San Joaquin County Employees Retirement Association

A G E N D A

BOARD MEETING
SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION
BOARD OF RETIREMENT
FRIDAY, JUNE 2, 2023
AT 9:00 AM
Location: SJCERA Board Room, 6 S. El Dorado Street, Suite 400, Stockton, California

The public may also attend the Board meeting live via Zoom by (1) clicking here https://us02web.zoom.us/j/83553006283 and following the prompts to enter your name and email, or (2) calling (669) 219-2599 or (669) 900-9128 and entering Meeting ID 83553006283#.

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 May 5, 2023 04

3.02 Minutes for the Audit Committee Meeting of May 15, 2023 08

3.03 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.

5.0 CONSENT ITEMS

5.01 Service Retirements (39) — 09

5.02 Financial Reports for Year Ended December 31, 2022

- 01 Report to the Board of Retirement and Audit Committee — 14
- 02 Annual Financial Report with Independent Auditor's Report — 22

5.03 Board to consider and take possible action on consent items

6.0 REAL ESTATE PORTFOLIO REVIEW

6.01 Presentation by David Sancewich and Scott Maynard of Meketa — 76

6.02 Board to receive and file report, discuss and give direction to staff and consultant as appropriate

7.0 PIMCO EMERGING MARKET EQUITY UPDATE

7.01 Presentation by Matt Clark of Pimco and Brent Leadbetter from Research Affiliates — 99

7.02 Board to receive and file report

8.0 INVESTMENT CONSULTANT REPORTS

8.01 Presentation by David Sancewich of Meketa Investment Group

- 01 Quarterly Reports from Investment Consultant for period ended March 31, 2023
  - a Quarterly Investment Performance Analysis — 121
  - b Manager Certification Report — 215
  - c Manager Review Schedule — 232
- 02 Monthly Investment Performance Updates
  - a Manager Performance Flash Report — 233
  - b Economic and Market Update — 238

8.02 Board to receive and file reports, discuss and give direction to staff and consultant as appropriate

9.0 STAFF REPORTS

9.01 Trustee and Executive Staff Travel

- 01 Conferences and Events Schedule for 2023 — 256
- 02 Summary of Pending Trustee and Executive Staff Travel — 257
  - a Travel requiring approval (2) — 258
- 03 Summary of Completed Trustee and Executive Staff Travel — 260
  - a Summary Pension Bridge Annual 2023 — 261

9.02 Board to consider and take possible action on any new travel requests

M I N U T E S

BOARD MEETING
SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION
BOARD OF RETIREMENT
FRIDAY, MAY 5, 2023
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, Chanda Bassett, Jennifer Goodman, JC Weydert (out at 10:54 a.m.), Michael Duffy, Raymond McCray and Michael Restuccia presiding

MEMBERS ABSENT: Steve Ding, Steve Moore

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, Investment Accountant Eve Cavender, Retirement Technician Leonor Sonley

OTHERS PRESENT: Deputy County Counsel Jason Morrish, David Sancewich and Maya Ortiz de Montellano of Meketa, Sean Byrne of Rimon Law

2.0 PLEDGE OF ALLEGIANCE

2.01 Led by Jason Morrish

3.0 MEETING MINUTES

3.01 Minutes for Board Meeting of April 14, 2023

3.02 The Board voted unanimously (8-0) to approve the Minutes of the Board Meeting of April 14, 2023 (Motion Duffy; Second: Goodman)

4.0 PUBLIC COMMENT

4.01 There was no public comment

5.0 CONSENT ITEMS

5.01 Service Retirements (22)

5.02 The Board voted unanimously (8-0) to approve the consent item (Motion: Duffy; Second: Bassett)

6.0 INVESTMENT CONSULTANT REPORTS

6.01 Manager Performance Flash Report

6.02 Economic and Market Update

6.03 The Board received and filed reports

7.0 PRIVATE CREDIT MANAGER PRESENTATION

7.01 Presentation by Ankur Patel and Juliette Schainuck, of Ares Pathfinder Fund II

8.0 CLOSED SESSION

The Chair convened Closed Session at 10:01 a.m. and adjourned Closed Session and reconvened Open Session at 10:57 a.m.

8.01 Purchase or Sale of Pension Fund Investments
California Government Code Section 54956.81

8.02 Personnel Matters
California Government Code Section 54957
Employee Disability Retirement Application(s) (2)

01 Consent Items

a Veronica K. Castro
Juvenile Detention Officer
Service Connected Disability

b Augustine Ramos
Highway Maintenance Worker
Service Connected Disability

02 The Board voted unanimously (7-0) to grant the applications for service connected disability retirement (Motion: Bassett; Second: Goodman)

8.03 Conference with Real Property Negotiator - California Government Code Section 54956.8

01 Property: 6 S. El Dorado Street, Suite 400
Stockton, California 95202

Negotiating parties: Johanna Shick, Chief Executive Officer, SJCERA
Connie Hart, Assistant Director General Services,
San Joaquin County

Under negotiation: Lease price and terms

Counsel noted that, other than 8.02-02 above there was nothing further to report out of Closed Session

9.0 STAFF REPORTS

9.01 Trustee and Executive Staff Travel

01 Conferences and Events Schedule 2023

02 Summary of Pending Trustee and Executive Staff Travel

a Travel requiring approval (1)

03 Summary of Completed Trustee and Executive Staff Travel

a Summary Pension Bridge Annual 2023

9.02 The Board voted unanimously (7-0) to approve Trustee JC Weydert to attend Institutional Real Estate, Inc. 2023 Fall Editorial Advisory Board Meeting - Institutional Real Estate Americas, September 12-14, 2023 in Santa Monica, CA (Motion Goodman; Second: Duffy)

9.03 Legislative Summary Report

9.04 CEO Report

In addition to the written report, CEO Shick: 1) Acknowledged Investment Officer Paris Ba for quickly implementing the Board's changes to the Cash Overlay program and for monitoring and reporting on the impact of recent bank closures on SJCERA; 2) Recognized outgoing General Counsel, Jason Morrish for his guidance and support, noting he will be missed; 3) Reported that SJCERA has no particular concerns regarding the yearend transition of Parametric's CEO to Senior Advisor as two co-presidents have already been appointed in preparation; 4) In keeping with SJCERA's celebration of Superhero Day on April 28, lauded staff and trustees as every day superheroes for the service they provide to SJCERA members, their own families and the community.

9.05 The Board received and filed reports

10.0 SACRS VOTING PROXY

10.01 SACRS Voting Proxy - Current

10.02 SACRS Voting Proxy - Proposed

10.03 The Board voted unanimously (7-0) to approve the amended SACRS voting proxy (Motion: Duffy; Second: Keokham)

11.0 CORRESPONDENCE

11.01 Letters Received (0)

11.02 Letters Sent (0)

11.03 Market Commentary/Newsletters/Articles

01 AQR Capital Management, LLC
Re-Emerging Equities
March 2023

02 Pensions & Investments
Corporate DB Plans still hard to beat, JPMAM's Chief of Institutional Strategy says
April 11, 2023

03 The NCPERS Monitor
April 2023

04 Oaktree Capital Management
Lessons from Silicon Valley Bank
April 2023

12.0 COMMENTS

12.01 Trustee Duffy wished Deputy County Counsel Jason Morrish well and advised we are better by having had Jason as our Counsel, he has proven time and again his value to our organization.
Trustee Keokham advised it was a pleasure knowing and working with Deputy County Counsel Jason Morrish, he will be missed.
Trustee Bassett wished Deputy Counsel Jason Morrish good luck, and noted she believes he will have a good experience at Sacramento.
Trustee Goodman added that she will miss Deputy County Counsel Jason Morrish on both this Board and on the County level.
Trustee McCray extended his best wishes to Deputy County Counsel Jason Morrish, noting he looks forward to seeing him at future conferences.
Trustee Nicholas echoed her appreciation for Deputy County Counsel Jason Morrish and wished him good luck.
Chair Restuccia opined that while there have been five County Counsels over the years, he believes Jason has done a very good job; he has enjoyed working with him, is proud of him as a friend, and believes Sacramento got very lucky.

13.0 CALENDAR

13.01 Audit Committee Meeting May 15, 2023 at 10:00 a.m.

13.02 Board Meeting June 2, 2023 at 9:00 a.m.

13.03 Administrative Committee Meeting June 22, 2023 at 10:00 a.m.

13.04 Board Meeting July 14, 2023 at 9:00 a.m.

13.05 Board Meeting August 11, 2023 at 9:00 a.m.

13.06 Board Meeting September 8, 2023 at 9:00 a.m.

14.0 ADJOURNMENT

14.01 There being no further business the meeting was adjourned at 11:17 a.m.

Respectfully Submitted:

____
Michael Restuccia, Chair

Attest:

____
Raymond McCray, Secretary

M I N U T E S

AUDIT COMMITTEE MEETING
SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION
BOARD OF RETIREMENT
MONDAY, MAY 15, 2023
AT 10:00 AM
Location: SJCERA Board Room, 6 S. El Dorado Street, Suite 400, Stockton, California

1.0 ROLL CALL

1.01 **MEMBERS PRESENT**: Phonxay Keokham, Michael Restuccia, and Michael Duffy presiding
MEMBERS ABSENT: Raymond McCray
STAFF PRESENT: Assistant Chief Executive Officer Brian McKelvey, Financial Officer Carmen Murillo, Retirement Investment Accountant Eve Cavender, Management Analyst III Greg Frank, and Administrative Secretary Elaina Petersen
OTHERS PRESENT: Deputy County Counsel Jason Morrish, and Lindsey Zimmerman (via Zoom) of Brown Armstrong Accountancy Corporation

2.0 PUBLIC COMMENT

2.01 There was no public comment

3.0 2022 AUDIT EXIT CONFERENCE

3.01 Presentation of Audit Results by CPA Lindsey Zimmerman of Brown Armstrong Accountancy Corporation

3.02 Draft Conclusion of Audit and Internal Control Reports

3.03 Draft Annual Financial Report

3.04 Brown Armstrong provided an unmodified opinion (the highest possible) on SJCERA's draft Financial Statement. The Committee discussed the audit report.

4.0 COMMENT

4.01 Chair Duffy discussed the importance of reconciliation. He advised that it was very important to have audits as they help find where things can improve, "audits make us stronger" and help us always look for ways to improve.

5.0 ADJOURNMENT

5.01 There being no further business, the meeting was adjourned at 10:17 a.m.

Respectfully Submitted:

____
Michael Duffy, Audit Committee Chair

5.01 Service Retirement — Consent

01 ROBIN C APPEL — Deferred Member, N/A

Member Type: General
Years of Service: 07y 05m 22d
Retirement Date: 3/31/2023
Comments: Deferred from SJCERA since March 2003. Outgoing reciprocity and concurrent retirement with CalPERS.

02 DIANA L BARROGA — Courtroom Clerk, Court-Court Oper-Courtrm Suppt

Member Type: General
Years of Service: 24y 09m 23d
Retirement Date: 3/27/2023

03 NANCY J BROWER — Legal Process Clerk III, Court- Oper-Criminal-Lodi

Member Type: General
Years of Service: 19y 10m 26d
Retirement Date: 3/27/2023

04 LAUREEN BROWN — Probate Examiner, Court - Court Oper - Probate

Member Type: General
Years of Service: 17y 09m 23d
Retirement Date: 4/1/2023

05 BLANCA E CHAVEZ — Deferred Member, N/A

Member Type: General
Years of Service: 14y 09m 10d
Retirement Date: 4/14/2023
Comments: Deferred from SJCERA since August 2013.

06 GAYLE L ELLEDGE — Legal Process Clerk III, Court- Oper-Criminal-Lodi

Member Type: General
Years of Service: 21y 01m 16d
Retirement Date: 3/27/2023

07 TRACY A GARCIA — Deferred Member, N/A

Member Type: General
Years of Service: 15y 07m 22d
Retirement Date: 4/19/2023
Comments: Deferred from SJCERA since April 2016.

08 ROBYN L GILFORD — Accounting Technician I, Fleet Services

Member Type: General
Years of Service: 26y 07m 17d
Retirement Date: 4/1/2023

09 SHANNON N GONZALES — Deputy Chief Probation Office, Juvenile Detention

Member Type: Safety
Years of Service: 20y 08m 16d
Retirement Date: 4/1/2023

10 **SEAN M GORMLEY** — Deputy Sheriff II, Sheriff-Custody-Regular Staff

Member Type: Safety
Years of Service: 22y 07m 07d
Retirement Date: 3/31/2023

11 **SEAN M GORMLEY** — Deputy Sheriff II, Sheriff-Custody-Regular Staff

Member Type: General
Years of Service: 04y 04m 04d
Retirement Date: 3/31/2023

12 **SHARON A HENDERSON** — Office Systems Specialist, San Joaquin Health Centers

Member Type: General
Years of Service: 20y 03m 27d
Retirement Date: 4/1/2023

13 **TIM W HIATT** — Court Interpreter, Court - Interpreters

Member Type: General
Years of Service: 18y 02m 14d
Retirement Date: 4/1/2023

14 **NOEL D HULLEN** — Registered Nurse, Public Health-MCAH

Member Type: General
Years of Service: 16y 05m 02d
Retirement Date: 4/1/2023

15 **THEANI R IMACSENG** — Social Worker II, HSA - Services Staff

Member Type: General
Years of Service: 20y 11m 14d
Retirement Date: 4/1/2023

16 **KENNETH W JAPHET** — Sr Weatherization Specialist, Aging - Community Services

Member Type: General
Years of Service: 24y 01m 08d
Retirement Date: 4/10/2023

17 **DAVE B KONECNY** — Deputy Sheriff II, Sheriff-Stockton Unified Court

Member Type: Safety
Years of Service: 19y 10m 04d
Retirement Date: 3/31/2023

18 **DAVE B KONECNY** — Deputy Sheriff II, Sheriff-Stockton Unified Court

Member Type: General
Years of Service: 00y 05m 02d
Retirement Date: 3/31/2023

19 **MARGARET M LARGE** — Office Technician/Coordinator, Hosp Standards - Compliance

Member Type: General
Years of Service: 36y 06m 15d
Retirement Date: 4/1/2023

20 **REMIGIA P LENAMING** — Senior Office Assistant, HSA - Clerical Support

Member Type: General
Years of Service: 14y 02m 08d
Retirement Date: 4/1/2023

21 **ROBERT V LOPEZ** — HazardousMaterialSpecialist II, Environmental Health

Member Type: General
Years of Service: 34y 10m 10d
Retirement Date: 4/1/2023

22 **KELLY R MARAL** — Medical Coder-Certified, Hosp Medical Records

Member Type: General
Years of Service: 14y 11m 04d
Retirement Date: 4/1/2023

23 **DIANA MARCOS** — Office Assistant Specialist, Office of Revenue - Recovery

Member Type: General
Years of Service: 30y 02m 04d
Retirement Date: 4/1/2023

24 **REGINA R MARTIN** — Deferred Member, N/A

Member Type: General
Years of Service: 26y 03m 26d
Retirement Date: 3/31/2023
Comments: Deferred from SJCERA since October 2016. Outgoing reciprocity and concurrent retirement with CalPERS.

25 **SUSAN B MARTINEZ** — Child Support Officer II, Child Support Svs

Member Type: General
Years of Service: 31y 02m 01d
Retirement Date: 3/30/2023

26 **DAVID S MCDONALD** — Staff NurseV-AsstNDptMg-Inpat, Hosp Nursing Float Personnel

Member Type: General
Years of Service: 10y 00m 00d
Retirement Date: 4/10/2023

27 **CATHERINE M MCKINNEY** — Deferred Member, N/A

Member Type: General
Years of Service: 25y 11m 21d
Retirement Date: 4/1/2023
Comments: Deferred from SJCERA since October 2021. Outgoing reciprocity and concurrent retirement with CalPERS.

28 **DEBORAH M MOORE** Courtroom Clerk
Court - Oper-Ctrm Clk-Manteca

Member Type: General
Years of Service: 19y 06m 01d
Retirement Date: 4/1/2023

29 **MOANA I MORALES** Child Support Officer II
Child Support Svs

Member Type: General
Years of Service: 31y 05m 16d
Retirement Date: 3/30/2023

30 **DAVID B MYERS** Management Analyst III
Fleet Services

Member Type: General
Years of Service: 20y 00m 16d
Retirement Date: 4/1/2023

31 **FAY OLYMPIA** Employment Training Spec II
Employment - Economic Developm

Member Type: General
Years of Service: 06y 00m 25d
Retirement Date: 4/14/2023
Comments: Tier 2 member - eligible to retire with 5 years of service credit.

32 **DEBRA R PERRY** Charge Desc Master Analyst
Hosp Revenue Integrity

Member Type: General
Years of Service: 24y 08m 01d
Retirement Date: 4/1/2023

33 **DONG-HO T PHAM** Deferred Member
N/A

Member Type: General
Years of Service: 05y 04m 26d
Retirement Date: 3/30/2023
Comments: Tier 1 member - Membership date December 3, 2012. Eligible to retire with 10 years of membership.

34 **VICKI SIMPSON** Mental Health Specialist II
Mental Health-Adult Outpatient

Member Type: General
Years of Service: 16y 05m 09d
Retirement Date: 4/1/2023

35 **OFELIA U TABUYO** Mental Health Specialist II
Mental HealthPHF-Inpatient Fac

Member Type: General
Years of Service: 21y 00m 01d
Retirement Date: 4/1/2023

36 **JOHNNIE E TERRY** Dir of Purch & Support Servic
Purchasing - Support Services

Member Type: General
Years of Service: 05y 03m 17d
Retirement Date: 3/27/2023
Comments: Tier 1 member. Incoming reciprocity and concurrent retirement with SCERS.

37 **RUTH C THOMPSON** Sterile Processing Tech II
Hosp Sterile Processing Svc

Member Type: General
Years of Service: 05y 01m 24d
Retirement Date: 4/15/2023
Comments: Tier 2 member - eligible to retire with 5 years of service credit.

38 **LINDA A WALKER** Accounting Technician II
Conservator Services

Member Type: General
Years of Service: 16y 04m 02d
Retirement Date: 4/1/2023

39 **PAMELA S WARMERDAM** Clinical Dietitian II
Hosp Clinical Dietetics

Member Type: General
Years of Service: 05y 10m 03d
Retirement Date: 4/1/2023
Comments: Tier 2 member - eligible to retire with 5 years of service credit.

40 **GREG L WIGGINS** Weatherization Program Supervr
Aging - Community Services

Member Type: General
Years of Service: 32y 07m 22d
Retirement Date: 3/30/2023

41 **KATHLEEN YTURRI** Accounting Technician I
Sheriff - Public Administrator

Member Type: General
Years of Service: 26y 09m 12d
Retirement Date: 3/31/2023

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

REPORT TO THE BOARD OF RETIREMENT AND AUDIT COMMITTEE

FOR THE YEAR ENDED DECEMBER 31, 2022

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
FOR THE YEAR ENDED DECEMBER 31, 2022

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REQUIRED COMMUNICATION AT THE CONCLUSION OF AN AUDIT TO THE BOARD OF RETIREMENT AND AUDIT COMMITTEE IN ACCORDANCE WITH PROFESSIONAL STANDARDS (SAS 114)

To the Members of the Board of Retirement and Audit Committee of
San Joaquin County Employees' Retirement Association
Stockton, California

We have audited the basic financial statements and other information (financial statements) of the San Joaquin County Employees' Retirement Association (SJCERA) as of and for the year ended December 31, 2022, and have issued our report thereon dated May 25, 2023. Professional standards require that we provide you with information about our responsibilities under auditing standards generally accepted in the United States of America and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our engagement letter to you dated January 11, 2023. Professional standards also require that we communicate to you the following information related to our audit.

<u>Significant Audit Matters</u>

Qualitative Aspects of Accounting Practices
Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by SJCERA are described in Note 3, Summary of Significant Accounting Policies – Pension Plan, to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year ended December 31, 2022. We noted no transactions entered into by SJCERA during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements were:

- Management's estimates of the fair value of investments and the money-weighted rate of return are derived by various methods as described in Note 3, Summary of Significant Accounting Policies – Pension Plan; Note 4, Cash and Investments; and Note 5, Derivative Financial Instruments, to the financial statements. We evaluated the key factors and assumptions used to develop the estimates of the fair value of investments and the money-weighted rate of return in determining that they are reasonable in relation to the financial statements taken as a whole.

- Management's estimates of the contribution amounts and net pension liability are based on an actuarially-presumed interest rate and assumptions recommended by an independent actuary and adopted by the Board of Retirement and involve estimates of the values of reported amounts and probabilities about the occurrence of future events, as detailed in Note 6, Contributions Required and Contributions Made, and Note 8, Net Pension Liability and Significant Assumptions. We evaluated the key factors and assumptions used to develop the estimates of the contribution amounts and net pension liability in determining that they are reasonable in relation to the financial statements taken as a whole.

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the financial statements were:

- The disclosures for cash and investments and derivative financial instruments in Notes 4 and 5 to the financial statements, respectively, were derived from SJCERA's investment policy. Management's estimate of the fair value of investments was derived by various methods as detailed in the notes.

- The disclosures related to the funding policies, funded status, funding progress, and actuarial methods and assumptions in Note 6 and Note 8 were derived from actuarial valuations, which involve estimates of the value of reported amounts and probabilities about the occurrence of the future events far into the future.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit
We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements
Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. The following material misstatement detected as a result of audit procedures was corrected by management:

Dr. Unrealized loss on investments	$29,401,326	
Cr. Investments, at fair value		$29,401,236

Disagreements with Management
For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the purpose financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations
We have requested certain representations from management that are included in the management representation letter dated May 25, 2023.

Management Consultations with Other Independent Accountants
In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to SJCERA's financial statements, or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues
We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as SJCERA's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters
We applied certain limited procedures to the Management's Discussion and Analysis, Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Contributions from the Employers and Other Contributing Sources – Defined Benefit Pension Plan, and Schedule of Investment Returns, which are required supplementary information (RSI) that supplement the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the Schedule of Administrative Expenses, Schedule of Investment Expenses, and Schedule of Payments to Consultants, which accompany the financial statements but are not RSI. With respect to this other supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the other supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engaged to report on the introduction, investment, actuarial, and statistical sections, which accompany the financial statements but are not RSI. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Restriction on Use

This information is intended solely for the information and use of the Board of Retirement, Audit Committee, and management of SJCERA and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
May 25, 2023

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

To the Members of the Board of Retirement and Audit Committee of
San Joaquin County Employees' Retirement Association
Stockton, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the basic financial statements of the San Joaquin County Employees' Retirement Association (SJCERA), as of and for the year ended December 31, 2022, and the related notes to the basic financial statements, which collectively comprise SJCERA's basic financial statements and other information (financial statements), and have issued our report thereon dated May 25, 2023.

Report on Internal Control over Financial Reporting

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

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

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We identified a certain deficiency in internal control, described in the accompanying schedule of findings as item 2022-001, that we consider to be a significant deficiency.

Report on Compliance and Other Matters

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

SJCERA's Response to Findings

Government Auditing Standards requires the auditor to perform limited procedures on SJCERA's response to the findings identified in our audit and described in the accompanying schedule of findings. SJCERA's response was not subjected to the other auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on the response.

Purpose of this Report

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

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
May 25, 2023

Schedule of Findings

2022-001 – Investment Adjustment

During our audit procedures over investments, we determined that the net appreciation and fair value of one investment account was overstated by $29.4 million. This occurred as a result of the custodian failing to reconcile the investment balance to the investment manager's year end statement and lack of management reconciliation and oversight.

Recommendation

We recommend that management uphold the controls in place for investment reconciliations for all investments such that every investment's fair value is properly recorded, and each investment is properly reconciled to the custodian and investment manager's statements. We also suggest that each investment reconciliation be performed by one individual and reviewed by another manager.

Management's Response

Management agrees with the recommendation. Management met with both the investment manager and custodian and noted there was a disconnect with the investment manager reporting to the custodian resulting in the reporting issue on the custodian's side. Management has worked out a plan to ensure proper reporting and reconciliations of the reports are done on a monthly basis going forward.

Status of Prior Year Findings

None.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

ANNUAL FINANCIAL REPORT
WITH
INDEPENDENT AUDITOR'S REPORT

FOR THE YEAR ENDED
DECEMBER 31, 2022

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
FOR THE YEAR ENDED DECEMBER 31, 2022

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INDEPENDENT AUDITOR'S REPORT

To the Members of the Board of Retirement and Audit Committee of
San Joaquin County Employees' Retirement Association
Stockton, California

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying Statement of Fiduciary Net Position of the San Joaquin County Employees' Retirement Association (SJCERA), a pension trust fund of the County of San Joaquin, as of and for the year December 31, 2022, the related Statement of Changes in Fiduciary Net Position for the year then ended, and the related notes to the financial statements, which collectively comprise SJCERA's basic financial statements as listed in the table of contents. We have also audited the Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) as of and for the year ended December 31, 2022, and notes to other information, listed as other information in the table of contents.

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the fiduciary net position of SJCERA as of December 31, 2022, the changes in fiduciary net position for the year then ended, and the Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) as of and for the year ended December 31, 2022, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

Responsibilities of Management for the Financial Statements

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

BAKERSFIELD
4200 Truxtun Avenue, Suite 300
Bakersfield, CA 93309
661-324-4971

FRESNO
10 River Park Place East, Suite 208
Fresno, CA 93720
559-476-3592

STOCKTON
2423 West March Lane, Suite 202
Stockton, CA 95219
209-451-4833

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

Management is also responsible for maintaining a current plan instrument, including all plan amendments; administering the plan; and determining that the plan's transactions that are presented and disclosed in the financial statements are in conformity with the plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditor's Responsibilities for the Audit of the Financial Statements

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

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

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

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

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis (MD&A) and required supplementary information (RSI), as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board (GASB), who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the MD&A and RSI in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise SJCERA's basic financial statements. The supplementary information, as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the supplementary information, as listed in the table of contents, is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Report on Summarized Comparative Information

We have previously audited SJCERA's December 31, 2021, financial statements, and our report dated May 24, 2022, expressed an unmodified opinion on those audited financial statements. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2021, is consistent in all material respects, with the audited financial statements from which it has been derived.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated May 25, 2023, on our consideration of SJCERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of SJCERA's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SJCERA's internal control over financial reporting and compliance.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
May 25, 2023

MANAGEMENT'S DISCUSSION AND ANALYSIS

Introduction

Management's Discussion and Analysis (MD&A) presents the overview and analysis of the financial activities of the San Joaquin County Employees' Retirement Association (SJCERA or the Plan) for the year ended December 31, 2022. This MD&A presents SJCERA's overall financial position and the results of its operations, in conjunction with SJCERA's financial statements and notes.

Financial Highlights

- SJCERA's fiduciary net position decreased by $381.0 million, or 9.07 percent, to $3.8 billion as of December 31, 2022.

- SJCERA's funding objective is to meet long-term benefit obligations through contributions and investment income. As of January 1, 2022, the date of the last actuarial valuation, the funded ratio for the actuarial liability was approximately 72.4 percent. In general, this indicates that for every dollar of benefits liability, SJCERA has about 72 cents. The portion of the pension liability attributable to inactive members (retired or deferred) is fully funded by plan assets. (Note 8c provides a more detailed explanation of recent changes in the funded ratio.)

- Revenues for the year were $(96.0) million, a decrease of $1.0 billion from the prior year. The decrease was mainly caused by the decrease in net investment gains/(losses) compared to the prior year.

- Expenses for the year were $285.0 million, an increase of $14.4 million, or 5.31 percent, from the prior year's $270.6 million. This increase was primarily due to the $11.1 million increase in pension benefit payments to retirees.

Overview of Financial Statements

The SJCERA 2022 financial statements, notes to the financial statements, required supplementary information, other supplementary information, and other information were prepared in accordance with the accounting principles and reporting standards prescribed by the Governmental Accounting Standards Board (GASB). The following discussion and analysis are intended to serve as an introduction and overview of SJCERA's financial reporting components.

The **Statement of Fiduciary Net Position** is the financial statement that presents the major categories of assets and liabilities and their related values. It represents the resources available for future benefit payments to retirees and beneficiaries and the current liabilities owed as of December 31, 2022, with comparative totals as of December 31, 2021.

The **Statement of Changes in Fiduciary Net Position** is the financial statement that provides an income statement presentation of annual additions to and deductions from the Plan for the year ended December 31, 2022, with comparative totals as of December 31, 2021.

The **Notes to the Basic Financial Statements** provide additional information that is essential to a full understanding of the data provided in the audited financial statements.

The **Required Supplementary Information** provides the Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Contributions from the Employers and Other Contributing Sources, Schedule of Investment Returns, and Note to Required Supplementary Information.

The **Other Supplementary Information** includes a Schedule of Administrative Expenses, Schedule of Investment Expenses, and Schedule of Payments to Consultants.

The **Other Information** includes two schedules pertaining to GASB Statement No. 68: the Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan.

Defined Benefit Pension Plan Financial Analysis

As of December 31, 2022, SJCERA's Fiduciary Net Position was $3.8 billion, a decrease of $381.0 million. Employer and member contributions of $316.5 million were offset by a net investment loss of $412.8 million and benefits payments and administrative expenses of $285.0 million. Over time, increases and decreases in fiduciary net position are one of the indicators of whether SJCERA's financial situation is improving or deteriorating. Additional factors, such as market conditions, also need to be considered in assessing SJCERA's overall financial situation.

The table below compares SJCERA's fiduciary net position as of December 31, 2022 and 2021.

SJCERA Fiduciary Net Position

	2022	2021	Increase (Decrease) Amount	Percent Change
Cash and Receivables	$ 285,084,691	$ 469,732,200	$ (184,647,509)	-39.31%
Investments	3,660,701,904	3,893,690,230	(232,988,326)	-5.98%
Other Assets	3,256,125	254,019	3,002,106	1181.84%
Total Assets	3,949,042,720	4,363,676,449	(414,633,729)	-9.50%
Total Liabilities	131,289,958	164,888,445	(33,598,487)	-20.38%
Total Fiduciary Net Position Restricted for Pension Benefits	$3,817,752,762	$4,198,788,004	$ (381,035,242)	-9.07%

Revenues – Additions to Fiduciary Net Position

The reserves needed to finance the retiree benefits are accumulated through the collection of employer and member contributions, and earnings on investments. The additions for the year ended December 31, 2022, totaled $(96.0) million. Net investment losses totaled $(412.8) million. The overall year 2022 revenues decreased by $1.0 billion from that of the prior year, primarily due to more investment losses.

In 2021, the San Joaquin County (County), San Joaquin County (SJC) Mosquito and Vector Control District (MCVD), and SJC Superior Court paid additional contributions to decrease their proportionate share of the unfunded actuarial liability (UAL). Employer contributions decreased by $37.6 million, or 12.26 percent, over the prior year, and member contributions increased by $3.9 million, or 9.09 percent, over the prior year. The County and the majority of its members equally share the normal cost of pre-funding post-retirement cost-of-living adjustments. Some members also pay 114% or 133% of the basic member contribution rate, which reduces the employers' Normal Cost portion of the required contribution. Employers pay all of the required UAL amortization payment.

Expenses – Deductions from Fiduciary Net Position

SJCERA's primary expenses are the payment of benefits to retirees and beneficiaries, the refund of contributions to former members, and the administrative costs. Expenses for the year 2022 totaled $285.0 million, an increase of 5.31 percent over 2021. The increase is primarily attributed to the annual cost-of-living adjustment to retirees' benefit payments and the growth in the number and average amount of benefits paid to retirees.

The table below compares SJCERA's Changes in Fiduciary Net Position.

Changes in Fiduciary Net Position				
	2022	**2021**	**Increase (Decrease) Amount**	**Percent Change**
Additions				
Employer Contributions	$ 269,080,047	$ 306,662,635	$ (37,582,588)	-12.26%
Member Contributions	47,405,308	43,455,640	3,949,668	9.09%
Net Investment Income (Loss) and Miscellaneous Income	(412,759,726)	572,291,948	(985,051,674)	-172.12%
Transfer from Healthcare Custodial Fund	224,628	270,570	(45,942)	-16.98%
Total Additions	(96,049,743)	922,680,793	(1,018,730,536)	-110.41%
Deductions				
Retirement Benefit Payments	272,424,374	261,371,770	11,052,604	4.23%
Death Benefits	760,072	608,396	151,676	24.93%
Refund of Contributions	6,179,349	3,985,433	2,193,916	55.05%
Administrative and Other Expenses	5,621,704	4,639,439	982,265	21.17%
Total Deductions	284,985,499	270,605,038	14,380,461	5.31%
Net Increase (Decrease)	(381,035,242)	652,075,755	(1,033,110,997)	-158.43%
Fiduciary Net Position Restricted for Pension Benefits				
Beginning of Year	4,198,788,004	3,546,712,249	652,075,755	18.39%
End of Year	$ 3,817,752,762	$ 4,198,788,004	$ (381,035,242)	-9.07%

Plan Administration
SJCERA membership

The table below provides comparative SJCERA membership data for the last two years. Total membership as of December 31, 2022, was 15,727, an increase of 364 members, or 2.37 percent, compared to December 31, 2021.

SJCERA Membership As of December 31, 2022 and 2021				
Category	**2022**	**2021**	**Increase (Decrease) Amount**	**Percent Change**
Active Members	6,381	6,347	34	0.54%
Retired Members	6,685	6,529	156	2.39%
Deferred Members	2,661	2,487	174	7.00%
Total Membership	15,727	15,363	364	2.37%

Administrative Expenses

The County Employees Retirement Law of 1937 (CERL) Section 31580.2 limits the Administrative Expense to twenty-one hundredths of one percent (0.21 percent) of the accrued actuarial liability (AAL) of the system.

The table below provides comparison of the actual administrative expenses for the calendar years ended 2022 and 2021. The AAL was used to calculate the statutory budget amount. SJCERA's administrative expenses were well below the limit imposed by CERL for both years.

Compliance with Statutory Limitation Administrative Expenses
As of December 31, 2022 and 2021
(Dollars in Thousands)

	2022	2021
Basis for Budget Calculation (Accrued Actuarial Liability):		
Actual Administrative Expenses	$ 4,627	$ 3,665
Accrued Actuarial Liability as Basis for Budget Calculation*	5,207,669	5,013,632
Administrative Expenses as a Percentage of:		
The Basis for Budget Calculation	0.09%	0.07%
Limit per CERL	0.21%	0.21%

* Based on valuations dated January 1, 2021 and January 1, 2020, respectively.

Actuarial Valuations

SJCERA engages an independent actuarial firm, Cheiron, Inc., to perform an annual actuarial valuation to monitor its funding and funding integrity. The valuation assesses the magnitude of SJCERA's benefit commitments, in comparison with the assets expected to be available to support those commitments. The most recent annual actuarial valuation as of January 1, 2022, contains a detailed discussion of the funding requirements. This valuation is used for funding purposes and establishing employer and member contributions rates. As of January 1, 2022, the pension plan's accrued actuarial liabilities were $5.3 billion and the market value of assets net of Special Reserves (market value of assets basis) was $4.2 billion, resulting in UAL of $1.1 billion. The funded status (ratio) of market value of assets basis over accrued actuarial liabilities was 78.0 percent which increased from 68.1 percent. It also increased to 72.4 percent from 67.0 percent on an actuarial value of assets.

For the year ended December 31, 2022, a GASB Statement No. 67/68 report was prepared by Cheiron, Inc., to provide accounting and financial disclosure information. In order to accommodate the annual reporting requirements of our plan sponsors in a timely manner, the valuation was prepared using the January 1, 2022 valuation as the basis for calculating the total pension liability (TPL) and projected to December 31, 2022. Based on this actuarial valuation, the TPL was $5.5 billion compared to a fiduciary net position of $3.8 billion, resulting in the employers' net pension liability (NPL) of $1.7 billion and a fiduciary net position as a percentage of TPL of 69.2 percent. The NPL as a percentage of covered payroll was 351.07 percent. Please see the Note 8 for more details.

Reporting SJCERA's Fiduciary Responsibilities

SJCERA's Board of Retirement and staff are fiduciaries for the pension plan. Accordingly, SJCERA is responsible for ensuring that the assets reported in the statements are used for the intended purpose of paying retirement benefits to the eligible members and beneficiaries.

Contacting SJCERA's Management

This financial report is designed to provide the Board of Retirement, the membership, taxpayers, and investment managers with a general overview of SJCERA's finances and to show SJCERA's accountability for the money it receives. Any questions about this report, or need for additional financial information, can be addressed to SJCERA, 6 South El Dorado Street, Suite 400, Stockton, California 95202.

Respectfully Submitted,

Carmen Murillo
Financial Officer
May 25, 2023

BASIC FINANCIAL STATEMENTS

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENT OF FIDUCIARY NET POSITION
AS OF DECEMBER 31, 2022 (WITH COMPARATIVE TOTALS)

	2022		2021	
	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund
Assets				
Cash and Short-Term Investments				
Cash and Cash Equivalents	$ 141,351,530	$ 52,449	$ 323,434,089	$ 72,537
Cash Collateral - Securities Lending	125,564,604	-	84,977,773	-
Total Cash and Short-Term Investments	266,916,134	52,449	408,411,862	72,537
Receivables				
Investment Income Receivables	4,856,348	-	3,563,318	-
Contributions Receivable	12,924,613	-	11,131,624	-
Securities Sold, Not Received	308,690	-	46,579,831	-
Miscellaneous Receivables	78,906	-	45,565	-
Total Receivables	18,168,557	-	61,320,338	-
Investments, at Fair Value				
Aggressive Growth	358,058,142	-	320,476,667	-
Traditional Growth	1,316,293,371	-	1,542,821,008	-
Risk Parity	358,053,342	-	449,916,750	-
Credit	579,784,841	-	567,163,705	-
Crisis Risk Offset (CRO)	531,550,354	-	462,372,268	-
Principal Protection	278,165,455	-	330,858,456	-
Core Real Assets	238,796,399	-	220,081,376	-
Total Investments, at Fair Value	3,660,701,904	-	3,893,690,230	-
Other Assets				
Prepaid Expenses	112,740	-	99,975	-
Equipment and Fixtures, Net	3,143,385	-	154,044	-
Total Other Assets	3,256,125	-	254,019	-
Total Assets	3,949,042,720	52,449	4,363,676,449	72,537
Liabilities				
Securities Lending - Cash Collateral	2,354,013	-	78,775,961	-
Securities Purchased, Not Paid	125,564,604	-	84,977,773	-
Accrued Expenses and Other Payables	2,910,428	-	1,127,029	-
Securities Lending Interest and Other Payables	460,913	-	7,682	-
Total Liabilities	131,289,958	-	164,888,445	-
Fiduciary Net Position Restricted for Pension and Post-Employment Healthcare Benefits	$ 3,817,752,762	$ 52,449	$ 4,198,788,004	$ 72,537

The accompanying notes are an integral part of these financial statements.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED DECEMBER 31, 2022 (WITH COMPARATIVE TOTALS)

	2022		2021	
	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund
Additions				
Contributions				
Employer Contributions	$ 269,080,047	$ -	$ 306,662,635	$ -
Member Contributions	47,405,308	-	43,455,640	-
Employer Contributions to Healthcare Benefits	-	3,798,073	-	3,938,219
Total Contributions	316,485,355	3,798,073	350,118,275	3,938,219
Net Investment Income (Loss)				
Net Appreciation (Depreciation) in Fair Value of Investments	(430,790,861)	-	554,256,496	-
Interest	22,172,800	-	22,966,328	-
Dividends	13,078,024	-	10,179,197	-
Real Estate Income, Net	9,918,342	-	9,333,819	-
Investment Expenses	(27,241,048)	-	(25,722,039)	-
Miscellaneous Investment Income	359	-	39	-
Net Investment Income (Loss), Before Securities Lending Income	(412,862,384)	-	571,013,840	-
Securities Lending Income				
Earnings	2,405,593	-	388,378	-
Rebates	(2,258,901)	-	519	-
Fees	(125,574)	-	(97,171)	-
Net Securities Lending Income	21,118	-	291,726	-
Total Net Investment Income (Loss)	(412,841,266)	-	571,305,566	-
Miscellaneous Income	81,540	-	986,382	-
Transfer Between Plans	224,628	-	270,570	-
Total Additions	(96,049,743)	3,798,073	922,680,793	3,938,219
Deductions				
Benefit Payments	272,424,374	3,593,533	261,371,770	3,571,436
Death Benefits	760,072	-	608,396	-
Refunds of Member Contributions	6,179,349	-	3,985,433	-
Administrative Expenses				
General Administrative Expenses	4,627,135	-	3,664,872	-
Other Expenses				
Information Technology Expenses	335,386	-	163,828	-
Actuary Fees	167,671	-	206,203	-
Fund Legal Fees	491,512	-	604,536	-
Total Administrative and Other Expenses	5,621,704	-	4,639,439	-
Transfer Between Plans	-	224,628	-	270,570
Total Deductions	284,985,499	3,818,161	270,605,038	3,842,006
Changes in Fiduciary Net Position	(381,035,242)	(20,088)	652,075,755	96,213
Fiduciary Net Position Restricted for Pension and Post-Employment Healthcare Benefits				
Beginning of Year	4,198,788,004	72,537	3,546,712,249	(23,676)
End of Year	$ 3,817,752,762	$ 52,449	$ 4,198,788,004	$ 72,537

The accompanying notes are an integral part of these financial statements.

The San Joaquin County Employees' Retirement Association (SJCERA) is the public employee retirement system established by the County of San Joaquin (County) and is administered by the Board of Retirement of SJCERA (Board) to provide retirement, disability, and survivor benefits under the County Employees Retirement Law of 1937 (CERL) for the employees of the County and nine other participating employers within the County. SJCERA also administers the Post-Employment Healthcare Custodial Fund. Although the assets of the plans (defined benefit pension and post-employment healthcare) are commingled for investment purposes, each plan's assets may be used only for the payment of benefits to eligible members and beneficiaries of that plan, in accordance with the terms of the plan. A description of the Post-Employment Healthcare Custodial Fund is located in Note 2. All notes to the financial statements apply to both plans unless indicated otherwise.

NOTE 1 – DEFINED BENEFIT PENSION PLAN DESCRIPTION

a. General Description

SJCERA is a public retirement system established by the San Joaquin County Board of Supervisors effective June 28, 1946, under the provisions of the CERL and the Public Employees' Pension Reform Act of 2013 (PEPRA). SJCERA is administered by the Board. Pursuant to Government Code Sections 31520.1 and 31520.5, the Board consists of nine regular members, one alternate retired member, and under certain circumstances an alternate Safety member. Four members and the alternate member(s) are elected by SJCERA's members, four are appointed by the County Board of Supervisors, and the County Treasurer is an ex-officio member. Board members serve for a term of three years, except for the County Treasurer who is a permanent member. The Board members as of December 31, 2022, were as follows:

Michael Restuccia, Chair	Phonxay Keokham
Michael Duffy, Vice Chair	Steve Moore
Raymond McCray, Secretary	Emily Nicholas
Chanda Bassett	Robert Rickman
Jennifer Goodman	J.C. Weydert

SJCERA is a multiple-employer retirement system covering the County and the San Joaquin County (SJC) Historical Society and Museum, Local Agency Formation Commission (LAFCO), Lathrop-Manteca Rural Fire Protection District, San Joaquin County Law Library, SJC Mosquito and Vector Control District (MVCD), Mountain House Community Services District, SJC Superior Court, Tracy Public Cemetery District, and the Waterloo-Morada Rural Fire Protection District. All employees appointed to full-time, permanent positions with an SJCERA participating employer become SJCERA members. Persons who commence covered employment at age 60 or older may irrevocably elect to waive membership in SJCERA. Public Health, a division of the County's Healthcare Services Department, became a participant of SJCERA effective June 27, 1993. Prior to that date, they were members of the California Public Employees' Retirement System (CalPERS). The elected officials of the County may request to become members of SJCERA. All benefits vest after attaining five years of service credit.

SJCERA has two benefit tiers:

- Tier 1 - Hired into public service before January 1, 2013
- Tier 2 - Hired into public service for the first time on or after January 1, 2013

NOTE 1 – <u>DEFINED BENEFIT PENSION PLAN DESCRIPTION</u> (Continued)

a. General Description (Continued)

There are two membership types:

1. **Safety Member** – Permanent employees engaged in the performance of active law enforcement, including probation officers and fire suppression employees, are considered Safety Members and are not generally covered by Social Security.

2. **General Member** – All other eligible employees not classified as Safety Members are considered General Members and are covered by Social Security.

Membership Summary

SJCERA's membership as of December 31, 2022, is presented below.

Year 2022	Retirees		Beneficiaries		Active		Deferred		Total	
	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2
General	4,721	88	705	2	2,012	3,542	1,181	1,239	8,619	4,871
Safety	935	8	226	-	423	404	163	78	1,747	490
Total	5,656	96	931	2	2,435	3,946	1,344	1,317	10,366	5,361

b. Plan Benefits

Eligibility for Retirement

Tier 1:

A Tier 1 member may retire for service at age 50 or older with five years of service credit, and at least ten years of membership. A General, Tier 1 member may retire at any age with 30 or more years of service credit. A Safety, Tier 1 member may retire at any age with 20 or more years of service credit.

Tier 2:

A Tier 2 member may retire for service with five or more years of service credit upon attaining the minimum retirement age: Age 52 for General, Tier 2 members, and Age 50 for Safety, Tier 2 members.

Any member of SJCERA, regardless of benefit tier, may retire at age 70 with no minimum service credit requirement.

Retirement Benefit

The monthly benefit amount at retirement depends upon the type of membership, years of retirement service credit, final average compensation, age at retirement, and the benefit option elected by the member.

Tier 1:

For Tier 1 members, final average compensation for purposes of computing a retirement allowance is the average monthly salary for the highest twelve consecutive months of employment. In addition to base salary, final average compensation may include other items defined as compensation earnable for retirement purposes.

b. Plan Benefits (Continued)

Retirement Benefit (Continued)

The benefit formula for General, Tier 1 members is 2.6 percent of final average compensation for each year of service credit at age 62. The formula for Safety, Tier 1 members is 3.0 percent of final average compensation for each year of service credit at age 50 effective January 1, 2001. Members who retired prior to April 1, 1982, with 15 years or more of County service, receive an additional $50 monthly supplement commencing at age 65. Members who retired on or after April 1, 1982, but before January 1, 2001, receive a supplemental monthly benefit of $10 per year of service up to 30 years. This "Post 1982" supplemental benefit is payable if sufficient funds exist.

Federal law limits the annual compensation that may be used to calculate retirement benefits (applicable to persons who became SJCERA members on or after January 1, 1996), and the maximum annual benefit payable by SJCERA to any retired member. For 2022, the annual compensation limit under Internal Revenue Code Section 401(a)(17) is $305,000 and the annual benefit limit under Internal Revenue Code Section 415(b) is $245,000. Retired members whose statutory benefits from SJCERA would exceed the annual benefit limitation are eligible for the County's Replacement Benefit Plan.

Tier 2:

For Tier 2 members, final average compensation for purposes of computing a retirement allowance is the average monthly salary for the highest 36 consecutive months of employment. In addition to base salary, final average compensation may include other items defined as pensionable compensation.

The benefit formula for General, Tier 2 members is 2.5 percent of final compensation for each year of service credit at age 67. The formula for Safety, Tier 2 members is 2.7 percent of final compensation for each year of service credit at age 57. PEPRA specifies the maximum annual compensation that may be used to calculate retirement benefits. The limits are adjusted annually based on changes in the Consumer Price Index (CPI). For 2022, the Tier 2 annual compensation limit is $134,974 for those included in the Federal Social Security System and $161,969 for those not included.

Cost-of-Living Adjustment (COLA)

For both Tier 1 and Tier 2 members, monthly allowances are eligible for an annual COLA based on the change in the CPI for the San Francisco-Oakland-Hayward area for the previous calendar year, up to a maximum of 3.0 percent. The Bureau of Labor Statistics does not publish a CPI for San Joaquin County. When the CPI exceeds 3.0 percent in any year, the difference between the actual change in CPI (rounded to the nearest one-half percent) and the 3.0 percent ceiling is "accumulated" for future years when the change is less than 3.0 percent. Based on the accumulated carry-over balances as of April 1, 2021, members who retired prior to April 2, 1986, received a 3.0% increase on April 1, 2022. Their accumulated carry-over balances were reduced by 1.5%. Members who retired on or after April 2, 1986, received a 3.0% increase on April 1, 2022. Their accumulated carry-over balances were reduced by 0.5%.

Terminated Members' Deferred Retirement Benefit and Withdrawal of Contributions

A member leaving employment with at least five years of service credit becomes eligible for a retirement benefit once they meet the minimum service retirement age and have not withdrawn their accumulated member contributions.

Members who terminate employment with fewer than five years of service credit may leave their accumulated contributions on deposit until they become eligible for a retirement benefit at age 70. Contributions left on deposit with SJCERA continue to accrue interest.

NOTE 1 – DEFINED BENEFIT PENSION PLAN DESCRIPTION (Continued)

b. Plan Benefits (Continued)

Terminated Members' Deferred Retirement Benefit and Withdrawal of Contributions (Continued)

Upon termination of employment, members may withdraw their member contributions plus interest. Employer-paid contributions are not refundable. Members who take a refund of contributions become ineligible for future SJCERA retirement benefits.

Death Benefits

The beneficiary of an actively employed member who dies prior to attaining five years of credited service is refunded the member's accumulated contributions, with interest, and receives one month's salary for each full year of service, up to a maximum of six months' salary.

If the death occurs after five years of credited service and is not the result of a service-related injury or disease, the surviving spouse or minor children may elect to receive a lump sum benefit of the retirement contributions including interest and one month's salary for each full year of service up to six months' salary; 60 percent of the retirement allowance the deceased member would have received if they had retired with a nonservice-connected disability retirement benefit on the date of death; or a lump sum payment of six months' salary and a reduced monthly retirement benefit. The monthly allowance to minor children is discontinued once they marry or reach age 18 (age 22 if a full-time student).

The beneficiary of a deferred member receives the member's contributions plus accumulated interest.

Upon the death of a retiree, the beneficiary receives a retirement benefit as determined by the benefit option elected by the member at the time of retirement. In addition, the beneficiary also receives a $5,000 death benefit, which is paid from retirement reserves.

NOTE 2 – POST-EMPLOYMENT HEALTHCARE CUSTODIAL FUND

The Post-Employment Healthcare Custodial Fund accounts for assets held as an agent on behalf of others. The funds held within the Post-Employment Healthcare Custodial Fund do not meet the definition of a qualifying Other Post-Employment Benefits (OPEB) Trust under Governmental Accounting Standards Board (GASB) Statement No. 74. This fund is custodial in nature and does not measure the results of operations. GASB Statement No. 84, *Fiduciary Activities*, was implemented in 2019. The Post-Employment Healthcare Fund is classified as a Custodial Fund.

The Post-Employment Healthcare Custodial Fund is used as a clearing account for cash flows from employers to fund Sick Leave Bank Benefits for their eligible retired members on a pay-as-you-go basis, and for cash flows out for payment of Sick Leave Bank Benefits. The Sick Leave Bank Benefit allows accumulated unused and un-cashed sick leave to be converted to a Sick Leave Bank upon retirement at a rate of $27.65 per hour. Retired or deferred members who were employed prior to August 27, 2001, are eligible for Sick Leave Bank Benefits. In 2007, the San Joaquin County Superior Court (Court) extended eligibility for Sick Leave Bank Benefits to Court employees hired on or after August 27, 2001. Employers fund the Sick Leave Bank Benefits and employees are not required to contribute to the plan.

Sick Leave Bank Benefits may be used to pay for employer-sponsored group health, dental, and vision care insurance premiums and/or reimbursement of Medicare Part B premiums for the eligible members, their spouses, and dependents. When a retiree's Sick Leave Bank is depleted, the retiree assumes responsibility for payment of health, dental, and vision care insurance premiums.

SJCERA allocates the investments held at December 31, 2022, between the Defined Benefit Pension Plan and the Post-Employment Healthcare Custodial Fund based on the internal records of the respective accounts at December 31, 2022.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – PENSION PLAN

a. Basis of Accounting

SJCERA's financial statements are presented on the accrual basis of accounting. Employer and member contributions that should have been made in the calendar year based on the actuarially determined contribution rates or amounts are recognized as revenues of that calendar year. Contributions receivable pursuant to an installment contract are also recognized in full in the year in which the contract is made. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

b. Reporting Entity

SJCERA, governed by the Board, is an independent government entity. SJCERA's annual financial statements are included in the County's financial reports as a pension trust fund.

c. Cash Equivalents

SJCERA's cash and short-term investments are managed by The Northern Trust Company (NT) and the County Treasurer.

The Northern Trust Company (NT)

Cash not required for daily operations is deposited with NT, SJCERA's master custodian for investment securities. NT pools cash from its clients pending permanent investment in its Short-Term Investment Fund (STIF). The cash in the STIF account is invested in high-grade money market instruments with very short maturities, such as bonds, notes, and other evidence of indebtedness, in accordance with SJCERA's investment policy.

The cash collateral received under the securities lending program is invested by NT through its securities lending collateral fund, which is created solely for the investment of cash collateral.

County Treasurer

Cash necessary for SJCERA's daily operations is pooled with other County funds for short-term investment by the County Treasurer. The County is responsible for the control and safekeeping of all instruments of title and for all investment of the pooled funds.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – PENSION PLAN (Continued)

d. Method Used to Value Investments

Investments are carried at fair value. Fair values for investments are derived by various methods as indicated in the following table.

Investments	Source
Publicly traded stocks and bonds, and issues of the U.S. Government and its agencies	Most recent sales price as of the fiscal year-end. International securities reflect currency exchange rates in effect at December 31, 2022.
Mortgages	Equivalent pricing to comparable Government National Mortgage Association (GNMA).
Real estate equity funds	Fair value as provided by real estate fund manager.
Real estate title holding corporations and limited liability companies	Fair value of the investment as provided by fund managers unless an alternative value has been determined by the Board per SJCERA's Real Estate Investment Policy and reviewed by SJCERA's Investment Consultant.
Private equity	Fair value as provided by the investment manager and reviewed by SJCERA's Investment Consultant.
Private placement bonds	Face value of the security subject to designated conditions such as sales restrictions or limited marketability.

e. Capital Assets

Capital assets, mainly leasehold improvements, furniture, and equipment, acquired by SJCERA are capitalized at cost. Depreciable capital assets are depreciated using the straight-line method over estimated useful lives of three to seven years for computer equipment, furniture, and other equipment. Leasehold improvements are amortized over the life of the lease. Depreciation expenses of the capital assets are included in general administrative expenses.

The change in capital assets owned for the year ended December 31, 2022, is presented below:

	Balance December 31, 2021	Additions	Deletions/ Adjustments	Balance December 31, 2022
Original Cost	$ 1,684,360	$ 3,236,903	$ (312,231)	$ 4,609,032
Accumulated Depreciation and Amortization	(1,530,316)	(247,562)	312,231	(1,465,647)
Net Book Value	$ 154,044	$ 2,989,341	$ -	$ 3,143,385

Depreciation and amortization expense for the year ended December 31, 2022, was $247,562.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – PENSION PLAN (Continued)

f. Receivables

Receivables consist primarily of interest, dividends, investments in transition (traded but not yet settled), and contributions owed by participating employers. Contributions receivable pursuant to an installment contract between the member and SJCERA for purchase of service credit are recognized in full in the year in which the contract is made.

g. Use of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make certain estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

NOTE 4 – CASH AND INVESTMENTS

a. Investment in Securities Lending Program

SJCERA participates in NT's pooled securities lending program. Under the agreement, NT is authorized to lend the SJCERA securities it holds to certain SJCERA-approved borrowers. NT does not have the ability to pledge or sell collateral securities unless a borrower default occurs.

All loans are fully collateralized with either cash, securities issued or fully guaranteed by the U.S. government, or irrevocable bank letters of credit. All collateral is held or invested by NT. The term or maturity of the securities loaned is generally matched with the term or maturity of the investment of the cash collateral. U.S. securities are loaned with collateral valued at 102 percent of the fair value of the securities plus any accrued interest. Non-U.S. securities are loaned with collateral valued at 105 percent of the fair value of the securities plus any accrued interest.

As of December 31, 2022, SJCERA had the following securities out on loan.

	Fair Value of Securities Lent	Cash Collateral Value	Non-Cash Collateral Value
U.S. Equities	$ 12,182,740	$ 11,552,530	$ 971,748
U.S. Debt Securities	128,248,922	113,015,222	18,400,670
Total U.S. Securities	140,431,662	124,567,752	19,372,418
Non-U.S. Equities	3,492,308	-	3,727,736
Non-U.S. Debt Securities	38,472,805	996,852	39,845,486
Total Non-U.S. Securities	41,965,113	996,852	43,573,222
Total	$ 182,396,775	$ 125,564,604	$ 62,945,640

The cash collateral is reported on the financial statements as an asset and as a liability of SJCERA. Securities lending transactions collateralized by letters of credit or by securities that SJCERA does not have the ability to pledge or sell unless the borrower defaults are not be reported as assets and liabilities in accordance with GASB Statement No. 28. The potential risks involved in the securities lending program include borrower bankruptcy, collateral deficiencies, settlement problems, corporate actions, dividends, and interest. SJCERA's pro-rata share of net income derived from NT's pooled securities lending transactions in 2022 was $351,039. As of December 31, 2022, there was no credit risk exposure to borrowers because the collateral exceeded the amount borrowed. The securities on loan at year-end were $182 million and the collateral received for those securities on loan was $188 million.

NOTE 4 – CASH AND INVESTMENTS (Continued)

b. Cash and Short-Term Investments

The carrying value of cash and short-term investments as of December 31, 2022, consists of the following.

	Amount
Cash and Cash Equivalents - Custodian	$ 141,361,593
Cash and Cash Equivalents - County Treasury	42,386
Total Cash and Cash Equivalents	141,403,979
Cash Collateral - Securities Lending - Custodian	125,564,604
Total Cash and Short-Term Investments	$ 266,968,583

c. Long-Term Investments

SJCERA owned the following long-term investments as of December 31, 2022.

	Fair Value
Investments-Categorized	
Aggressive Growth	$ 358,058,142
Traditional Growth	1,316,293,371
Risk Parity	358,053,342
Credit	579,784,841
Crisis Risk Offset (CRO)	531,550,354
Principal Protection	278,165,455
Core Real Assets	238,796,399
Total Investments-Categorized	3,660,701,904
Investments-Not Categorized	
Investments Held by Broker-Dealers Under Securities Loans	
U.S. Equities	11,552,530
U.S. Debt Securities	113,015,222
Non-U.S. Debt Securities	996,852
Total Investments Held by Broker-Dealers Under Securities Loans	125,564,604
Total Investments	$ 3,786,266,508

GASB Statement No. 40, *Deposits and Investments Risk Disclosures,* established and modified disclosure requirements related to the following:

- Credit risk
- Custodial credit risk
- Concentration of credit risk
- Interest rate risk
- Foreign currency risk

NOTE 4 – CASH AND INVESTMENTS (Continued)

c. Long-Term Investments (Continued)

Credit Risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. SJCERA's investment policy seeks to maintain a diversified portfolio of fixed income instruments in order to obtain the highest total return for the fund at an acceptable level of risk within the asset class. To control such risk, credit quality guidelines have been established for the separately managed accounts. The following table depicts the value of the investments exposed to those risks and the corresponding credit ratings from Standard & Poor's (S&P) as of December 31, 2022.

Quality Ratings	Fair Value
AAA	$ 140,933,748
AA	5,722,873
A	25,981,796
BAA	80,431,953
BA	20,326,384
B	17,924,561
CAA	3,721,386
CA	102,384
C	83,750
Not Rated	371,477,256
Subtotal	666,706,091
U.S. Government Agencies - Implied AAA (FNMA, FHLB, FHLMC, FFCB, SLMA, Other)	191,244,205
Total Investments in Fixed Income Securities	$ 857,950,296

Custodial Credit Risk – The custodial credit risk represents the risk that, in the event of the failure of the counterparty of a transaction, SJCERA will not be able to recover the value of deposits and investments or collateral securities that are in the possession of an outside party.

Deposits

The deposits with the County Treasurer are uninsured but secured by public funds of the pledging banks. The pool's investments, all held in the County's name, are short-term and include U.S. Treasury Bills, certain Federal agencies' instruments, bankers' acceptances, "prime" commercial paper, certificates of deposit, repurchase agreements, and the State Treasurer's Local Agency Investment Fund.

The cash deposits with NT are uninsured and uncollateralized. All underlying investments in the commingled STIF account are not registered in SJCERA's name.

Investment

Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in SJCERA's name, and held by the counterparty. SJCERA's investment securities are not exposed to custodial credit risk because all securities are held by SJCERA's custodial bank in SJCERA's name, or by other qualified third party administrator trust accounts.

NOTE 4 – CASH AND INVESTMENTS (Continued)

c. Long-Term Investments (Continued)

Concentration of Credit Risk – This risk represents the potential loss attributable to the magnitude of SJCERA's investments in a single issuer. As of December 31, 2022, for separately managed investment accounts, SJCERA did not hold any investments within any one issuer that would represent five percent (5%) or more of plan fiduciary net position.

Interest Rate Risk – Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Duration is a measure of the price sensitivity of a fixed income portfolio to changes in interest rates. It is calculated as the weighted average time to receive a bond's coupon and principal payments. The longer the duration of a portfolio, the greater its price sensitivity to changes in interest rates.

As of December 31, 2022, SJCERA had the following interest rate sensitive investments.

Investment Type	Fair Value	Weighted Average Maturity-Years
U.S. Government and Agency Instruments:		
U.S. Government Mortgages	$ 77,935,270	28.69
U.S. Government Bonds	146,584,754	18.00
Municipal/Revenue Bonds	2,603,787	15.72
Government Agencies	6,061,529	17.48
Short-Term Bills and Notes	97,491,962	0.36
Total U.S. Government and Agency Instruments	330,677,302	
Corporate Securities:		
Asset Backed Securities	21,111,448	16.60
Commercial Mortgage-Backed Securities	10,416,439	13.25
Corporate Bonds	141,938,305	11.89
Corporate Convertible Bonds	1,676,156	31.63
Non-Government Backed CMOs	419,115	23.53
Total Corporate Securities	175,561,463	
Real Estate Financing	351,711,531	
Total Fixed Income Securities	$ 857,950,296	

Foreign Currency Risk – Foreign currency risk is the risk that changes in exchange rates may adversely affect the fair value of an investment. SJCERA's external non-U.S. equity and fixed income investment managers may invest in international securities in accordance with their investment guidelines pertaining to these types of investments.

Currency hedging on an unleveraged basis is permitted by non-U.S. equity managers as a strategy to protect against losses due to currency translations (defensive hedging). However, it is expected that the primary sources of added value for non-U.S. equity investment managers will be stock and country selection, with currency management focused on limiting losses due to fluctuations in currency values. Managers may purchase or sell currency on a spot basis to accommodate securities settlements.

NOTE 4 – CASH AND INVESTMENTS (Continued)

c. Long-Term Investments (Continued)

Managers may invest in developed market currencies and emerging market currencies in accordance with their investment guidelines. Permitted derivative instruments are currency spots, currency forward contracts (deliverable or non-deliverable), currency futures, options on currency forwards or futures, and currency swaps. Other investments, contracts, or positions that, in the managers' judgment, are of similar purpose and character and equal credit quality and marketability to any of the investments above, are also permissible.

SJCERA's exposure to foreign currency risk in U.S. dollars as of December 31, 2022, follows.

Currency	Fair Value
British Pound Sterling	$ 3
Canadian Dollar	971,963
Euro Currency	91,447
Total	$ 1,063,413

d. Fair Value Measurement

In accordance with GASB Statement No. 72, fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The statement establishes a fair value hierarchy based on three types of input to develop the fair value measurements for investments. The level is determined based on the lowest level of input significant to the measurement in its entirety. Assets and liabilities measured at fair value are classified into one of the following categories:

Fair Value Hierarchy

Level 1 – reflects unadjusted quoted prices in active markets for identical assets or liabilities accessible on the measurement date. Observable markets include exchange markets, dealer markets, and brokered markets.

Level 2 – reflects similar observable inputs other than quoted market prices. It includes quoted prices for similar assets in active markets or quoted prices for identical or similar assets in inactive markets.

Level 3 – reflects prices based on unobservable sources. They should be used only when relevant Level 1 and Level 2 inputs are unavailable.

NOTE 4 – CASH AND INVESTMENTS (Continued)

d. Fair Value Measurement (Continued)

The following table presents fair value measurements as December 31, 2022.

Investments by Fair Value Level	Total Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Equities				
Common Stocks	$ 41,513,032	$ 41,487,844	$ 5,844	$ 19,344
Preferred Stocks	718,520	718,520	-	-
Total Equities	**42,231,552**	**42,206,364**	**5,844**	**19,344**
Fixed Income				
Asset Backed Securities	21,111,448	-	21,111,448	-
Commercial Mortgage-Backed Securities	10,416,439	-	10,416,439	-
Corporate Bonds	141,938,305	-	141,938,305	-
Corporate Convertible Bonds	1,676,156	-	1,676,156	-
Funds - Corporate Bonds	59,719,042	43,102,549	16,616,493	-
Funds - Fixed Income ETF	15,618,650	15,618,650	-	-
Government Agencies	6,061,529	-	6,061,529	-
Government Bonds	146,584,754	-	146,584,754	-
Government Mortgage-Backed Securities	77,935,270	-	77,935,270	-
Municipal/Provincial Bonds	2,603,787	-	2,603,787	-
Non-Government Backed CMOs	419,115	-	419,115	-
Other Fixed income	90,176,224	-	-	90,176,224
Total Fixed Income	**574,260,719**	**58,721,199**	**425,363,296**	**90,176,224**
Other Assets				
Short-Term Bills and Notes	99,986,745	1,316,938	98,669,807	-
Option Contracts	914	-	-	914
Swaps	396,860	-	396,860	-
Total Other Assets	**100,384,519**	**1,316,938**	**99,066,667**	**914**
Collateral from Securities Lending	**125,564,604**	**-**	**125,564,604**	**-**
Total Investments by Fair Value Level	**842,441,394**	**$ 102,244,501**	**$ 650,000,411**	**$ 90,196,482**
Investments Measured at the Net Asset Value (NAV)				
Global Equities Funds	1,218,782,828			
Emerging Markets Global Equity	80,881,423			
Fixed Income Funds	145,812,348			
Private Credit	194,131,106			
Risk Parity Funds	358,053,342			
Multi-Strategy Funds	296,710,835			
Hedge Funds - Fixed Income	14,598,388			
Private Equity Funds	275,731,811			
Private Real Estate Funds	359,123,033			
Total Investments Measured at NAV	**2,943,825,114**			
Total Investments	**$ 3,786,266,508**			

Investments Measured at the Net Asset Value (NAV)

SJCERA measures certain investments that do not have a readily determinable fair value, such as hedge funds, commingled funds, and private equity funds, using NAV as a practical expedient. The SJCERA investments valued at NAV are the majority holdings for the SJCERA portfolio. The following table presents the unfunded commitments, redemption frequency (if currently eligible), and the redemption notice period for SJCERA investments measured at NAV.

NOTE 4 – CASH AND INVESTMENTS (Continued)

d. Fair Value Measurement (Continued)

The following table presents the investments measured at NAV as December 31, 2022:

Investments Measured at NAV	Fair Value	Unfunded Commitment	Redemption Frequency If Currently Eligible	Redemption Notice Period
Global Equities Funds	$ 1,218,782,828	$ -	Daily, Weekly, Semi-Monthly, Monthly	1-30 days
Emerging Markets Global Equity	80,881,423	-	Weekly	T-4 Days
Fixed Income Funds	145,812,348	26,079,466	Daily, Not Eligible	1 day
Private Credit	194,131,106	56,674,116	Not Applicable	Not Applicable
Risk Parity Funds	358,053,342	-	Monthly	5-15 days
Multi-Strategy Funds	296,710,835	-	Daily, Weekly, Semi-Monthly, Monthly	0-15 days
Hedge Funds - Fixed Income	14,598,388	12,717,985	Daily, Quarterly, Not Eligible	0-60 days
Private Equity Funds	275,731,811	44,990,608	Not Eligible	Not Applicable
Private Real Estate Funds	359,123,033	199,449,885	Quarterly, Not Eligible	5-90 Days, Not Applicable
Total Investments Measured at NAV	$ 2,943,825,114	$ 339,912,060		

Global Equities Funds - Assets within these funds represent shares of ownership in U.S. and international corporations, including publicly traded common stocks, American and Global Depository Receipts, as well as Real Estate Investment Trusts (REITS).

Emerging Markets Global Equity - Assets within this segment represent a diversified portfolio seeking to identify growing countries and the companies that complement our core Equity holdings.

Fixed Income Funds - Funds within this segment represent debt instruments of corporations, government or agencies characterized by a fixed or variable interest rate and stated maturity date, including marketable bonds.

Private Credit - Assets within this segment are defined by non-bank lending where the debt is not issued or traded on the public markets.

Risk Parity Funds - Funds within this segment represent portfolios that seek to balance the risk characteristics of assets across multiple segments. These portfolios generally invest in equities, bonds, and commodities among other assets.

Multi-Strategy Hedge Funds - Funds within this segment can involve holding both long and short positions in securities instead of traditional long-only investments in publicly traded investments. Portfolios also may utilize derivatives or hedging strategies as well. Multi-Strategy managers utilized various investment segments to invest, including but not limited to, equities, bonds, currency, and commodities.

Fixed Income Hedge Funds - Funds within this segment can involve holding both long and short positions in securities instead of traditional long-only investments in publicly traded investments. Portfolios also may utilize derivatives or hedging strategies as well. These investment funds generally focus on opportunities within fixed income markets.

Private Equity Funds - These funds are illiquid allocations that invest primarily in buyout funds, venture capital, and debt/special situations. These funds are not eligible for redemption and investment periods are generally between five and 15 years.

d. Fair Value Measurement (Continued)

Private Real Estate Funds - These funds are defined as those investments that are unleveraged or leveraged positions in real property. The portfolio may pursue direct privately held partnership interests, fund-of-funds interests, and direct holdings for its real estate allocation.

e. Summary of Investment Policy

The CERL vests the Board with exclusive control over SJCERA's investment portfolio. The Board established investment policies in accordance with applicable local, State, and Federal laws. The Board members exercise authority and control over the management of SJCERA's assets by setting policy, which the staff executes either internally or through the use of external prudent experts. The Board provides oversight and guidance subject to the following basic fiduciary responsibilities:

- Solely in the interest of, and for the exclusive purpose of, providing economic benefits to participants and their beneficiaries.

- With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character with like objectives.

- Diversify the investments of the plans so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances, it is clearly prudent not to do so. Diversification is applicable to the deployment of the assets as a whole.

f. Target Asset Allocation

The Board completed an asset-liability study during 2022, facilitated by its investment consultant, Meketa Investment Group, and its consulting actuary, Cheiron, Inc. A key aspect of the study was the Board's consensus on how it defines risk and determining its tolerance for risk, which plays a significant role in the selection of the policy mix of assets that comprise the strategic asset allocation for the investment program.

On June 3, 2022, the Board adopted a revised strategic asset allocation policy for SJCERA's investments. On July 8, 2022, the Board adopted an Implementation Plan which describes how the new strategic allocation is to be implemented. The Implementation Plan uses an "evolving policy" framework which allows the portfolio to be adjusted over time, with a target completion deadline of June 30, 2024. The plan also notes that SJCERA will move faster, depending on market conditions.

The strategic asset allocation is expected to improve the likelihood of the plan accomplishing its primary financial objective: to earn a long-term return that, coupled with projected contributions, is projected to be sufficient to attain full funding in the long-term while avoiding substantial deterioration in funded status along the way.

NOTE 4 – CASH AND INVESTMENTS (Continued)

f. Target Asset Allocation (Continued)

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION CURRENT ASSET ALLOCATION POLICY			
Asset Class	**Policy Allocation Percentage**	**Purpose**	**Main Risk Exposures**
Aggressive Growth	16.00%	Return	Growth
Traditional Growth	34.00%	Return	Growth, Currency
Risk Parity	6.00%	Balanced Return	Growth, Interest Rates, Inflation
Credit	15.00%	Income, Growth	Growth
Core Real Assets	9.00%	Income, Growth	Growth, Interest Rates
Principal Protection	7.00%	Income, Stability	Interest Rates
Crisis Risk Offset (CRO)	13.00%	Return and Liquidity during a Growth Crisis	Interest Rates, Variables based on Trends, Alternative Factor Risks
	100.00%		

NOTE 5 – DERIVATIVE FINANCIAL INSTRUMENTS

The Board has authorized certain investment managers to invest in, or otherwise enter into, transactions involving derivative financial instruments when such transactions are consistent with the investment objectives established for a specific investment manager's assignment. A professional investment consultant is employed to monitor and review each investment manager's securities and derivative position as well as the manager's performance relative to established benchmark rates of return and risk measures. Derivative activities must be evaluated within the context of the overall portfolio performance and cannot be evaluated in isolation.

Investment derivatives involve the following types of risks.

Market Risk: Market risk is the risk of change in value of an instrument in response to changes in a market price or index. While all investments are subject to market risk, derivatives often have a higher degree of market risk than other types of investment instruments. Values of cash securities containing derivative features are often more susceptible to market risk than other types of fixed income securities because the amounts and/or timing of their scheduled cash flows may fluctuate under changing market conditions, according to their contractual terms. For other types of derivatives, amounts of contractual cash flows may be either positive or negative depending upon prevailing market conditions relative to the reference prices or rates, and thus the values of such instruments may be positive or negative, despite the fact that little or no cash is initially exchanged to enter into such contacts.

NOTE 5 – **DERIVATIVE FINANCIAL INSTRUMENTS** (Continued)

Credit Risk: Credit risk of cash securities containing derivative features is based upon the credit worthiness of the issuers of such securities. It includes the risk that counterparties to contracts will not perform and/or the public exchange will not meet its obligation to assume this counterparty risk. Exchange traded derivatives are generally considered to be of lower credit risk than over-the-counter derivatives due to the exchange's margin requirements. The derivative investments are exchange traded, and credit risk is limited to the clearing corporation. As of December 31, 2022, collateral for derivatives was $8.4 million. This represents the maximum loss that would be recognized at the reporting date if all counterparties failed to perform as contracted.

Interest Rate Risk: Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest rate swaps are an example of an investment that has a fair value that is highly sensitive to interest rate changes. SJCERA is exposed to interest rate risk in the form of futures contracts and option contracts in the following global government bond markets.

Interest Rate Risk
As of December 31, 2022

Global Bonds	Futures Contracts	Option Contracts
Canadian Government Bond	$ (29,971,960)	$ -
Long Gilt	(29,539,481)	-
Japanese Government Bond	(3,331,781)	-
Euro Bond	(30,294,661)	-
U.S. Ten Year Notes	40,116,977	-
British Pound Sterling	42,241,625	(467,138)
Total	$ (10,779,281)	$ (467,138)

SJCERA measures derivative interest rate risk using duration with varying maturities of less than three months to more than 10 years. At December 31, 2022, SJCERA had the following investment derivative interest rate risks.

Interest Rate Risk Analysis
As of December 31, 2022
(Dollars in Thousands)

Derivative Type	Notional Value	Fair Value	< 3 Months	3 to 6 Months	6 to 12 Months	1 to 5 Years	5 to 10 Years	10+ Years
Futures Contracts	$ (170,679)	$ -	$ (170,679)	$ -	$ -	$ -	$ -	$ -
Swap Agreements	-	396	-	-	-	396	-	-
Credit Contracts	-	-	-	-	-		-	-
Total	$ (170,679)	$ 396	$ (170,679)	$ -	$ -	$ 396	$ -	$ -

NOTE 5 – DERIVATIVE FINANCIAL INSTRUMENTS (Continued)

Foreign Currency Risk: Foreign currency risk is the risk that changes in currency exchange rates will adversely affect the fair value of an investment. Currency forward contracts represent foreign exchange contracts that are used to control currency exposure and facilitate the settlement of international security purchase and sale transactions. As of December 31, 2022, SJCERA had the derivative foreign currency exposures listed in the table below.

FOREIGN CURRENCY RISK ANALYSIS
As of December 31, 2022

Currency	Futures Contracts	Equity Contracts	Options Contracts
Australian Dollar	$ (19,802,650)	$ -	$ -
British Pound Sterling	(19,787,550)	-	-
Canadian Dollar	(19,588,800)	1,899,539	-
Euro Currency	(18,281,800)	-	-
Japanese Yen	(20,712,563)	-	(205,150)
Swiss Franc	16,353,000	-	-
Total	$ (81,820,363)	$ 1,899,539	$ (205,150)

Derivatives are carried as assets when the fair value is positive, and as liabilities when the fair value is negative. Gains and losses from derivatives are included in net investment income (loss). For financial reporting purposes, all SJCERA derivatives are classified as investment derivatives.

Derivative financial instruments held by SJCERA from time to time consist of the following.

Futures Contracts

A futures contract represents an agreement to buy (long position) or sell (short position) an underlying asset at a specified future date for a specified price. Payment for the transaction is delayed until a future date, which is referred to as the settlement or expiration date. Futures contracts are standardized contracts traded on organized exchanges.

Option Contracts

An option contract is a type of derivative security in which a buyer (purchaser) has the right, but not the obligation, to buy or sell a specified amount of an underlying security at a fixed price by exercising the option before its expiration date. The seller (writer) has an obligation to buy or sell the underlying security if the buyer decides to exercise the option.

Swap Agreements

A swap is an agreement between two or more parties to exchange a sequence of cash flows over a period of time in the future. No principal is exchanged at the beginning of the swap. The cash flows the counterparties exchange are tied to a “notional” amount. A swap agreement specifies the time period over which the periodic payments will be exchanged. The fair value represents the gains or losses as of the prior marking-to-market.

All investment derivative positions are included as part of investments at fair value on the Statement of Fiduciary Net Position. All changes in fair value are reported as part of net appreciation/(depreciation) in fair value of investments in the Statement of Changes in Fiduciary Net Position. Investment information was provided either by SJCERA’s investment managers or SJCERA’s custodian bank. The Investment Derivatives schedule below is classified by type and reports the fair value balances and notional amounts of derivatives outstanding as of and for the year ended December 31, 2022.

NOTE 5 – <u>DERIVATIVE FINANCIAL INSTRUMENTS</u> (Continued)

Investment Derivatives
As of December 31, 2022

Derivative Type	**Notional Amount**	**Fair Value**
Futures Contracts	$ (81,269,014)	$ 17,464,572
Option Contracts	(4,587,401)	3,101,628
Total	$ (85,856,415)	$ 20,566,200

NOTE 6 – <u>CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE</u>

<u>Defined Benefit Pension Plan</u>

The funding objective of the plan is to establish contribution rates that, together with investment earnings, will provide sufficient assets to pay all benefits under the plan. The County and participating employers are required to contribute a percentage of their annual covered payroll at actuarially determined rates. Actuarial valuations involve estimates and make assumptions about the probability of events far into the future; therefore, actuarially determined rates are subject to continual revision as results are compared to past expectations and new estimates are made about the future.

<u>Employer Contributions</u>

For 2022, the required employer contribution rates including normal cost and amortization of the unfunded actuarial liability (UAL) were determined by using the valuation report as of January 1, 2021.

In 2022, the County made additional $22,088,131 contributions. The Court made additional $500,000 contributions to decrease its share of the UAL. MVCD made additional $90,000 contributions to decrease its share of the UAL. These additional annual contributions decrease only that individual employer's share of the UAL and not the liability for other entities participating in SJCERA.

The total market value of the additional contributions, including prior year amounts and accumulated with interest at the plan's actual rate of return, was $184,202,449 as of December 31, 2022. These assets are included in the calculation of the UAL and funded ratio. However, under the funding policy with respect to these reserves requested by the contributors and approved by the Board, these assets are not currently included in the calculation of the employer contribution rates.

NOTE 6 – CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE (Continued)

Employer Contributions (Continued)

EMPLOYER RETIREMENT CONTRIBUTION RATES	**2022** (Per 1/1/2021 Valuation)		
Expressed as a Percentage of Active Member Payroll	Normal Cost	UAL Amortization	Total
TIER 1			
General Members:			
Paying Basic Rate Only *(G.C. 31621.3)*	19.82%	30.60%	50.42%
Paying Basic Rate with COLA Cost Share	16.93%	30.60%	47.53%
Paying 114% of Basic Rate with COLA Cost Share	16.37%	30.60%	46.97%
Safety Members:			
Paying Basic Rate Only *(G.C. 31639.5)*	32.77%	63.73%	96.50%
Paying Basic Rate with COLA Cost Share	27.69%	63.73%	91.42%
Paying 133% of Basic Rate with COLA Cost Share	26.07%	63.73%	89.80%
Composite Total for General and Safety Combined:			
Paying Basic Rate Only *(G.C. 31621.3)*	22.35%	36.98%	59.33%
Paying Basic Rate with COLA Cost Share	19.03%	36.98%	56.01%
Paying 114%/133% of Basic Rate with COLA Cost Share	18.26%	36.98%	55.24%
TIER 2			
General Members:	9.99%	30.60%	40.59%
Safety Members:	15.42%	63.73%	79.15%
Composite Total for General and Safety Combined:	10.61%	34.28%	44.89%

The composite employer contribution rates (for General and Safety Members combined) expressed as a percentage, or range of percentages, of covered payroll for the past seven years are as follows:

Contribution Year	**Tier 1**	**Tier 2**
2022	55.24% - 59.33%	44.89%
2021	53.88% - 57.96%	43.69%
2020	50.86% - 54.72%	41.00%
2019	48.09% - 51.81%	38.60%
2018	45.18% - 48.75%	35.80%
2017	44.31% - 47.91%	34.48%
2016	42.06% - 45.58%	31.95%

Member Contributions

Member contributions are deducted from the member's salary on a biweekly basis.

Tier 1 member contribution rates are calculated by the actuary using the Entry Age Normal Funding Method (Cost Method). Most Tier 1 members pay one-half of the cost of pre-funding post-retirement COLAs, and some pay an additional percentage of the basic member contribution rate, which reduces the employers' normal cost. Tier 2 members pay a single contribution rate adjusted annually. The required contribution rates are expressed as a percentage of covered payroll. The 2022 contribution rates were determined using the actuarial valuation performed as of January 1, 2021.

NOTE 6 – CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE (Continued)

Member Contributions (Continued)

Tier 1 members pay contributions based upon their membership category, General or Safety, and age at entry into membership. General, Tier 1 members employed before March 7, 1973, and all Safety, Tier 1 members stop paying member contributions when they have 30 years of service, but continue to accrue retirement service credit for subsequent active employment subject to membership.

Tier 2 members pay contributions, based upon their membership category, equal to one-half of the normal cost of the applicable benefits.

In 2022, member contributions totaled $47,405,308 and employer contributions totaled $269,080,047. Member contributions increased by $3.9 million, or 9.09 percent, over the prior year, and employer contributions decreased by $37.6 million, or 12.26 percent, over the prior year.

NOTE 7 – FIDUCIARY NET POSITION RESTRICTED FOR PENSION BENEFITS

As required by the CERL and the Board's policy, the following reserves from Fiduciary Net Position Restricted for Pension Benefits must be established and used to account for the members', employers', and retirees' contributions. The Unappropriated Earnings Reserve was sufficient to fully credit all reserves interest earnings at the 7.00 percent assumption rate. In addition, there were excess earnings to fund the Contingency Reserve in 2022 in the amount of $43,633,169.

a. Active and Deferred Members' Reserve

   This reserve represents the cumulative contributions made by active members, net of refunds to the members, plus the investment earnings credited to the reserve at assumption rates determined by the actuary.

b. Employer Advance Reserve

   This reserve represents the cumulative contributions made by the County and participating employers. Interest earnings are credited semi-annually to the reserve at the assumption rate determined by the actuary, if sufficient unappropriated earnings reserve funds exist.

c. County Additional 5% Contributions Reserve

   This reserve represents the additional contributions in excess of actuarially determined contributions paid by the County in order to decrease its share of the UAL.

d. MVCD Additional Contributions Reserve

   This reserve represents the additional contributions in excess of actuarially determined contributions paid by the MVCD in order to decrease its share of the UAL.

e. Court Additional Contribution Reserve

   This reserve represents the additional contributions in excess of actuarially determined contributions paid by the Court in order to decrease its share of the UAL.

NOTE 7 – FIDUCIARY NET POSITION RESTRICTED FOR PENSION BENEFITS (Continued)

f. Retired Members' Reserve

This reserve accounts for the unpaid retirees' pension benefits. Upon a member's retirement, the member's accumulated contributions are transferred from the Active and Deferred Members' Reserve account to the Retired Members' Annuity Reserve account. In addition, the actuarially determined amount of the member's vested interest is transferred from the Employer Advance Reserve account to the Retired Members' Pension Reserve account. The Retired Members' Reserve account at December 31, 2022, includes the authorized "Purchasing Power" benefit reserve and additional pension benefits specified in the pre-April 1, 1982 class-action lawsuit settlement agreement. These benefits are explained in Note 1b. In accordance with the Statement of Reserve Policy, the post-April 1, 1982 Settlement Reserve is a Special Reserve, which is not included in valuation assets.

g. Class Action Settlement – Post 4/1/82 Reserve

The Class Action Settlement – Post 4/1/82 Reserve designates the reserve that pays the Post-82 Class Action Settlement allowances for the lifetime of the members and beneficiaries, who retired between April 1, 1982, and December 31, 2000, to the extent sufficient funds are available.

h. Contingency Reserve

Earnings of the retirement fund during any year in excess of the total interest credited to contributions and reserves during the year remain in the fund as a reserve against deficiencies in interest earnings in other years, losses on investments, and other contingencies. The CERL provides that when the contingency reserve exceeds one percent of total assets, the retirement board may transfer all or any part of the surplus as specified in Government Code Section 31592.2. In June 2017, the Board amended the Reserve Policy, lowering the Contingency Reserve target from three percent to one percent of total assets. The Contingency Reserve is 1.1 percent of the fair value of total assets at December 31, 2022.

i. Market Stabilization Designation Reserve

This "designation" reserve is used to further minimize the impact of the fluctuations in the fair value of the investments owned by SJCERA. It represents the difference between the actuarial value of assets and the fair value of assets at year-end. It is the balance of deferred earnings and losses created by a five-year smoothing of actual gains and losses compared to the assumed investment rate of return.

j. Unappropriated Earnings Reserve

The Unappropriated Earnings Reserve (UER) is used to accumulate investment income earned by SJCERA, net of the investment expenses and SJCERA's administration cost. From this unappropriated earnings reserve, interest is credited to various other reserves. In addition, at the Board's discretion and subject to the settlement agreement in 2001, this reserve may also be used, from time to time, to stabilize the County's and other employers' actuarially determined contributions, and to fund the market stabilization and contingency reserves.

NOTE 7 – FIDUCIARY NET POSITION RESTRICTED FOR PENSION BENEFITS (Continued)

k. Summary of Reserves

A summary of reserved and designated net position at December 31, 2022, is as follows.

Reserves:	
Active and Deferred Members	$ 490,248,004
Employer Advance	2,283,312,967
County Additional 5% Contributions	189,312,897
MVCD Additional Contributions	470,563
Court Additional Contributions	3,622,783
Retired Members	1,100,175,871
Class Action Settlement - Post-4/1/82	80,451
Contingency	43,633,169
Market Stabilization Designation	(310,649,354)
Unappropriated Earnings (Restricted)	17,545,411
Total Reserves	$ 3,817,752,762

NOTE 8 – NET PENSION LIABILITY AND SIGNIFICANT ASSUMPTIONS

a. Net Pension Liability of Employers

SJCERA is a cost sharing, multiple-employer pension plan with a reporting date of December 31, 2022. Measurements as of the reporting date are based on the fair value of assets as of December 31, 2022, and the total pension liability as of the valuation date, January 1, 2022, projected to December 31, 2022. There were no significant events between the valuation date and the measurement date, so the updated procedures consisted of updated actuarial assumptions, plus the addition of service cost and interest cost offset by benefit payments.

The net pension liability was measured as of December 31, 2022, and determined based upon rolling forward the total pension liability from the actuarial valuation as of January 1, 2022. The net pension liability (i.e., the pension plan's liability determined in accordance with GASB Statement No. 67 less the fiduciary net position) is shown below.

Employers' Net Pension Liability (GASB Statement No. 67)	
As of December 31, 2022 (Dollars in Millions)	
Total Pension Liability	$ 5,517
Plan Fiduciary Net Position	3,818
Employers' Net Pension Liability	$ 1,699
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	69.2%

NOTE 8 – NET PENSION LIABILITY AND SIGNIFICANT ASSUMPTIONS (Continued)

b. Actuarial Methods and Significant Assumptions

SJCERA retains an independent actuarial firm to conduct actuarial valuations of the pension plan, monitor SJCERA's funding status, and establish the contribution rate requirements for the pension plan. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events into the future. Examples include assumptions about future employment, mortality, and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future. Projections of benefits for financial reporting purposes are based on the plan and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in accrued actuarial liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. The total pension liability was determined by an actuarial valuation as of January 1, 2022, using the following actuarial assumptions applied to all prior periods included in the measurement in accordance with the requirements of GASB Statement No. 67.

In the January 1, 2022 actuarial valuation, the Entry Age Normal Funding Method (Cost Method) was used. The actuarial assumptions include a 6.75 percent investment rate of return, annual inflation rate of 2.75 percent per year, and projected salary increases at 3.00 percent per year for the year ended 2022. The actuarial value of the plan's assets was based on a five-year smoothing of actual versus expected returns.

In 2015, the SJCERA Board changed the funding policy to amortize any unexpected changes in the UAL over a period of 15 years as a level percent of pay, with new amortization layers each year. The 2008 Extraordinary Actuarial Loss, which is amortized over a closed 30-year period, has 17 years remaining. The remaining UAL as of December 31, 2013, which is amortized over a closed 19-year period, has 11 years remaining. The new additions to the UAL on and after January 1, 2014, are amortized over 15 years. The single amortization period for these streams of payments is 12 years as of January 1, 2022. The amortization period for each UAL layer will decrease each year.

The total pension liability for the pension plan was determined by an actuarial valuation as of January 1, 2022, and accepted actuarial procedures were applied to project the total pension liability to December 31, 2022. Key methods and assumptions used in the latest actuarial valuations as of January 1, 2022, follow.

NOTE 8 – NET PENSION LIABILITY AND SIGNIFICANT ASSUMPTIONS (Continued)

b. Actuarial Methods and Significant Assumptions (Continued)

Key methods and assumptions used in the latest actuarial valuations are presented below:

Valuation Date	January 1, 2022
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll with Separate Amortization Periods for Extraordinary Actuarial Gains or Losses
Remaining Amortization Period	2008 Extraordinary Actuarial Loss - 17 years Remaining UAL as of January 1, 2014 - 11 years Subsequent Unexpected Changes in UAL after January 1, 2014 - 15 years Single Equivalent Period as of January 1, 2022 - 12 years
Asset Valuation Method	Smoothed Actuarial Value (5 years) 80% - 120% Asset Corridor
Actuarial Assumptions:	
Discount Rate	6.75%, Net of Pension Plan Investment Expenses, Including Inflation
Projected Salary Increases	3.00%, Plus Service-Based Rates
General Inflation Rate	2.75%
Cost-of Living Adjustments	2.60% Per Year Assumed
Healthy Mortality	Mortality rates for General active members are based on the sex distinct 2021 CalPERS Pre-Retirement Non-Industrial Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020. Mortality rates for Safety active members are based on the sum of the rates from the 2021 CalPERS Industrial and Non-Industrial Mortality tables, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020. 10% of Safety member active deaths are assumed to occur in the line of duty. Mortality rates for healthy General annuitants are based on the sex distinct 2021 CalPERS Healthy Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020, and a partial credibility adjustment of 1.05 for males and no adjustment for females. Mortality rates for Safety annuitants are based on the sex distinct 2021 CalPERS Healthy Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020, and a partial credibility adjustment of 1.05 for males and no adjustment for females.
Disabled Mortality	Mortality rates for General disabled annuitants are based on status. Rates for General disabled annuitants with a service-related disability are based on the sex distinct 2021 CalPERS Industrially Disabled Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020. Rates for General disabled annuitants with a non-service-related disability are based on the sex distinct 2021 CalPERS Non-Industrially Disabled Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020. Mortality rates for Safety disabled annuitants are based on the sex distinct 2021 CalPERS Industrially Disabled Mortality Table, with generational mortality improvements projected from 2017 using Projection 80% of Scale MP-2020.

NOTE 8 – NET PENSION LIABILITY AND SIGNIFICANT ASSUMPTIONS (Continued)

c. Funded Status and Funding Progress

The annual actuarial valuation determines the progress made in accumulating sufficient assets to pay benefits when due. As of January 1, 2022, the pension plan's accrued actuarial liabilities were $5.3 billion and the market value of assets net of Special Reserves (market value of assets basis) was $4.2 billion, resulting in UAL of $1.1 billion. The funded status (ratio) of market value of assets basis over accrued actuarial liabilities was 78.0 percent.

As of the January 1, 2022 actuarial valuation, the funded status increased to 78.0 percent from 68.1 percent on a market value of assets basis. It increased to 72.4 percent from 67.0 percent on an actuarial value of assets. There were no assumption changes made as of January 1, 2022.

SJCERA's Funding Policy provides for regular employer and member contributions at actuarially determined rates, expressed as percentages of annual covered payroll. Contributions required and contributions made are explained in Note 6.

d. Asset Allocation Policy and Expected Long-Term Rate of Return by Asset Class

The allocation of investment assets within SJCERA's portfolio is approved by the Board. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the defined benefit pension plans. The long-term expected rate of return on defined benefit pension plan investment assets was determined using a building-block method in which best estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adjusted for inflation. The following table displays the Board-approved asset allocation policy for 2022 and the long-term expected real rates of return.

Asset Class	Target Allocation	Arithmetic Long-Term Expected Real Rate of Return
Aggressive Growth	16.00%	9.65%
Traditional Growth	34.00%	5.45%
Stabilized Growth	30.00%	3.75%
Principal Protection	7.00%	-0.25%
Crisis Risk Offset (CRO)	13.00%	1.95%
Cash	0.00%	-1.05%
Total	100.00%	

e. Discount Rate

The discount rate used to measure the total pension liability was 6.75 percent as of December 31, 2022. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the fiduciary net position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2022.

NOTE 8 – <u>NET PENSION LIABILITY AND SIGNIFICANT ASSUMPTIONS</u> (Continued)

f. <u>Sensitivity of the Net Pension Liability to Changes in the Discount Rate</u>

The table below presents the net pension liability of SJCERA as of December 31, 2022, calculated using the discount rate of 6.75 percent, as well as what SJCERA's net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate.

	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
Total Pension Liability	$ 6,250,685,626	$ 5,517,142,112	$ 4,912,397,383
Pension Plan Fiduciary Net Position	3,817,752,762	3,817,752,762	3,817,752,762
Collective Net Pension Liability	$ 2,432,932,864	$ 1,699,389,350	$ 1,094,644,621
Fiduciary Net Position as a Percentage of the Total Pension Liability	61.1%	69.2%	77.7%

g. <u>Rate of Return</u>

For the year ended December 31, 2022, the annual money-weighted rate of return on investments, net of investment expense, was -7.24 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NOTE 9 – <u>INVESTMENT EXPENSES</u>

Investment expenses include fees paid for investment management services, investment consulting services, fund evaluation services, securities custodian services, and interest expense and other fees incurred in security lending transactions.

NOTE 10 – <u>GENERAL ADMINISTRATIVE EXPENSES</u>

General administrative expenses, including the depreciation and amortization of capital assets, are funded by investment income earnings and are limited, pursuant to Government Code Section 31580.2, to twenty-one-hundredths of one percent (0.21 percent) of SJCERA's accrued actuarial liability. The actual administration expense for the year ended December 31, 2022, was 0.09 percent of the accrued actuarial liability. SJCERA was in compliance with this requirement during 2022.

NOTE 11 – PENDING LITIGATION

SJCERA v. Travelers

SJCERA sought coverage for its defense fees and costs incurred in the *Allum* Class Action ("Allum Litigation") under a fiduciary liability insurance policy issued by SJCERA's prior fiduciary insurance carrier, Travelers Casualty & Surety Company of America ("Travelers"). Travelers declined to provide a defense to SJCERA, and SJCERA filed a lawsuit in the United States District Court, Eastern District of California ("U.S.D.C.") that alleged both that Travelers breached the insurance contract and acted in bad faith by failing to defend it in the Allum Litigation. The Eastern District of California granted Travelers' Motion for Summary Judgment, ruling that the "prior and pending litigation" exclusion in the Travelers' policy precluded coverage. SJCERA timely filed an appeal with the Ninth Circuit Court of Appeal. The Ninth Circuit Court of Appeal reversed the U.S.D.C.'s decision and remanded the case to enter judgement for SJCERA. SJCERA has been reimbursed some, but not all, of its attorney's fees and costs incurred in the *Allum* Class Action from Travelers as a result of this decision, and the case is still pending.

NOTE 12 – COMMITMENTS AND CONTINGENCIES

SJCERA participates in certain investments that require commitments of a specified amount of capital upfront that is then drawn down at a later time as the investment vehicle requires. The total unfunded capital commitment represents the amount of funds that SJCERA could potentially be required to contribute at a future date. SJCERA had unfunded capital commitments totaling $339.9 million at December 31, 2022.

NOTE 13 – SUBSEQUENT EVENTS

SJCERA has evaluated subsequent events through May 25, 2023, the date on which the financial statements were available to be issued, noting no subsequent events.

REQUIRED SUPPLEMENTARY INFORMATION

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
FOR THE YEARS ENDED DECEMBER 31*

	2022	2021	2020	2019	2018
Total Pension Liability					
Service cost	$ 118,695,366	$ 116,888,677	$ 115,229,486	$ 110,608,926	$ 103,300,553
Interest (includes interest on service cost)	356,415,938	360,520,733	350,095,503	337,480,353	325,161,265
Change of benefit terms	-	-	-	-	-
Differences between expected and actual experience	(37,863,999)	(17,017,994)	(58,571,957)	4,950,114	(49,383,683)
Changes of assumptions	(58,741,183)	-	135,011,307	16,016,526	81,854,664
Benefit payments, including refunds of member contributions	(279,363,795)	(265,965,599)	(251,551,677)	(236,350,072)	(221,443,668)
Net Change in Total Pension Liability	99,142,327	194,425,817	290,212,662	232,705,847	239,489,131
Total Pension Liability - Beginning	5,417,999,785	5,223,573,968	4,933,361,306	4,700,655,459	4,461,166,328
Total Pension Liability - Ending (a)	$ 5,517,142,112	$ 5,417,999,785	$ 5,223,573,968	$ 4,933,361,306	$ 4,700,655,459
Fiduciary Net Position					
Contributions - employer	$ 269,080,047	$ 306,662,635	$ 240,700,988	$ 225,528,756	$ 208,757,572
Contributions - member	47,405,308	43,455,640	40,568,995	38,098,688	35,377,951
Transfer between plans	224,628	270,570	172,041	299,014	324,269
Net investment income (loss)	(412,759,726)	572,291,948	276,996,530	380,674,528	(56,397,598)
Benefit payments, including refunds of member contributions	(279,363,795)	(265,965,599)	(251,551,677)	(236,350,072)	(221,443,668)
Administrative expenses	(5,621,704)	(4,639,439)	(4,536,455)	(4,931,163)	(4,865,081)
Net Change in Fiduciary Net Position	(381,035,242)	652,075,755	302,350,422	403,319,751	(38,246,555)
Fiduciary Net Position - Beginning	4,198,788,004	3,546,712,249	3,244,361,827	2,841,042,076	2,879,288,631
Fiduciary Net Position - Ending (b)	$ 3,817,752,762	$ 4,198,788,004	$ 3,546,712,249	$ 3,244,361,827	$ 2,841,042,076
Net Pension Liability (a)-(b)	$ 1,699,389,350	$ 1,219,211,781	$ 1,676,861,719	$ 1,688,999,479	$ 1,859,613,383
Fiduciary Net Position as a Percentage of the Total Pension Liability	69.20%	77.50%	67.90%	65.76%	60.44%
Covered Payroll**	$ 484,055,752	$ 470,179,036	$ 460,456,931	$ 453,710,584	$ 436,763,447
Net Pension Liability as a Percentage of Covered Payroll	351.07%	259.31%	364.17%	372.26%	425.77%

* Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

** Covered Payroll reported by plan sponsors is the payroll on which contributions are based in accordance with GASB Statement No. 82.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS (Continued)
FOR THE YEARS ENDED DECEMBER 31*

	2017	2016	2015	2014
Total Pension Liability				
Service cost	$ 98,438,144	$ 92,857,369	$ 94,377,630	$ 90,429,416
Interest (includes interest on service cost)	308,566,601	295,197,992	280,581,484	266,668,435
Change of benefit terms	-	-	-	-
Differences between expected and actual experience	37,219,673	(10,171,368)	(25,752,670)	-
Changes of assumptions	-	87,601,669	-	-
Benefit payments, including refunds of member contributions	(205,406,970)	(194,719,177)	(181,468,913)	(165,870,971)
Net Change in Total Pension Liability	238,817,448	270,766,485	167,737,531	191,226,880
Total Pension Liability - Beginning	4,222,348,880	3,951,582,395	3,783,844,864	3,592,617,984
Total Pension Liability - Ending (a)	$ 4,461,166,328	$ 4,222,348,880	$ 3,951,582,395	$ 3,783,844,864
Fiduciary Net Position				
Contributions - employer	$ 200,051,742	$ 159,122,523	$ 150,371,556	$ 136,686,133
Contributions - member	33,634,906	30,117,408	29,026,901	27,367,908
Transfer between plans	364,714	293,779	378,969	19,968,779
Net investment income (loss)	299,960,693	151,114,788	(47,339,750)	110,728,303
Benefit payments, including refunds of member contributions	(205,406,970)	(194,719,177)	(181,468,913)	(165,870,971)
Administrative expenses	(4,118,578)	(4,369,744)	(4,075,745)	(4,042,986)
Net Change in Fiduciary Net Position	324,486,507	141,559,577	(53,106,982)	124,837,166
Fiduciary Net Position - Beginning	2,554,802,124	2,413,242,547	2,466,349,529	2,341,512,363
Fiduciary Net Position - Ending (b)	$ 2,879,288,631	$ 2,554,802,124	$ 2,413,242,547	$ 2,466,349,529
Net Pension Liability (a)-(b)	$ 1,581,877,697	$ 1,667,546,756	$ 1,538,339,848	$ 1,317,495,335
Fiduciary Net Position as a Percentage of the Total Pension Liability	64.54%	60.51%	61.07%	65.18%
Covered Payroll**	$ 425,886,951	$ 392,227,314	$ 396,136,470	$ 376,030,944
Net Pension Liability as a Percentage of Covered Payroll	371.43%	425.15%	388.34%	350.37%

* Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.
** Covered Payroll reported by plan sponsors is the payroll on which contributions are based in accordance with GASB Statement No. 82.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYERS AND OTHER CONTRIBUTING SOURCES
DEFINED BENEFIT PENSION PLAN
FOR THE TEN YEARS ENDED DECEMBER 31

2022-2018

	2022	2021	2020	2019	2018
Actuarially Determined Contributions	$ 245,967,122	$ 233,148,239	$ 218,611,737	$ 203,058,574	$ 188,322,653
Contributions in Relation to the Actuarially Determined Contributions	269,080,047	306,662,635	240,700,988	225,528,756	208,757,572
Contribution Deficiency / (Excess)	$ (23,112,925)	$ (73,514,396)	$ (22,089,251)	$ (22,470,182)	$ (20,434,919)
Covered Payroll*	$ 484,055,752	$ 470,179,036	$ 460,456,931	$ 453,710,584	$ 436,763,447
Contributions as a Percentage of Covered Payroll	55.59%	65.22%	52.27%	49.71%	47.80%

2017-2013

	2017	2016	2015	2014	2013
Actuarially Determined Contributions	$ 179,824,882	$ 159,122,523	$ 150,371,556	$ 136,686,133	$ 119,494,319
Contributions in Relation to the Actuarially Determined Contributions	200,051,742	159,122,523	150,371,556	136,686,133	119,494,319
Contribution Deficiency / (Excess)	$ (20,226,860)	$ -	$ -	$ -	$ -
Covered Payroll*	$ 425,886,951	$ 392,227,914	$ 396,136,470	$ 376,030,944	$ 362,650,568
Contributions as a Percentage of Covered Payroll	46.97%	40.57%	37.96%	36.35%	32.95%

* Covered Payroll reported by plan sponsors for 2014 through 2022. Previous years' amounts are based on projected payroll from the actuarial valuation reports.

The contributions in excess of Actuarially Determined Contributions are due to the County's, MVCD's, and the Court's additional contributions.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF INVESTMENT RETURNS
FOR THE YEARS ENDED DECEMBER 31*

	2022	2021	2020	2019	2018
Annual Money-Weighted Rate of Return, Net of Investment Expense	-7.24%	13.68%	2.23%	13.77%	-2.11%

	2017	2016	2015	2014
Annual Money-Weighted Rate of Return, Net of Investment Expense	11.85%	6.20%	-2.06%	4.29%

* Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. It is calculated by finding the rate of return that will set the present values of all cash flows and terminal values equal to the value of the initial investment. The money-weighted rate of return is equivalent to the internal rate of return (IRR).

Time-weighted rate of return assumes that all cash distributions are reinvested in the portfolio and the exact same periods are used for comparisons. When calculating the time-weighted rate of return, the effect of varying cash inflows is eliminated by assuming a single investment at the beginning of a period and measuring the growth or loss of fair value to the end of that period.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
NOTE TO REQUIRED SUPPLEMENTARY INFORMATION
FOR THE YEAR ENDED DECEMBER 31, 2022

NOTE 1 – KEY METHODS AND ASSUMPTIONS USED TO DETERMINE CONTRIBUTION RATES

The following actuarial methods and assumptions were used to determine contribution rates for the year ended December 31, 2022, in the Schedule of Contributions from the Employers and Other Contributing Sources:

Valuation Date	January 1, 2021
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll with Separate Amortization Periods for Extraordinary Actuarial Gains or Losses
Remaining Amortization Period	2008 Extraordinary Actuarial Loss - 18 years Remaining UAL as of January 1, 2014 - 12 years Subsequent Unexpected Changes in UAL after January 1, 2014 - 15 years Single Equivalent Period as of January 1, 2021 - 14 year
Asset Valuation Method	Smoothed Actuarial Value (5 years) 80%-120% Asset Corridor
Actuarial Assumptions:	
Discount Rate	7.00%, Net of Pension Plan Investment Expenses, Including Inflation
Projected Salary Increases	3.00%, Plus Service-Based Rates
General Inflation Rate	2.75%
Cost-of-Living Adjustments (COLA)	2.60% Per Year Assumed
Healthy Mortality	Mortality rates for General active members are based on the sex distinct Public General 2010 Above-Median Income Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 1.05 for females and no adjustment for males. Mortality rates for Safety active members are based on the sex distinct Public Safety 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 0.98 for males and 1.06 for females. 10% of Safety member active deaths are assumed to occur in the line of duty. Mortality rates for healthy General annuitants and General beneficiaries are based on the sex distinct Public General 2010 Above-Median Income Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 1.04 for females and no adjustment for males. Mortality rates for Safety annuitants and Safety beneficiaries are based on the sex distinct Public Safety 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 1.02 for males and 1.05 for females.
Disabled Mortality	Mortality rates for General disabled annuitants are based on the sex distinct Public General Disabled Annuitant 2010 Mortality Table, with a generational mortality improvements projected from 2010 using Projection Scale MP-2018, with a partial credibility adjustment of 1.04 for males and 1.07 for females. Mortality rates for Safety disabled annuitants are based on the sex distinct Public Safety Disabled Annuitant 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, with a partial credibility adjustment of 1.04 for males and 0.98 for females.

A complete description of the methods and assumptions used to determine contribution rates for the year ending December 31, 2022, can be found in the January 1, 2021 actuarial valuation report.

OTHER SUPPLEMENTARY INFORMATION

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF ADMINISTRATIVE EXPENSES
FOR THE YEAR ENDED DECEMBER 31

General Administrative Expenses	2022
(Expenses Subject to the Statutory Limit)	
Personnel Services	
Staff Salaries	$ 1,699,542
Cafeteria Benefits	147,104
Insurance	327,585
Social Security	124,609
Retirement	783,713
Total Personnel Services	3,082,553
Professional Services	
Professional and Specialized Services	1,019,781
Allocated Department Costs	(5,022)
Total Professional Services	1,014,759
Communications	
Postage	19,122
Telephone	15,480
Travel	50,087
Total Communications	84,689
Rentals/Equipment	
Office Space and Equipment	229,177
Total Rentals/Equipment	229,177
Miscellaneous	
Office Supplies/Expense	43,121
Subscriptions and Periodicals	8,338
Memberships	8,052
Maintenance	25,544
Insurance	130,902
Total Miscellaneous	215,957
Total General Administrative Expenses	4,627,135
Other Expenses	
(Expenses Not Subject to the Statutory Limit)	
Information Technology Expenses	335,386
Actuary Fees	167,671
Fund Legal Fees	491,512
Total Other Expenses	994,569
Total General Administrative and Other Expenses	$ 5,621,704

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF INVESTMENT EXPENSES
FOR THE YEAR ENDED DECEMBER 31, 2022

	2022
Investment Management Fees	
Principal Protection	$ 501,341
Traditional Growth	1,134,789
Credit	4,657,047
Risk Parity	1,520,367
Aggressive Growth	9,116,460
Credit Risk Offset	6,723,746
Core Real Asset - Short-Term Investments/Cash/Cash Equivalents	145,994
Total Investment Management Fees	23,799,744
Other Investment Fees and Expenses	
Custodian Fees	89,840
Investment Consultant Fees	436,462
Miscellaneous Investment Expense	2,915,002
Total Other Investment Fees and Expenses	3,441,304
Total Investment Expense	27,241,048
Securities Lending Fees	
Securities Lending Fees and Rebates	2,384,475
Total Investment Fees and Expenses	$ 29,625,523

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF PAYMENTS TO CONSULTANTS
FOR THE YEAR ENDED DECEMBER 31

		2022
Nature of Service		
Actuarial-Retainer and Valuation	$	167,671
Audit		60,670
Fund Legal Fees		491,512
Business Technology Services		335,386
Total Payments to Consultants	$	1,055,239

OTHER INFORMATION

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF COST SHARING EMPLOYER ALLOCATIONS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022

Employer	Proportionate Share [1]	Net Pension Liability [2]
County of San Joaquin	92.7057%	$ 1,575,431,289
SJC Superior Court	3.9165%	66,556,399
Lathrop-Manteca Rural Fire Protection District	1.5248%	25,912,372
Waterloo-Morada Rural Fire Protection District	0.6367%	10,819,220
Tracy Public Cemetery District	0.0634%	1,077,001
SJC Mosquito and Vector Control District	0.5329%	9,055,877
SJC Historical Society and Museum	0.0576%	978,575
Mountain House Community Services District	0.5398%	9,172,487
San Joaquin County Law Library	0.0162%	274,455
Local Agency Formation Commission	0.0066%	111,675
Total	100.0002%	$ 1,699,389,350

(1) As SJCERA is a cost sharing multiple-employer pension plan, each employer participating in SJCERA must reflect a portion of the collective net pension liability and pension expense in their financial statements. The calculation for the proportionate share for each employer allocates net pension liability and pension expense based on each employer's share of the unfunded liability amortization payment. The proportionate shares are then adjusted to account for the additional contributions made by the County of San Joaquin, the SJC Mosquito and Vector Control District, and SJC Superior Court for the year ended December 31, 2022.

(2) Proportionate share of net pension liability is based on the actuarial valuation.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF EMPLOYER PENSION AMOUNTS
ALLOCATED BY COST SHARING PLAN
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022

		Deferred Outflows of Resources					Deferred Inflows of Resources				Pension Expense		
Employer	Net Pension Liability	Differences Between Expected and Actual Experience	Differences Between Projected and Actual Investment Earnings	Changes of Assumptions	Changes in Proportion and Differences Between Contributions and Proportionate Share of Pension Expense	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Changes of Assumptions	Changes in Proportion and Differences Between Contributions and Proportionate Share of Pension Expense	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Proportionate Share of Pension Expense	Total Pension Expense
County of San Joaquin	$ 1,575,431,289	$ 917,807	$ 287,974,362	$ 53,034,936	$ 5,813,287	$ 347,740,392	$ 59,267,495	$ 43,565,153	$ 5,569,123	$ 108,401,771	$ 218,460,602	$ (1,410,712)	$ 217,049,890
SJC Superior Court	66,556,399	38,774	12,165,898	2,240,538	2,626,497	17,071,707	2,503,842	1,840,474	2,642,016	6,986,332	9,229,188	326,794	9,555,982
Lathrop-Manteca Rural Fire Protection District	25,912,372	15,096	4,736,543	872,308	1,621,653	7,245,600	974,820	716,551	2,679,835	4,371,206	3,593,195	263,695	3,856,890
Waterloo-Morada Rural Fire Protection District	10,819,220	6,303	1,977,654	364,216	1,621,498	3,969,671	407,017	299,182	1,227,876	1,934,075	1,500,271	275,940	1,776,211
Tracy Public Cemetery District	1,077,001	627	196,866	36,256	128,623	362,372	40,517	29,782	211,884	282,183	149,345	2,705	152,050
SJC Mosquito and Vector Control District	9,055,877	5,276	1,655,331	304,855	490,712	2,456,174	340,681	250,421	530,167	1,121,269	1,255,753	31,235	1,286,988
SJC Historical Society and Museum	978,575	570	178,875	32,943	235,581	447,969	36,814	27,060	62,308	126,182	135,696	150,661	286,357
Mountain House Community Services District	9,172,487	5,344	1,676,646	308,780	988,818	2,979,588	345,068	253,645	667,615	1,266,328	1,271,923	300,232	1,572,155
San Joaquin County Law Library	274,455	160	50,168	9,239	40,818	100,385	10,325	7,589	61,866	79,780	38,058	37,395	75,453
Local Agency Formation Commission	111,675	65	20,413	3,759	86,586	110,823	4,201	3,088	1,382	8,671	15,486	22,055	37,541
Totals	$ 1,699,389,350	$ 990,022	$ 310,632,756	$ 57,207,830	$ 13,654,073	$ 382,484,681	$ 63,930,780	$ 46,992,945	$ 13,654,072	$ 124,577,797	$ 235,649,517	$ -	$ 235,649,517

NOTE 1 – BASIS OF PRESENTATION AND BASIS OF ACCOUNTING

Because San Joaquin County Employees' Retirement Association (SJCERA) is a cost sharing multiple-employer pension plan, employers participating in SJCERA are required to report a portion of the collective Net Pension Liability, Pension Expense, and Deferred Outflows and Inflows of Resources in their financial statements for fiscal periods beginning on or after June 15, 2014, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27.* GASB Statement No. 68 requires that the proportionate share for each employer be determined based on the employer's projected long-term contribution effort to the pension.

SJCERA's actuary prepared the following documents, (1) the Schedule of Cost Sharing Employer Allocations and (2) the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan, in accordance with accounting principles generally accepted in the United States of America as applicable to governmental organizations based on information provided by SJCERA. These documents provide the required information for financial reporting related to SJCERA that employers may use in their financial statements. The measurement date for SJCERA is December 31, 2022. Measurements are based on the fair value of assets as of December 31, 2022, and the Total Pension Liability of $5,517,142,112 as of December 31, 2022, was measured as of a valuation date of January 1, 2022, and projected to December 31, 2022.

NOTE 2 – AMORTIZATION OF DEFERRED OUTFLOWS AND DEFERRED INFLOWS OF RESOURCES

The difference between projected and actual investment earnings on pension plan investments is amortized over five years on a straight-line basis. One-fifth is recognized in Total Pension Expense for each of the five years. The changes in assumptions and differences between expected and actual experience are recognized over the average of the expected remaining service lives of all active and inactive members of SJCERA, which is also five years. The net effect of the change in the employer's proportionate share of the collective net pension liability and collective deferred outflows of resources and deferred inflows of resources is recognized over the average expected remaining service lives of all active and inactive members of SJCERA.

MEKETA | 45 YEARS
CELEBRATING A MILESTONE

San Joaquin County Employees' Retirement Association ("SJCERA")

June 2, 2023

Real Estate Program Annual Review

Table of Contents

Real Estate Market Overview

Real Estate Market Summary

Fundamentals

→ Property fundamentals remain on solid footing for most property types, with many property types at all time high occupancy levels and valuations. For the most part, current market volatility is stemming from the rapid rise in interest rates, not poor fundamentals.

→ Increasing input costs (labor and materials), a slowing economy, and higher financing costs may foreshadow a reduction in construction starts and, therefore, new supply. Supply chain disruptions are also affecting construction and delivery of new inventory.

→ Certain property types have experienced record levels of rent growth over the past couple of years (housing, storage, and industrial).

Debt Markets

→ In connection with the Fed rate hikes, real estate investors are experiencing increased debt costs and reduced availability. This has resulted in fewer transactions as well as a drop in new construction starts.

→ Asset owners will likely need to refinance at lower level of leverage than they originally borrowed at, resulting in a funding gap, and meaning additional equity will be needed to pay down a loan so that it can be serviced.

→ Elevated cost of debt means many investors are reluctant to purchase assets at cap rates that remain below debt costs.

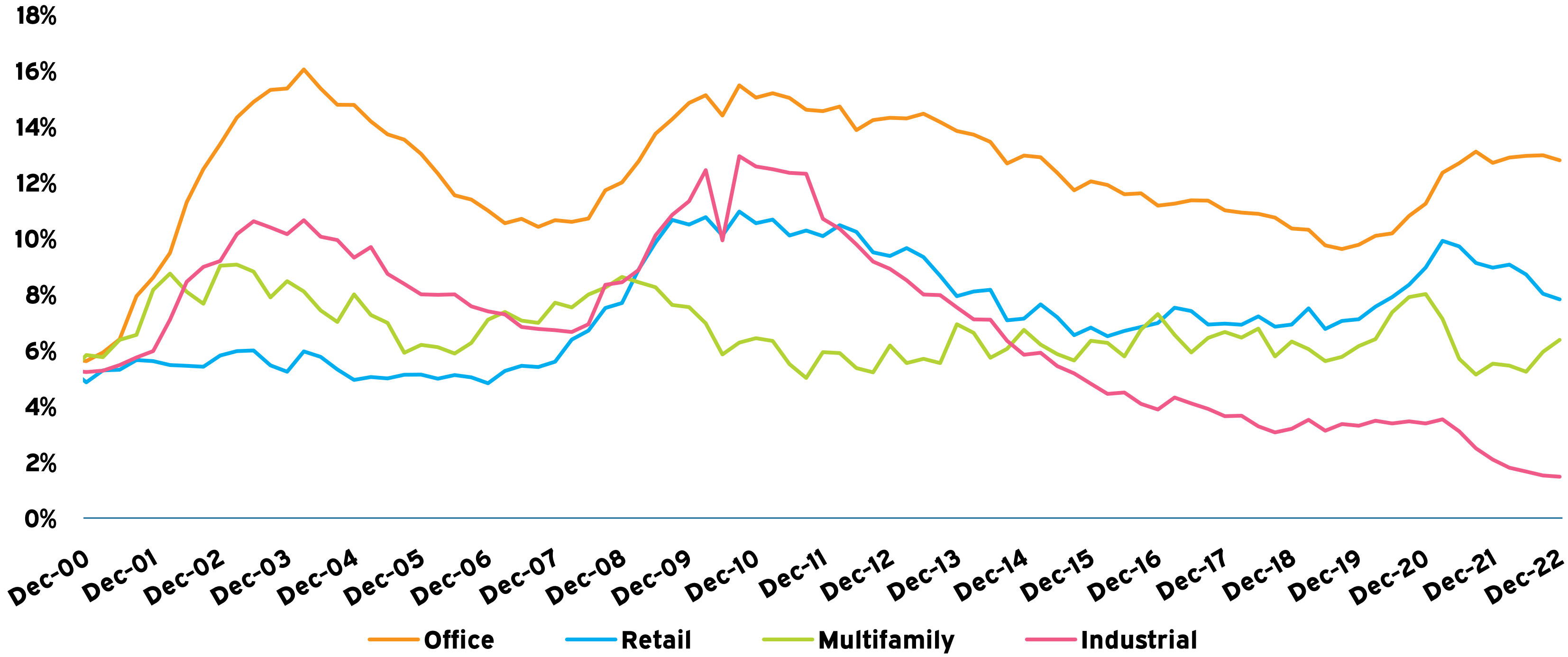
Capital Markets

→ Significant capital has been raised and is yet to be deployed, this may provide a pricing floor and support pricing levels as investors are eager to put their capital to work.

→ While "hard assets" such as real estate offer protection from inflation over the mid to longer term, increased inflation usually leads to higher interest rates, prices/rents, less demand, and a slowing economy. These elements translate to slower to flat growth of commercial real estate asset prices. Sectors with shorter lease terms, lower operating cost structures, and tenants tolerant of rising rents are attracting increased attention from investors.

→ Overall, divergence in performance within property segments is expected as tenant demand and investor capital will compete for the highest quality assets, however there may be attractive opportunities to reposition older, capital starved properties.

Real Estate Fundamentals
Vacancy by Property Type



-27%
Change in occupancy since 1Q2020

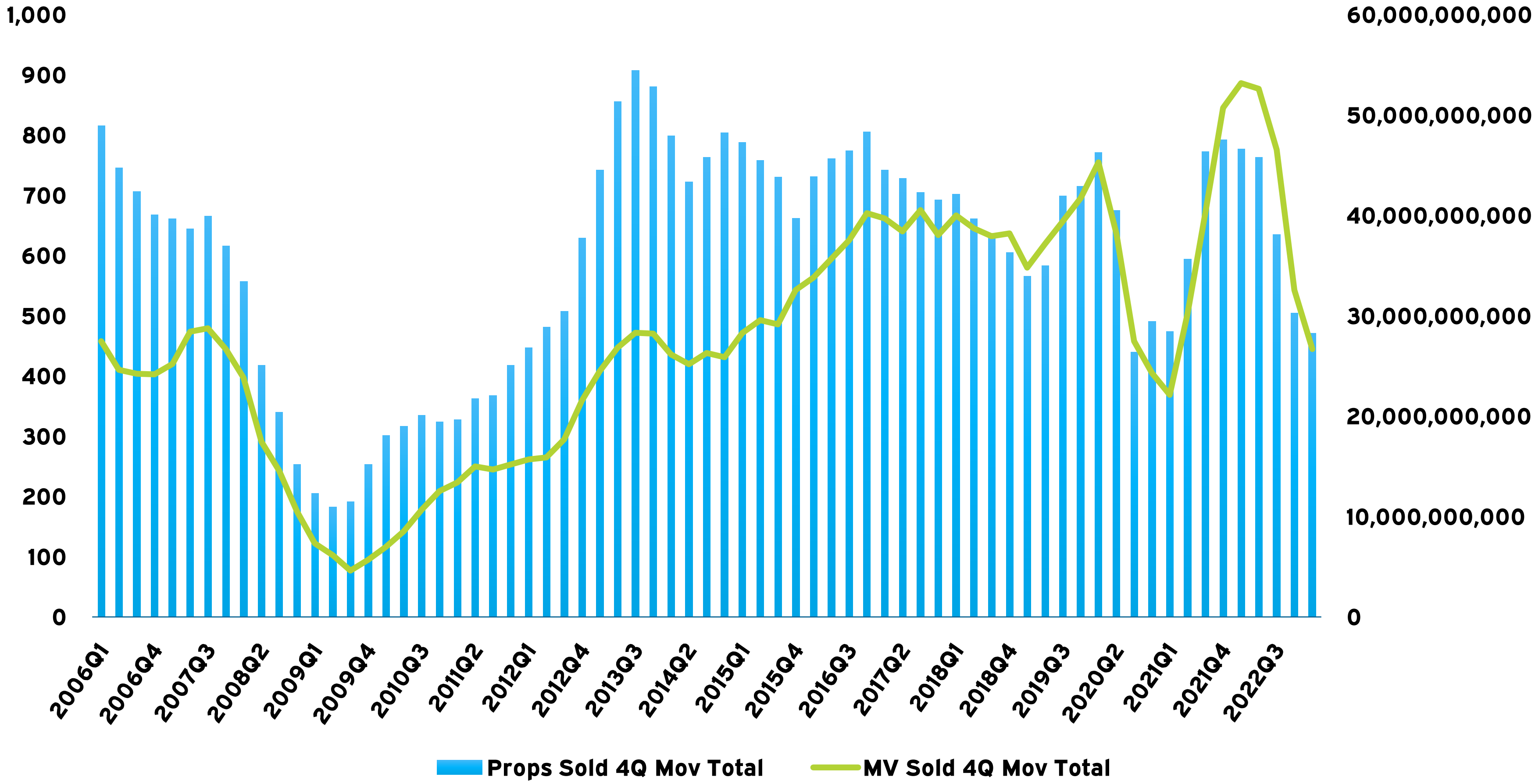
-3%
Change in occupancy since 1Q2020

0%
Change in occupancy since 1Q2020

57%
Change in occupancy since 1Q2020

Source: NCREIF

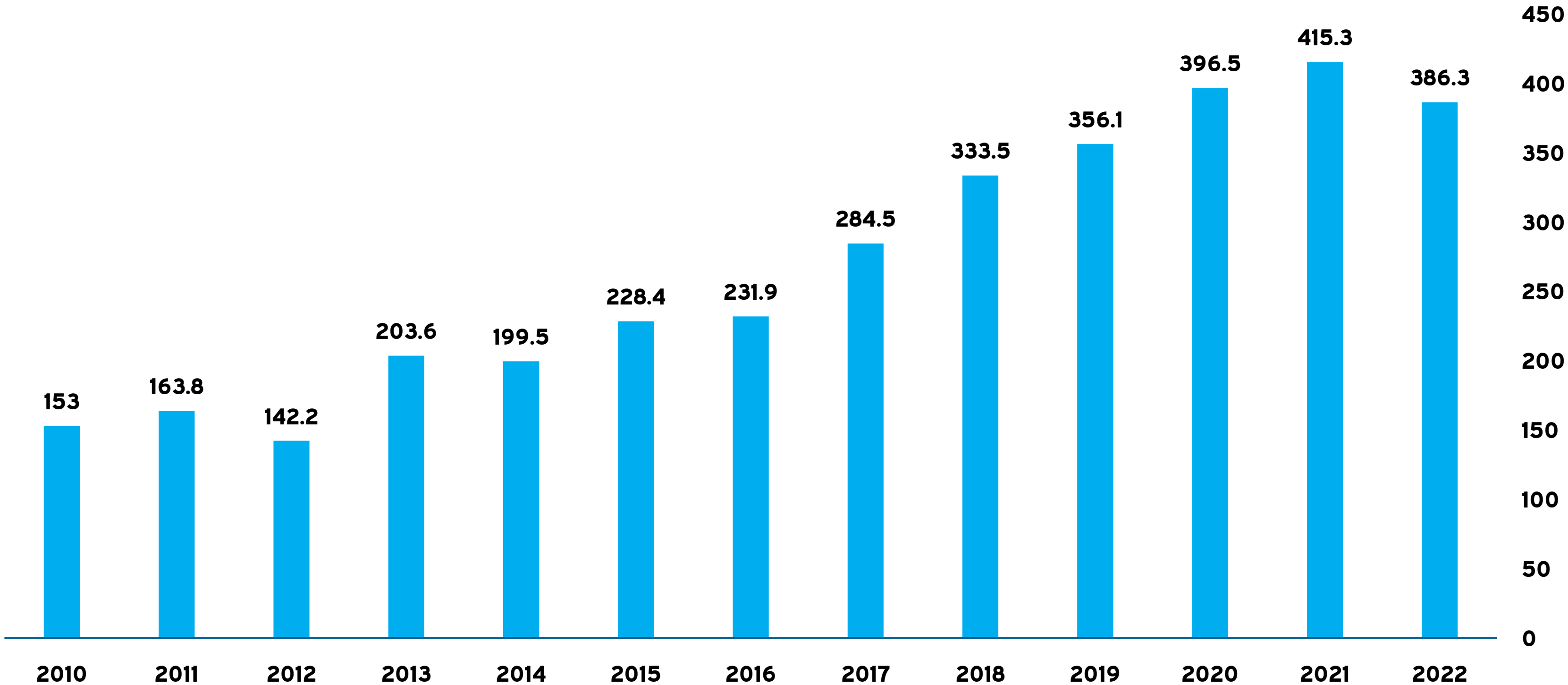
Transaction Volume: Property Sales (Annualized)



As of the fourth quarter of 2022, global transaction volume has dropped by 60% and with the combination of bid-ask spreads, pricing pressure, higher costs of capital, and economic uncertainty, transaction volume is likely to remain muted in the near term.

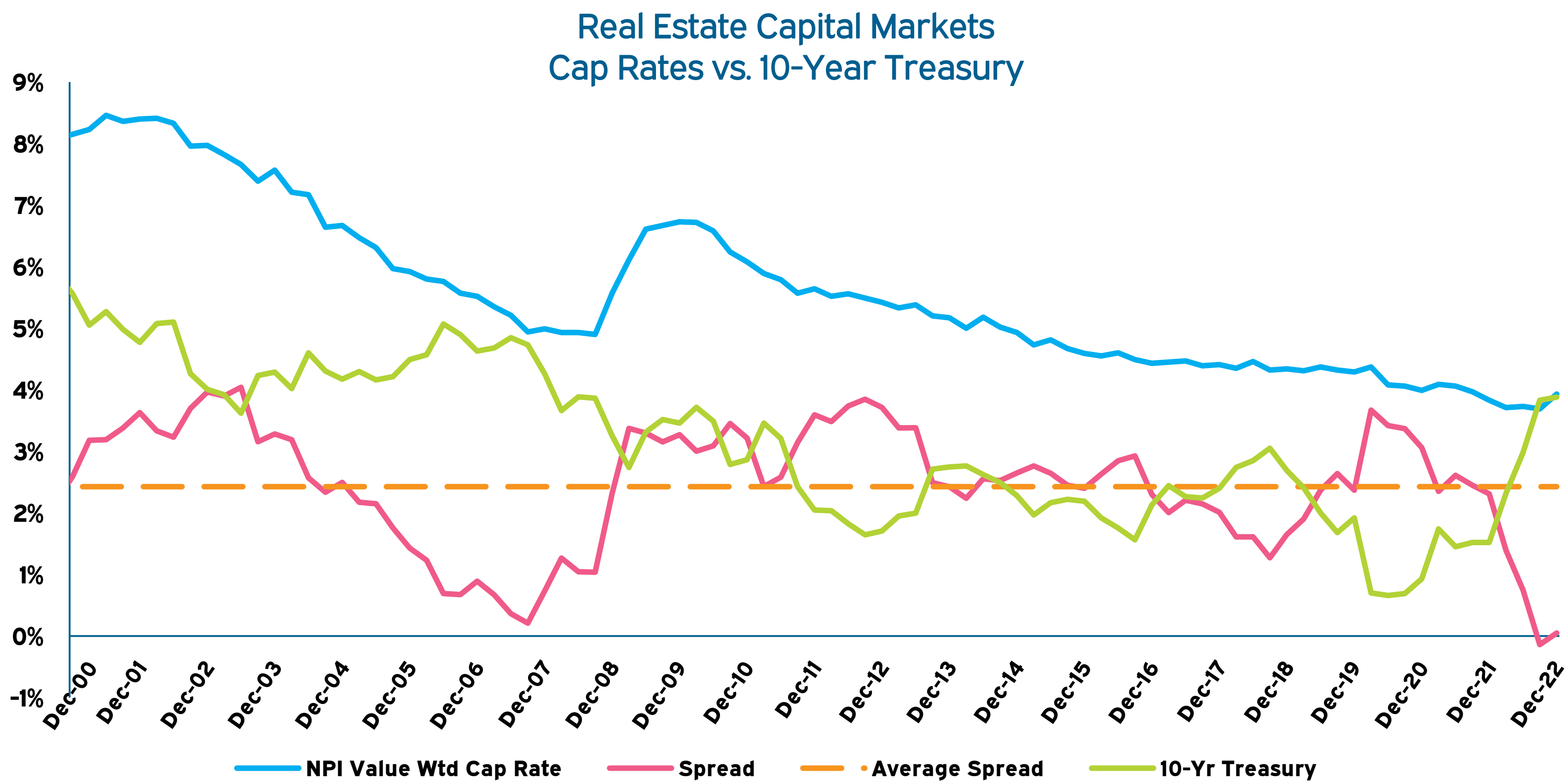
Source: NCREIF and CBRE

Dry Powder ($ Billion)



Dry powder ended 2022 at a near record high of $386 billion. This may provide a pricing floor and support pricing levels as investors are eager to put their capital to work. However, the majority of capital has been raised for strategies pursuing residential and industrial investments.

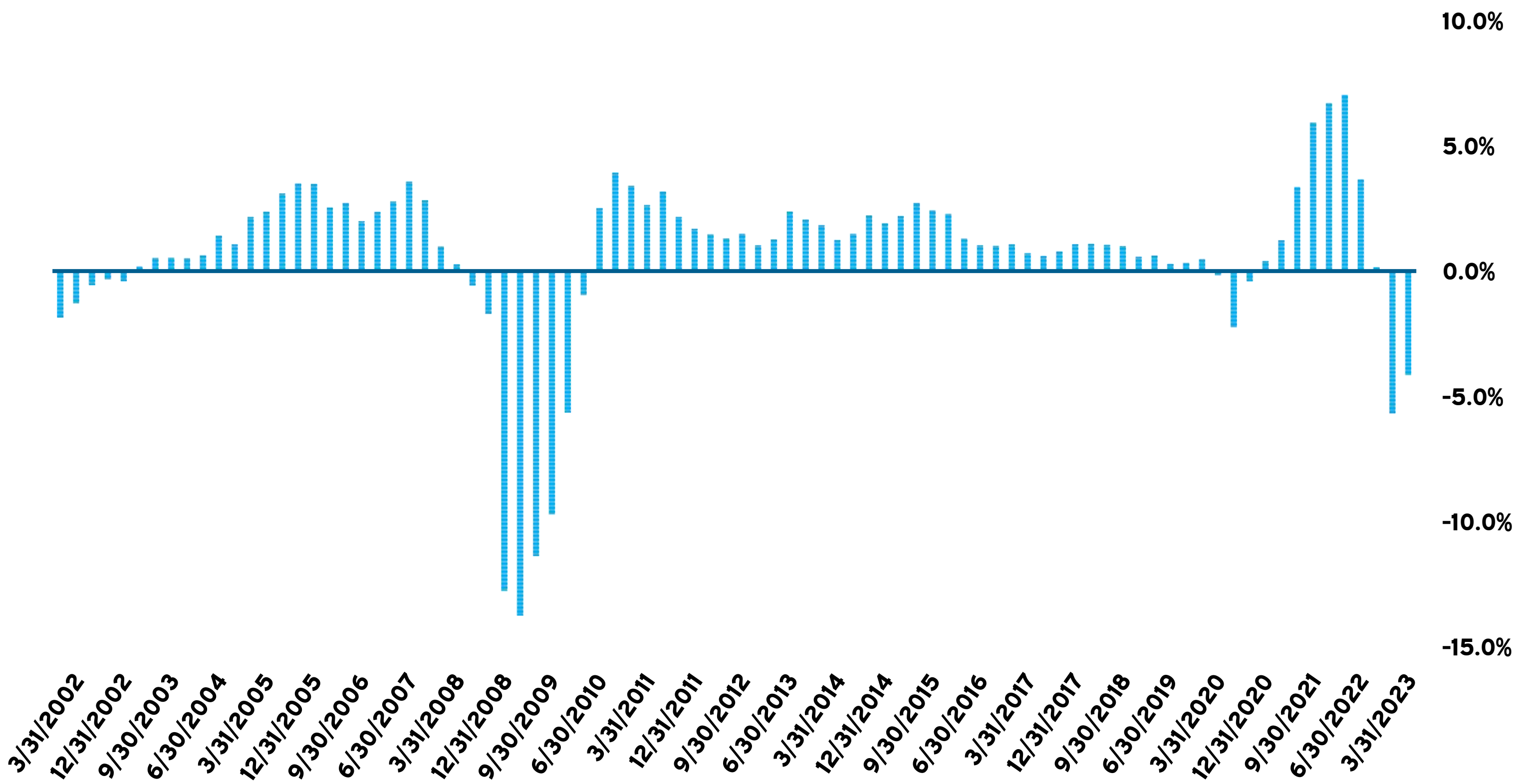
Source: Preqin



3.9%	5 bps	243 bps	3.9%
NPI Cap Rate 4Q22	Spread 4Q22	Average Spread	10-Year Treasury

Source: NCREIF and US Department of the Treasury

ODCE Quarterly Gross Appreciation



The vast majority of ODCE returns have historically come from the income return component. However, recent negative total returns have been driven by asset values being marked down, beginning in 4Q22 where they were marked down by 5.7% and then a further 4.2% in 1Q23. For reference, the largest quarterly value decline during the GFC was 13.8%.

Source: NCREIF

Office Market

SJCERA Real Estate Portfolio

→ There are no active commitments to dedicated office Funds.

→ Meketa has not recommended an office focused Fund, nor do we anticipate doing so.

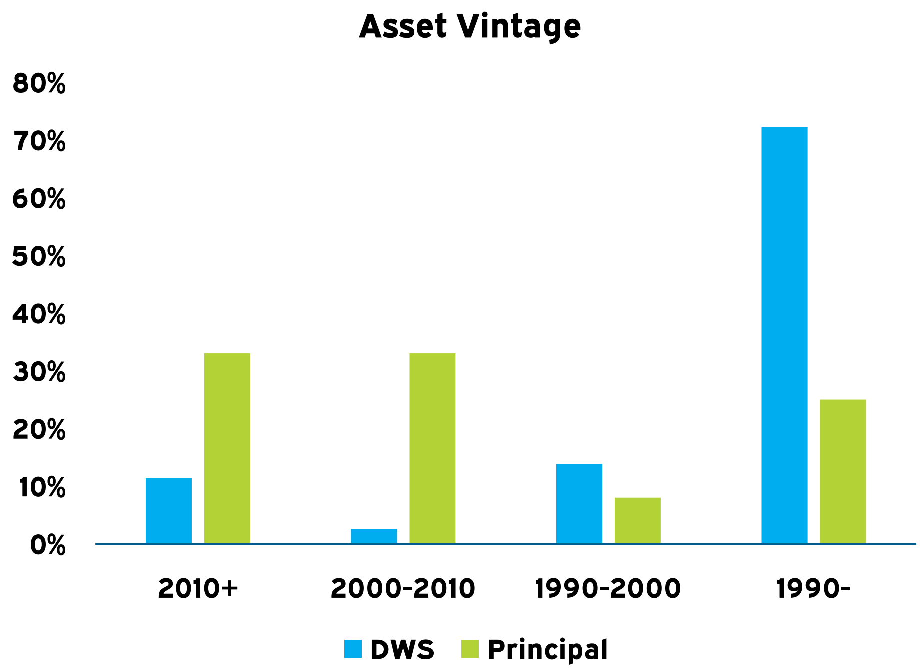
→ The real estate portfolio has a strong underweight to office relative to the ODCE index. The portfolio's primary office exposure is through two core Funds, Principal USPA and DWS RAR II, where occupancy stands 80% in each Fund.

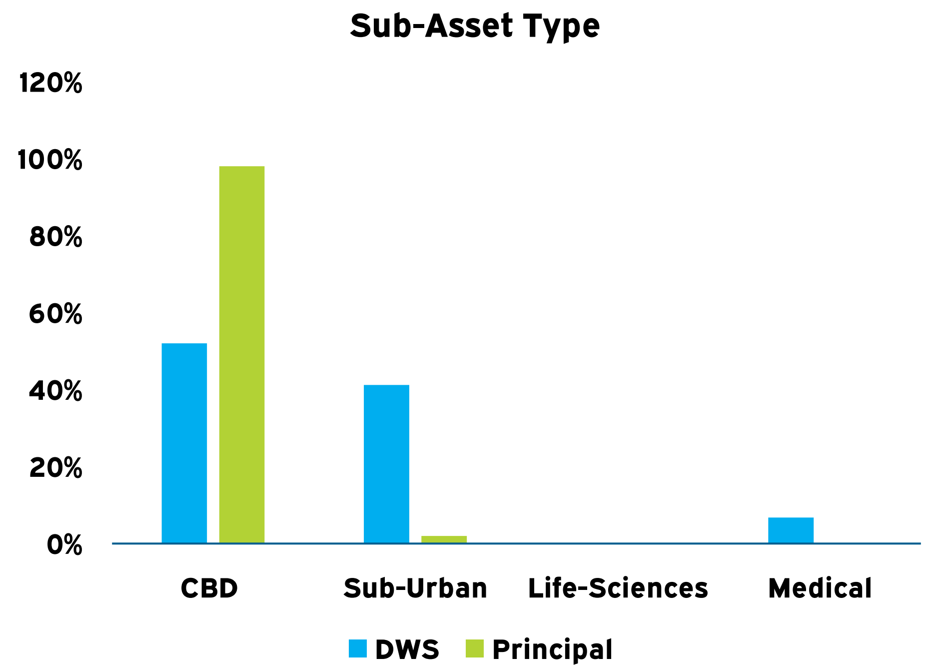
→ The office portfolio has limited debt and lease maturities in 2023. Given the nature of the existing portfolio, debt refinancing seems manageable, but expect higher interest costs resulting in lower cash flow.

→ Within the office segment, Life Science and Medical Office exposures are likely to increase with future commitments.

SJCERA Core Office Portfolio Summary

Characteristic	DWS RAR II	Principal USPA
Office Exposure	20%	20%
Office Occupancy	80%	80%
Office Lease Expiration 2023	16%	5%
Office Debt Maturity 2023 $M	$0	$125

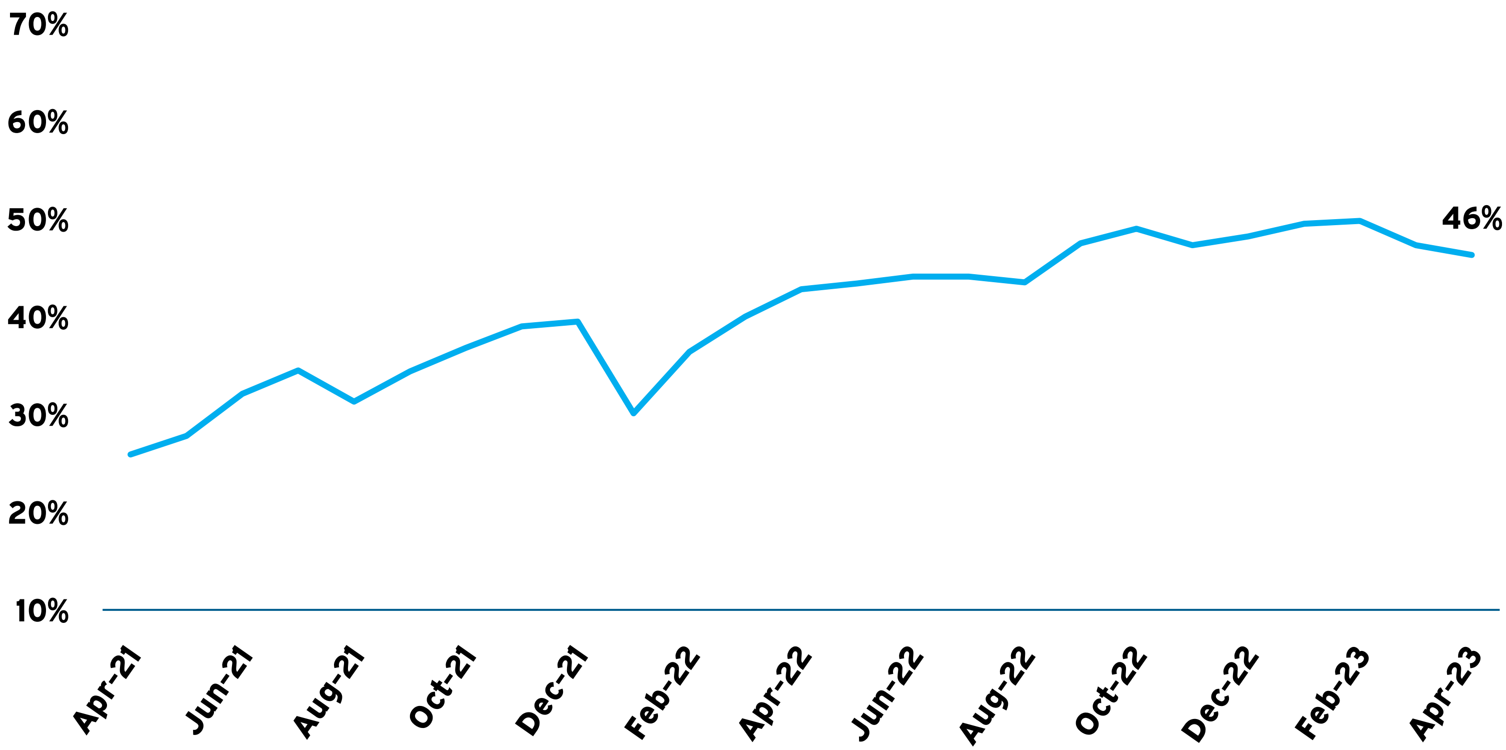




Key Characteristics and Assumptions

Characteristic	Trend	Impact
Effective Rents	Lower	Down 14% Since 1Q 2020
Vacancy	Increasing	Up from 12.9% in 1Q 2020 to 18.2% 4Q2022
Tenant Improvement Costs	Increasing	Increases Cost Basis
Leasing Commissions	Higher	Increases Cost Basis
Lease Term	Shorter	Less Predictable Cash Flow
Renewal Probability	Lower	Assumes Increasing Leasing Costs
Downtime Between Leases	Longer	Longer Periods of Lower Revenue
Financing Costs	Higher	Lower Net Cash Flow

US Top 10 Cities Office Occupancy



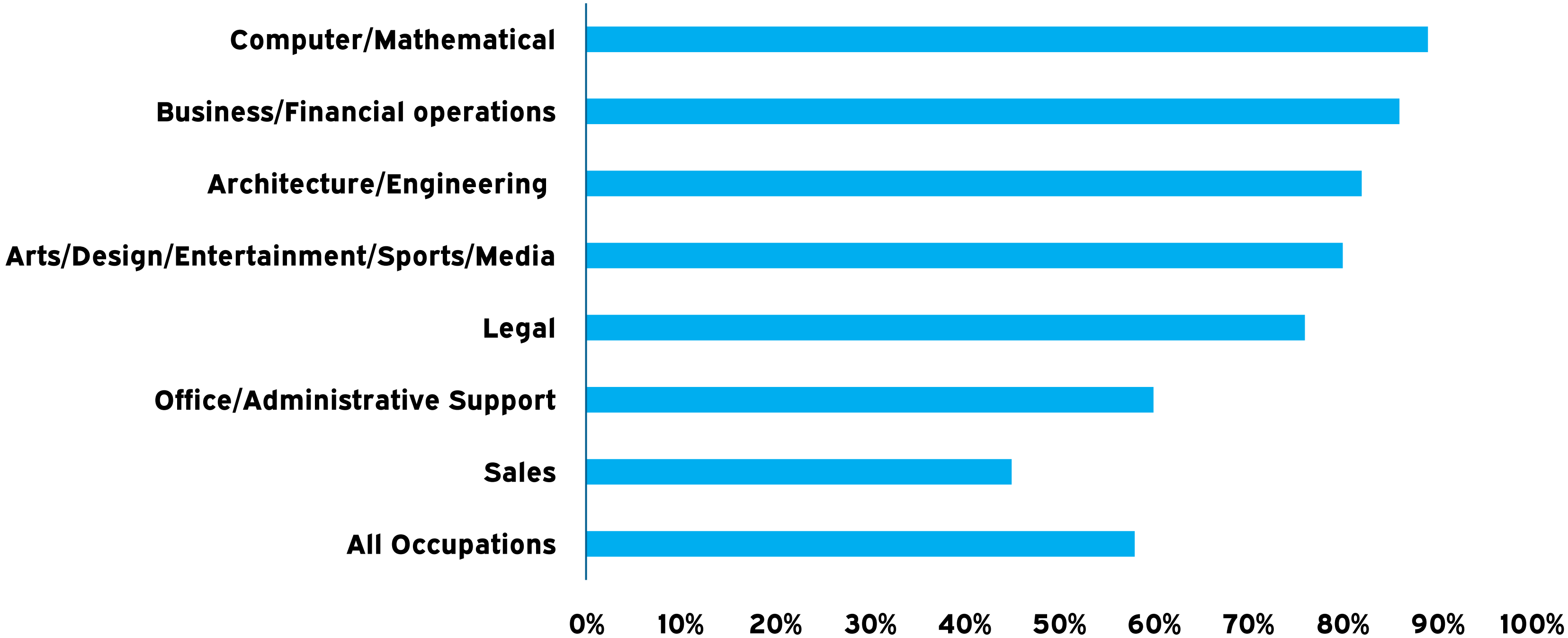
15%
Lowest office utilization level

58%
Mid-week utilization level

33%
Friday utilization level

Source: Kastle

Remote Work



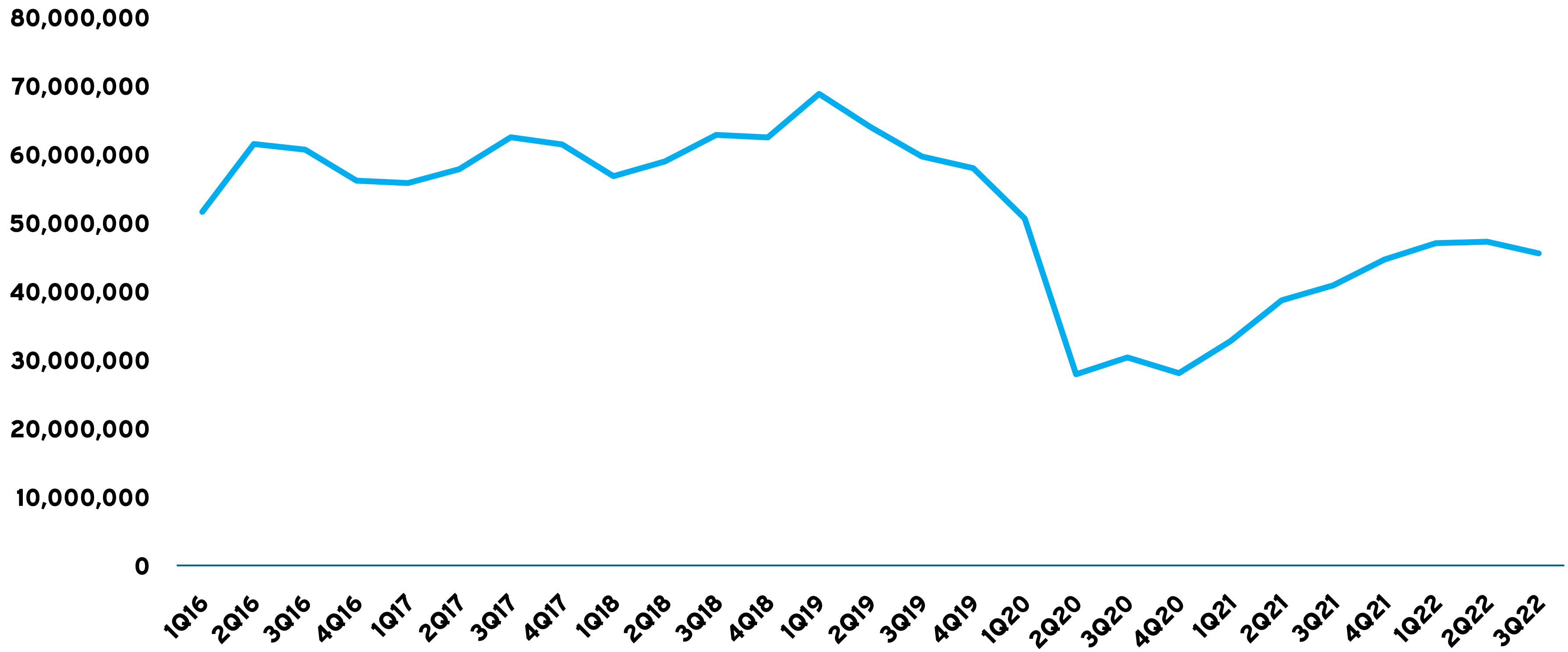
58%
Of U.S. workers can work from home at least one day

35%
Have the option to work from home five days a week

3.0
Average number of days worked remote

Source: McKinsey American Opportunity Survey

Leasing Activity - Square Feet



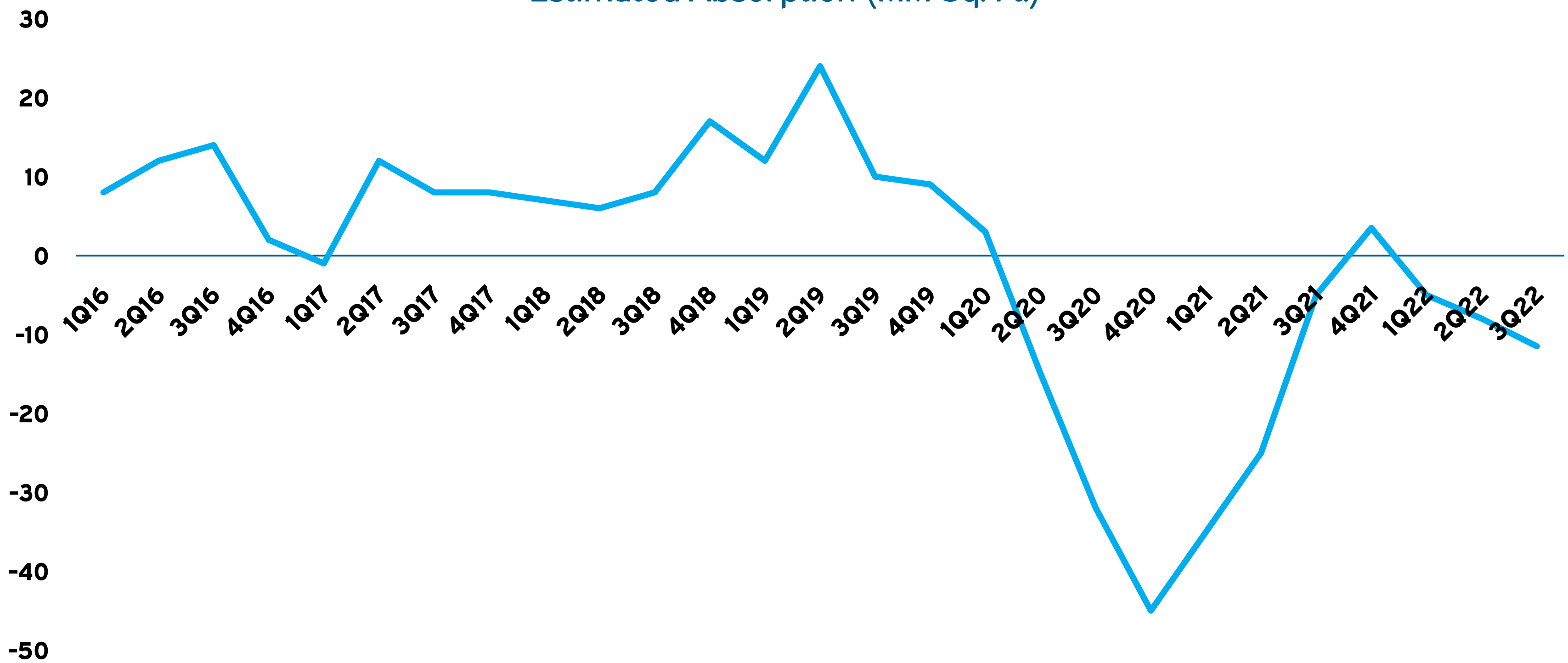
-34%
Decrease in leasing activity since 1Q20

41%
Leases expire between 2023-2025

-14%
Rate effective rents decreased since 1Q20

Source: JLL Research

Estimated Absorption (MM Sq. Ft.)



-175MM

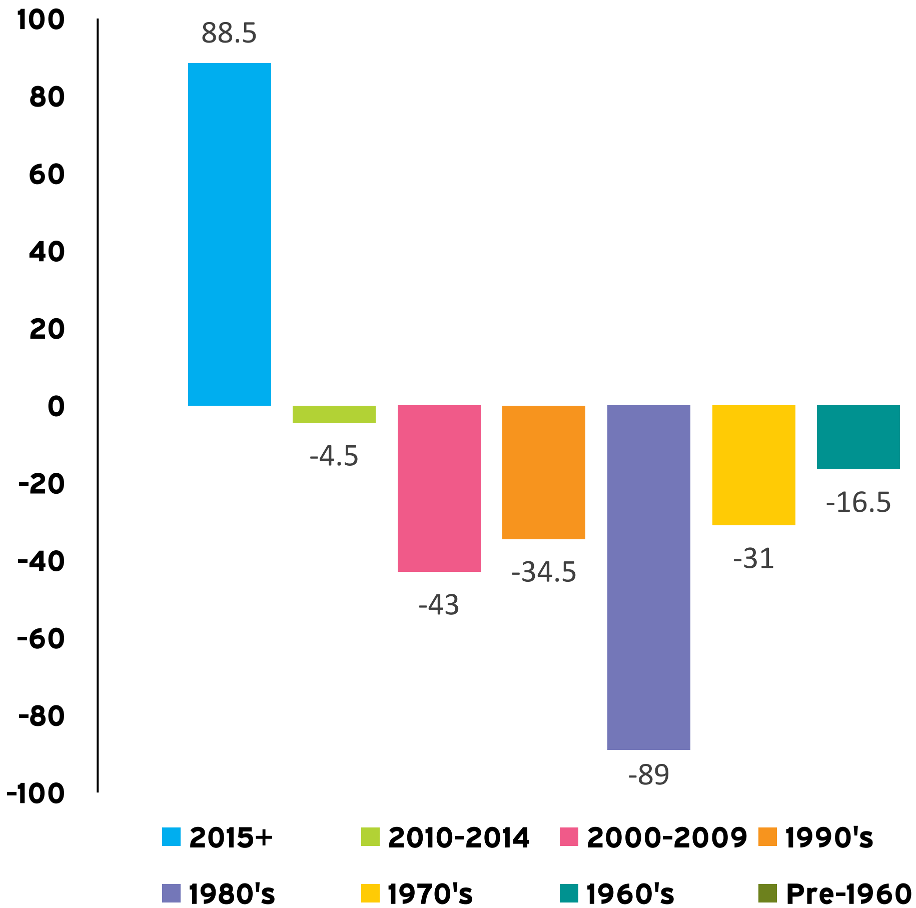
Square Feet of negative absorption since 1Q20

3.7%

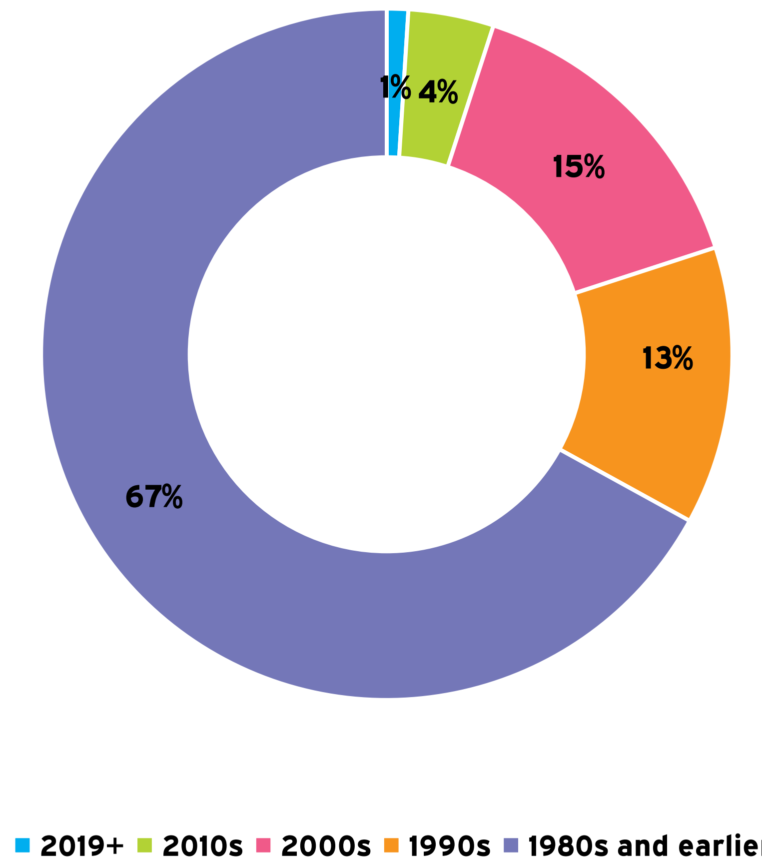
Of the U.S. office inventory

Source: JLL Research

Estimated Absorption Since March 2020 (MM Sq. Ft.)



Age of U.S. Office Buildings



Source: JLL Research & Moody's Analytics CRE

Office Market Summary

Office Market Tailwinds

→ U.S. office-using industries have experienced strong job growth in recent years, with 1.9 million more office jobs today than before the pandemic. However, the pace of job creation is showing signs of slowing, suggesting the labor market may be contracting which is likely to impact demand for office.

→ The flight to quality continues, with office properties that are in optimal locations, newer, and offer attractive amenities seeing strong tenant demand

→ Fully remote work is becoming less common, with many employers favoring hybrid schedules. Employees, on average, spend two days in the office.

→ Given the economic uncertainty, higher costs of capital, and high construction costs, new starts have declined.

Office Market Headwinds

→ Work-from-home and hybrid-work preferences have negatively impacted physical office utilization, which has leveled off at around 40-50% nationwide.

→ Only 36% of office tenants had to make leasing decisions in 2020 - 2022. 2023 – 2025 will see 41% of leases expire.

→ Over $250 billion of office loans are scheduled to mature in 2023-2024, with many loans on older assets that will need to be financed right as lenders are tightening their lending standards and are less willing to grow their office exposure.

→ Falling asset values means many office loans may be underwater and require some form of loan balance reduction. Job growth and office demand have historically been highly correlated; however, this doesn't seem to be the case anymore.

→ CBRE has estimated that hybrid work could result in a reduction of office space between 9.0%-15.0%.

→ Concessions have increased as landlords compete for tenants in the face of weaker office demand.

Office Market Opportunities

→ A large portion, by some measures up to 20%, of office in the U.S. will need to be redeveloped or converted for other uses.

Program Overview

SJCERA Real Estate Program Overview

→ Since inception, $551.6 million has been committed across 19 partnerships.

- Initial commitment began investing in 2005.
- Funds are combination of Core, Value-add, and Opportunistic Funds. These allocations are also across multiple property types.

→ Core Real Estate targeted to be 9% of the total portfolio as part of the Stabilized Growth allocation.

- Current actual allocation at approximately 6.1%.
- Market value of $238.5 million as of December 31, 2022.
- Modeling assumes a commitment pace of $100 million for 2023.

→ Non-Core Real Estate (Value-add and Opportunistic) targeted to be 8% of the total portfolio as part of the Aggressive Growth class.

- Current actual allocation at approximately 2.5%.
- Market value of $99.7 million as of December 31, 2022.
- Modeling assumes a commitment pace of $125 million for 2023.

Summary

→ No recommendation for any changes to the Real Estate Program today.

→ Meketa will bring forward recommendations at future meetings. Potential commitments for 2023 include:

- Anticipate adding complimentary Core or Core Plus Fund(s) in 2023 - $100 million
- Anticipate a re-up with an existing Non-Core Manager in the coming months - $40 million
- Anticipate adding complimentary Non-Core Fund(s) in 2023 - $85 million

Disclosures

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EFFECTIVE JANUARY 1, 2023, ASSET CLASS AND TOTAL PLAN PERFORMANCE IS ROLLED UP USING A WEIGHTED AVERAGE CALCULATION.

PIMCO

The case for EM equities

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Best Group over 3 Years Large Equity (2019, 2013, 2012, 2011, 2010)

Lipper Asset Class Group Awards are awarded to eligible fund family groups and not individual funds.

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Biographical information

R. Matthew Clark, CFA, CAIA

Mr. Clark is a senior vice president and account manager in the Newport Beach office with a focus on institutional client servicing. Prior to joining PIMCO in 2002, he served as an officer in the U.S. Army for eight years, achieving the rank of captain. Mr. Clark currently serves on the board of directors of Working Wardrobes, an Orange County-based charity that helps individuals with employment barriers find meaningful work. He has 21 years of investment experience and holds an MBA from Harvard Business School. He received an undergraduate degree from Trinity University, San Antonio.

Brent Leadbetter, CFA

Mr. Leadbetter is a partner and head of equity solution distribution at Research Affiliates, a subadvisor to PIMCO. He is a product strategist responsible for detailing the elements of Research Affiliates' equity strategies to institutional asset owners and their consultants as well as to financial advisors. He supports the firm's distribution partners who offer separately managed accounts and commingled products that follow Research Affiliates' equity methodologies. He holds a B.A. in history from the University of Michigan and an MBA from the Anderson School of Management at UCLA. He holds the Chartered Financial Analyst designation and is a member of CFA Institute and CFA Society Orange County.

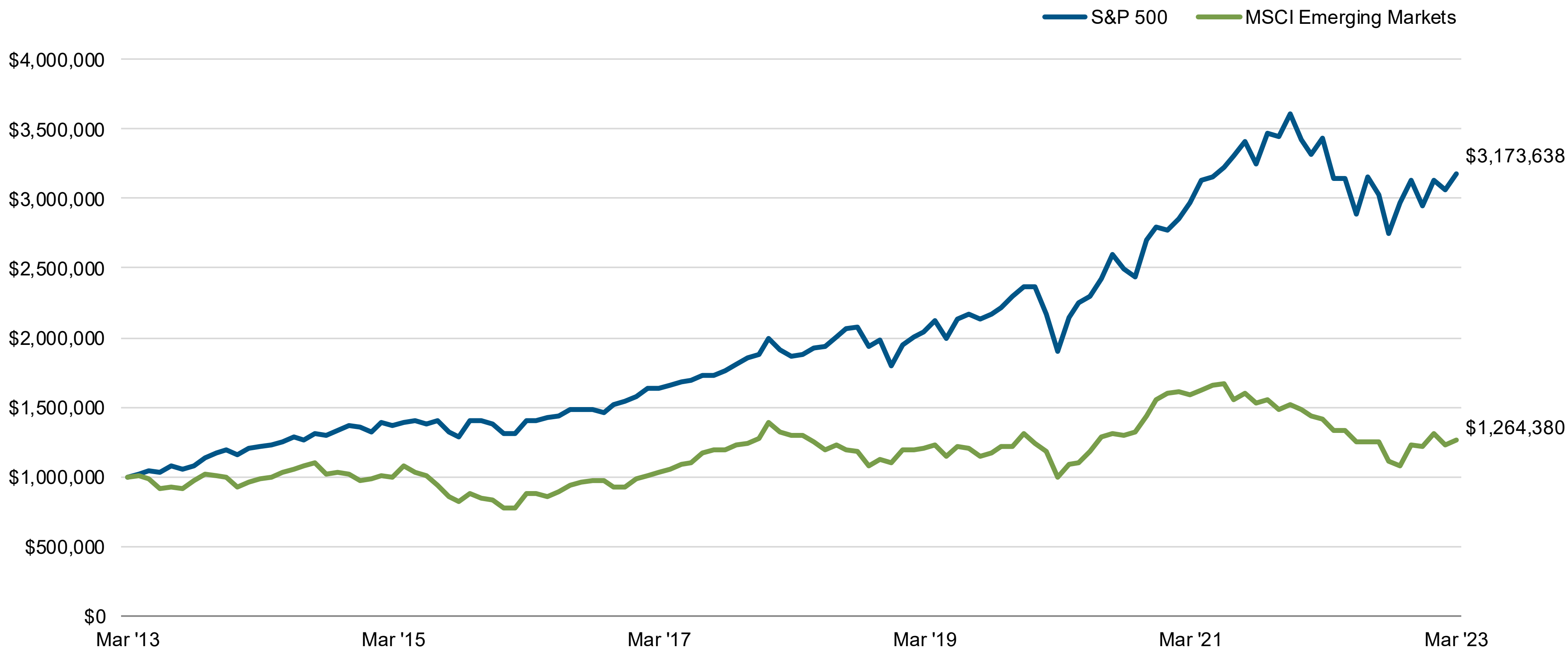
Agenda: PIMCO RAE Strategy

1	The case against EM equities
2	The case for EM equities

The case against EM equities

U.S. equities have materially outperformed emerging market equities over the past 10 years

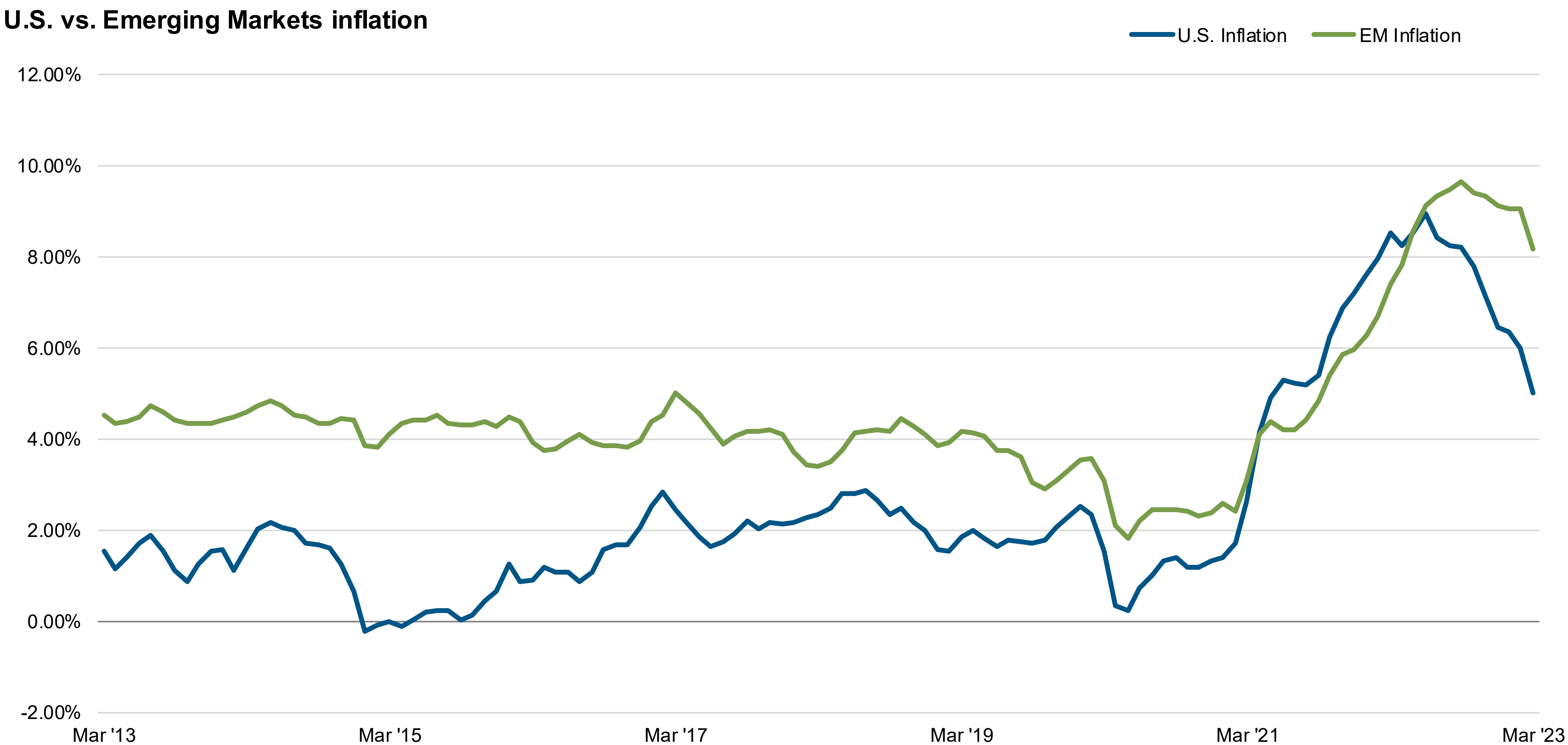
Cumulative Return: S&P 500 vs MSCI Emerging Markets Index



	YTD	1 YR	3 YR	5YR	10 YR
S&P 500	7.50%	-7.73%	18.60%	11.19%	12.24%
MSCI Emerging Markets Index	4.02%	-10.30%	8.23%	-0.53%	2.37%
Outperformance of U.S. equities	**3.48%**	**2.57%**	**10.38%**	**11.72%**	**9.87%**

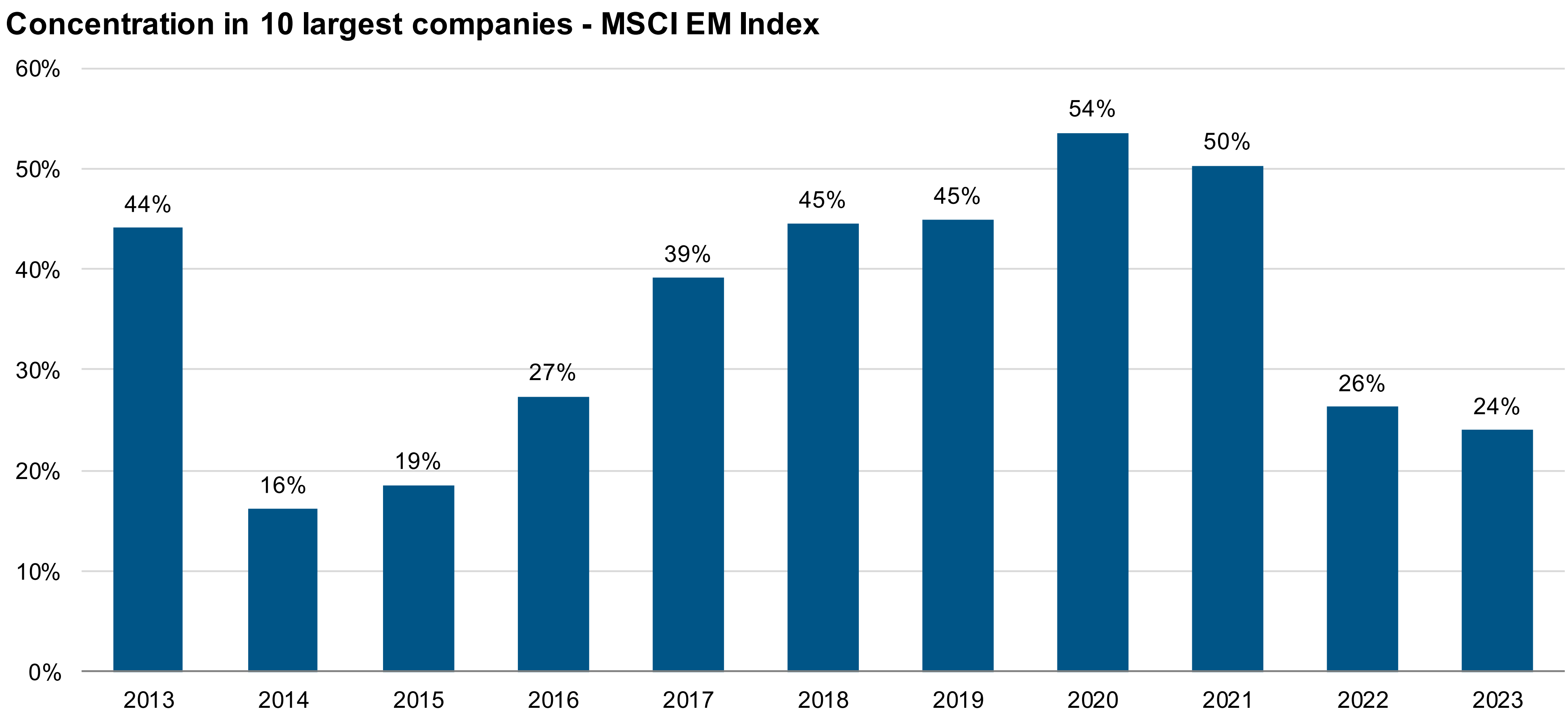
As of 31 March 2023
SOURCE: PIMCO, Factset

Emerging markets typically experience higher inflation than the United States



As of 31 March 2023
SOURCE: PIMCO, Factset
US inflation as measured by US CPI on a rolling monthly basis. EM inflation as measured by weighted average inflation across emerging market countries using weights from the JPM GBI-EM Global Diversified Index

Market capitalization-weighted emerging markets indexes tend to be highly concentrated in the largest names

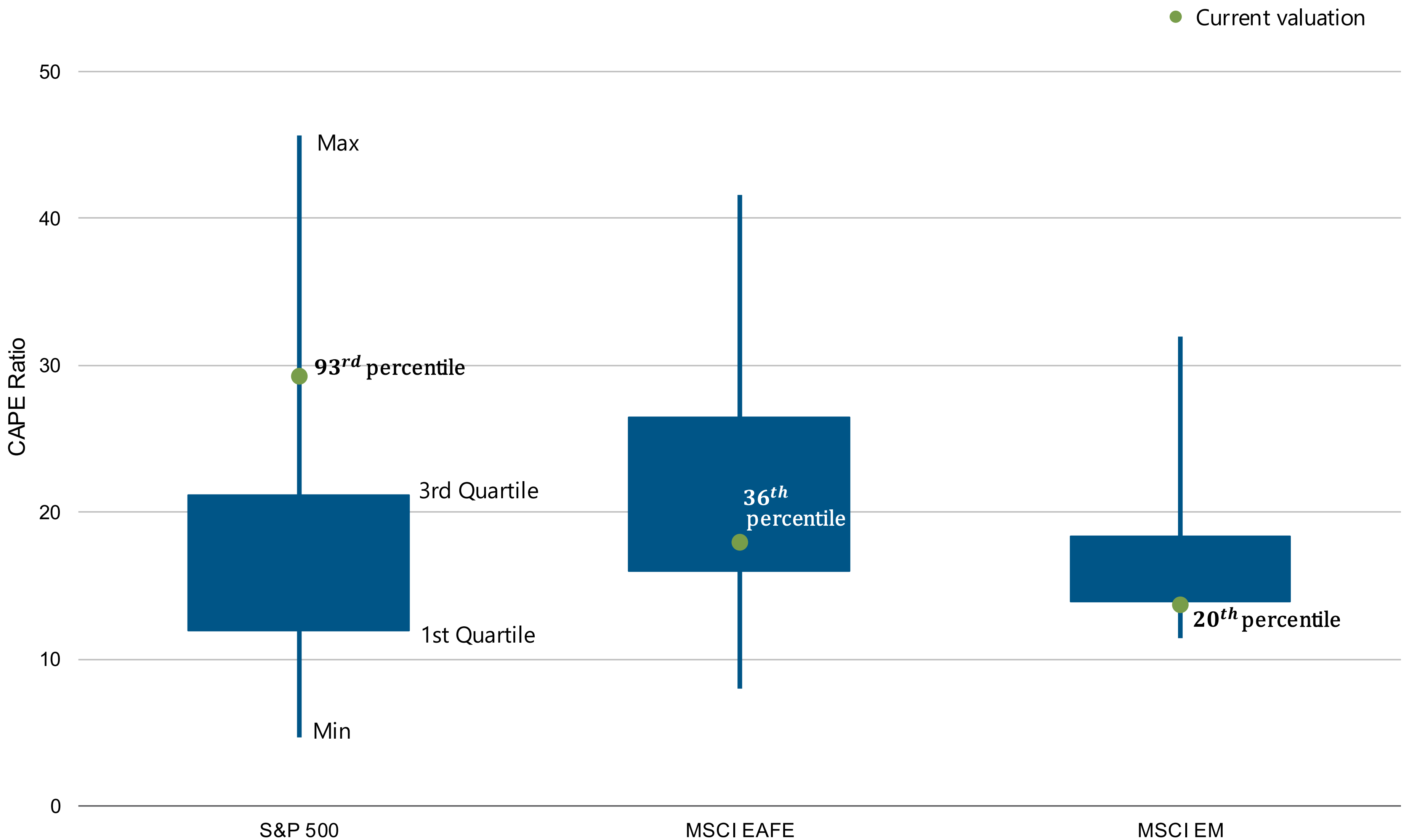


As of 31 March 2023
SOURCE: PIMCO, Factset

The case for EM equities

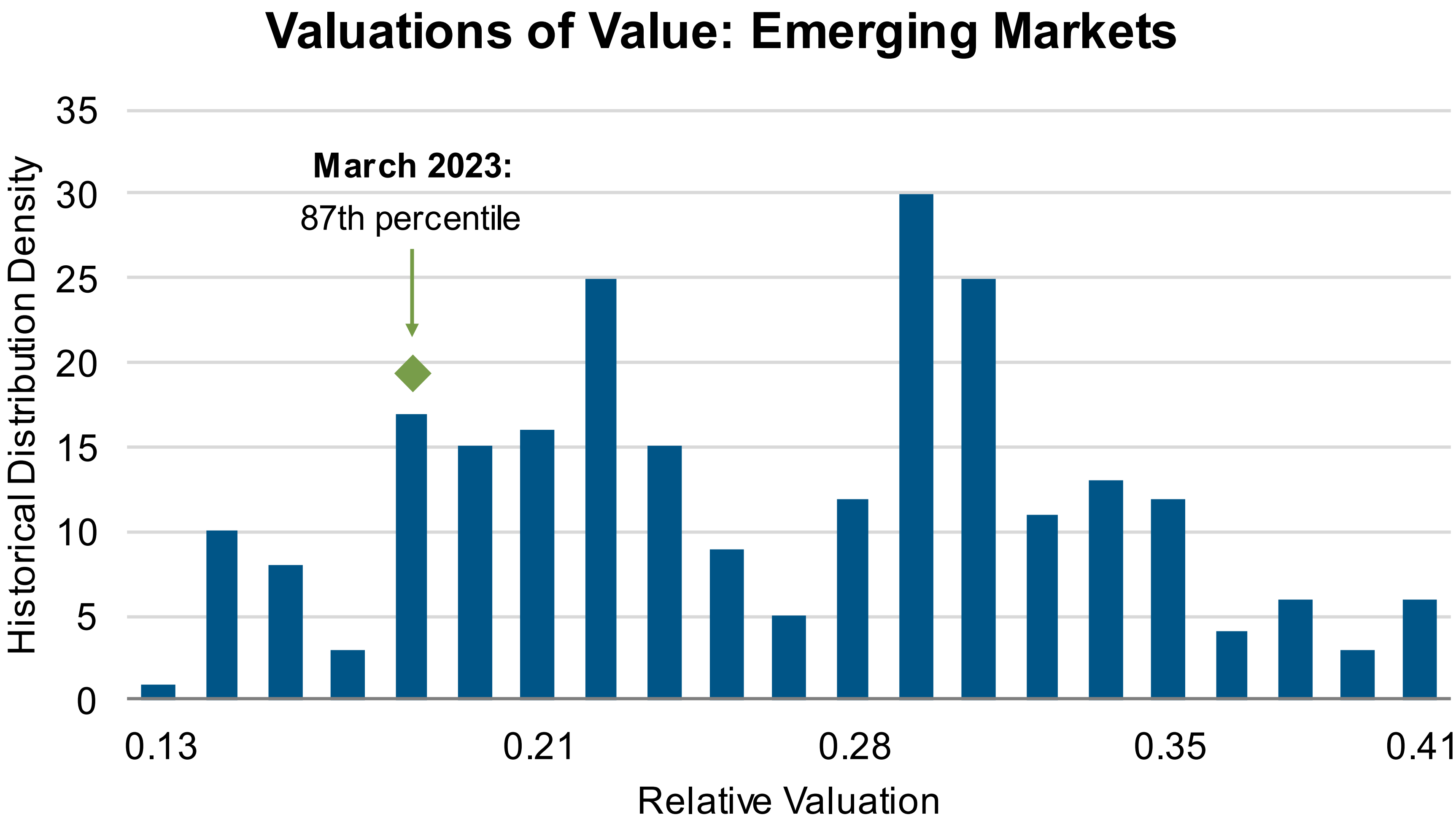
Unlike U.S. equities, EM equities are currently trading in the bottom quartile of historic valuations

EM equities remain historically cheap



As of 30 April 2023
SOURCE: PIMCO, Research Affiliates
Valuations determined using the cyclically-adjusted price-to-earnings, or "CAPE" ratio

Value is currently trading in the 84th percentile of historic valuations in EM
Value vs. growth relative valuation

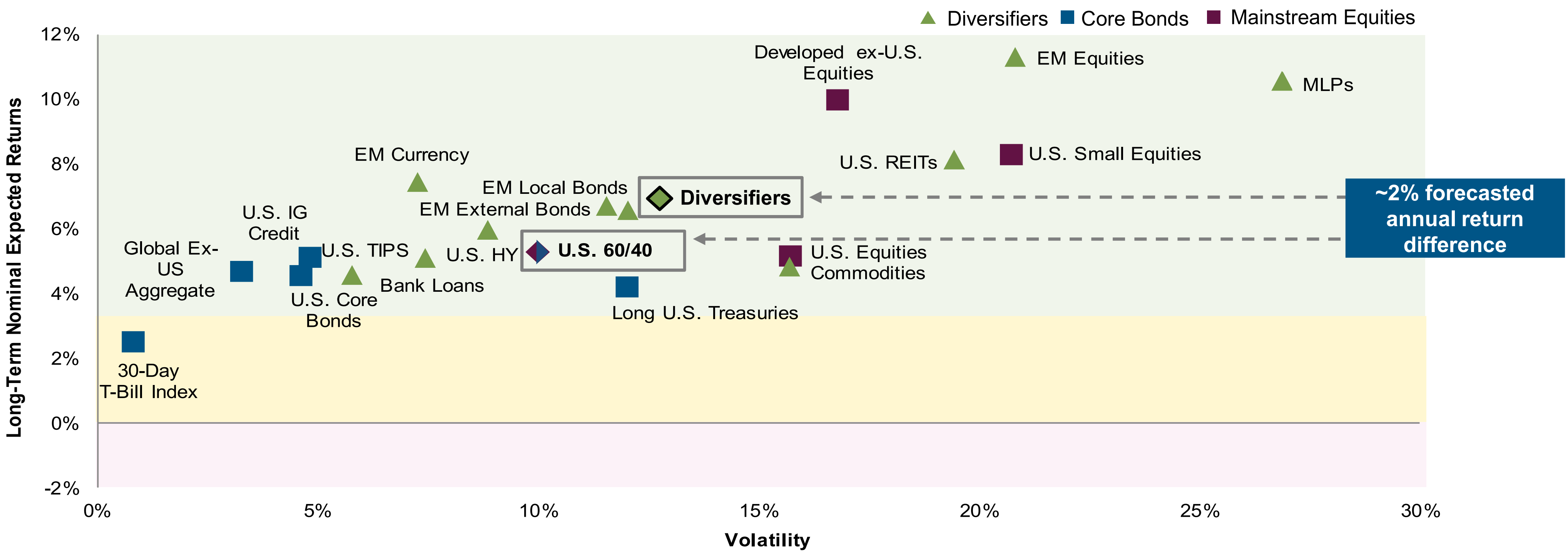


As of 31 December 2022. SOURCE: Research Affiliates, CRSP, Compustat, Worldscope, Datastream. US universe comprised of US companies in the CRSP/Compustat database. International and emerging markets universes are comprised of developed ex-US and emerging markets companies in the Worldscope/Datastream database. Valuation based on price-earnings, price-sales, price-cash flow, price-dividends, price-book.

Research Affiliates' current long-term nominal return forecasts

The highest return potential is outside U.S. stocks and bonds

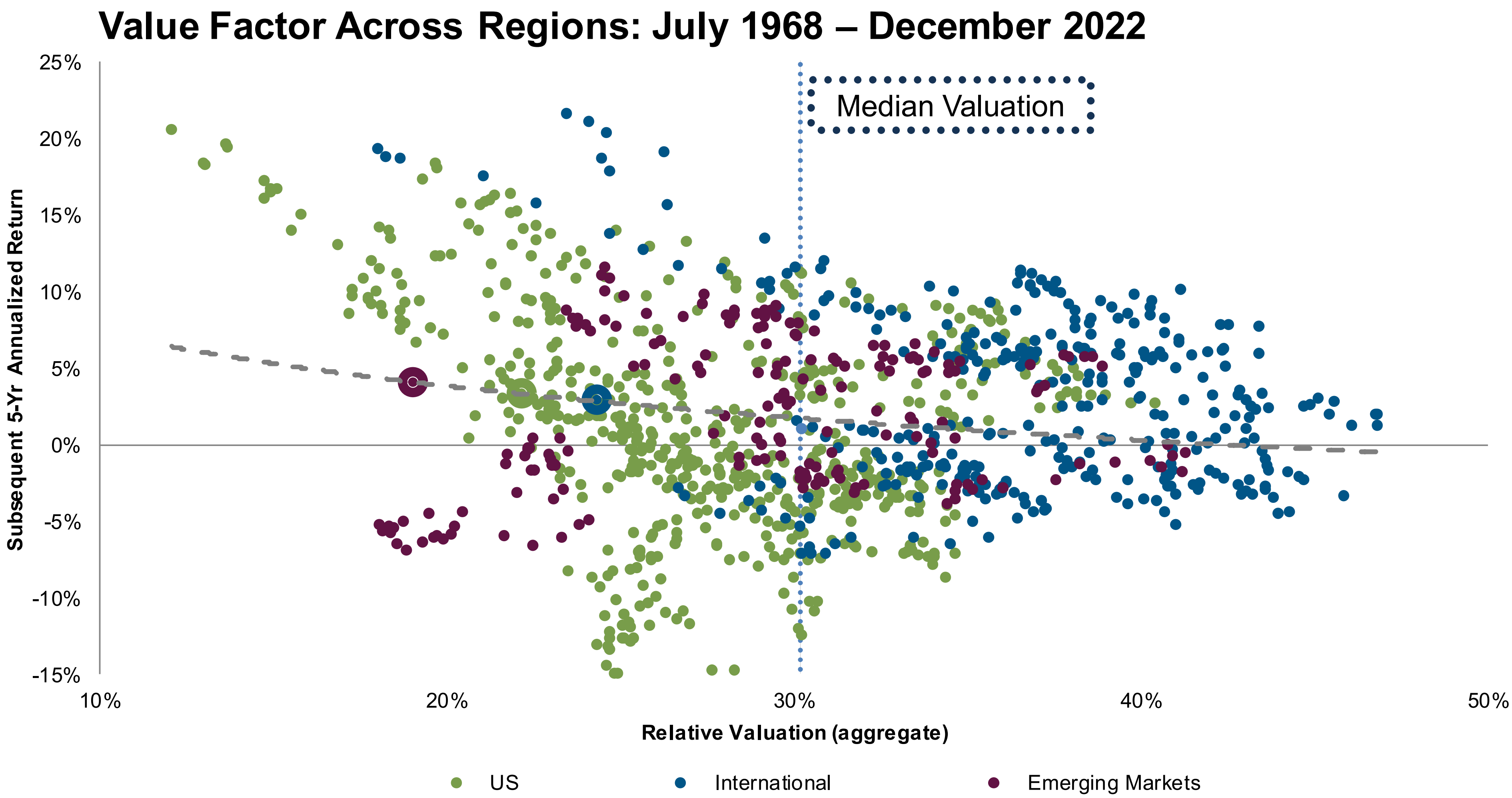
Long-term nominal return estimates for major asset classes



- **Diversifiers are priced for superior returns** than conventional stocks and bonds
- **All Asset's yield of 6.80%[1]** underscores the relative cheapness of All Asset's underlying assets and return potential
- **CPI + 5% is achievable** with value add from tactical asset allocation, PIMCO alpha, & Research Affiliates Equity (RAE) alpha

As of 31 March 2023. [1] Yield Represented by yield to maturity for bonds and dividend yield for equities
Hypothetical forecast for illustrative purposes only.
SOURCE: Research Affiliates, LLC, based on data building blocks, mean reversion and business cycle models
Performance is shown for the institutional class. Return estimates listed above may vary from PIMCO Capital Market Assumptions.
The asset classes shown above are represented by the following indexes: U.S. Equities represented by S&P 500; Developed ex U.S. Equities represented by MSCI EAFE; Long U.S. Treasuries represented by Bloomberg U.S. Treasury Long; U.S. Core Bonds represented by Bloomberg U.S. Aggregate; U.S. Investment Grade Credit represented by Bloomberg U.S. Interim Credit; U.S. high yield represented by ICE BofAML US HY BB-B Rated Constrained Index; U.S. TIPS represented by Bloomberg U.S. TIPS, U.S. REITs represented by FTSE NAREIT; EM local bonds represented by JPM GBI-EM; EM equities represented by MSCI EM; EM currencies represented by JPMorgan ELMI Composite (Unhedged); Commodities represented by Bloomberg; MLPs represented by Alerian MLP Index, U.S. Small-cap Equities by Russell 2000 Index, Global Bonds by BB Global Agg ex USD Hdg USD. Commodity Index; EM currency represented by JPMorgan ELMI+ Composite (Unhedged), EM Non-Local Debt represented by JPMorgan EMBI+ (Unhedged), and U.S. Small Equities represented by the Russell 2000. 60/40 represented by 60% S&P500 and 40% Bloomberg U.S. Aggregate indices.
Diversifiers represented by an equal weighting of indices for U.S. High Yield, EM Local Bonds, EM Equities, U.S. TIPS, REITs, Diversified Commodities

Historically, factor valuations have provided insights into subsequent returns: *The value factor*



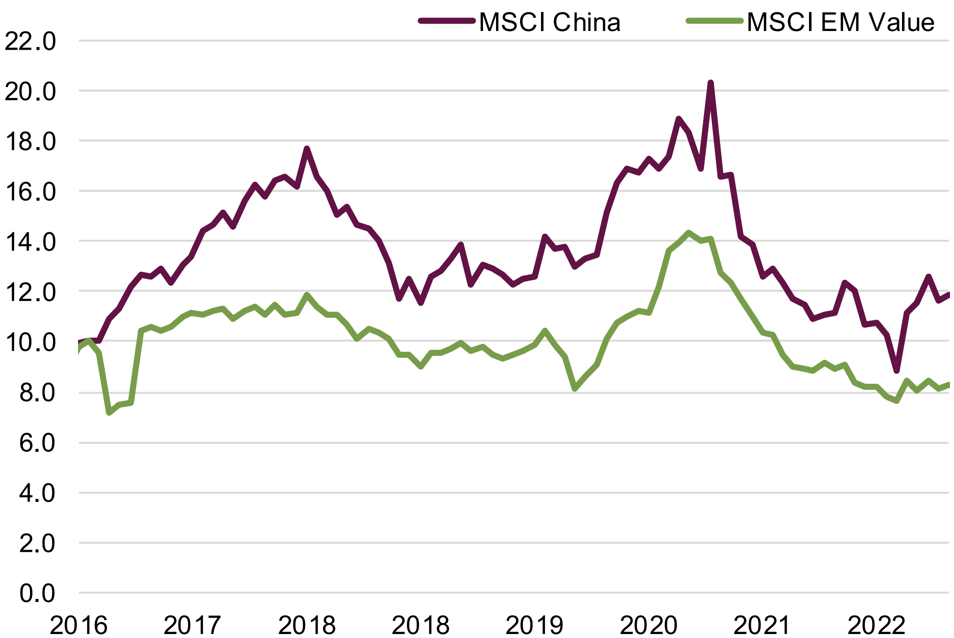
As of 31 December 2022. SOURCE: Research Affiliates, LLC, using data from CRSP, Compustat, Worldscope, and Datastream.
US universe comprised of US companies in the CRSP/Compustat database. International and emerging markets universes are comprised of developed ex-US and emerging markets companies in the Worldscope/Datastream database. The Value Factor selects value stocks as measured by their ratio of fundamental weight to capitalization weight, and weights those stocks by four fundamental measures of company size; delevered sales, cash flow, imputed dividends and book value.
*Current relative valuation of each classification is represented by a large dot

As Chinese equity valuations became inflated, RAE's underweight grew versus an increasingly concentrated benchmark

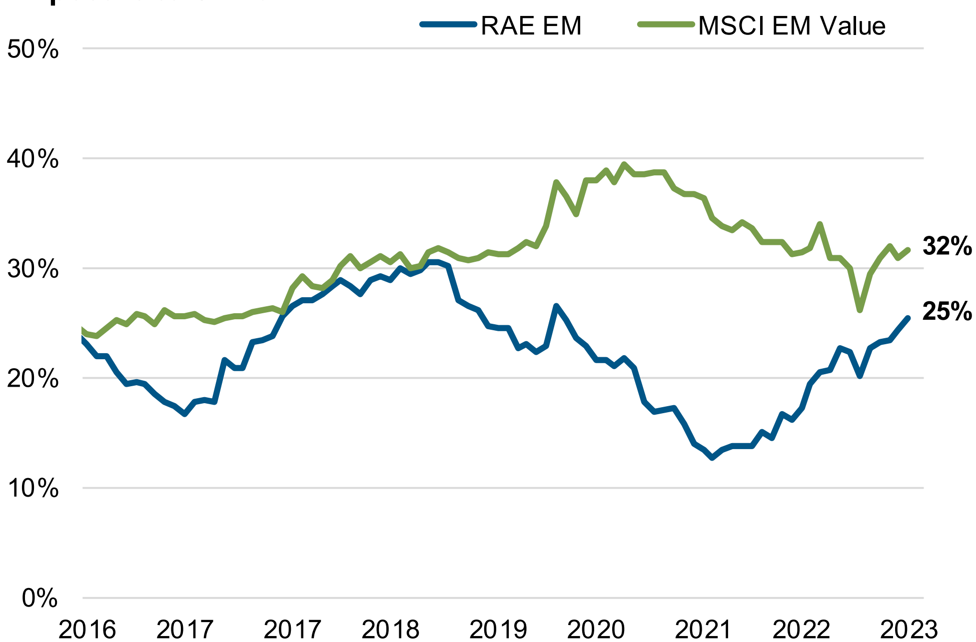
- EM Value and Chinese equities traded at nearly the same valuation seven years ago
- The strong performance of tech shares boosted Chinese equity valuations

- As Chinese equities got more expensive in 2016, RAE lowered its weight to China
- When Chinese valuations collapsed in 2018, RAE took a more neutral weight
- More recently, another spike in Chinese equity valuations led RAE to meaningfully underweight the country

Valuation (Trailing PE ratio)



Exposure to China

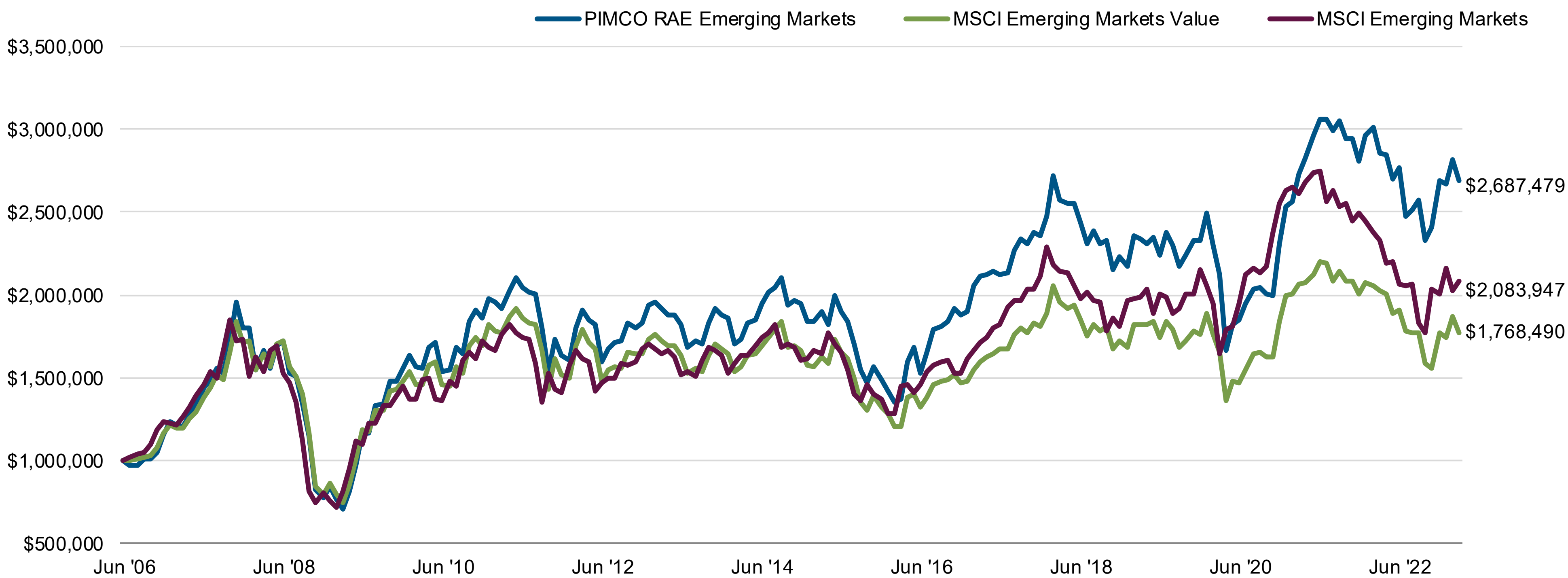


- **The MSCI EM Value Index ties its country allocations to that of its parent index, MSCI Emerging Markets, irrespective of valuations**
- **As tech-related Chinese stocks increased in market capitalization, the MSCI EM Index also increased its weight to expensive Chinese equities, forcing the value index to also increase its exposure to China**
- **RAE's dynamic value approach begins with stock selection across the entire EM universe**
  - **Country weights are driven by this bottom-up process, with RAE seeking to avoid large weights to expensive regions**

As of 31 March 2023
SOURCE: PIMCO, Factset

The RAE Emerging Markets Strategy has outperformed over all trailing periods

Growth of $1mm: RAE Emerging Markets Strategy

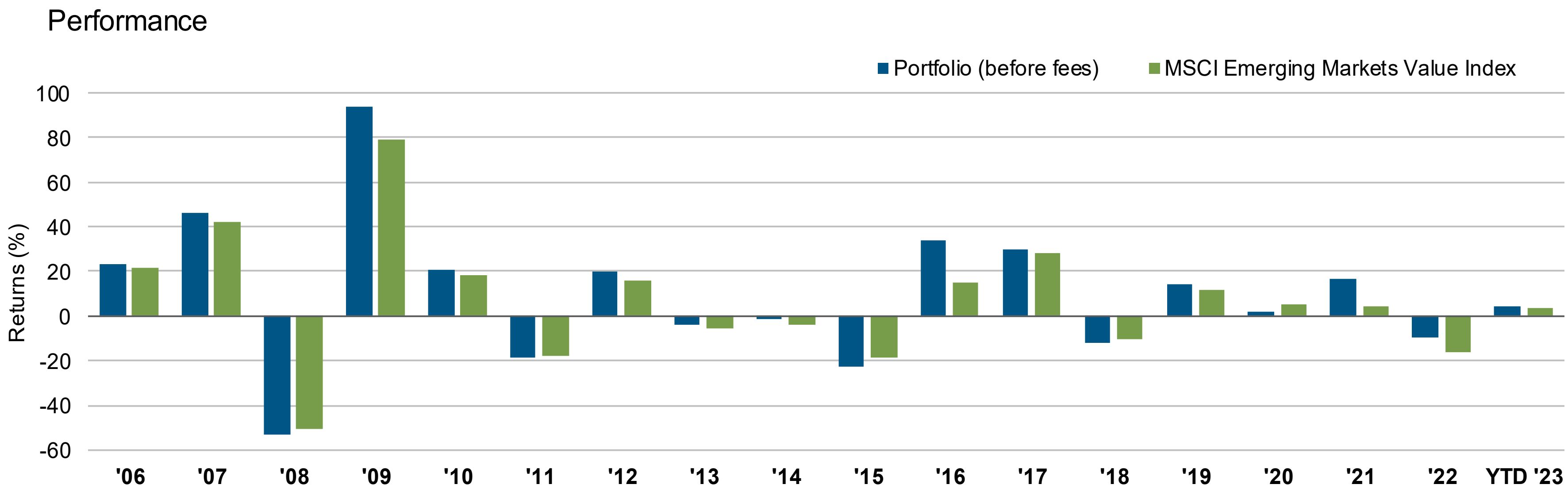


	S.I. 1 Jun '06	10 yrs.	5 yrs.	3 yrs.	1 yr.	6 mos.	YTD 31 Mar '23
Before fees (%)	6.27	4.01	1.77	18.69	-2.18	19.92	4.32
After fees (%)	5.62	3.38	1.08	17.91	-2.84	19.53	4.16
MSCI Emerging Markets Value Index (%)	3.59	0.69	-1.15	10.04	-9.44	14.06	3.91
Before fee alpha vs value (bps)	268	332	292	865	726	586	41

As of 31 March 2023
SOURCE: PIMCO, Factset
Growth of $1mm is shown before fees

Appendix

PIMCO RAE Emerging Markets Composite performance



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As of 31 March 2023
Performance presented prior to June 2015 represents the historical track record of the sub-adviser and should not be interpreted as the actual historical performance of PIMCO. PIMCO has adhered to the performance record portability requirements outlined in the GIPS standards in regard to the presentation and linking of this performance track record.

PIMCO RAE Emerging Markets strategy representative account vs MSCI EM Value
12 month sector and country attribution

GICS sector	RAE EM Average weight (%)	RAE EM Total return (%)	MSCI EM VALUE Average weight (%)	MSCI EM VALUE Total return (%)	ATTRIBUTION ANALYSIS Allocation effect (bps)	Selection + interaction (bps)	Total currency effect (bps)	Total effect (bps)
Financials	35.9	3.99	30.1	-11.94	-12	630	-67	551
Energy	9.5	16.39	7.7	-0.53	-1	188	-9	178
Industrials	6.8	2.57	5.8	-5.98	6	54	2	62
Real Estate	0.9	15.73	2.8	-19.25	28	43	-12	59
Information Technology	9.8	-8.37	15.4	-12.22	0	39	16	55
Utilities	5.7	-2.23	3.8	-5.24	1	21	-3	19
Health Care	1.6	5.95	2.3	-5.92	-1	18	-4	14
Materials	10.6	-17.00	10.9	-17.76	-10	-2	11	-1
Consumer Staples	3.5	3.35	4.1	5.81	-20	3	1	-16
Consumer Discretionary	7.9	-5.31	12.0	-2.48	-14	6	-51	-59
Communication Services	7.8	-20.82	5.3	-4.09	5	-109	-18	-122
Total	**100.0**	**-2.02**	**100.0**	**-9.43**	**-17**	**891**	**-133**	**741**

Country	Average weight (%)	Total return (%)	Average weight (%)	Total return (%)	Allocation effect (bps)	Selection + interaction (bps)	Total currency effect (bps)	Total effect (bps)
Top three countries								
Turkey	5.34	93.27	0.44	55.75	341	110	-92	359
China	21.54	4.24	30.97	-4.29	-8	138	-21	109
Brazil	10.22	-6.42	5.66	-11.38	70	29	1	100
Bottom three countries								
South Korea	0.19	-33.04	--	--	-6	0	0	-7
Poland	0.78	-17.72	0.72	-20.54	-4	0	-3	-7
South Africa	6.96	-26.04	3.68	-29.62	-31	38	-50	-44

As of 31 March 2023
SOURCE: PIMCO, FactSet
Exposure to Russian equities was written down to zero in the portfolio in March 2022, so Russia has been removed from the universe for attribution purposes.
The attribution analysis contained herein is calculated by PIMCO and is intended to provide an estimate as to which elements of a strategy contributed (positively or negatively) to a portfolio's performance. The attribution results contain certain assumptions that require elements of subjective judgment and analysis. Attribution analysis is not a precise measure and should generally be considered within a range (e.g., +/- 5 bps). Further, attribution analysis should not be relied upon for investment decisions.
Returns are in USD

PIMCO RAE Emerging Markets strategy representative account characteristics

Portfolio characteristics	Number of holdings	P/E (Trailing 12-Mo)	P/S	P/B	Dividend yield	Weighted avg market cap ($mm)
PIMCO RAE Emerging Markets	358	5.8	0.4	0.8	5.8	10,898
MSCI EM Value Index	766	8.3	0.8	1.1	5.1	34,617

Top 10 Holdings	RAE (%)	MSCI EM Value (%)
China Construction Bank	4.6	2.0
Bank of China	3.2	1.0
China SINOPEC	2.8	0.5
Indust. & Comm. Bank of China	2.5	1.0
POSCO	2.3	0.6
Hon Hai Precision	2.1	1.3
Cemex SAB	2.0	0.3
SCB X Public Company	1.9	0.1
PetroChina	1.7	0.4
Kasikornbank	1.7	0.1

Sector Allocations	RAE (%)	MSCI EM Value (%)
Financials	34.2	29.8
Energy	11.6	7.7
Information Technology	10.8	16.6
Materials	10.4	10.3
Consumer Discretionary	8.8	12.9
Industrials	6.3	5.8
Communication Services	5.7	5.0
Utilities	5.1	3.6
Consumer Staples	4.4	3.4
Health Care	2.0	2.1
Real Estate	0.8	2.7

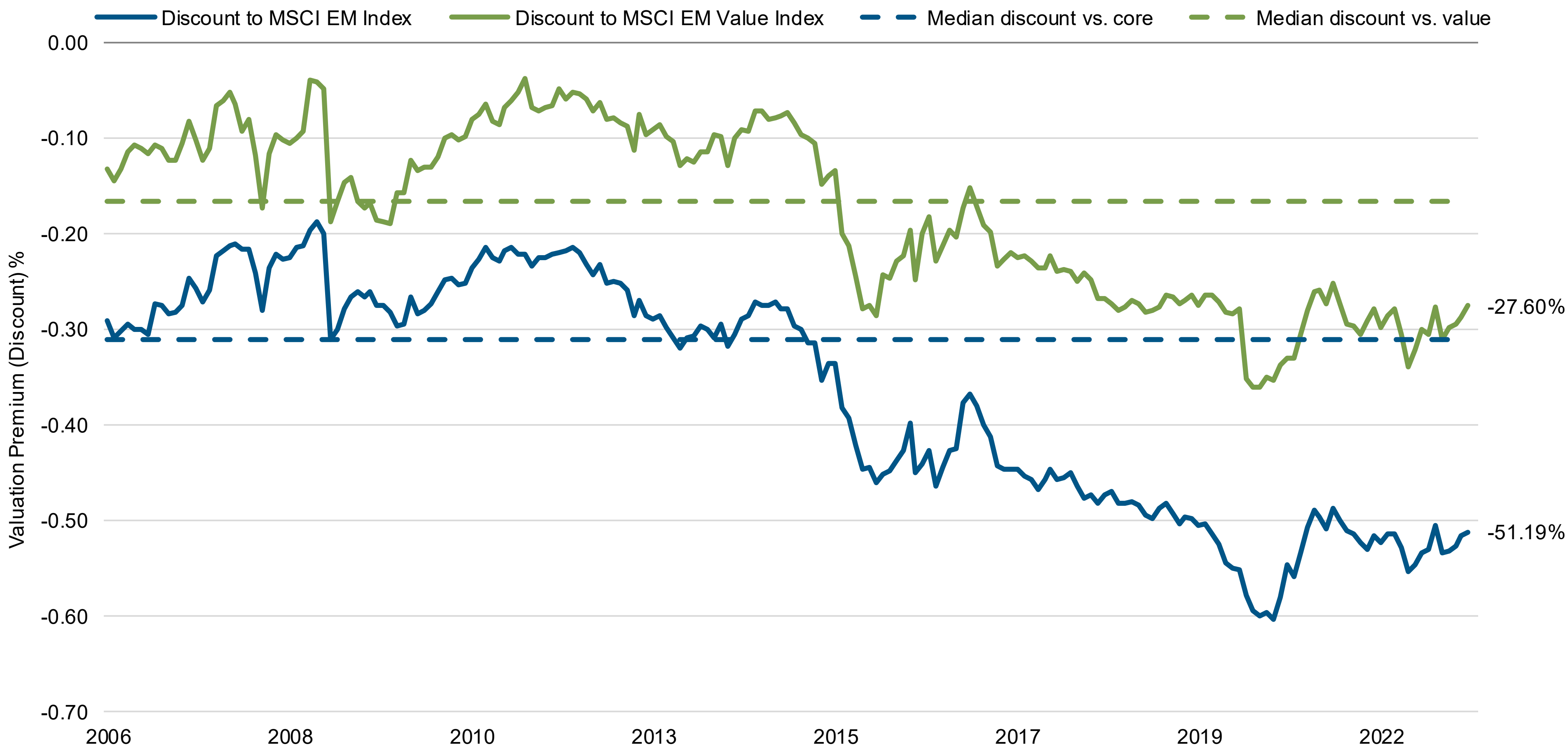
Top 5 countries	RAE (%)	MSCI EM Value (%)
China	25.2	31.8
South Korea	14.2	12.3
India	13.4	14.2
Taiwan	9.5	14.5
Thailand	6.9	2.1

Market Cap Weights ($mm)	RAE (%)	MSCI EM Value (%)
> 50,000	18.1	31.1
10,000 - 50,000	28.9	40.0
2,000 - 10,000	43.0	28.7
0 - 2,000	10.1	0.3

As of 31 March 2023

RAE systematically trades against price movements, deepening its discount to the market when value is cheapest

Example: RAE EM Representative Account: Aggregate valuation discount*



As of 31 March 2023
*Average valuation discount based on price-earnings, price-sales, price-cash flow, price-dividends, price-book since representative account inception.
The above information is based on a representative account. An investor should refer to the PIMCO RAE Emerging Markets Composite performance presentation included in the Appendix

GIPS Composite Report: RAE Emerging Markets Composite (Page 1 of 2)

	Composite Return (%) Before Fees	Composite Return (%) After Fees	Benchmark Return (%)**	Composite Dispersion (%)	Composite 3-Yr Std Dev (%)	Benchmark 3-Yr Std Dev (%)	Number of Portfolios	Composite Assets (USD) Millions	Total Firm Assets (USD) Billions
2022	-9.74	-10.36	-15.83	N/A	23.35	20.37	Five or Fewer	1,650.1	1,741
2021	16.88	16.09	4.00	N/A	21.74	19.07	Five or Fewer	1,488.6	2,178
2020	1.73	1.01	5.48	N/A	22.93	20.42	Five or Fewer	2,297.1	2,188
2019	14.60	13.80	11.96	N/A	14.92	13.70	Five or Fewer	4,055.6	1,899
2018	-12.02	-12.62	-10.74	N/A	17.87	15.07	Five or Fewer	2,744.9	1,665
2017	30.20	29.31	28.07	N/A	19.17	16.59	Five or Fewer	2,792.6	1,756
2016	33.62	32.71	14.90	N/A	20.17	17.55	Five or Fewer	1,806.9	1,467
2015	-22.93	-23.30	-18.57	N/A	16.36	15.17	Five or Fewer	375.4	1,435
2014	-1.02	-1.39	-4.08	N/A	16.79	16.12	Five or Fewer	944.7	N/A
2013	-3.74	-4.12	-5.11	N/A	19.63	19.27	Five or Fewer	748.0	N/A
5-Year*	1.59	0.89	-1.59						
10-Year*	3.29	2.66	0.06						

PIMCO RAE Emerging Markets Separate Account Fee Schedule:	
First $50 Million	0.5%
Next $50 Million	0.45%
Thereafter	0.4%

* All periods longer than one year are annualized. Unless otherwise noted, results presented through December 31, 2022.

** MSCI Emerging Markets Value Index

The composite was created in May 2015 and incepted in June 2006.

Pacific Investment Management Company LLC (PIMCO) is an investment adviser registered with the U.S. Securities and Exchange Commission that provides global investment solutions to institutions, individuals, and government entities worldwide. For GIPS compliance purposes, PIMCO has been defined to include the investment management activities of its affiliate PIMCO Europe GmbH (PEG) and the following subsidiaries: PIMCO Australia Pty Ltd, PIMCO Canada Corp., PIMCO Europe Ltd, PIMCO Japan Ltd, PIMCO Asia Pte Ltd, and PIMCO Asia Limited. In January 2010, the firm definition was expanded to include fixed income assets managed in collaboration with Allianz Global Investors (Allianz) using the PIMCO investment process. Prior to 2010, country-specific limitations restricted the full implementation of the PIMCO investment process for these assets. In March 2012, the firm definition was further expanded to include assets managed on behalf of Allianz's affiliated companies. In addition, in October 2020, PIMCO and PEG acquired PIMCO Prime Real Estate, a leading global commercial real estate investment business; as a result, the firm definition includes assets managed by PIMCO Prime Real Estate and its subsidiaries. Prior to March 2023, PIMCO Prime Real Estate was known as Allianz Real Estate.

PIMCO claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PIMCO has been independently verified for the period January 1987 through December 2022. The verification report is available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. GIPS® is a registered trademark owned by CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

The PIMCO RAE Emerging Markets Composite includes all discretionary, USD-based portfolios managed to the PIMCO RAE Emerging Markets strategy. The PIMCO RAE Emerging Markets strategy is a systematic emerging markets value strategy designed to outperform the MSCI Emerging Markets Value Index. Research Affiliates, LLC serves as the sub-advisor for this strategy since inception and uses the RAE® methodology for portfolio construction. The RAE® methodology is a rules-based model that selects stocks using quantitative signals that indicate higher expected returns, e.g., value, quality, and momentum. The model then weights selected stocks by using their fundamental measures of company size, e.g., sales, cash flow, dividends and book value. Actual stock positions in portfolios, which drift apart from target weights as market prices change, are rebalanced to target weights periodically. The RAE® methodology's systematic portfolio rebalancing reflects a value orientation. Prior to June 2015, the minimum account size for inclusion in the composite was $3 million. While the strategy will normally invest directly in equity and equity-related securities, the strategy may also use derivative instruments as a substitute for taking a position in the underlying asset. Investing in derivatives could result in losses that exceed the amount invested. Equities may decline in value due to both real and perceived general market, economic, and industry conditions, such as changes in the general outlook for corporate earnings or adverse investor sentiment. Equities generally have greater price volatility than most fixed income securities. Investing in foreign denominated and/or domiciled securities may involve heightened risk due to currency fluctuations, and economic and political changes, which may be enhanced when investing in emerging markets. PIMCO generally considers an emerging market to be any country defined as an emerging or developing economy by the World Bank (or its related organizations) or the United Nations (or its authorities), but we have broad discretion to identify emerging market countries based on our assessment of aspects such as developments of local institutions, capital markets, etc.

The MSCI Emerging Markets Value Index captures large and mid-cap securities exhibiting overall value style characteristics across emerging markets countries. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

Valuations are computed and performance is reported in U.S. dollars. Returns are presented gross and net of management fees and include the reinvestment of all income. Net results reflect the deduction of actual management fees and, in some instances, custodial and administrative fees. Actual fees incurred by client accounts may vary. When applicable, composite performance is net of any actual withholding tax paid and not reclaimable. Index returns are net of withholding tax.

Composite dispersion presented is the equal-weighted standard deviation of annual gross-of-fees returns for all portfolios in the composite for the full year. Dispersion is not statistically meaningful for periods shorter than a year or for years in which five or fewer portfolios were included for the full year. The three-year annualized ex-post standard deviation measures the variability of the composite gross-of-fees returns and the benchmark returns over the preceding 36-month period. The three-year annualized ex-post standard deviation is not presented if 36 consecutive monthly returns are not available. A complete list of composite descriptions, list of pooled fund descriptions for limited distribution pooled funds, and list of broad distribution pooled funds are available upon request, as well as policies for valuing investments, calculating performance, and preparing GIPS Reports.

Performance presented prior to June 2015 represents the historical track record of the sub-advisor and should not be interpreted as the actual historical performance of PIMCO. PIMCO has adhered to the performance record portability requirements outlined in the GIPS standards in regard to the presentation and linking of this performance track record. Total firm assets are not presented prior to 2015 because the composite assets prior to June 2015 were not managed by PIMCO and are not included in firm assets.

Past performance is not a guarantee or a reliable indicator of future results.

MEKETA 45
CELEBRATING A MILESTONE | YEARS

San Joaquin County Employees' Retirement Association (SJCERA)

Q1 2023

Quarterly Report

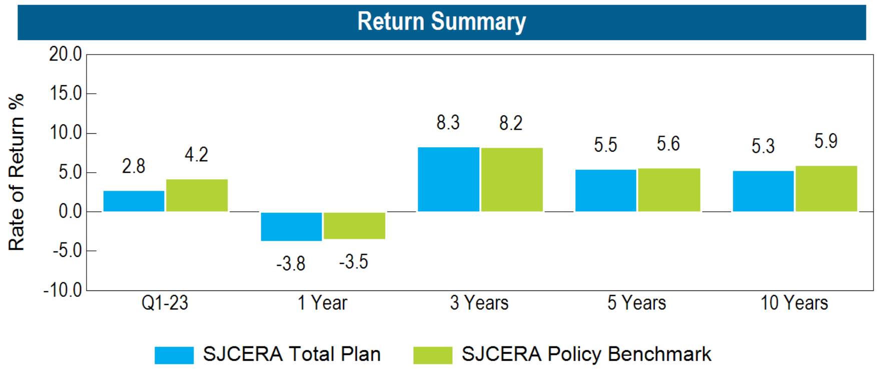
Introduction

Introduction

The SJCERA Total Portfolio had an aggregate value of $3.94 billion as of March 31, 2023. During the latest quarter, the Total Portfolio increased in value by $140.7 million, and over the one-year period, the Total Portfolio decreased by $93.3 million. The movements over the quarter and one-year periods were primarily driven by investment returns. Last year central banks aggressively tightened policy given inflation levels. It is likely policy will peak this year given slowing inflation and signs of stress in the banking sector. Questions remain about the ultimate peak of interest rates across economies and whether we will have some policy easing later this year. China's central bank is one notable exception where policy remains supportive (lower reserve requirements and bank securitization of non-performing loans). Looking ahead the risk remains for a policy error as central bank's attempt to balance bringing down inflation, maintaining financial stability, and growth.

Recent Investment Performance

On a net-of-fees basis, the Total Portfolio outperformed the policy benchmark over the 3-year trailing period by 0.1%. However, it lagged the benchmark over the quarter, 1-, 5-, 10-, 15-, 20-, and 25-year periods by (1.4%), (0.3%), (0.1%), (0.6%), (0.8%), (0.7%), and (0.2%), respectively. The Total portfolio outperformed the Median Public Fund over the trailing 1-year period by 0.4%. Over the quarter, 3-, 5-, 10-, 15-, 20- and 25-year periods, the portfolio trailed the Median Public Fund by (0.9%), (2.8%), (0.8%), (1.9%), (1.8%), (1.4%), and (0.9%).



Summary of Cash Flows	First Quarter	One Year
Beginning Market Value	$3,798,476,373	$4,032,449,191
Net Cash Flow	$36,246,512	$56,212,277
Net Investment Change	$104,472,999	-$149,465,584
Ending Market Value	$3,939,195,885	$3,939,195,885

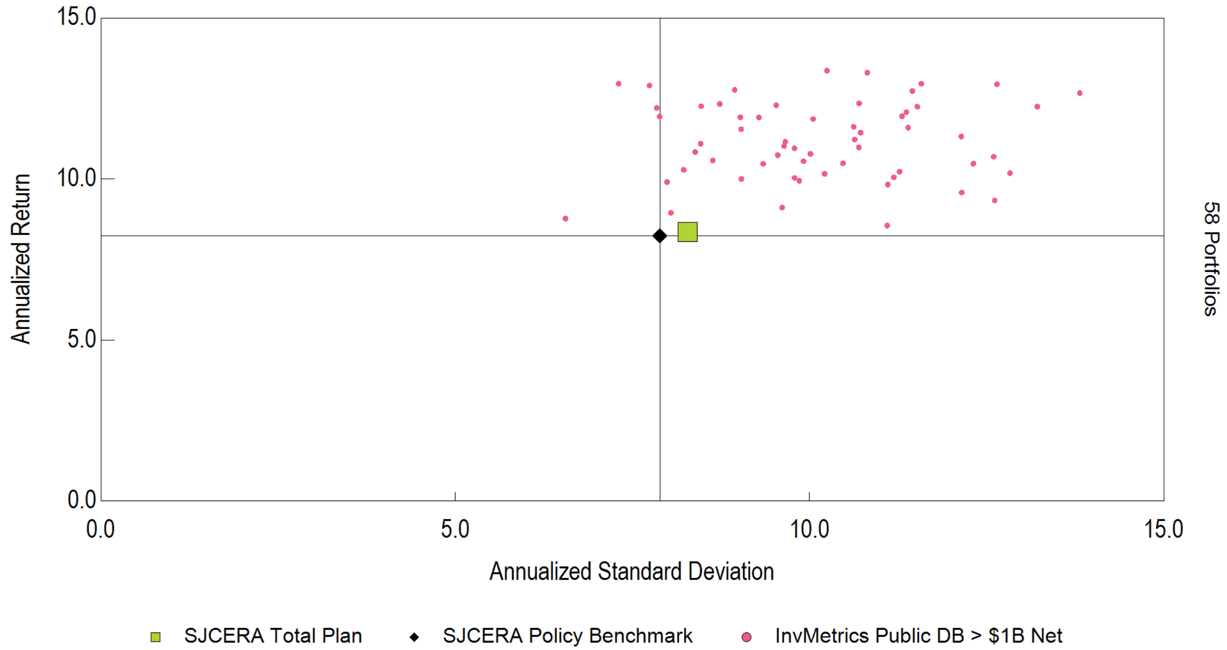
	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs	25 Yrs
SJCERA Total Plan - Net	**2.8**	**-3.8**	**8.3**	**5.5**	**5.3**	**4.3**	**6.1**	**5.4**
SJCERA Total Plan - Gross	**2.8**	**-3.4**	**8.9**	**6.1**	**6.1**	**5.0**	**6.8**	**5.9**
SJCERA Policy Benchmark[2]	*4.2*	*-3.5*	*8.2*	*5.6*	*5.9*	*5.1*	*6.8*	*5.6*
Over/Under (vs. Net)	-1.4	-0.3	0.1	-0.1	-0.6	-0.8	-0.7	-0.2
InvMetrics Public DB > $1B Net Median[1]	*3.7*	*-4.2*	*11.1*	*6.3*	*7.2*	*6.1*	*7.5*	*6.3*

[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

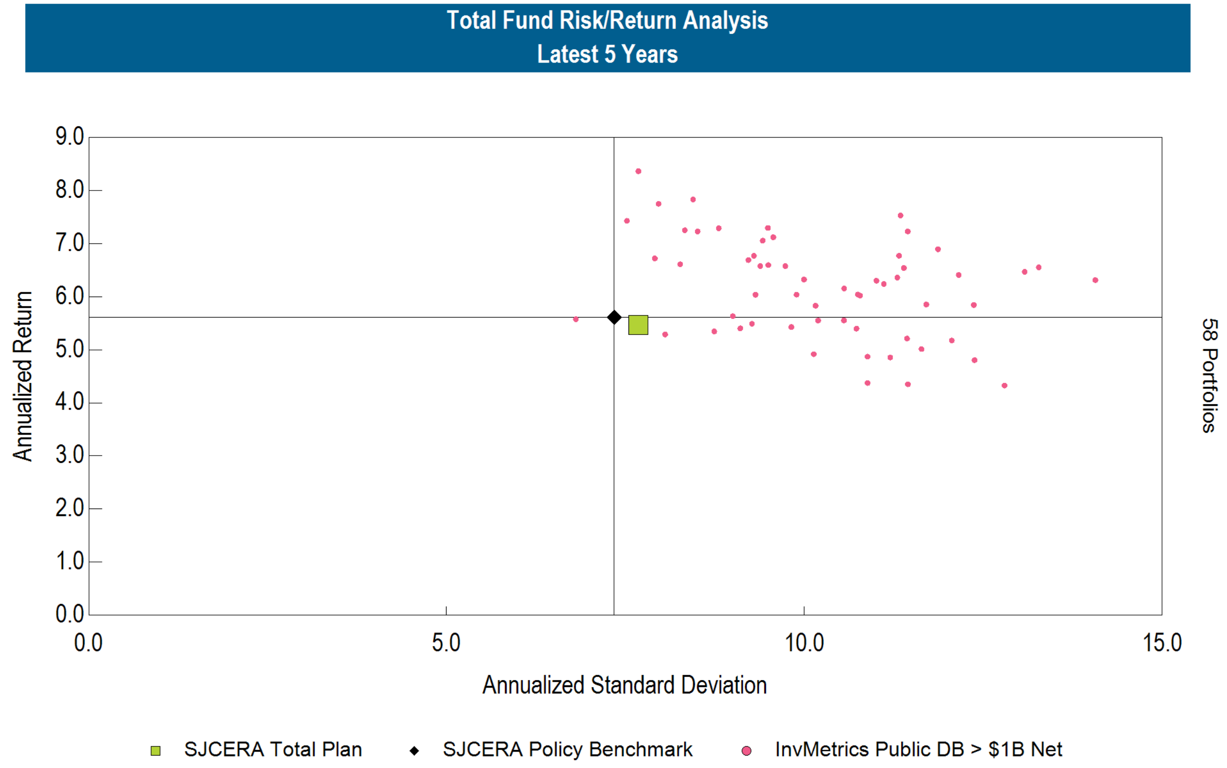
	1 Yr	3 Yrs	5 Yrs	10 Yrs
SJCERA Total Plan - Net	**-3.8**	**8.3**	**5.5**	**5.3**
Risk Adjusted Median	-3.7	9.2	4.7	5.4
Excess Return	-0.1	-0.9	0.8	-0.1

Total Fund Risk/Return Analysis
Latest 3 Years



	Anlzd Return[2]	Anlzd Standard Deviation	Sharpe Ratio
SJCERA Total Plan	8.34%	8.28%	0.90
SJCERA Policy Benchmark	8.23%	7.89%	0.93
InvMetrics Public DB > $1B Net Median[3]	11.13%	10.03%	1.01

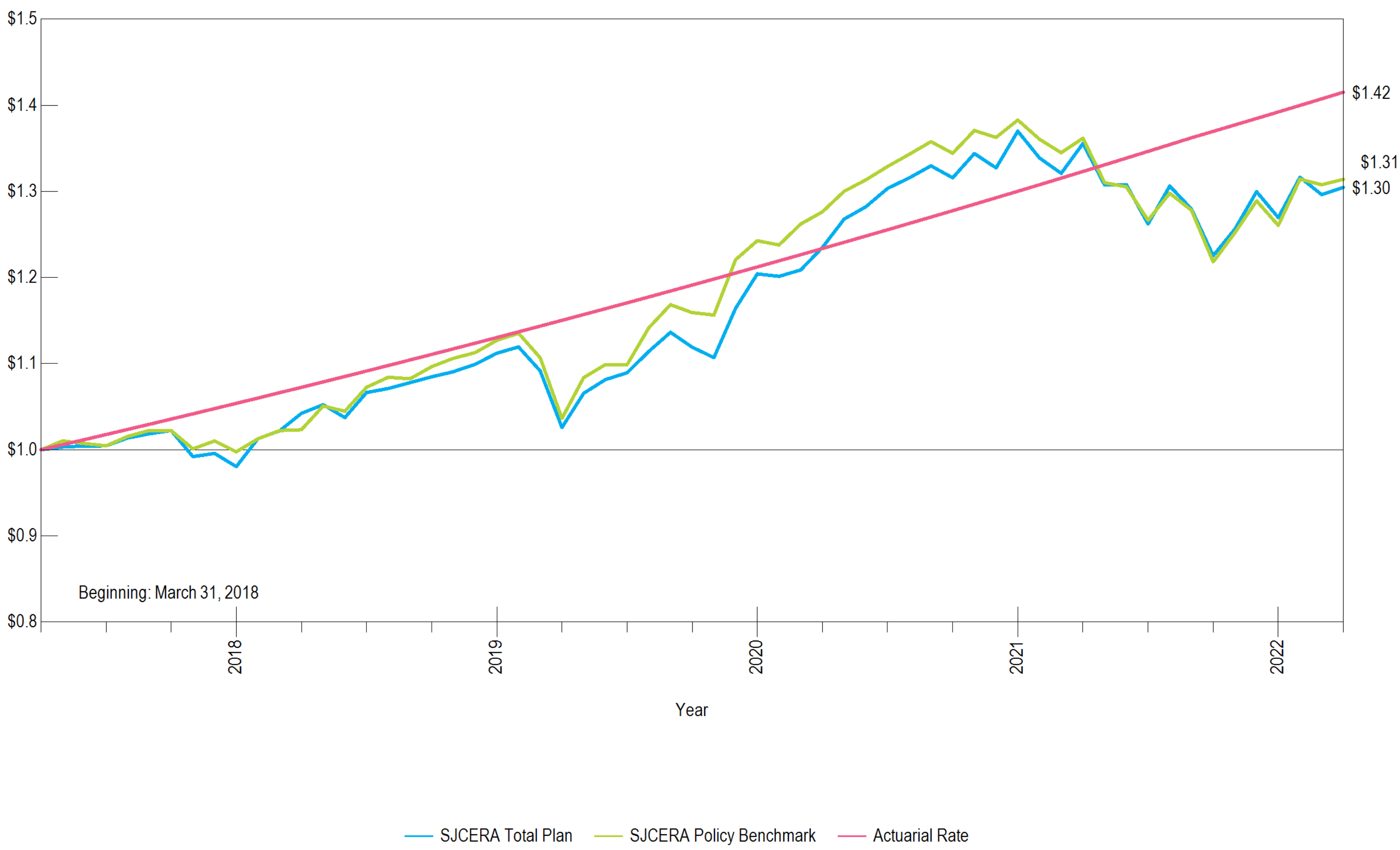
[1] Returns are net of fees.
[2] Computed as annualized return less the risk free rate, divided by the annualized standard deviation.
[3] Investment Metrics Total Fund Public Universe >$1 Billion, net of fees.



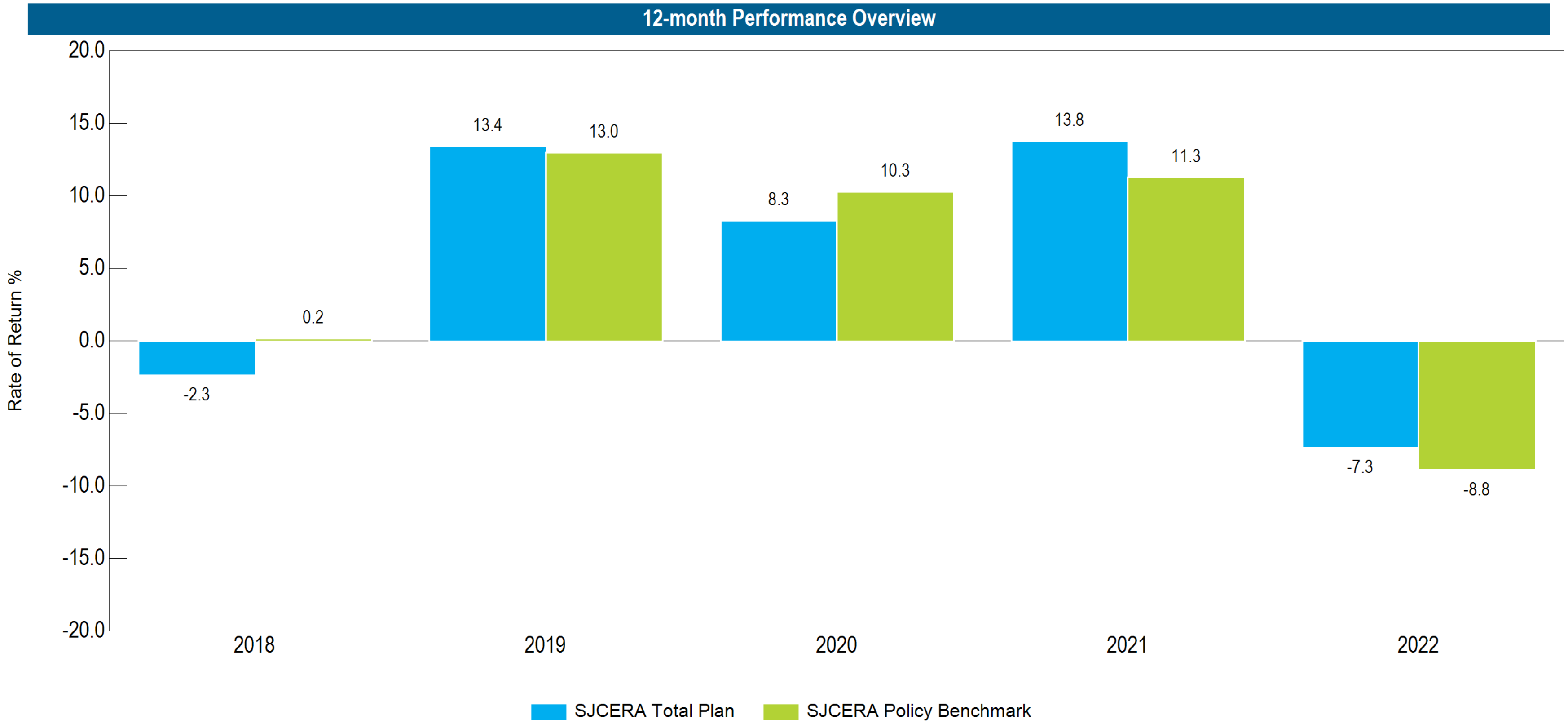
	Anlzd Return[2]	Anlzd Standard Deviation	Sharpe Ratio
SJCERA Total Plan	5.46%	7.68%	0.54
SJCERA Policy Benchmark	5.61%	7.34%	0.58
InvMetrics Public DB > $1B Net Median[3]	6.27%	10.17%	0.46

[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



[1] 6.75% Acturial 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 8/1/2016-12/31/2017. 7.5% Actuarial Rate from 1/1/2012-7/31/2016; previously 8.0%

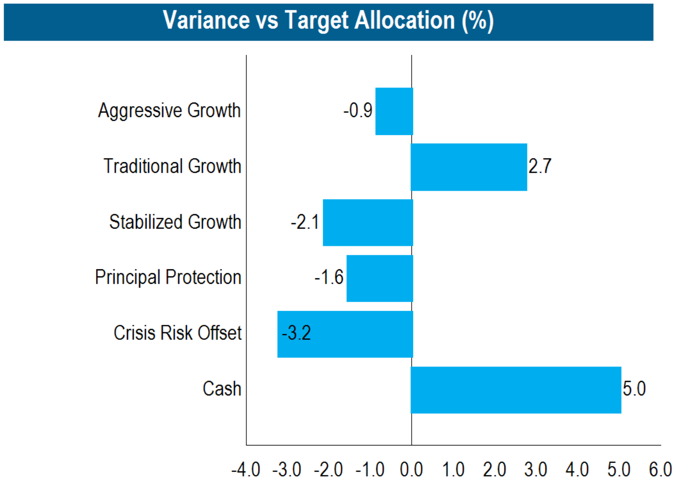


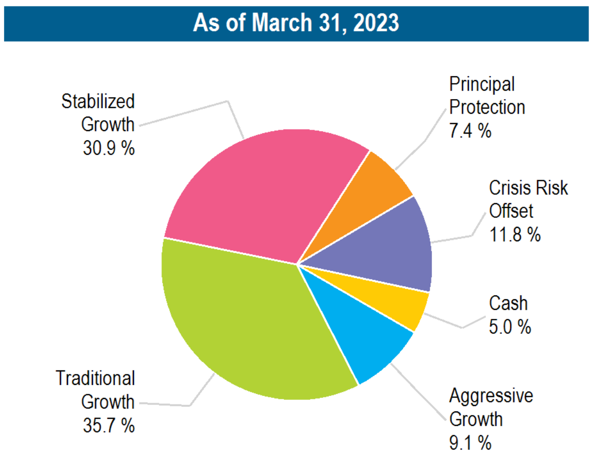
[1] 12-month absolute results have been positive over three of the last five calendar year periods, net of fees. The SJCERA Total Portfolio outperformed the policy target benchmark during three of these five periods, net of fees.

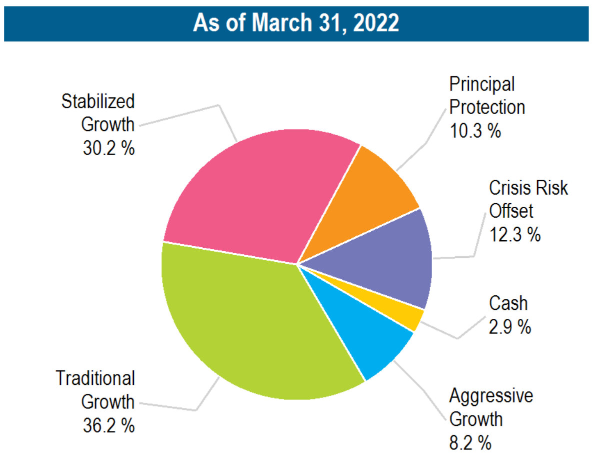
Portfolio Review

Asset Allocation vs. Target	Current	Current	Policy	Difference*
Broad Growth	**$2,984,405,664**	**75.8%**	**76.0%**	**-0.2%**
Aggressive Growth	$360,387,593	9.1%	10.0%	-0.9%
Traditional Growth	$1,407,857,630	35.7%	33.0%	2.7%
Stabilized Growth	$1,216,160,441	30.9%	33.0%	-2.1%
Diversified Growth	**$757,267,468**	**19.2%**	**24.0%**	**-4.8%**
Principal Protection	$293,110,614	7.4%	9.0%	-1.6%
Crisis Risk Offset	$464,156,855	11.8%	15.0%	-3.2%
Cash[2]	**$197,522,752**	**5.0%**	**0.0%**	**5.0%**
Cash	$197,522,752	5.0%	0.0%	5.0%
Total[1]	**$3,939,195,885**	**100.0%**	**100.0%**	

*Difference between Policy and Current Allocation







[1] Market values may not add up due to rounding.
[2] Cash asset allocation includes Parametric Overlay.

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

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
SJCERA Total Plan	**3,939,195,885**	**100.0**	**2.8**	**-3.8**	**8.3**	**5.5**	**5.3**
SJCERA Policy Benchmark[2]			*4.2*	*-3.5*	*8.2*	*5.6*	*5.9*
Broad Growth	**2,984,405,664**	**75.8**	**3.4**	**-4.3**	**11.4**	**6.5**	**6.4**
Aggressive Growth Lag	**360,387,593**	**9.1**	**0.2**	**6.3**	**18.9**	**14.7**	**12.4**
Aggressive Growth Blend			*2.6*	*-4.4*	*9.3*	*9.7*	*9.3*
Traditional Growth	**1,407,857,630**	**35.7**	**6.9**	**-6.9**	**15.3**	**5.7**	**7.4**
MSCI ACWI IMI Net			*6.9*	*-7.7*	*15.6*	*7.3*	*8.5*
Stabilized Growth	**1,216,160,441**	**30.9**	**0.5**	**-3.9**	**5.9**	**5.2**	**3.6**
SJCERA Stabilized Growth Benchmark[4]			*1.5*	*3.3*	*7.2*	*5.1*	*5.4*
Diversifying Strategies	**757,267,468**	**19.2**	**-0.2**	**-1.8**	**-0.6**	**2.4**	**3.0**
Principal Protection	**293,110,614**	**7.4**	**3.1**	**-2.5**	**-1.0**	**0.9**	**2.3**
Bloomberg US Aggregate TR			*3.0*	*-4.8*	*-2.8*	*0.9*	*1.4*
Crisis Risk Offset Asset Class	**464,156,855**	**11.8**	**-2.2**	**-0.8**	**0.0**	**3.6**	**5.1**
CRO Benchmark[3]			*1.3*	*-3.0*	*1.0*	*3.8*	*3.6*
Cash and Misc Asset Class	**166,709,695**	**4.2**	**0.7**	**2.3**	**0.8**	**1.1**	**0.7**
ICE BofA 91 Days T-Bills TR			*1.1*	*2.5*	*0.9*	*1.4*	*0.9*

[1] Market values may not add up due to rounding.
[2] Policy Benchmark composition is listed in the Appendix.
[3] 30% ICE BofAML 3 month US T-Bill + 4%, 52% 50% BB High Yield/50% S&P Leverage Loans, 18% NCREIF ODCE + 1% Lag.
[4] (1/3) BB Long Duration Treasuries, (1/3) BTOP50 Index, (1/3) 5% Annual.

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

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Aggressive Growth Lag[2]	**360,387,593**	**100.0**	**0.2**	**6.3**	**18.9**	**14.7**	**12.4**
Aggressive Growth Blend			*2.6*	*-4.4*	*9.3*	*9.7*	*9.3*
Blackrock Global Energy and Power Lag[2]	37,457,395	10.4	-3.5	3.7	5.6	--	--
MSCI ACWI +2% Blend			*10.4*	*-16.3*	*6.6*	--	--
Lightspeed Venture Ptnrs Select V Lag[2]	8,406,757	2.3	-1.3	--	--	--	--
MSCI ACWI +2% Blend			*10.4*	--	--	--	--
Morgan Creek III Lag[2]	4,660,219	1.3	0.0	-11.9	-10.8	-10.1	--
MSCI ACWI +2% Blend			*10.4*	*-16.3*	*6.6*	*8.0*	--
Morgan Creek V Lag[2]	6,974,665	1.9	0.0	-0.9	10.9	11.0	--
MSCI ACWI +2% Blend			*10.4*	*-16.3*	*6.6*	*8.0*	--
Morgan Creek VI Lag[2]	23,692,977	6.6	0.0	-10.0	17.8	16.2	--
MSCI ACWI +2% Blend			*10.4*	*-16.3*	*6.6*	*8.0*	--
Ocean Avenue II Lag[2]	37,682,566	10.5	-4.5	12.0	39.2	26.6	--
MSCI ACWI +2% Blend			*10.4*	*-16.3*	*6.6*	*8.0*	--
Ocean Avenue III Lag[2]	52,236,036	14.5	2.9	16.9	26.3	25.8	--
MSCI ACWI +2% Blend			*10.4*	*-16.3*	*6.6*	*8.0*	--
Ocean Avenue IV Lag[2]	58,810,100	16.3	9.7	42.1	35.5	--	--
MSCI ACWI +2% Lag[2]			*10.4*	*-16.3*	*6.6*	--	--
Non-Core Real Assets Lag[2,3]	99,717,632	27.7	-2.3	-9.5	8.8	6.6	7.5
NCREIF ODCE +1% lag (blend)			*-4.9*	*7.6*	*10.0*	*8.8*	*10.2*
Stellex Capital Partners II Lag[2]	30,749,246	8.5	-1.3	21.2	--	--	--
MSCI ACWI +2% Lag[2]			*10.4*	*-16.3*	--	--	--

[1]Market values may not add up due to rounding.
[2] Lagged 1 quarter.
[3] Trailing Non-Core real estate performance includes returns provided by prior real estate consultant from inception through Q419.
[4] Q422 data not available at the time of this report. Values reported reflect Q322 market value adjusted by Q422 cash flows.

Aggressive Growth

During the latest three-month period ending March 31, 2023, of the six managers who have reported results, none of them outperformed the 10.4% mark that the MSCI ACWI + 2% benchmark set for the period; however, we are still waiting on performance data from the three Morgan Creek funds. Non-Core Real Assets outperformed its benchmark by 2.6%, please note that return data for this asset class is lagged one quarter.

BlackRock Global Energy and Power, a fund with a focus on infrastructure, underperformed its target benchmark over the quarter and 3-year periods by (13.9%) and (1.0%), respectively. It did, however, outperform the benchmark by 20% over the 1-year period.

Lightspeed Venture Partners Select V, the newest manager in the aggressive growth sleeve, underperformed its target benchmark over the quarter by (11.7%).

Morgan Creek Funds III, V, & VI, Morgan Creek is still waiting on their auditor to finish reviewing their 2022 year-end performance, as a result the 0.0% listed in the QTD performance column of this report is a placeholder for data still being audited. Once that data is available, we will update the quarterly performance numbers, and as a result the historical performance numbers will also be revised.

Ocean Avenue II, underperformed its benchmark for the quarter by (14.9%). However, it outperformed the benchmark over the 1-, 3- and 5-year periods by 28.3%, 32.6%, and 18.6%, respectively.

Ocean Avenue III, underperformed its benchmark for the quarter by (7.5%). That said, it outperformed its benchmark over the 1-, 3- and 5-year periods by 33.2%, 19.7% and 17.8%, respectively.

Ocean Avenue IV, underperformed its benchmark for the quarter by (0.7%). However, it outperformed over the 1- and 3-year periods by 58.4% and 28.9% respectively.

Non-Core Real Assets outperformed its NCREIF ODCE +1% benchmark over the quarter by 2.6%. However, it underperformed over the 1-, 3-, 5- and 10-year periods by (17.1%), (1.2%), (2.2%), and (2.7%), respectively.

Stellex II, underperformed its benchmark during the quarter by (11.7%); however, it outperformed the benchmark over the 1-year period by 37.5%.

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Traditional Growth	**1,407,857,630**	**100.0**	**6.9**	**-6.9**	**15.3**	**5.7**	**7.4**
MSCI ACWI IMI Net			*6.9*	*-7.7*	*15.6*	*7.3*	*8.5*
SJCERA Transition	3,118	0.0					
Northern Trust MSCI World	1,227,697,446	87.2	7.4	-6.5	--	--	--
MSCI World IMI Net USD			*7.3*	*-7.3*	--	--	--
PIMCO RAE Emerging Markets	79,199,262	5.6	4.2	-2.7	18.4	1.3	3.5
MSCI Emerging Markets			*4.0*	*-10.7*	*7.8*	*-0.9*	*2.0*
GQG Active Emerging Markets	57,769,292	4.1	3.5	-11.4	--	--	--
MSCI Emerging Markets			*4.0*	*-10.7*	--	--	--
Invesco REIT	43,188,513	3.1	2.4	-17.5	9.3	5.0	5.9
FTSE NAREIT Equity REIT			*2.7*	*-19.2*	*12.1*	*6.0*	*6.0*

[1] Market values may not add up due to rounding.

Traditional Growth

During the latest three-month period ending March 31, 2023, the traditional growth asset class matched its MSCI ACWI IMI benchmark with two of the four managers outperforming their benchmarks.

Northern Trust MSCI World, the Plan's Passive Global Equity manager, outperformed its benchmark over the past quarter by 0.1% and outperformed over the 1-year period by 0.8% as well.

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 0.2%, 8.0%, 10.6%, 2.2% and 0.5%, respectively.

GQG Active Emerging Markets, Underperformed its MSCI Emerging Markets benchmark by (0.5%) for the quarter and (0.7%) for the 1-year period.

Invesco, the Plan's Core US REIT manager, underperformed the FTSE NAREIT Equity REIT Index for the quarter, 3-, 5- and 10-year periods by (0.3%), (2.8%), (1.0%) and (0.1%), respectively; however, it outperformed its benchmark for the trailing 1-year period by 1.7%.

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

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Stabilized Growth	**1,216,160,441**	**100.0**	**0.5**	**-3.9**	**5.9**	**5.2**	**3.6**
SJCERA Stabilized Growth Benchmark[2]			*1.5*	*3.3*	*7.2*	*5.1*	*5.4*
Risk Parity Asset Class	**379,187,859**	**31.2**	**5.9**	**-15.6**	**3.0**	**2.3**	**1.1**
ICE BofAML 3mo US TBill+4%			*2.1*	*6.6*	*4.9*	*5.5*	*4.9*
Bridgewater All Weather	194,896,842	16.0	7.0	-13.2	4.3	2.8	2.9
Bridgewater All Weather (blend)			*2.1*	*6.6*	*4.9*	*5.5*	*5.5*
PanAgora Diversified Risk Multi Asset	184,291,017	15.2	4.8	-18.0	1.7	1.7	--
ICE BofAML 3mo US TBill+4%			*2.1*	*6.6*	*4.9*	*5.5*	--
Liquid Credit	**229,408,414**	**18.9**	**2.0**	**-0.4**	**5.6**	**2.0**	**2.4**
50% BB US HY/50% S&P LSTA Lev Loan			*3.4*	*-0.3*	*7.3*	*3.5*	*4.0*
Neuberger Berman	98,057,798	8.1	2.4	-3.4	4.8	--	--
33% ICEBofAMLUSHY /33%JPMEMBI Global Div /33% S&P LSTALevLoan			*2.9*	*-2.5*	*4.8*	--	--
Stone Harbor Absolute Return	131,350,616	10.8	1.7	2.0	6.4	2.3	2.5
ICE BofA-ML LIBOR			*1.1*	*2.4*	*1.0*	*1.6*	*1.1*
Private Credit Lag	**369,046,775**	**30.3**	**-2.1**	**0.0**	**4.2**	**3.6**	**3.0**
Custom Credit Benchmark			*3.4*	*-6.0*	*1.3*	*2.8*	*3.9*
Blackrock Direct Lending Lag	88,584,831	7.3	-4.2	-1.5	--	--	--
CPI + 6% BLK Blend			*3.4*	*2.2*	--	--	--
Crestline Opportunity II Lag	13,111,344	1.1	-8.7	-15.9	-2.3	-1.9	--
Credit Blend S&P/LSTA Lev Loan +3%			*3.4*	*2.2*	*7.6*	*7.7*	--
Davidson Kempner Long-Term Distressed Opportunities Fund V, L.P. Lag	47,376,527	3.9	-0.3	-0.6	--	--	--
Credit Blend S&P/LSTA Lev Loan +3%			*3.4*	*2.2*	--	--	--

[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.

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
HPS European Asset Value II, LP Lag	25,485,809	2.1	2.6	9.8	--	--	--
Credit Blend S&P/LSTA Lev Loan +3%			*3.4*	*2.2*	--	--	--
Medley Opportunity II Lag	4,378,784	0.4	0.0	0.0	-7.0	-9.4	-2.4
Credit Blend S&P/LSTA Lev Loan +3%			*3.4*	*2.2*	*7.6*	*7.7*	*8.4*
Mesa West IV Lag	37,723,245	3.1	-1.3	-1.9	4.6	6.0	--
Credit Blend S&P/LSTA Lev Loan +3%			*3.4*	*2.2*	*7.6*	*7.7*	--
Oaktree Middle-Market Direct Lending Lag	30,874,431	2.5	-4.6	1.8	11.7	--	--
Credit Oaktree Blend			*3.4*	*2.2*	*6.7*	--	--
Raven Opportunity III Lag	56,961,866	4.7	-2.5	6.9	7.4	8.3	--
Credit Blend S&P/LSTA Lev Loan +3%			*3.4*	*2.2*	*7.6*	*7.7*	--
White Oak Summit Peer Lag	24,855,132	2.0	0.7	-10.2	-2.0	1.6	--
Credit Blend S&P/LSTA Lev Loan +3%			*3.4*	*2.2*	*7.6*	*7.7*	--
White Oak Yield Spectrum Master V Lag	39,694,806	3.3	0.0	2.1	3.6	--	--
Credit Blend S&P/LSTA Lev Loan +3%			*3.4*	*2.2*	*7.6*	--	--
Private Core Real Assets Lag	238,517,393	19.6	-5.0	9.5	16.0	14.0	14.1
NCREIF ODCE +1% lag (blend)[2]			*-4.9*	*7.6*	*10.0*	*8.8*	*10.2*

[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 March 31, 2023, twelve of SJCERA's fifteen Stabilized Growth managers underperformed their benchmarks while the other three 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 lagged the benchmark by (0.1%).

Bridgewater All Weather, one of the Plan's Risk Parity managers, outperformed its benchmark during the most recent quarter by 4.9%. However, the manager underperformed over the 1-, 3-, 5- and 10-year periods by (19.8%), (0.6%), (2.7%), and (2.6%), respectively.

PanAgora DRMA, one of the Plan's Risk Parity managers, outperformed its benchmark over the quarter by 2.7%. PanAgora trailed the benchmark over the 1-, 3- and 5-year time periods by (24.6%), (3.2%), and (3.8%), respectively.

Neuberger Berman, one of the Plan's Liquid Credit managers, underperformed its benchmark for the quarter and 1- year periods by (0.5%) and (0.9%), respectively. The manager was in line with the benchmark over the 3-year time period returning 4.8%.

Stone Harbor, the Plan's Absolute Return Fixed Income manager, underperformed its ICE BofAML LIBOR index over the 1-year period by (0.6%), but outperformed over the quarter, 3-, 5- and 10-year periods by 0.6%, 5.4%, 0.7%, and 1.4%, respectively.

BlackRock Direct Lending, one of the Plan's newer Private Credit managers, trailed its CPI +6% BLK Blend benchmark over the quarter and 1-year periods by (7.6%) and (3.7%), 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 (12.1%), (18.1%), (9.9%) and (9.6%), respectively.

Davidson Kempner, the Plan's newest Private Credit manager, trailed its benchmark over the quarter and 1-year periods by (3.7%) and (2.8%) respectively.

Stabilized Growth (continued)

HPS EU, one of the Plan's newer Direct Lending managers, trailed its benchmark for the quarter by (0.8%); however, it outperformed by 7.6% over the 1-year period.

Medley Opportunity II, one of the Plan's Direct Lending managers, lagged its benchmark over the quarter, 1-, 3-, 5- and 10-year time periods by (3.4%), (2.2%), (14.6%), (17.1%), and (10.8%), respectively.

Mesa West RE Income IV, one of the Plan's Commercial Mortgage managers, lagged its benchmark over the quarter, 1-, 3-, and 5-year time periods by (4.7%), (4.1%), (3.0%), and (1.7%), respectively.

Oaktree, a Middle-Market Direct Lending manager, trailed its benchmark over the quarter and 1-year periods by (8.0%) and (0.4%), respectively; however, it outperformed over the 3-year period by 5.0%.

Raven Opportunity III underperformed its target for the quarter and 3-year periods by (5.9%) and (0.2%), respectively; however, it outperformed the benchmark for the 1- and 5-year periods by 4.7% and 0.6%, 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 (2.7%), (12.4%), (9.6%) and (6.1%), respectively.

White Oak Yield Spectrum Master V trailed its benchmark over the quarter, 1- and 3-year period by (3.4%), (0.1), and (4.0%).

Private Core Real Assets, trailed the NCREIF ODCE +1% benchmark over the most recent quarter by (0.1%); however, it exceeded the target over the 1-, 3-, 5- and 10-year time periods by 1.9%, 6.0%, 5.2%, and 3.9%, respectively.

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

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Principal Protection	**293,110,614**	**100.0**	**3.1**	**-2.5**	**-1.0**	**0.9**	**2.3**
Bloomberg US Aggregate TR			*3.0*	*-4.8*	*-2.8*	*0.9*	*1.4*
Dodge & Cox Fixed Income	199,944,563	68.2	3.0	-2.8	0.3	2.1	2.6
Bloomberg US Aggregate TR			*3.0*	*-4.8*	*-2.8*	*0.9*	*1.4*
DoubleLine	6,128	0.0	1.0	-75.7	-36.3	-22.9	-10.5
Bloomberg US Aggregate TR			*3.0*	*-4.8*	*-2.8*	*0.9*	*1.4*
Loomis Sayles	93,159,923	31.8	3.3	-4.3	--	--	--
Bloomberg US Aggregate TR			*3.0*	*-4.8*	--	--	--

[1] Market values may not add up due to rounding.

Principal Protection

During the latest three-month period ending March 31, 2023, one of SJCERA's Principal Protection managers outperformed the Bloomberg US Aggregate Index benchmark, one was in line with the benchmark, and the third underperformed the target for the quarter.

Dodge & Cox, the Plan's Core Fixed Income manager, earned a positive quarterly return of 3.0%, matching the US Agg for the period. It led its benchmark by 2.0%, 3.1%, 1.2% and 1.2% for the trailing 1-, 3-, 5- and 10-year periods, respectively.

DoubleLine, the Plan's Mortgage-Backed Securities manager, provided a positive quarterly return of 1.0%, underperforming its benchmark by (2.0%). The manager also underperformed its benchmark over the trailing 1-, 3-, 5- and 10-year time periods by (70.9%), (33.5%), (23.8%) and (11.9%), respectively.

Loomis Sayles, the Plan's newest Principal Protection manager, was funded in Q1 2022 and outperformed the US Agg during the quarter and 1-year periods by 0.3% and 0.5% respectively.

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Crisis Risk Offset Asset Class	**464,156,855**	**100.0**	**-2.2**	**-0.8**	**0.0**	**3.6**	**5.1**
CRO Benchmark			*1.3*	*-3.0*	*1.0*	*3.8*	*3.6*
Long Duration	**119,413,368**	**25.7**	**6.7**	**-14.7**	**-10.8**	**-0.2**	**--**
Bloomberg US Treasury Long TR			*6.2*	*-16.0*	*-11.3*	*-0.4*	*--*
Dodge & Cox Long Duration	119,413,368	25.7	6.7	-14.7	-10.8	-0.2	--
Bloomberg US Treasury Long TR			*6.2*	*-16.0*	*-11.3*	*-0.4*	*--*
Systematic Trend Following	**228,531,735**	**49.2**	**-5.3**	**0.9**	**12.4**	**7.1**	**9.2**
BTOP 50 (blend)			*-3.7*	*1.4*	*9.4*	*5.9*	*3.8*
Graham Tactical Trend	110,996,394	23.9	-6.4	1.0	12.0	7.0	--
SG Trend			*-7.3*	*0.3*	*10.2*	*7.7*	*--*
Mount Lucas	117,535,341	25.3	-4.1	0.8	12.8	7.0	8.3
BTOP 50 (blend)			*-3.7*	*1.4*	*9.4*	*5.9*	*3.8*
Alternative Risk Premium	**116,211,752**	**25.0**	**-4.9**	**8.9**	**-4.6**	**0.8**	**2.3**
5% Annual (blend)			*1.2*	*5.0*	*5.0*	*5.0*	*6.9*
AQR Style Premia	54,545,728	11.8	-1.1	15.9	8.6	-2.2	--
5% Annual			*1.2*	*5.0*	*5.0*	*5.0*	*--*
P/E Diversified Global Macro	61,666,024	13.3	-8.2	21.1	-10.4	3.6	--
5% Annual			*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 March 31, 2023, two out of five of SJCERA's Crisis Risk Offset managers outperformed their respective benchmarks and three managers underperformed the benchmark.

Dodge & Cox Long Duration produced a positive quarterly return of 6.7%, which outperformed the Bloomberg US Long Duration Treasuries benchmark by 0.5%. The manager also outperformed its benchmark over the 1-,3- and 5-year periods by 1.3%, 0.5%, and 0.2% respectively.

Graham Tactical Trend, one of the Plan's Systematic Trend Following managers, outperformed the SG Trend Index for the quarter, 1-, and 3-year periods by 0.9%, 0.7%, and 1.8% respectively. The manager trailed the benchmark over the 5-year period by (0.7%).

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 (0.4%) and (0.4%), respectively; however, it outperformed the target over the 3-, 5- and 10-year periods by 3.4%, 1.1%, and 4.5%, respectively.

AQR, one of the Plan's Alternative Risk Premium managers, underperformed its 5% Annual target for the quarter and 5-year periods by (2.3%) and (7.2%), respectively; however, it outperformed the target over the 1- and 3-year periods by 10.9% and 3.6%, respectively.

P/E Diversified, one of the Plan's Alternative Risk Premium managers, underperformed its 5% Annual target for the quarter, 3- and 5-year periods by (10.4%), (15.4%) and (1.4%), respectively. However, the manager outperformed the target over the trailing 1-year period by 16.1%.

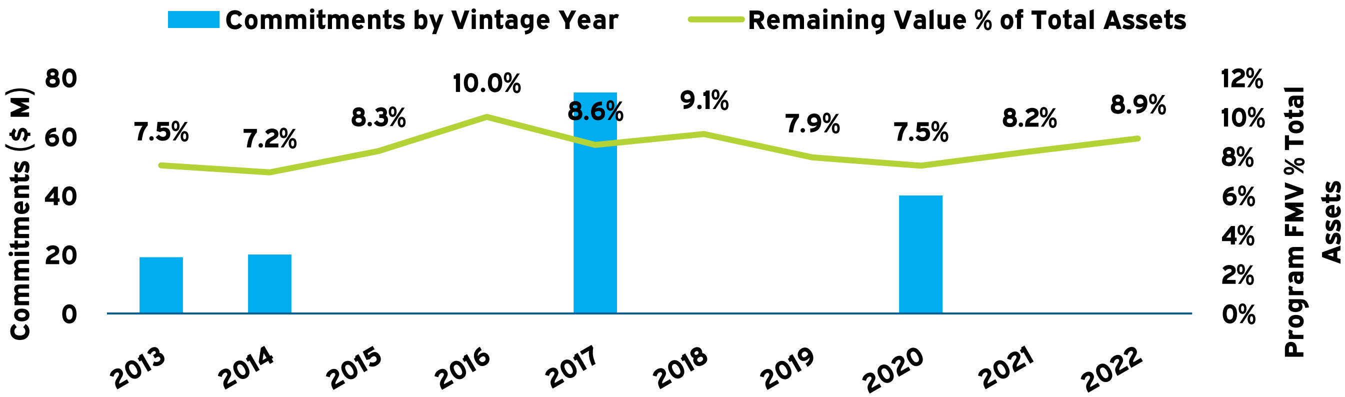
Real Estate Program

December 31, 2022

Table of Contents | As of December 31, 2022

Introduction

The Retirement Association's target allocation towards real estate assets is 10-12%. As of December 31, 2022, the Retirement Association had invested with eighteen real estate managers (three private open-end and fifteen private closed-end). The aggregate reported value of the Retirement Association's real estate investments was $338.2 million at quarter-end.



Program Status

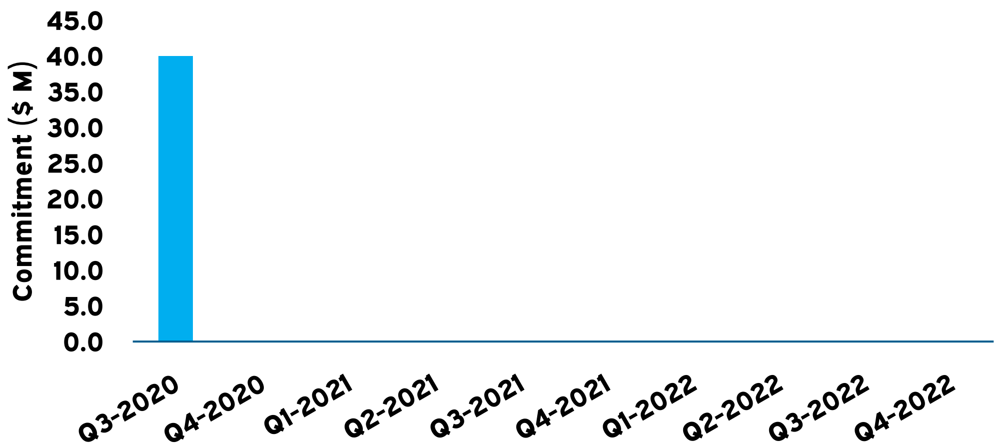
No. of Investments	18
Committed ($ M)	501.6
Contributed ($ M)	458.8
Distributed ($ M)	387.4
Remaining Value ($ M)	338.2

Performance Since Inception

	Program
DPI	0.84x
TVPI	1.58x
IRR	7.8%

Commitments

Recent Quarterly Commitments



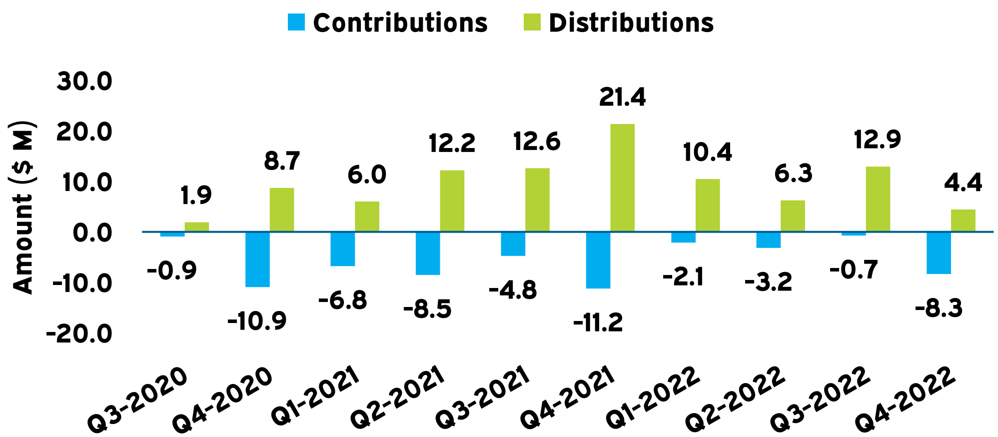
Commitments This Quarter

Fund	Strategy	Region	Amount (M)

None to report.

Cash Flows

Recent Quarterly Cash Flows



Largest Contributions This Quarter

Fund	Vintage	Strategy	Region	Amount ($M)
Berkeley V	2020	Value-Added	North America	5.29
Stockbridge RE III	2017	Value-Added	North America	2.31
Prologis Logistics	2004	Core	North America	0.75

Largest Distributions This Quarter

Fund	Vintage	Strategy	Region	Amount ($M)
Grandview I-A	2017	Opportunistic	North America	1.84
Stockbridge RE III	2017	Value-Added	North America	1.20
Prologis Logistics	2004	Core	North America	0.75

Significant Events

→ During the fourth quarter, Berkeley Partners Value Industrial Fund V completed four acquisitions, including three properties in Massachusetts and one portfolio in Phoenix, AZ. Fund V also closed on the disposition of 333 Centennial Parkway, a multi-tenant property in Louisville, Colorado, in December 2022, generating $35.2 million in proceeds and a 2.5x gross return.

→ In October 2022, Grandview I-A (fka Greenfield Acquisition Partners VIII) sold I-75 Logistics Center, an industrial development site in Pasco County, FL for $59 million after acquiring the land parcel in 2021.

→ Prologis Targeted U.S. Logistics Fund acquired one asset in the fourth quarter of 2022 for $10.9 million. The acquisition constitutes a last-touch facility in New York/New Jersey, adjacent to an existing USLF property. Overall, the Fund experienced a -5.8% net appreciation return for the quarter as valuation repricing continues with cap rate expansion, although the operating environment remains strong within industrial.

→ During the fourth quarter, Stockbridge Value Fund III closed on the sale of two assets, first exiting its investment in Burnham 600, an office asset in Chicago, for a gross sales price of $10.8 million in October 2022. The office building was exited at a loss, producing a 0.3x gross multiple. Subsequently, in November 2022, Stockbridge closed on the disposition of the Elk Grove Village, a component of Chicago Infill Industrial, for a gross sales price of $70.0 million.

→ In December 2022, Walton Street Real Estate Fund V sold Las Lapalpas/Mahekal resort hotel for $56 million, with an 8% cap rate. Fund V also sold Esmerelda, a portion of the MERCAP Retail Portfolio, in December 2022, distributing $2.1 million to the venture partners.

→ Miller Global VI and Miller Global VII were both liquidated in the fourth quarter.

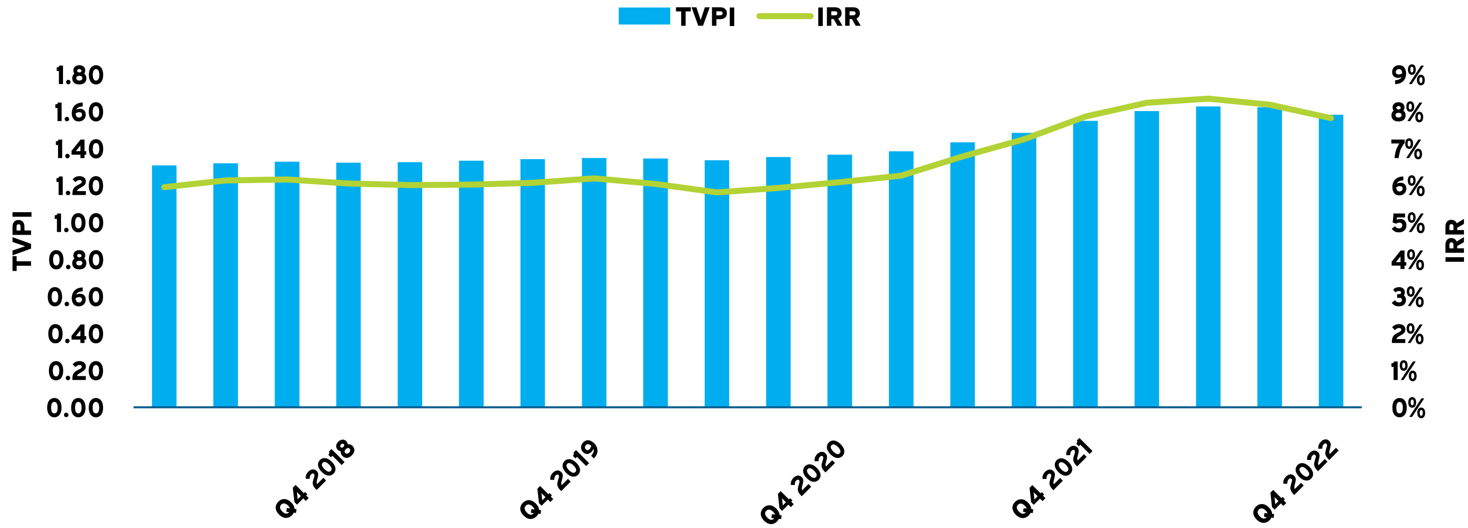
By Strategy

Group	Number	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	Exposure ($ M)	DPI (X)	TVPI (X)	IRR (%)
Core	3	120.5	127.6	0.0	33.5	238.5	238.5	0.26	2.13	9.0
Opportunistic	9	204.1	182.3	23.2	222.0	27.4	50.6	1.22	1.37	5.9
Value-Added	6	177.0	148.9	31.5	131.9	72.3	103.8	0.89	1.37	9.6
Total	**18**	**501.6**	**458.8**	**54.7**	**387.4**	**338.2**	**393.0**	**0.84**	**1.58**	**7.8**

By Vintage

Group	Number	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	Exposure ($ MM	DPI (X)	TVPI (X)	IRR (%)
Open-end Fund	3	120.5	127.6	0.0	33.5	238.5	238.5	0.26	2.13	9.0
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	20.4	1.0	1.0	0.68	0.72	-3.6
2007	4	96.0	84.0	12.0	115.9	6.6	18.6	1.38	1.46	7.4
2011	2	50.0	38.3	11.7	47.2	4.1	15.8	1.23	1.34	9.4
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	29.5	2.3	3.1	1.62	1.74	13.4
2014	1	20.0	19.0	1.8	14.7	9.9	11.7	0.77	1.29	6.3
2017	2	75.0	65.7	10.8	56.7	45.8	56.6	0.86	1.56	19.4
2020	1	40.0	27.6	14.2	2.9	29.9	44.1	0.11	1.19	16.1
Total	**18**	**501.6**	**458.8**	**54.7**	**387.4**	**338.2**	**393.0**	**0.84**	**1.58**	**7.8**

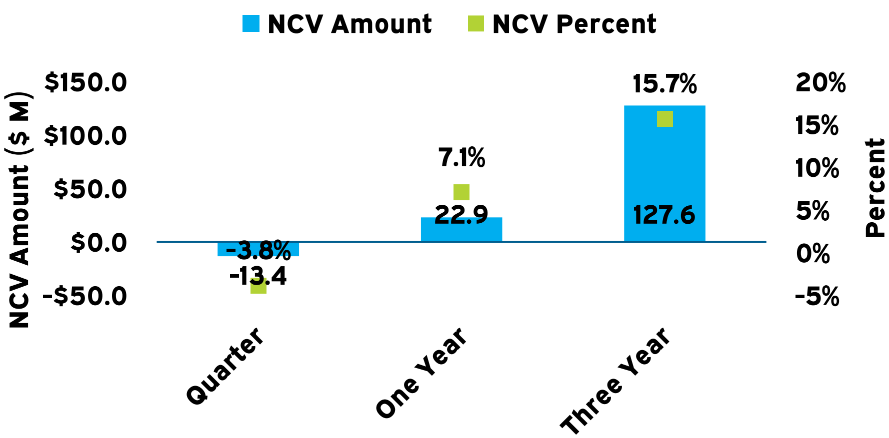
Since Inception Performance Over Time



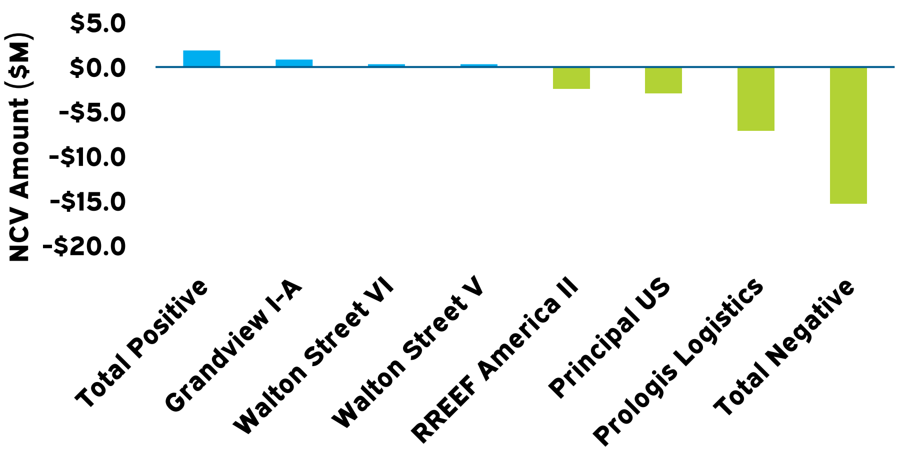
Horizon IRRs

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	7.1	15.2	11.9	11.7	7.8
Public Market Equivalent	-29.6	-6.4	-2.1	0.9	1.8

Periodic NCV



1 Quarter Drivers Of NCV

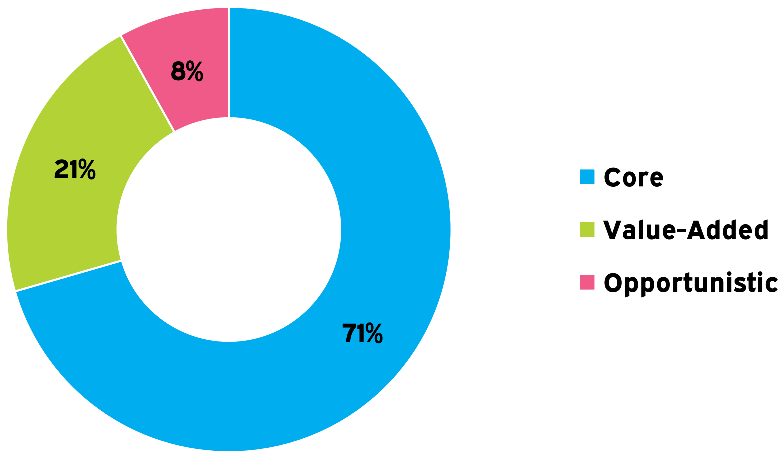


Fund Performance: Sorted By Vintage And Strategy

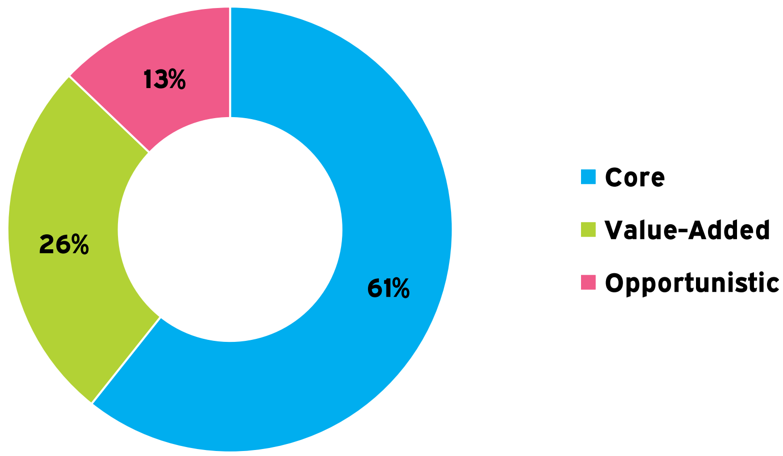
By Investment	Vintage	Strategy	Committed ($ M)	Contributed ($ M)	Unfunded ($ M)	Distributed ($ M)	Remaining Value ($ M)	TVPI (X)	IRR (%)
Principal US	Open-end	Core	25.0	25.0	0.0	0.0	43.8	1.75	8.3
Prologis Logistics	Open-end	Core	50.5	57.6	0.0	23.1	131.3	2.68	9.2
RREEF America II	Open-end	Core	45.0	45.0	0.0	10.4	63.5	1.64	8.6
Miller GLobal Fund V	2005	Opportunistic	15.0	14.5	0.5	17.6	0.0	1.21	3.4
Walton Street V	2006	Opportunistic	30.0	30.0	0.0	20.4	1.0	0.72	-3.6
Greenfield V	2007	Opportunistic	30.0	29.6	0.4	40.4	0.2	1.37	8.3
Miller Global VI	2007	Opportunistic	30.0	21.1	8.9	33.4	0.0	1.58	7.7
Walton Street VI	2007	Opportunistic	15.0	13.3	1.7	15.2	6.4	1.63	8.4
Colony Realty III	2007	Value-Added	21.0	20.0	1.0	26.9	0.0	1.35	5.3
Greenfield VI	2011	Opportunistic	20.0	19.2	0.8	26.2	0.0	1.37	9.6
Almanac Realty VI	2011	Value-Added	30.0	19.1	10.9	21.0	4.1	1.31	9.1
Miller Global VII	2012	Opportunistic	15.0	12.1	2.9	16.1	0.0	1.33	14.4
Colony Realty IV	2012	Value-Added	21.0	21.7	0.0	32.9	0.0	1.51	11.9
Greenfield VII	2013	Opportunistic	19.1	18.3	0.8	29.5	2.3	1.74	13.4
AG Core Plus IV	2014	Value-Added	20.0	19.0	1.8	14.7	9.9	1.29	6.3
Grandview I-A	2017	Opportunistic	30.0	24.3	7.2	23.3	17.4	1.67	23.7
Stockbridge RE III	2017	Value-Added	45.0	41.4	3.6	33.5	28.4	1.50	17.0
Berkeley V	2020	Value-Added	40.0	27.6	14.2	2.9	29.9	1.19	16.1
Total			**501.6**	**458.8**	**54.7**	**387.4**	**338.2**	**1.58**	**7.8**

By Strategy

Percent of FMV

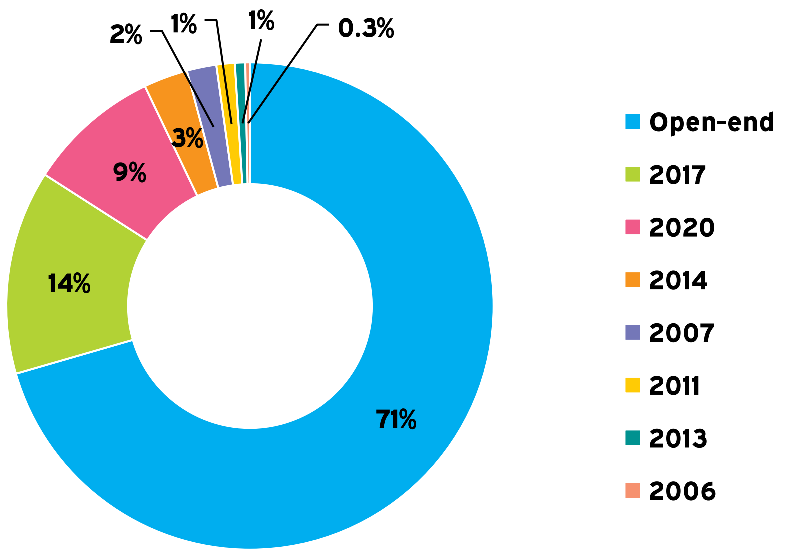


Percent of Exposure

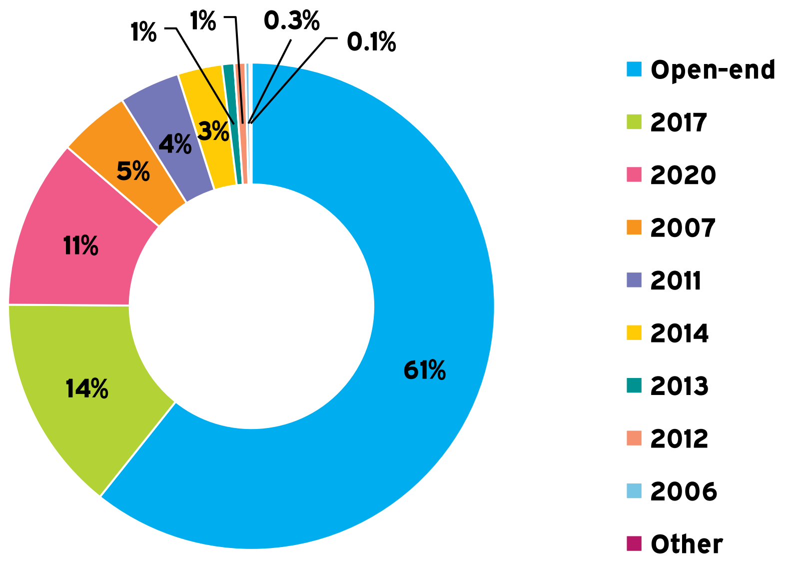


By Vintage

Percent of FMV

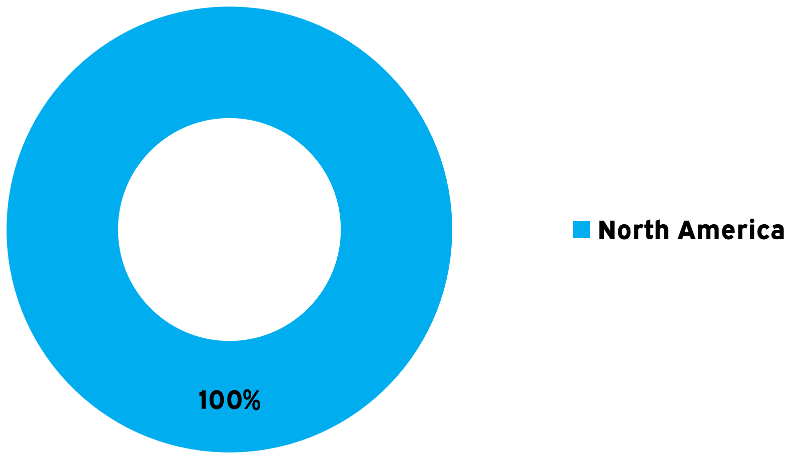


Percent of Exposure

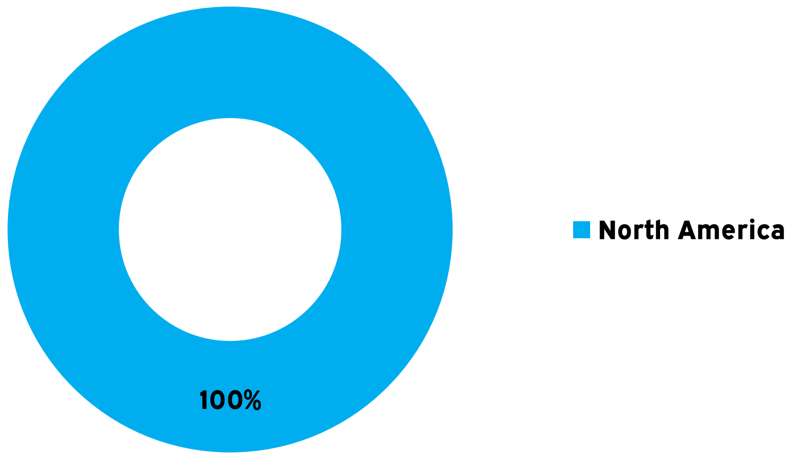


By Geographic Focus

Percent of FMV



Percent of Exposure



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.

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.

Capital Markets Outlook & Risk Metrics

As of March 31, 2023

Capital Markets Outlook

→ Despite banking turmoil in the US and Switzerland, most global markets posted positive returns in the month of March and for the first quarter of 2023.

→ Chinese equities outperformed emerging and developed markets in March although the performance of on-shore markets lagged Hong Kong and US-listed Chinese securities.

→ Developed market equities lagged US and emerging market equities with growth stocks outperforming value stocks in March.

→ US stocks posted a strong start to the year in the first quarter with large cap and growth stocks outperforming small cap and value stocks.

→ Commodities turned negative in the first quarter weighing on natural resource stocks in the month of March.

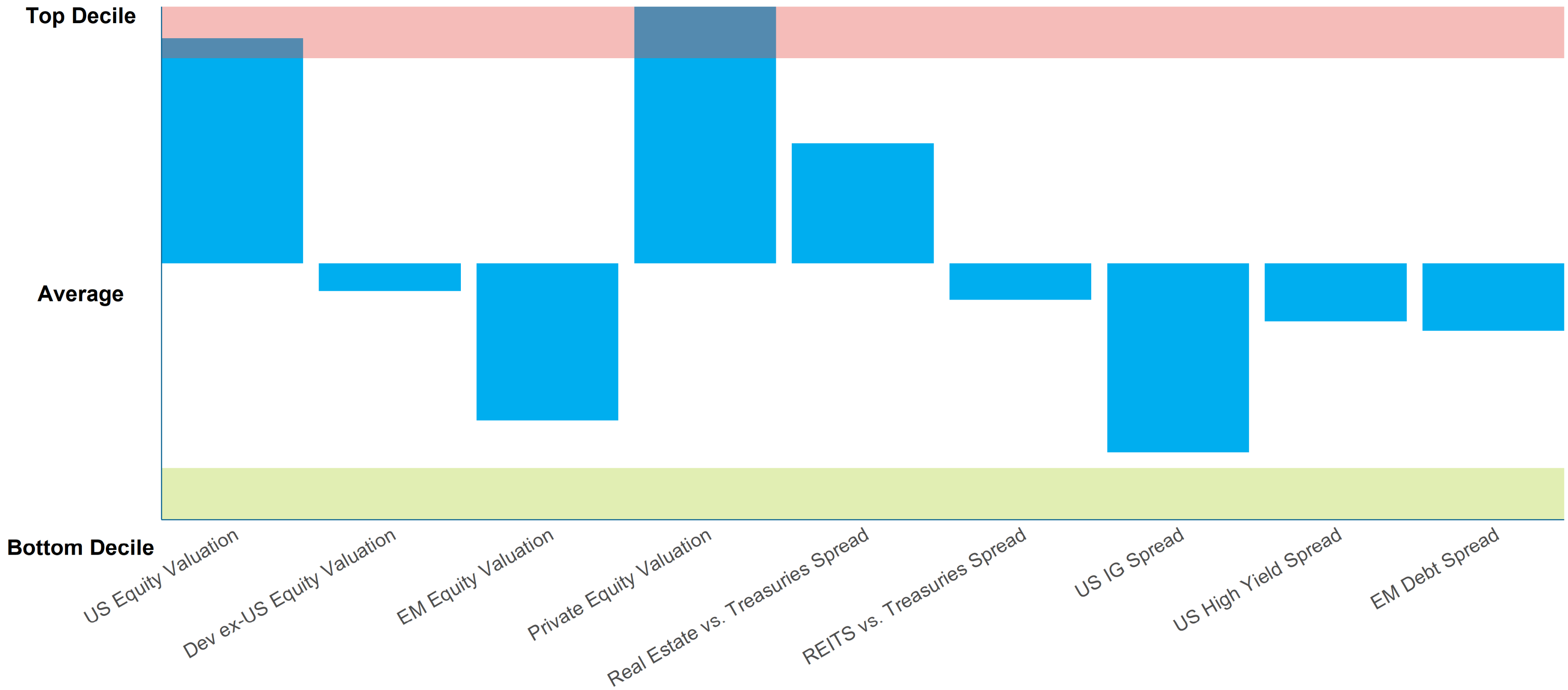
→ Most fixed income markets posted positive returns in March and for the first quarter, despite their sell-off in February.

→ The US yield curve remains steeply inverted with short-duration bond yields rising whereas longer dated bond yields fell with long-duration credit and government indices posting strong returns in the first quarter.

→ Undeterred from bank turmoil, the Fed and the ECB raised interest rates in February. While they appear focused on fighting inflation with higher interest rates, markets appear unconvinced.

→ The drive to fight inflation may stall economic growth and increase downward pressure on corporate earnings, stock valuations, and bond returns.

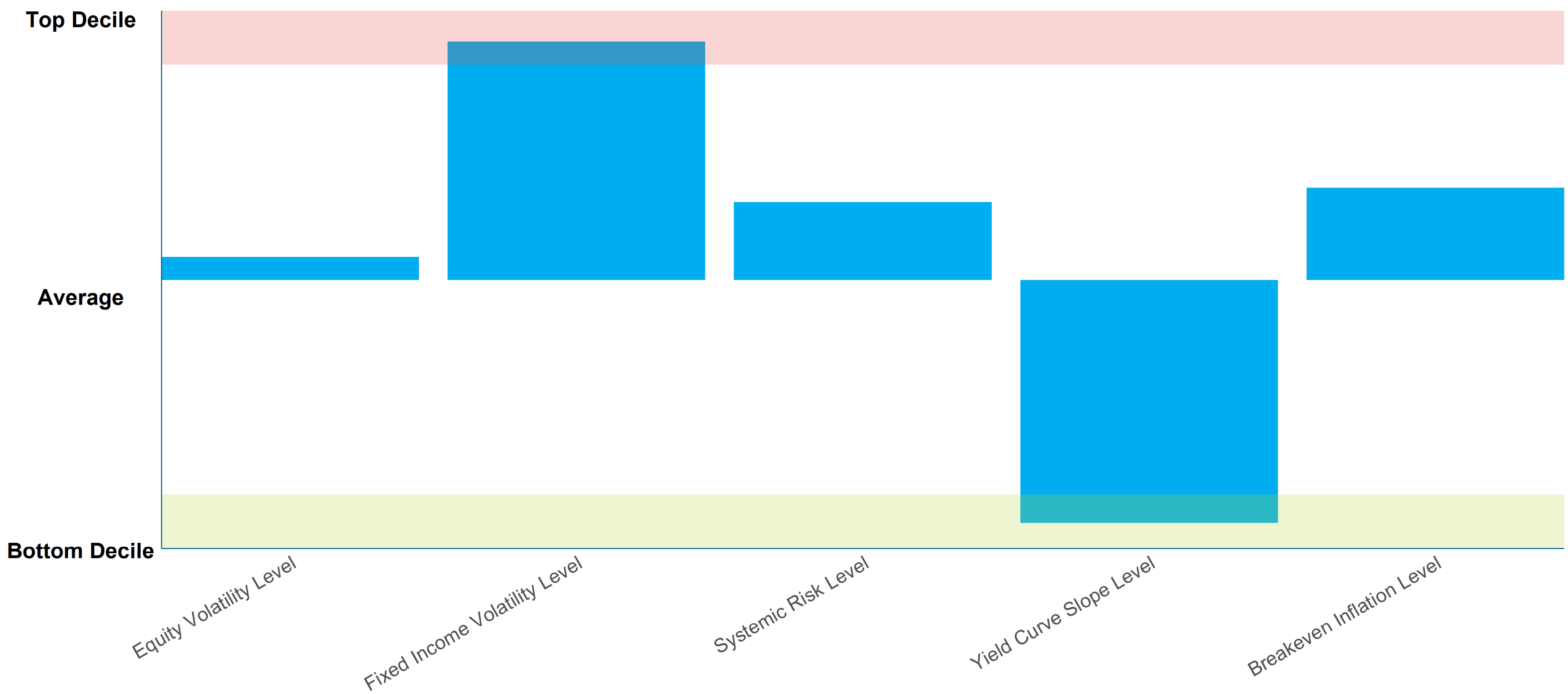
Risk Overview/Dashboard (1)
(As of March 31, 2023)[1]



→ Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

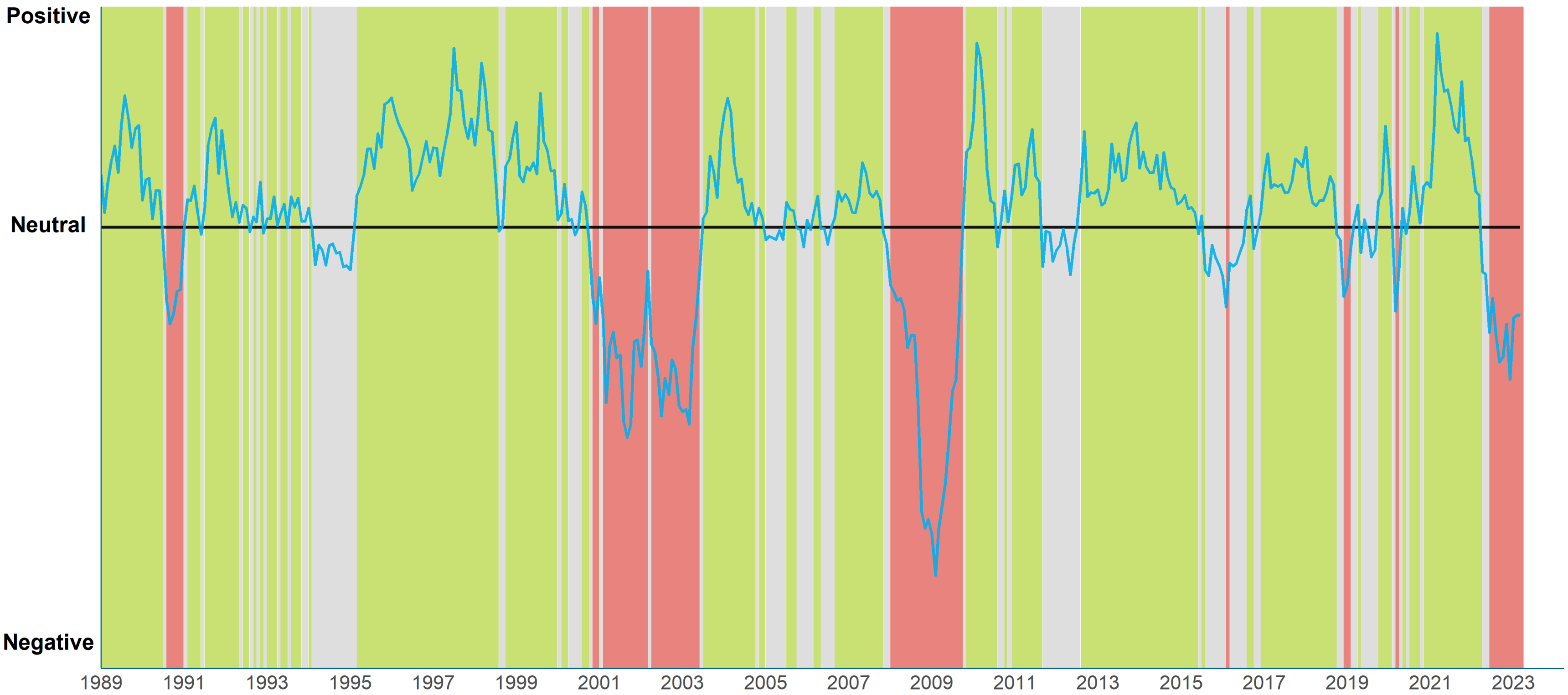
[1] With the exception of Private Equity Valuation, that is YTD as of December 31, 2022.

Risk Overview/Dashboard (2)
(As of March 31, 2023)

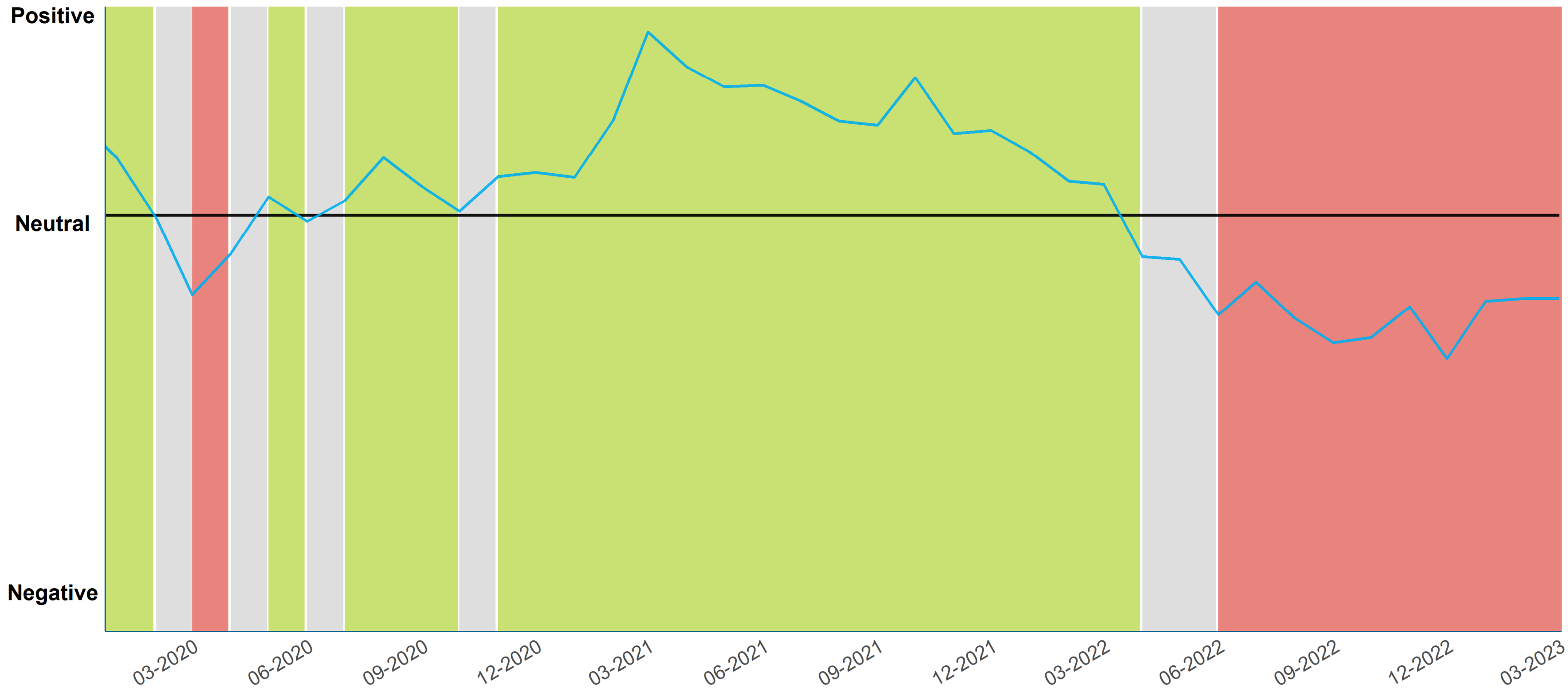


→ Dashboard (2) shows how the current level of each indicator compares to its respective history.

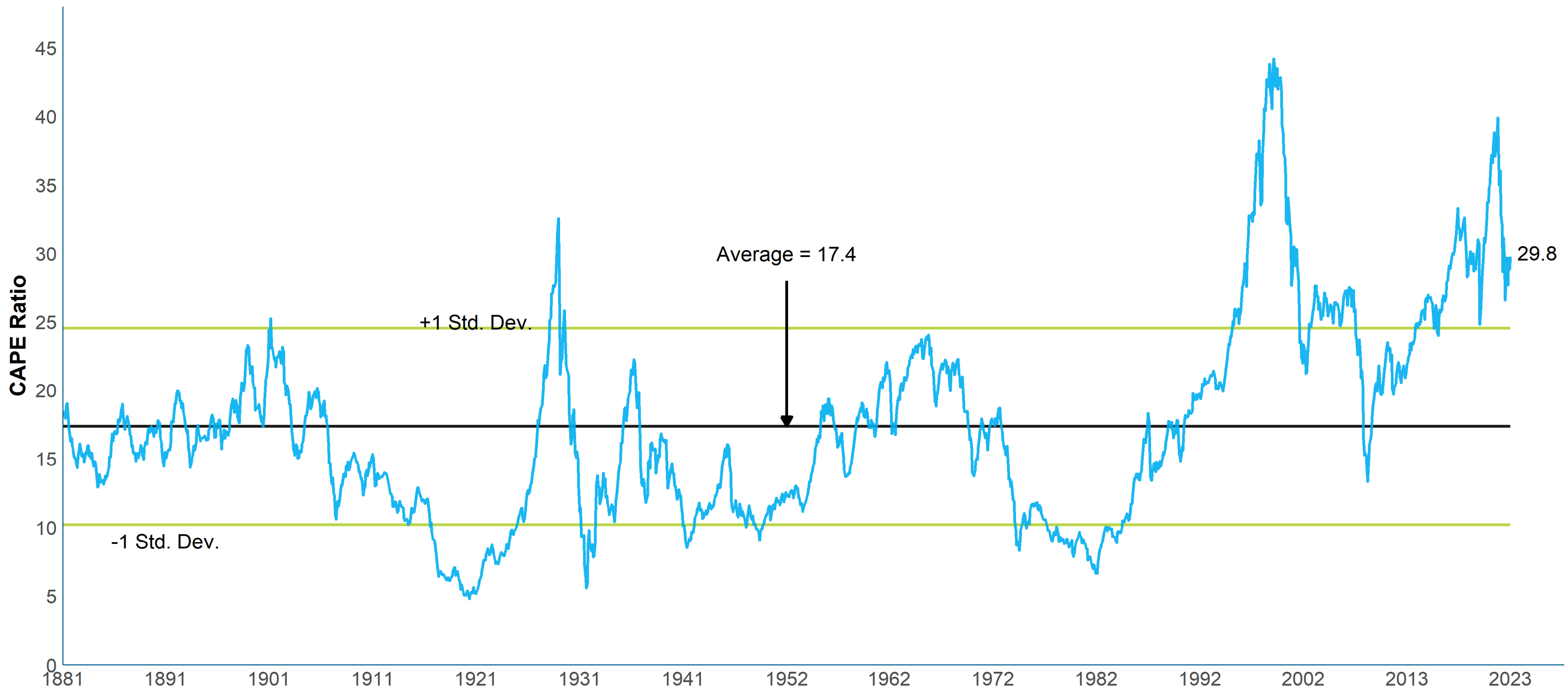
Market Sentiment Indicator (All History)
(As of March 31, 2023)



Market Sentiment Indicator (Last Three Years)
(As of March 31, 2023)



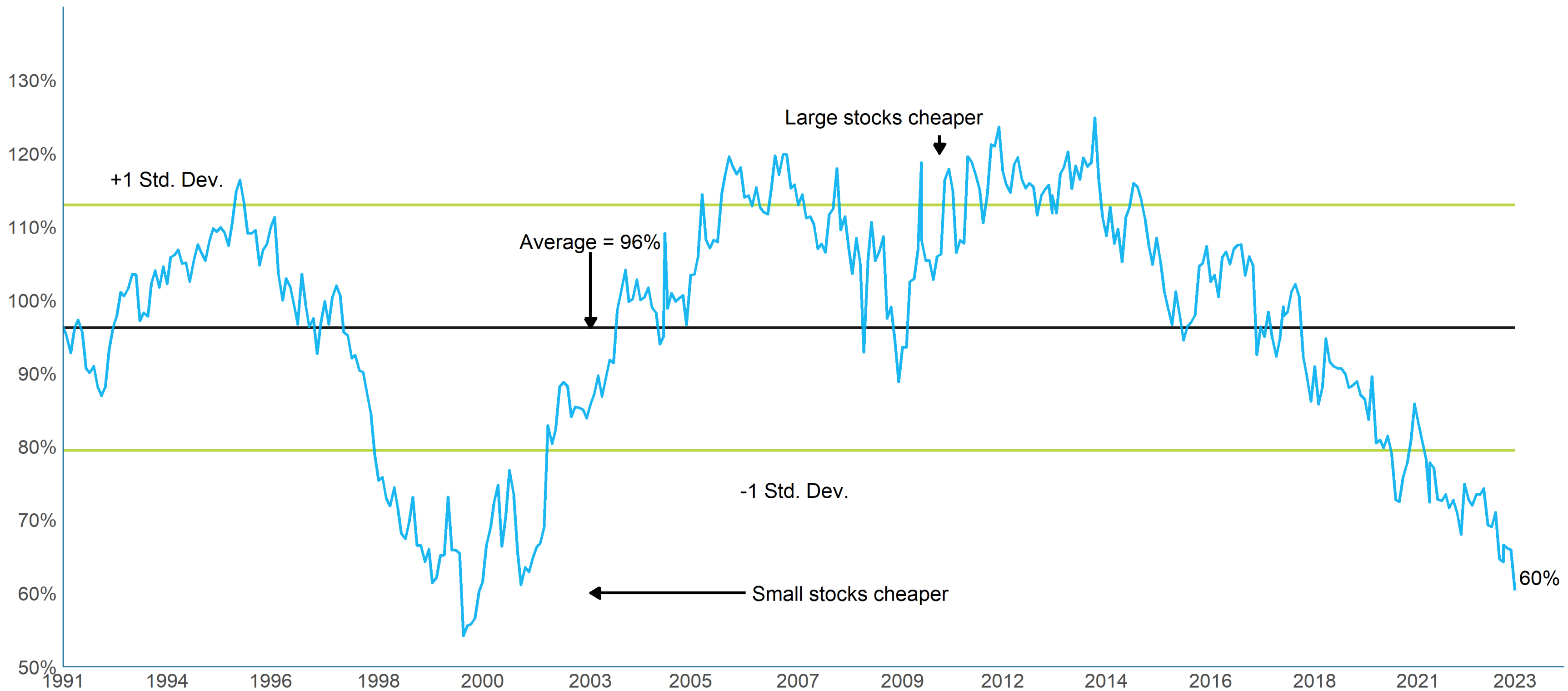
US Equity Cyclically Adjusted P/E[1]
(As of March 31, 2023)



→ This chart details one valuation metric for US equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group.

Small Cap P/E vs. Large Cap P/E[1]
(As of March 31, 2023)



→ This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

[1] Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments and Bloomberg. Prior months unavailable on Bloomberg are backfilled with last reported earnings. Earnings figures represent 12-month "as reported" earnings.

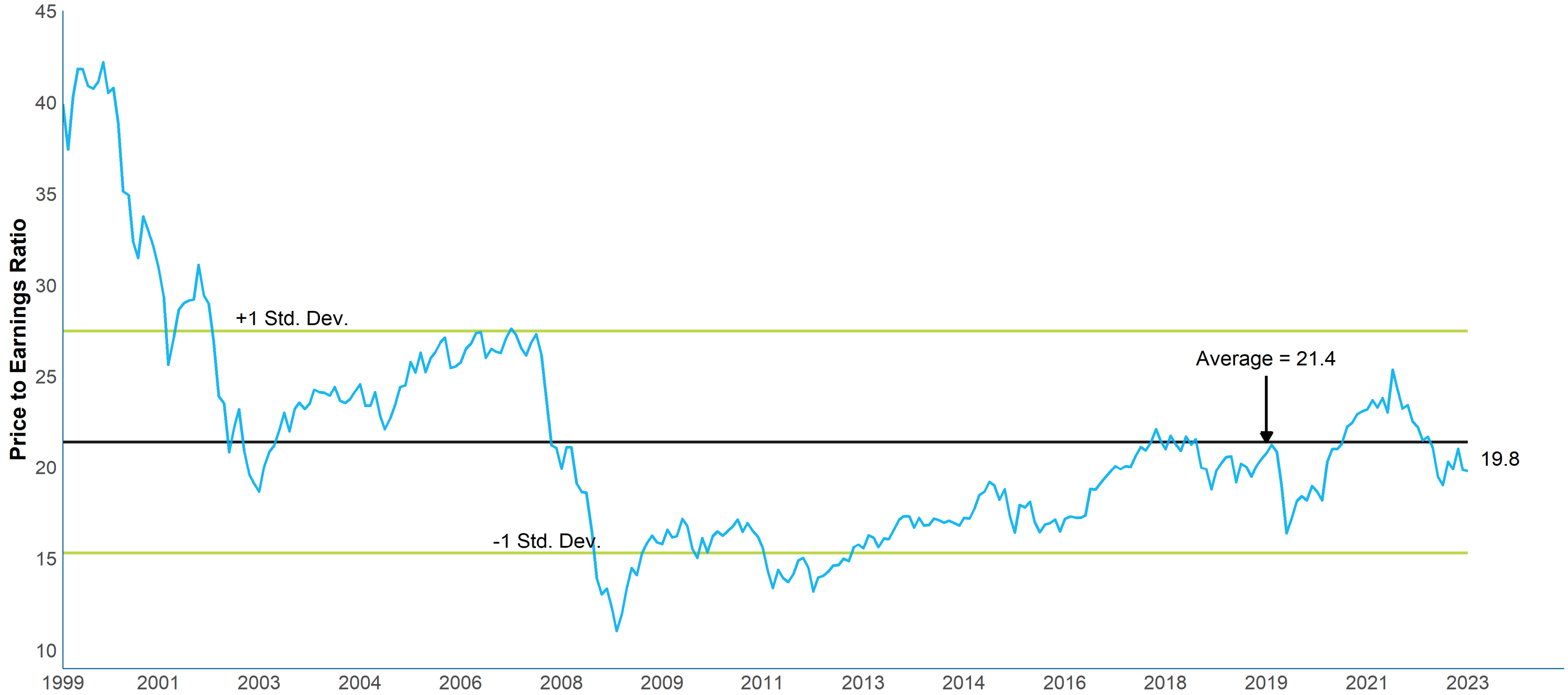
Growth P/E vs. Value P/E[1]
(As of March 31, 2023)

→ This chart compares the relative attractiveness of US growth equities vs. US value equities on a valuation basis. A higher (lower) figure indicates that value (growth) is more attractive.

[1] Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.

Developed International Equity Cyclically Adjusted P/E[1]

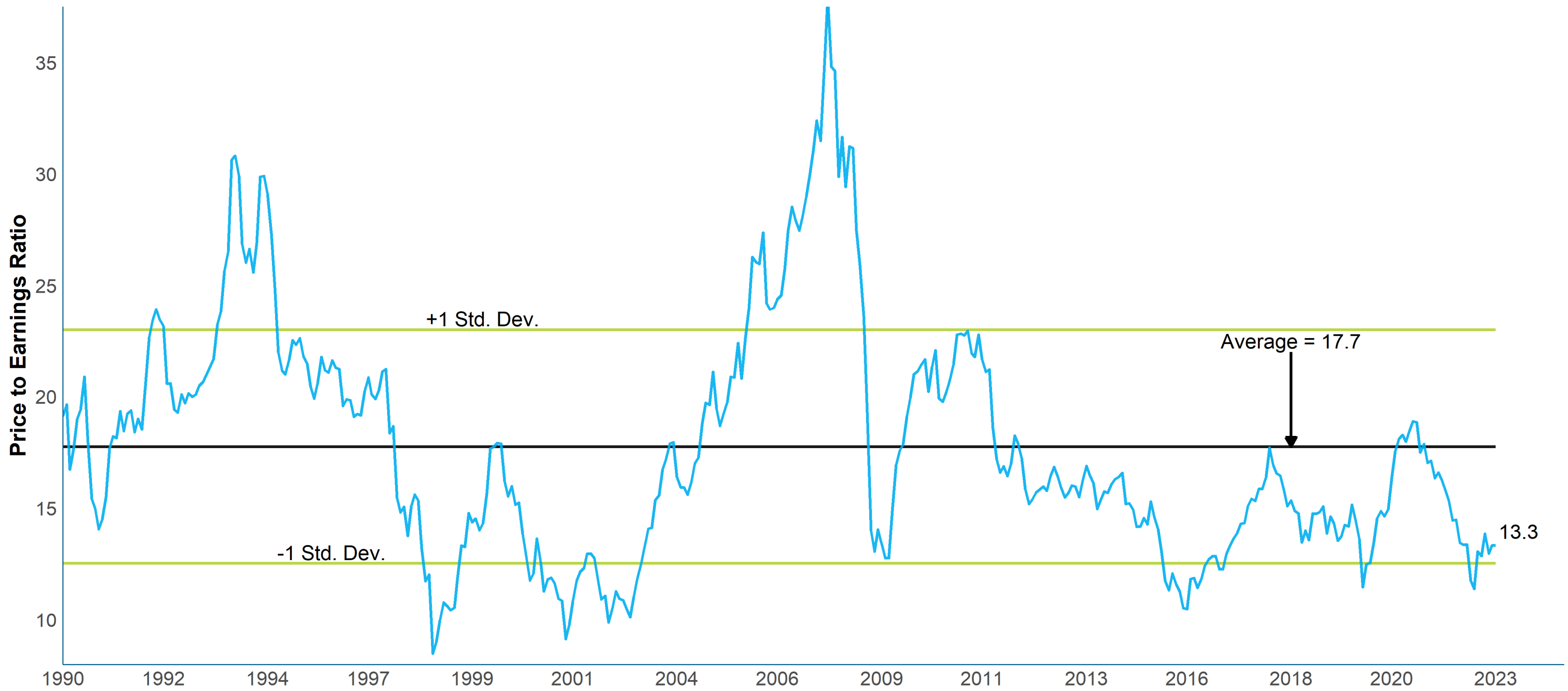
(As of March 31, 2023)



→ This chart details one valuation metric for developed international equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] Developed International Equity (MSCI EAFE Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

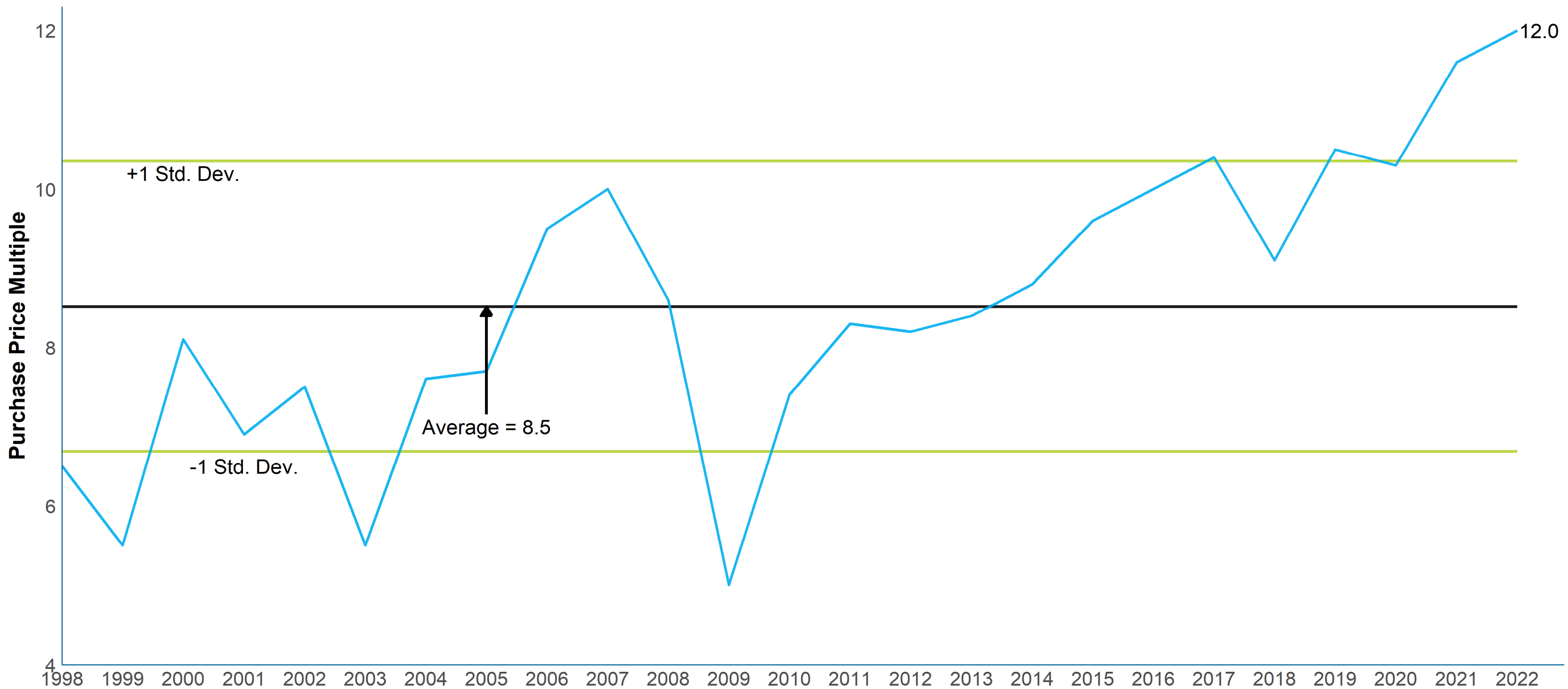
Emerging Market Equity Cyclically Adjusted P/E[1]
(As of March 31, 2023)



→ This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

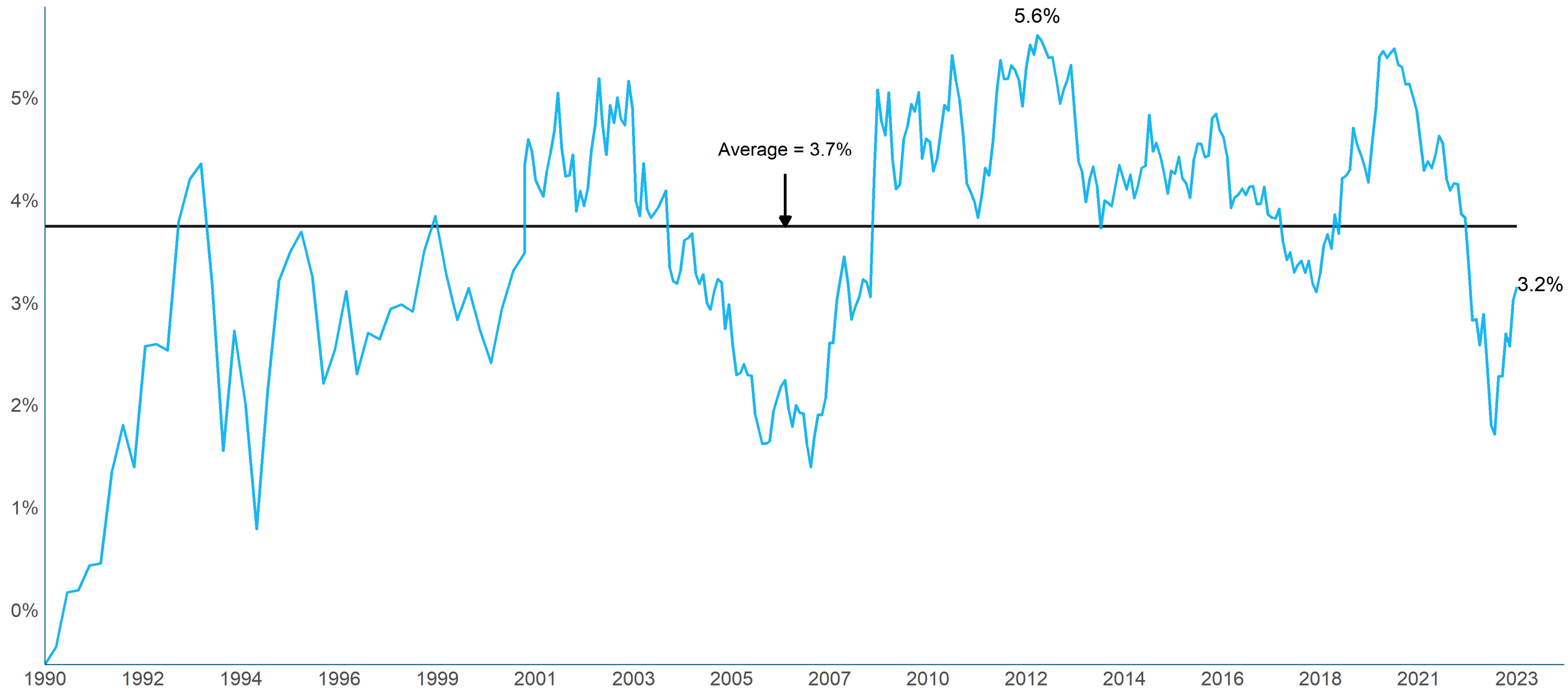
Private Equity Multiples[1]
(As of March 31, 2023)



→ This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] Private Equity Multiples – Source: Preqin Median EBITDA Multiples Paid in All LBOs.

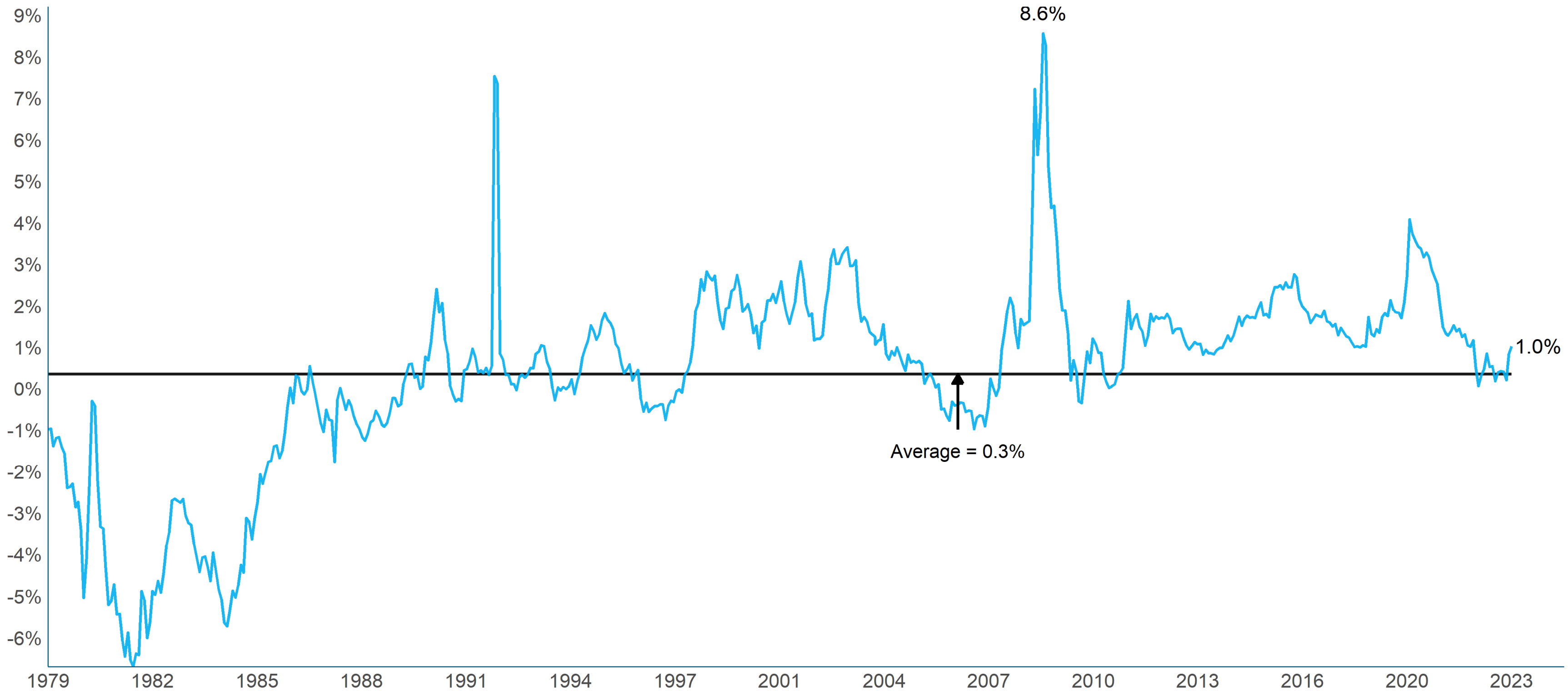
Core Real Estate Spread vs. Ten-Year Treasury[1]
(As of March 31, 2023)



→ This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

[1] Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.

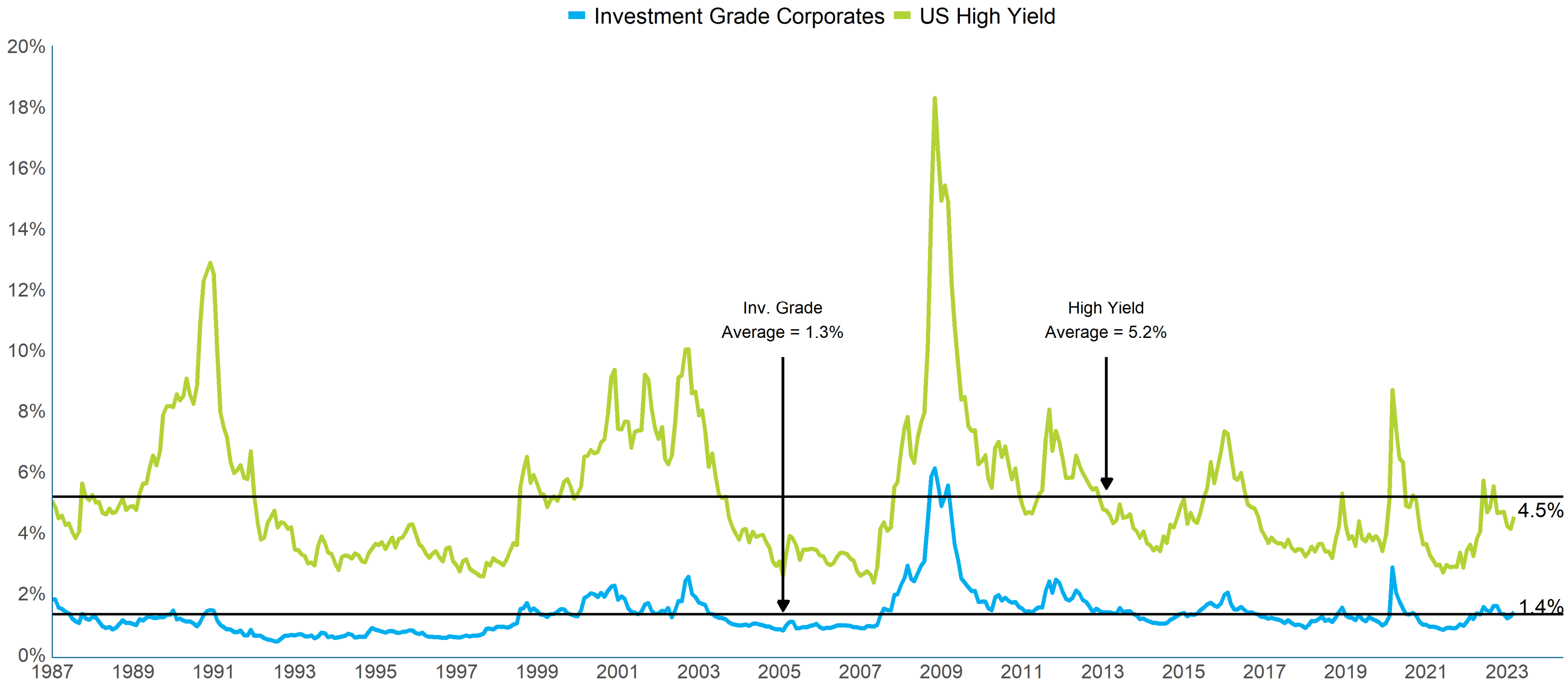
REITs Dividend Yield Spread vs. Ten-Year Treasury[1]
(As of March 31, 2023)



→ This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

[1] REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.

Credit Spreads[1]
(As of March 31, 2023)



→ This chart details one valuation metric for the US credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

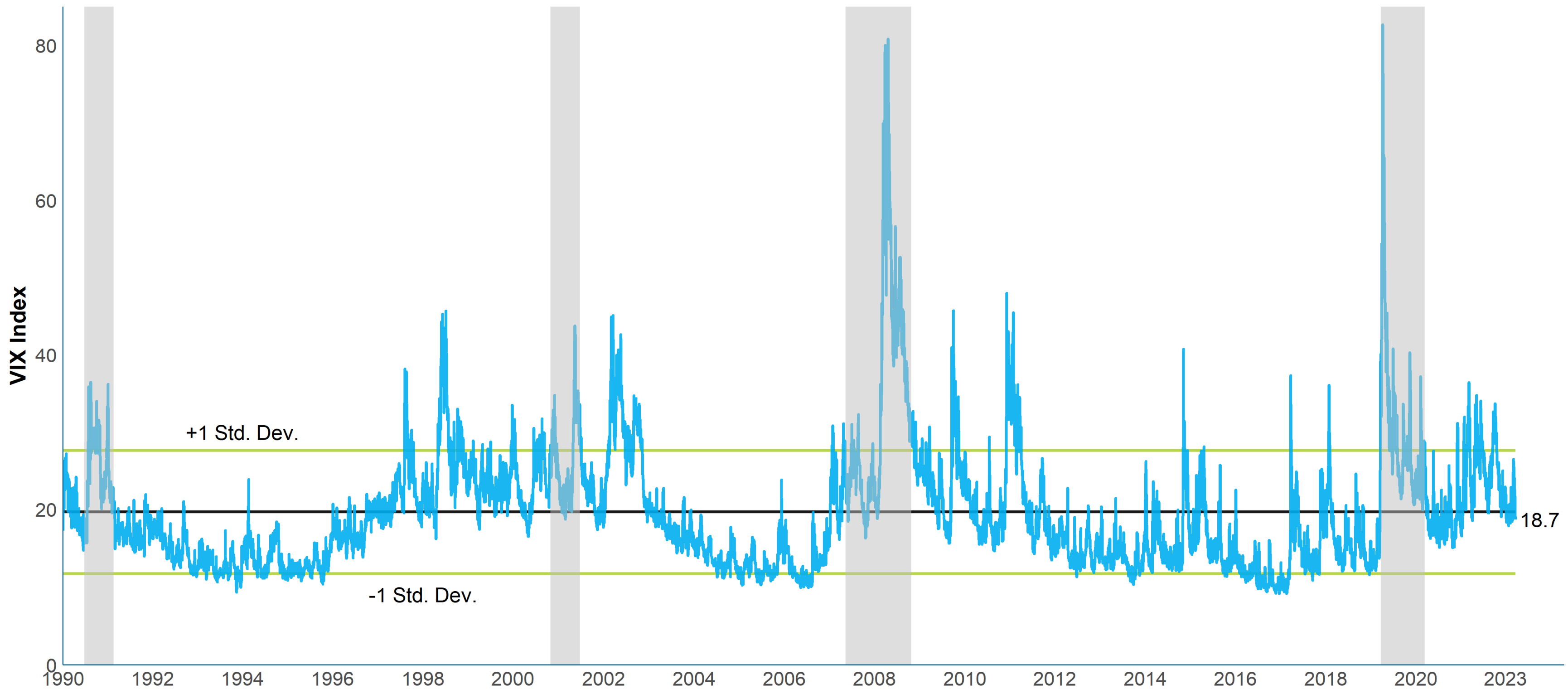
[1] Credit Spreads – Source: Bloomberg. High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg US Corporate Investment Grade Index. Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year US Treasury yield.

Emerging Market Debt Spreads[1]
(As of March 31, 2023)

→ This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

[1] EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.

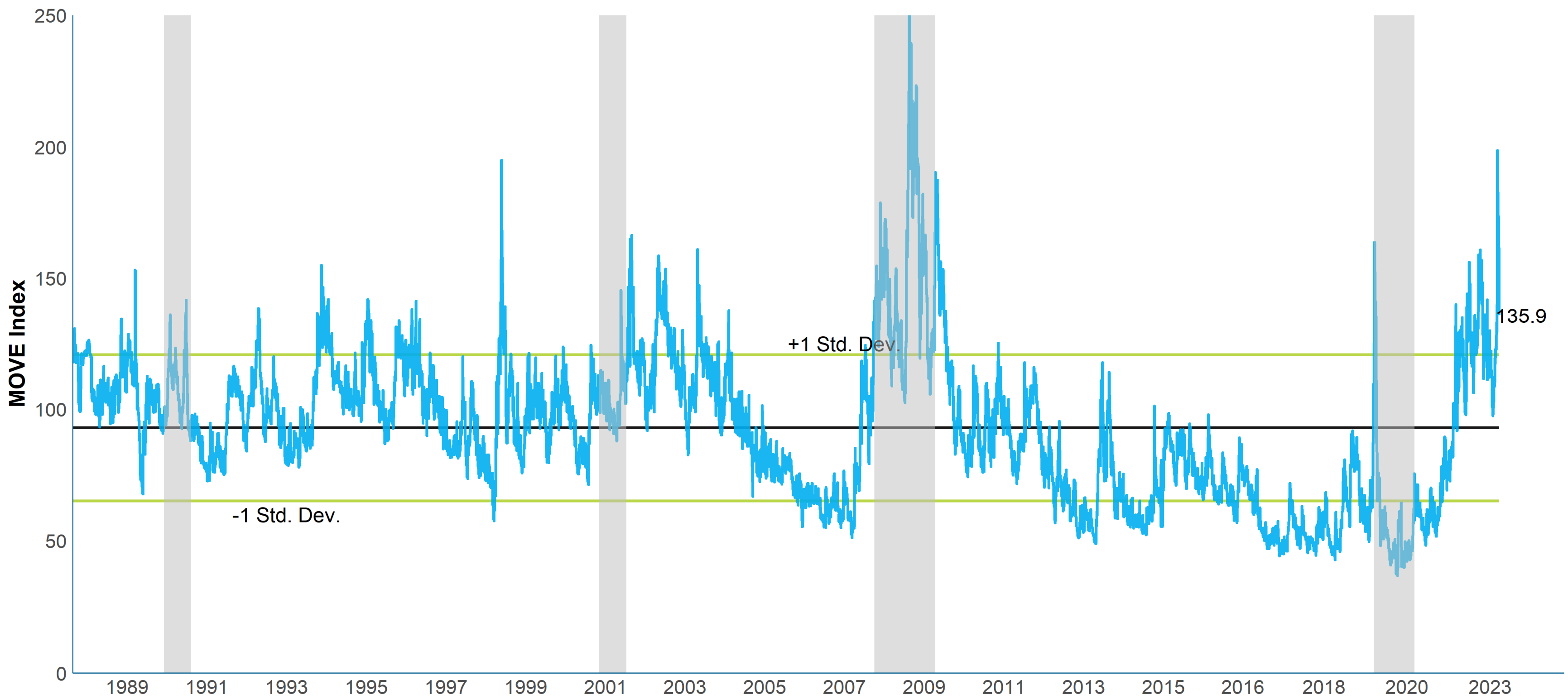
Equity Volatility[1]
(As of March 31, 2023)



→ This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

[1] Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

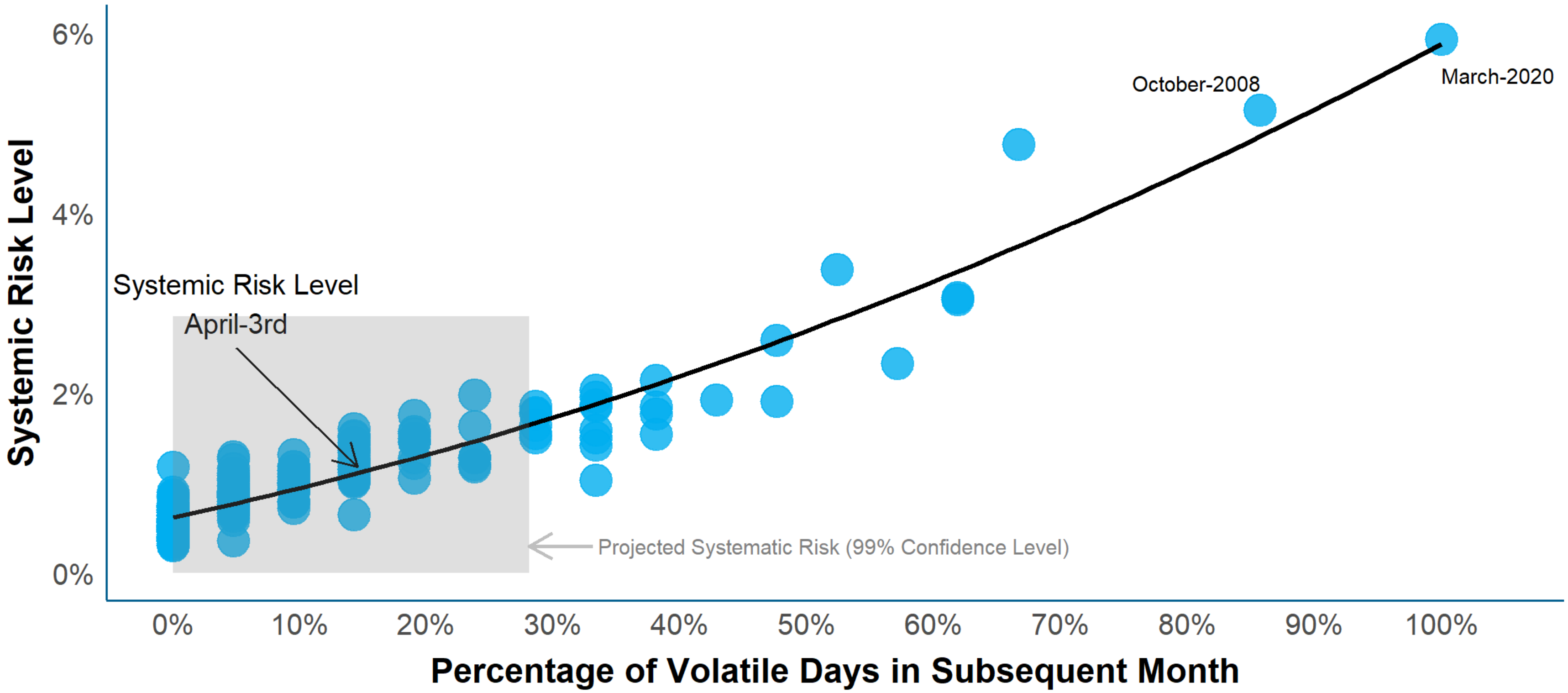
Fixed Income Volatility[1]
(As of March 31, 2023)



→ This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

[1] Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

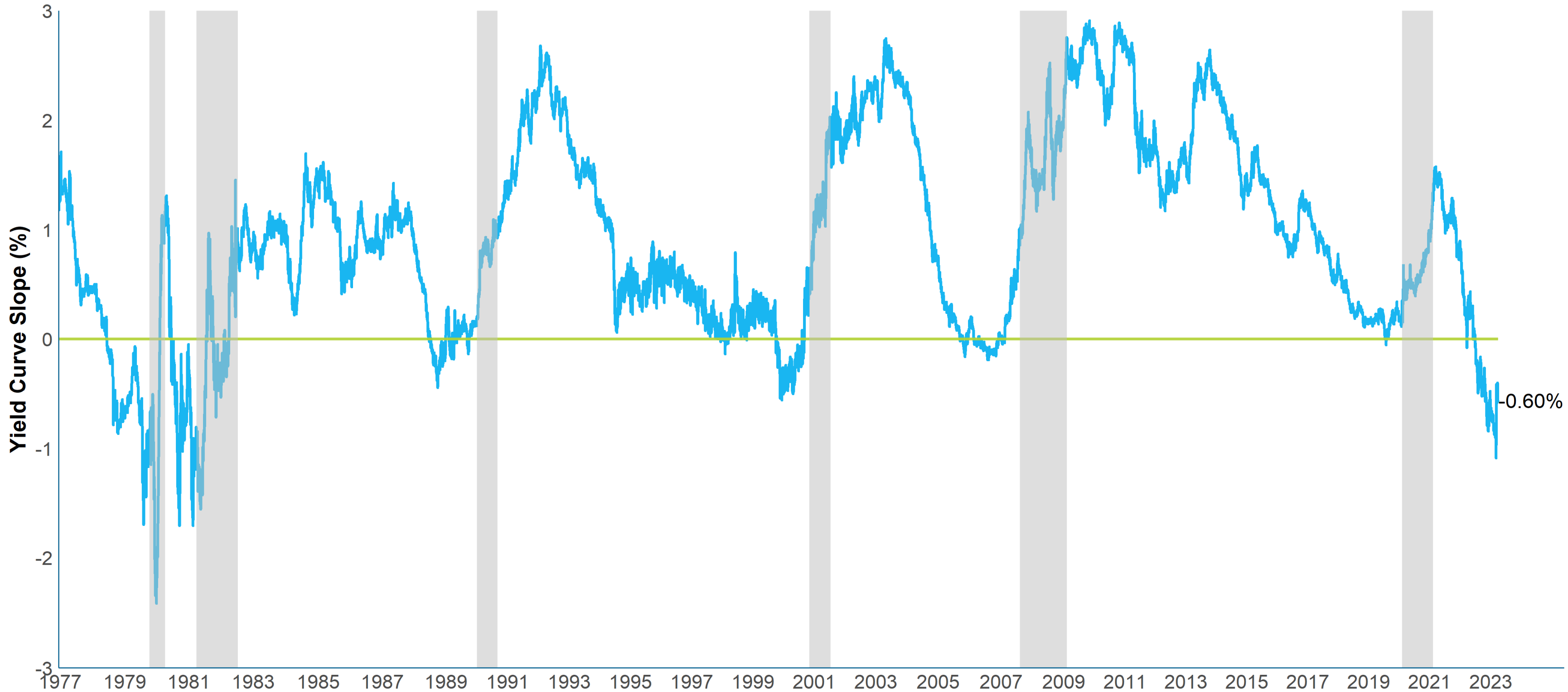
Systemic Risk and Volatile Market Days[1]
(As of March 31, 2023)



→ Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior.

[1] Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

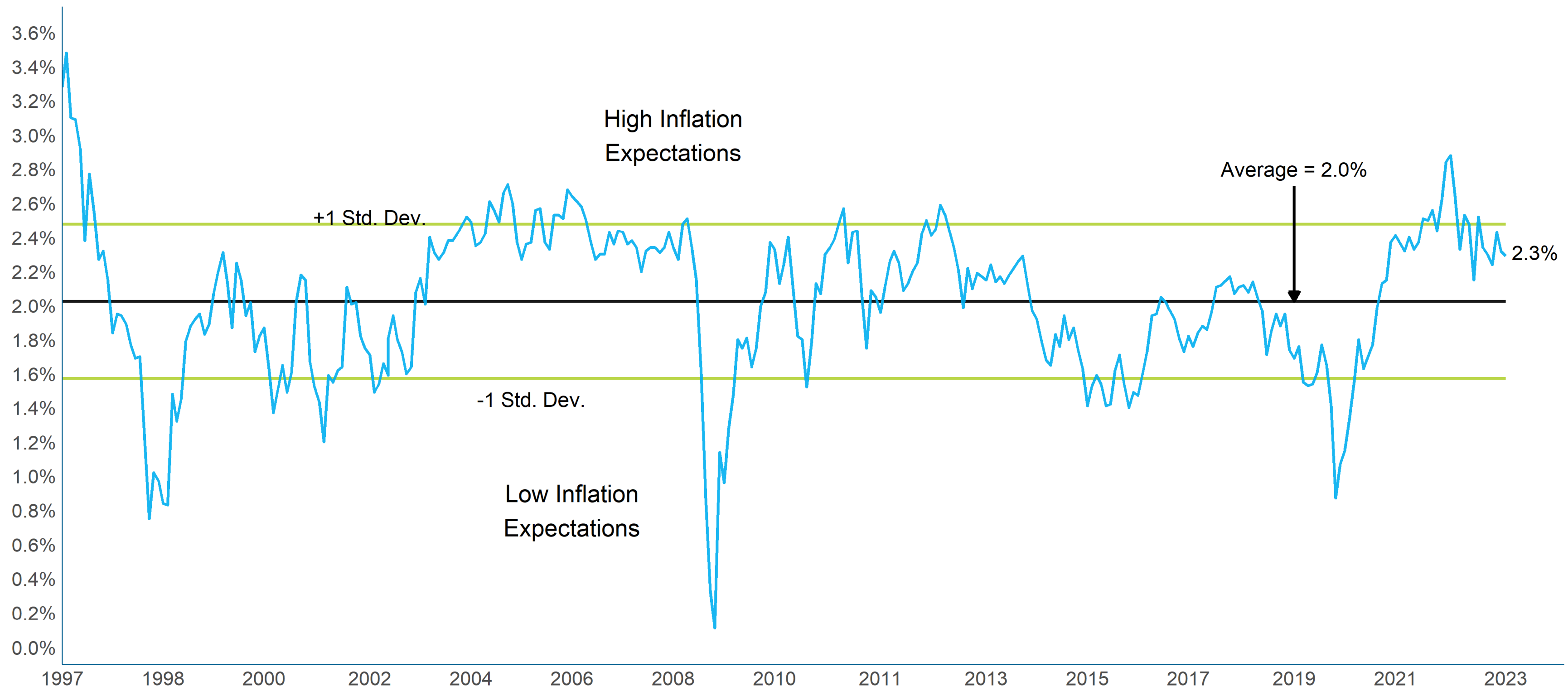
Yield Curve Slope (Ten Minus Two)[1]
(As of March 31, 2023)



→ This chart details the historical difference in yields between ten-year and two-year US Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

[1] Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.

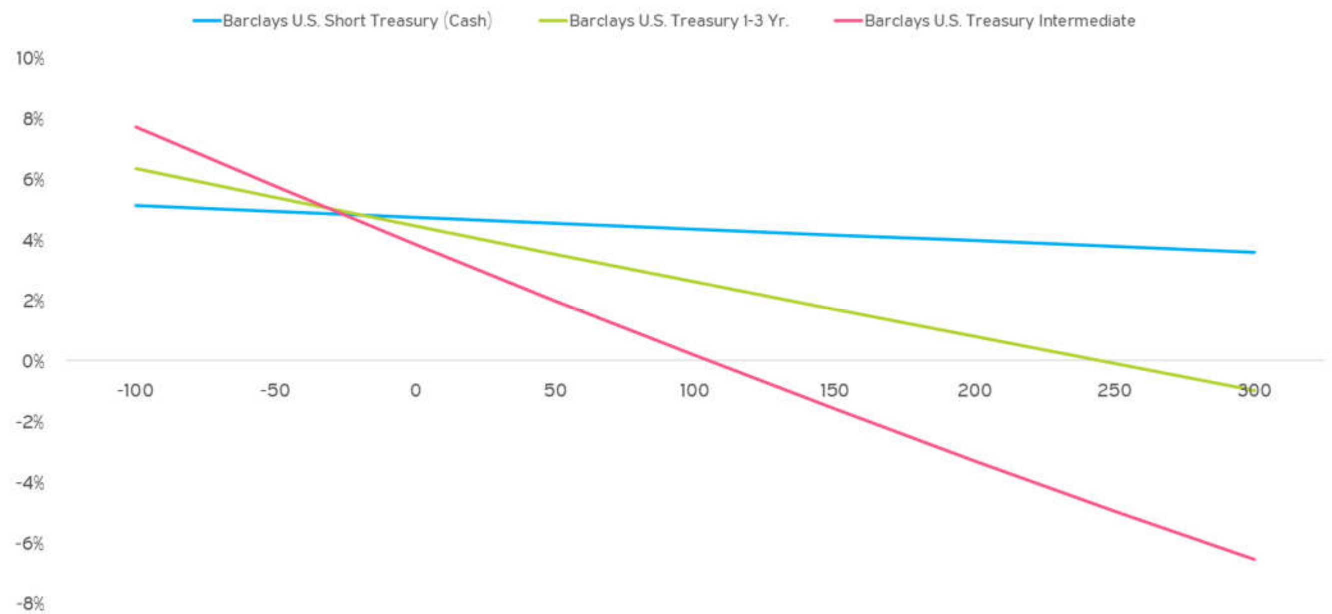
Ten-Year Breakeven Inflation[1]
(As of March 31, 2023)



→ This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

[1] Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

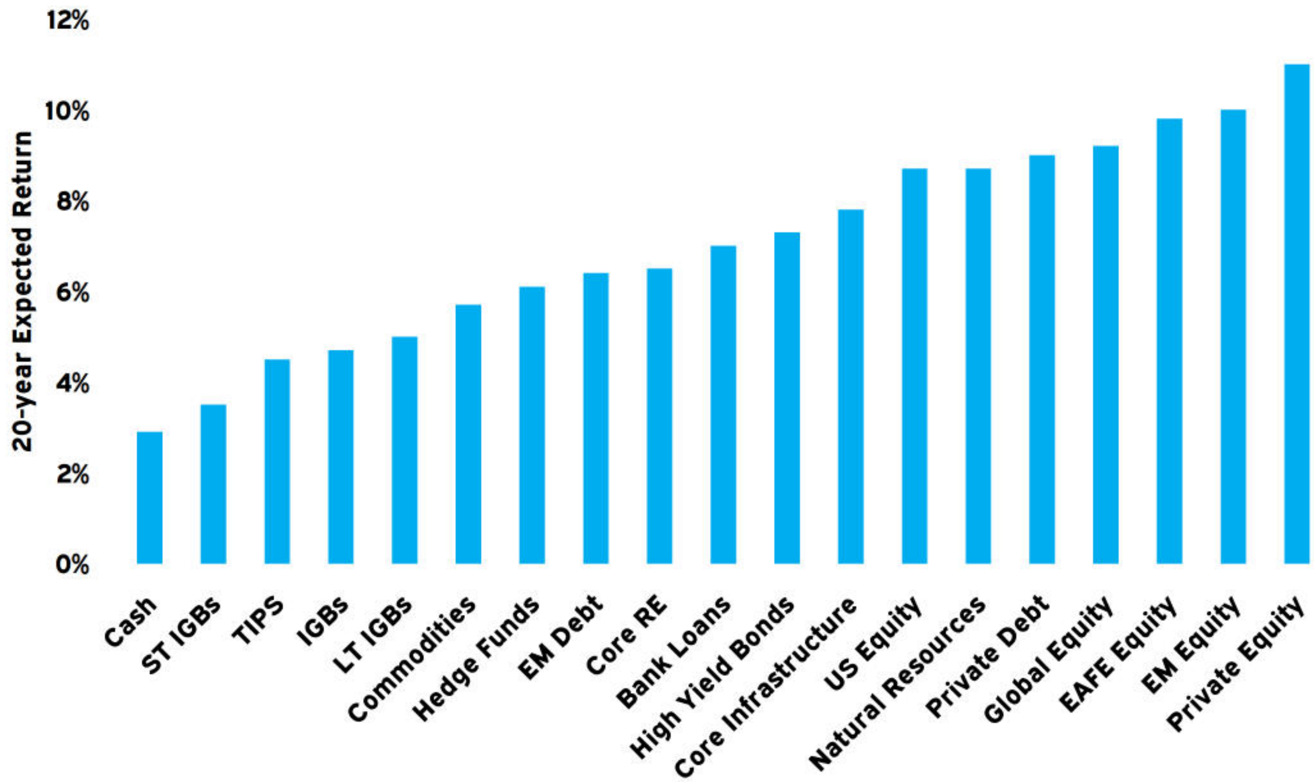
Total Return Given Changes in Interest Rates (bps)[1]
(As of March 31, 2023)



	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays US Short Treasury (Cash)	5.1%	4.9%	4.7%	4.5%	4.4%	4.2%	4.0%	3.8%	3.6%	0.39	4.74%
Barclays US Treasury 1-3 Yr.	6.3%	5.4%	4.5%	3.5%	2.6%	1.7%	0.8%	-0.1%	-1.0%	1.87	4.46%
Barclays US Treasury Intermediate	7.7%	5.8%	3.8%	2.0%	0.2%	-1.6%	-3.3%	-5.0%	-6.6%	3.78	3.84%
Barclays US Treasury Long	21.9%	12.4%	3.8%	-4.0%	-10.9%	-16.9%	-22.0%	-26.3%	-29.7%	16.36	3.77%

[1] Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Source: Bloomberg, and Meketa Investment Group.

Long-Term Outlook – 20-Year Annualized Expected Returns[1]



→ This chart details Meketa's long-term forward-looking expectations for total returns across asset classes.

[1] Source: Meketa Investment Group's 2023 Asset Study.

Appendix

Data Sources and Explanations[1]

→ US Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.

→ Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.

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

→ Developed International Equity (MSCI EAFE) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

→ Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

→ Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.

→ Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.

[1] All Data as of March 31, 2023, unless otherwise noted.

Appendix

Data Sources and Explanations[1]

→ REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.

→ 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 Treasury Yield.

→ EM Debt Spreads – Source: Bloomberg, and Meketa Investment Group. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.

→ Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

→ Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

→ Systemic Risk and Volatile Market Days – Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

→ Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.

[1] All Data as of March 31, 2023, unless otherwise noted.

Appendix

Data Sources and Explanations[1]

→ Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.

→ Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

[1] All Data as of March 31, 2023, unless otherwise noted.

Meketa Market Sentiment Indicator

Explanation, Construction and Q&A

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to complement our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

This appendix explores:

→ What is the Meketa Market Sentiment Indicator?

→ How do I read the indicator graph?

→ How is the Meketa Market Sentiment Indicator constructed?

→ What do changes in the indicator mean?

Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa's Risk Metrics.

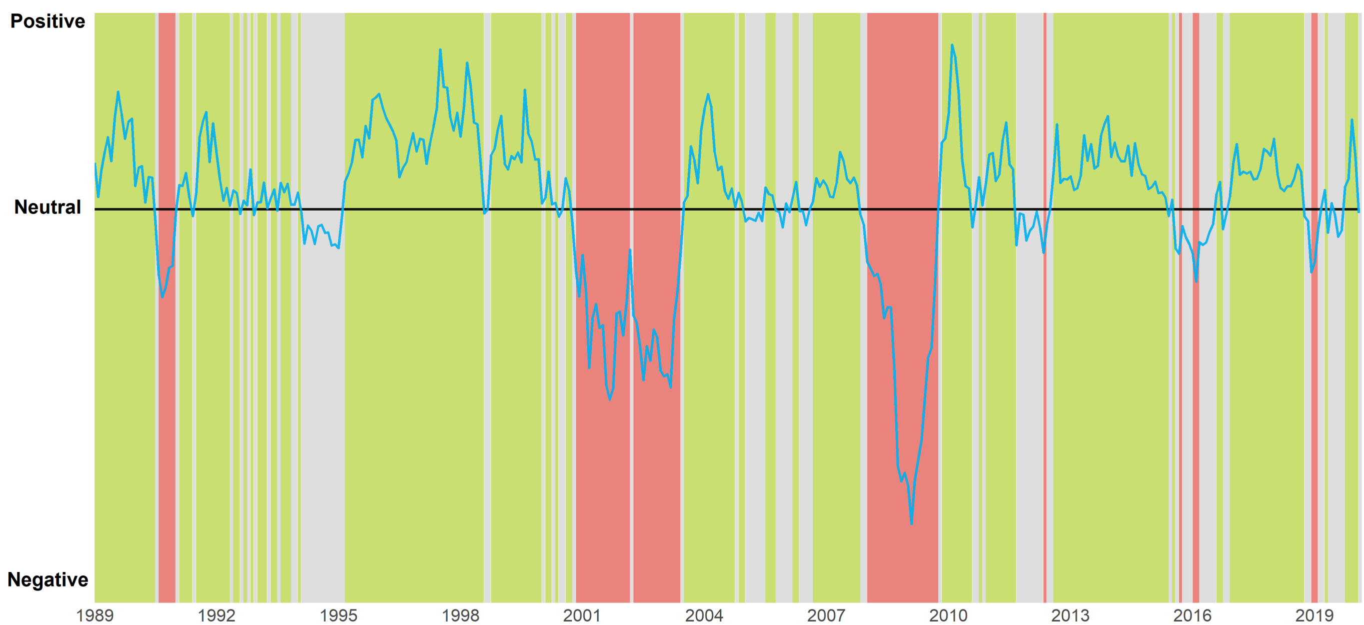
→ Meketa's Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market correction take place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation-based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

What is the Meketa Market Sentiment Indicator (MIG-MSI)?

→ The MIG-MSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the Meketa Market Sentiment Indicator graph?

- → Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.
- → Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

→ The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:

- Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months).
- Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration US Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
- Both measures are converted to Z-scores and then combined to get an "apples to apples" comparison without the need of re-scaling.

→ The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure[1]. The color reading on the graph is determined as follows:

- If both stock return momentum and bond spread momentum are positive = GREEN (positive).
- If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive).
- If both stock return momentum and bond spread momentum are negative = RED (negative).

[1] Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior. "Time Series Momentum" Moskowitz, Ooi, Pedersen, August 2010. *http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf*

What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

→ There is strong evidence that time series momentum is significant and persistent. Across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

Economic and Market Update

Data as of March 31, 2023

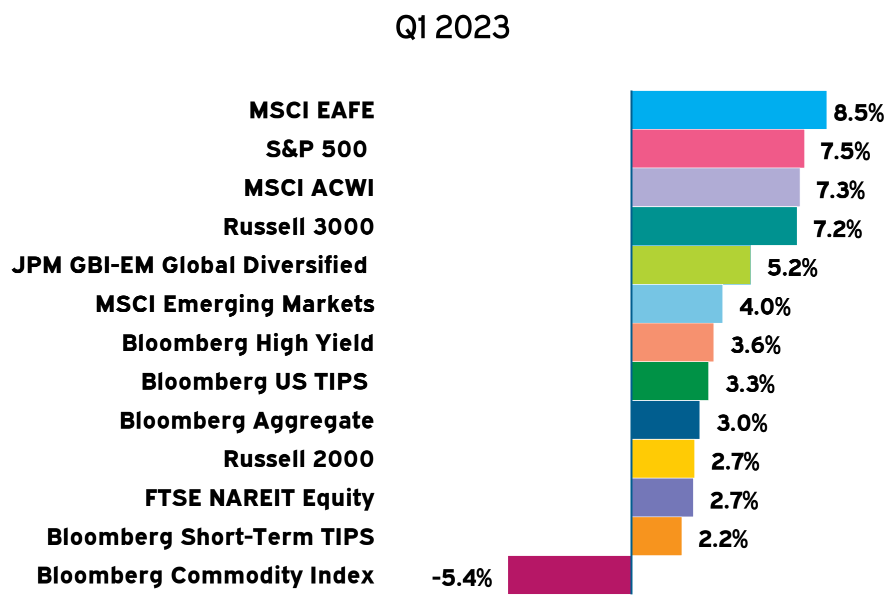
Commentary

→ It was a volatile quarter for most asset classes driven by evolving monetary policy expectations and high-profile bank failures. Ultimately, investors remained focused on slowing inflation and potentially peaking rate hikes leading to positive results across most asset classes for the quarter.

- The Fed's, and others', quick responses to pressures in the banking sector brought confidence back to the markets in March with the crisis driving the terminal policy rate expectations lower.
- US equity markets (Russell 3000) rallied in March (+2.7%) finishing the first quarter in strongly positive territory (+7.2%). Growth significantly outperformed value for the quarter, driven by the technology sector.
- Non-US developed equity markets (MSCI EAFE +2.5%) also posted positive returns in March. They returned 8.5% for the quarter, finishing ahead of US equities.
- Emerging market equities had positive returns for the month (+3.0%) supported by Chinese equities (+4.5%) and a weaker US dollar. They trailed developed market equities for the quarter partly due to higher US-China tensions.
- On expectations for lower inflation and concerns over the banking sector, bonds rallied in March, with the broad US bond market (Bloomberg Aggregate) rising 2.5%. For the quarter, the broad US bond market was up 3.0%.

→ This year, the path of inflation and monetary policy, slowing global growth, and the war in Ukraine, as well as recent pressures in small- and medium-sized regional banks in the US, will all be key.

Index Returns[1]



→ Despite volatility during the quarter, public markets, except commodities, finished the first quarter of 2023 in positive territory adding to the strong gains from the fourth quarter of last year.

[1] Source: Bloomberg and FactSet. Data is as of March 31, 2023.

Domestic Equity Returns[1]

Domestic Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	3.7	7.5	-7.7	18.6	11.2	12.2
Russell 3000	2.7	7.2	-8.6	18.5	10.4	11.7
Russell 1000	3.2	7.5	-8.4	18.6	10.9	12.0
Russell 1000 Growth	6.8	14.4	-10.9	18.6	13.6	14.6
Russell 1000 Value	-0.5	1.0	-5.9	17.9	7.5	9.1
Russell MidCap	-1.5	4.1	-8.8	19.2	8.0	10.0
Russell MidCap Growth	1.4	9.1	-8.5	15.2	9.1	11.2
Russell MidCap Value	-3.1	1.3	-9.2	20.7	6.5	8.8
Russell 2000	-4.8	2.7	-11.6	17.5	4.7	8.0
Russell 2000 Growth	-2.5	6.1	-10.6	13.4	4.3	8.5
Russell 2000 Value	-7.2	-0.7	-13.0	21.0	4.5	7.2

US Equities: Russell 3000 Index rose 2.7% in March and 7.2% in Q1.

→ US stocks rose in aggregate for the month and quarter as investors were optimistic that the Federal Reserve may end its policy tightening earlier than expected. However, turmoil in the regional banking industry weighed on segments of the market.

→ The small cap and value indices were more exposed to the banking turmoil and underperformed their broad market indices by significant margins.

→ Large cap stocks were driven higher by the continued strength of the technology and communication services sectors. This same dynamic contributed to the continued outperformance of growth stocks against their value counterparts across the capitalization spectrum.

[1] Source: Bloomberg. Data is as of March 31, 2023.

Foreign Equity Returns[1]

Foreign Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	2.4	6.9	-5.1	11.8	2.5	4.2
MSCI EAFE	2.5	8.5	-1.4	13.0	3.6	5.0
MSCI EAFE (Local Currency)	0.5	7.5	3.8	14.6	6.3	7.3
MSCI EAFE Small Cap	-0.2	4.9	-9.8	12.1	0.9	5.8
MSCI Emerging Markets	3.0	4.0	-10.7	7.8	-0.9	2.0
MSCI Emerging Markets (Local Currency)	2.2	3.8	-6.6	8.8	1.9	5.0
MSCI China	4.5	4.7	-4.7	-2.6	-4.0	3.4

Foreign Equity: Developed international equities (MSCI EAFE) rose 2.5% in March and 8.5% for the quarter. Emerging market equities (MSCI EM) rose 3.0%. for the month and 4.0% in the first quarter.

→ Non-US equities also recovered in March with developed markets (MSCI EAFE) outpacing US equities (8.5% versus 7.2%) for the quarter and emerging markets (MSCI Emerging Markets) trailing (4.0% versus 7.2%).

→ Developed market equities also benefited from expectations that monetary policy may be peaking on declining inflation. The continued weakness in the US dollar also added to the quarterly results (+1%) for US investors.

→ Emerging market equities started the year with optimism over the reopening of China's economy, but the escalation of US-China tensions and the broader banking crisis led to weaker relative results compared to developed markets.

[1] Source: Bloomberg. Data is as of March 31, 2023.

Fixed Income Returns[1]

Fixed Income	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Barclays Universal	2.3	2.9	-4.6	-2.0	1.0	1.6	4.8	6.3
Bloomberg Barclays Aggregate	2.5	3.0	-4.8	-2.8	0.9	1.4	4.4	6.5
Bloomberg Barclays US TIPS	2.9	3.3	-6.1	1.8	2.9	1.5	4.1	7.0
Bloomberg Short-term TIPS	1.9	2.2	-0.3	3.5	3.0	1.5	4.6	2.5
Bloomberg Barclays High Yield	1.1	3.6	-3.3	5.9	3.2	4.1	8.5	4.2
JPM GBI-EM Global Diversified (USD)	4.1	5.2	-0.7	0.9	-2.4	-1.5	7.1	5.1

Fixed Income: The Bloomberg Universal rose 2.3% in March and 2.9% in Q1 as global sovereign debt yields fell on monetary policy expectations.

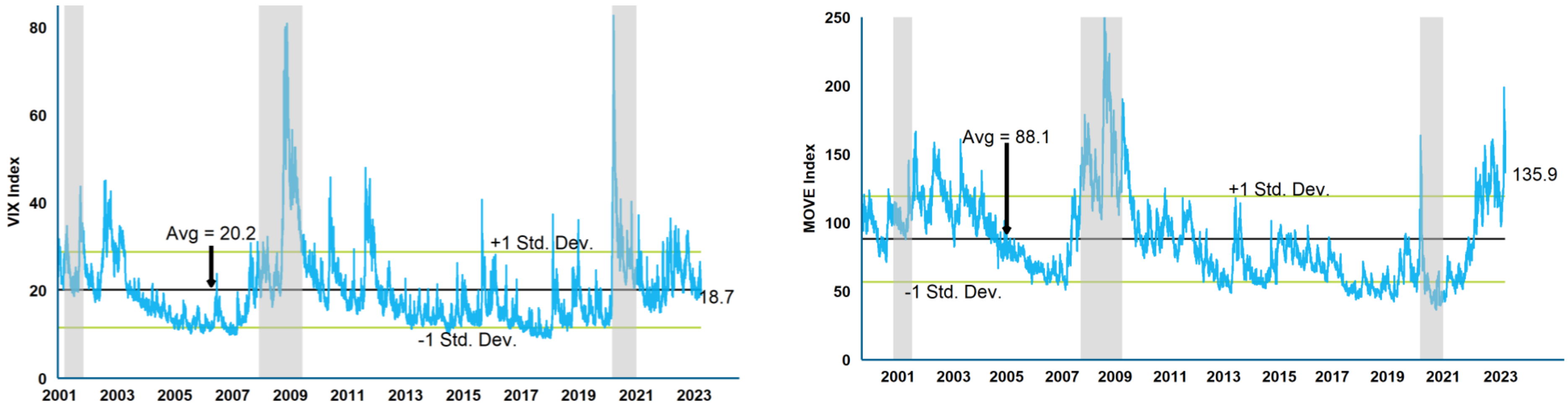
→ Anecdotal reports suggest bouts of flight-to-quality flows during the peak of interest rate volatility connected to the banking sector pushed sovereign debt yields lower. These concerns largely outweighed continued inflation concerns and caused investors to adjust their policy expectations.

→ The broad TIPS index outperformed the broad US bond market (Bloomberg Aggregate) in March and for the quarter.

→ High yield bonds had the weakest results in March driven by banking sector weakness but outperformed the broad US bond market for the quarter.

[1] Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of March 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

Equity and Fixed Income Volatility[1]

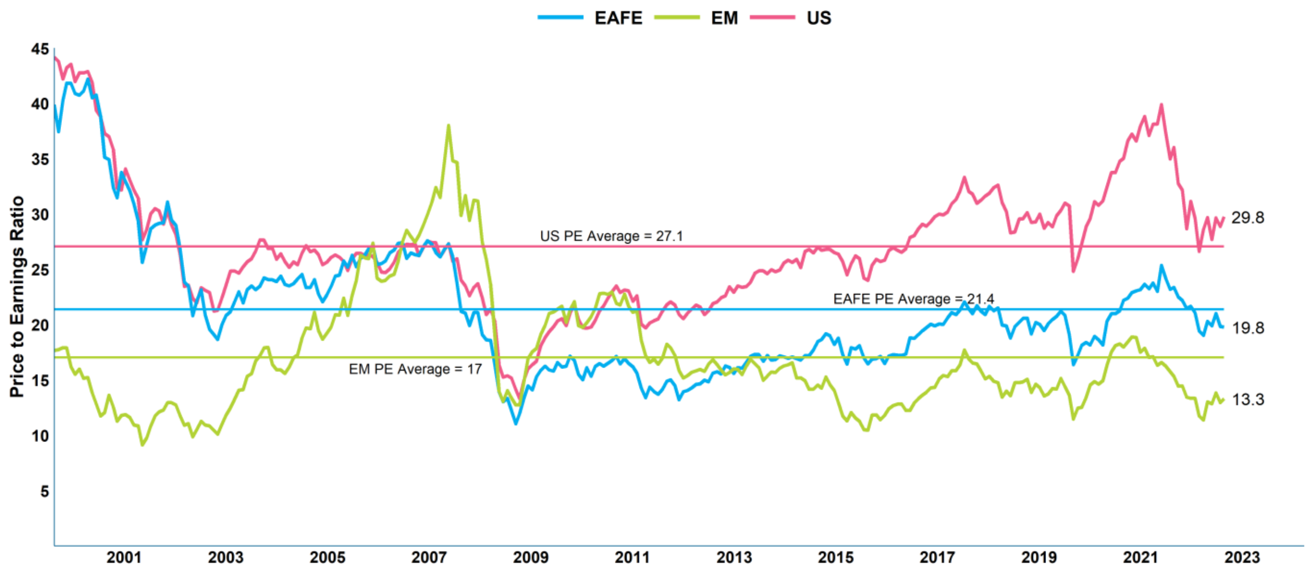


→ Volatility in equities (VIX) remained subdued through the end of March as investors continued to anticipate the end of the Fed's policy tightening.

→ In comparison, the bond market remains on edge with the more policy sensitive MOVE (fixed income volatility) remaining well above its long-run average. During the quarter it hit the highest level since the Global Financial Crisis as the banking sector issues created uncertainty over how the Fed would balance fighting inflation and maintaining financial stability.

[1] Equity and 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 March 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and March 2023.

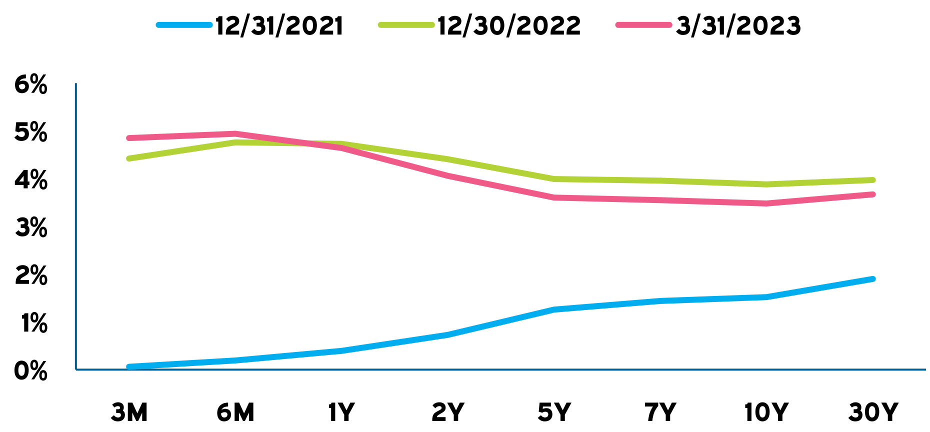
Equity Cyclically Adjusted P/E Ratios[1]



- → After its dramatic decline last year the US equity price-to-earnings ratio remains above its long-run (21st century) average.
- → International developed market valuations are slightly below their own long-term average, with those for emerging markets the lowest and well under the long-term 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: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of March 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.

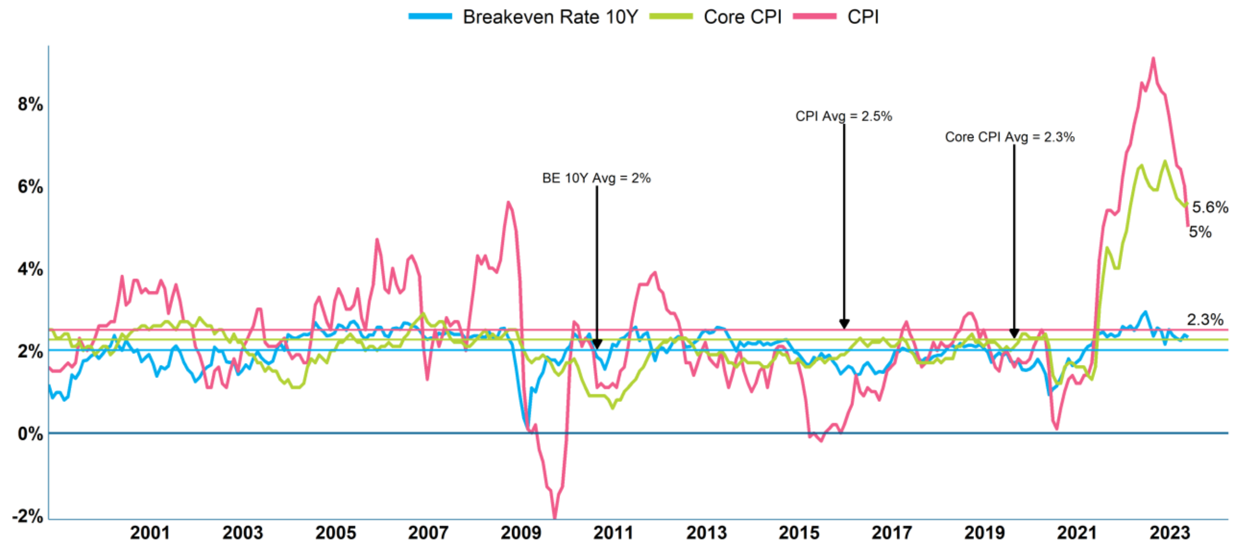
US Yield Curve[1]



- → It was a volatile quarter for interest rates, particularly shorter-dated maturities. Except for the shortest maturities, rates largely declined across the yield curve in the first quarter on expectations of peaking policy.
- → After hitting -1.07% in early March, the yield spread between two-year and ten-year Treasuries finished the quarter at -0.55% as policy-sensitive rates at the front-end of the curve declined faster than longer maturities. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Inversions in the yield curve have often preceded recessions.
- → The Fed remained committed to fighting inflation, despite pressures in the banking sector, raising rates another 25 basis points to a range of 4.75% to 5.0% at its March meeting.

[1] Source: Bloomberg. Data is as of March 31, 2023.

Ten-Year Breakeven Inflation and CPI[1]



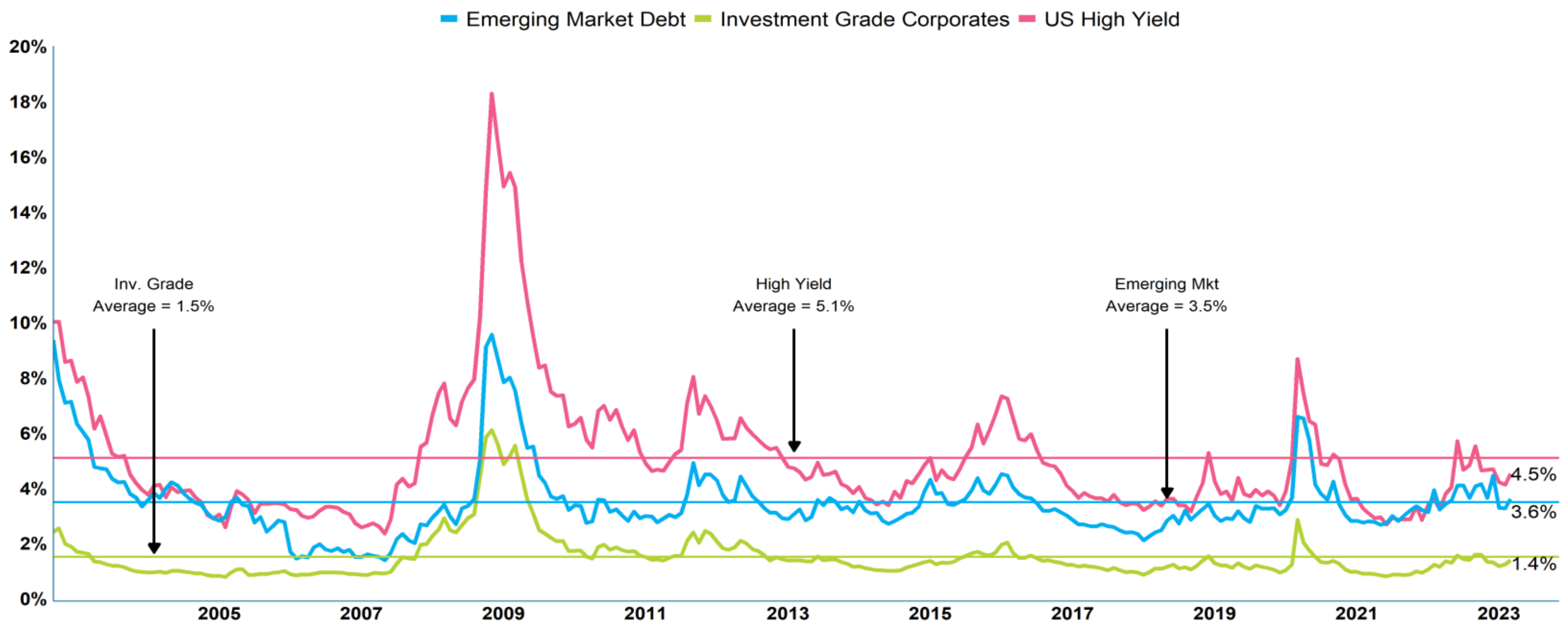
→ Inflation continued to decline in March with the year-over-year reading falling from 6.0% to 5.0% and coming in slightly below the 5.1% expectations. The rate of price increases also slowed on a month-over-month basis (0.1% versus 0.4%), with food prices only slightly higher and energy prices declining.

→ Core inflation – excluding food and energy - rose (5.6% versus 5.5%) mostly driven by transportation and housing.

→ Inflation expectations (breakevens) were volatile over the month and declined on net, but nonetheless ended the month at 2.3% (roughly where it started the quarter).

[1] Source: Bloomberg. Data is as of March 31, 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

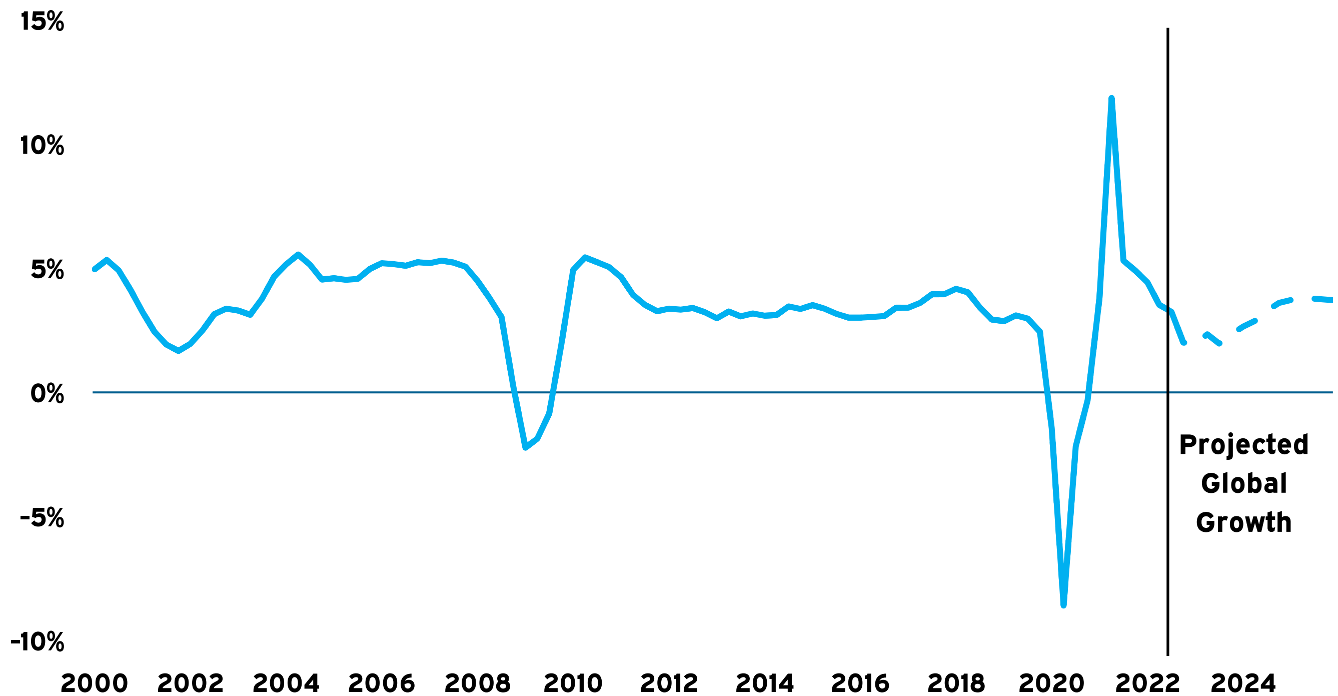
Credit Spreads vs. US Treasury Bonds[1]



- → Spreads (the added yield above a comparable maturity Treasury) experienced a significant spike in March during the banking crisis but subsequently declined as the Fed and others stepped in to provide support.
- → High yield spreads rose from 4.1% to a peak of 5.2% in March before finishing the quarter at 4.5% (lower than the start of the quarter by 0.2%). Investment grade spreads also spiked in March (1.2% to 1.6%) but also fell from their peak to 1.4%. Emerging market spreads finished the quarter at 3.6% experiencing the largest decline (-0.9%).

[1] Sources: Bloomberg. Data is as of March 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end, respectively.

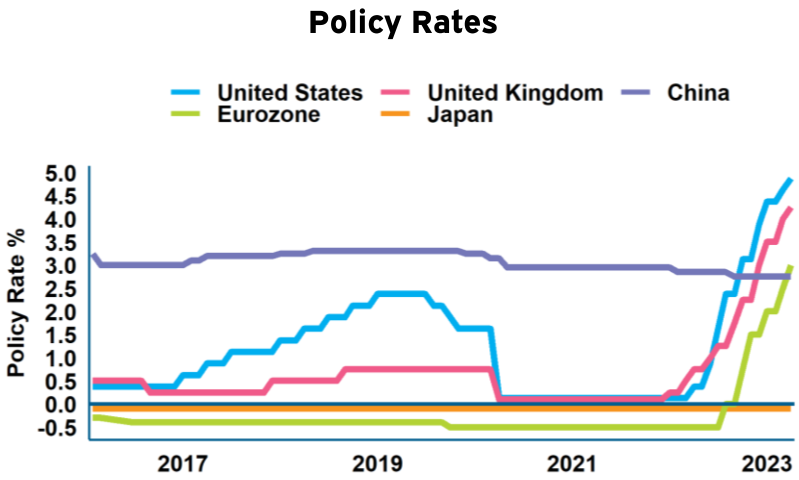
Global Real Gross Domestic Product (GDP) Growth[1]

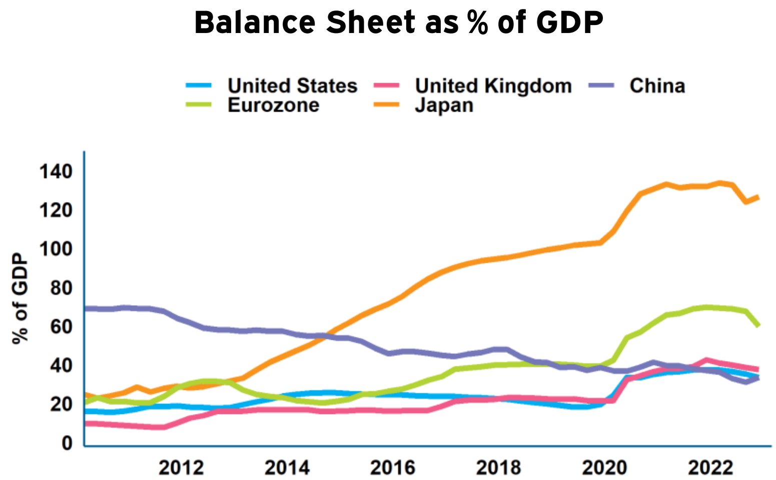


- → Global economies are expected to slow in 2023 compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- → The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

[1] Source: Oxford Economics (World GDP, US$ prices & PPP exchange rate, real, % change YoY). Updated March 2023.

Central Bank Response[1]





→ In 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the US taking the most aggressive approach. Slowing inflation and recent signs of instability in the banking sector have led to expectations for the slowing of policy tightening going forward.

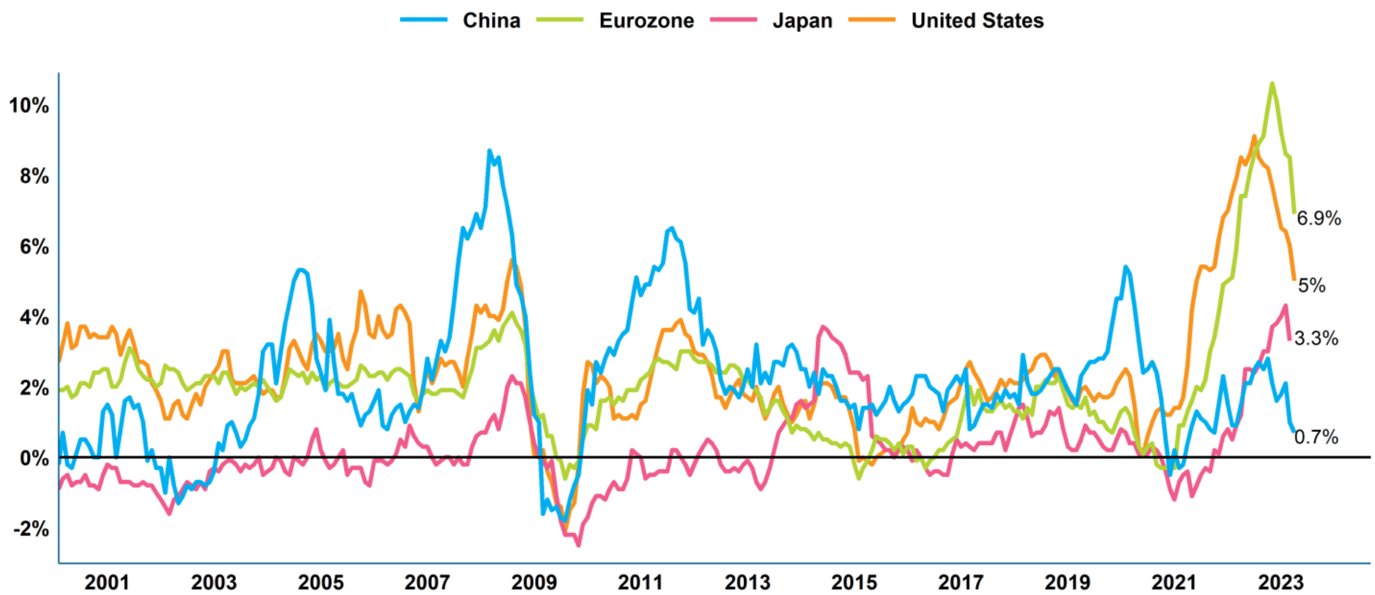
→ In March, the Fed, FDIC, and Treasury provided deposit guarantees after high profile bank failures revealed bank capital losses on US Treasurys related to higher interest rates and lax risk management.

→ China's central bank is one notable exception. They are expected to maintain an accommodative monetary stance to support the economy. They cut bank reserves requirements to improve bank liquidity and banks have also securitized over $390 billion in non-performing loans to improve loan quality ratios.

→ Looking ahead the risk remains for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and growth.

[1] Source: Bloomberg. Policy rate data is as of March 31, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of December 31, 2022.

Inflation (CPI Trailing Twelve Months)[1]



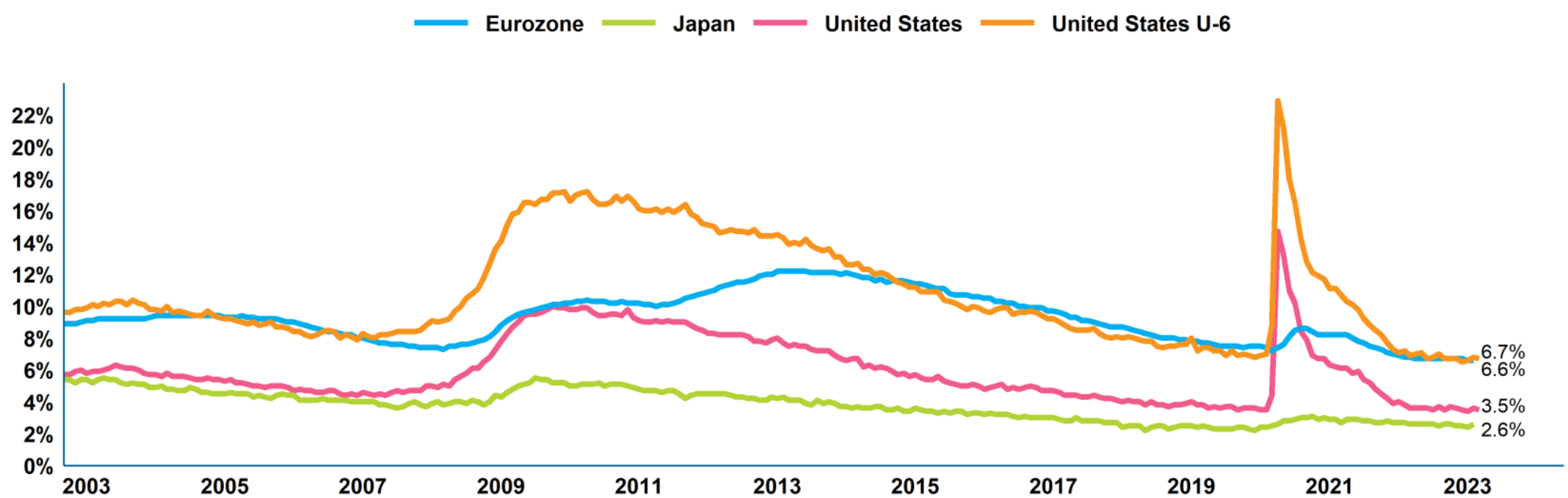
→ Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it reached levels not seen in many decades.

→ Inflation pressures are slowly declining in the US as supply issues ease, but they remain elevated, while in Europe they have also started to fall as energy prices have eased.

→ Lingering supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

[1] Source: Bloomberg. Data is as March 31, 2023. The most recent Japanese inflation data is as of February 2023.

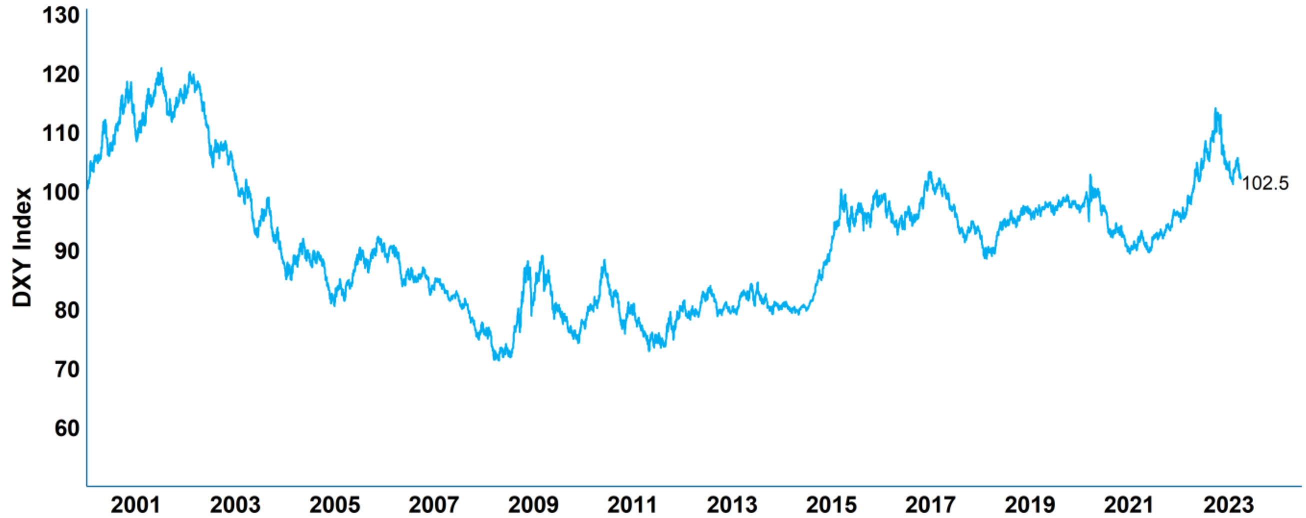
Unemployment[1]



- → Labor markets have significantly improved from the pandemic as economies have largely reopened.
- → Despite slowing growth and high inflation, the US labor market remains a particular bright spot. Unemployment in the US, which experienced the steepest rise, recently has returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.7% but have also declined dramatically from their peak.
- → The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.

[1] Source: Bloomberg. Data is as March 31, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of February 2023.

US Dollar versus Broad Currencies[1]



- → The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows. Late last year and into early this year, the dollar experienced some weakness though as investors anticipated the end of Fed tightening.
- → Overall, the US dollar depreciated in March and finished the quarter slightly lower than where it started as weaker economic data and bank turmoil drove interest rates lower in the US.
- → This year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

[1] Source: Bloomberg. Data as of March 31, 2023.

Summary

Key Trends:

- → The impacts of record high inflation will remain key, with market volatility likely to stay high.
- → Recent issues related to the banking sector have created a delicate balance for central banks to continue to fight inflation but also try to maintain financial stability.
- → Global monetary policies could diverge in 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors remains elevated given persistent inflation pressures and a strong US labor market.
- → Growth is expected to slow globally this year, with many economies forecast to tip into recession. Inflation, monetary policy, and the war will all be key.
- → In the US, the end of many fiscal programs is expected to put the burden of continued growth on consumers. Costs for shelter, medical care, and education could continue to rise, keeping 'sticky price' inflation at elevated levels.
- → The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.
- → Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

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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. Portfolio Return- [Risk Free Rate+Beta*(market return-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 is 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%.

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

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

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.

MEKETA
INVESTMENT GROUP

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MEMORANDUM

TO: SJCERA Board of Retirement
FROM: Meketa Investment Group
DATE: June 2, 2023
RE: SJCERA Manager Certification Update: 1Q 2023 Overview and Responses

Summary of Responses

Meketa reviewed the SJCERA Quarterly Manager Certification Updates for the quarter ending March 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 that[1]:

→ 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.

→ Four managers reported litigation or regulatory investigation information:
Blackrock, HPS, Oaktree, and Prologis

→ Eight managers reported investment team changes:
GQG, HPS, Invesco, Loomis Sayles, Mesa West, Oaktree, Stellex and Stone Harbor.

→ Eight managers reported material management changes:
Blackrock, Dodge & Cox, Mesa West, Northern Trust, Parametric, Prologis, and Raven Capital

→ Two managers reported material business changes:
Raven Capital and Parametric

→ Ocean Avenue, Crestline, Davidson Kempner, Medley, White Oak, Berkely Partners, Lightspeed Partners, Angelo Gordon, Almanac, Greenfield, Bridgewater, Graham, Pimco, Stockbridge, Walton Street, PIMCO, & DWS/RREEF did not respond to the survey in time.

[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 Reconciled With Custodian	Q5 Litigation	Q6 Investment Personnel Changes	Q7 Mgmt. Changes	Q8 Material Business Changes	Q9 Complied Internal Risk Mgmt.	Q10 Sent Fncl Stmnts
Aggressive Growth											
BlackRock	Global Infrastructure	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 Venture Partners***	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	No	No
Stellex Capital Partners	PE Special Situations	Yes	Yes	Yes	N/A	No	Yes*	No	No	Yes	Yes
AG Core Plus***	Pvt. Non-core RE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Almanac Realty	Pvt. Non-core RE	Yes	Yes	No	Yes	No	No	No	No	Yes	Yes
Greenfield***	Pvt. Non-core RE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stockbridge***	Pvt. Non-core RE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Walton Street***	Pvt. Non-core RE	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	No	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	Yes	Yes	Yes	Yes	No	Yes*	No	No	Yes	Yes
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	Yes
Stone Harbor	Abs. Return	Yes	Yes	Yes	Yes	No	Yes*	No	No	Yes	Yes
Stone Harbor	Bank Loans	Yes	Yes	Yes	Yes	No	Yes*	No	No	Yes	Yes
BlackRock	Direct Lending	Yes	Yes	Yes	Yes	Yes*	No	Yes*	No	No	Yes
Crestline***	Opportunistic	N/A	N/A	N/A	N/A*	N/A	N/A	N/A	N/A	N/A	N/A
Davidson Kempner***	Opportunistic	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	Yes*	Yes*	No	Yes	Yes
Oaktree	Leveraged Direct	Yes	Yes	Yes	Yes	Yes*	Yes*	No	No	Yes	Yes
HPS	Direct Lending	Yes	Yes	Yes	No*	Yes*	Yes*	No	No	Yes	Yes

Manager	Sub-Segment	Q1 RIA in Good Standing; RIA	Q2 Complied with Plan Investment Policy	Q3 Complied w/ Mgr. Guidelines	Q4 Reconciled With Custodian	Q5 Litigation	Q6 Investment Personnel Changes	Q7 Mgmt. Changes	Q8 Material Business Changes	Q9 Complied Internal Risk Mgmt.	Q10 Sent Fncl Stmnts
Raven Capital	Direct Lending	Yes	Yes	Yes	Yes	No	No	Yes*	Yes*	Yes	Yes
White Oak	Direct Lending	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Berkeley Partners	Value Add RE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Principal	Pvt. Core RE	Yes	Yes*	Yes	N/A*	No*	No*	No*	No	Yes	Yes
Prologis Targeted US	Pvt. Core RE	N/A*	Yes	Yes	N/A*	Yes*	No	Yes*	No	Yes	Yes
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	Yes*	No*	Yes	Yes
Loomis Sayles	Core Fixed Income	Yes	Yes	Yes	Yes	No	Yes*	No	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PE Investments***	Alt. Risk Premia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Overlay											
Parametric	PIOS Overlay Prgm	Yes	Yes	Yes	Yes	No*	No*	Yes*	Yes*	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 March 31, 2023								
		Inception			Ann. Excess (bps)		Peer Ranking	
Manager	Sub-Segment	Date	Status	Benchmark	3 Yrs	5 Yrs	3 Yrs	5 Yrs
Aggressive Growth								
BlackRock	Global Infrastructure	7/2019	Good Standing	MSCI ACWI +2%	-100	n/a	n/a	n/a
Ocean Avenue II[1]	PE Buyout FOF	5/2013	Good Standing	MSCI ACWI +2%	3,260	1,860	n/a	n/a
Ocean Avenue III[1]	PE Buyout FOF	4/2016	Good Standing	MSCI ACWI +2%	1,970	1,780	n/a	n/a
Ocean Avenue IV	PE Buyout FOF	12/2019	Good Standing	MSCI ACWI +2%	2,890	n/a	n/a	n/a
Morgan Creek III[1]	Multi-Strat FOF	2/2015	Good Standing	MSCI ACWI +2%	-1,740	-1,810	n/a	n/a
Morgan Creek V[1]	Multi-Strat FOF	6/2013	Good Standing	MSCI ACWI +2%	430	300	n/a	n/a
Morgan Creek VI[1]	Multi-Strat FOF	2/2015	Good Standing	MSCI ACWI +2%	1,120	820	n/a	n/a
Stellex 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	-1,250	-750	n/a	n/a
Almanac Realty VI[3]	Pvt. Non-core RE	2011	Good Standing	Private RE Benchmark	-2,170	-1,750	n/a	n/a
Berkeley Partners V[3]	Pvt. Non-core RE	2020	Good Standing	Private RE Benchmark	n/a	n/a	n/a	n/a
Greenfield V[3]	Pvt. Non-core RE	2007	Good Standing	Private RE Benchmark	-2,400	-1,950	n/a	n/a
Greenfield VI[3]	Pvt. Non-core RE	2011	Good Standing	Private RE Benchmark	-4,930	-4,750	n/a	n/a
Greenfield VII[3]	Pvt. Non-core RE	2013	Good Standing	Private RE Benchmark	-310	-50	n/a	n/a
Grandview[3]	Pvt. Non-core RE	2018	Good Standing	Private RE Benchmark	1,630	n/a	n/a	n/a
Stockbridge III[3]	Pvt. Non-core RE	2017	Good Standing	Private RE Benchmark	800	n/a	n/a	n/a
Walton Street V[3]	Pvt. Non-core RE	2005	Good Standing	Private RE Benchmark	-2,960	-2,900	n/a	n/a
Walton Street VI[3]	Pvt. Non-core RE	2007	Good Standing	Private RE Benchmark	-660	-720	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	1,060	220	55	61
Invesco	REITS	8/2004	Good Standing	FTSE EPRA/NAREIT ex-US Equity	-280	-100	87	84
Stabilized Growth								
Bridgewater[2]	Risk Parity	3/2012	Good Standing	Bridgewater All Weather Blend	-60	-270	n/a	n/a
PanAgora	Risk Parity	4/2016	Good Standing	T-Bill +4%	-320	-380	n/a	n/a
Neuberger Berman[1]	Opp. Credit	2/2019	Good Standing	33% HY Const./33% S&P LSTA LL/ 33% JPMEMBI Glbl Div.	0	n/a	n/a	n/a
Stone Harbor[1]	Abs. Return	4/2008	Good Standing	3-Month Libor	540	70	n/a	n/a
BlackRock	Direct Lending	05/2020	Good Standing	Custom Credit Benchmark	n/a	n/a	n/a	n/a

[1] Data is lagged 1 quarter.
[2] Bridgewater and Graham chose not to provide responses to the SJCERA compliance questionnaire and instead directed Meketa to a standard quarterly business update.
[3] Annual Excess returns for Private Non-Core Real Estate are as of 09/30/2022, lagged 1 quarter.

Performance Information through March 31, 2023								
Manager	Sub-Segment	Inception Date	Status	Benchmark	Ann. Excess (bps) 3 Yrs	Ann. Excess (bps) 5 Yrs	Peer Ranking 3 Yrs	Peer Ranking 5 Yrs
Stabilized Growth (continued)								
Crestline[1]	Opportunistic	11/2013	Good Standing	CPI +6%	-990	-960	n/a	n/a
Davidson Kempner[1]	Opportunistic	10/2020	Good Standing	CPI +6%	n/a	n/a	n/a	n/a
Medley[1]	Direct Lending	7/2012	Good Standing	CPI +6%	-1,460	-1,710	n/a	n/a
Mesa West IV[1]	Comm. Mortgage	3/2017	Good Standing	CPI +6%	-300	-170	n/a	n/a
Oaktree[1]	Leveraged Direct	3/2018	Good Standing	MSCI ACWI +2%	500	n/a	n/a	n/a
HPS	Direct Lending	8/2020	Good Standing	CPI +6%	n/a	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%	20	60	n/a	n/a
White Oak Summit[1]	Direct Lending	3/2016	Good Standing	CPI +6%	-960	-610	n/a	n/a
White Oak Yield Spectrum[1]	Direct Lending	3/2020	Good Standing	CPI +6%	-400	n/a	n/a	n/a
Principal[3]	Pvt. Core RE	10/2015	Good Standing	Private RE Benchmark	-740	-590	n/a	n/a
Prologis Targeted US[3]	Pvt. Core RE	9/2007	Good Standing	Private RE Benchmark	630	620	n/a	n/a
DWS / RREEF[3]	Pvt. Core RE	4/2016	Good Standing	Private RE Benchmark	-550	-480	n/a	n/a
Principal Protection								
Dodge & Cox	Core Fixed Income	10/1990	Good Standing	BB Aggregate Bond	310	120	9	8
Loomis Sayles	Core Fixed Income	4/2022	Good Standing	BB Aggregate Bond	n/a	n/a	n/a	n/a
Crisis Risk Offset[1]								
Dodge & Cox	Long Duration	2/2016	Good Standing	BB US Long Duration Treasury	50	20	n/a	n/a
Mount Lucas	Sys. Trend Following	1/2005	Good Standing	BTOP50 Index	340	110	n/a	n/a
Graham[2]	Sys. Trend Following	4/2016	Good Standing	SG Trend	180	-70	n/a	n/a
AQR	Alt. Risk Premia	5/2016	Good Standing	5% Annual	360	-720	n/a	n/a
P/E Investments	Alt. Risk Premia	7/2016	Good Standing	5% Annual	-1,540	-140	n/a	n/a
Other								
Northern Trust	Govt. Short Term	1/1995	Good Standing	US T-Bills	-10	-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.
[2] Bridgewater and Graham chose not to provide responses to the SJCERA compliance questionnaire and instead directed Meketa to a standard quarterly business update.

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.

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

BlackRock Management Level Changes

Dalia Blass, Head of External Affairs, has decided to return to her roots practicing law. She will be joining the global law firm Sullivan & Cromwell. **Mark McCombe**, who has played a key role as Vice Chairman since last October in helping BlackRock tell our story to a wider set of stakeholders, will oversee External Affairs on an interim basis while we complete a search for a new senior leader in this space.

Armando Senra has become the Head of our new Americas Institutional Business, which oversees BlackRock's client businesses in the US, Canada, and LatAm. He reports into Mark Wiedman as Head of Global Client Business.

Sandy Boss will take on the role of Global Client Business Chief Operating Officer (COO) to drive our fulfillment of our mission to deliver BlackRock to clients around the world and to external stakeholders, reporting into Mark Wiedman.

Gina McCarthy will take on a new role as COO for Americas Institutional Business, reporting into Armando.

Manager Responses to Highlighted Questions (continued)

Neetika Singh will take on a new role as Head of Platform and Scaled Distribution (PSD) while continuing to Co-Head Global Consultant Relations. Our Clients Insight Unit will now fall under PSD.

Colin Stewart to become Head of the Client Experience Management (CEM) team in the US and Canada.

Manish Mehta (Global Head of Human Resources) will lead a newly created **BlackRock Global Markets group (BGM)** to create greater alignment and coordination across investment functions while continuing to support the broad array of investment teams across the firm.

Dan Veiner, (Global Head of Fixed Income Trading), and **Jatin Vara,** (Head of International Trading & Global Head of Emerging Markets Trading), will transition to Co-Heads of Global Trading, which was previously headed by **Supurna VedBrat.**

Carolyn Weinberg will join the Global Product Group (GPG) as Chief Product Innovation Officer. **Dan Dunay and Carolyn** will Co-Head GPG.

Dominik Rohe to become Head of the Americas iShares and Index business.

Robert Fischbach will be retiring in May after two decades at BlackRock and three decades in the financial services industry. For BlackRock, Robert built and led teams for iShares, U.S Wealth Advisory and most recently for Cash. He also served as head of the San Francisco office since 2018. Nicole Mossman will be taking over as the San Francisco Office Head beginning in May. Nicole has been a member of the San Francisco Leadership Team since 2019 and has led several of our major initiatives over the years. Her day job is leading our Fundamental Equities Global Communications team. Prior to her current role, she led the iShares Global Product Marketing team and held leadership roles in product development and strategy, sales strategy and client communications.

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 Management Personnel Changes

As stated above, Diana S. Strandberg, Senior Vice President and Director of International Equity, retired on December 31, 2022 after 34 years with Dodge & Cox. Diana served on the Dodge & Cox Board of Directors and was a member of the International Equity Investment Committee and Emerging Markets Equity Investment Committee.

Gradual and thoughtful transition of leadership is a hallmark of our firm. To ensure continuity of our investment philosophy, research process, and culture, we spend considerable time planning for leadership succession, and evolve the composition of our Investment Committees gradually. We select

Manager Responses to Highlighted Questions (continued)

Investment Committee members based on their long-term contributions to our research and investment processes as analysts and members of our Sector Committees, and their demonstrated interest in portfolio strategy.

Consistent with these objectives, on January 12, 2023, we announced the forthcoming changes to our leadership team, and two of our Investment Committees:

Investment Leadership

Tom Dugan, Senior Vice President and Director of Fixed Income, has decided to retire on December 31, 2023 after what will have been more than 30 years of distinguished service at Dodge & Cox. Tom's many contributions include leading our Fixed Income department as Director of Fixed Income, and helping expand and globalize our fixed income research, investment strategies, and client service capabilities as a member of our Board of Directors, Business Strategy Committee, and both our US and Global Fixed Income Investment Committees.

When Tom retires, **Lucy Johns**, Senior Vice President and Associate Director of Fixed Income, will succeed him as Director. Over the course of two decades at the firm, Lucy has played a key role in enhancing our Fixed Income expertise as an analyst and trader, leading the effort to launch our Global Bond strategy, and, more recently, managing the Fixed Income department with Tom. Lucy will continue to serve as a member of the firm's Board of Directors, Business Strategy and Operations Committees, and on the US Fixed Income, Global Fixed Income, and Balanced Fund Investment Committees.

Investment Committees

US Fixed Income Investment Committee (USFIIC)

Tom Dugan will leave the USFIIC when he retires at the end of 2023.

Global Fixed Income Investment Committee (GFIIC)

On May 1, 2023, Tom Dugan will step off the GFIIC and **Mimi Yang** will join the Committee. Since joining Dodge & Cox eight years ago, Mimi has made substantial contributions to the Global Bond strategy and our broader macro research efforts as a member of our Global Bond Macro Committee and Rates Group.

Dodge & Cox Material Business Changes

There have been no material changes during the quarter.

We continue to follow the guidance of national public health officials, the state of California, and the cities of San Francisco, London, and Shanghai.

We are operating in a 3/2 hybrid working model, where staff work in the office Tuesdays through Thursdays, and have the option of working remotely on Mondays and Fridays.

Our 3/2 hybrid working model enables us to reinforce our culture of collaboration, inclusiveness, and teamwork. Working in the office enables us to experience the benefits of informal connections with

Manager Responses to Highlighted Questions (continued)

colleagues. Together with our hybrid model, we have implemented additional working location flexibility options, including "flex weeks." This pilot program allows employees to work remotely at various times during the year (e.g., during the summer at around major holidays at the end of the year), at their manager's discretion.

GQG Investment Personnel Changes

In 1Q 2023, GQG added one (1) analyst to the Investment Team:

Siddarth Thakur - Associate Quantitative Analyst - New York, NY as of 2/13/23

HPS Custodian Reconciliation

We expect SJCERA's account to be reconciled with the Fund's Administrator, Harmonic Fund Services, for the first quarter of 2023 by June 2023.

HPS Litigation

Yes, however, to our knowledge, there are no litigations involving the Firm that HPS believes will have a material adverse effect upon the Firm. No ongoing regulatory proceedings.

HPS Investment Personnel Changes

During the first quarter of 2023, there were no hires at the level of Vice President or above to the dedicated Asset Value* team. During the period at the level of Vice President or above, there was one departure of a Vice President from the dedicated Asset Value Team.

* Formerly known as European Asset Value.

Invesco Investment Personnel Changes

Effective March 31, 2023, Chris Faems, Alister Hough, and Jim Pfertner were promoted from Associate Portfolio Managers to Portfolio Managers. Dan Moran and Chris Rynn were promoted from Senior Analysts to Associate Portfolio Managers.

Manager Responses to Highlighted Questions (continued)

Loomis Sayles Investment Personnel Changes

Monica Mehra, a securitized products portfolio manager for the Disciplined Alpha Team, departed Loomis Sayles in March to pursue another opportunity.

Matthew Boynton was promoted to portfolio manager for the Disciplined Alpha Team in February. He was previously a senior trader on the team.

Mirsada Durakovic was promoted to credit portfolio manager for the Disciplined Alpha Team in February. She was previously a senior credit analyst on the team.

Mesa West Investment Personnel Changes

As of March 2023, **Raphael Fishbach** and **Ronnie Gul** have been named Co-Chief Executive Officers of Mesa West Capital. Raphael and Ronnie have been partners at Mesa West since 2013, having held senior management roles for over a decade, and are well positioned to lead the company moving forward. **Jeff Friedman** and **Mark Zytko** will remain on the Investment Committees of the Mesa West funds and SMAs and will continue to support the senior management team as Senior Advisors.

Raphael and Ronnie will be supported by Mesa West Principals Steve Fried, **Matt Cohen** and **Lynn Carr**, who will continue to work closely with them to manage the platform. **Steve Fried** has been named Head of Originations and will oversee Mesa West's national loan originations teams in Los Angeles, New York, Chicago and San Francisco. Matt Cohen will continue his role as Head of Capital Markets, managing Mesa West's financing activities and balance sheet relationships. Lynn Carr will continue his role as Head of Asset Management, overseeing the teams managing the loans within the Mesa West fund portfolios.

When Mesa West was established in 2004, almost two decades ago, the long-term durability of the business was a cornerstone principle. Since then, the team has focused all of our efforts on creating a successful, long-term real estate credit franchise built on strong culture, trust-based relationships, disciplined investment philosophy, transparency, and nurturing a "best-in-class" senior leadership team. The experience and continuity of Mesa West's senior management team, combined with the deep talent across the platform, positions Mesa West well to navigate the current challenging market environment and capitalize on significant opportunities ahead.

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

Mesa West Management Level Changes

See above response

Northern Trust Litigation

As one of the world's largest asset managers, NTI is occasionally named as a defendant in asset management-related litigation. NTI is not currently party to any litigation that has had (or will have) a

Manager Responses to Highlighted Questions (continued)

material effect on its ability to perform services for its clients. At this time, there are no significant pending cases. Furthermore, 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 investigations 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

Daniel Gamba joined Northern Trust to serve as the President of Asset Management (NTAM), effective April 3, 2023.

Daniel has a broad-based global experience across fundamental active, systematic and index products, and a track record for leading business through growth and change. He joins Northern Trust form BlackRock, Inc. where he spent 22 years and served as co-head of Fundamental Equities and as a member of BlackRock's global operating, Portfolio Management Group Executive and Human Capital Committees. Daniel Successfully delivered strong results as he expanded BlackRock's investment capabilities, entered new markets and strengthened the business' product innovation.

During his tenure, he held several senior executive roles including leading the US iShares business, active equity strategies and enterprise-wide leadership of Latin America. Committed to diversity and inclusion, Daniel is also the founder and Co-Chair of Somos Latinx & Allies Network at BlackRock. Somos, which translates into "we are" in Spanish, has more than 1,000 members spanning the globe. In addition, Daniel is the past Chair of the Board of Governors for the CFA institute, the 190,000-global member association that serves investment management professionals. He served as a Board Director for the Council of Urban Professionals whose mission is to connect, empower and mobilize the next generation of diverse business and civic leaders.

Daniel earned a bachelor's degree in industrial engineering from Universidad Catòlica del Perù and an MBA in finance and economics from Northwestern University's Kellogg School of Management, where he served on the board of its Alumni Association for four years.

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.

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.

Manager Responses to Highlighted Questions (continued)

Oaktree Investment Team Changes

Bill Casperson, Managing Director and Co-Portfolio Manager Mezzanine Finance Funds retired 3/2023.

Peter Chang, Managing Director and Assistant Portfolio Manager, Mezzanine Finance Funds left to pursue other opportunities 01/2023

Parametric Litigation

Parametric is part of Morgan Stanley Investment Management, the asset management division of Morgan Stanley. Parametric and its affiliates have from time to time, been plaintiffs or defendants in various lawsuits and arbitrations that are incidental to their businesses and are or were handled in the ordinary course of business. From time to time, Parametric and its affiliates are subject to periodic audits, regulatory and governmental examinations, information-gathering requests, investigations, and proceedings both formal and informal which have the potential to result in findings, conclusions, recommendations, or various forms of sanction. Parametric believes that these actions have not and will not have a material adverse effect on its consolidated financial condition, liquidity, results of operations or the ability to manage client assets.

Parametric Investment Personnel Changes

There were no changes to key team members during the first quarter, 2023. During the second quarter, 2023, **Alex Braun**, CFA, Senior Portfolio Manager, left the firm.

Parametric Management Level Changes

Jim Evans' last day as Managing Director, Fixed Income, was February 3, 2023. He began his transition to retirement on June 30, 2022, as he stepped down from the role as Co-Head of Parametric's Fixed Income. **Jon Rocafort** became the sole Head of Fixed Income and replaced Jim on Parametric's Executive Committee.

Parametric Material Business Changes

Effective January 1, 2023, Tom Lee and Ranjit Kapila each added the title of Co-President to their current roles of CIO and COO respectively. The firm created these two new positions to expand Parametric's executive capacity as the firm continues to grow and evolve. As Co-Presidents, Tom and Ranjit will be involved in leading additional functional areas and increasingly contribute to overall firm management. Brian Langstraat will remain Parametric's CEO, and Ranjit and Tom will continue to report to him.

As part of this evolution, also as of January 1, 2023, Jon Rocafort, Managing Director, Head of Fixed Income, reports to Tom Lee, and Melissa Fell, Managing Director, Human Resources, reports to Ranjit.

As Tom and Ranjit organize their teams to accommodate new responsibilities, both have hired key senior leaders. Brian Herscovici joined Tom's team as COO, Investments, on November 28, 2022. Greg Thompson started on Ranjit's team as the Head of Operations on January 30, 2023. Greg leads Parametric's operations teams including client relations and investment operations.

Manager Responses to Highlighted Questions (continued)

Parametric Compliance with its Internal Risk Management

Parametric's Executive Committee (EC), which is comprised of Parametric's senior leadership, is the overarching leadership body for the firm. The EC is ultimately responsible for overseeing the firm's performance, setting strategic direction, and monitoring material risks. Given the breadth of the firm's business and operations, the EC has delegated a portion of the day-to-day oversight of the enterprise to two firm-wide committees overseen by the EC: (1) the Enterprise Investment Management Committee; and (2) the Enterprise Operational Risk Committee.

The Enterprise Investment Management Committee (EIMC) is responsible for the oversight of Parametric's investment activities at the enterprise level and determining the firm's strategic approach to investment management, product evaluation, and active ownership. The EIMC oversees the individual investment committees for each of the derivatives or equity strategies, along with three firm-wide subcommittees: Product Evaluation, Stewardship, and Proxy Voting.

The Enterprise Operational Risk Committee (EORC) determines the firm's strategic approach and structure to risk management, and oversees the firm's efforts on BCP and Information Security. The EORC acts as senior and executive-level oversight and escalation point for committees and working groups handling operational errors, best execution, valuation, investment model oversight, and other business functions.

In addition to the leadership committees, Parametric has established Best Execution and Valuation committees in both the Seattle and Minneapolis offices. Parametric's Best Execution committees have adopted and implemented best execution policies and procedures which are designed to ensure that Parametric fulfills its fiduciary obligation to seek best execution when it is effecting securities transactions on behalf of its clients. The Valuation committees provide oversight of valuation practices and make fair value determinations as needed. Review Scope of the Committee includes i) Pricing Categorization, ii) Valuation Methodology Consistency & Changes, iii) Pricing Escalation, iv) Stale Pricing & Price Overrides, v) Significant Events impacting Valuations.

In addition, following the acquisition by Morgan Stanley on March 1, 2021, Parametric is subject to oversight from Morgan Stanley's Internal Audit Department (IAD) and Morgan Stanley's Risk Management Departments. IAD reports directly to Morgan Stanley's Board Audit Committee. IAD provides independent and objective assurance and consulting services that ensure the design and operating effectiveness of internal control systems are adequate to mitigate business risk. Also, significant risk issues are reported to the relevant Morgan Stanley and MSIM risk committees. MSIM has a dedicated Investment Management Risk Committee (IMRC), which is appointed by Morgan Stanley's firm-wide Risk Committee to assist in the oversight of MSIM's risk management of investment, credit/counterparty, operational, model and other risks. In addition, the IMRC appointed various sub-committees to provide additional oversight. As needed, risk issues addressed at a subcommittee may be escalated to the IMRC for heightened discussion and examination from senior leaders across MSIM and Morgan Stanley.

Parametric and Morgan Stanley expect to continue to evolve the Risk oversight function to address the needs of the combined business.

Manager Responses to Highlighted Questions (continued)

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 "US Property Account"). The Manager acknowledges and accepts that it is a fiduciary under ERISA for those assets under its management for the US Property Account, including certain assets of San Joaquin County Employees Retirement Association ("SJCERA"). The Trustees have decided to utilize the US Property 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 US Property Account. No material changes have been made to the investment policy guidelines governing the management of the US Property Account, though the guidelines are reviewed and potentially revised on at least an annual basis.

Principal Reconciliation with Custodian

The US Property Account is a commingled account. Attached is the March 31st Monthly statement. We do not receive reports from SJCERA's custodian to reconcile.

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 nay 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 perform our duties to clients.

Principal Investment Personnel Changes

There were no additions or departures from the US property Account portfolio management team during the first quarter. The portfolio management team is comprised of Darren Kleis (Managing Director Portfolio Management), Meighan Phillips (Managing Director of Portfolio Management), Bridget Lechtenberg (Portfolio Manager), Ross Johnson (Portfolio Analyst), and Ellen Bennett (Portfolio Analyst).

Manager Responses to Highlighted Questions (continued)

Principal Management Level Changes

Principal Real Estate has experienced limited turnover of its senior management and staff.

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 Custodian Reconciliation

N/A

Prologis Litigation

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 and environmental matters 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. Except as has been previously disclosed in public filings and one Complaint arising out of the operations of one of our Customers, as of December 31, 2022, there were no material pending legal proceedings to which Prologis is a party or of which any of its properties is the subject, the determination of which Prologis anticipates would have a material adverse effect upon its financial condition and results of operations.

Prologis Management Level Changes

Prologis announced in April that **Karsten Kallevig**, managing director, Global Strategic Capital, joined the Executive Committee (EC), which serves as the senior management team for Prologis. Additionally, as announced last quarter, **Scott Marshall** has officially taken the role of chief customer officer as of April 1. In his new role, Marshall will serve as a primary advocate for Prologis customers across all business lines and geographies.

Manager Responses to Highlighted Questions (continued)

Raven Management Level Changes

Raven entered into a definitive merger agreement with MetLife, which closed in Q1 2023. As of March 1, 2023, Raven is a wholly owned subsidiary of MetLife, Inc., a publicly traded company (NYSE: MET) founded in 1868, and is now part of MetLife, Inc.'s institutional asset management business, MetLife Investment Management ("MIM"). With the acquisition, James Masciello, who was a Principal of the Firm, will leave to focus on managing the entertainment operating companies, which will be spun out of the Firm. Otherwise, there have been no other leadership changes at the Firm over the past five years. Raven now has four Principals: Josh Green (Chief Investment Officer), Jeremy Tucker (Co-Founder, Portfolio Manager), Dimitri Cohen (Portfolio Manager, Head of Credit) and Chris Felice (Chief Financial Officer), who retain the incentives fees tied to the funds that Raven currently manages in addition to the next $1.3 billion raised in the Raven Evergreen Credit Fund II LP. The Principals have no plans to retire in the near future and have agreed to a minimum employment contract period with the MetLife acquisition.

Raven Material Business Changes

Raven entered into a definitive merger agreement with MetLife, which closed in Q1 2023. As of March 1, 2023, Raven is a wholly owned subsidiary of MetLife, Inc., a publicly traded company (NYSE: MET) founded in 1868, and is now part of MetLife, Inc.'s institutional asset management business, MetLife Investment Management ("MIM"), which has approximately $592.6 billion in total assets under management as of March 31, 2023. While Raven continues to operate as an independent subsidiary with full investment discretion over its products, the MetLife acquisition brings significant additional operational resources, including regulatory support.

Stellex Investment Personnel Changes

Paul Mazurk – Former Vice President

Mr. Mazurek parted ways with the Stellex team on 12/31/2022. In his role as a Vice President on the investment team, Mr. Mazurek was responsible for executing new investments for the Fund. Additionally, he was also involved in the ongoing management and improvement of existing US-based portfolio companies in the Fund.

Mr. Mazurek's responsibilities have been reassigned across his peer group.

Stone Harbor Investment Personnel Changes

Effective January 1, 2023 the 14 members of Stone Harbor Investment Partner's Multi-Asset Credit Team combined with Newfleet Asset Management, both divisions of VFIA. The combined group consists of 42 investment professionals with an average of 25 years of investment experience. The enhanced corporate credit analyst team have been allocated into 10 leveraged finance and 4 investment grade analysts.

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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	Stablized Grwith	Core Real Estate				Oct-22		Boston, MA
Angelo Gordon	Aggressive Growth	Value Added Real Estate			May-23	10/6/2022		New York, NY
Almanac Reality VI	Aggressive Growth	Value Added Real Estate		May-21				New York, NY
AQR	Diversifying Strategies	Alternative Risk Premia		Jul-19		10/6/2022		Stamford, CT
BlackRock	Stabilized Growth, PC	Direct Lending		Mar-23		3/30/2023		San Francisco, CA
BlackRock	Aggressive Growth	Infrastructure				10/6/2022	8/22/2019	New York, NY
Berkeley Partners	Aggressive Growth	Private Real Estate			May-23	10/16/2020	8/14/2020	San Francisco, CA
Bridgewater (AW)	Stabilized Growth, RP	Risk Parity			Aug-23	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		Oct-21		8/11/2020		New York, NY
Dodge & Cox	Diversifying Strategies, PP	Core Fixed Income		Oct-21		10/6/2022		San Francisco, CA
Dodge & Cox	Diversifying Strategies, CRO	Long Duration			Jul-23	6/3/2020		San Francisco, CA
GQG	Traditional Growth	Emerging Markets		Jan-23		10/16/2020		San Francisco, CA
Graham	Diversifying Strategies, CRO	Systematic Trend Following				10/6/2022		Rowayton, CT
Greenfield/Grandview V, VI, VII	Aggressive Growth	Opportunistic Real Estate		Oct-21	May-23	10/6/2022		Greenwich, CT
HPS EU	Stabilized Growth, PC	Direct Lending		Mar-20	Jun-23	8/3/2017*		New York, NY
Invesco	Traditional Growth	REITs, Core US		Oct-21		10/6/2022		Atlanta, GA
LongArc Capital	Aggressive Growth	Private Equity		Nov-22		2/8/2023		New York, NY
Loomis Sayles	Principal Protection	Core Fixed Income				10/6/2022		Kansas City, MO
Lightspeed	Aggressive Growth	Private Equity				10/6/2022		Menlo Park, CA
Medley	Stabilized Growth, PC	Direct Lending		Aug-22		3/12/2015		San Francisco/New York
Mesa West III & IV	Stabilized Growth, PC	Comm. Mortgage		Oct-21		10/6/2022	8/22/2019	Los Angeles, CA
Miller Global VI, VII	Aggressive Growth	Opportunistic Real Estate		Mar-20	Jun-23			Denver, CO
Morgan Creek III, V, & VI	Aggressive Growth	Multi-Strat FOF		Oct-21	Sep-23	8/22/2019	8/22/2019	Chapel Hill, NC
Mount Lucas	Diversifying Strategies, CRO	Systematic Trend Following		May-18		10/6/2022	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		10/6/2022		Chicago, IL
Oaktree	Stabilized Growth, PC	Leveraged Direct Lending				10/6/2022		New York, NY
Ocean Avenue	Aggressive Growth	PE Buyout FOF		Oct-21		10/6/2022		Santa Monica, CA
P/E Diversified	Diversifying Strategies	Alternative Risk Premia		Oct-21		10/6/2022		Boston, MA
PanAgora	Stabilized Growth, RP	Risk Parity		Mar-18		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	8/22/2019	Newport Beach, CA
Principal US	Stabilized Growth, RE	Core Real Estate				10/6/2022		Des Moines, IA
Prologis	Stabilized Growth, RE	Core Real Estate		Oct-22		10/6/2022		San Francisco, CA
Raven III	Stabilized Growth, PC	Direct Lending		Feb-23			2/23/2018	New York, NY
Ridgemont	Aggressive Growth	Private Equity				10/6/2022		Charlotte, NC
RREEF America II	Stabilized Growth, RE	Core Real Estate		Mar-20	Jul-23			Kansas City, MO
Stellex Capital	Aggressive Growth	Private Equity		Oct-21	Jul-23		5/8/2020	New York, NY
Stockbridge RE III	Aggressive Growth	Value Added Real Estate		Jul-22				San Francisco, CA
Stone Harbor	Stabilized Growth, LC	Absolute Return		Apr-23		4/6/2023	2/3/2021	New York, NY
Walton Street	Aggressive Growth	Opportunistic Real Estate		Mar-20	Jul-23			Chicago, IL
White Oak Summit Peer	Stabilized Growth, PC	Direct Lending			Jun-23	7/24/2020		San Francisco, CA
White Oak Yield Spectrum	Stabilized Growth, PC	Direct Lending		Feb-19	Jun-23	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

Liquidated Managers			Date Terminated	
KBI	Global Equity	Global Equity -Terminated	2016	Dublin, Ireland
Bridgewater	Risk Parity	Real Assets - Terminated	2016	Westport, CT
Parametric	Risk Parity	Risk Parity - Terminated	2016	Minneapolis, MN
Legato	Global Equity	Small Cap Growth -Terminated	2017	San Francisco, CA
Marinus	Credit	Credit HF - Terminated	2018	Westport, CT
Bridgewater	Crisis Risk Offset	Pure Alpha - Terminated	2019	Westport, CT
Stone Harbor	Credit	Bank Loans - Temrinated	2019	New York, NY
Prima	Principal Protection	Commercial MBS - Terminated	2020	Scarsdale, NY
BlackRock x4	Global Equity	US Equity x2; Non-US Developed; Non-US REIT -Terminated	2020	San Francisco, CA
Capital Prospects	Global Equity	Global Equity -Terminated	2020	Stamford, CT
PIMCO (RAFI)	Global Equity	Global Equity -Terminated	2019	Newport Beach, CA
DoubleLine	Principal Protection	Principal Protection -Terminated	2022	Los Angeles, CA
Raven	Opportunity Fund II	Stablized Growth - Fund Liquidated	2022	New York, NY
Lombard	Diversifying Strategies	Alternative Risk Premia	2023	New York, NY

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)[1] — April 2023

	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 PLAN[1]			$ 3,978,802,001	100.0%	100.0%	0.9	0.0	3.7	0.7	7.3	5.6	7.6	Apr-90
Policy Benchmark [4]						*1.6*	*1.6*	*5.9*	*1.9*	*7.2*	*5.7*	*7.4*	
Difference:						-0.7	-1.6	-2.2	-1.2	0.1	-0.1	0.2	
75/25 Portfolio [5]						*1.2*	*1.3*	*7.6*	*1.5*	*8.4*	*6.1*	*7.1*	
Difference:			.			-0.3	-1.3	-3.9	-0.8	-1.1	-0.5	0.5	
Broad Growth			$ 3,034,089,493	76.3%	76.0%	0.8	-0.2	4.2	1.3	10.0	6.5	8.2	Jan-95
Aggressive Growth Lag[2]			$ 386,160,762	9.7%	10.0%	0.2	0.2	0.2	6.3	18.9	14.7	-2.0	Feb-05
Aggressive Growth Blend [6]						*-4.4*	*2.6*	*2.6*	*-4.4*	*9.3*	*9.7*	*0.0*	
Difference:						4.6	-2.4	-2.4	10.7	9.6	5.0	-2.0	
BlackRock Global Energy&Power Lag[3]	*$50,000*	*Global Infrastructure*	$ 40,197,375	1.0%		-3.5	-3.5	-3.5	3.7	5.6	--	8.4	Jul-19
MSCI ACWI +2% Lag						*-3.7*	*10.4*	*10.4*	*-16.3*	*6.6*	*--*	*9.2*	
Difference:						0.2	-13.9	-13.9	20.0	-1.0	--	-0.8	
Ocean Avenue II Lag[3]	*$40,000*	*PE Buyout FOF*	$ 37,682,566	0.9%		-4.5	-4.5	-4.5	12.0	39.2	26.6	18.2	May-13
MSCI ACWI +2% Lag						*-3.7*	*10.4*	*10.4*	*-16.3*	*6.6*	*8.0*	*-12.1*	
Difference:						-0.8	-14.9	-14.9	28.3	32.6	18.6	30.3	
Lightspeed Venture Ptr Select V Lag[3]	*$40,000*	*Growth-Stage VC*	$ 8,406,757	0.2%		-1.3	-1.3	-1.3	--	--	--	--	Jun-22
MSCI ACWI +2% Lag						*-3.7*	*10.4*	*10.4*	*--*	*--*	*--*	*--*	
Difference:						2.4	-11.7	-11.7	--	--	--	--	
Long Arc Capital Fund Lag[3]	*$25,000*	*Growth-Stage VC*	$ 19,753,658	0.5%		--	--	--	--	--	--	--	Apr-23
MSCI ACWI +2% Lag						*--*	*--*	*--*	*--*	*--*	*--*	*--*	
Difference:						--	--	--	--	--	--	--	
Ocean Avenue III Lag[3]	*$50,000*	*PE Buyout FOF*	$ 52,236,036	1.3%		2.9	2.9	2.9	16.9	26.3	25.8	25.3	Apr-16
MSCI ACWI +2% Lag						*-3.7*	*10.4*	*10.4*	*-16.3*	*6.6*	*8.0*	*8.3*	
Difference:						6.6	-7.5	-7.5	33.2	19.7	17.8	17.0	
Ocean Avenue IV Lag[3]	*$50,000*	*PE Buyout*	$ 58,810,100	1.5%		9.7	9.7	9.7	42.1	35.5	--	39.4	Dec-19
MSCI ACWI +2% Lag						*-3.7*	*10.4*	*10.4*	*-16.3*	*6.6*	*--*	*9.6*	
Difference:						13.4	-0.7	-0.7	58.4	28.9	--	29.8	
Morgan Creek III Lag[7]	*$10,000*	*Multi-Strat FOF*	$ 4,060,219	0.1%		0.0	0.0	0.0	-11.9	-10.8	-10.1	-5.8	Feb-15
MSCI ACWI +2% Lag						*-3.7*	*10.4*	*10.4*	*-16.3*	*6.6*	*8.0*	*8.4*	
Difference:						3.7	-10.4	-10.4	4.4	-17.4	-18.1	-14.2	
Morgan Creek V Lag[7]	*$12,000*	*Multi-Strat FOF*	$ 6,974,665	0.2%		0.0	0.0	0.0	-0.9	10.9	11.0	12.8	Jun-13
MSCI ACWI +2% Lag						*-3.7*	*10.4*	*10.4*	*-16.3*	*6.6*	*8.0*	*8.5*	
Difference:						3.7	-10.4	-10.4	15.4	4.3	3.0	4.3	
Morgan Creek VI Lag[7]	*$20,000*	*Multi-Strat FOF*	$ 23,692,977	0.6%		0.0	0.0	0.0	-10.0	17.8	16.2	10.0	Feb-15
MSCI ACWI +2% Lag						*-3.7*	*10.4*	*10.4*	*-16.3*	*6.6*	*8.0*	*8.4*	
Difference:						3.7	-10.4	-10.4	6.3	11.2	8.2	1.6	
Ridgemont Equity Partners Lag[3]	*$50,000*	*Special Situations PE*	$ 3,879,531	0.1%		--	--	--	--	--	--	--	Apr-23
MSCI ACWI +2% Lag						*--*	*--*	*--*	*--*	*--*	*--*	*--*	
Difference:						--	--	--	--	--	--	--	
Stellex Capital Partners II Lag[3]	*$50,000*	*Special Situations PE*	$ 30,749,246	0.8%		-1.3	-1.3	-1.3	21.2	--	--	0.1	Jul-21
MSCI ACWI +2% Lag						*-3.7*	*10.4*	*10.4*	*-16.3*	*--*	*--*	*-4.7*	
Difference:						2.4	-11.7	-11.7	37.5	--	--	4.8	
Non-Core Private Real Assets Lag[3]	*$341,100*	*Private Real Estate*	$ 99,717,632	2.5%		-2.3	-2.3	-2.3	-9.5	8.8	6.6	-2.5	Nov-04
NCREIF ODCE + 1% Lag Blend						*-5.1*	*-4.9*	*-4.9*	*7.6*	*10.0*	*8.8*	*8.8*	
Difference:						2.8	2.6	2.6	-17.1	-1.2	-2.2	-11.3	

[1] Returns 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.

[2] Total class returns are as of 3/31/23, and lagged 1 quarter.

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

[4] 8/1/22 to present benchmark is 33**%** MSCI ACWI IMI, 9**%** BB Aggregate Bond Index, **16%** *50%* BB High Yield/*50%* S&P Leveraged Loans, 7% NCREIF ODCE +1% lag; **10%** T-Bill +4%, **10%** MSCI ACWI +2% Lag, **15%** CRO Custom Benchmark. Prior to 8/1/22 benchmark is legacy policy benchmark.

[5] 4/1/20 to present **75%** MSCI ACWI, **25%** BB Global Aggregate. Prior to 4/1/20 60% MSCI ACWI, 40% BB Global Aggregate.

[6] 1/1/2021 to present **50%** MSCI ACWI +2%,**50%** NCREIF ODCE +1%

[7] Manager returns are as of 12/31/22, and lagged 1 quarter. Since inception date reflects one quarter lag.

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)[1] April 2023

	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
Opportunistic Private Real Estate			$ 27,383,483	0.5%									
Greenfield V[3]	*$30,000*	*Opportunistic Pvt. RE*	$ 216,175	0.0%		-1.2	-1.2	-1.2	-2.0	-10.7	-7.5	-3.0	Jul-08
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*13.3*	*12.0*	*13.5*	
Difference:						3.0	3.0	3.0	-12.8	-24.0	-19.5	-16.5	
Greenfield VI[3]	*$20,000*	*Opportunistic Pvt. RE*	$ 23,599	0.0%		-20.3	-20.3	-20.3	-33.2	-36.0	-35.5	-15.2	Apr-12
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*13.3*	*12.0*	*14.3*	
Difference:						-16.1	-16.1	-16.1	-44.0	-49.3	-47.5	-29.5	
Greenfield VII[3]	*$19,100*	*Opportunistic Pvt. RE*	$ 2,314,538	0.1%		-11.1	-11.1	-11.1	-2.1	10.2	11.5	12.2	Oct-14
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*13.3*	*12.0*	*13.9*	
Difference:						-6.9	-6.9	-6.9	-12.9	-3.1	-0.5	-1.7	
Grandview[3]	*$30,000*	*Opportunistic Pvt. RE*	$ 17,382,607	0.4%		4.8	4.8	4.8	-0.4	21.9	--	19.8	Apr-18
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*13.3*	*--*	*12.0*	
Difference:						9.0	9.0	9.0	-11.2	8.6	--	7.8	
Walton Street V[3]	*$30,000*	*Opportunistic Pvt. RE*	$ 1,047,788	0.0%		43.5	43.5	43.5	-28.1	-16.3	-17.0	-6.3	Nov-06
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*13.3*	*12.0*	*10.4*	
Difference:						47.7	47.7	47.7	-38.9	-29.6	-29.0	-16.7	
Walton Street VI[3]	*$15,000*	*Opportunistic Pvt. RE*	$ 6,398,776	0.2%		5.3	5.3	5.3	14.3	6.7	4.8	8.2	Jul-09
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*13.3*	*12.0*	*12.1*	
Difference:						9.5	9.5	9.5	3.5	-6.6	-7.2	-3.9	
Value-Added Private Real Estate			$ 72,334,149	1.8%									
AG Core Plus IV[3]	*$20,000*	*Value-Added Pvt. RE*	$ 9,907,015	0.2%		-10.6	-10.6	-10.6	-15.9	0.8	4.5	2.9	Sep-15
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*13.3*	*12.0*	*12.5*	
Difference:						-6.4	-6.4	-6.4	-26.7	-12.5	-7.5	-9.6	
Almanac Realty VI[3]	*$30,000*	*Value-Added Pvt. RE*	$ 4,090,987	0.1%		2.2	2.2	2.2	-1.2	-8.4	-5.5	19.5	Feb-13
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*13.3*	*12.0*	*13.5*	
Difference:						6.4	6.4	6.4	-12.0	-21.7	-17.5	6.0	
Berkeley Partners Fund V, LP	*$40,000*	*Value-Added Pvt. RE*	$ 29,895,103	0.8%		-4.5	-4.5	-4.5	4.6	--	--	21.4	Aug-20
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*--*	*--*	*16.9*	
Difference:						-0.3	-0.3	-0.3	-6.2	--	--	4.5	
Stockbridge RE III[3]	*$45,000*	*Value-Added Pvt. RE*	$ 28,441,044	0.7%		1.1	1.1	1.1	8.1	21.3	--	12.9	Jul-18
NCREIF ODCE + 1% Lag Blend						*-4.2*	*-4.2*	*-4.2*	*10.8*	*13.3*	*--*	*12.0*	
Difference:						5.3	5.3	5.3	-2.7	8.0	--	0.9	
Traditional Growth[2]			$ 1,429,962,777	35.9%	33.0%	1.6	1.2	8.6	2.5	12.1	5.8	8.8	Jan-95
MSCI ACWI IMI Net						*1.3*	*0.9*	*8.3*	*1.6*	*12.2*	*7.4*	*7.6*	
Difference:						0.3	0.3	0.3	0.9	-0.1	-1.6	1.2	
Global Equity			$ 1,386,431,315	34.8%									
Northern Trust MSCI World IMI		*All Cap Global*	$ 1,247,079,593	31.3%		1.6	1.6	9.1	3.5	--	--	7.6	Sep-20
MSCI World IMI Net						*1.5*	*1.6*	*9.0*	*2.6*	*--*	*--*	*7.1*	
Difference:						0.1	0.0	0.1	0.9	--	--	0.5	
SJCERA Transition		*All Cap Global*	$ 3,168	0.0%		NM	NM	NM	NM	--	--	NM	Jul-20
Emerging Markets			$ 139,348,554										
GQG Active Emerging Markets		*Emerging Markets*	$ 60,149,292	1.5%		4.1	2.8	7.7	-1.9	--	--	-0.3	Aug-20
MSCI Emerging Markets Index Net						*-1.1*	*-4.7*	*2.8*	*-6.5*	*--*	*--*	*-1.3*	
Difference:						5.2	7.5	4.9	4.6	--	--	1.0	
PIMCO RAE Fundamental Emerging Markets		*Emerging Markets*	$ 79,199,262	2.0%		0.0	-1.1	4.2	3.0	14.9	1.4	4.6	Apr-07
MSCI Emerging Markets Index Net						*-1.1*	*-4.7*	*2.8*	*-6.5*	*4.3*	*-1.0*	*2.7*	
Difference:						1.1	3.6	1.4	9.5	10.6	2.4	1.9	
REITS			$ 43,531,462	1.1%									
Invesco All Equity REIT		*Core US REIT*	$ 43,531,462	1.1%		0.8	-6.3	3.2	-14.9	6.7	5.2	7.9	Aug-04
FTSE NAREIT Equity Index						*0.8*	*-6.4*	*3.5*	*-14.8*	*9.4*	*5.9*	*7.7*	
Difference:						0.0	0.1	-0.3	-0.1	-2.7	-0.7	0.2	

[1] Returns 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.

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

[3] Manager returns are as of 3/31/22, and lagged 1 quarter. Since Inception date reflects one quarter lag.

NM = Returns not meaningful

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)[1] — April 2023

	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
Stabilized Growth			$ 1,217,965,954	30.6%	33.0%	0.2	-1.9	0.6	-1.4	5.5	5.2	3.8	Jan-05
Risk Parity			$ 379,963,579	9.5%		0.2	-0.6	6.1	-10.3	1.7	2.2	3.3	
T-Bill +4%						*0.6*	*2.1*	*2.7*	*6.9*	*5.0*	*5.5*	*4.7*	
Difference:						-0.4	-2.7	3.4	-17.2	-3.3	-3.3	-1.4	
Bridgewater All Weather		*Risk Parity*	$ 195,251,319	4.9%		0.2	0.0	7.2	-7.4	3.1	2.6	3.6	Mar-12
T-Bill +4%						*0.6*	*2.1*	*2.7*	*6.9*	*5.0*	*5.5*	*5.5*	
Difference:						-0.4	-2.1	4.5	-14.3	-1.9	-2.9	-1.9	
PanAgora Diversified Risk Multi-Asset		*Risk Parity*	$ 184,712,260	4.6%		0.2	-1.4	5.0	-13.1	0.3	1.8	3.5	Apr-16
T-Bill +4%						*0.6*	*2.1*	*2.7*	*6.9*	*5.0*	*5.5*	*5.3*	
Difference:						-0.4	-3.5	2.3	-20.0	-4.7	-3.7	-1.8	
Liquid Credit			$ 230,945,099	5.8%		0.7	-0.1	2.7	2.5	4.4	2.1	1.9	
50% BB High Yield, 50% S&P/LSTA Leveraged Loans						*1.0*	*1.2*	*4.5*	*2.4*	*6.1*	*3.6*	*5.3*	
Difference:						-0.3	-1.3	-1.8	0.1	-1.7	-1.5	-3.4	
Neuberger Berman		*Global Credit*	$ 98,852,520	2.5%		0.8	-0.2	3.2	0.5	3.5	--	1.7	Feb-19
33% ICE BofA HY Constrained, 33% S&P/LSTA LL, 33% JPM EMBI Glbl Div.						*0.8*	*0.5*	*3.8*	*1.3*	*3.9*	*--*	*2.1*	
Difference:						0.0	-0.7	-0.6	-0.8	-0.4	--	-0.4	
Stone Harbor Absolute Return		*Absolute Return*	$ 132,092,579	3.3%		0.6	-0.1	2.3	4.2	5.2	2.4	2.7	Oct-06
3-Month Libor Total Return						*0.4*	*1.1*	*1.5*	*2.8*	*1.0*	*1.6*	*1.4*	
Difference:						0.2	-1.2	0.8	1.4	4.2	0.8	1.3	
Private Credit Lag[2]			$ 368,963,149	9.3%		-2.1	-2.1	-2.1	0.0	4.2	3.6	3.5	
50% BB High Yield, 50% S&P/LSTA Leveraged Loans						*-0.1*	*3.4*	*3.4*	*-6.0*	*1.3*	*2.8*	*5.2*	
Difference:						-2.0	-5.5	-5.5	6.0	2.9	0.8	-1.7	
BlackRock Direct Lending Lag[3]	*$100,000*	*Direct Lending*	$ 88,584,831	2.2%		-4.2	-4.2	-4.2	-1.5	---	---	5.5	May-20
S&P/LSTA Leveraged Loans +3% Blend [5]						*0.7*	*3.4*	*3.4*	*2.2*	*---*	*---*	*11.1*	
Difference:						-4.9	-7.6	-7.6	-3.7	---	---	-5.6	
Mesa West RE Income IV Lag[3]	*$75,000*	*Comm. Mortgage*	$ 37,723,245	0.9%		-1.3	-1.3	-1.3	-1.9	4.6	6.0	6.0	Mar-17
S&P/LSTA Leveraged Loans +3% Blend [4]						*0.7*	*3.4*	*3.4*	*2.2*	*7.6*	*7.7*	*7.9*	
Difference:						-2.0	-4.7	-4.7	-4.1	-3.0	-1.7	-1.9	
Crestline Opportunity II Lag[3]	*$45,000*	*Opportunistic*	$ 13,111,344	0.3%		-8.7	-8.7	-8.7	-15.9	-2.3	-1.9	2.8	Nov-13
S&P/LSTA Leveraged Loans +3% Blend [4]						*0.7*	*3.4*	*3.4*	*2.2*	*7.6*	*7.7*	*8.3*	
Difference:						-9.4	-12.1	-12.1	-18.1	-9.9	-9.6	-5.5	
Davidson Kempner Distr Opp V Lag[3]	*$50,000*	*Opportunistic*	$ 47,376,527	0.0%		-0.3	-0.3	-0.3	-0.6	--	--	19.7	Oct-20
S&P/LSTA Leveraged Loans +3% Blend [4]						*0.7*	*3.4*	*3.4*	*2.2*	*--*	*--*	*7.8*	
Difference:						-1.0	-3.7	-3.7	-2.8	--	--	11.9	
Oaktree Lag[3]	*$50,000*	*Leveraged Direct*	$ 30,874,431	0.8%		-4.6	-4.6	-4.6	1.8	11.7	--	9.6	Mar-18
S&P/LSTA Leveraged Loans +3% Blend [6]						*0.7*	*3.4*	*3.4*	*2.2*	*6.7*	*--*	*7.9*	
Difference:						-5.3	-8.0	-8.0	-0.4	5.0	--	1.7	
HPS EU Asset Value II Lag[3]	*$50,000*	*Direct Lending*	$ 25,485,809	0.6%		2.6	2.6	2.6	9.8	--	--	4.4	Aug-20
S&P/LSTA Leveraged Loans +3% Blend [4]						*0.7*	*3.4*	*3.4*	*2.2*	*--*	*--*	*7.9*	
Difference:						1.9	-0.8	-0.8	7.6	--	--	-3.5	
Raven Opportunity III Lag[3]	*$50,000*	*Direct Lending*	$ 56,961,866	1.4%		-2.5	-2.5	-2.5	6.9	7.4	8.3	4.4	Nov-15
S&P/LSTA Leveraged Loans +3% Blend [4]						*0.7*	*3.4*	*3.4*	*2.2*	*7.6*	*7.7*	*8.1*	
Difference:						-3.2	-5.9	-5.9	4.7	-0.2	0.6	-3.7	

[1] Returns 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.

[2] Total class returns are as of 3/31/23, and lagged 1 quarter.

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

[4] 9% Annual until 6/30/2018; CPI +6% Annual 7/1/2018 - 3/31/2022; S&P/LSTA Leveraged Loans +3% thereafter.

[5] 50% Bloomberg High Yield/50% S&P Leveraged Loan until 12/31/20 then CPI +6% Annual thereafter. Benchmark lagged one quarter.

[6] MSCI ACWI + 2% until 12/31/20 then CPI +6% Annual thereafter. Benchmark lagged one quarter

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)[1] — April 2023

	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 Lag (continued)													
Medley Opportunity II Lag[2]	*$50,000*	*Direct Lending*	$ 4,378,784	0.1%		0.0	0.0	0.0	0.0	-7.0	-9.4	-2.1	Jul-12
S&P/LSTA Leveraged Loans +3% Blend[3]						*0.7*	*3.4*	*3.4*	*2.2*	*7.6*	*7.7*	*8.4*	
Difference:						-0.7	-3.4	-3.4	-2.2	-14.6	-17.1	-10.5	
White Oak Summit Peer Fund Lag[2]	*$50,000*	*Direct Lending*	$ 24,771,506	0.6%		0.7	0.7	0.7	-10.2	-2.0	1.6	3.4	Mar-16
S&P/LSTA Leveraged Loans +3% Blend[3]						*0.7*	*3.4*	*3.4*	*2.2*	*7.6*	*7.7*	*7.5*	
Difference:						0.0	-2.7	-2.7	-12.4	-9.6	-6.1	-4.1	
White Oak Yield Spectrum Master V Lag[2]	*$50,000*	*Direct Lending*	$ 39,694,806	1.0%		0.0	0.0	0.0	2.1	3.6	--	0.9	Mar-20
S&P/LSTA Leveraged Loans +3% Blend[3]						*0.7*	*3.4*	*3.4*	*2.2*	*7.6*	--	*7.5*	
Difference:						-0.7	-3.4	-3.4	-0.1	-4.0	--	-6.6	
Core Private Real Estate Lag			$ 238,094,127	6.0%									
Principal US[2]	*$25,000*	*Core Pvt. RE*	$ 43,794,434	1.1%		-6.2	-6.2	-6.2	4.1	8.7	8.0	8.6	Jan-16
NCREIF ODCE + 1% Lag Blend						*5.5*	*5.5*	*33.2*	*33.2*	*16.1*	*13.9*	*12.1*	
Difference:						-11.7	-11.7	-39.4	-29.1	-7.4	-5.9	-3.5	
Prologis Logistics[2]	*$35,000*	*Core Pvt. RE*	$ 131,265,133	3.3%		-5.1	-5.1	-5.1	12.4	22.4	20.1	13.0	Dec-07
NCREIF ODCE + 1% Lag Blend						*5.5*	*5.5*	*33.2*	*33.2*	*16.1*	*13.9*	*9.7*	
Difference:						-10.6	-10.6	-38.3	-20.8	6.3	6.2	3.3	
RREEF America II[2]	*$45,000*	*Core Pvt. RE*	$ 63,457,827	1.6%		-3.7	-3.7	-3.7	7.6	10.6	9.1	9.1	Jul-16
NCREIF ODCE + 1% Lag Blend						*5.5*	*5.5*	*33.2*	*33.2*	*16.1*	*13.9*	*11.8*	
Difference:						-9.2	-9.2	-36.9	-25.6	-5.5	-4.8	-2.7	
Diversifying Strategies			$ 767,204,262	19.3%	24.0%	1.3	0.2	1.1	-1.9	-0.4	2.8	6.1	Oct-90
Principal Protection			$ 294,875,412	7.4%	9.0%	0.6	0.2	3.7	0.7	-1.3	1.1	5.8	Oct-90
BB Aggregate Bond Index						*0.6*	*0.5*	*3.6*	*-0.4*	*-3.1*	*1.2*	*5.4*	
Difference:						0.0	-0.3	0.1	1.1	1.8	-0.1	0.4	
Dodge & Cox		*Core Fixed Income*	$ 201,155,943	5.1%		0.6	0.0	3.6	1.1	-0.6	2.3	6.6	Oct-90
BB Aggregate Bond Index						*0.6*	*0.5*	*3.6*	*-0.4*	*-3.1*	*1.2*	*5.4*	
Difference:						0.0	-0.5	0.0	1.5	2.5	1.1	1.2	
Loomis Sayles		*Core Fixed Income*	$ 93,719,469	2.4%		0.6	0.6	-4.4	--	--	--	-5.6	Mar-22
BB Aggregate Bond Index						*0.6*	*0.5*	*-4.7*	--	--	--	*-5.9*	
Difference:						0.0	0.1	0.3	--	--	--	0.3	

[1] Returns 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.

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

[3] 9% 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] April 2023

	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
Crisis Risk Offset			$ 472,328,850	11.9%	15.0%	1.8	0.0	-0.5	-3.5	0.5	4.0	6.3	Jan-05
CRO Custom Benchmark [2]						*0.8*	*-0.1*	*2.1*	*-1.1*	*0.9*	*4.1*	*4.9*	
Difference:						1.0	0.1	-2.6	-2.4	-0.4	-0.1	1.4	
Long Duration			$ 120,185,258	3.0%		0.6	0.4	7.4	-6.1	-10.8	0.3	-0.4	
BB US Long Duration Treasuries						*0.5*	*0.3*	*6.7*	*-7.3*	*-11.8*	*0.1*	*0.0*	
Difference:						0.1	0.1	0.7	1.2	1.0	0.2	-0.4	
Dodge & Cox Long Duration		*Long Duration*	$ 120,185,258	3.0%		0.6	0.4	7.4	-6.1	-10.8	0.3	-0.4	Feb-16
BB US Long Duration Treasuries						*0.5*	*0.3*	*6.7*	*-7.3*	*-11.8*	*0.1*	*0.0*	
Difference:						0.1	0.1	0.7	1.2	1.0	0.2	-0.4	
Systematic Trend Following			$ 234,720,569	5.9%		2.7	-0.8	-2.7	-5.0	12.6	7.4	8.9	
BTOP50 Index						*1.5*	*-2.2*	*-2.3*	*-2.2*	*9.8*	*6.2*	*4.9*	
Difference:						1.2	1.4	-0.4	-2.8	2.8	1.2	4.0	
Mt. Lucas Managed Futures - Cash		*Systematic Trend Following*	$ 121,744,988	3.1%		3.6	2.0	-0.7	-5.5	13.2	7.5	8.4	Jan-05
BTOP50 Index						*1.5*	*-2.2*	*-2.3*	*-2.2*	*9.8*	*6.2*	*4.9*	
Difference:						2.1	4.2	1.6	-3.3	3.4	1.3	3.5	
Graham Tactical Trend		*Systematic Trend Following*	$ 112,975,581	2.8%		1.8	-3.7	-4.8	-4.5	11.9	7.1	3.8	Apr-16
SG Trend Index						*2.9*	*-3.3*	*-4.6*	*-3.6*	*11.2*	*8.2*	*4.1*	
Difference:						-1.1	-0.4	-0.2	-0.9	0.7	-1.1	-0.3	
Alternative Risk Premia			$ 117,423,023	3.0%		1.0	-0.5	-3.9	-0.8	-3.6	1.1	7.1	
5% Annual						*0.4*	*1.2*	*1.6*	*5.0*	*5.0*	*5.0*	*6.2*	
Difference:						0.6	-1.7	-5.5	-5.8	-8.6	-3.9	0.9	
AQR Style Premia		*Alternative Risk Premia*	$ 55,922,253	1.4%		2.5	0.0	1.4	6.1	12.1	-1.6	0.8	May-16
5% Annual						*0.4*	*1.2*	*1.6*	*5.0*	*5.0*	*5.0*	*5.0*	
Difference:						2.1	-1.2	-0.2	1.1	7.1	-6.6	-4.2	
PE Diversified Global Macro		*Alternative Risk Premia*	$ 61,500,770	1.5%		-0.3	2.7	-8.4	-0.8	-8.0	3.3	1.8	Jun-16
5% Annual						*0.4*	*1.2*	*1.6*	*5.0*	*5.0*	*5.0*	*5.0*	
Difference:						-0.7	1.5	-10.0	-5.8	-13.0	-1.7	-3.2	
Cash[3]			$ 146,695,190	3.7%	0.0%	0.3	0.7	1.0	2.6	0.9	1.1	2.3	Sep-94
US T-Bills						*0.3*	*1.1*	*1.4*	*2.8*	*1.0*	*1.4*	*2.3*	
Difference:						0.0	-0.4	-0.4	-0.2	-0.1	-0.3	0.0	
Northern Trust STIF		*Collective Govt. Short Term*	$ 131,456,468	3.3%		0.3	0.9	1.3	2.5	0.9	1.1	2.5	Jan-95
US T-Bills						0.3	1.1	1.4	2.8	1.0	1.4	*2.3*	
Difference:						0.0	-0.2	-0.1	-0.3	-0.1	-0.3	0.2	
Parametric Overlay[4]		*Cash Overlay*	$ 30,813,056	0.8%		0.0	0.0	0.0	0.0	--	--	0.0	Jan-20

[1] Returns 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.

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

[3] Includes lagged cash.

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

MEKETA | 45 YEARS
CELEBRATING A MILESTONE

Economic and Market Update

April 2023 Report

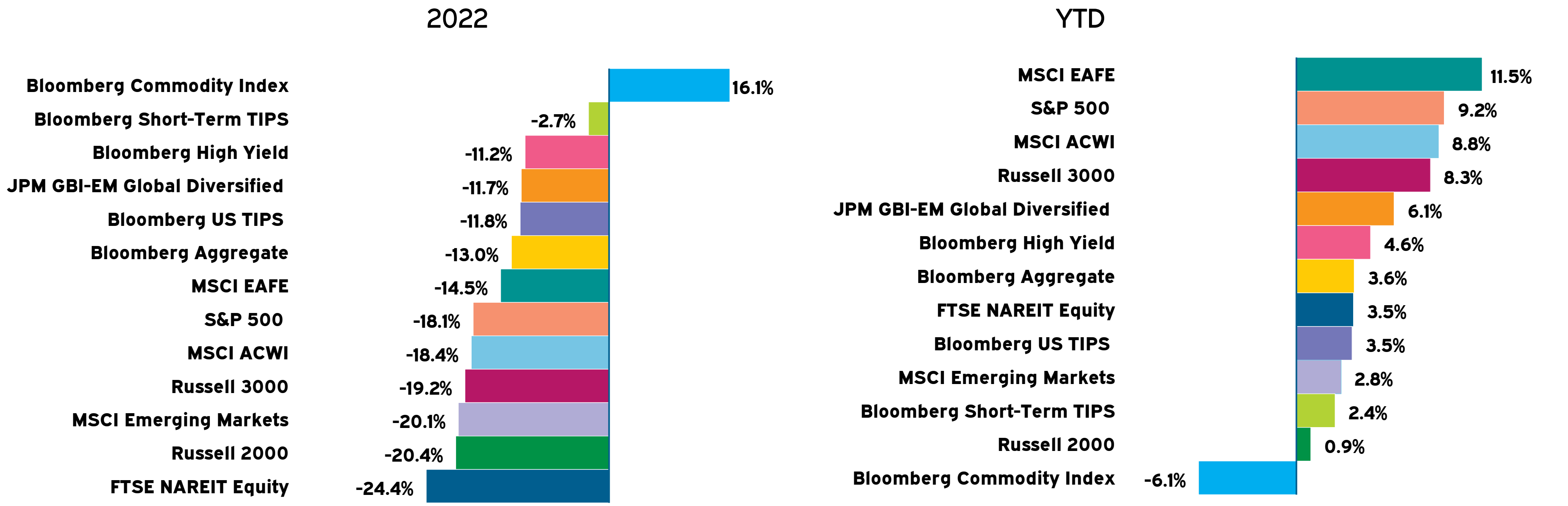
Commentary

→ Most asset classes added to first quarter gains in April as investors remained focused on slowing inflation and a potential end to rate hikes.

- The Fed increased interest rates for the tenth time after month-end, to a range of 5.0% - 5.25%, with this action largely expected to be their final hike.
- Political struggles over the debt ceiling led to a significant increase in short-term rates and a historically high price of the cost to insure against defaults on US Treasuries.
- US equity markets (Russell 3000) rose in April (+1.1%) adding to YTD gains (+8.3%). Some of the largest technology names drove positive results, with lingering issues in the banking sector (e.g., First Republic) weighing on parts of the equity markets.
- Non-US developed equity markets also rallied in April (MSCI EAFE +2.8%) extending the outperformance relative to the US so far in 2023 (+11.5% versus +8.3%).
- Emerging market equities fell in April (-1.1%) driven by declines in China (-5.2%). They significantly trail developed market equities YTD returning +2.8% partly due to higher US-China tensions.
- After a strong March driven by the issues in the banking sector, bonds had more subdued gains in April, with the broad US bond market (Bloomberg Aggregate) gaining 0.6% for the month.

→ This year, the path of inflation and monetary policy, slowing global growth, and the war in Ukraine, as well as recent pressures in regional banks and the looming debt ceiling breach in the US, will all be key.

Index Returns[1]



→ After a particularly difficult 2022, most public market assets are up in 2023, building on gains from the fourth quarter of last year.

→ Risk sentiment has been supported by expectations that policy tightening could be ending soon, as inflation continues to fall and growth has slowed.

[1] Source: Bloomberg and FactSet. Data is as of April 30, 2023.

Domestic Equity Returns[1]

Domestic Equity	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	1.6	7.5	9.2	2.7	14.5	11.4	12.2
Russell 3000	1.1	7.2	8.3	1.5	14.1	10.6	11.7
Russell 1000	1.2	7.5	8.8	1.8	14.2	11.1	12.0
Russell 1000 Growth	1.0	14.4	15.5	2.3	13.6	13.8	14.5
Russell 1000 Value	1.5	1.0	2.5	1.2	14.4	7.7	9.1
Russell MidCap	-0.5	4.1	3.5	-1.7	13.8	8.0	9.9
Russell MidCap Growth	-1.4	9.1	7.6	1.6	9.2	9.0	10.8
Russell MidCap Value	0.0	1.3	1.3	-3.5	15.8	6.4	8.7
Russell 2000	-1.8	2.7	0.9	-3.6	11.9	4.1	7.9
Russell 2000 Growth	-1.2	6.1	4.8	0.7	7.8	4.0	8.4
Russell 2000 Value	-2.5	-0.7	-3.1	-8.0	15.5	3.7	7.0

US Equities: Russell 3000 Index rose 1.1% in April and 8.3% YTD.

→ US stocks rose in April as optimism over the Fed potentially ending its rate hiking campaign was mitigated by lingering concerns in the banking sector and slowing growth. Year-to-date gains in the US equity market remain strong though.

→ Most sectors in the Russell 3000 index rose during the month, led by consumer staples and communication services. Growth stocks have significantly outperformed value stocks across the market capitalization spectrum this year, particularly in the large cap space due to technology stocks.

→ The resurgence of large cap technology stocks is also driving the outperformance of the large cap indices versus the small cap indices. Weakness in the performance of small cap bank stocks is also contributing to results.

[1] Source: Bloomberg. Data is as of April 30, 2023.

Foreign Equity Returns[1]

Foreign Equity	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	1.7	6.9	8.7	3.0	9.8	2.5	4.0
MSCI EAFE	2.8	8.5	11.5	8.4	11.7	3.6	4.8
MSCI EAFE (Local Currency)	2.3	7.5	9.9	7.7	13.5	5.8	7.1
MSCI EAFE Small Cap	2.0	4.9	7.0	-1.2	9.2	1.0	5.7
MSCI Emerging Markets	-1.1	4.0	2.8	-6.5	4.3	-1.0	1.8
MSCI Emerging Markets (Local Currency)	-0.7	3.8	3.1	-3.9	5.5	1.5	5.0
MSCI China	-5.2	4.7	-0.7	-5.8	-6.3	-5.0	2.7

Foreign Equity: Developed international equities (MSCI EAFE) rose 2.8% in April and 11.5% YTD. Emerging market equities (MSCI EM) fell -1.1%. for the month but rose 2.8% YTD.

→ Non-US equities had mixed results in April with developed markets (MSCI EAFE) gaining and outpacing US equities (2.8% versus 1.1%) for the month, while emerging markets (MSCI Emerging Markets) were the one area that declined (-1.1%).

→ Developed market equity gains were broad-based across European sectors, while financials and energy were strong in the UK. In Japan, further weakness in the yen continued to boost market sentiment.

→ The decline in emerging market equities (-1.1%) was driven largely by China (-5.2%). An escalation in US-China tensions and mixed results from the reopening of their economy weighed on shares. Taiwan also experienced marked declines over geopolitical concerns and weakness in semiconductors, while India was a bright spot.

[1] Source: Bloomberg. Data is as of April 30, 2023.

Fixed Income Returns[1]

Fixed Income	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	0.6	2.9	3.6	-0.3	-2.5	1.3	1.6	4.8	6.3
Bloomberg Aggregate	0.6	3.0	3.6	-0.4	-3.2	1.2	1.3	4.4	6.5
Bloomberg US TIPS	0.1	3.3	3.5	-4.0	0.9	3.0	1.4	4.0	7.0
Bloomberg Short-term TIPS	0.2	2.2	2.4	-0.1	3.1	3.0	1.6	4.6	2.6
Bloomberg High Yield	1.0	3.6	4.6	1.2	4.7	3.3	4.0	8.5	4.2
JPM GBI-EM Global Diversified (USD)	0.9	5.2	6.1	6.6	-0.1	-1.6	-1.8	7.0	5.0

Fixed Income: The Bloomberg Universal rose 0.6% in April and 3.6% YTD as global sovereign debt yields generally declined for major economies.

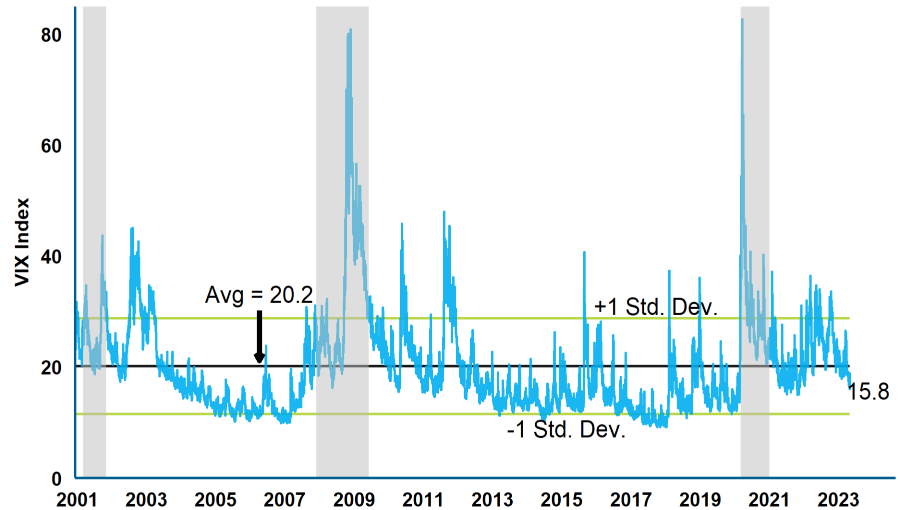
→ As issues in the banking sector from March eased, the US bond market had a calm April, with interest rates, outside of the very shortest maturities, remaining stable.

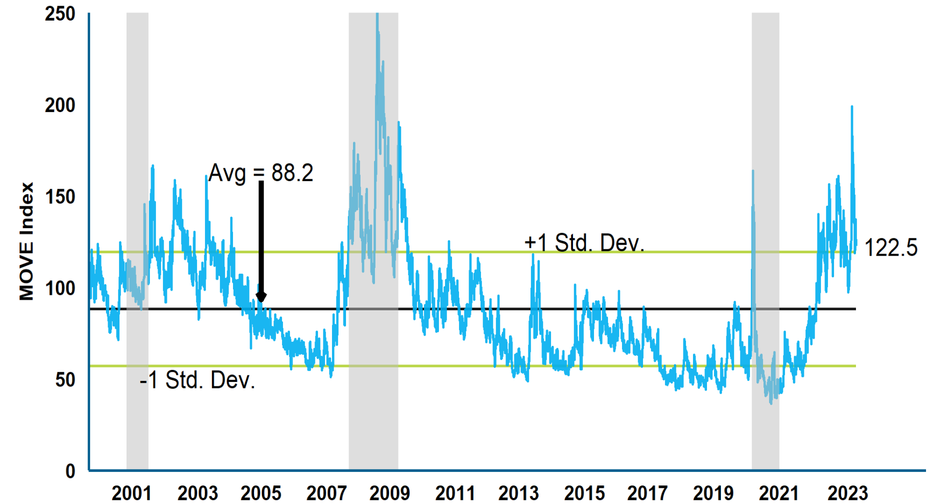
→ The TIPS index and short-term TIPS index had gains for the month but trailed the broad US bond market (Bloomberg Aggregate).

→ High yield bonds (+1.0%) had the best results for the month as they particularly benefited from support for the banking sector.

[1] Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of April 30, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

Equity and Fixed Income Volatility[1]

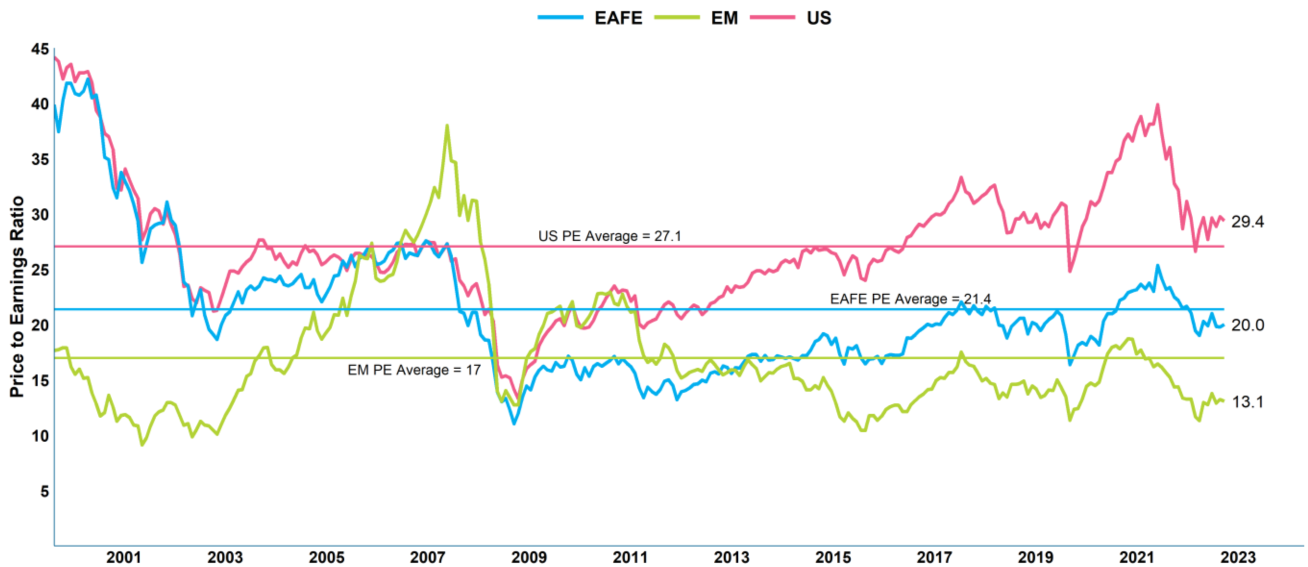




- → Volatility in equities (VIX) continued to decline in April, reaching levels not seen since late 2021 as investors anticipate the end of the Fed's policy tightening.
- → In comparison, the bond market remains on edge after last year's historic losses and continued volatility in interest rates this year due to policy uncertainty and issues in the banking sector. The MOVE (fixed income volatility) remains well above its long-run average, but off its recent peak during the heart of the banking crises.

[1] Equity and 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 April 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and April 2023.

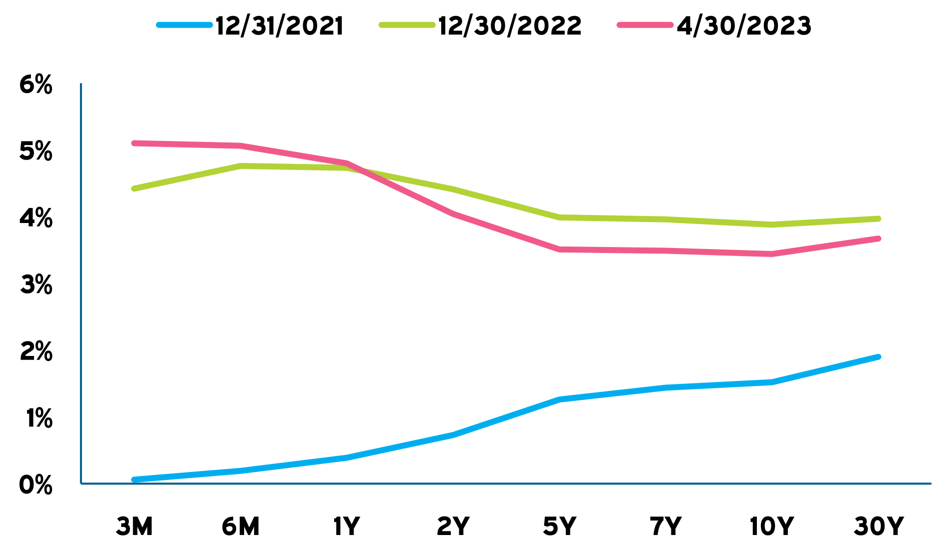
Equity Cyclically Adjusted P/E Ratios[1]



- → After its dramatic decline last year the US equity price-to-earnings ratio remains above its long-run (21st century) average.
- → International developed market valuations are slightly below their own long-term average, with those for emerging markets the lowest and well under the long-term 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: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of April 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.

US Yield Curve[1]



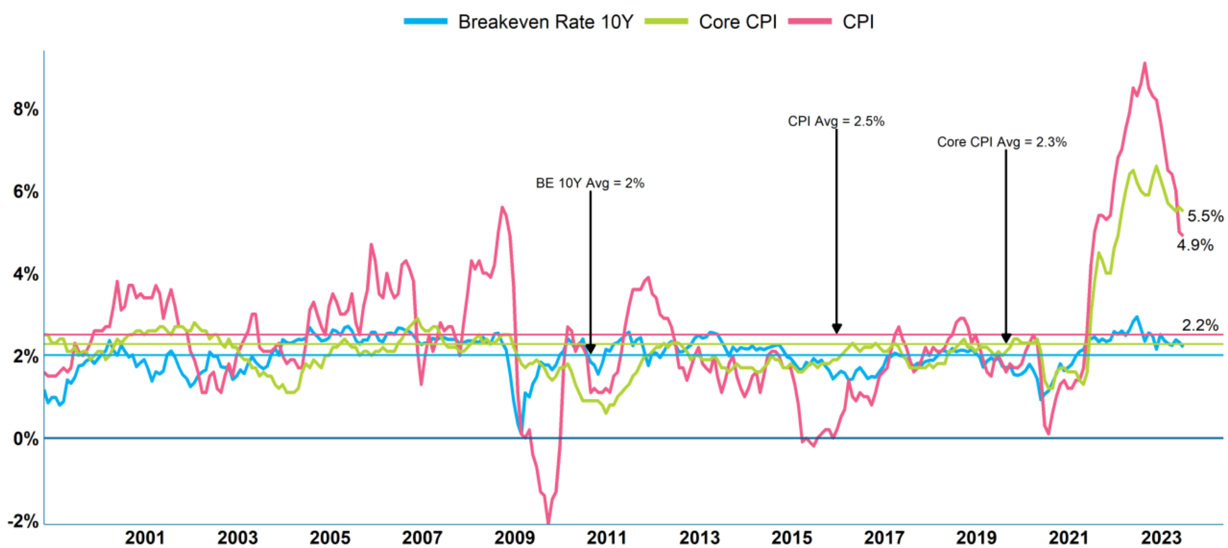
→ Interest rates have declined this year for maturities two years and beyond, given expectations for peaking policy, while the rates on the very shortest maturities increased due to debt ceiling concerns.

→ During April, interest rates at the very front-end of the yield curve rose significantly as the debt ceiling debate continued while other maturities remained largely flat.

→ After hitting -1.07% in early March, the yield spread between two-year and ten-year Treasuries finished the month largely unchanged at -0.59%. The more closely watched measure (by the Fed) of three-month and ten-year Treasuries remained inverted. Inversions in the yield curve have often preceded recessions.

[1] Source: Bloomberg. Data is as of April 30, 2023.

Ten-Year Breakeven Inflation and CPI[1]



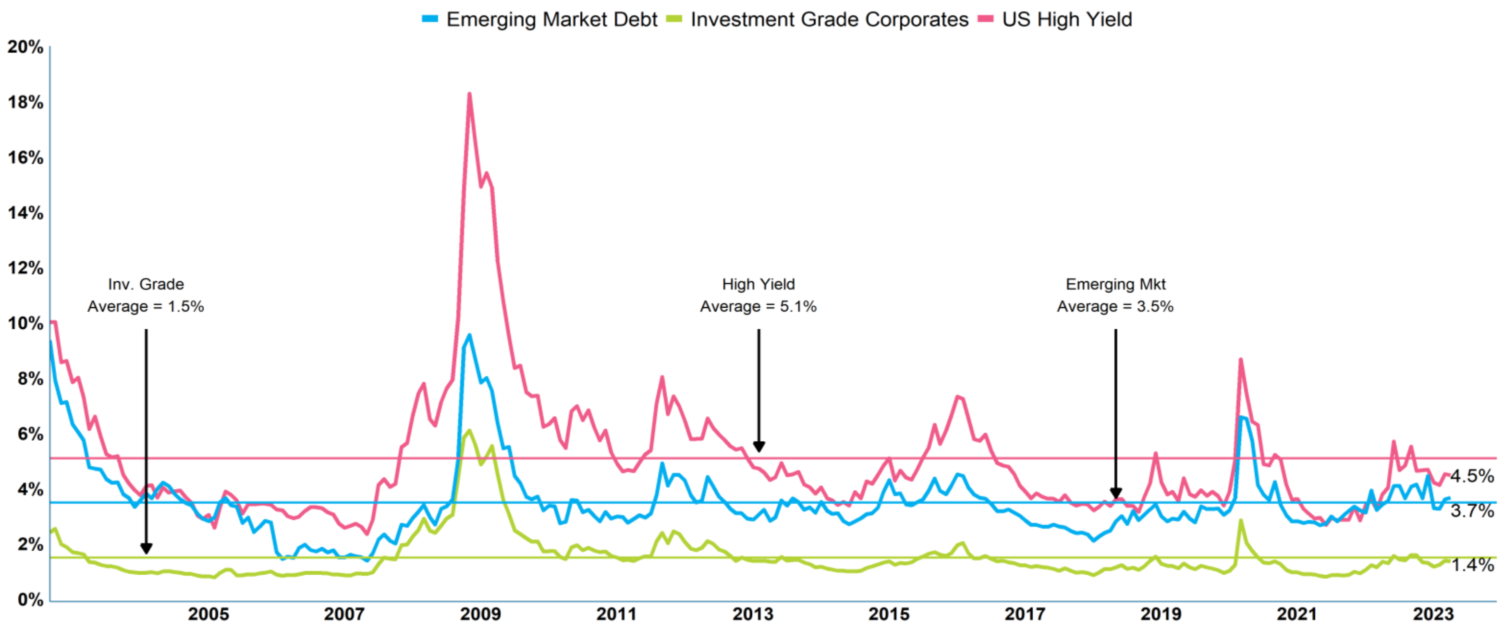
→ Inflation continued to decline in April, with the year-over-year reading falling from 5.0% to 4.9% (slightly below expectations). The month-over-month rate of price increases was 0.4% (matching expectations), with food prices remaining flat, energy prices slightly increasing (0.6%), and all other areas rising 0.4% in aggregate.

→ Core inflation – excluding food and energy - fell slightly (5.6% to 5.5%) but remained stubbornly high as the cost for shelter continued to rise.

→ Inflation expectations (breakevens) declined very slightly for the month as investors continue to expect inflation to track back toward the Fed's 2% target.

[1] Source: Bloomberg. Data is as of April 30, 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

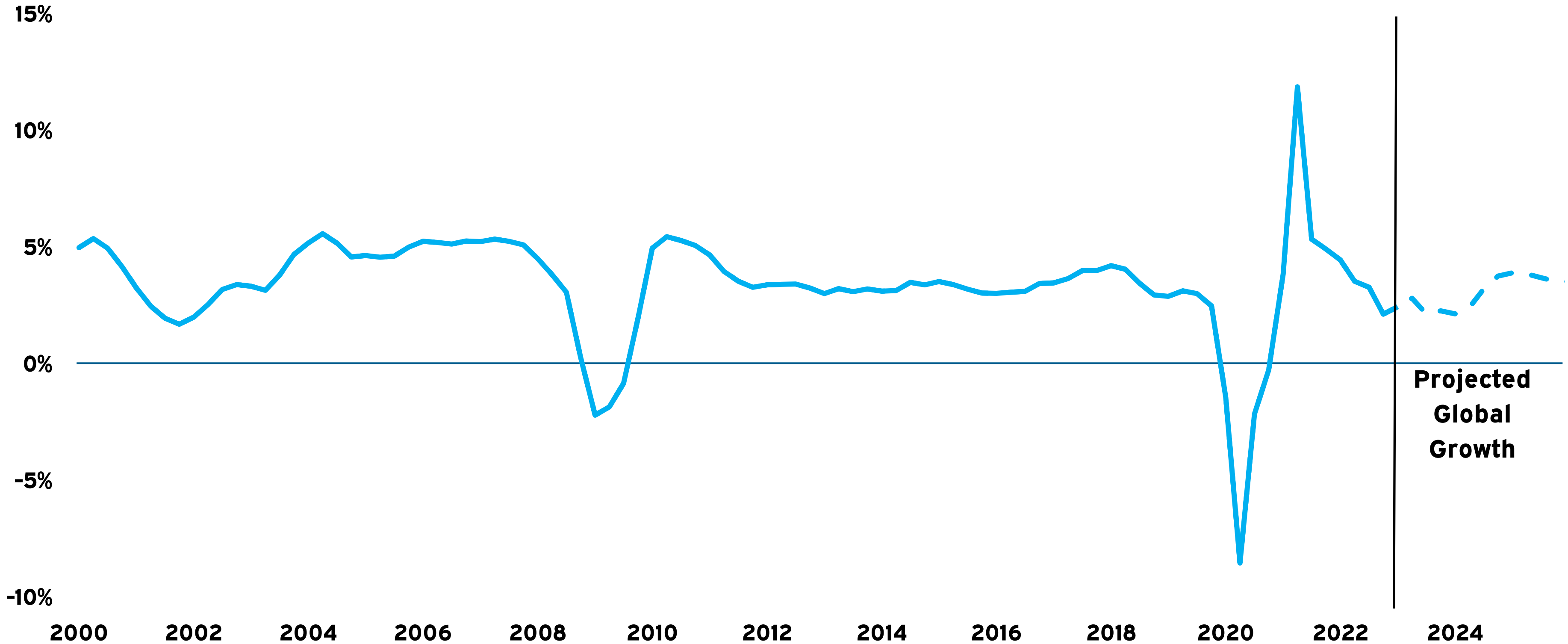
Credit Spreads vs. US Treasury Bonds[1]



- → Spreads (the added yield above a comparable maturity Treasury) were stable in April as concerns over the banking sector subsided and government and corporate bonds had similar gains.
- → High yield spreads remain below the long-term average. Investment grade spreads and emerging market spreads are narrower than high yield spreads and close to their respective long-term averages.

[1] Sources: Bloomberg. Data is as of April 30, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end, respectively.

Global Real Gross Domestic Product (GDP) Growth[1]



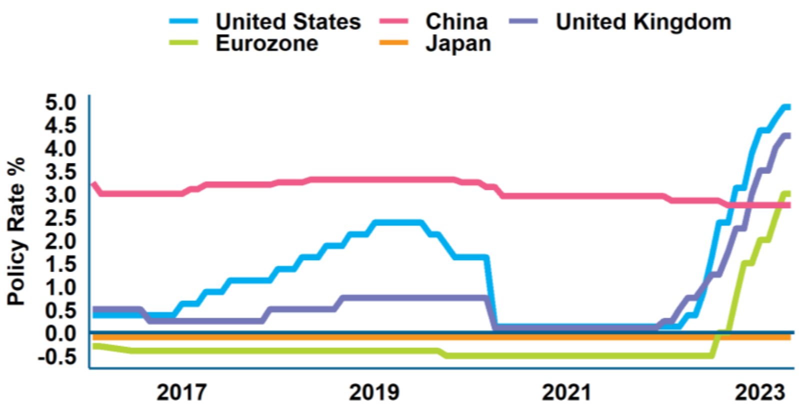
→ Global economies are expected to slow this year compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.

→ The delicate balancing act of central banks trying to reduce inflation without dramatically depressing growth will remain key.

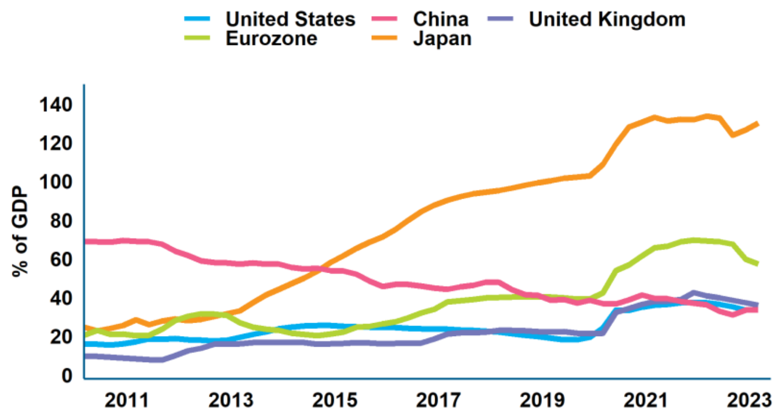
[1] Source: Oxford Economics (World GDP, US$ prices & PPP exchange rate, real, % change YoY). Updated April 2023.

Central Bank Response[1]

Policy Rates



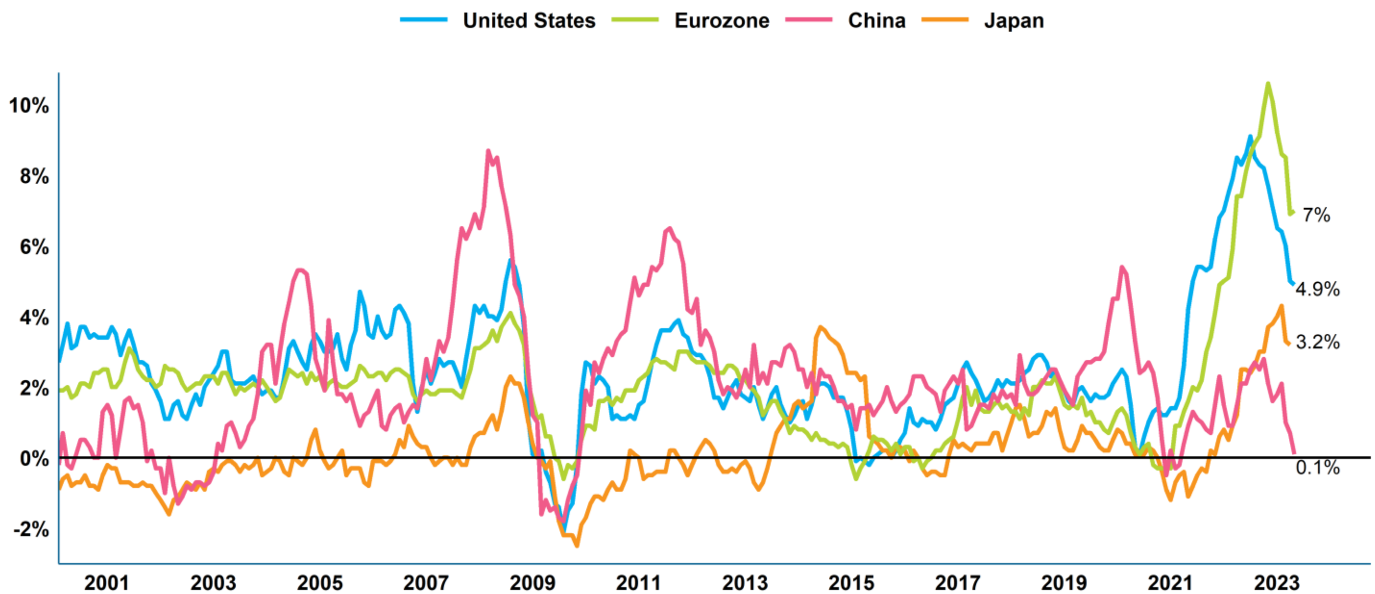
Balance Sheet as % of GDP



- → In 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation, with the US taking the most aggressive approach. Slowing inflation and recent signs of instability in the banking sector have led to expectations for the slowing of policy tightening going forward.
- → Since month-end, the Fed remained committed to fighting inflation despite pressures in the banking sector, raising rates another 25 basis points to a range of 5.0% to 5.25% at its early May meeting. This is largely expected to be the Fed's last rate hike in this cycle.
- → China's central bank is a notable exception. They are expected to maintain an accommodative monetary stance to support the economy.
- → Looking ahead the risk remains for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and growth.

[1] Source: Bloomberg. Policy rate data is as of April 30, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of March 31, 2023.

Inflation (CPI Trailing Twelve Months)[1]



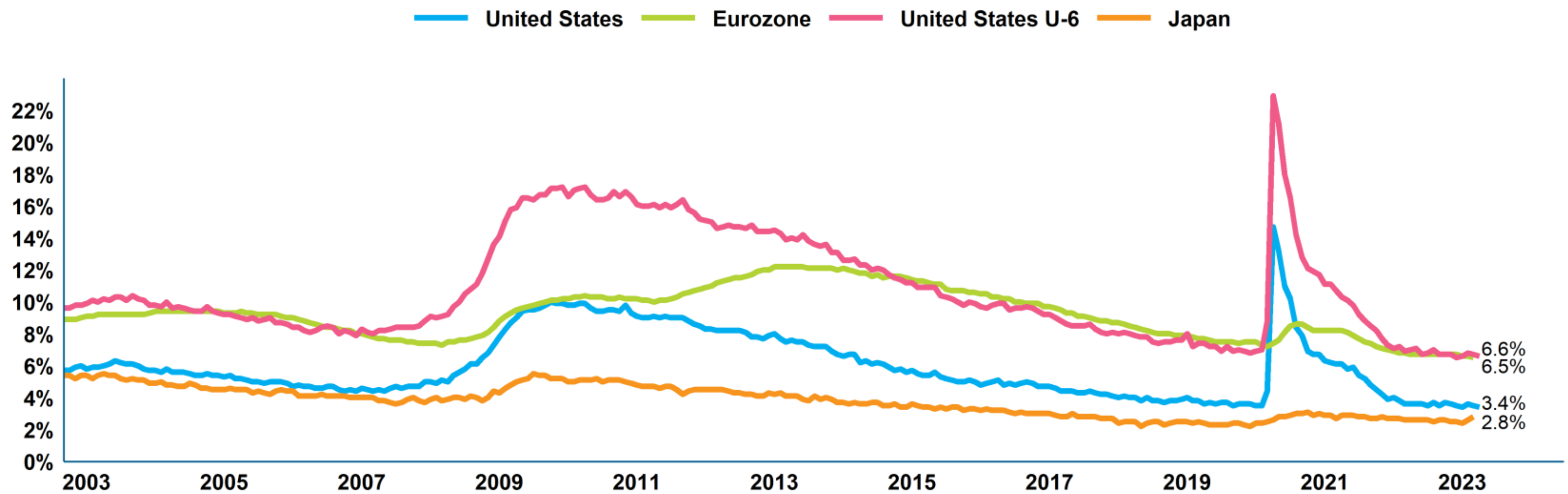
→ Inflation pressures continued to decline globally due to the easing of supply chain issues from the pandemic, declining energy prices, and tighter monetary policy.

→ In the US, inflation fell to 4.9% at month-end, while eurozone inflation increased slightly (7.0% versus 6.9%) a level well off its peak. Despite 2023's declines in the US and Europe, inflation levels remain elevated.

→ Inflation remains relatively lower in China and Japan and has also declined recently. In China, inflation levels approached 0% at month-end as the reopening of their economy has led to an uneven economic recovery.

[1] Source: Bloomberg. Data is as April 30, 2023. The most recent Japanese inflation data is as of March 2023.

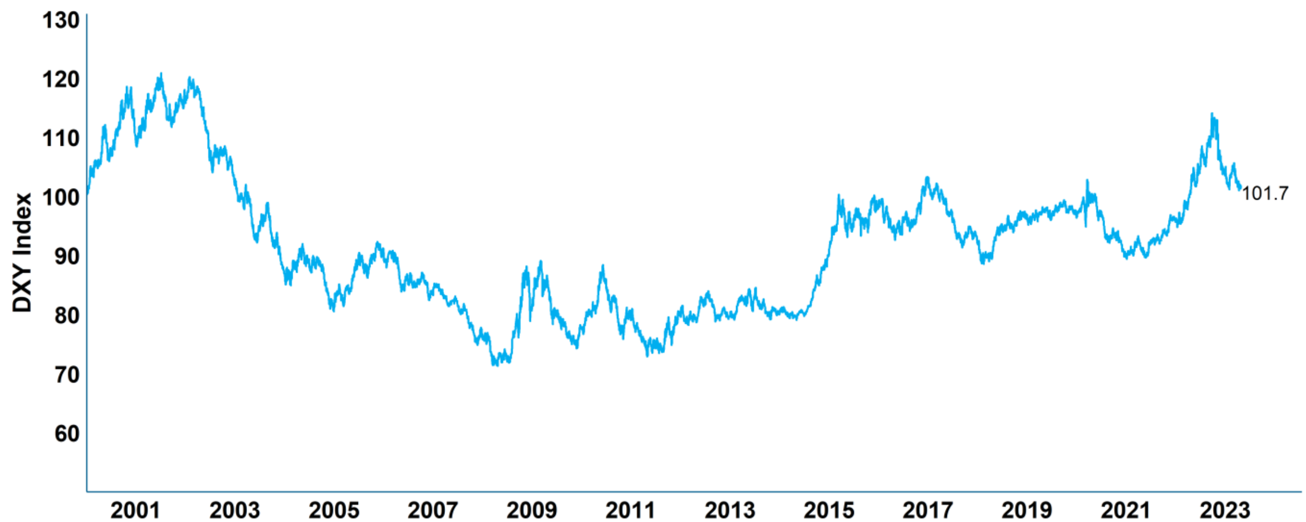
Unemployment[1]



- → Labor markets have significantly improved from the pandemic as economies have largely reopened.
- → Despite slowing growth and high inflation, the US labor market remains a particular bright spot. Unemployment in the US, which experienced the steepest rise, recently returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.6% but also declined dramatically from their peak.
- → The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.
- → Unemployment in Europe has also declined but remains higher than the US, while levels in Japan have been relatively flat through the pandemic given less layoffs.

[1] Source: Bloomberg. Data is as April 30, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of March 2023.

US Dollar versus Broad Currencies[1]



→ The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.

→ Late last year and into early this year, the dollar has fallen, as weaker economic data and declining inflation led to investors anticipating the end of Fed tightening.

→ This year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

[1] Source: Bloomberg. Data as of April 30, 2023.

Summary

Key Trends:

→ The impacts of still relatively high inflation will remain key, with bond market volatility likely to stay high.

→ Recent issues related to the banking sector have created a delicate balance for central banks to continue to fight inflation but also to try to maintain financial stability.

→ Global monetary policies could diverge in 2023. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.

→ Growth is expected to slow globally this year, with many economies forecast to tip into recession. Inflation, monetary policy, and the war will all be key.

→ In the US, the end of many fiscal programs is expected to put the burden of continued growth on consumers. Costs for shelter, medical care, and education could continue to rise, keeping ‘sticky price’ inflation at elevated levels.

→ The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.

→ Equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation weighing particularly on Europe, and China’s rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

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.

2023 CONFERENCES AND EVENTS SCHEDULE

2023 EVENT DATES		EVENT TITLE	EVENT SPONSOR	LOCATION	REG. FEE	WEBLINK FOR MORE INFO	EST. BOARD EDUCATION HOURS
Jun 13	Jun 13	2023 Public Pension Investment Landscape: Key Findings from the BlackRock Peer Risk Study	NCPERS	Webinar	$0	NCPERS.ORG	1
Jun 19	Jun 20	Chief Offiers Summit	NCPERS	Denver, CO	$750	NCPERS.org	TBD
Jun 23	Jun 23	Administrators' Round Table	CALAPRS	Online webinar	$50	calaprs.org	4
Jul 16	Jul 19	SACRS/UC Berkeley Program	SACRS	Berkeley, CA	$2500	sacrs.org	24
Aug 28	Aug 31	Principles of Pension Governance for Trustees	CALAPRS	Malibu, CA	$3000	calaprs.org	*9
Sep 6	Sep 7	ALTSSV2023 Forum	Markets Group	Mountain View	$0	marketsgroup.org	TBD
Sep 12	Sep 14	IREI Editorial Advisory Board Meeting	IREI	Santa Monica, CA	$0	IREI.com	TBD
Sep 19	Sep 21	Fiduciary Investors Symposium	Top 1000 Funds	Stanford	TBD	top1000funds.com	TBD
Sep 27	Sep 29	Administrators' Institutue 2023	CALAPRS	Carmel-by-the-Sea	TBD	calaprs.org	*14.4
Oct 27	Oct 27	Trustee Roundtable	CALAPRS	Online webinar	$50	calaprs.org	4
Nov 7	Nov 10	SACRS Fall Conference	SACRS	Rancho Mirage, CA	$120	sacrs.org	*11

** Estimates based on prior agendas*

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
Jul 16-19	SACRS UC Berkeley Program	Berkeley, CA	Brian McKelvey, JC Weydert, Emily Nicholas	$12,600	N/A
Sep 12-14	IREI Editorial Advisory Board Meeting	Santa Monica	JC Weydert	$2,725.89	5/5/23
Sep 19-21	Fiduciary Investors Symposium	Stanford	Paris Ba, Michael Duffy	TBD	Pending

September 19-21 | Stanford University, USA

FIS Stanford 2023

Register

This event is for asset owners from all over the globe and is typically attended by chief executives, investment committee members, chief investment officers, heads of investment portfolios and their direct reports.

FIDUCIARY INVESTORS SYMPOSIUM

As a collective force, institutional investors have enormous power to shape markets, inform policy and empower beneficiaries to have a better, more financially stable future.

The Fiduciary Investors Symposium acts as an advocate for fiduciary capitalism and the power of asset owners to change the nature of the investment industry, including addressing principal/agent and fee problems, stabilising financial markets, focusing on long-term investing and directing capital for the betterment of society and the environment. It enables asset owners from around the world to come together and explore investment themes, risks and opportunities with their global peers.

Held over three days, the event enables institutional investors to engage with industry thought leaders in academia and practice in a collegiate environment that promotes shared discussion. The on-campus venues facilitate a unique space for innovative thought and conversation, and the event includes tours of various university faculties.

STANFORD UNIVERSITY EVENT THEME

Drawing on the esteemed Stanford faculty, and taking advantage of the Silicon Valley location, the event will look at the incredible disruption and opportunities presented by AI and technological advancement; as well as the core investment challenges of risk

- **Stephen Kotkin**, senior fellow at Stanford's Freeman Spogli Institute for International Studies, and the Kleinheinz Senior Fellow at the Hoover Institution
- **Arun Majumdar,** Inaugural Dean of the Stanford Doerr School of Sustainability; Jay Precourt Provostial Chair Professor at Stanford University; faculty member of the Departments of Mechanical Engineering and Energy Science and Engineering; Senior Fellow and former Director of the Precourt Institute for Energy and Senior Fellow (courtesy) of the Hoover Institution, Stanford University
- **Ashby Monk,** executive and research director, Stanford Research Initiative on Long-Term Investing
- **Condoleezza Rice,** the Tad and Dianne Taube director of the Hoover Institution, senior fellow on public policy; Denning Professor in Global Business and the Economy, Stanford Graduate School of Business
- **Myron Scholes,** The Frank E. Buck Professor of Finance, Emeritus, Stanford Graduate School of Business; Nobel Prize Winner

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ASSET OWNER DIRECTORY

California Public Employees Retirement System (CalPERS)
AUM ($B): $439
Country: United States
View Articles

ABP / APG Asset Management
AUM ($B): $720
Country: Netherlands
View Articles

California State Teachers Retirement System (CalSTRS)
AUM ($B): $302
Country: United States
View Articles

See more

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

SUMMARY OF COMPLETED TRUSTEE AND EXECUTIVE STAFF TRAVEL

Event Dates 2023	Sponsor / Event Description	Location	Traveler(s)	Estimated Cost	Actual Cost	Event Report Filed
Jan 17-20	IREI 2023 Visions, insights & Perspectives America	Rancho Palos Verdes, CA	Michael Restuccia	$1,250.00	$1,736.78	2/10/2023
Feb 7	2023 Employee Benefits Update	Webinar	Johanna Shick	$0	$0	N/A
Feb 11	CALAPRS Administrators' Round Table	Online	Johanna Shick	$50.00	$50.00	N/A
Mar 4-7	CALAPRS General Assembly	Monterey	Johanna Shick, JC Weydert	$2,857	$2,788.65	N/A
Mar 29-31	Advanced Principles of Pension Governance for Trustees	Los Angeles	Steve Moore	$4,150	$3,707.19	N/A
Apr 17-19	Pension Bridge Annual Conference	San Francisco	Ray McCray, Paris Ba	$2,360	$2,192.86	6/2/2023 5/5/2023
May 9-12	SACRS Spring Conference	San Diego	JC Weydert, Phonxay Keokham, Jennifer Goodman, Chanda Bassett, Ray McCray, Johanna Shick, Paris Ba, Jason Morrish	$13,600	Pending	N/A

Board Member	Travel (not including SACRS & CALAPRS)	Dates	Amount used of $2500:	Balance of $2500
RESTUCCIA	IREI	1/2023	$1,736.00	$764
BASSETT				
DING				
DUFFY				
GOODMAN				
KEOKHAM				
MCCRAY	Pension Bridge Annual Conference	4/2023	$1,141.89	$1,358.11
NICHOLAS				
WEYDERT	IREI	9/2023		
MOORE				

San Joaquin County Retirement Board

Thank you for allowing me to attend the Pension Bridge 2023 conference in San Francisco. The conference was well-attended, with many speakers and panels representing a broad array of interests in the pension business.

There were several takeaways I had from this particular conference, one of which was the discussion pertaining to the 60/40 portfolio - when you try to put a portion of the 40% into private credit, there is sometimes not an opportunity to find that asset class, and the money instead flows to a large US banking institution. This may lead to a drag on the return.

In addition, there seems to be a problem with private credit relaxing covenants and not buying portfolio insurance. Again in the private credit area, the bank loan book won't have enough capital for senior secured debt. There is too much money chasing that area. Private sourcing underwriting is being tested, particularly in the areas of outsourcing underwriting documentation.

Also as an observation, there were comments that Central Bank of China (CBOC) is trying is also trying to become a reserve currency similar to the US dollar or Swiss Franc.

One again, a speaker from NEPC showed concerns with counterparty issues and institutions not purchasing portfolio insurance. In addition, NEPC also had comments related to cryptocurrency and gold, speculating that those asset classes might not have any economic benefit.

A presentation from blackrock suggested that private assets such as private credit fundamentals might have higher entry costs to purchase and the assets might be at a high current valuation.

One of the speakers hinted that growth/value needs to be realigned and many value stocks might have more growth potential than growth stocks themselves, and that some contrarian methodology should be used to look at that tilt. It is a "shifting perspective".

Another speaker advocated that an energy transition to Wind and Solar will take maybe twenty years, to reach parity with hydrocarbons (80% of current global power generation is currently hydrocarbons). The panel said it will be very hard to find direction over the next ten years unless subsidies prove substantial. They also suggested that batteries will be a log jam in the supply chain.

A fixed income panel implied that high yield might have compelling interest, because the default rate is around half a percent per year, while some believe it is higher, the fundamentals are strong as long as it isn't overlevered. As a result, they proposed that high yield (due to the low default ratio) might provide 4% real return over treasuries.

One of the speakers from blackrock implied that the equity premium will have greater uncertainty in the future. They believe it has improved, but the lenders prefer to use private covenant protection with less transparency than is required by the public market. The default rates of private credit are currently low and leverage does not seem to be an issue, resulting in high yield, out-performing preferred bonds. My takeaway from that panel was to stay away from sub-prime debt, however mezzanine debt might be good to look at, assuming the default rate is not as high as in the past.

The real estate panel stated that core is still the best, and that cap rates appear to be rising, but still need to concentrate on every vintage year (do not market-time). Several ideas for investing in real estate when you aren't concerned about liquidity is real estate for life sciences. It seems that is where a lot of smart money is going today.

Other areas to invest in would be to look at government infrastructure policy, grid optimization, hydrogen, biomass, gas, and solar. They also said that frontier investing is too expensive.

I believe the conference was informative and thought provoking, and continues to be of high quality.

Thank you,

Ray McCray

Board of Retirement Meeting
San Joaquin County Employees' Retirement Association

Agenda Item 9.03

June 2, 2023

SUBJECT: General Counsel Services

SUBMITTED FOR: ___ CONSENT __X_ ACTION ___ INFORMATION

RECOMMENDATION

Direct staff to establish and fill an internal counsel position to perform SJCERA's general legal services.

PURPOSE

To assess how best to staff the general counsel legal function of SJCERA.

DISCUSSION

Background: SJCERA, an independent governmental entity, has used the Office of County Counsel for general counsel legal services since its inception in 1946. SJCERA's most recent Deputy County Counsel, assigned to SJCERA in 2017, left County employment in May. This transition presents an opportunity for SJCERA to evaluate its options and assess how best to staff the general counsel function, including (1) Continue to use the services of County Counsel's office for all general counsel functions; (2) Enter into an agreement with outside counsel to provide all general counsel functions; and (3) Create an internal general counsel position.

During this assessment period, SJCERA is using a hybrid approach. Nossaman, LLP (which provides SJCERA fiduciary and investment counsel services), is providing general counsel services, except for assistance on Domestic Relations Orders (DROs) and Public Records Act (PRA) requests. The Office of County Counsel is continuing to advise SJCERA on DROs and PRAs. This interim approach ensures SJCERA has the benefit of counsel with the appropriate knowledge and experience while at the same time prudently manages costs. This hybrid approach, however, is not ideal as a long-term solution. Having a single source for general counsel services ensures a unified, integrated approach to all aspects of plan administration.

Peer Comparisons: SJCERA surveyed 26 other California retirement systems to inquire how they staff their general counsel function. (See General Counsel Services Survey Responses, attached). Of the 17 responding systems, only two systems (Merced and Tulare) still use County Counsel. Generally, systems have moved away from County Counsel's Office to (1) avoid the conflict-of-interest risk (the County and Retirement System's interests are not always aligned), (2) obtain the guidance from attorneys who specialize in the laws governing retirement plans, and/or (3) improve counsel's availability or access.

Nine of the 17 responding systems (53%) use internal counsel, including three systems of similar membership and/or asset size to SJCERA (Sonoma, Santa Barbara, and San Mateo). Of the eight systems smaller than SJCERA, one uses internal counsel, five use external counsel and remaining two are those that use County Counsel.

Eighty-eight percent (88%) of responding systems have moved away from County Counsel to either external or internal counsel. Given that some SJCERA trustees' previously raised concerns about potential conflicts of interest, it may be prudent for SJCERA to consider moving this direction as well.

Cost Analysis: Over the last two years, SJCERA used an average of 738 hours per year of County Counsel services, equivalent to 35.5% of an FTE (738 hours / 2,080 hours). The table below shows the cost of the three options for staffing the General Counsel function under two assumptions: maintaining the historical hourly usage and increasing to full-time usage. While SJCERA has not used County Counsel full time, there has been work that, despite everyone's best efforts, could not be completed by County Counsel given the competing demands of the multiple County departments assigned to one attorney.

General Counsel Options	**Hourly Rate (actual unless noted)**	**Annual Historic-Use Cost (738 hrs. /year)**	**Annual Fulltime Cost (2,080 hrs./year)**
County Counsel	$273	$201,474	$567,840
External Counsel	$275 - $623	$202,950 - $459,774	$572,000 - $1,314,560
Internal Counsel	$146[1]	N/A	$305,000

[1] Based on top step of Deputy County Counsel IV salary range ($84/hour) plus the cost of all benefits

If SJCERA hired the least expensive external counsel in the survey, the projected annual cost would be $202,950 ($275/hour x 738 hours), approximately the same as the projected cost of County Counsel. Alternatively, if SJCERA hired an external counsel using the mean rate from the survey responses ($389/hour), the projected annual cost would be $287,082 ($389/hour x 738 hours), about $18,000 less than hiring a full-time internal counsel, but we would miss out on the additional oversight, compliance and monitoring work a full-time internal counsel could perform.

Although hiring a full-time internal counsel would cost about $104,000 more than the average historical cost of using County Counsel, SJCERA would receive significantly more service (an additional 1,342 hours of work), which would allow SJCERA to strengthen its legal oversight, and improve compliance and monitoring.

Workload Analysis: The list below summarizes the job duties the surveyed systems include in internal counsel job descriptions. While many of the duties are currently provided by County Counsel, an internal counsel's role and level of oversight on those tasks would be increased.

- Attend meetings of the Board and its committees
- Provide legal advice during open and closed sessions of the Board
- Provide legal advice and assistance to the Board and staff on issues involving governance, Fair Political Practices Commission conflict of interest reporting requirements, and Brown Act laws
- Respond to staff's questions regarding governing laws (e.g., family law, probate, County Employees' Retirement Law, Public Employees' Pension Reform Act (PEPRA) of 2013, and Internal Revenue Code) as they pertain to administering benefits, domestic relations orders, survivor benefits, etc.
- Respond to public records request and subpoenas
- Conduct legal research of complex pension issues
- Formulate policies and Bylaws
- Research, write and review legal opinions
- Draft and review legal documents including pleadings, motions, contracts and resolutions
- Coordinate and oversee the work of outside counsel, verify and control fees paid

- May assist in representation in litigation, disability hearings and other legal matters
- Provide advice and assistance on legal problems within the plan
- Analyze state and federal legislation or regulatory changes which may impact the plan; oversee/guide implementation of newly adopted legislation; make recommendations to CEO and Board on SJCERA's position on proposed legislation; draft legislation sponsored by the plan
- Assist in and advise on hiring, evaluation process and other personnel matters regarding staff

Having an internal counsel position, would also provide the opportunity for additional compliance related services such as:

- Review of member and employer communications for legal compliance
- Review of and report on implementation of policies, procedures, Bylaws, and contracts for legal compliance; work with management to identify and implement appropriate measures to improve compliance
- Contract administration to ensure all contracts are considered by legal and reviewed for compliance

Conclusion

Based on all of the above, and in consideration of SJCERA's needs, staff recommends hiring a full-time internal counsel position for the reasons summarized in the table below. An internal position eliminates any real or perceived conflict of interest, provides SJCERA with a dedicated resource and sufficient hours to better meet SJCERA's legal monitoring and oversight needs, and is the most cost effective solution: SJCERA would receive significantly more service, from a dedicated resource, at a relatively modest increase in annual cost compared to the current model.

General Counsel Options	PROS	CONS
County Counsel	1. Familiar: Maintains status quo 2. Relatively low cost	1. No identified internal resource well versed in retirement administration and Brown Act 2. Conflict of Interest concerns 3. Confidentiality concerns 4. Competing demands/Insufficient time to address all SJCERA's needs
External Counsel	1. Opportunity to hire expertise in retirement administration, Brown Act, etc. 2. No Conflict of Interest 3. Increased likelihood of getting the level of attention needed 4. Mitigates confidentiality concerns	1. Increased costs 2. Missed opportunity of expanded monitoring and compliance (unless we add hours and costs)
Internal Counsel	1. Opportunity to grow our own internal expertise 2. Interests fully aligned: no conflict 3. Dedicated expert resource with sufficient hours 4. Additional hours enable increased legal monitoring and oversight including compliance related functions 5. Most cost effective: Lowest hourly	1. Increased total cost because of increased hours 2. Unknown quality of candidate pool

	rate of all options ($146/hour including all benefits) and increased services provided. 6. Mitigates confidentiality concerns	

Should the Board approve staff's recommendation, the next steps would include staff working with the County Human Resources Division to create the job description and begin the recruitment process.

ATTACHMENT

General Counsel Services Survey Responses

J Shick
Johanna Shick
Chief Executive Officer

Greg Frank
Greg Frank
Management Analyst III

General Counsel Services Survey Responses

System	Assets $	Members	Counsel	Hourly Rate	Firm
Mendocino CERA	$ 621,934,385	3,696	External	$275	Jeff Berk
Imperial CERS	$ 1,024,760,965	4,317	External	$345	Olson Remcho
Merced CERA[1]	$ 1,064,440,745	5,892	CC	$68 - $83	
Fresno City ERS	$ 1,400,581,000	5,040	External	$420	Saltzman & Johnson
San Luis Obispo CPT	$ 1,749,963,000	6,809	External	$333	Olson Remcho
Tulare CERA[1]	$ 1,819,009,000	10,484	CC	$102	
Marin CERA	$ 2,903,106,791	7,233	External	$623	Nossaman
Sonoma CERA	$ 3,521,361,000	11,113	Internal	$78 - $95	
SJCERA[1]	**$3,816,744,150**	**15,370**	**CC**	**$84**	
SJCERA	**$3,816,744,150**	**15,370**	**Interim Ext**	**$623**	**Nossaman**
Santa Barbara CERS[2]	$ 3,896,843,000	11,138	Ext/Int	$450/$90	
Kern CERA	$ 4,882,350,000	22,106	Internal	$87	
Fresno CERA	$ 5,623,399,000	20,489	External	$275	Baker, Manock & Jensen
San Mateo CERA	$ 5,649,674,000	13,252	Internal	$139	
San Diego City ERS	$ 9,182,686,922	19,519	Internal	$148	
Alameda CERA	$ 10,139,166,000	25,127	Internal	$104 - $137	
Contra Costa CERA	$ 11,453,765,753	24,095	Internal	$114 - $148	
Sac CERS	$ 11,830,400,000	30,815	Internal	$77 - $122	
LACERA	$ 70,290,000,000	187,184	Internal	$108 - $164	

[1] The three systems using CC pay overhead in addition to the hourly rate. SJCERA is billed $273/hour for Deputy County Counsel's time which includes the hourly rate plus overhead ($84 + $189 = $273).

[2] Santa Barbara CERS is in the process of transitioning from using external counsel to hiring internal counsel.

2023 LEGISLATION

Last Updated: 5/24/2022

BILL NO.	AUTHOR	DESCRIPTION	LAST ACTION DATE	LOC	SPONSOR
Legislation Impacting SJCERA:					
AB 557	Hart	This bill would extend the expiration date of the state of emergency provisions from January 1, 2024 to January 1, 2026 and make additional non-substantive changes to the Ralph M. Brown Act.	05/16/23	Senate RLS. Comm. for assignment	
AB 739	Lackey	This bill would revise the conditions for suspending contributions to a public defined benefit plan from a threshold of more than 120 percent fund to more than 130 percent funded.	03/13/23	Assembly P.E. & R. Comm. Hearing canceled req. of author	
AB 817	Pacheco/ Wilson	This bill would authorize use of teleconferencing provisions similar to the emergency provisions indefinitely if the legislative body annually approves the provisions.	04/25/23	Assembly L. Gov. Comm. Hearing postponed by committee	
AB 1020	Grayson	This bill would expand the scope of Safety member heart presumption (which applies to members with five or more years of service) to include hernia and pneumonia. It also expands other Safety member presumptions to include post-traumatic stress disorder, tuberculosis and meningitis.	05/03/23	Senate L., P.E. & R Comm.	
AB 1379	Papan	This bill would (1) require a Board electing to use teleconferencing to post agendas at a singular designated location rather than at all teleconference locations; (2) allow a quorum to be established based on all participating trustees (whether remote or at the designated physical location), and remove the requirement that a quorum of the members participate from locations within the board's jurisdictional boundaries; (3)require the Board have at least two meetings per year in which the Board's members are in person at a singular designated location; (4) delete requirements to identify each teleconference location in the agenda and that each location be accessible to the public; (5) delete restrictions limiting remote participation to a certain number, percentage of meetings or number of consecutive sessions per calendar year; (6)delete requirements to provide at least one of two specified means by which the public may remotely hear and visually observe the meeting; and (7) delete requirements that members participating remotely disclose whether individuals 18 years of age or older are present in the room with them and the general nature of their relationship; (8) expand the definition of just cause to include travel related to a member of a board's occupation; (9) make these provisions operative indefinitely.	04/24/23	Assembly L. Gov. Comm. Hearing canceled request of author	

BILL NO.	AUTHOR	DESCRIPTION	LAST ACTION DATE	LOC	SPONSOR
AB 1637	Irwin	This bill, no later than January 1, 202~~6~~**7**, would require a local agency's website and emails to utilize a ".gov" top-level domain or a "ca.gov" second level domain.	05/22/23	Assembly APPR. Comm. Read second time. Ordered to third reading.	
SB 411	Portantino/ Menjivar/ Luz Rivas	This bill, **until January 1, 2028**, would authorize a board to use alternate teleconferencing provisions ~~similar to the emergency provisions indefinitely and without regard to a state of emergency~~ **related to notice, agenda and public participation** **for only neighborhood councils of the City of Los Angeles** .	05/15/23	Assembly Read first time Held at desk	
SB 537	Becker	This bill would **authorize legislative body of a multijurisdictional, cross-county agency to use alternative teleconferencing provisions if the body has adopted an authorizing resolution. This bill would** ~~1) authorize a board to use alternate teleconferencing provisions similar to the emergency provisions indefinitely and without regard to a state of emergency, 2)~~ require Boards to provide attendance on the website within seven days after the teleconferencing meeting and ~~3)~~ expands circumstances of "just cause" to include having specified relatives who are immunocompromised. **Require at least a quorum of members of the board to participate from locations within the boundaries of the territory over which the agency exercises jurisdiction. Require board to identify in the agenda the member who plans to participate remotely and to include the address of the publicly accessible building and be no more than 40 miles from the in person meeting. This bill will repeal these alternative teleconferencing provisions on January 1, 2028.**	05/04/23	Senate Jud. Comm. Third reading	
SB 769	Gonzalez	Existing law imposes ethics training and sexual harassment prevention training and education to be two hours and requires each training every two years. This bill would add two hours of fiscal and financial training every two years and exempt training requirements for the County Treasurer if they comply with existing continuing education requirements.	05/23/23	Assembly Read first time. Held at desk.	

BILL NO.	AUTHOR	DESCRIPTION	LAST ACTION DATE	LOC	SPONSOR
SB 885	Senate Comm. P.E. and R.	**This bill would clarify the definition of final compensation for specified members, members who are subject to PEPRA, and members whose services are on a tenure that is temporary, seasonal, intermittent, or part time in the CERL. The bill would revise the age at which the retirement system is required to either start payment of an unmodified retirement allowance or make a one-time distribution of accumulated contributions and interest to the age specified by federal law. The bill would change the age threshold from April 1 of the calendar year in which the member attains 72 years of age to the age specified by federal law with regard to requirements that apply when members cannot be located and with reference to when distributions are to be made to members who are participating in a Deferred Retirement Option Program. This bill would correct several erroneous references and also make other technical, nonsubstantive changes to these provisions.**	05/18/23	Assembly P.E. & R. Comm.	SACRS
Other Bills of Interest:					
AB 1246	Nguyen	This bill would extend the ability of a PERL retiree who elected one of the specified optional benefit settlements to change their beneficiary to include naming a new spouse following the retiree's divorce and subsequent remarriage.	05/11/23	Senate RLS. Comm. for assignment	
SJR 1	Cortese	This measure would request the U.S. Congress to enact, and the President to sign, legislation that would repeal the Government Pension Offset and the Windfall Elimination Provision from the Social Security Act.	05/16/23	Senate Concurrence in Assembly amendments pending	
Federal Legislation:					
None to report.					

2023 TENTATIVE State Legislative Calendar

Jun 2	Last day for bills to be passed out of the house of origin
Jun 15	Budget Bill must be passed by midnight
Jul 14 - Aug 13	Summer Recess upon adjournment provided budget bill passed
Sep 8	Last day to amend bills on the floor
Sep 14	Last day for each house to pass bills; Interim Study Recess begins upon adjournment
Oct 14	**Last day for Governor to sign or veto bills.**

San Joaquin County Employees' Retirement Association

May 26, 2023

TO: Board of Retirement

FROM: Johanna Shick
Chief Executive Officer

SUBJECT: Chief Executive Officer Report

Board Election
Congratulations to Emily Nicholas, who will begin her second three-year term on the Board of Retirement on July 1, 2023. Emily ran unopposed for the Second (Active, General Member) seat. As any Board of Retirement trustee will attest, there's a lot to learn to fulfill one's fiduciary responsibilities. Our Board's depth and breadth of knowledge and ability to make well-informed decisions is strengthened when trustees are able and willing to serve multiple terms. Thank you for your continued service, Emily!

Strengthen the long-term financial health of the Retirement Plan
Determine the future vision for the investment program operating model

- *Define and document SJCERA's views on environmental, social, and governance (ESG) matters for the organization and the investment portfolio*
  Both Maryland and California have started conducting climate stress testing to assess the economic impact of a range of future climate conditions on plan investments. Inclusion of these climate scenarios in an economic model can provide decision-makers with information about potential physical and transition risks to their assets and investment portfolios. To learn more, read the "How States Can Account for Climate Risks to Pension System Assets" in the Board's reading materials. This article is part of SJCERA's educational efforts intended to assist Trustees in understanding and developing their view on ESG investing, in preparation for developing a formal ESG statement in the coming months.

Optimize the investment manager lineup

- *Conduct Global Equity and Crisis Risk Offset asset class reviews, assessing managers'/mandates' alignment with our Strategic Asset Allocation policy and goals*
  In the June Board meeting, Matt Clark from Pimco and Brent Leadbetter from Research Affiliates will provide an update on the Pimco RAE Emerging Market Fund, in which SJCERA invests. This presentation not only helps fulfill our strategic goal of assessing our manager lineup but also responds to a Board request to receive short periodic updates from our managers.

- *Evaluate the portfolio for investment efficiency (e.g., fees, risk, return, consolidation)*
  TPG to Acquire Angelo Gordon. Angelo Gordon, one of SJCERA's managers, will be acquired by TPG, a leading global alternative asset management firm. Angelo Gordon and TPG will become a diversified alternative investment platform made up of leading verticals in private equity, real estate, credit, impact investing, and market solutions. There will be no change in portfolio managers and Angelo Gordon's team will remain in place for SJCERA's investment with them. Investment Officer Paris Ba and Meketa view the ownership change as significant, but since the team serving SJCERA does not change, they have no specific concerns over the acquisition.

  Grandview Fund I Review. As part of the ongoing due diligence of SJCERA's existing managers, Investment Officer Paris Ba and David Sancewich of Meketa had an update meeting with Grandview Fund I. SJCERA made a commitment of $20 million to Grandview in 2018, and the fund is fully invested now. Currently, the fund's investments are approximately 7% Office, 54% Industrial, 25% Residential and 14% Land Development. As of fourth quarter 2022, Grandview had a gross IRR of 23%, 1.5x MOIC. Grandview reports high(er) interest rates and the fallout from the banking crisis have caused banks to be more reluctant to lend and finance new deals, raising concerns in the Real Estate market.

Medley Opportunity Fund (MOF) II Liquidation Update. As mentioned in the previous CEO report, the Medley liquidation process is well underway. Upwelling Capital Group has made significant progress in stabilizing MOF II investments and operations and made the first distribution in the amount of $20 million to Limited Partners on May 15, 2023.

Modernize the operations infrastructure

Improve technology for business operations

- *Adopt industry standard business processes wherever possible*
  - *Plan transition from Mac to Windows*

    Information Systems Analyst II, Lolo Garza, completed the implementation of our new off-site backup solution. Regular testing of this backup solution will continue throughout the year to ensure recovery is working appropriately if ever needed.

    Staff is testing three different Windows laptops with our current applications and infrastructure. We will deploy Windows laptops to staff when the CORE-37 user interface display issues have been resolved.

- *Adopt contemporary risk management, disaster recovery and business continuity practices*
  - *Implement Phase 1 of Enterprise-Wide Risk Management (EWRM) plan*

    The Management Team (Johanna Shick, Brian McKelvey, Paris Ba, Adnan Khan, Carmen Murillo, Melinda DeOliveira and Greg Frank) met on May 4 to initiate Phase 1 of the EWRM plan. Based on the heat map matrix, the risks with the highest severity/probability were assessed and the team determined actionable items to further mitigate these enterprise-wide risks. Next step includes Management Analyst III Greg Frank creating the project scope and conducting meetings with the appropriate staff to implement these action items, which are related to cyber security, contributions, investments and compliance.

Improve employer experience

SJCERA sends periodic emails to active members of all our employers. Communications Officer, Kendra Fenner wrote and coordinated the distribution of two emails to active members this month: one promoting our *About to Retire* seminar and the other explaining SJCERA's *Special Power of Attorney*. Both emails are attached to this report for your reference.

Kendra has also completed draft scripts for four educational videos on reciprocity, service credit, the retirement benefit calculation, and steps to take when approaching retirement. We anticipate video production to begin third quarter.

Align resources and organizational capabilities

Enhance education and development across all levels of the organization

- *Offer training and development opportunities intended to strengthen staff's depth and breadth of knowledge and experience*
  - Information Systems Manager Adnan Khan attended the Prism Conference; CEO Johanna Shick and Retirement Investment Officer Paris Ba attended the 2023 SACRS Spring Conference. Retirement Investment Accountant Eve Cavender and Retirement Technician Vickie Monegas completed their mandatory County training of Sexual Harassment and Discrimination Prevention.

Employees of the Month

Congratulations to Employees of the Month Investment Officer Paris Ba and Accounting Technician II Marissa Smith both of whom went above and beyond in assessing and handling the potential impact of recent bank failures on individual members and our portfolio. Paris researched SJCERA's exposure, which enabled her to provide reassurance that SJCERA's investments and investment-related transactions were secure. Marissa reviewed members' banking information to ensure SJCERA could proactively ask affected members if they wanted to update their direct deposit instructions.

Maintain Business Operations

Financial Reporting. The Finance team in coordination with Brown Armstrong, Cheiron, and Maketa have completed the 2022 Annual Financial Audit. The Finance team is now actively working to complete the Annual Comprehensive Financial Report (ACFR), Popular Annual Financial Report (PAFR), and the State Controllers Report, all of which are due by June 30, 2023.

Retirement Benefit Processing. All retirement applications eligible for the 3% COLA (those with a retirement date on or before April 1), have been processed for the June 1 retiree payroll. SJCERA experienced a decrease in March retirements, possibly related to recent labor agreements with SEIU-represented employees, which granted an 18% salary increase over a four-year period. Employees received 6% in October 2022, and will receive 5% in July 2023, 4% in July 2024, and 3% in July 2025. For these increases to significantly affect their retirement benefit, employees must earn at the higher rate for one to three years, depending on tier. As a result, it will be interesting to see if retirements begin increasing again in March 2024.

General Counsel Services. As you're aware, SJCERA's general counsel for the last several years accepted a position with another retirement system. At the June 2 meeting, the Board will be asked to determine how to best procure general counsel services going forward: Continue Using County Counsel; Contract with an External Counsel; or Hire an Internal General Counsel. Until the role of general counsel is filled using the model the Board selects, attorneys at Nossaman, LLC will serve as SJCERA's general counsel. Ashley Dunning, SJCERA's current fiduciary counsel, will be our primary contact, and Yuliya Oryol, one of SJCERA's investment counsels, will serve as secondary contact and when investment expertise would be useful (for example, at the investment roundtable).

Mid-Year Action Plan Report. Provided with this report is an update of SJCERA's progress to date on our Annual Action Plan goals. Although many of these results will sound familiar, as they have been included in previous CEO reports, the mid-year report compiles the information into one convenient document and provides the Board with a quantitative measure of percentage completed.

Provide Excellent Customer Service

A few quotes from our members:

"Andrea Bonilla Rocks! She is knowledgeable and quick to respond. Much appreciated."

"Leonor was excellent. She far exceeded anything I would have expected. She was efficient and knowledgably. She knew exactly what I needed. I was amazed at how quickly she responded to my issue. Great customer service. She was perfect…I wish I would have had more staff like her in my department."

"Bethany Vavzincak – "Very helpful, kind – I wasn't uncomfortable at all explaining my problem."

Maintain a Positive Work Environment

On May 4, SJCERA joined the entire County in celebrating Star Wars Day ("May the Fourth be with you") and staff brought in "out of this world" snacks to share. Additionally, we commemorated Cinco de Mayo with walking tacos and street corn for an in-office fiesta, and on Friday, May 19 staff chipped in to buy pizza and soda pop in honor of National Pizza Party Day! (No shortage of food at SJCERA this month!)

Manage Emerging Organizational Needs

Facilities. The County plans to use office space on all floors of 6 S. El Dorado Street and would, therefore, like SJCERA to modify its current lease and agree to vacate the premises. SJCERA's current lease specifies rental rates through June 30, 2030, and provides SJCERA, at its sole discretion, the opportunity to exercise two five-year extensions at market-rate rent. This effectively, provides SJCERA a 17-year lease. In the interest of being a good partner with SJCERA's largest employer, staff has been engaging in lease amendment negotiations. I am pleased to announce that SJCERA and the County leadership staff (the CAO's office and General Services Department) have reached a tentative agreement on the terms of a lease amendment, which is cost neutral to SJCERA's members and other participating employers and provides a reasonable timeline for relocation. The lease amendment is scheduled to go to the Board of Supervisors for final approval on June 6.

Conclusion

It's been another productive month. May is typically a busy month for SJCERA, and this year has been even more so with the addition of facilities considerations, the pension administration and data conversion projects, and the general legal counsel transition on top of our usually full plate including audited financial statements, actuarial valuation work (pulling data, researching and responding to actuary's questions regarding data, etc.), processing a large number of new retirees onto May payroll (as a result of the seasonal increase in retirement applications), and applying the COLA. In classic SJCERA-style, we're staying positive, working hard, and making it happen! Staff's persistence in "making it happen" reminds me of two quotes: Michael Jordan said, "Some people want it to happen, some wish it would happen, others make it happen", and Kobe Bryant said, "Great things come from hard work and perseverance. No excuses." My thanks to staff for their hard work and perseverance in making it happen!

Subject: Are You About to Retire?
Date: Friday, May 19, 2023 at 10:35:51 AM Pacific Daylight Time
From: ISD Service Desk [ISD]
To: ISD Service Desk [ISD]
Attachments: image001.png

Sent on behalf of Johanna Shick, Chief Executive Officer, SJCERA:
(Sent to all County Employees)

About to Retire – Are you two years or less from retirement? This three-hour seminar is for you!

JUNE 1, 2023– 9:00 A.M. Join us for this virtual presentation explaining your SJCERA retirement benefit, San Joaquin County Health Care Benefits and MORE.

Click here to **register** for the **June 1, 2023 seminar** or visit the **Active Members - Seminars page** to register for events offered on other dates.

You will receive the Zoom link via email immediately after you complete your registration. Save the email with the Zoom link to access the seminar via your computer or mobile device. This virtual seminar is for those full-time civil service County employees and employees of SJCERA's other participating employers who are considering retiring within the next two years. This seminar is about three hours long and includes practical information intended to assist you as you prepare for your retirement.

Representatives will present information and be available to answer questions on the following:

• SJCERA Benefits
• San Joaquin County Health Care Benefits
• 457 Deferred Compensation
• Retired Employees Association

Thank you,

Subject: Special Power of Attorney (POA)
Date: Friday, May 19, 2023 at 9:28:29 AM Pacific Daylight Time
From: ISD Service Desk [ISD]
To: ISD Service Desk [ISD]
Attachments: image001.png

Sent on behalf of Johanna Shick, Chief Executive Officer, SJCERA:
(Sent to all County Employees)

May is Mental Health Awareness month and what better way to put yourself at peace than by getting your personal paperwork in order?

Did you know SJCERA offers a *Special Power of Attorney* (POA)? This POA can be used to grant certain powers to a trusted friend or relative in the event you are unable or unavailable to act when required. The POA form is specifically designed for SJCERA members and helps to provide peace of mind should you become unable to act on your own behalf.

The designated individual will only be able to conduct the SJCERA business you choose. For example, you can decide whether (or not) you want your designated individual to be able to request an estimate, complete your retirement application, select your health plan, or designate beneficiaries.

No one knows what their future holds, but we all know people who have needed assistance due to an illness or injury, and we can suddenly find ourselves unexpectedly needing help. We hope you never need it, but just in case, be prepared: File the *Special Power of Attorney* form today to ensure your needs can be addressed no matter what happens in the future.

Thank you,

2023 Action Plan Mid-Year Update

San Joaquin County Employees' Retirement Association

1. Strengthen the long-term financial health of the Retirement Plan

a. Evaluate the appropriateness of actuarial assumptions

i. Implement adopted assumption changes. 75 percent complete.
The actuarial valuation is underway. SJCERA's actuary plans to present the preliminary results at the July Board meeting. The final report is scheduled to be presented at the August Board meeting.

b. Review and confirm or refresh asset allocation

i. Initiate implementation of new asset allocation policy. 75 percent complete.
Implementation of the new asset allocation policy began in November 2022 with the pacing studies for Private Equity, Private Credit, and Real Estate, and is continuing with manager searches (and manager presentations to the Board) in those areas, including:

- Silver Point Specialty Credit Fund II presentation – January 20 meeting
- Public Credit Review – April 14 meeting
- Ares Pathfinder Fund II presentation – May 5 meeting

The Strategic Asset Allocation policy is under review and will be presented to the Board at the July meeting. Because private investment opportunities generally take longer to source and implement, full implementation of the new asset targets is expected by June 2024.

ii. Conduct benchmark review and implement new benchmarks as appropriate.
100 percent complete.
Investment consultant Meketa presented their benchmark review at the February 10 meeting and recommended no changes.

iii. Deliver target investment return. 40 percent complete.
The capital markets have been challenging and (with about 60 percent of the year remaining as of the date of this report), it is impossible to accurately predict the actual return the portfolio will achieve as of December 31. However, as of April 30, SJCERA's total assets under management was $3.98 billion and the portfolio had earned a 3.7 percent investment return year to date. While this year-to-date return is a useful indicator, it is important to note that time period can significantly affect investment performance numbers. What matters is the portfolio's performance as of December 31.

To assist the Board in understanding market conditions and making sound decisions about the portfolio, Meketa intends to present educational sessions on 1) inflation, 2) fixed income, and 3) environmental, social, and governance (ESG).

c. Determine the future vision for the investment program operating model

i. Define and document SJCERA's views on environmental, social, and governance (ESG) matters for the organization and the investment portfolio. 25 percent complete.
Staff has been providing ESG-related articles in Board materials to assist trustees in broadening their knowledge of ESG and its impact on investments. Articles have included:

- The Conversation, *What Does ESG Mean*?
- International Shareholder Services, Inc., *ESG Themes to Be Aware of in 2023*
- Route Fifty, *The Politics of ESG Investing*
- Board Smart, *ESG is Dead – Long Live ESG: Guidance for U.S. Pension Fiduciaries*
- Plan Sponsor, *Exploring ESG Investing*
- *How States Can Account for Climate Risks to Pension System Assets*

In addition, Meketa plans to lead an educational session and facilitate discussions beginning in October, which will culminate in documenting the Board's view on ESG-related matters.

ii. Define and document SJCERA's approach to proxy voting 50 percent complete.
The Proxy Voting policy is under review and is scheduled to be presented at the July 14 meeting.

iii. Evaluate SJCERA's policy on liquidity/cash, and refresh as appropriate 100 percent complete.
Meketa conducted a liquidity and cash analysis, which was presented to the Board on April 14. The analysis showed the current portfolio would maintain sufficient liquidity to pay benefits and other expenses, even under extreme stress scenarios. Thanks to the additional employer contributions and high-quality bonds, we have sufficient cash to cover our liquidity needs.

In addition, given the rising rates of treasuries and the fixed income market over the previous 12 plus months, the Board approved changing the Cash Overlay strategy from 75% equities (MSCI ACWI) and 25% bonds (U.S. Agg) to 100% bonds (U.S. Agg), with a duration target of three-years. On April 27, staff and Parametric successfully implemented this change.

d. Optimize the investment manager lineup

i. Conduct Global Equity and Crisis Risk Offset (CRO) asset class reviews, assessing managers'/mandates' alignment with our Strategic Asset Allocation (SSA) policy and goals.
50 percent complete.
The CRO asset class review was conducted by Meketa at the March 10 meeting. The presentation included a recommendation to change from a strategy framework to a functional framework, thus allowing the CRO class to better adjust to current and future changes in market dynamics. While no strategy or manager changes are recommended at this time, using a functional framework broadens the number of strategies that can be considered and could potentially lead to improved coverage across various market environments.

The Global Equity asset class review is scheduled to be completed by Meketa in the second half of the year.

ii. Evaluate the portfolio for investment efficiency (e.g., fees, risk, return, consolidation).
40 percent complete.
At the February meeting, the Board approved terminating a manager due to performance and Meketa has issued an RFI to replace them. Staff and Meketa have met with five investment managers so far this year to discuss investment risk/return efficiency. Managers included Miller Global, BlackRock Direct Lending, Medley, Grandview, and Davidson Kempner. The annual fee review is scheduled for the August meeting.

2. Modernize the operations infrastructure

a. Implement Pension Administration System (PAS)

i. Finalize assessment of and manage project risks. 100 percent complete.
Tegrit's and MBS's project risks were integrated into Linea's Risk Management Plan. The Risk Management Plan was reviewed and improved as part of the Integrated Plan.

Ongoing project management risks are managed by weekly project status review meetings with MBS and Tegrit. Risks that become realized issues will be brought to the Steering Committee monthly with detail reporting of the risk, its impact to the project, along with documented mitigation strategies to reduce, eliminate, or accept the issue. Risks that impact schedule and cost will be brought to the Board of Retirement as needed but no later than during the quarterly project status report made by the Assistant CEO.

ii. Complete refinement of business requirements on planned processes. 56 percent complete.
To complete this goal, staff and Linea initiated the Business Process Alignment (BPA) project to identify gaps in current process, review legislative changes requiring policy and/or procedure changes, and incorporate pension administration industry best practices. In the January kick-off meeting, staff and Linea identified 16 business processes to undergo refinement. Of the 16 processes, 9 have been completed (56 percent), the remaining seven processes are scheduled to be completed before June 30. The processes and their completion status follow.

- New Member Enrollment/Rehired Retirees – Complete
- Employer Reporting – Complete
- Reciprocity - Complete
- Service Credit Purchase – Complete
- Data Maintenance – Complete
- Death – Complete
- DRO – Complete
- Imaging – Complete
- Termination Refunds/Lump Sum Payments – Complete
- Disability
- Retirement Benefit Estimates/Pre-Retirement Counseling
- Service Retirement
- Retiree Payroll
- Tax Reporting (including IRS Form 1099-R)
- COLA and Interest Posting
- Member Correspondence and Statements

iii. Complete mapping documentation on planned processes. 37 percent complete.
SJCERA staff participates in weekly mapping and analysis sessions with MBS and Tegrit to document the CORE-37 system and map data to the MBS data conversion database. Two data areas are planned to be mapped and documented in 2023. Data Area 1 includes Employer, Member Demographics, Employment History, Contributions, Earnings, Service Credit, and Service Purchases. Data Area 2 includes Retiree Payroll, Refunds, Tax Reporting, Payroll Deductions, Retiree Health, and Imaging. Both areas are on target for completion by year-end.

iv. Deliver project milestones as scheduled on PAS project plan. 50 percent complete.
The project is on track. The first two phases, Project Initiation, and Infrastructure and Hosting Setup were completed on-time. Phase 3, Implementation, began in early March, and the project team continues moving forward as scheduled with requirement confirmation meetings regarding Member Demographics, Employer Reporting, Benefit Calculations, and Service Purchases.

v. Program/Test new PAS. 30 percent complete.
Staff and Tegrit began this goal in March with requirements verification in the areas of Member Demographics, Employer Reporting, Benefit Calculations, and Service Purchase functionality. Tegrit began designing and programming Member Demographics functionality in April and will complete their development and internal testing in August. Member Demographics functionality will then be delivered to SJCERA for User Acceptance Testing (UAT), which is scheduled to be completed by September.

By September 2023, we will have completed the design, development, and testing of Member Demographics functionality which includes the following documented deliverables:

- Business System Requirements (BSR)
- Member Demographic Screens
- SJCERA User Acceptance Testing Sign-off

Staff and Tegrit will continue designing, documenting, and programming functionality for Employer Reporting and Benefit Calculations through the remainder of the 2023. UAT for those functional areas is scheduled to be completed in 2024.

vi. <u>Update/revise system-generated letters for planned processes.</u> 30 percent complete.
Staff has been updating system-generated correspondence within our existing system CORE-37. The *Beneficiary Designation* Form and the New Employee Welcome Packet were most recently updated to reflect the newest legislation, policy, and/or procedure changes. These updates improve overall member communication by reducing complexity, and decrease work caused by incomplete or incorrectly completed forms in the current (legacy) system. They will also decrease the number of updates required when it's time to load system-generated communications into the new PAS.

vii. <u>Maintain functionality of legacy PAS until new PAS is implemented and stabilized</u>. 50 percent complete.
The IT and Benefits team continue their efforts to resolve all high priority data cleanup items identified during the MBS Data Analysis Project. Identified data cleanup items do not affect calculations or payments; rather, they are data elements the new system requires that were missing, inconsistent, or incorrect in our legacy system. Examples include date-of-death discrepancies between the silos of SJCERA's legacy system, and missing data such as a primary or contingent indicator for designated beneficiaries. Benefits staff has cleaned up more than 4,000 retiree payroll records and updated 400 deceased members' records.

Staff identified and resolved a data integrity risk which allowed staff to delete previous payment records within CORE-37. IT disabled the feature and Benefits implemented new procedures and controls to handle the rare situations when a data entry error might require deleting a pending payment record before a payment is processed.

As noted in 2.a.vi above, the *Beneficiary Designation* form and the New Employee Welcome Packet were recently updated to reflect the newest legislation, policy, and/or procedure changes.

b. Enhance the member experience

i. <u>Improve content and organization of website</u>. 40 percent complete.
Revisions to the Active Member pages are under review by Executive Management. The goal of the revisions is to improve organization of content, making it more accessible and easier to understand. Implementation is planned for this summer.

ii. <u>Develop and implement online member education videos on prioritized topics</u>. 40 percent complete.
Four initial video topics have been identified (reciprocity, service credit, the retirement benefit calculation, and steps to take when approaching retirement). Scripts for two videos (with noted revisions) are ready to move into the production process. The remaining two are in the review/revision process. Production is planned to begin in third quarter. Staff is evaluating software choices to determine whether to continue using the software we used for our first video or change to another program.

iii. <u>Develop and initiate a plan to fulfill the conditions necessary to enable a full-service member portal</u>. 0 percent complete.
On track for completion by year end. Last year, staff and Linea laid the foundation for this goal by identifying 11 requirements necessary to enable a full-service member portal.

1) Develop and implement a member and employer communications plan
2) Develop and implement Acceptable Use Policy for member portal
3) Develop and implement Password Requirements policy and procedure

4) Obtain personal email addresses for all members
5) Implement user validation and verification methodologies
6) Implement multi-factor authentication methodology and tool
7) Evaluate and procure electronic signature tool
8) Define and implement file sharing upload and download capabilities
9) Define functionality road map for day one and beyond
10) Define and document member portal functionality processes and error management
11) Develop and deploy member portal training for members and staff to include instructional videos, online help, customer service scripts, FAQ, etc.

This year staff and Tegrit are scheduled to develop and initiate the plan to fulfill the identified member-portal conditions. Work on this goal is scheduled to begin after Member Demographics User Acceptance Testing is completed in August and to complete by year end.

c. Improve technology for business operations

i. Adopt industry standard business processes wherever possible. 50 percent complete.

1. Document adoption of standard industry practices in PAS requirements
Staff, with the assistance of Tegrit and Linea, continually evaluate options for adopting standard industry practices as part of the refinement of business requirements efforts during the PAS meetings. Adopting industry standard processes will result in a more efficient and maintainable PAS. Three industry calculation methodologies were reviewed and approved for integration into our new PAS solution, including the calculations for final average salary, service credit, and date difference. Each calculation was provided to SJCERA's actuary Cheiron for review to ensure actuarial equivalence.

2. Implement off-site back-up and infrastructure solutions, and investigate further cloud presence
The new enterprise backup system configuration and the data backup cloud synchronization for Windows productions servers project has been completed. Next steps include 1) researching cloud off-site back-up automation for immutability, and 2) evaluating if alternative or supplementary cloud services are needed to improve efficiency system reliability.

3. Plan transition from Mac to Windows
The Microsoft 365 (M365) email migration is complete. Email encryption has been implemented, and other M365 functions/features are being researched and will be implemented over time as appropriate.

Migrated one SJCERA file server to the new Microsoft infrastructure cluster, for testing in preparation for SJCERA's future transition to Windows workstations. Testing includes the Windows workstations and core production applications, identifying/resolving any compatibility issues, and documenting the initial scope of transition activities.

As part of the continuing adoption of Microsoft Windows and related technology, Microsoft Teams was rolled out in April. Microsoft Teams has numerous communication and collaboration functions for immediate communication, file sharing, and video conferencing.

Additional steps include 1) test and develop CORE–37 user interface updates, 2) engage Optix vendor for data and server conversion, 3) integrate Optix and CORE-37 functionality, and 4) procurement and implementation of Windows desktops.

ii. Adopt contemporary risk management, disaster recovery and business continuity practices

1. Implement Phase 1 of Enterprise-Wide Risk Management plan 33 percent complete.
The Management Team met to initiate Phase 1 of the EWRM plan. Based on the heat map matrix, the risks with the highest severity and probability were assessed and the team determined actionable items to further mitigate these enterprise-wide risks. The project scope has been created and the appropriate staff will be conducting meetings during the second half of the year to implement these action items. Prioritized risks are related to cybersecurity, contributions, investments, and compliance.

2. Implement Phase 2 recommendations from 2021 cyber-security and disaster recovery plan assessments, including annual security assessment 25 percent complete.
This project will be completed in the second half of the year. Steps will include 1) formalize system security plans, 2) develop cloud security policies and practices, 3) cyber-security awareness training and enhancement, 4) enhance disaster recovery process, 5) evaluation and assessment of CIS Best practice templates,6) formalize log management and audit process, and 6) finalize Board report for the January 2024 meeting.

d. Improve employer experience

i. Increase outreach and education to payroll/personnel staff at employers and/or County departments. 0 percent complete.
Work on this goal is scheduled for the second half of the year.

ii. Expand Employer Notice Library 0 percent complete.
Work on this goal is scheduled for the second half of the year.

3. Align resources and organizational capabilities

a. Develop and implement a workforce planning process

i. Address project staffing and training needs.

1. Implement a detailed project staffing plan based on the PAS project plan, that identifies which staff will be pulled onto the project at which phase, who will be assigned to cover their duties, and whether temporary staff will be needed. 95 percent complete.
Linea Solutions and staff developed a project staffing plan detailing the quantity, type, timing, and duration of staffing resources needed across all phases, activities, and functional areas of the PAS and Data Conversion projects. Staffing resources being considered include temporary staff to back-fill operational responsibilities and assist with data cleanup, and consulting staff to assist during User Acceptance Testing, which has, from previous experience, proved to be very time consuming. No additional staff resources will be required for the PAS project this year. In October, staff and Linea are scheduled to revisit the staffing plan and associated costs for inclusion in the 2024 budget. This goal is on track for completion by year end.

2. Implement strategies designed to support staff and maintain morale during PAS project. 40 percent complete.
To support staff and maintain morale, management recognizes staff in the CEO reports and employee of the month recognitions. Each staff member named in the CEO report receives a handwritten thank you note from the CEO on a copy of the report, and the reported accomplishments are highlighted in staff meetings. Staff recognize each other through the SJCERA shout-out board, and the organization more broadly works to maintain morale by hosting various events throughout the year (see list below). In addition, staff has identified initial ideas for celebrating the completion of key PAS project milestones.
February: Random Acts of Kindness Day; Sports Day; Valentine’s Day

March: Employee Appreciation Lunch; St. Patrick's Day Lunch; PAS Naming Award
April: Grilled Cheese Day; National Superhero Day
May: Star Wars Day; Cinco de Mayo; National Pizza Party Day

b. Enhance education and development across all levels of the organization

i. Offer training and development opportunities intended to strengthen SJCERA's on-boarding and succession planning. 40 percent complete.
17 out of 20 (85 percent) staff members have attended 25 training events so far this year, either in person or virtually. (See list below)

- 16-hour cost accounting refresher course
- San Joaquin County Treasurer-Tax Collector Cybersecurity Symposium
- Public Retirement Information System Management Conference
- Pension Bridge
- SACRS and CALAPRS conferences
- CALAPRS Management Academy
- CALAPRS Roundtables
    - Accountants, Administrators, Benefits, Communications, Compliance, IT, Investments
- Various online courses and webinars:
    - *Presentation Rules and Communications Myths Debunked*
    - *Standing out While Standing in*
    - *Using PowerPoint to Create Compelling Presentations for Virtual Learning Courses Online*
    - Secure 2.0
    - *State of the Banking Industry Panel Discussion*
    - Legislative and Regulatory Updates for Retirement Plans
    - Key Proxy Votes for Pensions to Watch
    - NCPERS Communications Roundtable
    - Memory Enhancement Techniques for Professional Development
    - Upgrade Your PowerPoint Presentations to Keep Staff Engaged During Training
    - Government Tech Webinar

In addition, staff has completed 18 mandatory County training courses so far this year. The County's Office of Emergency Services has a new seven-course Disaster Service Worker's series that staff will complete, as required, by July 31. Five courses are required for all employees and two additional courses are required for managers.

ii. Document annual procedures and link to annual work plan 51 percent complete.
The Leadership Team has documented and linked 51 percent of quarterly, semiannual, and annual procedures to the annual work plan. As the functional business areas finalize the remaining procedures, they will be linked to the annual work plan.

c. Create a foundation of performance metrics and measurements

i. Include performance metric requirements in PAS business requirements 0 percent complete.
This goal is scheduled for the second half of the year.

ii. Identify and establish best use of existing performance measures 0 percent complete.
This goal is scheduled for the second half of the year.
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THE NCPERS MONITOR

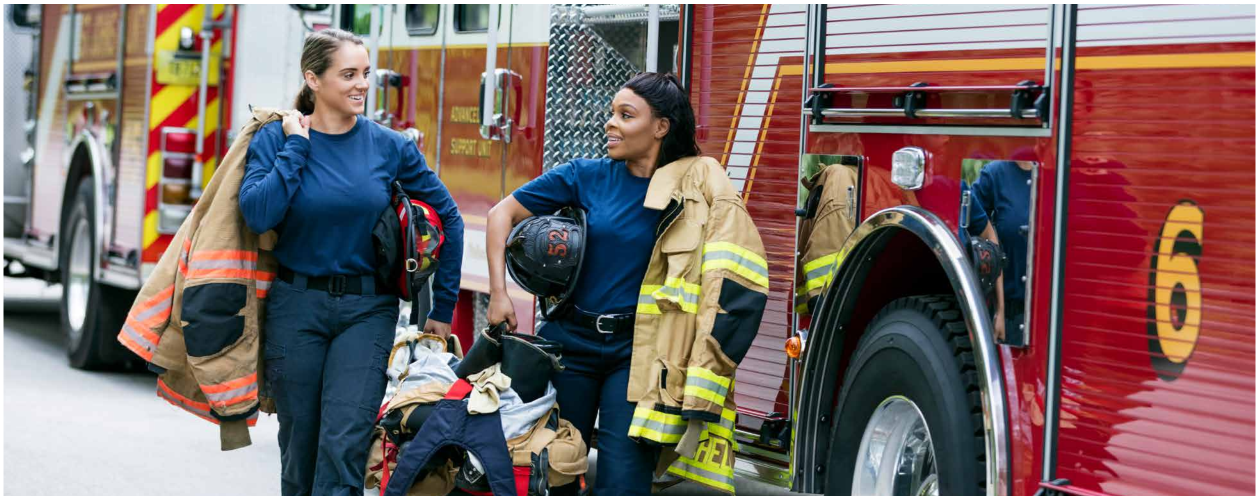
The Latest in Legislative News

May 2023

NCPERS Executive Director's Corner

Honoring Public Sector Workers in 2023

By Hank Kim, Executive Director and Counsel, NCPERS



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May 7-13th is Public Service Recognition Week. This holiday was created nearly 45 years ago to honor public servants and their impact on society, while generating awareness of the various roles that make up the public sector.

It hasn't been an easy few years for public sector workers. During the height of the pandemic, frontline workers including teachers, transit workers, and public safety officers, served the public even though effective vaccinations would be more than a year away and there were shortages of personal protective equipment. More mundane, but still important in the administration of government, many workers faced the challenge of working remotely for the first time while implementing brand-new community assistance programs and pandemic-related services. Adding to these challenges, politicians continue to question the value of defined benefit pensions as part of the overall compensation for public servants.

I'm proud of the role NCPERS plays in protecting public sector retirement benefits. Our members collectively oversee $4 trillion in retirement funds managed on behalf of seven million retirees and nearly 15 million active public servants—including firefighters, law enforcement officers, and teachers.

As my colleague Bridget Early argued in her recent commentary, pensions play a key role in attracting and retaining talent in the public sector. She cites research from NIRS that found 84 percent of millennials working in state and local governments said their pension benefit was the reason they're staying in the public sector, despite the majority (80 percent) believing they could earn more in the private sector.

Unlike short-term solutions like sign-on bonuses, pensions are long-term solutions for worker retention. But in order to effectively manage and administer these critical benefits, public pension funds need to first ensure they can hire and retain quality staff. In 2022, NCPERS met with a small group to explore these challenges. Late last year, we published the inaugural Public Pension Compensation Survey to help funds benchmark their compensation and benefits packages against peers. The 2022 survey featured data from more than 150 public pension funds and included detailed compensation information for nine c-suite positions.

Expanding on the success of the inaugural survey, this year's Public Pension Compensation Survey will focus on compensation data for mid- and senior-level roles. Survey participants will once again receive complimentary access to the online dashboard—featuring filters that allow for apples-to-apples comparisons—and a free copy of the report. In the next few weeks, we'll be distributing the 2023 Public Pension Compensation Survey to pension funds all over the country. Please reach out to membership@ncpers.org if you have any questions about how to participate.

As we celebrate public servants across the country this month, NCPERS would like to recognize the important work of public pension staff, trustees, and stakeholders. Through advocacy, research, and education, we hope to make your jobs just a little easier.

To participate in Public Service Recognition Week, we encourage you to share updates on Facebook, Twitter, and LinkedIn about what you love about working in the public sector. Please tag NCPERS and use the hashtags #PSRW #publicpensions so we can help amplify your stories! ◆

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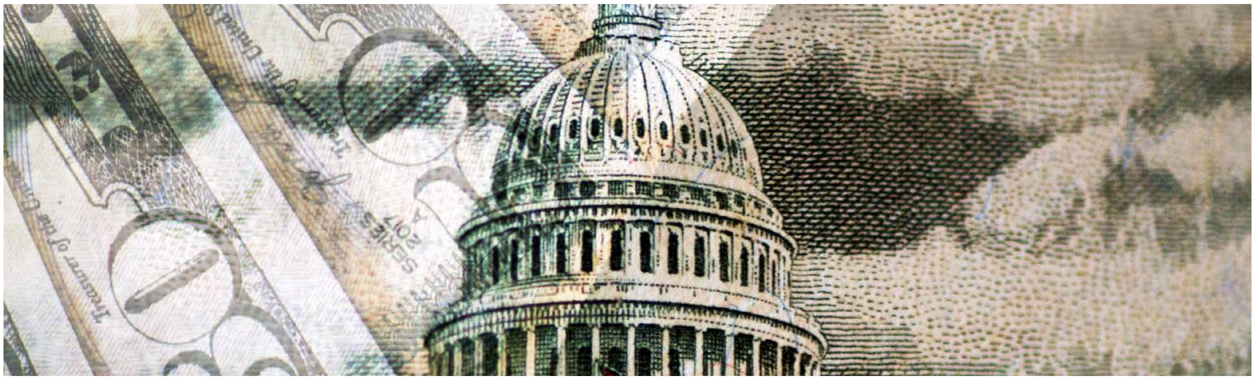
Debt Limit and Budget Legislation

By: Tony Roda, Partner, Williams & Jensen



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The U.S. Treasury Department is counting dollars. They are counting tax receipts and refunds from the April 18 filing deadline. The result of the count will determine Congress's final deadline to approve legislation to increase the nation's debt limit and possibly, in the same bill, include significant federal spending cuts.

The Treasury actually exceeded the debt limit in January, but through extraordinary accounting measures, it has delayed the ultimate date when it will not be able to pay the government's bills. There are reports that the Treasury has received 35 percent less in revenues than during the same time period last year. Based on that information, Moody's Analytics concludes that the government will reach the critical point in June. However, with the receipts and refunds still being counting, the date could be anywhere from late May to September.

Thus far in Congress, the debate over the debt limit and whether it is appropriate to tie action on it to spending cuts has yielded mainly rhetorical attacks from each political party against the other. However, during the week of April 17, House Speaker Kevin McCarthy (R-CA) unveiled his initial version of a debt limit and budget bill – The Limit, Save, Grow Act – and that legislation passed the House on April 26 on a nearly straight party line vote, 217-215, with four Republicans voting against the measure.

Republican votes in Congress to increase the debt limit fall dramatically when a Democrat is in the White House. Looking at the votes cast to raise the debt limit in this century, with a Republican president, 65 percent of House Republicans and 74 percent of Senate Republicans supported the increase, whereas with a Democratic president the numbers fall to 24 and 20 percent, respectively. During the recent House floor debate, Democrats repeatedly reminded Republicans that, under the Trump Administration, Democrats voted to raise the debt limit three times without much controversy.

The current high-stakes drama associated with the debt limit parallels 2011. President Obama was in office and the Republicans had just won control of the House in the midterm elections. At that time, Republicans leveraged a potential default to win spending cuts along with a debt limit increase, but doing so just days before the limit would have been hit resulted in the first-ever downgrade of the U.S. credit rating.

The recently passed House GOP bill would raise the debt limit by $1.5 trillion or through March 31, 2024, whichever is first, and include what Republicans describe as $4.8 trillion in savings. The bill would return total discretionary spending to the fiscal year (FY) 2022 level in FY 2024 and cap annual growth at one percent for a decade thereafter; rescind unspent COVID relief funds; repeal most of the Inflation Reduction Act's energy and climate tax credit expansions; rescind the new enforcement funding for the Internal Revenue Service; make changes to energy, regulatory, and permitting policies; impose or expand work requirements in several federal safety net programs; and prevent implementation of President Biden's student debt cancellation program.

The measure is a non-starter for President Biden and Congressional Democrats. However, now that the House has approved the measure, the debate shifts to the Senate, where Democrats and Republicans are expected to begin discussions soon. President Biden is being urged by some Democrats to enter into negotiations with Congressional Republicans as well.

Important to the public pension plan community is the decision House Republicans made in this initial budget proposal to include changes to the tax code. This reversed their earlier tactical decision to not include tax provisions. The House GOP Leadership had been trying to avoid including revenue-raising provisions in the debt ceiling bill in order to not send a live tax vehicle to the Senate.

Under the Constitution, the House must originate revenue (tax) provisions. Once the House approves a bill that includes tax provisions, it opens the door for the Senate to add or subtract tax provisions from the House-passed bill and then send it back to the House. The Democratic Senate is likely to take advantage of such an opportunity and send politically difficult tax provisions back to the GOP-controlled House. This was the situation House Republicans hoped to avoid. However, with such strong opposition within House Republican ranks to the new green energy tax credits and funding for IRS enforcement, the Leadership needed to include provisions to repeal them in order for the Limit, Save, Grow Act to pass.

Inclusion of any tax provisions, therefore, opens the door to all tax provisions. In previous GOP-controlled chambers, tax provisions have been advanced which would have been detrimental to public pension plans. In 2017, the House approved a tax bill that included a provision to impose the unrelated business income tax (UBIT) on public pension plans. Over the years, House Republicans have also shown interest in other troublesome tax-related proposals, such as the Public Employee Pension Transparency Act (PEPTA).

Please be assured that as the debt limit and budget legislation makes its way through Congress that NCPERS will be keeping a close eye on anything harmful to public pension plans. As always, we will keep you apprised of any significant developments. ◆

__Tony Roda__ is a partner at the Washington, D.C. law and lobbying firm __Williams & Jensen__, where he specializes in federal legislative and regulatory issues affecting state and local governmental pension plans. He represents NCPERS and statewide, county, and municipal pension plans in California, Colorado, Georgia, Kentucky, Ohio, Tennessee, and Texas. He has an undergraduate degree in government and politics from the University of Maryland, J.D. from Catholic University of America, and LL.M (tax law) from Georgetown University.

Pension Industry Careers: Job Listings, Hiring, and Retirement Announcements

Brought to you by NCPERS

Pension Expenditures Do Not Crowd Out Education Funding, NCPERS Study Finds

By: Lizzy Lees, Director of Communications, NCPERS

Photo Illustration © 2023, istock.com

Critics maintain that pension expenditures by state and local governments are crowding out other important forms of spending—notably, education funding. But overwhelmingly, the data shows that the crowding-out effect simply isn't occurring.

In the 2023 NCPERS research update, "Do Pension Expenditures Impact Education Spending?" lead researcher Dr. Michael Kahn conducted a thorough literature review of research arguing that pension spending is crowding out education funding. He then examined state-by-state historical data on pension contributions, education expenditures, revenues, and the economy.

Kahn found that education funding grew at three times the annual rate of pension spending from 1993 to 2019. During this period, whereas growth in education funding was stable, pension spending was volatile. The volatility in pension expenditures is often due to plan sponsors contributing less than required and making occasional lump-sum catch-up payments or due to bumps in the markets.

During the past quarter century, the average pension expenditures were 3.6 percent of state and local own-source revenues (taxes and fees collected by municipalities). The same figure for education expenditures was 33.8 percent. Even if pension costs rise faster than education expenditures, pension funding is unlikely to crowd out education funding because the ratio of the two is likely to stay about the same.

Recognizing the many competing priorities that state and local governments face, the study also examined whether state and local revenue systems are out of sync with the economy. The data showed that revenues lag economic growth in each state. "Governments can afford almost all competing priorities, but to do so, they must take determined steps to bring their revenue systems into harmony with the economy," Kahn said.

The study concludes that, in every state, pension contributions are not crowding out education funding, but state and local revenue systems remain out of sync with the economy. Read the full study (PDF) and find the state-by-state analysis.

Learn more about the key findings from the study and hear directly from the lead researcher during NCPERS' May 4th webinar. Register here to attend or to access the webinar on demand. ◆

How NCPERS Accredited Fiduciary (NAF) Program Helps Public Pensions Advance Good Governance Practices

By: Lizzy Lees, Director of Communications, NCPERS

Nearly ten years ago, the NCPERS Accredited Fiduciary (NAF) program was created to educate public pension trustees and administrators about best practices for plan governance, oversight, and administration.

We spoke with NAF instructors Peter Landers and Brad Kelly of Global Governance Advisors (GGA) about how the program was developed, who should attend, and key issues public pensions should watch in the coming years. The spring class of NAF will be held on May 20-21 in conjunction with NCPERS Annual Conference & Exhibition in New Orleans. Reserve your spot today—registration closes on May 5.

Q: NCPERS Accredited Fiduciary (NAF) program started nearly 10 years ago. How did this program come to be?

Brad Kelly: Public pressure on pensions is not something new, but it has been escalating, so a lot of pensions found themselves with significant headline risk. And with politicians who didn't want to carry the liability going forward, it became very easy to point to trustees and say, 'the whole reason why we're in the situation is because we have billions of dollars that are being overseen by teachers, firefighters, and police officers.' And that, of course, couldn't be further from the truth. Pensions became underfunded largely because plan sponsors took a 10- or 15-year contribution holiday.

So NCPERS realized that a lot of their members were under this unprecedented pressure and criticism. They reached out to GGA to see what we could do to help protect these trustees and the representative nature of these pensions. We collectively agreed that it was governance. The capabilities of these trustees would be kind of that frontline form of defense—the more capable they are in their role, the less they can be criticized. And that's where we came up with the NCPERS Accredited Fiduciary program, with the four modules and the specific content that we have today.

Peter Landers: Adding to that, NCPERS had done a great job for many years with the Trustee Educational Seminar (TEDS) program, but it was very much geared towards newer trustees on public pension fund boards. There was a gap, though, for those more experienced board members—which is where the Accredited Fiduciary program comes in nicely. It's really about going one step further in trustee education. It also provides that added level of assurance to stakeholders that these trustees are taking their job seriously, they're getting necessary training, and they're even earning their Accredited Fiduciary designation.

Q: What makes NAF unique, and why do you think trustees and pension staff should consider attending?

Peter: One of the things that makes NAF unique is the ability to network with other trustees from across the country and hear about their experiences. We run several case studies through each of the modules, so you get a chance to understand different perspectives from your fellow trustees.

NAF is also where both trustees and administrators can gain an understanding of best practices and start to think outside the box. We have a specific challenge at the end of module four where we identify alternative pension fund models with different ways of cutting costs, adding benefits, gaining those increased investment returns, etc. You really don't get that from the traditional training out there.

Brad: We strongly encourage all participants to share their stories. It's important for them to share their successes—and how they realized those successes—but it's equally important to share their horror stories. So often, these funds are working in isolation. We strongly advocate that they work together to start finding ways to decrease their operating costs.

One thing that we've found is that a lot of funds really benefit from going beyond just the trustee level. Because the senior executives have to work in lockstep with the board, it often is very beneficial for the trustees to attend NAF alongside plan senior staff. Then everyone's hearing the same message about what the true role of the board is and how management should be working to support them. If you can delineate the responsibilities in a very clear way, it allows both management and the board to work much more efficiently and effectively as a cohesive group.

We always say that part of the challenge is that good board members don't know what they don't know. But after going through NAF, they understand their true fiduciary duty and a thorough understanding of best practices. Good board members ask good questions.

Q: The NAF program is currently made up of four modules: Governance and the Board's Role; Investment, Finance and Accounting; Legal Risk Management and Communication; and Human Capital. Can you provide an overview of what each of these modules covers?

Peter: Module one, Governance and the Board's Role, really gets into board governance in terms of best practices, the makeup of your board, and the typical committees that are set up. We review what roles the board plays, including when trustees should be 'in the weeds' versus focusing on policy and strategy. We talk about the roles that different individuals play and what responsibilities they should be in charge of. And then we finish off that module with a discussion on board performance, including how performance should be measured and assessed.

The second module, Investment & Finance, is taught by investment experts from Meketa. They talk about things like asset allocation and making sure you have a solid investment philosophy that you've agreed upon as a board and with your management team. Attendees learn about the use of external advisors and how to utilize them to get the best value add. They cover things like ESG, including the financial reporting and disclosure aspects of it. And they also focus on alternative investing and what to be aware of when selecting between different managers.

During module three, Legal, Risk Management & Communication, we have experts speak to some of the legal fiduciary duties of the role of a trustee. This includes things like how to limit your liabilities and fiduciary insurance. We review the different priorities from an audit perspective and what the Audit Committee’s role is. And we also talk about the different types of risks and what different funds can do to try to mitigate those risks. We also cover strategies for effective communication, both as a board and for individual trustees. This includes things like who are the right individuals to speak on behalf of the fund, what role trustees play in public communication, and the importance of speaking as one voice and as one board.

Module four, Human Capital, starts off by focusing on the importance of succession planning. We cover short- and long-term succession planning, employment contracts, and executive evaluations. We discuss measuring the performance of your fund and staff members. Then we look at executive and trustee compensation, including what are the components of a good compensation philosophy, how to benchmark compensation effectively, and even how to advocate for yourself with things like education budgets. And finally, we highlight different alternative pension management models and challenge attendees to consider ways to create better efficiencies, cut costs, and maybe gain some added investment return opportunities.

Q: Do the educational needs for public pension boards differ from private sector pensions or corporate boards? If so, how?

Peter: I would say yes and no. There are some foundational elements in terms of good governance practices, but what the board should be focusing on versus what management should be focusing on are almost universal.

There are some differences, though. One area public pension boards need to focus on more than most private sector boards is the investment side of the equation, because of course, public pension funds are investing members assets. The traditional 60/40 split is no longer generating the returns that these pension funds need, so there’s the need to diversify into private equity, real estate, and other alternative assets. So for public pension board members, there can be a learning curve to get up-to-speed on the investment side of things. But overall, a lot of the key tenets of board governance are universal.

Brad: I would add that that public pressure aspect is something that is considerably greater for a public pension trustee and public pension board, as opposed to a private sector organization. They're under a lot more scrutiny, so they need to know how to properly mitigate that headline risk and also understand how to work with their stakeholders and community members.

Q: What are the top three issues public pension boards and staff should be keeping an eye on in the next few years?

Brad: One of the biggest things we’re trying to advocate is that public pensions in today’s market are not public agencies any longer, especially when they’re trying to bring investment capabilities in house to cut ongoing operating costs. But it’s a philosophical change where they have to see themselves as an investment entity, because the public agencies have different compensation structures and abilities to incentivize. If you're trying to bring in investment professionals from out of state or from the private sector, you have to be competitive. But the savings associated with in-house investment professionals can be significant, and pensions are starting to realize that.

Money management fees are usually the number one operating expense for public pensions that aren't internalizing their investment capability. But as pensions are bringing more and more talent in house, they need make sure they’re offering competitive compensation and being strategic so that they can get the right people in the right seats to properly safeguard the pension promises that they've made.

Peter: Adding onto that, I think, you know, the craziness of the markets just means it's more important than ever to work with your internal team or external consultants to make sure that you're comfortable with your asset allocation. Making sure that you have a diversified portfolio will hopefully allow you to weather out any of the volatility in the next few years. Part of that, though, is making sure boards and staff have the education needed to ask those good questions around asset allocation.

Advocating for proper education budgets—both for trustees and staff—is also key, because there is a cost to poor governance and added benefits that come from good governance. And we're talking between 30-100 basis points that can be saved or lost through governance practices, which can become very sizable numbers.

The world is evolving, so in addition to an increased focus on investments going forward, how you operate your pension fund board is key. Boards are going to have to make sure that they're setting themselves up properly to ensure they can weather out any temporary blips in the markets, and really, again, promote that long-term sustainability of their funds.

Brad: Throughout the NAF program, we remind attendees that this is a long game approach so they shouldn't be responding with knee jerk reactions. They need to ensure their investing strategy is sound and solid, and that they're adhering to it. There's some minor tweaking, but they're not going to make major changes within a six- to 12-month period. They're in it for that 10- to 30-year lifespan, and those are the time horizons they need to focus on.

Learn more about NAF and register for an upcoming class here. ◆

NCPERS State-Level Pension Legislation Tracker

In our continuing commitment to provide value, NCPERS will provide a new member benefit beginning this quarter. The NCPERS State Legislative Tracking Report tracks state legislation that impacts pension systems. The bills being tracked focus on a range of issues including changes to plan design, eligibility, or administration, funding of pension systems, and statewide retirement savings programs. This tracking report is generated by a system that refreshes daily, meaning the webpage will provide current bill information.

Sign up here for access to the NCPERS State Legislative Tracking Report, and keep reading for pension news from around the regions:

Bill to Close North Dakota Public Employees' Pension Plan Goes to Gov. Burgum

The bill would close the pension plan to new hires beginning in 2025 and put them in a defined-contribution plan, similar to a 401(k). House Majority Leader Mike Lefor, R-Dickinson, has shepherded the bill from the Legislature's interim Retirement Committee..

READ MORE *Source: INForum*

Kansas Passes Anti-ESG Bill, But It’s Milder Than Some Want

A proposal designed to thwart investing that considers environmental, social and governance factors has cleared the Kansas Legislature, but divisions within its GOP majorities kept the measure from being as strong as some conservatives wanted. Governor Kelly, while not signing it, allowed the bill to become law.

READ MORE *Source: The Associated Press*

Montana Lawmakers Looking at Possible Changes to State Pension Systems

The Senate Finance and Claims Committee held hearings on House Bills 226 and 569, both sponsored by Rep. Terry Moore, R-Billings. Together, the two bills seek to reduce the “amortization period” for four of Montana’s public pension systems – the length of time required to pay off the liability.

READ MORE *Source: KTVH*

Senate Commits $4.7B to Boost Texas Teacher Pensions

Both chambers of the Capitol — House and Senate — have chosen to push billions of the current budget surplus into a cost-of-living adjustment for the state's retired teachers. Together, the two bills seek to reduce the "amortization period" for four of Montana's public pension systems – the length of time required to pay off the liability.

READ MORE *Source: Spectrum News1*

Phoenix Budget Discussions Pass Over Pension Debt

As Phoenix officials wrestle with the cost of soaring homelessness and the rest of the budget for the coming fiscal year, one big budget item has received little attention in public discussions of the 2023-24 spending plan so far. That item is the $3.5 billion Phoenix owes the Public Safety Personnel Retirement System (PSPRS) for police and firefighter pensions.

READ MORE *Source: The Foothills Focus*

New York Common Commits $1.3 Billion to Sustainable Program

The $242.3 billion New York State Common Retirement Fund has committed $1.3 billion to two funds as part of its Sustainable Investments and Climate Solutions program. It also earmarked more than $600 million to alternative investments in February.

READ MORE *Source: Chief Investment Officer*

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Calendar of Events 2023

May

NCPERS Accredited Fiduciary (NAF) Program

May 20–21
New Orleans, LA

Trustee Educational Seminar (TEDS)

May 20–21
New Orleans, LA

Annual Conference & Exhibition (ACE)

May 21–24
New Orleans, LA

June

Chief Officers Summit

June 19-21
Denver, CO

August

Public Pension Funding Forum

August 20-22
Chicago, IL

October

NCPERS Accredited Fiduciary (NAF) Program

October 21-22
Las Vegas, NV

Financial, Actuarial, Legislative, and Legal Conference (FALL)

October 22-25
Las Vegas, NV

View all upcoming NCPERS conferences at www.ncpers.org/future-conferences.

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How States Can Account for Climate Risks to Pension System Assets

Maryland and California are using new approaches to measure and manage potential financial challenges

Article May 15, 2023 By: Fatima Yousofi , Greg Mennis & Mollie Mills Read time: 5 min
Projects: Public Sector Retirement Systems
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How States Can Account for Climate Risks to Pension System Assets
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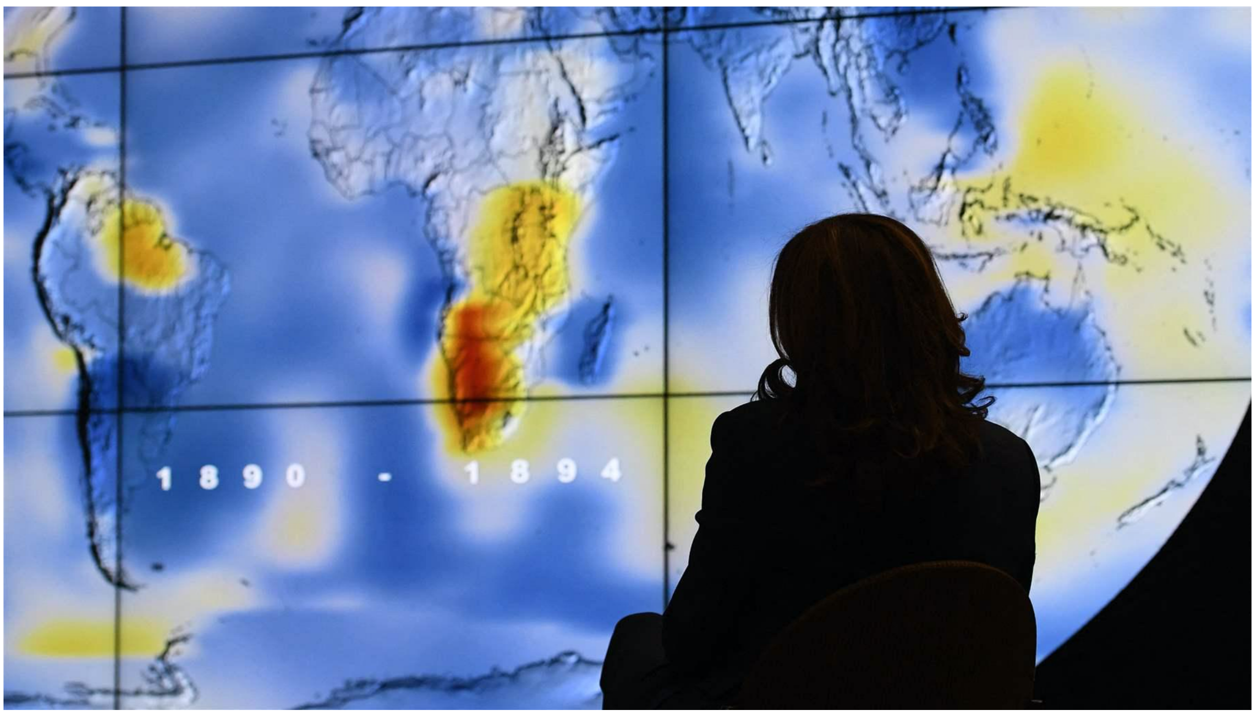


Olivier Douliery Getty Images

The report published in January by the Maryland State Retirement and Pension System (MSRPS) marks its fifth annual assessment of financial market conditions that could hinder its ability to meet pension obligations. In addition to standard evaluation techniques such as pension stress testing, the Maryland system has gone further in the past half decade to include critical insights on the potential impact of a changing climate on the $62 billion in assets held for the state's public workers and retirees.

Building on early efforts by the MSRPS board and staff, Maryland became the first state to require its public retirement system to routinely analyze climate-related financial risks in 2018, beginning what may now be a trend among public pension funds. California, for example, enacted similar periodic requirements in 2020 for its two state-sponsored pension funds, which manage more than $700 billion combined in public assets. The reports by the state employees and state teachers retirement systems focus on what the state system can do to proactively limit climate risks. As in Maryland, the state efforts use measures and targets to reduce greenhouse gas emissions set in global climate treaties as a foundation for the regular analyses.

Of course, these states are not the first to consider the potential financial risks of a changing climate. In fact, such analyses have been used increasingly across the banking and financial sectors internationally, including by central banks such as the Bank of England and the Bank of Japan, in addition to several European retirement funds.

Federal policymakers and regulators in the U.S. have also started to focus on these long-term risks to the fiscal health of the nation's finances. In a 2020 report, the Federal Reserve Board identified the impact of climate change as a critical emerging risk factor to the stability of the U.S. financial system. More recently, the Fed announced a pilot exercise to develop a framework for climate scenario analysis, working with six of the nation's largest banks.

Magnifying these efforts, the Biden administration issued an executive order in May 2021 calling for a "whole-of-government" approach to identifying, measuring, and disclosing the financial risks that the impact of climate change poses to the nation's families, businesses, and the economy—including safeguarding Americans' life savings and pensions from these emerging risks.

While these approaches are still developing, it is not surprising that U.S. public pension funds have been among the early actors to incorporate such factors into their risk measurement and management practices. Because public retirement fund investments—which include more than $4 trillion of public assets—are long term in nature, the systems are especially exposed to emerging climate trends and broader macroeconomic risks to financial markets and the economy.

Climate risk analysis in Maryland's report

Based on legislation passed in 2018, Maryland's annual pension risk reports include an assessment of the potential impact that future environmental conditions might have on the value of state retirement plan assets. To this end, the state pension system continues to use what has increasingly become one of the standard approaches to assessing the financial impact of climate risks to inform the plan's investment strategies and policies going forward.

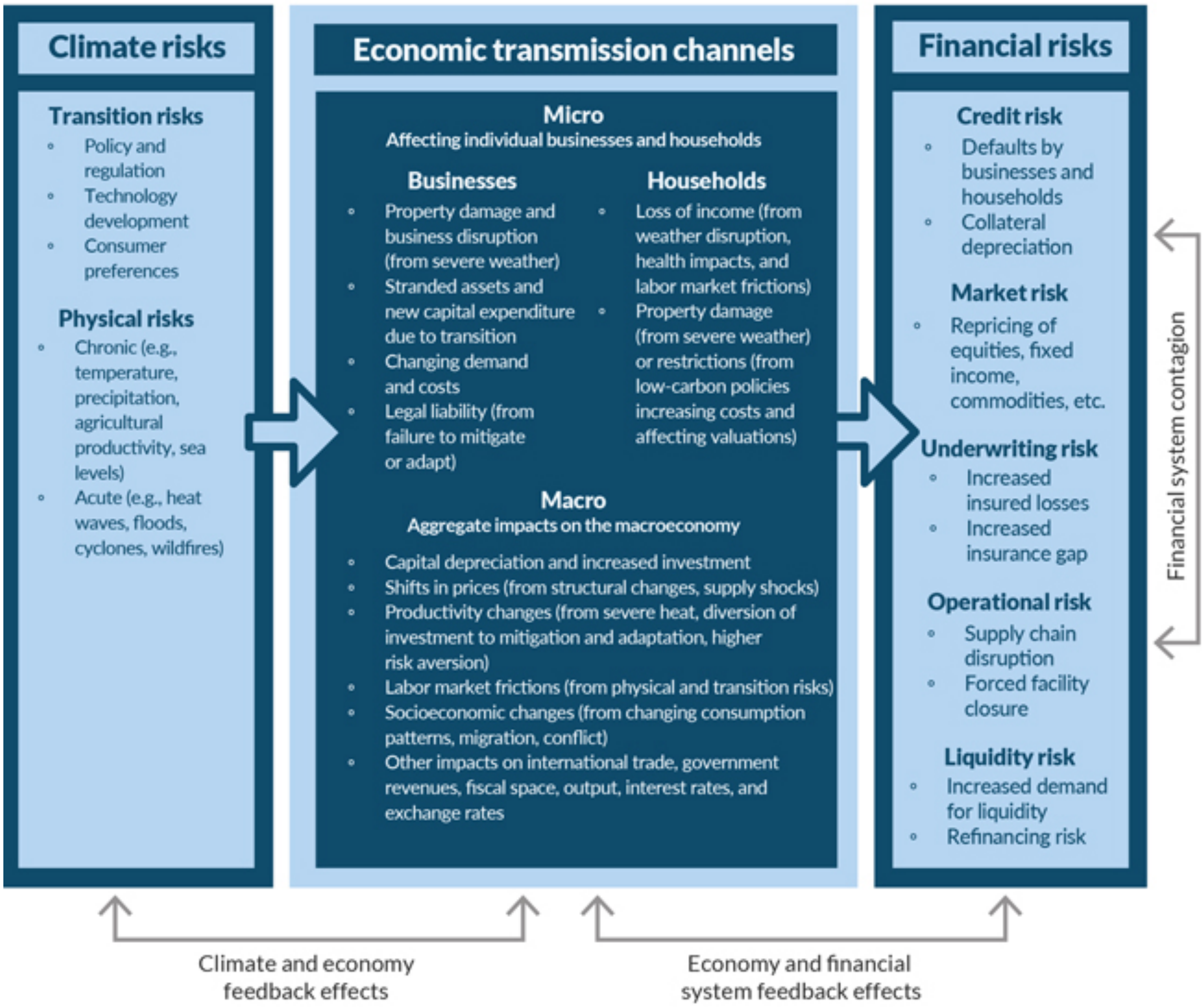
Specifically, this year's report includes climate stress testing, essentially the examination of different scenarios to assess the economic impact of a range of future climate conditions on plan investments. The scenarios are typically based on two or more future temperature change possibilities laid out in the 2015 Paris Agreement. That international climate treaty set global benchmarks to "substantially reduce global greenhouse gas emissions to limit the global temperature increase in this century to below 2.0 degrees Celsius while pursuing efforts to limit the increase even further to 1.5 degrees Celsius."

Including these climate scenarios in an economic model can provide decision-makers with information about potential physical and transition risks to their assets and investment portfolio. Physical risks occur when financial system assets and income are hurt by physical damage to property or a certain class of investments, such as real estate, because of increases in the frequency and severity of weather disasters, or long-term environmental shifts linked to climate change. In contrast, transition risks measure the potential financial consequences of broader shifts in efforts to reduce emissions, such as changes in government policies, consumer or market sentiments, or the development of new energy-producing technologies. Figure 1, taken from a 2022 report from the Network for Greening the Financial System, illustrates the different ways that climate-related risks can become financial and economic risks.

Figure 1

How Climate-Related Changes Can Affect Financial Systems and the Economy

Physical impacts and policy or market responses can pose significant risks to fiscal health



Source: Network for Greening the Financial System, "NGFS Scenarios for Central Banks and Supervisors" (2022)

The Maryland system examines these risks by assessing how plan investments in stocks and bonds across different business sectors—such as energy, technology, and financial services—may perform under different climate scenarios. The results of these analyses then become one of several points of consideration during periodic reviews of the funds' strategic asset allocation. These broader examinations are standard in retirement fund management to determine how assets are best allocated across stocks, bonds, and alternative assets with the goal of achieving a certain target percentage of returns on investments and minimizing potential losses. In fact, in Maryland's latest report, officials note that the 2021 strategic asset allocation review marked the first time the system's climate risk analysis was a key consideration in the overall asset allocation process.

Other evolving approaches

In addition to the emerging practice of climate stress testing, a broader focus on environmental-, social-, and governance-based (ESG) investing is gaining more widespread attention, though not without controversy. Historically, pension fund boards have adopted policies to exclude or divest from certain investments, such as tobacco or firms based in South Africa during apartheid. In many cases, these policies were rooted in the principles of socially responsible investing, which centered on excluding certain investments based on investors' preferences or a negative screening. In contrast, certain ESG considerations today are increasingly rooted in the principles of fiduciary duty, with the goal to limit future investment risks or to identify opportunities to capitalize on broader trends that could occur due to future economic or policy changes. Accordingly, Maryland's retirement system is actively evaluating best practices and tools to factor ESG risks into its decision-making process.

For the first time, Maryland's 2023 report includes a deeper review of a group of assets in the system's investment line-up and contemplates their "carbon footprint"—emissions of the greenhouse gas carbon dioxide—to provide a general estimate of the system's exposure to potential added costs if policies like carbon taxes are enacted. This developing technique is also gaining momentum; the U.S. Securities and Exchange Commission is contemplating similar disclosure requirements for all publicly traded companies amid some industry reservations.

Of course, Maryland and California are not alone in assessing emerging climate risks to their pension investment portfolios. Officials in Maine, Minnesota, and New York are contemplating approaches to measuring and mitigating the emerging risks that climate trends pose to their public pension funds. Going forward, the Federal Reserve's pilot climate scenario analysis for banks is likely to shape the evolution of risk measurement and management practice for these and other state retirement systems, just as the central bank's initial stress test protocols for financial institutions required under the 2010 Dodd-Frank Act have influenced scenarios and modeling for pension financial stress testing. In the meantime, however, practical examples like Maryland's approach provide a blueprint for state policymakers and program managers who want to measure and mitigate the emerging risks of climate change on their retirement systems' assets.

Fatima Yousofi is an officer, Greg Mennis is a principal officer, and Mollie Mills is a principal associate with The Pew Charitable Trusts' state fiscal policy project.

Article May 15, 2023

May 18, 2023

Regional Banking Crisis? Not Happening, Natixis Says

The deposit flight has halted, and lending hasn't suffered, the firm notes.

By Larry Light

When Silicon Valley Bank and Signature Bank failed in March, amid hemorrhaging deposits and shrinking investment portfolio values, dire predictions were rife that regional lenders would take down the economy. Well, such a catastrophe is a nonstarter and small banks should be fine, according to Natixis.

"We're not totally out of the woods, but there's not a banking crisis," says Garrett Melson, a portfolio strategist at the Paris-headquartered investment firm. In the firm's view, the problems were "confined to a handful of banks."

Western Alliance, one regional lender that investors have fretted over, just announced that its deposits had grown more than $2 billion this quarter to date. Its shares jumped 12% in response, rising along with shares of other beaten-up small-lenders such as PacWest, Zions and Comerica.

The KBW Nasdaq Regional Banking Index increased 7.3% on Wednesday after the Western Alliance news broke, although the index remains off one-third from its 2023 high. One persisting question is whether anymore bank failures will occur, even if they are outliers. The most recent was First Republican, which the federal government seized and sold to JPMorgan Chase on May 1—the second largest bank failure in U.S. history after the 2008 collapse of Washington Mutual.

Deposits at small banks started to slide in early March and lost some $200 billion, Federal Reserve data show. Then the decline stopped. Overall deposits have been steady since mid-April. Meanwhile, Fed stats indicate that lending has not flagged among these banks at all.

Chasing away deposits at the likes of SVB was the recent swelling of "unrealized losses"—bonds and other assets that had lost value, as interest rates have soared over the past 14 months. But Melson dismisses this as a problem affecting just a handful of regional banks. "It's the unintended by-product of the tightening cycle," he says. To extend that phenomenon to the entire small-bank category is "a red herring," he adds.

To be sure, regional banks still face challenges, Melson says, notably competition for investors' dollars from money market funds and Treasurys, which pay higher yields. Banks' one-year certificates of deposit pay 1.67% on average, according to Bankrate. Money funds yield 4.84%, Crane Data indicates, and one-year Treasury bills 4.92%, per the U.S. Treasury Department.

Long term, another worry is that commercial real estate loans will sour. At the moment, there is no sign of widespread defaults. The CRE loan delinquency rate (a broader category for bad loans than defaults alone) is just 0.68%, down from the recent peak of 1.13% in 2020, during the pandemic's onset.

Problems with CRE loans could occur if a recession hits, of course. "That could be a drag on growth," Melson notes. Still, he points out, these loans constitute just 2.5% of gross domestic product.