, income/expense, quality/condition, durability, when looking at cap rates. Factors such as actual or projected income and expenses can also make a big difference.
- While they aren't considered a primary driver of cap rates, interest rate changes can influence cap rates as the cost of borrowing will impact return on investments.
- Some specific elements that can influence cap rates are property location, condition, asset class, investment size, tenant quality, anticipated rent growth and external economic factors.

In real estate, capitalization rates—commonly called cap rates—are useful risk measurements for commercial properties.

The cap rate formula

Annual net operating income (NOI)/the property's market value

Calculated by dividing a property's net operating income by its asset value, the cap rate is an assessment of the yield of a property over one year. For example, a property worth \$14 million generating \$600,000 of NOI would have a cap rate of 4.3%. That means that you can expect a roughly 4.3% annual operating cash flow given the price paid for the property.

You should also note: It's critical to make an apples-to-apples comparison with cap rates. For example, it matters if you are comparing cap rates based on actual versus projected income.

What's a good cap rate? It varies from investor to investor and property to property. In general, the higher the cap rate, the greater the risk *and* return.

Cap rate levels can also be a reflection of other larger economic factors, such as competition, monetary policy, and real estate zoning and regulations.

The impact of interest rates on cap rates

Rising interest rates increase the cost of capital, so fluctuations in the interest rate environment can contribute to rising cap rates.

That's the case in the current economic environment. The Fed's interest rate hikes increased financing costs, limiting transaction volume and making it difficult to assess cap rates. As a result, cap rates have increased nationally—multifamily, industrial and office cap rates have increased by 0.8% or more between Q2 of 2022 and Q3 of 2023, according to CoStar data.

The Fed and the market anticipate interest rate cuts in 2024, which would likely lower borrowing costs and decrease cap rates.

Cap rates 3Q 23

	Multifamily	Industrial	Office	Retail
Los Angeles	4.60%	4.70%	6.70%	5.30%
San Francisco	4.20%	5.40%	5.90%	4.60%
New York	4.90%	5.70%	6.40%	5.90%
Chicago	6.50%	7.70%	8.90%	7.40%
Seattle	4.60%	5.40%	6.70%	5.80%
Portland	5.10%	6.60%	7.50%	6.40%
Washington	5.30%	6.80%	8.40%	6.10%
National	5.70%	7.00%	8.20%	6.80%

Cap rates change since 2Q 22

	Multifamily	Industrial	Office	Retail
Los Angeles	0.70%	0.50%	0.90%	0.10%
San Francisco	0.70%	0.80%	0.90%	0.10%
New York	0.70%	0.60%	0.80%	0.00%
Chicago	0.90%	0.90%	1.00%	0.10%
Seattle	0.70%	0.60%	0.90%	0.00%
Portland	0.80%	0.80%	0.90%	0.00%
Washington	0.80%	0.70%	1.00%	0.00%
National	0.80%	0.80%	0.90%	0.00%

How other macroeconomic factors affect cap rates

Cap rates measure investors' return expectations, but they're a forward-looking point-in-time measurement. An investor's realized returns may differ from their expected ones because of many factors, including:

- **Rent growth:** Rent growth can accelerate during periods of higher inflation, particularly in apartments with short-term leases. The anticipation of higher rents and greater NOI can offset higher interest rates. Likewise, deteriorating economic conditions can add upward pressure on cap rates and slow rent growth.
- **Gross Domestic Product (GDP) and unemployment:** Both GDP and unemployment reflect the health of the economy. When GDP is high and unemployment is low, commercial real estate investments tend to have lower

cap rates. When GDP is low and unemployment is high, there's a greater risk associated with investment properties. But remember: Cap rates are typically forward-looking, and individual deals are affected by a building's unique prospects and an investor's viewpoint—as well as the prevailing economic conditions and outlook.

- **Stage in the economic cycle:** In periods of stress, such as the Great Financial Crisis, cap rates have increased while interest rates decreased, a result of investors taking on more risk to own commercial real estate. In expansionary cycles with moderate interest rate increases, cap rates may remain unchanged if investors can expect increases in income and still achieve their expected return over their investment horizon.
- **Location:** Proximity to the city's employment center, highways and public transit also influences cap rates. Properties located in high-demand and stable locations generally have lower cap rates, while transitional or outlying neighborhoods usually have higher cap rates due to higher employment volatility and fluctuating demand. This can lead to higher tenant turnover, leasing costs and other factors that impact operating cash flows.
- **Asset class:** Cap rates vary across asset classes depending on asset fundamentals, performance outlook and supply and demand, among other factors. In recent years, multifamily and industrial properties have exhibited the lowest cap rates. The weight of several economic measurements may also vary based on asset class. For example, personal income is a major factor for multifamily and retail properties, and durable and nondurable goods spending is especially important for industrial properties.

The bottom line

Cap rates are just one unit of comparison used for evaluating commercial real estate; both macroeconomic and property specific characteristics should be taken into account when determining an appropriate cap rate for any specific property. Various factors, such as supply and demand trends, real estate zoning and regulations, credit worthiness of residents, remaining lease terms and specific lease factors can impact the actual cap rate. An investor's awareness and diligence can be the differentiator between expectations and outcomes.

PENSION FUNDS

February 20, 2024 07:44 PM

CalPERS exec leaving to become CEO of San Joaquin County Employees

ARLEEN JACOBIUS



Renee Ostrander, CalPERS' chief of the employer account management division, is leaving the \$485.9 billion pension fund to be the new chief executive officer of the \$4 billion **San Joaquin County Employees' Retirement Association**, Stockton, Calif., said Kim Malm, CalPERS deputy executive officer, customer services and support, at a committee meeting Feb. 20.

San Joaquin County later confirmed the hire in a news release. Ostrander is expected to start as early as March 4. She replaces the San Joaquin County pension fund's current CEO, **Johanna Shick**, who is **retiring** March 22.

"Renee has been with CalPERS for 27 years," Malm said. "The loss of knowledge is going to be huge for the team. I just want to wish her very well in the endeavors, and say congratulations to Renee for great service."

CalPERS officials are working on a process to identify an interim chief of the employer account management division, said James Scullary, spokesman for the \$485.9 billion California Public Employees' Retirement System, Sacramento.



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PUBLICATIONS



PEOPLE - FEBRUARY 22, 2024

San Joaquin County Employees appoints new CEO

BY LEWIS DAYTON

Renee Ostrander is set to be the new chief executive officer at San Joaquin County Employees' Retirement Association (SJCERA) after Johanna Shick's retirement, according to a recent Special Meeting document from SJCERA.

Ostrander has more than 25 years of experience at California Public Employees Retirement System (CalPERS) where she served as the chief of the employer account management division since August 2012.

Ostrander will join SJCERA on March 4, ahead of Shick's retirement on March 22.

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Board of Retirement Meeting
San Joaquin County Employees' Retirement Association

Agenda Item 12.0

March 8, 2024

**SUBJECT: RETIREMENT ADMINISTRATOR/CHIEF EXECUTIVE OFFICER
COMPENSATION**

SUBMITTED FOR: X CONSENT ACTION INFORMATION

RECOMMENDATION

It is recommended that the Board approve incentive compensation for Johanna Shick, SJCERA's Retirement Administrator/Chief Executive Officer, in the amount of \$27,343.48, representing 10% of her current annual base salary.

PURPOSE

Merit and/or equity compensation increases are included as an option in Ms. Shick's employment agreement, to be determined in the Board's sole authority. Such compensation is based upon annual evaluations performed by the Board, in acknowledgment of specified performance targets and personal and developmental goals. The recommended incentive compensation is a recognition of Ms. Shick's meritorious performance in these regards in the calendar year 2023.

DISCUSSION

The Board Administrative Policy for Chief Executive Officer Performance Review includes a process and timeline for a calendar year review of the CEO's employment performance. Pursuant to the policy, the CEO Performance Review Committee conducted the required review and presented the results to the Board at its March 8, 2024, regular meeting. The CEO Performance Review policy allows the Board to authorize incentive compensation if it determines that Board-approved goals for the previous calendar year have been achieved. The compensation may not exceed 10% of the CEO's annual base salary, increase the CEO's base pay, or be included as part of the CEO's retirement eligible compensation. The recommended incentive compensation amount of 10% (\$27,343.48) meets these requirements. The recommendation will not otherwise affect Ms. Shick's existing employment agreement, base salary or benefits.

MICHAEL RESTUCCIA
Board of Retirement Chair