A G E N D A

BOARD MEETING
SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION
BOARD OF RETIREMENT
FRIDAY, JUNE 3, 2022
AT 9:00 AM
Location: SJCERA Board Room, 6 S. El Dorado Street, Suite 400, Stockton, California.

In accordance with current State guidance, appropriate face coverings are strongly recommended for all attendees.

The public may attend the Board meeting live in person or via Zoom by (1) clicking here https://us02web.zoom.us/j/82630947376 and following the prompts to enter your name and email, or (2) calling (669) 219-2599 or (669) 900-9128 and entering Meeting ID 82630947376#.

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 6, 2022 5

3.02 Minutes for the Audit Committee Meeting of May 17, 2022 9

3.03 Board to consider and take possible action on minutes

4.0 PUBLIC COMMENT

4.01 Follow the steps below to address the Board on matters within its jurisdiction at this time. Speakers are limited to three minutes, and are expected to be civil and courteous.

If attending in person, speakers are encouraged to complete a Public Comment form, located near the entry to the meeting room, or raise their hand.

If joining via Zoom, speakers may address the Board 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.”

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 Retirement (26) 10

5.02 Board to consider and take possible action on consent items

6.0 PRIVATE EQUITY MANAGER PRESENTATIONS

6.01 Presentation by David Wehrs and Byron Deeter of Bessemer Venture Partners 13

01 Bessemer Venture Partners XII Institutional, L.P.

02 Bessemer Venture Partners Forge Institutional, L.P.

7.0 REAL ESTATE MANAGER PRESENTATION

7.01 Presentation by Julie Kittler, Dillon Lorda, Mike Acton and Candida Hoeberrichts of AEW 30

01 AEW Essential Housing Fund

8.0 CLOSED SESSION

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) (0)

9.0 INVESTMENT CONSULTANT REPORTS

9.01 Presentation by David Sancewich of Meketa Investment Group

01 Quarterly Reports for period ended March 31, 2022

a Quarterly Investment Performance Analysis 52

b Manager Certification Report 138

c Manager Review Schedule 158

d Manager Monitor Update 159

02 Monthly Investment Performance Updates

a Manager Performance Flash Report - April 2022 163

b Economic and Market Update - April 2022 168

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

04 NCPERS Monitor May 2022 334

15.0 COMMENTS

15.01 Comments from Members of the Board of Retirement

16.0 CALENDAR

16.01 Administrative Committee Meeting June 13, 2022, at 1:00 PM

16.02 Board Meeting July 8, 2022, at 9:00 AM

17.0 ADJOURNMENT

San Joaquin County Employees
Retirement Association

M I N U T E S

BOARD MEETING
SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION
BOARD OF RETIREMENT
FRIDAY, MAY 6, 2022
AT 9:00 AM
Location: SJCERA Board Room, 6 S. El Dorado Street, Suite 400, Stockton, California

1.0 ROLL CALL

1.01 **MEMBERS PRESENT:** Phonxay Keokham, Emily Nicholas, Jennifer Goodman, Michael Duffy (in at 9:56 AM), Robert Rickman, Chanda Bassett, JC Weydert (out at 10:53 AM), Steve Moore, Raymond McCray (out at 10:54 AM), and Michael Rustuccia presiding.

MEMBERS ABSENT: None

STAFF PRESENT: Chief Executive Officer Johanna Shick, Assistant Chief Executive Brian McKelvey, Retirement Investment Officer Paris Ba (via ZOOM), Management Analyst III Greg Frank, Information Systems Specialist II Jordan Regevig, and Information Systems Analyst II Lolo Garza.

OTHERS PRESENT: Deputy County Counsel Jason Morrish, David Sancewich, Eric White, Jonathan Camp, Christy Fields, and David Glickman of Meketa Investment Group.

2.0 PLEDGE OF ALLEGIANCE

2.01 Led by Robert Rickman

3.0 MEETING MINUTES

3.01 Minutes for the Board Meeting of April 8, 2022

3.02 Minutes for the CEO Performance Review Committee Meeting of April 21, 2022

3.03 **The Board voted unanimously (8-0) to approve the Minutes of the Board Meeting of April 8, 2022 and the Minutes of the CEO Performance Review Committee Meeting of April 21, 2022. (Motion: Bassett; Second: Weydert)**

4.0 PUBLIC COMMENT

4.01 There was no public comment.

5.0 CONSENT ITEMS

5.01 Service Retirement (51)

5.02 **The Board voted unanimously (8-0) to approve the Consent Calendar Items. (Motion: Weydert; Second: Bassett)**

6.0 INVESTMENT CONSULTANT REPORTS

6.01 Presentation by David Sancewich of Meketa Investment Group

01 Monthly Investment Performance Updates - March 2022

02 Economic and Market Update - March 2022

6.02 Presentation by Christy Fields and David Glickman of Meketa Investment Group

01 Real Estate Review

6.03 Board received and filed reports

7.0 ASSET LIABILITY STUDY: EVALUATING OPTIMIZED PORTFOLIOS

7.01 Presentation by David Sancewich of Meketa Investment Group

7.02 **Board discussed and directed consultant to present at the June Board meeting (1) optimized portfolios with target returns of 6.75 percent and 7 percent, and (2) increase the global equity maximum target of 42 percent to 60 percent. Discussion of commodities and infrastructure was deferred until sub-class discussions.**

8.0 SELECTION OF DATA CONVERSION SERVICES VENDOR

8.01 **The Board voted unanimously (8-0) to approve the selection of Managed Business Solutions to provide data cleansing and conversion services and for the CEO to execute the contract upon successful contract negotiation. (Motion: Duffy; Second: Keokham)**

9.0 SELECTION OF PENSION ADMINISTRATION SYSTEM VENDOR

9.01 **The Board voted unanimously (8-0) to approve Tegrit Software Ventures to implement their pension administration system and for the CEO to execute the contract upon successful contract negotiation. (Motion: Keokham; Second: Goodman)**

10.0 SACRS VOTING PROXY

10.01 SACRS Voting Proxy - Current

10.02 SACRS Voting Proxy - Proposed

10.03 **The Board voted unanimously (8-0) to approve the amended SACRS voting proxy. (Motion: Bassett; Second: Nicholas)**

11.0 SACRS BUSINESS MEETING

11.01 SACRS Business Meeting Materials - May 13, 2022

11.02 **The Board voted unanimously (8-0) to direct SJCERA's voting delegate to approve the SACRS audit report at the May 13, 2022 business meeting. (Motion: Bassett; Second: Keokham)**

12.0 STAFF REPORTS

12.01 Legislative Summary Report

12.02 Trustee and Executive Staff Travel

01 Conferences and Events Schedule for 2022

02 Summary of Pending Trustee and Executive Staff Travel

03 Summary of Completed Trustee and Executive Staff Travel

12.03 CEO Report

In addition to the written report, CEO Shick (1) congratulated Investment Officer Ba on the upcoming birth of her child and informed the Board that during her leave critical staff investment responsibilities will be covered by the investment consultant, CEO and administrative and finance staff, and (2) thanked the Board for their support of the data conversion and pension administration system projects, both of which are expected to enable SJCERA to become a more efficient, data-driven organization.

12.04 **Board received and filed reports, and voted unanimously (8-0) to approve CEO Shick and ACEO McKelvey to attend the NCPERS Chief Officers Summit in San Francisco, CA. (Motion: Keokham; Second: Nicholas)**

13.0 CORRESPONDENCE

13.01 Letters Received (0)

13.02 Letters Sent (0)

13.03 Market Commentary/Newsletters/Articles

01 Meketa
Stagflation
February 2022

02 NCPERS
Monitor
April 2022

03 Lazard Institute
The Double-Edged Sword
April 2022

14.0 COMMENTS

14.01 Trustee Nicholas requested staff review the Disposition packet for possible improved clarity.

15.0 CLOSED SESSION

THE CHAIR CONVENED CLOSED SESSION AT 11:23 AM AND ADJOURNED THE CLOSED SESSION AND RECONVENED THE OPEN SESSION AT 11:33 AM.

15.01 Personnel Matters
California Government Code Section 54957
Employee Disability Retirement Application(s) (1)

01 Consent Items

a Florestella Sandoval
Accounting Technician I
Service Connected Disability

The Board voted unanimously (8-0) to grant the application for a service-connected disability retirement. (Motion: Duffy; Second: Bassett)

15.02 Conference with Legal Counsel - Anticipated Litigation
California Government Code Section 54956.9(d)(4)
Initiation of Litigation - 1 Case

County Counsel noted there was nothing to report out of closed session on this item.

16.0 CALENDAR

16.01 Audit Committee Meeting May 17, 2022 at 1:00 PM

16.02 Board Meeting June 3, 2022 at 9:00 AM

16.03 Administrative Committee Meeting June 13, 2022 at 1:00 PM

17.0 ADJOURNMENT

17.01 There being no further business the meeting was adjourned at 11:34 AM. The Board took a break from 10:47 AM until 11:01 AM.

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
TUESDAY, MAY 17, 2022
AT 1:01 PM

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

1.0 ROLL CALL

1.01 **MEMBERS PRESENT**: Michael Retuccia, Phonxay Keokham and Michael Duffy presiding

MEMBERS ABSENT: Raymond McCray

STAFF PRESENT: Chief Executive Officer Johanna Shick, Assistant Chief Executive Officer Brain McKelvey, Financial Officer Carmen Murillo, Retirement Investment Accountant Eve Cavender, Department Information Systems Specialist II Lolo Garza (via Zoom), Department Information Systems Specialist II Jordan Regevig (via Zoom), and Administrative Secretary Elaina Petersen

OTHERS PRESENT: Deputy County Counsel Jason Morrish, and Lindsey Zimmerman and Paul Sahota of Brown Armstrong Accountancy Corporation

2.0 PUBLIC COMMENT

2.01 There was no public comment

3.0 2021 AUDIT EXIT CONFERENCE

3.01 Presentation of Audit Results by CPAs Lindsey Zimmerman and Paul Sahota 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 COMMENTS

4.01 Trustee Duffy thanked staff for their work on the successful audit and thanked Ms. Zimmerman and Mr. Sahota for their work on the audit.

5.0 ADJOURNMENT

5.01 There being no further business, the meeting was adjourned at 1:16 p.m.

Respectfully Submitted:

____
Michael Duffy, Audit Committee Chair

San Joaquin County Employees Retirement Association

June 2022

5.01 Service Retirement — Consent

01 MENDY M ALCORIZA — Deferred Member, N/A

Member Type: General
Years of Service: 11y 00m 14d
Retirement Date: 4/19/2022
Comments: Deferred from SJCERA since December 2012.

02 DAVID L BEASLEY — Bridge Maintenance Worker, Public Works

Member Type: General
Years of Service: 13y 08m 12d
Retirement Date: 4/1/2022

03 MICHAEL H BLALOCK — Social Worker V, HSA

Member Type: General
Years of Service: 09y 02m 29d
Retirement Date: 4/1/2022
Comments: Tier 1 member and meets 10 year membership requirement.

04 GWENDOLYN R BUCHANAN — Eligibility Worker II, HSA

Member Type: General
Years of Service: 24y 08m 21d
Retirement Date: 4/1/2022

05 GILBERT CHAVEZ — Deputy Sheriff II, Sheriff

Member Type: Safety
Years of Service: 08y 07m 21d
Retirement Date: 3/31/2022
Comments: Tier 2 member - eligible to retire with 5 years of service.

06 PATRICK M CROSBY — Deferred Member, N/A

Member Type: General
Years of Service: 01y 10m 17d
Retirement Date: 4/1/2022
Comments: Deferred from SJCERA since July 2009. Outgoing reciprocity and concurrent retirement with ACERA.

07 LYDIA A DURAN — Pretrial Sr Program Specialist, Pretrial Services

Member Type: General
Years of Service: 25y 05m 08d
Retirement Date: 3/28/2022

08 IRMA GARCIA — Deferred Member, N/A

Member Type: General
Years of Service: 12y 04m 23d
Retirement Date: 4/19/2022
Comments: Deferred from SJCERA since December 2021.

09 PATRICIA A GENNINGS — Deputy Purchasing Agent, Purchasing - Buying

Member Type: General
Years of Service: 20y 02m 08d
Retirement Date: 4/1/2022

10 **CECILIA GINES** Senior Office Assistant
Human Resources

Member Type: General
Years of Service: 31y 01m 07d
Retirement Date: 3/31/2022

11 **KATHLEEN M HERMAN** Asst Retirement Administrator
Retirement Office

Member Type: General
Years of Service: 04y 09m 06d
Retirement Date: 3/31/2022
Comments: Incoming reciprocity and concurrent retirement with StanCERA.

12 **ANA M HERRERA** Employment Training Spec II
HSA

Member Type: General
Years of Service: 32y 00m 07d
Retirement Date: 4/1/2022

13 **DEBORAH L HILL** Eligibility Supervisor
HSA

Member Type: General
Years of Service: 24y 05m 15d
Retirement Date: 3/28/2022

14 **MEIMEI HU** Information Systems Analyst III
Information Systems Division

Member Type: General
Years of Service: 20y 00m 11d
Retirement Date: 3/31/2022

15 **GARY M JAYNE** Deputy Director
Purchasing

Member Type: General
Years of Service: 04y 10m 04d
Retirement Date: 3/31/2022
Comments: Incoming reciprocity and concurrent retirement with CalPERS.

16 **DONALD L JOHNSTON JR** Chief Information Officer
Health Care Services

Member Type: General
Years of Service: 19y 09m 06d
Retirement Date: 3/31/2022

17 **STEVEN D KOWALCZYK** Correctional Lieutenant
Sheriff

Member Type: General
Years of Service: 00y 04m 04d
Retirement Date: 3/28/2022

18 **STEVEN D KOWALCZYK** Correctional Lieutenant
Sheriff

Member Type: Safety
Years of Service: 19y 07m 05d
Retirement Date: 3/28/2022

19 **BRENDA L LEWIS** — Court Services Supervisor, Courtroom Support - Stockton

Member Type: General
Years of Service: 19y 11m 15d
Retirement Date: 4/1/2022

20 **OLIVIA MALALIS** — Accounting Manager, Hospital

Member Type: General
Years of Service: 08y 06m 08d
Retirement Date: 3/31/2022
Comments: Tier 2 member - eligible to retire with 5 years of service.

21 **MAUREEN E MOYA** — Senior Office Assistant, Correctional Health Services

Member Type: General
Years of Service: 20y 04m 25d
Retirement Date: 3/28/2022

22 **JANE C POPUCH** — Substance Abuse Counselor II, Substance Abuse Services

Member Type: General
Years of Service: 08y 03m 25d
Retirement Date: 4/1/2022
Comments: Tier 2 member - eligible to retire with 5 years of service.

23 **KIMM J RICHEY** — Child Support Supervisor, Child Support Services

Member Type: General
Years of Service: 31y 04m 17d
Retirement Date: 3/31/2022

24 **HOWARD R RODRIGUEZ** — Crafts Worker III, Facilities Management

Member Type: General
Years of Service: 25y 09m 23d
Retirement Date: 3/28/2022

25 **ROSS A SCHEMMEL** — Principal Appraiser, Assessor

Member Type: General
Years of Service: 04y 11m 25d
Retirement Date: 3/28/2022
Comments: Incoming reciprocity and concurrent retirement with StanCERA.

26 **NAOMI L VAN STEYN** — Clinical Lab Scientist II, Hosp Laboratory Clinic

Member Type: General
Years of Service: 31y 01m 28d
Retirement Date: 3/28/2022

27 **JUDITH A WALSH** — Staff Nurse IV - Inpatient, Hosp Intensive Care Nursery

Member Type: General
Years of Service: 18y 04m 08d
Retirement Date: 3/28/2022

San Joaquin County Employees' Retirement Association

SPRING 2022

Bessemer Venture Partners

Our platform

REGULATORY ASSETS	IPOs	IPOs in 2021	INVESTING PARTNERS	ACTIVE PORTFOLIO COMPANIES	ANGEL INVESTMENTS
$19B+	135+	10+	26	275+	225+

Pinterest · shopify · LinkedIn · toast · twilio · PROCORE · auth0 · PagerDuty · ServiceTitan · ACV AUCTIONS

fiverr. · twitch · zapier · LaunchDarkly · yotpo. · HashiCorp · weave · ncino. · pipedrive · INTERCOM

As of May 2022. Note: Please refer to the "Disclaimers" when reviewing performance information. Past performance is not indicative of future results.

Our history goes back over 100 years

1872 — Henry Phipps & Andrew Carnegie co-found Carnegie Steel

1901 — Carnegie Steel sold into the formation of U.S. Steel, the first billion-dollar corporation

1911 — Henry Phipps establishes Bessemer Securities as a family office

1965 — Begin investing in **tech**

1976 — **Silicon Valley** office opens

1981 — **Bessemer Venture Partners** spins out

1984 — **Boston** office opens

2000 — Open doors to additional LPs

2006 — **India** office opens

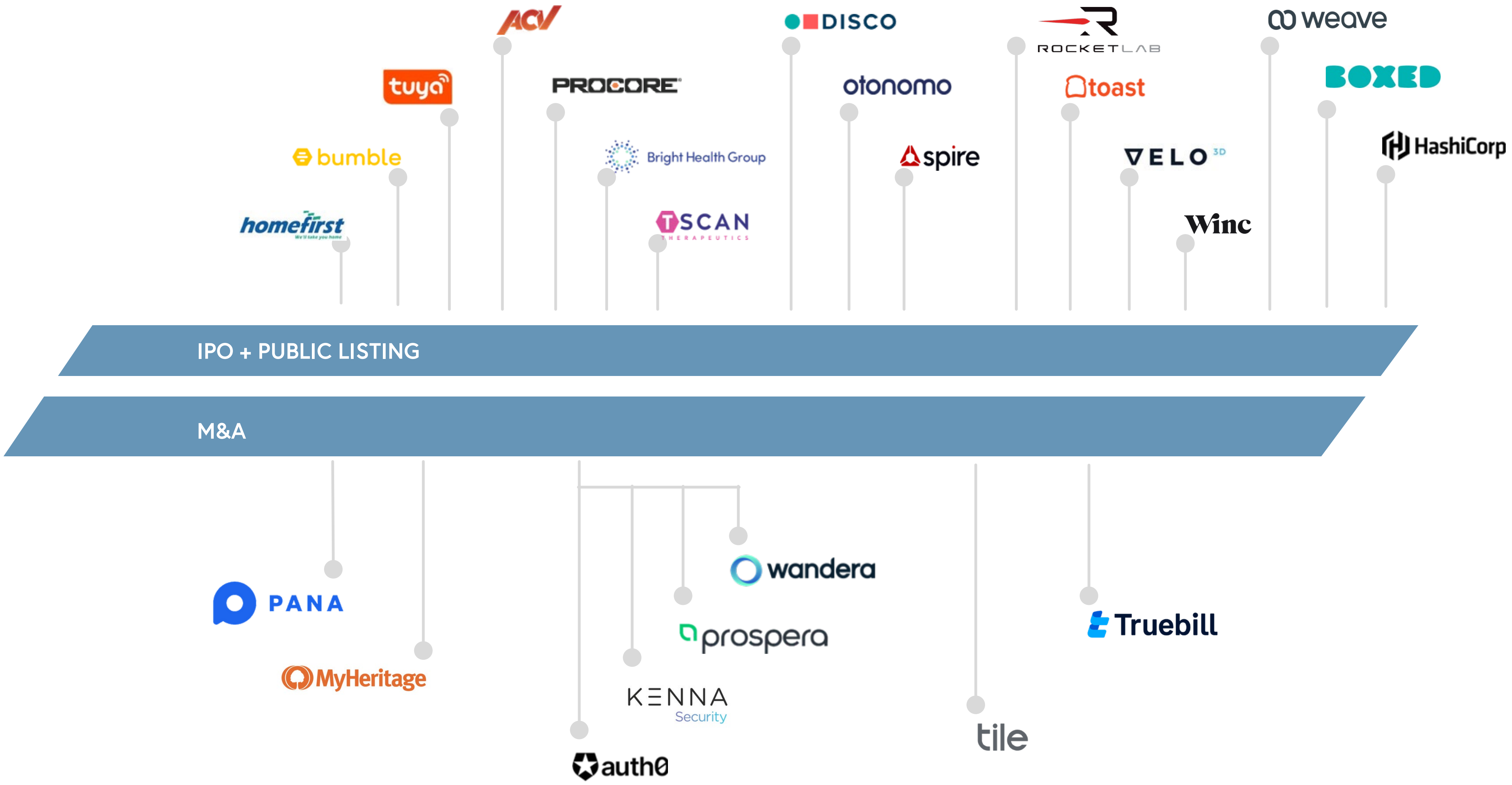
2007 — **Israel** office opens

2020 — **UK** and **China** satellite offices open

2021 — **BVP India Fund** closes

2021 — **BVP XI** and **Century Fund II** close

Select liquidity events in 2021



Selective multi-stage platform

Primarily **early and mid stage global** venture capital

Core

- Currently investing in new deals from BVP XI (~$2.5B fund)
- Roadmap-driven and diversified by stage, roadmap, and geography
- Robust capital budgeting process designed to allocate fund reserves to strongest performers and best opportunities
- 80+ deals per fund

India

- Currently investing in new deals from BVP India I (~$220M fund)
- Led by dedicated, Bangalore-based team
- Roadmap-driven and collaborative with Core
- Principally focused on Consumer, FinTech, Digital health and Cloud roadmaps
- ~12-15 deals per fund

Century

Highly **selective growth stage** venture, primarily from within portfolio

- Currently investing from BVP Century I ($525M fund) and Century II ($825M fund)
- Aims to identify exceptional opportunities within portfolio or with proprietary and differentiated access
- 90%+ deals to date from within BVP Core
- ~15 deals per fund

Forge

Growth buyout, leveraging our brand, network, roadmaps, and sourcing

- Dedicated team managing ~$500M fund for 8-12 deals
- Lower middle market focus on control and significant minority transactions
- Software, tech-enabled services, and internet companies
- Typically, capital efficient businesses with <$50M in recurring revenue

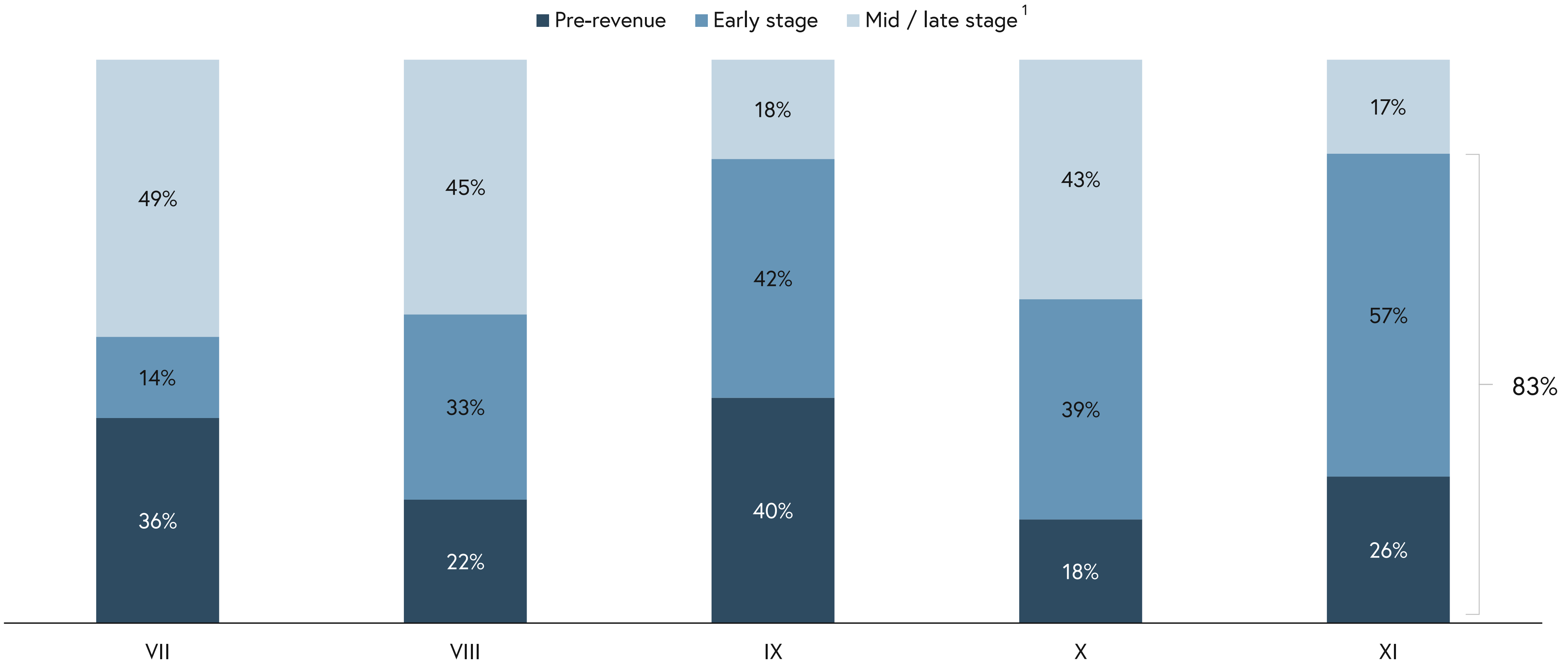
Expected fundraise timing

Core	India	Century	Forge
Mid-2022 alongside Forge	Early 2024	Early 2023	Mid-2022 alongside BVP XII

As of December 2021

Core funds emphasize early venture

Composition of BVP Core funds by investment category



1. "Mid / late stage" generally includes companies generating $5M of annualized gross profit that are either (a) generating operating profit or (b) generating operating losses less than 15% of revenues.
Note: Data as of 12/31/2021. Includes invested and reserved capital.

Our leadership team

26 Investing Partners

4 Infrastructure Partners

Rob Arditi

Kent Bennett

Charles Birnbaum

David Cowan

Byron Deeter

Sameer Dholakia

Mary D'Onofrio

Michael Droesch

Brian Feinstein

Alex Ferrara

Adam Fisher

Talia Goldberg

Felda Hardymon

Tess Hatch

Andrew Hedin

Bob Goodman

Vishal Gupta

Amit Karp

Steve Kraus

Ethan Kurzweil

Jeremy Levine

Navid Oreizy

Anant Puri

Elliott Robinson

Rob Stavis

Brian Wu

Shannon Brayton

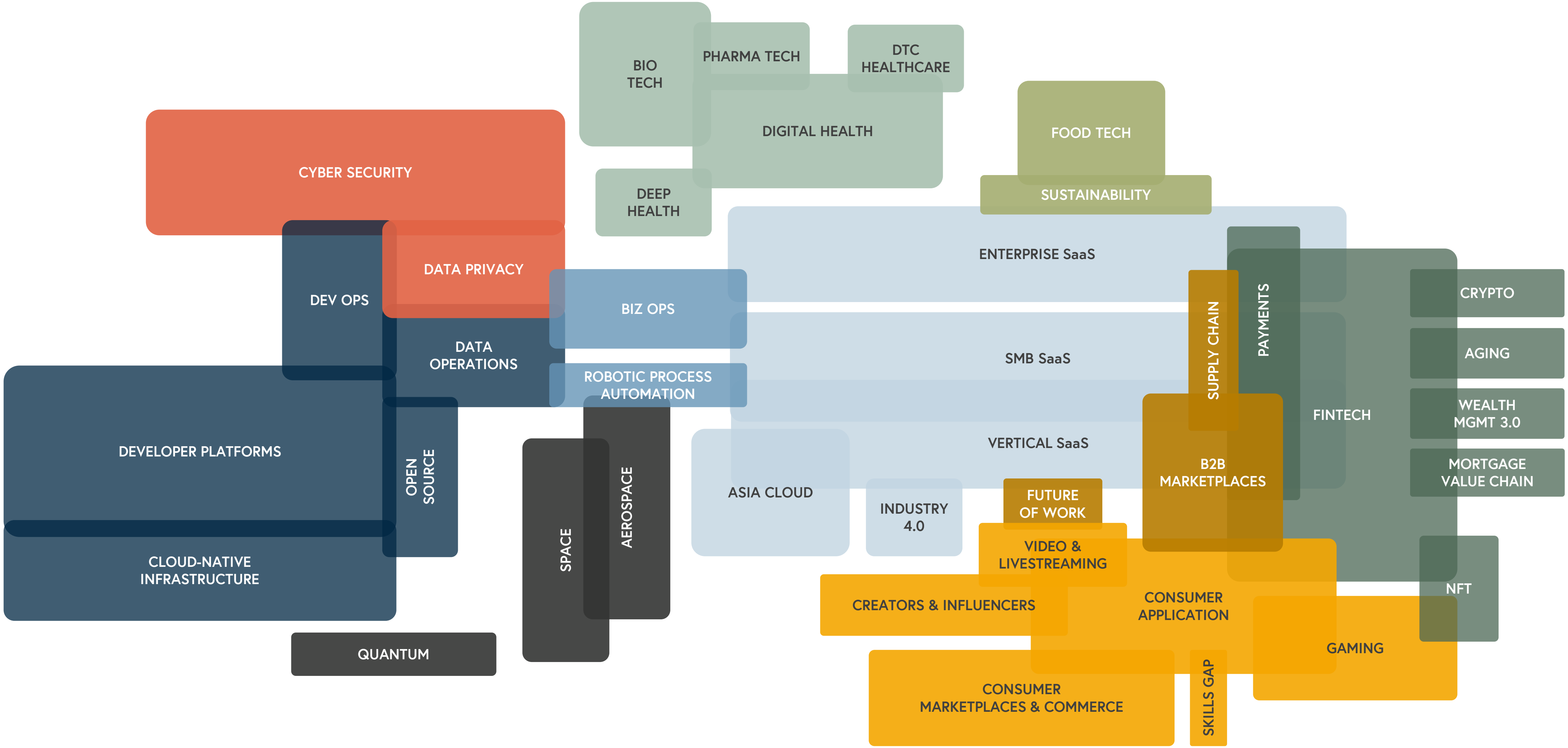
Sandy Grippo

Scott Ring

David Wehrs

Office — Joined as Analyst / Associate — Infrastructure Partner

Our current roadmap Atlas



As of October 2021

Over 20 years of successful Cloud investing

30 + IPOs

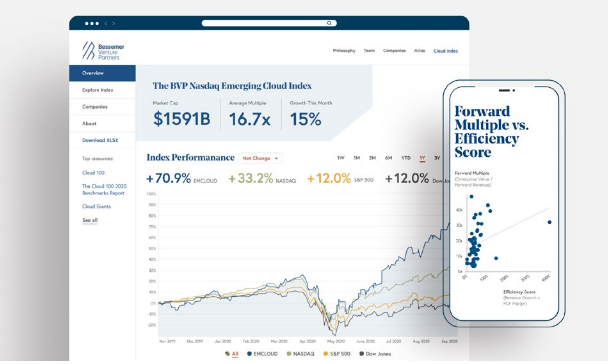
60 + M&A

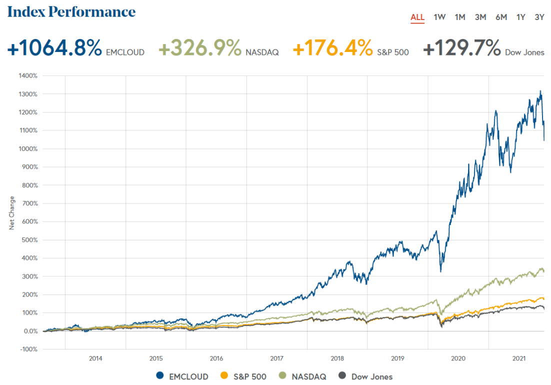
220 + Cloud leaders

For illustrative purposes only. As of December 2021. Past performance is not indicative of future results. Please see disclaimers at the end of this document for more information.

Roadmaps lead to deep domain expertise & prominent thought leadership

BVP Nasdaq Emerging Cloud Index





The Cloud 100

State of the Cloud

The leading definitive view on Cloud software five years running

Forge
Our vision

To be the most sought-after partner for **growing and self-sustaining** software, tech-enabled services, and internet businesses by leveraging Bessemer's **unique platform capabilities**

Bessemer Venture Partners

Renowned venture platform
- Powerful brand
- Coveted network
- Massive sourcing exhaust
- Prominent thought leadership
- Roadmaps & industry expertise
- Scale

Forge

Dedicated growth buyout fund
- Proprietary sourcing engine
- Systematic value creation
- Bespoke growth buyout resources
- Proactive, fact-based industry research methodology
- Proven track record

BVP Forge

Creating a different playing field

Brand and network: Opening doors tougher for others to pry open

Sourcing exhaust: Meet companies sooner and cover more ground

Roadmaps: Creating compelling asymmetric expected risk / return profiles by spotting emerging trends while pinpointing disruption risk

Systematic value creation: Repeatable processes delivered in a collaborative manner complemented by BVP operating advisors and network

Scale: Punching above our weight class with the scale benefits of $19B+ firm

Focus: Dedicated fund with depth devoted to the unique needs of the lower middle-market growth buyout market. Tailored data assets, value creation resources, pattern recognition

Our growth buyout focus

Expected investment profile

- $30M to $120M equity investments
- $50M to $250M enterprise value
- Modest or no leverage
- Primarily control transactions or significant minority /

Target profile

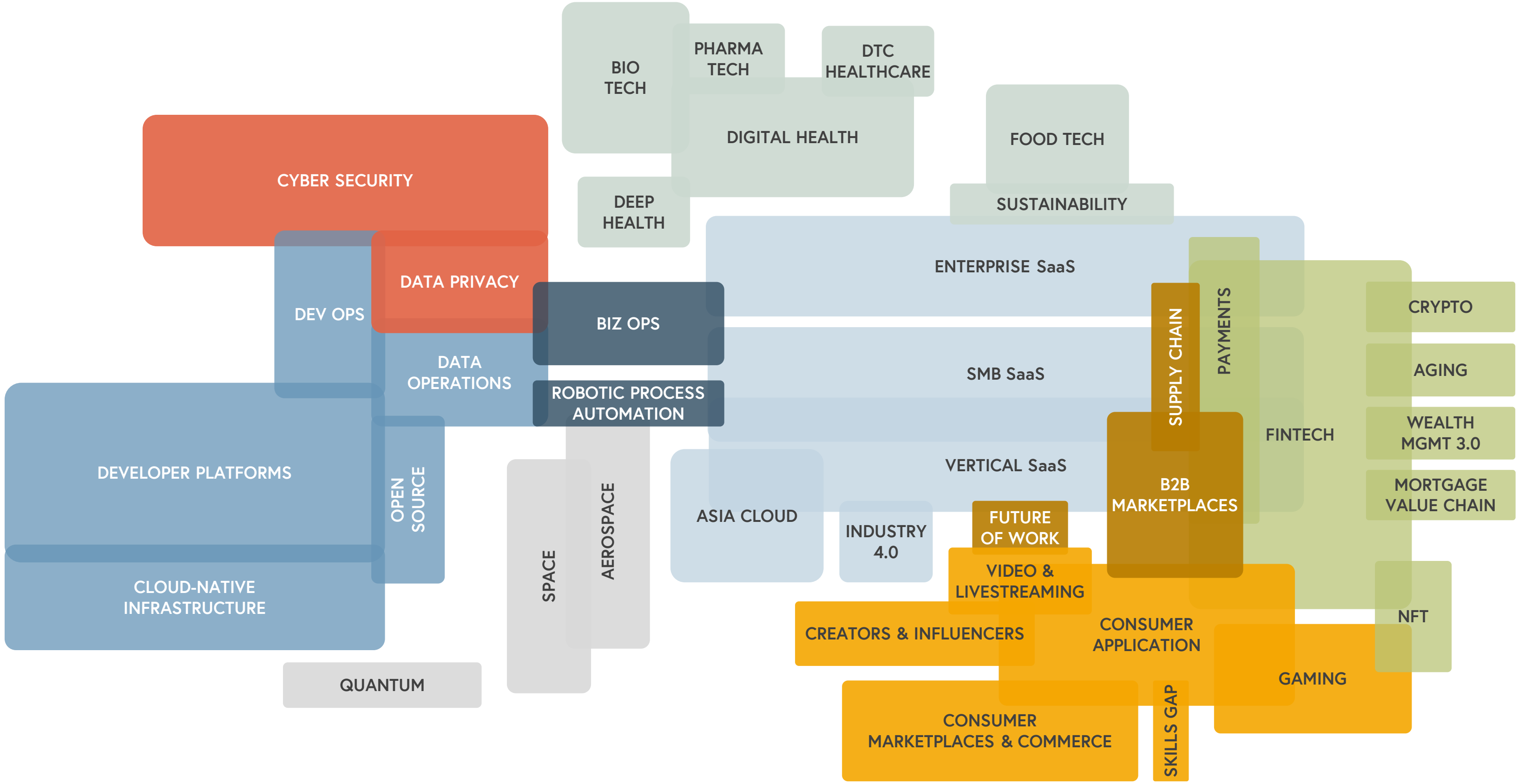
- **Revenue:** $10M to $50M in revenue
- **Growth:** 10% to 50% growth rate
- **Model:** Highly recurring or re-occurring, strong retention, and high business quality
- **Profitability:** Capital-efficient, self-sustaining, roughly breakeven or better
- **Value creation:** Opportunity to implement systematic operational improvements
- **Sectors:** Primarily software and tech-enabled services
- **Prior ownership:** Founder owned, smaller financial firms, or tired VC-backed portfolios

A $500M+ fund with 8 to 12 investments

Fund size is subject to investor interest. Please see disclosures at the end of this presentation.

One of the largest and deepest sets of roadmap theses in technology investing creates unique risk/return asymmetry

Provides insight to more right tail returns exposure while mitigating left tail disruption risk



- Ability to tap Bessemer roadmap leaders to punch above our weight class in industry knowledge
- Spot nuanced industry cross currents and trends
- Tailwind knowledge fosters conviction for us to move faster than others
- Headwind identification helps us say no quickly

As of October 2021

Forge ahead.

Disclaimers

Last Round Price (LRP) Pro forma Analysis

Background:

- In performing GAAP valuations, BVP will often leverage the most recent round of financing in their valuation models. When the most recent financing is the best indication of fair value, BVP may use the "backsolve" Option Pricing Model (OPM). The OPM considers last round price, the rights and preferences of each class of stock, potential time to exit and relative sector performance and volatility.
- The main premise in a backsolve valuation is that common shares are not equal in value to the preferred price paid; therefore, the GAAP company valuation and the fund's holding value will be less than the post money common stock equivalent value. As such, a backsolve will always result in an implied ("post-money") value that is often meaningfully less than the conventional post-money calculation. Therefore, we have applied a LRP valuation analysis to certain portfolio companies in which we use GAAP valuation analysis that have a lower implied post-money.
- LRP valuation is based on the concept that a company's equity or enterprise value is best reflected by the company's most-recent round of equity financing, on a common share equivalent basis. (i.e., Post-money valuation) Often referred to as "Marked to the last round".

LRP Pro forma Valuations

In applying the LRP valuation methodology to BVP's current portfolio, we generally applied the following rules:

1. Public companies with listed securities are kept at GAAP value, which is based on the 3/31/2022 public stock price; except in cases where BVP was under a lock-up agreement as of 3/31/2022 - for the LRP Pro Forma Valuation, the GAAP value was adjusted to have the lock-up discount removed.
2. Contingent escrow positions are held at GAAP value.
3. Private companies: are marked to the LRP valuation with the following exceptions:

    A. Private companies in which we believe there to be impairment in value at 3/31/2022 are marked at their GAAP value
    B. Private companies that have demonstrated material traction such as revenues and a market comp valuation approach was used at 3/31/2022 are marked at their GAAP value
    C. Private companies in which our securities were acquired as part of a buyout or spin-out of another company are marked to the GAAP value as there was no institutional financing round for the LRP analysis to be applied.
    D. Investments in which we hold a partnership interest are marked using the GAAP value. Similar to 3C above, these companies do not have a traditional equity financing and require specific GAAP valuation methodologies employed.

The valuations included in this LRP Pro Forma analysis are being included for informational and illustrative purposes only and are not intended to replace or supersede BVP's 3/31/2022 GAAP valuations. All other reporting, data and information included in this data room are based off of GAAP Valuations.

For further guidance on our GAAP valuation policies, please consult our previously shared Valuation Policy.

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Gross returns are calculated before giving effect to management fees, carried interest, taxes and other expenses, the application of which would reduce such performance and indicated rates of return. All IRRs presented are annualized and calculated on the basis of inflows and outflows, in each case of cash and unrealized values, assuming such inflows and outflows occurred on actual date, as applicable, and all unrealized investments were sold at the values as of 3/31/2022, unless otherwise noted. There can be no assurance that unrealized investments will be realized at the valuations shown.

While the valuations of unrealized investments are based on assumptions that BVP believes are reasonable under the circumstances, the actual realized returns on unrealized investments will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of the sale, all of which may differ from the assumptions on which the valuations used in the performance data contained herein are based. Accordingly, the actual realized returns on these unrealized investments may differ materially from the assumed returns indicated herein. There can be no assurance that unrealized investments will be realized at the valuations used to calculate IRR herein.

Disclaimers

The BVP VII fund family performance represented in these materials is the aggregate performance of BVP VII Institutional, L.P (a globally invested fund with over half of its investments in India), Bessemer Venture Partners VII L.P. (Phipps family vehicle that invested investing in all new investments and associated follow-ons from the beginning of the BVP VII investment period), and BVP VII Special Opportunity Fund (global-focused fund investing in all new investments and associated follow-ons of the BVP VII fund family beginning in January 2009). The aggregate performance of these funds is the best representation of BVP VII fund family performance. The Net TVPIs and Net IRRs reflected are for the aggregate of these BVP VII fund family entities.

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AEW Essential Housing Fund

NA | EU | AP

Today's Presenters

JULIE KITTLER
Director, Multifamily Asset Management

DILLON LORDA
Senior Portfolio Manager

MIKE ACTON, CFA®
Head of AEW Research

CANDIDA HOEBERICHTS
Director, Investor Relations

AEW

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Our Global Reach

A Leading Real Estate Investment Manager **Since 1981**

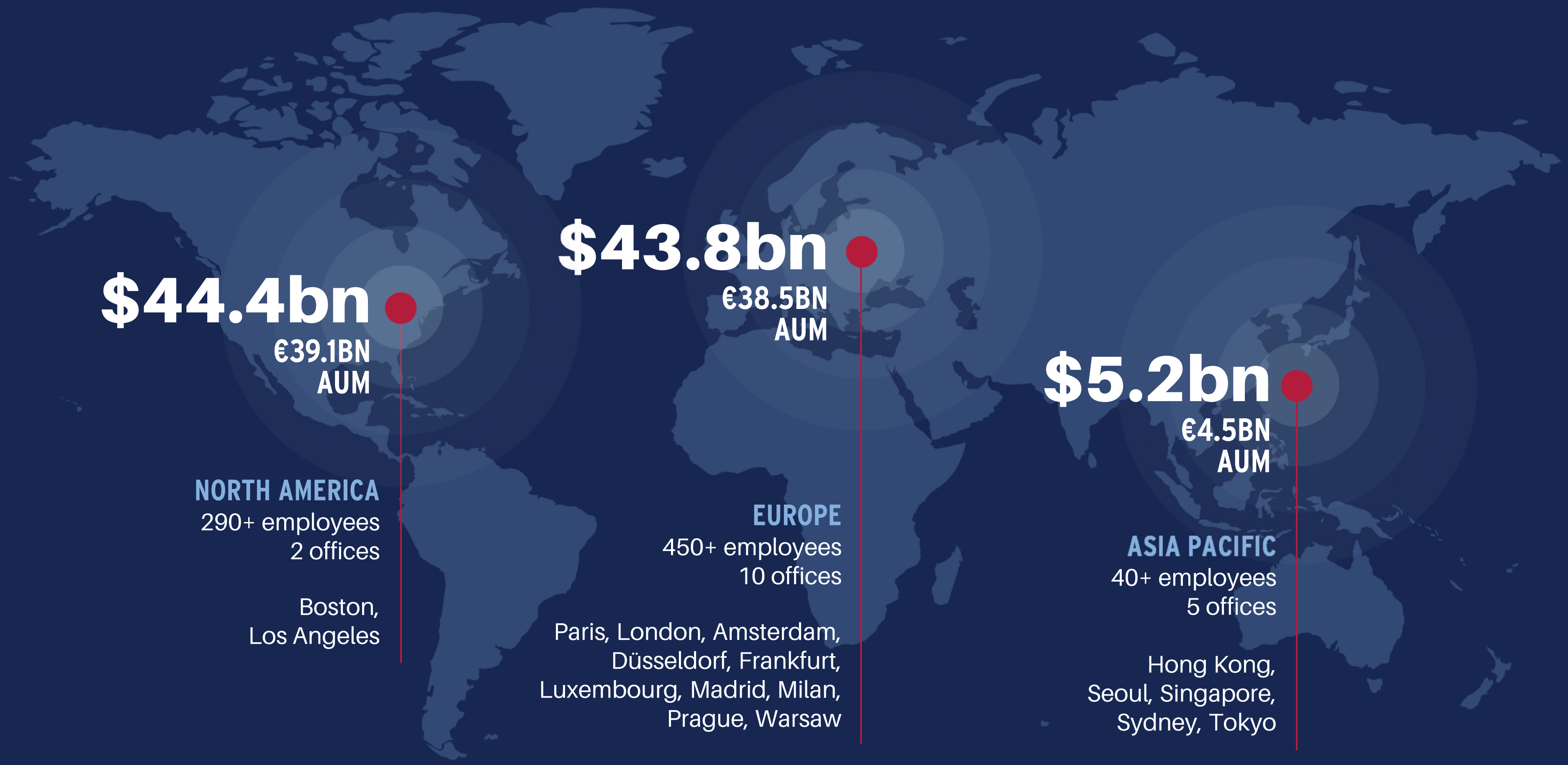
$93.4bn
€82.1BN AUM

780+
STAFF GLOBALLY

17
OFFICES GLOBALLY

800+
CLIENTS GLOBALLY

40+
YEARS EXPERIENCE



$44.4bn
€39.1BN AUM

NORTH AMERICA
290+ employees
2 offices

Boston,
Los Angeles

$43.8bn
€38.5BN AUM

EUROPE
450+ employees
10 offices

Paris, London, Amsterdam, Düsseldorf, Frankfurt, Luxembourg, Madrid, Milan, Prague, Warsaw

$5.2bn
€4.5BN AUM

ASIA PACIFIC
40+ employees
5 offices

Hong Kong, Seoul, Singapore, Sydney, Tokyo

Gross asset value as of December 31, 2021. Total AEW AUM of $93.4 billion includes $42.8 billion in assets managed by AEW Europe SA and its affiliates and $278 million in advisory/subadvisory, wrap and other accounts for which AEW Capital Management provides only a model portfolio. Client staff and offices include AEW Capital Management and AEW Europe SA and their respective subsidiaries. AEW includes (i) AEW Capital Management, L.P. in North America and its wholly-owned subsidiaries, and (ii) affiliated company AEW Europe SA and its subsidiaries. AEW Capital Management is AEW Europe SA's sister company and is commonly owned by Natixis Investment Managers.

OVERVIEW

AEW Essential Housing Fund

Open-end fund focused on investing in residential assets that are affordable to middle- to low-income renters ("essential housing"), composed of market-rate and rent-restricted units.

The objective of the Fund is to provide durable current income while preserving capital and seeking appreciation over the long-term.

FIDUCIARY SPONSOR

RECESSION RESILIENT INCOME

RESEARCH-DRIVEN INVESTMENT APPROACH

ACTIVE ASSET MANAGEMENT

INTEGRATED ESG+R MANAGEMENT

INVESTMENT GUIDELINES

- Diversified, national geographic focus
- Primarily focused on direct investment in stabilized properties
- Ability to invest across capital stack
- Leverage limited to 50% at the Fund level

There can be no assurances that the Fund will achieve its objective. Net returns reflect total fees and expenses charged to the investment to the investment entity. Individual investor IRRs may vary due to differences in fee structures for small and large investors.

ESSENTIAL HOUSING TEAM

Managed by a seasoned team with **broad, complementary skills**

DEDICATED TEAM

PORTFOLIO MANAGEMENT

SENIOR PORTFOLIO MANAGER
Dillon Lorda
21 years of experience
1 year at AEW

ACQUISITIONS

WESTERN U.S. ACQUISITIONS
George McNee
25 years of experience
18 years at AEW

EASTERN U.S. ACQUISITIONS
Michael Dopler
17 years of experience
15 years at AEW

ASSET MANAGEMENT

DIRECTOR/MULTIFAMILY
Julie Kittler
28 years of experience
28 years at AEW

FUND OPERATIONS

PORTFOLIO CONTROLLER
Gwen Bruno
21 years of experience
15 years at AEW

SENIOR TEAM

CHIEF INVESTMENT OFFICER & HEAD OF PRIVATE EQUITY & DEBT
Michael Byrne
21 years of experience
18 years at AEW

MANAGING DIRECTOR
WEST COAST ACQUISITIONS
Thomas Mullahey
38 years of experience
26 years at AEW

MANAGING DIRECTOR
EAST COAST ACQUISITIONS
Joshua Heller
19 years of experience
10 years at AEW

RESEARCH

DIRECTOR RESEARCH
Adrienne Ortyl
24 years of experience
19 years at AEW

MANAGING DIRECTOR
HEAD OF RESEARCH
Mike Acton, CFA®
36 years of experience
31 years at AEW

ADDITIONAL EHF RESOURCES

ACQUISITIONS	REASEARCH	ASSET MANAGEMENT	CAPITAL MARKETS	INSURANCE RISK MANAGEMENT	LEGAL	INVESTOR RELATIONS	ARCHITECTURE & ENGINEERING
35+ PROFESSIONALS	8 PROFESSIONALS	50+ PROFESSIONALS	5 PROFESSIONALS	4 PROFESSIONALS	12 PROFESSIONALS	10+ PROFESSIONALS	3 PROFESSIONALS

AEW

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OVERVIEW

AEW has a strong background of acquiring and managing residential properties

Strong Fiduciary Sponsor

A 40-year history of managing real estate investments as a fiduciary on behalf of its clients.

Research Driven Approach

A disciplined research approach that focuses on the structural supply/demand imbalance of essential housing in the U.S.

Experienced Residential Manager

A history of acquiring residential properties, with a dedicated acquisitions and asset management team.

Affordable Housing Expertise

A strong team that is experienced, managing nearly 16,000 rent-restricted units since 2000, including LIHTC and other affordable housing units.

AEW

A differentiated strategy that seeks to provide durable income

Compelling, recession-resilient cash flow generated by:

- Sponsor an evergreen vehicle that aligns interests and facilitates differentiated investment opportunities.
- Assemble a diversified portfolio of properties affordable to middle- to low-income renters ("Essential Housing").
- Manage properties with a long-term focus on reducing risk while improving cash-flows.

EXECUTION STRATEGY

ANALYZE → ASSEMBLE → MANAGE

There can be no assurances that the Fund will achieve its objectives.

ESSENTIAL HOUSING

Essential Housing is affordable to middle- to lower-income households

EXTENSIVE DEMAND ACROSS RENTER COHORTS

20.4 million or 46%

of renter households spend 30% or more of incomes on housing ("cost-burdened")[1]

Cost-burdened by renter demographics

58%
Single parents

51%
With a high school degree

36%
With full-time employment

48%
Households with two children

ESSENTIAL HOUSING CAN SERVE MANY PROFESSIONS

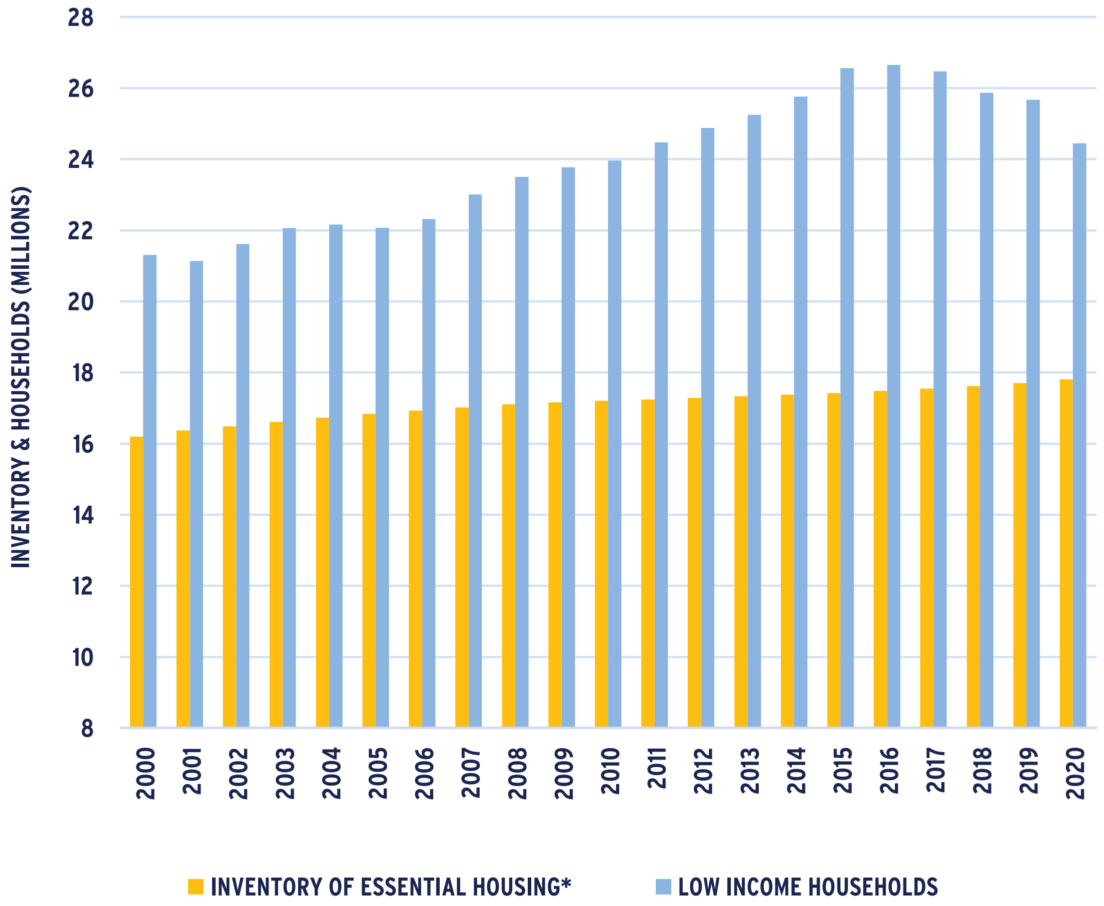
PROFESSION	MARKET	INCOME	% OF AREA MEDIAN INCOME	% OF INCOME TO CLASS B[2] RENT
Construction	Columbus	$53,050	81%	25%
Teacher	Tampa	$47,750	83%	37%
Police	Atlanta	$40,200	56%	44%
Personal Care	St. Louis	$25,060	38%	49%
Office Admin.	Sacramento	$43,540	57%	49%
Healthcare Support	Phoenix	$29,640	45%	57%
Social Worker	New York	$53,850	66%	60%
Food Service	Raleigh	$22,210	28%	72%

As of March 31, 2022.
[1] Source the Bureau of Labor Statistics for a source not the American Communities Survey.
2 Source: AEW Research (Costar, American Community Survey)

DEMAND & SUPPLY

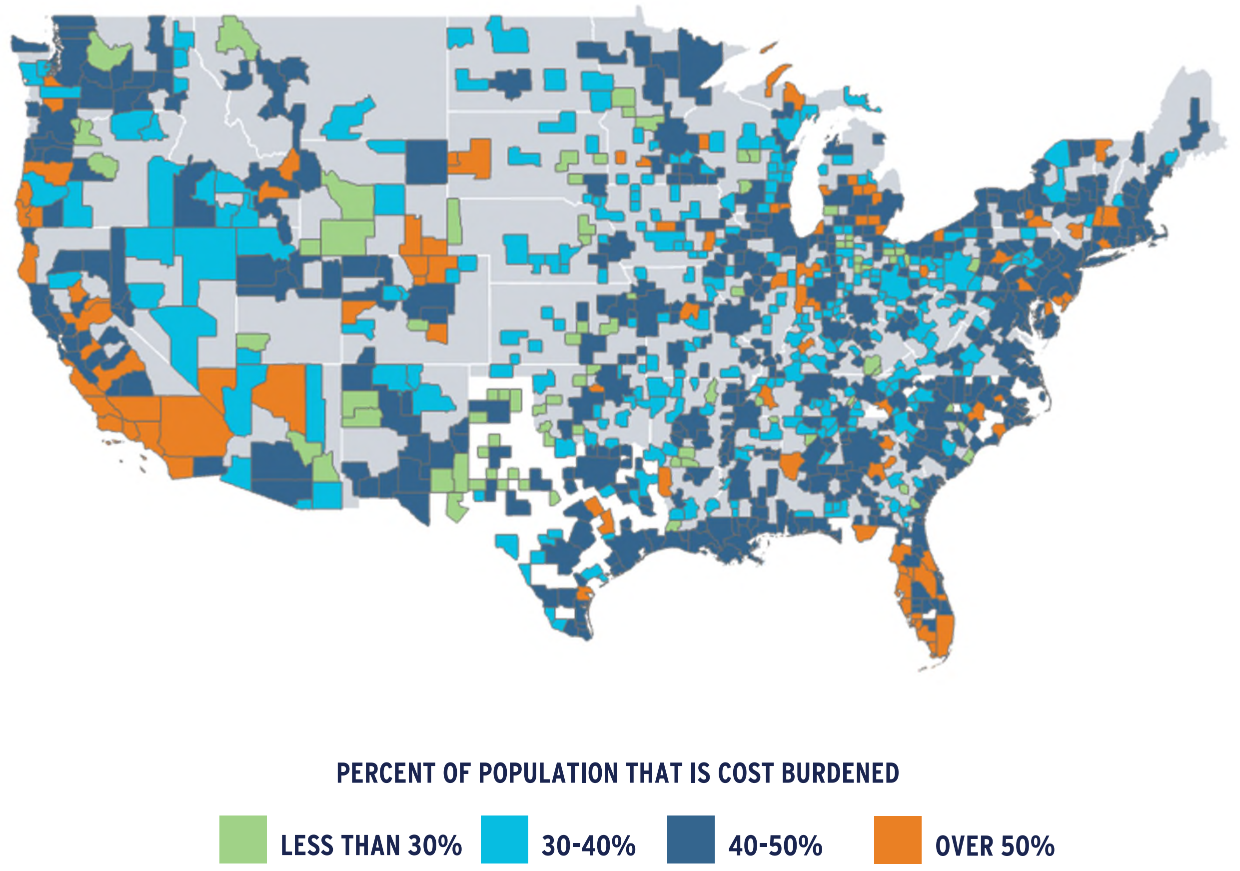
Structural supply/demand imbalance through cycles and across markets

PERSISTENT SHORTAGE OF AFFORDABLE UNITS (4-8.5 MILLION)[1]



DEMAND FOR ESSENTIAL HOUSING IS WIDESPREAD[2]

PERCENT OF POPULATION THAT IS COST BURDENED



1 Source: AEW Research (Inventory defined as 1-,2-, and 3-star units; moderate-income households defined as earning less than 80% area median income)
2 Source: AEW Research/Harvard Joint Center on Housing Studies 2020

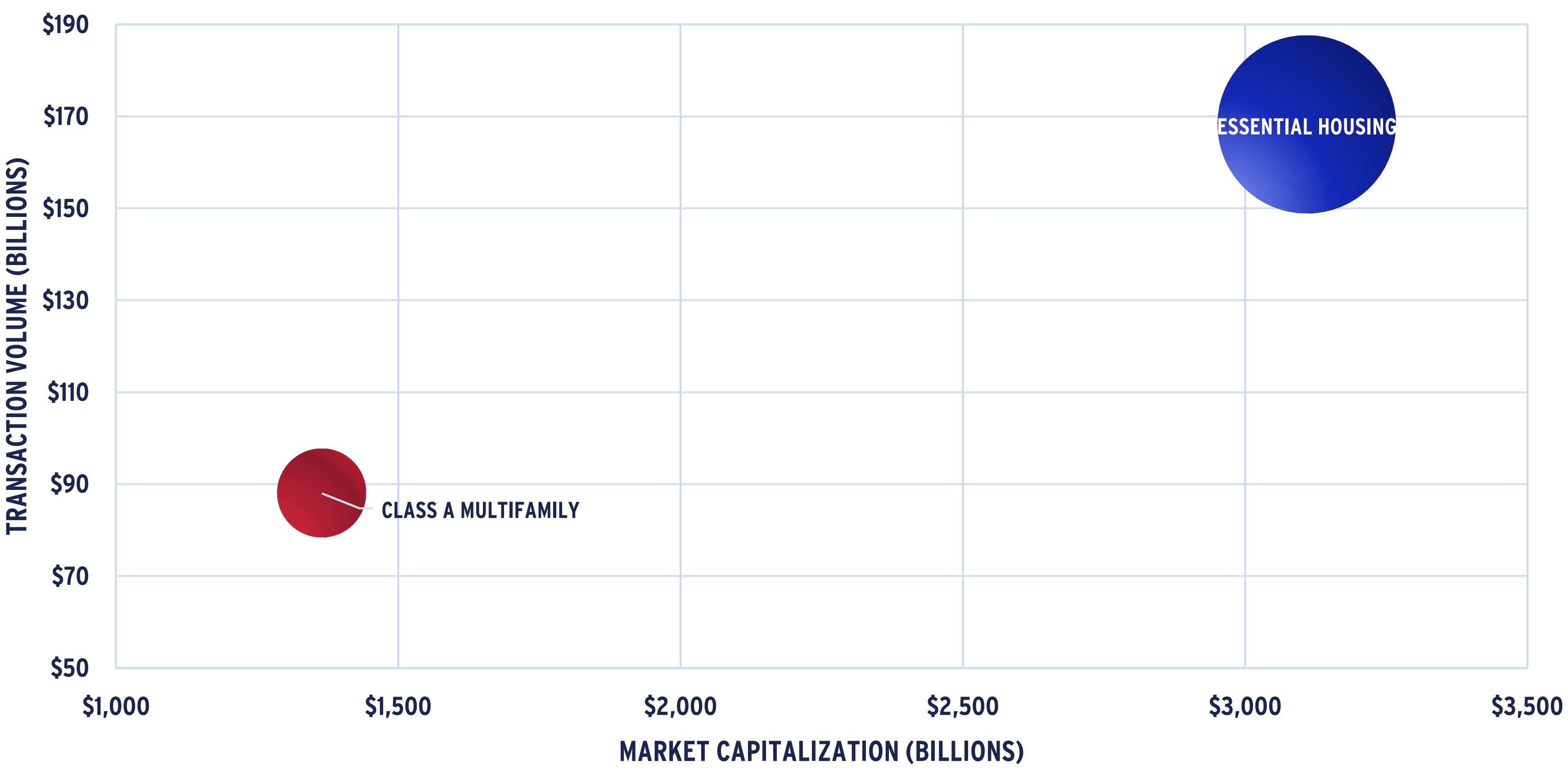
AEW

ESSENTIAL HOUSING

Essential Housing encompasses a liquid investable universe

LARGE, LIQUID INVESTABLE UNIVERSE

MULTIFAMILY MARKET CHARACTERISTICS[1]



[1] Source: AEW Research (Based on Costar multifamily data Bubble size represents the number of units, Essential Housing is reflective of 1, 2, & 3-star multifamily properties from Costar, Class A is comprised of 4 & 5-star properties in Costar, other housing assets that would contribute to the investible universe, have not been included). As of 2021 Q4.

ESSENTIAL HOUSING LIQUIDITY

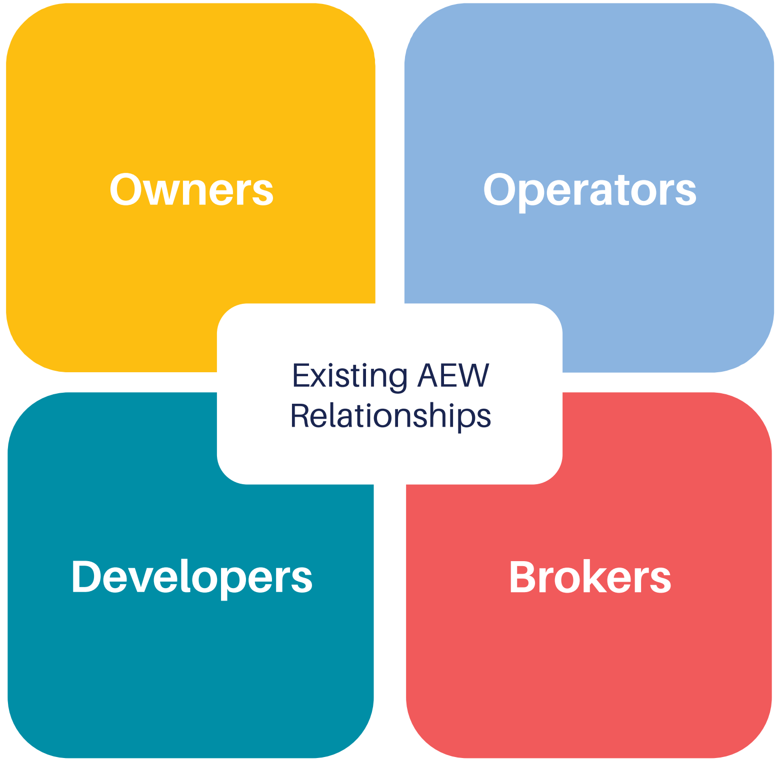
- The Essential Housing segment of the U.S. rental housing market has highly fragmented ownership and strong liquidity.
- In 2021, roughly two-thirds of all apartment transactions were Essential units (Class B & C)
- Essential Housing properties trade more frequently with non-Institutional buyers and sellers
- The average apartment transaction last year was $70 million for Class A, $21 million for Class B and less than $5 million for Class C[1]

EXECUTION CAPABILITIES

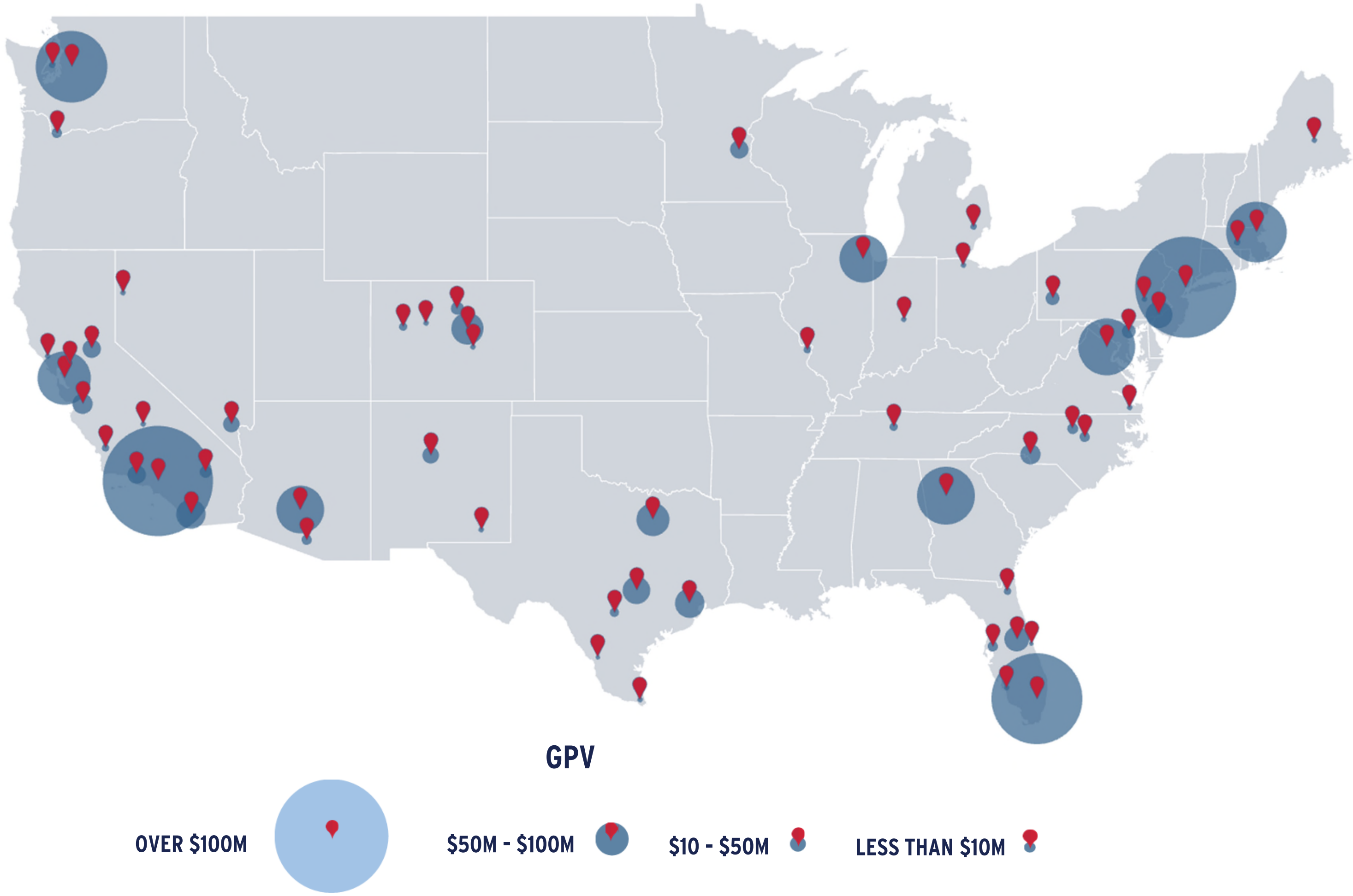
Deep sourcing capabilities across channels and geographies

ROBUST NATIONAL ACQUISITIONS COVERAGE

- Skilled team of **35+ acquisition professionals**
- Deep network of long-standing relationships
- Senior team averages over 20 years of experience



EXPERIENCE OWNING, MANAGING ACROSS MARKETS[1]



1 AEW multifamily properties, owned, managed, and/or acquired
There can be no assurances that the Fund will achieve its objectives.

EXECUTION/POSITIVE EXTERNALITIES

Functional, not cosmetic, improvements that fortify cash flow

Occupancy & Retention

IMPROVED RESIDENT EXPERIENCES

Listen to residents to understand their needs;
Partner with specialists to provide access to resources;
Measure outcomes

- Community events, health & wellness, security
- After-school programs, tutoring, swimming/sports lessons
- Interest groups, GED prep, financial literacy, credit counseling

Operating Costs

EXPENSE REDUCTION

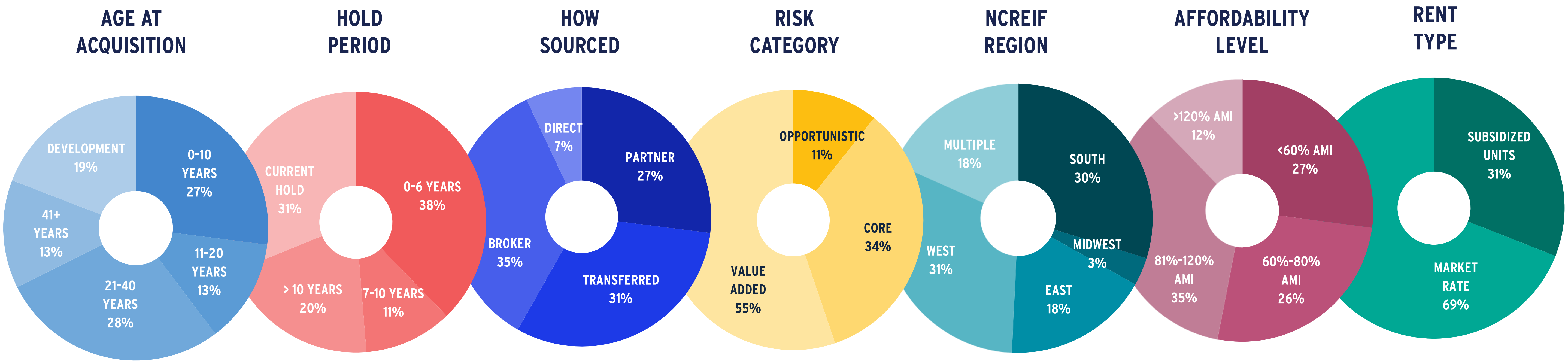
Analyze controllable expense structure;
Engage residents and capital sources;
Invest in functional improvements that lower costs

- LED lighting, HVAC, Green Leases, mechanical
- Low-flow fixtures, drip irrigation, drought-tolerant landscaping
- Climate risk mitigation, disaster prep, renewable energy

There can be no assurances that the Fund will achieve its objectives.

RESIDENTIAL EXPERIENCE

AEW's Residential Management Experience



All information as of December 31, 2021. The above represents all available data for multifamily investments acquired after January 1, 2000, by the AEW Private Equity NA Group, and is weighted based on the number of units in the underlying properties. This excludes debt, student housing and condo investments. Nothing contained herein shall constitute an offer to sell or solicitation of an offer to buy.

Investment level AMI Affordability uses HUD's methodology for calculating Low Income Housing Tax Credit rents at acquisition and is weighted based on the number of units for the underlying properties where AMI was available. Assumes residents allocate 30% of gross annual income to rent.

These investments are examples of multifamily transactions completed by AEW. No representation is made that similar opportunities will be available.

AEW

AEW ESSENTIAL HOUSING FUND

Summary of Key Terms

STRUCTURE	The AEW Essential Housing Fund is a Delaware limited partnership that intends to make its investments through one or more entities that qualify as real estate investment trusts under the Internal Revenue Code of 1986.
STRATEGY	Assemble a portfolio of housing assets that benefit from structural supply/demand imbalance. Focus on portfolio diversification across geography, economic drivers, and depth of affordability. Manage assets with a focus on durability of cash flow.
INVESTMENT GUIDELINES	Invest in stabilized US rental housing assets; Up to 25% of the Fund may be invested in non-core or non-equity assets
LEVERAGE	Not to exceed 50% of gross asset value in aggregate at Fund level
SPONSOR CO-INVESTMENT	The lesser of (i) 3% of Capital Contributions made during the Initial Capital Raise Period and (ii) $10 million.
MINIMUM INVESTMENT	$5 million
TERM	Evergreen
REDEMPTIONS	Quarterly, subject to a 4-year lock-up period for Founder Investors.
VALUATIONS	Each asset in the Fund will be externally appraised every twelve months. In addition, assets will be valued by an individual third party on a quarterly basis. The external and internal valuation process will be subject to oversight and review by an independent valuation advisor.
INVESTOR GOVERNANCE	Advisory Board representation for Founder Investors over $25 million and subsequent investors over $50 million

MANAGEMENT FEE

Management Fee	Commitment Amount (millions)
125 bps	Under $50 million
112.5 bps	$50-$100 million
100 bps	Over $100 Million

AEW

There can be no assurances that the strategy will achieve its objectives. Nothing contained herein shall constitute an offer to sell or solicitation of an offer to buy an interest in the Fund. Any such offer will be made only to qualified investors pursuant to a private placement memorandum. There can be no assurances that the Fund will achieve its objectives. Individual investor returns may vary due to differences in fee structures.

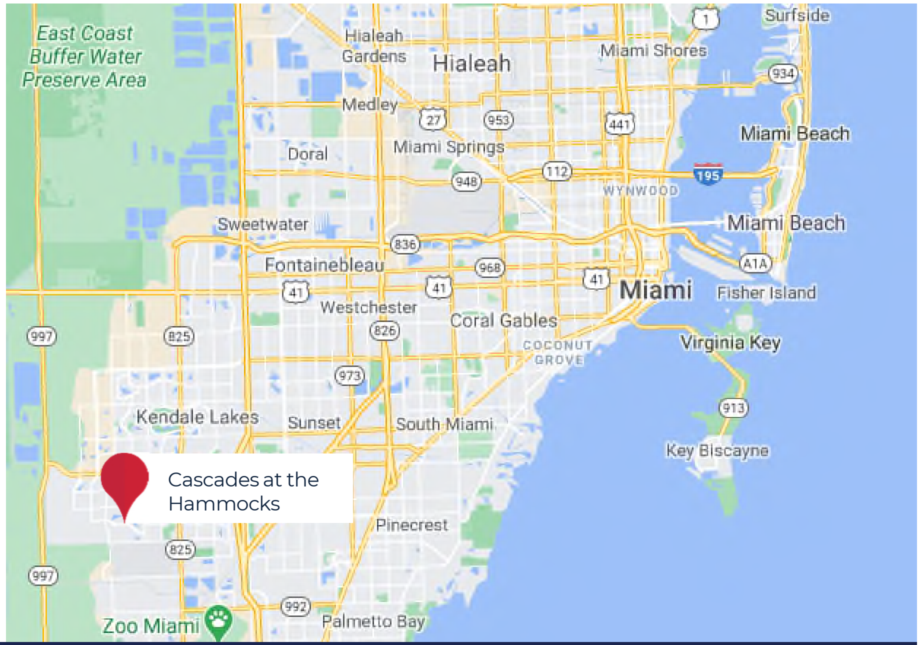
SECTION V

Management Experience

ESSENTIAL HOUSING REPRESENTATIVE TRANSACTION

Cascades at the Hammocks

10605 Hammocks Boulevard, Miami, FL 33196



AEW HISTORICAL TRANSACTION

KEY TAKEAWAYS

- Older vintage communities can be proactively maintained for an extended period of time – in this case 20 years – to deliver attractive income and total returns for investors.
- Can generate stable, long-term rent growth due to the supply-demand imbalance for well-maintained, affordable multifamily properties in high-cost markets.
- The Fund will seek to target Naturally Occurring Affordable Housing ("NOAH") transactions with a similar profile to Cascades at the Hammocks: properties without significant deferred maintenance that are affordable to teachers, construction workers, Police/Fire/EMT personnel, among others, in markets that are exhibiting stable growth characteristics.

INVESTMENT ATTRIBUTES

Market Rate

Property Type	Class B, Garden-style Multifamily
Regulatory Framework	N/A
In-place Rents At Acq.	$1,030/Unit, $1.02/SF
Ami Level At Acq.	85%
Units	264 Units
Year Built / Renovated	1970
Year Acquired	2001
Year Sold	2021

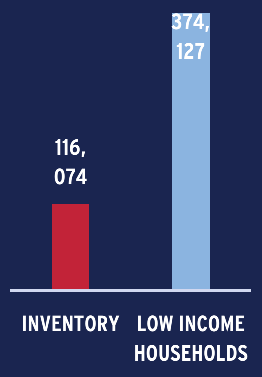
INTERIM INVESTMENT RETURNS

Purchase Price	$19,550,000 / $74,470 per Unit
Ownership Structure	100% AEW
	Leveraged (17%[1])
Avg. Cash Yield During Hold	5.4%
Property-level IRR	14.5%
Property-level Equity Multiple	3.52x

MIAMI RENTAL MARKET

27%
Moderately burdened

34%
Severely burdened



PROFESSION	INCOME	% OF AMI	% OF INCOME TO CLASS B RENT
EDUCATION	$43,551	79%	42%
PROTECTIVE SERVICES	$40,174	73%	46%
OFFICE ADMIN.	$33,392	61%	55%
CONSTRUCTION	$31,225	57%	59%
HEALTH. SUPP.	$26,262	48%	70%

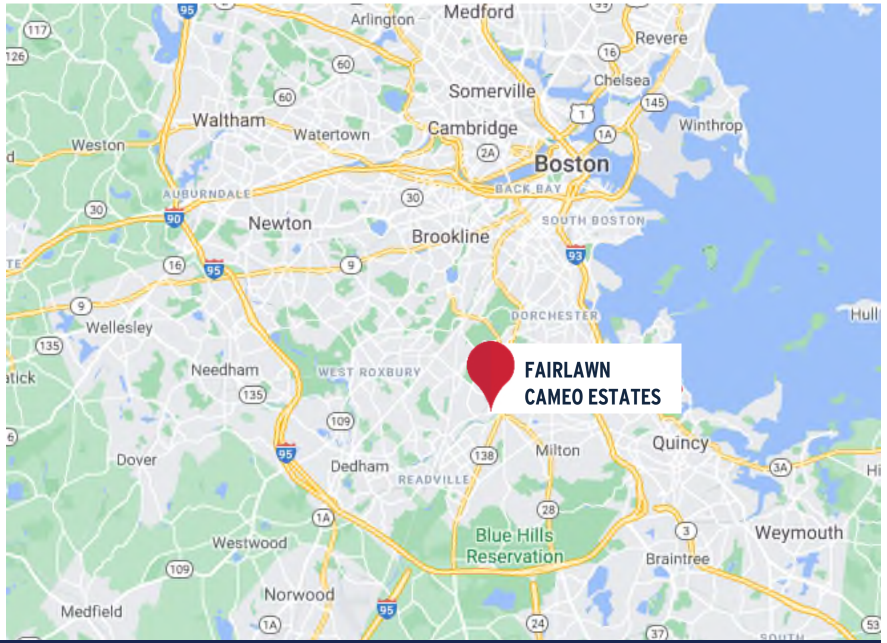
AEW

The above transaction and property photographs are an example of an investment completed by AEW. Although this transaction represents the types that we may pursue, no representation is made that similar opportunities will be available. Past performance is not indicative of future results. There can be no assurances that the Fund will achieve its objectives. Returns are calculated at the Investment Level IRR inclusive of investment management fees, partnership expenses and incentive management allocation and includes investment-level financing. Source: AEW Research.

ESSENTIAL HOUSING REPRESENTATIVE TRANSACTION

Fairlawn Cameo Estates

15 Bismarck Street, Mattapan, MA 02126



AEW HISTORICAL TRANSACTION

KEY TAKEAWAYS

- Despite the economic recession and erosion in the capital markets brought on by the GFC, the Property remained well-leased and generated durable income throughout the hold period. From 2008 to 2010, the Property averaged 97% occupancy, 27% average annual turnover, and 2.0% average annual rent growth.
- Properties outside of the traditional "institutional" submarkets in major metros can offer similar – if not better – fundamentals at a higher yield.
- Older vintage properties owned for a long period by less sophisticated owner/operators have many opportunities to generate operational improvements that significantly increase distributable cash flow. At Fairlawn, AEW instituted a water and energy conservation program that had a payback period of less than one year.

INVESTMENT ATTRIBUTES

Market Rate

Property Type	Class B- Garden-Style Multifamily
Regulatory Framework	N/A
In-place Rents At Acq.	$1,195/Unit, $1.43/SF
AMI Level At Acq.	70%
Units	347 Units
Year Built/Renovated	1962 / 2000
Year Acquired	2003
Year Sold	2011

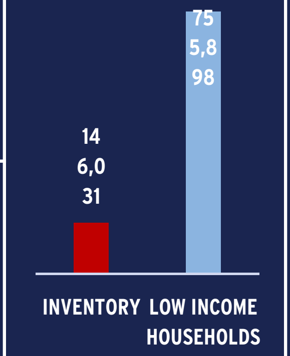
INTERIM INVESTMENT RETURNS

Purchase Price	$39,000,000 / $112,392 per Unit
Ownership Structure	Joint Venture (73% AEW / 27% JV Partner)
	Leveraged (71%[1])
Avg. Cash Yield During Hold	6.8%
Property-level IRR	8.8%
Property-level Equity Multiple	1.69x

BOSTON RENTAL MARKET

22%
Moderately burdened

25%
Severely burdened



PROFESSION	INCOME	% OF AMI	% OF INCOME TO CLASS B RENT
EDUCATION	$65,738	74%	38%
CONSTRUCTION	$60,372	68%	41%
MAINT. & REPAIR	$52,450	59%	48%
TRANSPORTATION	$46,510	52%	54%
HEALTH SUPP.	$36,013	41%	69%

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Additional Notes

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Target Returns: Target yields and returns ("Targets") Targets are based on a variety of factors and assumptions and involve significant elements of subjective judgment and analysis. You should understand that these targets provide insight into the level of risk that the Firm is likely to seek with respect to the Product. As such, the Targets should be viewed as a measure of the relative risk of the Product, with higher Targets reflecting greater risk. They are not intended to be promissory in nature. Targets are estimates based on a variety assumptions, which may include but are not limited to, our assumptions about: current and future asset yields for such investments and projected cash flows related thereto, current and future market and economic conditions, prevailing and future interest rates, including the cost of use of leverage, where applicable, historical and future credit performance for such investments, and other factors outside of the Firm's control. Targets are inherently subject to uncertainties and are based upon assumptions which may prove to be invalid and may change without notice. Other foreseeable events, which were not taken into account, may occur. You should not rely upon the Targets in making an investment decision. Although the Firm believes that there is a sound basis for the Targets presented, no representations are made as to the accuracy of such Targets, and there can be no assurance that such Targets will be realized or achieved. Additional information concerning the assumptions used in connection with the Targets is available on request.

Additional Notes

The investments of the Fund or the areas in which they are located could be subject to future acts of terrorism. In addition to the potential direct impact of any such future act, future terrorist attacks could have an adverse impact on the U.S. financial and insurance markets and economy, thus harming demand for and the value of the Fund's investments. The Fund's business is vulnerable to damages from any number of sources, including computer viruses, unauthorized access, energy blackouts and telecommunication failures. The operations of the Fund, its investments and the General Partner may be significantly impacted, or even halted, either temporarily or on a long-term basis, as a result of such interruptions and the Fund's insurance may not cover all damages arising as a result of such interruptions.

The Fund's investments may be affected by force majeure events (i.e., events beyond the control of the party claiming that the event has occurred, including, without limitation, acts of God, fire, flood, earthquakes, outbreaks of an infectious disease, pandemic or any other serious public health concern, war, terrorism and labor strikes).

The General Partner will endeavor to obtain coverage of the type and in the amount customarily obtained by owners of properties similar to the real property that it acquires in the future, however there can be no assurance that insurance will be available or sufficient to cover any such risks.

The presence of significant mold or other airborne contaminants at any of the Fund's properties could require the Fund to undertake a costly remediation program to contain or remove the mold or other airborne contaminants from the affected property or increase indoor ventilation. In addition, the presence of significant mold or other airborne contaminants could expose the Fund to liability from its tenants, employees of property managers and others if property damage or health concerns arise.

Principles for Responsible Investment ("PRI"): Signing the internationally recognized PRI allows our organization to publicly demonstrate our commitment to responsible investment and positions AEW at the heart of a global community.

GRESB (formerly known as "Global Real Estate Sustainability Benchmark"): As an Investor Member and Real Estate Manager Member of GRESB Real Estate, AEW has access to the necessary data and analytical tools to evaluate the sustainability performance of our investment portfolios and to engage with investment managers.

International WELL Building Institute ("IWBI"): IWBI is a public benefit corporation whose mission is to improve human health and well-being in buildings and communities across the world through its WELL Building Standard.

ENERGY STAR: ENERGY STAR is a U.S. EPA voluntary program that helps businesses and individuals protect our climate through superior energy efficiency.

PREA SEO : The PREA Foundation has formalized a partnership with SEO to establish its first-ever Real Estate Track, dedicated to increasing diverse employment in the commercial real estate industry.

Additional Notes

BREEAM (All regions): The Building Research Establishment Environmental Assessment Method analyzes the environmental, social, and economic sustainability performance of an asset. It recognizes and reflects the value in higher performing assets across the built environment lifecycle, from new construction to in-use and refurbishment.

LEED (All regions): Leadership in Energy and Environmental Design certification is one of the most widely used and recognized GBC programs worldwide. LEED includes rating systems for the design, construction, operations, and maintenance of green buildings and aims to help building owners and operators be more environmentally responsible and resource efficient.

BOMA 360 (U.S.): Building Owners and Managers Association 360 is a commercial real estate designation that recognizes all-around excellence in building operations and management. The program benchmarks building performance in six key areas: operations and management; security and safety; training and education; energy; environment and sustainability; and tenant relations.

Built Green (U.S.): Built Green recognizes environmentally sound design, construction, and development practices in Washington's cities and communities. Homes, remodels, apartments, and communities can be certified.

CALGreen (U.S.): CALGreen is California's first green building code and first-in-the-nation state-mandated green building code. The purpose of CALGreen is to improve public health, safety, and general welfare through enhanced design and construction of buildings using concepts that reduce negative impacts and promote those principles that have a positive environmental impact and encourage sustainable construction practices.

IREM CSP (U.S.): The Institute of Real Estate Management Certified Sustainable Property certification is an attainable recognition program for office, multi-family, and retail properties that demonstrate high performance and efficiency as well as quality, responsible management.

NGBS (U.S.): The National Green Building Standard certification is awarded to buildings or land developments that are designed and built to achieve high performance in six key areas: site design, resource efficiency, water efficiency, energy efficiency, indoor environmental quality, and building operation and maintenance.

BBC (Europe): The Low Consumption Building label certifies buildings that consume less energy than standard dwellings and, as a result, offers tax breaks and financial benefits.
DGNB (Europe): The German Sustainable Building Council system provides an objective description and assessment of the sustainability of buildings and urban districts. The system is unique in that quality is assessed comprehensively over the entire life cycle of the building.

HQE (Europe): The High Environmental Quality certification is awarded to buildings with sustainable performance objectives that give substantial consideration to the life cycle analysis on a building scale and to the impacts of a project on health, comfort, and the indoor environment.

MEKETA
INVESTMENT GROUP

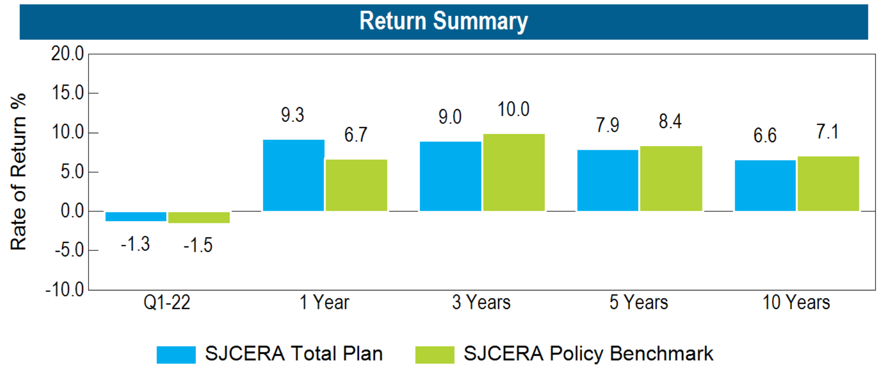
San Joaquin County Employees' Retirement Association (SJCERA)

Q1 2022

Quarterly Report

Table of Contents

Introduction



Summary of Cash Flows	First Quarter	One Year
Beginning Market Value	$4,062,422,172	$3,598,016,006
Net Cash Flow	$3,733,848	$76,095,383
Net Investment Change	-$52,113,471	$339,931,160
Ending Market Value	$4,014,042,549	$4,014,042,549

	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs	25 Yrs
SJCERA Total Plan - Net	**-1.3**	**9.3**	**9.0**	**7.9**	**6.6**	**4.4**	**5.8**	**6.5**
SJCERA Total Plan - Gross	**-1.1**	**9.9**	**9.6**	**8.6**	**7.4**	**5.1**	**6.4**	**7.0**
SJCERA Policy Benchmark[2]	*-1.5*	*6.7*	*10.0*	*8.4*	*7.1*	*5.4*	*6.3*	*6.7*
Over/Under (vs. Net)	0.2	2.6	-1.0	-0.5	-0.5	-1.0	-0.5	-0.2
InvMetrics Public DB > $1B Net Median[1]	*-3.5*	*7.2*	*10.7*	*9.1*	*8.5*	*6.5*	*7.0*	*7.3*

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

Introduction

The SJCERA Total Portfolio had an aggregate value of $4.0 billion as of March 31, 2022. During the latest quarter, the Total Portfolio decreased in value by $48.4 million, and over the one-year period, the Total Portfolio increased by $416.0 million. The movements over the quarter and one-year periods were primarily driven by investment returns. The IMF is forecasting Global growth in 2022 of 3.7%, down 0.8% from the prior 2022 estimate with U.S. GDP growth of 3.7%. The IMF also forecasts 2022 and 2023 global inflation of 7.4% and 4.8%, respectively.

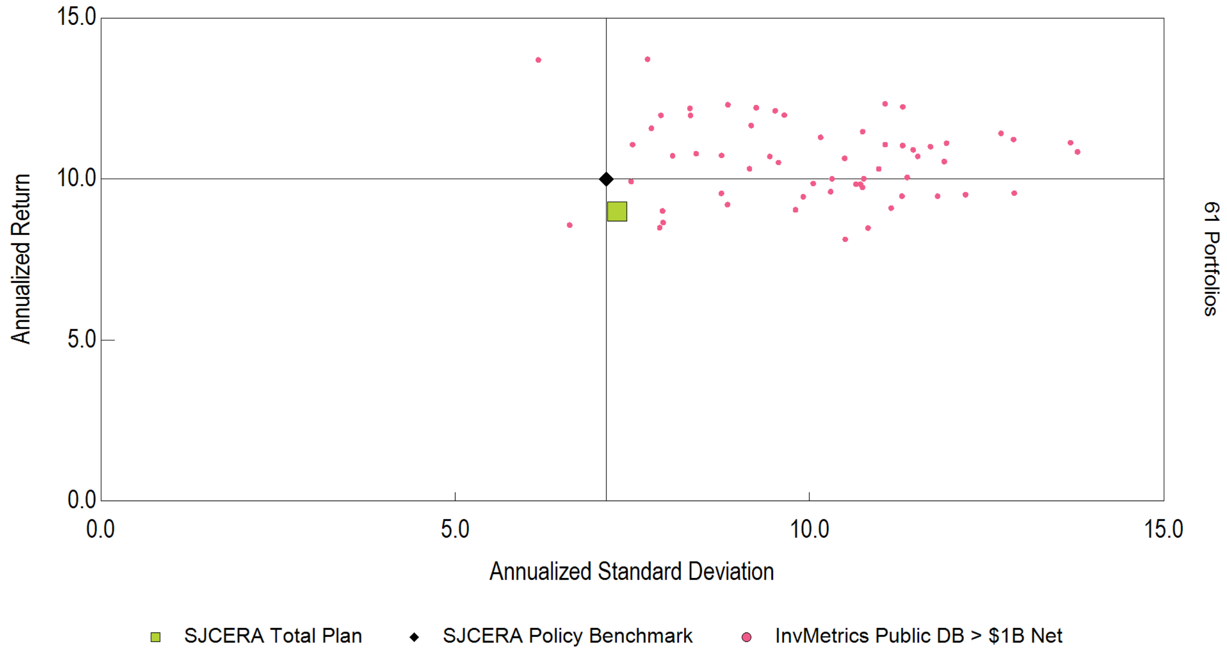
Returns for US stocks, as measured by the Russell 1000, and US Treasuries, as measured by the Barclays Long US Government bond index, for the first quarter of 2022 were -5.1% and -10.6%, respectively. Commodities were up 25.6% for the quarter, as measured by the Bloomberg Commodity Index and global equity returns, as measured by the MSCI ACWI IMI, were down -5.5% for the quarter ended March 31, 2022.

Recent Investment Performance

The Total Portfolio outperformed the policy benchmark for the quarter and 1-year periods by 0.2% and 2.6%, respectively and the Median Public Fund for the quarter and 1-year periods by 2.2% and 2.1%, respectively. Over the 3-, 5-, 10-, 15-, 20-, and 25-year periods, the portfolio trailed its benchmark by (1.0%), (0.5%), (0.5%), (1.0%), (0.5%), and (0.2%), respectively, and trailed the Median Public Fund by for the 3-, 5-, 10-, 15, 20-, and 25-year periods by (1.7%), (1.2%), (1.9%), (2.1%), (1.2%), and (0.8%), respectively. However, the portfolio earned higher risk adjusted returns, as measured by the Sharpe Ratio, than the Median Public Fund over all time periods measured.

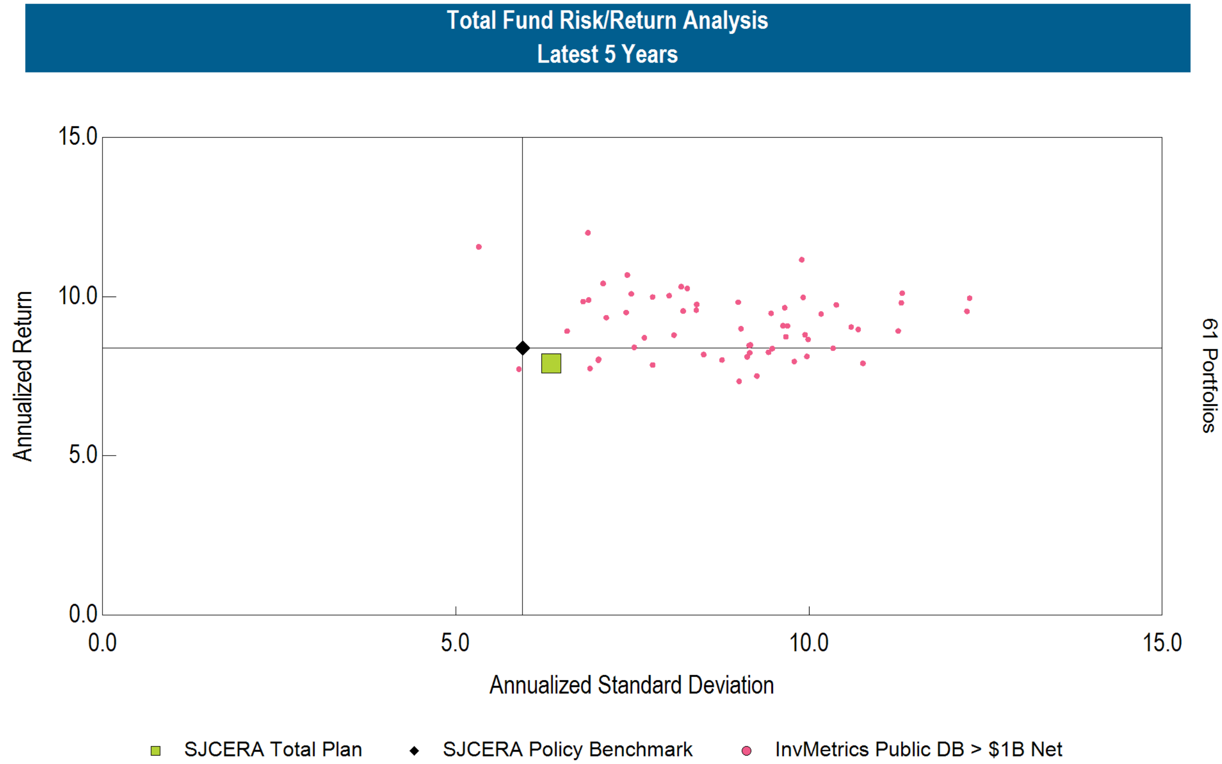
Risk-Adjusted Return vs Peers	1 Yr	3 Yrs	5 Yrs	10 Yrs
SJCERA Total Plan - Net	**9.3**	**9.0**	**7.9**	**6.6**
Risk Adjusted Median	6.8	7.7	6.4	6.5
Excess Return	2.5	1.3	1.5	0.1

Total Fund Risk/Return Analysis
Latest 3 Years



	Anlzd Return[1]	Anlzd Standard Deviation	Sharpe Ratio[2]
SJCERA Total Plan	8.99%	7.28%	1.14
SJCERA Policy Benchmark	10.00%	7.13%	1.31
InvMetrics Public DB > $1B Net Median[3]	10.70%	10.16%	0.97

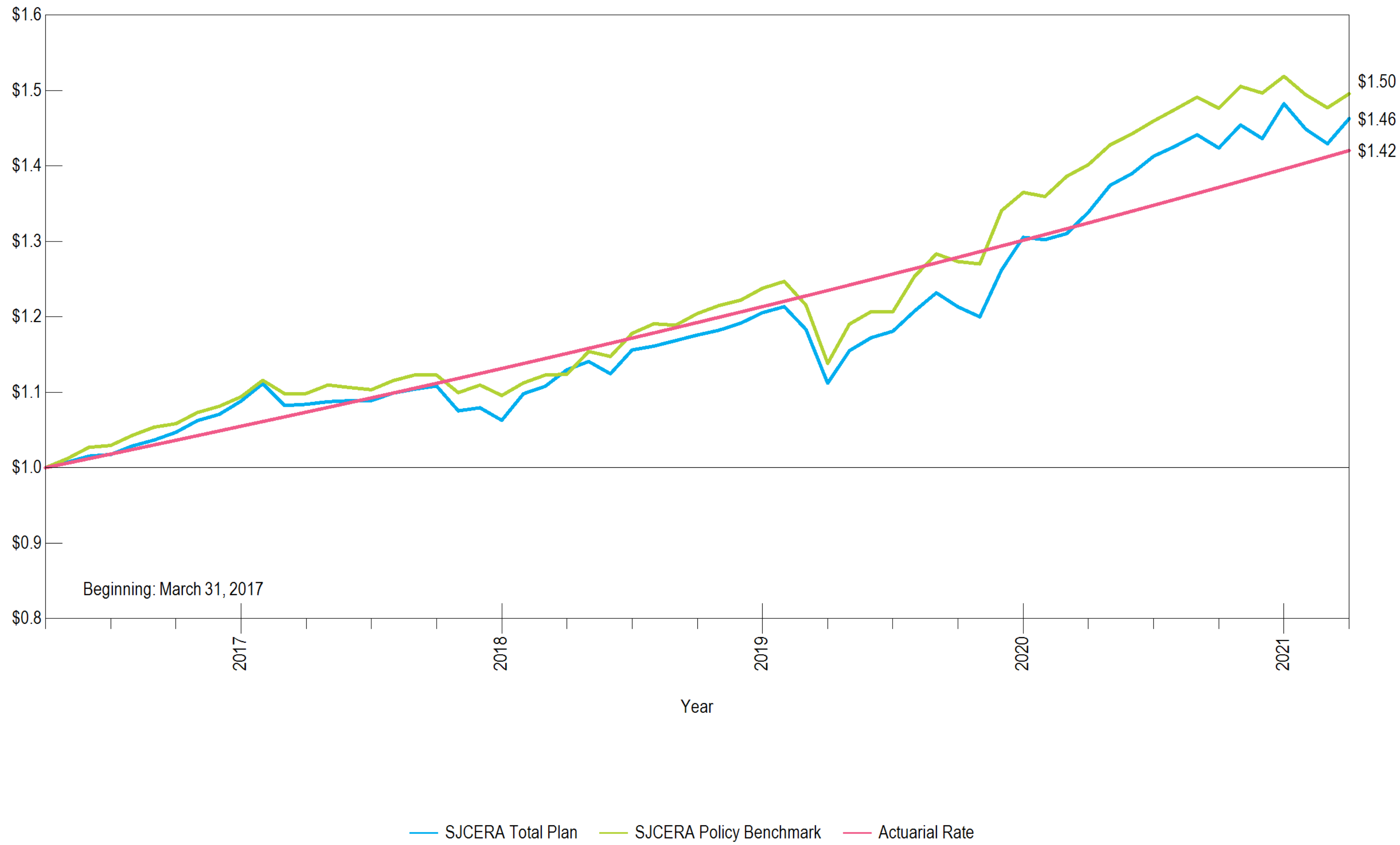
[1] Returns are net of fees.
[2] Computed as annualized return less the risk free rate, divided by the annualized standard deviation.
[3] Investment Metrics Total Fund Public Universe >$1 Billion, net of fees.



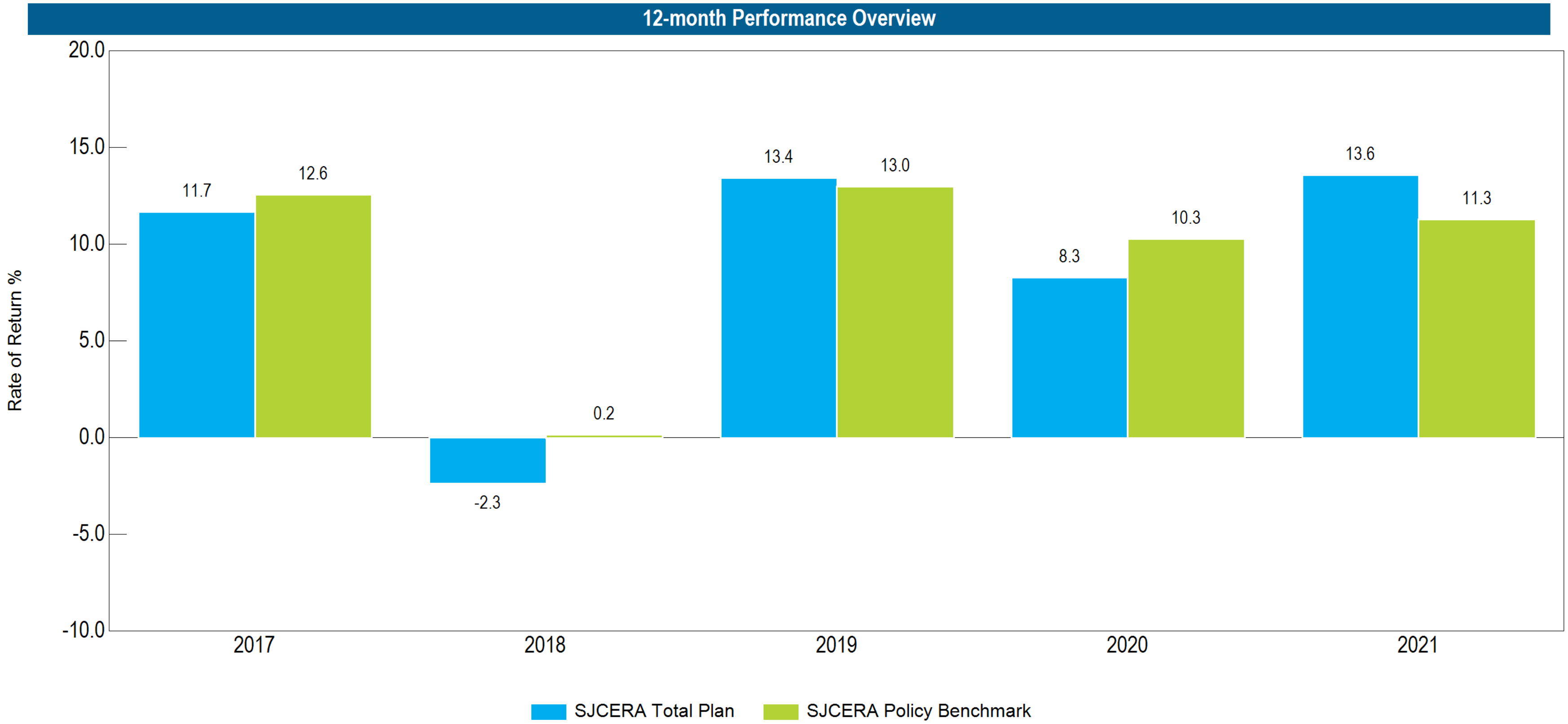
	Anlzd Return[1]	Anlzd Standard Deviation	Sharpe Ratio[2]
SJCERA Total Plan	7.90%	6.35%	1.08
SJCERA Policy Benchmark	8.39%	5.94%	1.23
InvMetrics Public DB > $1B Net Median[3]	9.08%	9.01%	0.89

[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] 7.0% Actuarial Rate from 1/1/2020 to present. 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%

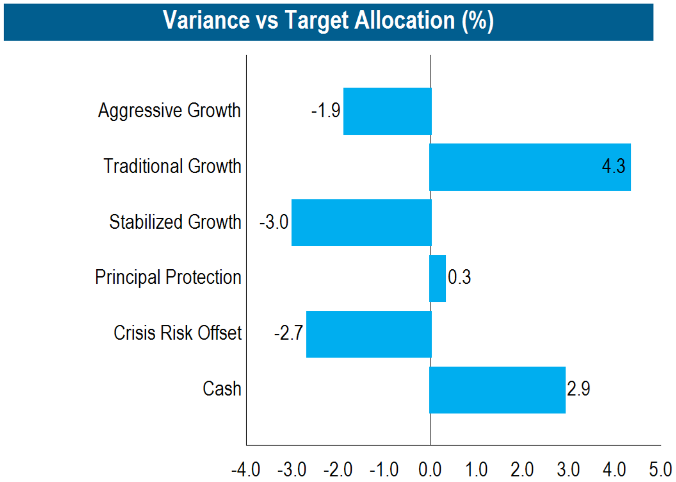


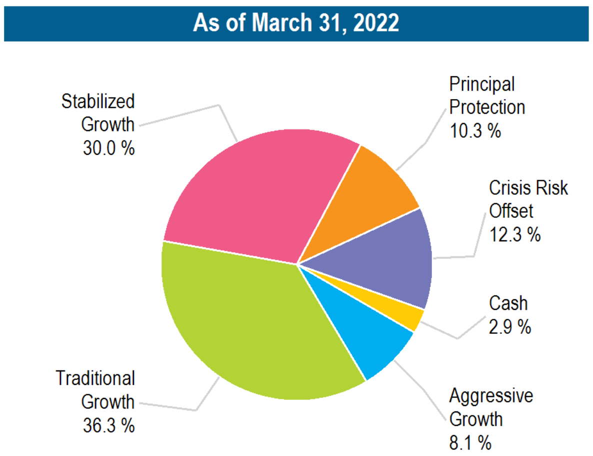
12-month absolute results have been positive over four of the last five calendar year periods, net of fees. The SJCERA Total Portfolio outperformed the policy target benchmark during one of these five periods, net of fees.

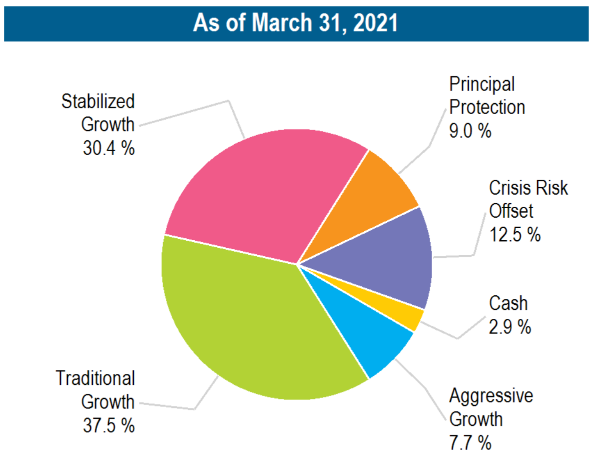
Portfolio Review

Asset Allocation vs. Target	Current	Current	Policy	Difference*
Broad Growth	**$2,989,254,691**	**74.5%**	**75.0%**	**-0.5%**
Aggressive Growth	$326,675,158	8.1%	10.0%	-1.9%
Traditional Growth	$1,457,971,594	36.3%	32.0%	4.3%
Stabilized Growth	$1,204,607,940	30.0%	33.0%	-3.0%
Diversified Growth	**$908,309,997**	**22.6%**	**25.0%**	**-2.4%**
Principal Protection	$413,709,029	10.3%	10.0%	0.3%
Crisis Risk Offset	$494,600,968	12.3%	15.0%	-2.7%
Cash[2]	**$116,477,861**	**2.9%**	**0.0%**	**2.9%**
Cash	$116,477,861	2.9%	0.0%	2.9%
Total[1]	**$4,014,042,549**	**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, 2022

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
SJCERA Total Plan	**4,014,042,549**	**100.0**	**-1.3**	**9.3**	**9.0**	**7.9**	**6.6**
SJCERA Policy Benchmark[2]			*-1.5*	*6.7*	*10.0*	*8.4*	*7.1*
Broad Growth	**2,989,254,691**	**74.5**	**-1.8**	**11.3**	**10.8**	**9.5**	**7.9**
Aggressive Growth Lag	**326,675,158**	**8.1**	**10.0**	**37.7**	**18.3**	**16.5**	**13.0**
Aggressive Growth Blend			*7.7*	*22.1*	*21.0*	*12.6*	*10.8*
Traditional Growth	**1,457,971,594**	**36.3**	**-5.5**	**8.0**	**11.4**	**10.1**	**9.4**
MSCI ACWI IMI Net			*-5.5*	*6.3*	*14.3*	*12.2*	*10.6*
Stabilized Growth	**1,204,607,940**	**30.0**	**0.0**	**9.3**	**8.2**	**7.1**	**4.7**
SJCERA Stabilized Growth Benchmark[4]			*0.1*	*1.9*	*1.8*	*1.8*	*1.9*
Diversifying Strategies	**908,309,997**	**22.6**	**1.9**	**4.3**	**3.3**	**3.2**	**3.8**
Principal Protection	**413,709,029**	**10.3**	**-4.8**	**-3.0**	**1.2**	**2.2**	**3.5**
Bloomberg US Aggregate TR			*-5.9*	*-4.2*	*1.7*	*2.1*	*2.2*
Crisis Risk Offset Asset Class	**494,600,968**	**12.3**	**7.1**	**10.1**	**4.7**	**4.0**	**4.9**
CRO Benchmark[3]			*-0.3*	*6.8*	*6.2*	*5.0*	*4.6*
Cash and Misc Asset Class	**74,037,147**	**1.8**	**0.0**	**0.1**	**0.6**	**0.8**	**0.5**
ICE BofA 91 Days T-Bills TR			*0.0*	*0.1*	*0.8*	*1.1*	*0.6*

[1] Market values may not add up due to rounding.
[2] Policy Benchmark composition is listed in the Appendix.
[3] 10% ICE BofAML 3 month US T-Bill + 4%, 17% 50% BB High Yield/50% S&P Leverage Loans.
[4] (1/3) BB Long Duration Treasuries, (1/3) BTOP50 Index, (1/3) 5% Annual.

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Aggressive Growth Lag[2]	**326,675,158**	**100.0**	**10.0**	**37.7**	**18.3**	**16.5**	**13.0**
Aggressive Growth Blend			*7.7*	*22.1*	*21.0*	*12.6*	*10.8*
Blackrock Global Energy and Power Lag[2]	24,546,720	7.5	2.9	9.8	--	--	--
MSCI ACWI +2% Blend			*7.3*	*21.4*	--	--	--
Morgan Creek III Lag[2,4]	6,571,365	2.0	0.0	-11.3	-10.8	-2.1	--
MSCI ACWI +2% Blend			*7.3*	*21.4*	*23.4*	*13.9*	--
Morgan Creek V Lag[2,4]	8,753,506	2.7	0.0	12.2	11.9	12.3	--
MSCI ACWI +2% Blend			*7.3*	*21.4*	*23.4*	*13.9*	--
Morgan Creek VI Lag[2,4]	25,628,214	7.8	0.0	23.2	18.6	18.3	--
MSCI ACWI +2% Blend			*7.3*	*21.4*	*23.4*	*13.9*	--
Ocean Avenue II Lag[2]	41,809,792	12.8	17.0	72.7	35.9	32.6	--
MSCI ACWI +2% Blend			*7.3*	*21.4*	*23.4*	*13.9*	--
Ocean Avenue III Lag[2]	47,737,032	14.6	13.3	58.2	25.4	32.9	--
MSCI ACWI +2% Blend			*7.3*	*21.4*	*23.4*	*13.9*	--
Ocean Avenue IV Lag[2]	44,642,679	13.7	17.5	38.1	--	--	--
MSCI ACWI +2% Lag[2]			*7.3*	*21.4*	--	--	--
Non-Core Real Assets Lag[2,3]	115,494,738	35.4	9.7	37.0	14.1	10.1	10.0
NCREIF ODCE +1% lag (blend)[2]			*7.9*	*22.2*	*9.3*	*8.8*	*10.5*
Stellex Capital Partners II Lag[2]	11,491,112	3.5	-2.4	--	--	--	--
MSCI ACWI +2% Lag[2]			*7.3*	--	--	--	--

[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] Q421 data not available at the time of this report. Values reported reflect Q321 market value adjusted by Q421 cash flows.

Private Appreciation

Investment Activity Statement for Since Inception by Fund

Investment	Vintage Year	Original Inv. Commitment	Gross Contributions	Management Fees	Return of Capital	Distributions	Net Income	Unrealized Appreciation	Realized Gain	Ending Market Value
Blackrock Global Energy & Power III	2019	50,000,000	26,132,956	2,242,295	1,410,115	3,241,368	872,595	1,410,558	782,094	24,546,720
Ocean Avenue II*	2013	40,000,000	36,000,000	6,889,871	5,875,189	43,103,469	22,039,919	17,199,550	15,548,980	41,809,792
Ocean Avenue III	2016	50,000,000	44,000,000	6,841,294	25,500,000	22,500,000	12,454,585	18,787,010	20,495,438	47,737,032
Ocean Avenue IV	2019	50,000,000	33,500,000	3,521,584	3,250,000	3,250,000	2,383,390	15,125,471	133,819	44,642,679
Morgan Creek III**	2015	10,000,000	9,900,000	632,996	2,113,765	429,488	(1,174,559)	(193,602)	582,779	6,571,365
Morgan Creek V**	2013	12,000,000	11,520,000	1,341,876	5,012,433	7,001,758	(1,608,372)	4,032,563	6,823,506	8,753,506
Morgan Creek VI**	2015	20,000,000	18,200,000	3,207,298	6,864,868	3,768,335	(1,007,305)	15,585,362	3,483,360	25,628,214
Stellex II	2020	50,000,000	12,567,582	810,888	-	-	(1,079,134)	2,664	-	11,491,112
Total			**191,820,538**	**25,488,102**	**50,026,370**	**83,294,418**	**32,881,119**	**71,949,576**	**47,849,976**	**211,180,420**

* Ocean II commitment started at $30 Mil in Q213 and increased to $40 Mil in Q114.
**Morgan Creek Q421 data not available at time of reporting. Summaries reflect Q321 values adjusted for Q421 cash flows.

Aggressive Growth

During the latest three-month period ending March 31, 2022, three of SJCERA's eight aggressive growth portfolios outperformed their MSCI ACWI +2% Blended benchmark. Non-core real assets also outperformed. Please note that returns data for this asset class are lagged one quarter and the benchmark returned 37.7% for the trailing 1-year period.

BlackRock Global Energy and Power, a recently added fund with a focus on infrastructure, underperformed its target benchmark over the quarter and 1-year periods by (4.4%) and (11.6%), respectively.

Morgan Creek III produced a flat estimated quarterly return, underperforming its benchmark by (7.3%). The manager also lagged the benchmark over the 1-, 3- and 5-year periods by (32.7%), (34.2%) and (16.0%), respectively.

Morgan Creek V produced a flat estimated quarterly return, underperforming its benchmark by (7.3%). The manager also lagged for the trailing 1-, 3- and 5-year periods by (9.2%), (11.5%) and (1.6%), respectively.

Morgan Creek VI produced a flat estimated quarterly return, underperforming its benchmark by (7.3%). It also lagged for the 3-year period by (4.8%) but outperformed for the 1- and 5-year periods by 1.8% and 4.4%, respectively.

Ocean Avenue II, a Private Equity Buyout fund-of-funds manager, outperformed its benchmark for the quarter, 1-, 3- and 5-year periods by 9.7%, 51.3%, 12.5% and 18.7%, respectively.

Ocean Avenue III, a Private Equity Buyout fund-of-funds manager, led its benchmark for the quarter, 1-, 3- and 5-year periods by 16.9%, 25.5%, 13.1% and 16.8%, respectively.

Ocean Avenue IV outperformed its benchmark for the quarter and 1-year periods by 10.2% and 16.7%, respectively.

Non-Core Private Real Assets underperformed its NCREIF ODCE +1% benchmark over the 10-year period by (0.5%). The sub-asset class outperformed its benchmark over the quarter, 1-, 3- and 5-year time periods by 1.8%, 14.8%, 3.8% and 1.3%, respectively.

Stellex II, the newest manager in the asset class, underperformed its benchmark during the quarter by (9.7%).

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Traditional Growth	**1,457,971,594**	**100.0**	**-5.5**	**8.0**	**11.4**	**10.1**	**9.4**
MSCI ACWI IMI Net			*-5.5*	*6.3*	*14.3*	*12.2*	*10.6*
SJCERA Transition	3,191	0.0					
Northern Trust MSCI World	1,269,824,431	87.1	-5.5	8.8	--	--	--
MSCI World IMI Net USD			*-5.3*	*8.7*	--	--	--
PIMCO RAE Emerging Markets	76,091,057	5.2	-3.8	0.5	6.9	5.6	3.9
MSCI Emerging Markets Gross			*-6.9*	*-11.1*	*5.3*	*6.4*	*3.7*
GQG Active Emerging Markets	59,909,744	4.1	-7.9	-8.2	--	--	--
MSCI Emerging Markets			*-7.0*	*-11.4*	--	--	--
Invesco REIT	52,143,171	3.6	-5.9	23.0	9.6	9.3	9.4
FTSE NAREIT Equity REIT			*-3.9*	*26.4*	*11.1*	*9.6*	*9.8*

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

Traditional Growth

During the latest three-month period ending March 31, 2022, the traditional growth asset class matched its MSCI ACWI IMI benchmark with one of the four managers outperforming their benchmarks.

Northern Trust MSCI World, the Plan's new Passive Global Equity manager, underperformed its benchmark over the past quarter by (0.2%) but outperformed over the 1-year period by 0.1%.

PIMCO RAE Fundamental - Emerging, one of SJCERA's Active Emerging Markets Equity manager, outperformed its MSCI Emerging Markets Index benchmark over the quarter, 1-, 3- and 10-year time periods by 3.1%, 11.6%, 1.6% and 0.2%, respectively. It underperformed the benchmark over the 5-year period by (0.8%).

GQG, the Plan's new Active Emerging Markets Equity manager was opened during the third quarter of 2020 and underperformed its MSCI Emerging Markets benchmark by (0.9%) for the quarter but outperformed the benchmark by 3.2% for the 1-year period.

Invesco, the Plan's Core US REIT manager, underperformed the FTSE NAREIT Equity REIT Index for the quarter, 1-, 3-, 5- and 10-year periods by (2.0%), (3.4%), (1.5%), (0.3%) and (0.4%), respectively.

Asset Class Performance Net-of-Fees | As of March 31, 2022

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Stabilized Growth	**1,204,607,940**	**100.0**	**0.0**	**9.3**	**8.2**	**7.1**	**4.7**
SJCERA Stabilized Growth Benchmark[2]			*0.1*	*1.9*	*1.8*	*1.8*	*1.9*
Risk Parity Asset Class	**428,024,678**	**35.5**	**-4.9**	**7.3**	**8.3**	**7.3**	**3.1**
ICE BofAML 3mo US TBill+4%			*1.0*	*4.1*	*4.8*	*5.2*	*4.7*
Bridgewater All Weather	213,908,619	17.8	-3.8	10.6	8.3	7.2	5.5
Bridgewater All Weather (blend)			*1.0*	*4.1*	*4.8*	*5.2*	*5.4*
PanAgora Diversified Risk Multi Asset	214,116,059	17.8	-5.9	4.2	8.3	7.4	--
ICE BofAML 3mo US TBill+4%			*1.0*	*4.1*	*4.8*	*5.2*	--
Liquid Credit	**230,000,325**	**19.1**	**-3.1**	**-1.1**	**2.7**	**2.9**	**3.0**
50% BB US HY/50% S&P LSTA Lev Loan			*-2.5*	*1.3*	*4.4*	*4.4*	*5.0*
Neuberger Berman	101,264,314	8.4	-5.1	-2.5	2.8	--	--
33% ICEBofAMLUSHY /33%JPMEMBI Global Div /33% S&P LSTALevLoan			*-4.9*	*-1.5*	*2.9*	--	--
Stone Harbor Absolute Return	128,736,012	10.7	-1.6	0.0	2.6	2.8	2.9
ICE BofA-ML LIBOR			*-0.1*	*0.1*	*1.0*	*1.3*	*0.9*
Private Credit Lag	**342,033,523**	**28.4**	**4.2**	**10.6**	**4.7**	**3.9**	**5.0**
Custom Credit Benchmark			*0.7*	*5.2*	*7.2*	*5.3*	*5.8*
Blackrock Direct Lending Lag	62,550,746	5.2	1.8	8.0	--	--	--
CPI + 6% BLK Blend			*3.1*	*13.4*	--	--	--
Crestline Opportunity II Lag	18,958,303	1.6	2.5	16.2	2.4	3.3	--
Credit Blend CPI +6%			*3.1*	*13.4*	*9.7*	*9.1*	--
Davidson Kempner Long-Term Distressed Opportunities Fund V, L.P. Lag	42,984,654	3.6	3.7	20.2	--	--	--
Credit Blend CPI +6%			*3.1*	*13.4*	--	--	--

[1] Market values may not add up due to rounding.
[2] 10% ICE BofAML 3 month US T-Bill + 4%, 17% 50% BB High Yield/50% S&P Leverage Loans.

Asset Class Performance Net-of-Fees | As of March 31, 2022

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
HPS European Asset Value II, LP Lag	20,589,571	1.7	1.3	6.4	--	--	--
Credit Blend CPI +6%			*3.1*	*13.4*	--	--	--
Medley Opportunity II Lag[3]	4,913,418	0.4	0.0	4.0	-9.3	-8.1	--
Credit Blend CPI +6%			*3.1*	*13.4*	*9.7*	*9.1*	--
Mesa West IV Lag	25,501,797	2.1	2.6	9.5	8.1	--	--
Credit Blend CPI +6%			*3.1*	*13.4*	*9.7*	--	--
Oaktree Middle-Market Direct Lending Lag	31,338,491	2.6	5.9	18.1	17.4	--	--
CPI + 6% Oaktree Blend			*3.1*	*13.4*	*15.6*	--	--
Raven Opportunity II Lag	5,529,199	0.5	194.0	217.6	38.5	26.3	--
Credit Blend CPI +6%			*3.1*	*13.4*	*9.7*	*9.1*	--
Raven Opportunity III Lag	53,292,281	4.4	6.1	14.6	8.6	8.9	--
Credit Blend CPI +6%			*3.1*	*13.4*	*9.7*	*9.1*	--
White Oak Summit Peer Lag	33,764,696	2.8	2.8	0.5	3.9	5.6	--
Credit Blend CPI +6%			*3.1*	*13.4*	*9.7*	*9.1*	--
White Oak Yield Spectrum Master V Lag	42,610,367	3.5	0.7	2.5	--	--	--
Credit Blend CPI +6%			*3.1*	*13.4*	--	--	--
Private Core Real Assets Lag	204,549,413	17.0	8.1	26.5	13.8	12.8	14.0
NCREIF ODCE +1% lag (blend)[2]			*7.9*	*22.2*	*9.3*	*8.8*	*10.5*

[1] Market values may not add up due to rounding.
[2] NCREIF ODCE Net + 1% 10/1/2012-present. NCREIF Property Index previously.
[3] Q421 data not available at the time of this report. Values reported reflect Q321 market value adjusted by Q421 cash flows.

Stabilized Growth

During the latest three-month period ending March 31, 2022, five of SJCERA's sixteen Stabilized Growth managers outperformed their benchmarks while the other eleven underperformed. 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). Also, private core real assets outperformed its benchmark for the quarter.

Bridgewater All Weather, one of the Plan's Risk Parity managers, underperformed its benchmark for the quarter by (4.8%) but outperformed for the 1-, 3-, 5- and 10-year periods by 6.5%, 3.5%, 2.0% and 0.1%, respectively.

PanAgora DRMA, one of the Plan's Risk Parity managers, underperformed its T-Bill +4% benchmark over the quarter by (6.9%) but outperformed over the 1-, 3- and 5-year periods by 0.1%, 3.5% and 2.2%, respectively.

Neuberger Berman, one of the Plan's Liquid Credit managers, underperformed its benchmark for the quarter, 1- and 3-year time periods by (0.2%), (1.0%) and (0.1%), respectively.

Stone Harbor, the Plan's Absolute Return Fixed Income manager, underperformed its ICE BofAML LIBOR index over the quarter and 1-year periods by (1.5%) and (0.1%), respectively but outperformed for the 3-, 5- and 10-year periods by 1.6%, 1.5% and 2.0%, respectively.

BlackRock Direct Lending, one of the Plan's newer Private Credit manager, underperformed its CPI +6% benchmark for the quarter and 1-year periods by (1.3%) and (5.4%), respectively.

Crestline Opportunity II, the Plan's Credit, Niche Alternatives and Hedge Fund Secondaries manager, trailed its benchmark over the quarter, 3- and 5-year periods by (0.6%), (7.3%) and (5.8%), respectively. It outperformed is Credit Blend CPI +6% benchmark for the 1-year period by 2.8%.

Davidson Kempner, the Plan's newest Private Credit manager, was opened during the fourth quarter of 2020 and outperformed its CPI +6% benchmark by 0.6% and 6.8% for the trailing quarter and 1-year periods, respectively.

Stabilized Growth (Continued)

HPS EU, one of the Plan's newer Direct Lending manager, was opened during the third quarter of 2020 and underperformed its CPI +6% benchmark for the quarter and 1-year periods by (1.8%) and (7.0%), respectively.

Medley Opportunity II, one of the Plan's Direct Lending managers, produced a flat estimated quarterly return, underperforming its CPI +6% annual return benchmark by (3.1%). It also lagged its target over the 1-, 3- and 5-year time periods by (9.4%), (19.0%) and (17.2%), respectively.

Mesa West RE Income IV, one of the Plan's Commercial Mortgage managers, underperformed its CPI +6% annual benchmark by (0.5%), (3.9%) and (1.6%) over the quarter, 1- and 3-year periods, respectively.

Oaktree, a Middle-Market Direct Lending manager, outperformed its MSCI ACWI +2% Blended benchmark for the quarter, 1- and 3-year trailing time periods by 2.8%, 4.7% and 1.8%, respectively.

Raven Capital II, one of the Plan's Direct Lending managers, produced a quarterly return of 194.0%. It outperformed its benchmark over the quarter, 1-, 3- and 5-year periods by 190.9%, 204.2%, 28.8% and 17.2%, respectively.

Raven Capital III outperformed its CPI +6% annual target for the quarter and 1-year periods by 3.0% and 1.2%, respectively, but underperformed over 3- and 5-year trailing periods by (1.1%) and (0.2%), respectively.

White Oak Summit Peer, one of the Plan's Direct Lending managers, underperformed its CPI +6% index over the quarter, 1-, 3- and 5-year periods by (0.3%), (12.9%), (5.8%) and (3.5%), respectively.

White Oak Yield Spectrum Master V trailed its CPI +6% benchmark over both the quarter and 1-year periods by (2.4%) and (10.9%), respectively.

Private Core Private Real Estate, investing in Core Real Assets, outperformed its NCREIF ODCE +1% benchmark over the trailing quarter, 1-, 3-, 5- and 10-year time periods by 0.2%, 4.3%, 4.5%, 4.0% and 3.5%, respectively.

Asset Class Performance Net-of-Fees | As of March 31, 2022

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Principal Protection	**413,709,029**	**100.0**	**-4.8**	**-3.0**	**1.2**	**2.2**	**3.5**
Bloomberg US Aggregate TR			*-5.9*	*-4.2*	*1.7*	*2.1*	*2.2*
Dodge & Cox Fixed Income	205,478,460	49.7	-5.2	-3.5	2.9	3.2	3.5
Bloomberg US Aggregate TR			*-5.9*	*-4.2*	*1.7*	*2.1*	*2.2*
DoubleLine	111,014,482	26.8	-2.9	-1.0	2.3	2.9	4.4
Bloomberg US Aggregate TR			*-5.9*	*-4.2*	*1.7*	*2.1*	*2.2*
Loomis Sayles	97,216,087	23.5	--	--	--	--	--

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

Principal Protection

During the latest three-month period ending March 31, 2022, both of SJCERA's Principal Protection managers with returns outperformed the Bloomberg US Aggregate Index benchmark over all time periods measured.

Dodge & Cox, the Plan's Core Fixed Income manager, earned a negative quarterly return of (5.2%). It led its benchmark by 0.2% for this period and outperformed over the 1-, 3-, 5- and 10-year periods by 0.7%, 1.2%, 1.1% and 1.3%, respectively.

DoubleLine, the Plan's Mortgage-Backed Securities manager, provided a quarterly return of (2.9%), outperforming its benchmark by 3.0%. The manager also outperformed its benchmark over the 1-, 3- and 5-year time periods by 3.2%, 0.6% and 2.2%, respectively.

Loomis Sayles, the Plan's newest Principal Protection manager, was funded in Q1 2022 and therefore does not have returns for the periods shown.

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Crisis Risk Offset Asset Class	**494,600,968**	**100.0**	**7.1**	**10.1**	**4.7**	**4.0**	**4.9**
CRO Benchmark[2]			*-0.3*	*6.8*	*6.2*	*5.0*	*4.6*
Long Duration	**139,799,930**	**28.3**	**-10.1**	**-1.9**	**2.8**	**3.5**	**--**
Bloomberg US Treasury Long TR			*-10.6*	*-1.4*	*3.3*	*3.9*	*--*
Dodge & Cox Long Duration	139,799,930	28.3	-10.1	-1.9	2.8	3.5	--
Bloomberg US Treasury Long TR			*-10.6*	*-1.4*	*3.3*	*3.9*	*--*
Systematic Trend Following	**226,530,449**	**45.8**	**23.6**	**24.1**	**13.2**	**6.6**	**7.2**
BTOP 50 (blend)			*9.1*	*16.9*	*9.8*	*5.4*	*4.3*
Graham Tactical Trend	109,923,963	22.2	23.6	21.2	13.5	6.7	--
SG Trend			*17.7*	*23.5*	*13.1*	*7.4*	*--*
Mount Lucas	116,606,486	23.6	23.5	27.0	12.6	6.3	6.3
BTOP 50 (blend)			*9.1*	*16.9*	*9.8*	*5.4*	*4.3*
Alternative Risk Premium	**128,270,589**	**25.9**	**4.2**	**3.3**	**-4.6**	**-0.5**	**1.5**
5% Annual (blend)			*1.2*	*5.0*	*5.0*	*5.0*	*7.6*
AQR Style Premia	33,670,364	6.8	11.4	13.6	-2.5	-2.8	--
5% Annual			*1.2*	*5.0*	*5.0*	*5.0*	*--*
Lombard Odier	56,001,270	11.3	-5.8	-2.9	-6.7	--	--
5% Annual			*1.2*	*5.0*	*5.0*	*--*	*--*
P/E Diversified Global Macro	38,598,954	7.8	15.3	4.9	-7.1	-1.6	--
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, 2022, five of SJCERA's six Crisis Risk Offset managers outperformed their respective benchmarks.

Dodge & Cox Long Duration produced a negative quarterly return of (0.5%), outperforming the Bloomberg US Long Duration Treasuries by 0.5%. The manager underperformed its benchmark over the 1-, 3- and 5-year time periods by (0.5%), (0.5%) and (0.4%), respectively.

Graham, one of the Plan's Systematic Trend Following managers, outperformed the SG Trend Index for the quarter and 3-year periods by 5.9% and 0.4%, respectively, but underperformed over the trailing 1-, and 5-year periods by (2.5%)and (0.7%), respectively.

Mount Lucas, one of the Plan's Systematic Trend Following managers, outperformed the Barclays BTOP 50 Index for the quarter, 1-, 3-, 5- and 10-year periods by 13.4%, 10.1%, 2.8%, 0.9% and 2.0%, respectively.

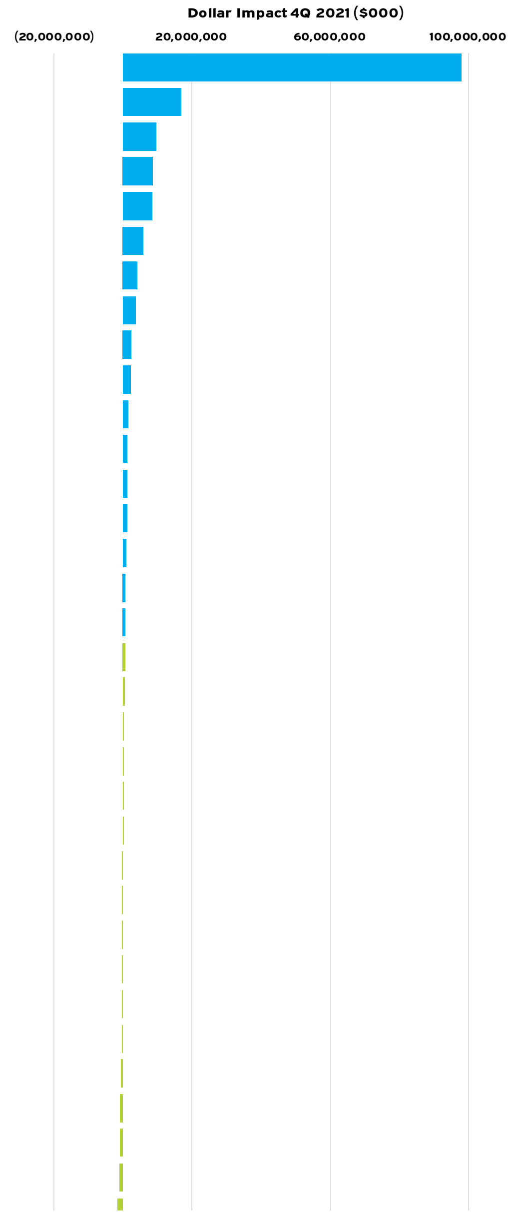
AQR, one of the Plan's Alternative Risk Premium managers, posted positive returns and outperformed its 5% Annual target for the quarter and 1-year periods by 10.2% and 8.6%, respectively. It posted negative returns for the trailing 3- and 5-year periods and underperformed its benchmark for these periods by (7.5%) and (7.8%), respectively.

Lombard Odier, an Alternative Risk Premium manager, earned negative quarterly, 1- and 3-year returns and underperformed its 5% Annual target by (7.0%), (7.9%) and (11.7%), respectively.

P/E Diversified, one of the Plan's Alternative Risk Premium managers, outperformed its 5% Annual target for the quarter by 14.1% but underperformed for the 1-, 3- and 5-year periods by (0.1%), (12.1%) and (6.6%), respectively.

San Joaquin County Employees' Retirement Association: Manager Value-Added (Dollar-Impact)
As of December 31, 2021

Manager/Mandate	Manager Return	Benchmark Return	Dollar Impact	Benchmark Added Value	Manager BNAV
12/31/2021			3,703,114,044		3,703,114,044
SJCERA Total Policy Benchmark	2.5%	2.7%			
NT MSCI World MSCI World IMI	7.3%	7.1%	97,818,566		1,343,292,580
Private Core Real Estate Private Real Estate Benchmark	8.9%	6.7%	16,824,608		189,573,050
Bridgewater All Weather T-bill + 4%	4.3%	1.0%	9,584,839		222,437,674
Invesco REIT FTSE NAREIT Index	15.6%	16.3%	8,646,782		55,413,880
Ocean Avenue III MSCI ACWI +2% Blend	16.4%	-0.5%	8,429,826		51,341,899
PanAgora Diversified Risk Multi Asset T-bill + 4%	2.6%	1.0%	5,857,596		227,479,441
Ocean Avenue II MSCI ACWI +2% Blend	10.6%	-0.5%	4,091,464		38,704,604
Dodge & Cox Long Duration BB US Long Duration Treasuries	2.3%	0.0%	3,563,499		155,475,526
Morgan Creek VI MSCI ACWI +2% Blend	8.6%	-0.5%	2,307,763		26,828,214
Raven III CPI + 6% Annual	4.3%	2.4%	2,169,154		50,211,888
Ocean Avenue IV MSCI ACWI +2% Blend	3.6%	-0.5%	1,321,510		36,893,083
BlackRock Direct Lending CPI + 6% Annual	2.4%	2.4%	1,242,401		51,001,686
Raven II CPI + 6% Annual	11.6%	2.4%	1,207,939		10,414,168
Oaktree MSCI ACWI +2% Blend	3.5%	-0.5%	1,110,731		32,102,053
AQR 5% Annual	3.0%	1.2%	918,450		30,222,118
BlackRock Global Energy & Power MSCI ACWI +2% Blend	3.4%	-0.5%	776,108		22,706,488
Mesa West IV CPI + 6% Annual	2.6%	-0.5%	762,708		29,459,557
Davidson Kempner CPI + 6% Annual	1.6%	2.4%	567,895		34,480,593
HPS European CPI + 6% Annual	1.8%	2.4%	372,620		20,406,329
PIMCO RAE Emerging Markets MSCI Emerging Markets	0.4%	-1.2%	297,277		79,063,012
DoubleLine BB Aggregate	0.1%	0.0%	159,707		114,076,357
Crestline Opportunity II CPI + 6% Annual	0.4%	2.4%	73,833		18,787,084
Morgan Creek V MSCI ACWI +2% Blend	0.0%	-0.5%	947		9,473,506
Mesa West III CPI + 6% Annual	-14.9%	2.4%	(4,625)		31,041
Neuberger Berman Global Credit Hybrid	0.0%	0.3%	(11,724)		106,585,329
Stone Harbor Absolute Return 3-Month Libor TR USD	0.0%	0.0%	(18,298)		130,703,213
GQG Emerging Markets MSCI Emerging Markets	-0.2%	-1.3%	(149,619)		65,051,537
Stellex II MSCI ACWI +2% Blend	-4.4%	-0.5%	(207,313)		4,689,279
Medley Opportunity II CPI + 6% Annual	-3.2%	2.4%	(314,967)		9,904,617
Lombard Odier 5% Annual	-0.9%	1.2%	(563,931)		59,423,753
Dodge & Cox Fixed Income BB Aggregate	-0.3%	0.0%	(693,703)		216,782,099
Morgan Creek III MSCI ACWI +2% Blend	-13.5%	-0.5%	(886,609)		6,571,365
Graham Tactical Trend SG Trend Index	-1.3%	-1.3%	(1,148,987)		88,930,888
White Oak Summit Peer	-4.4%	2.4%	(1,630,370)		36,744,876



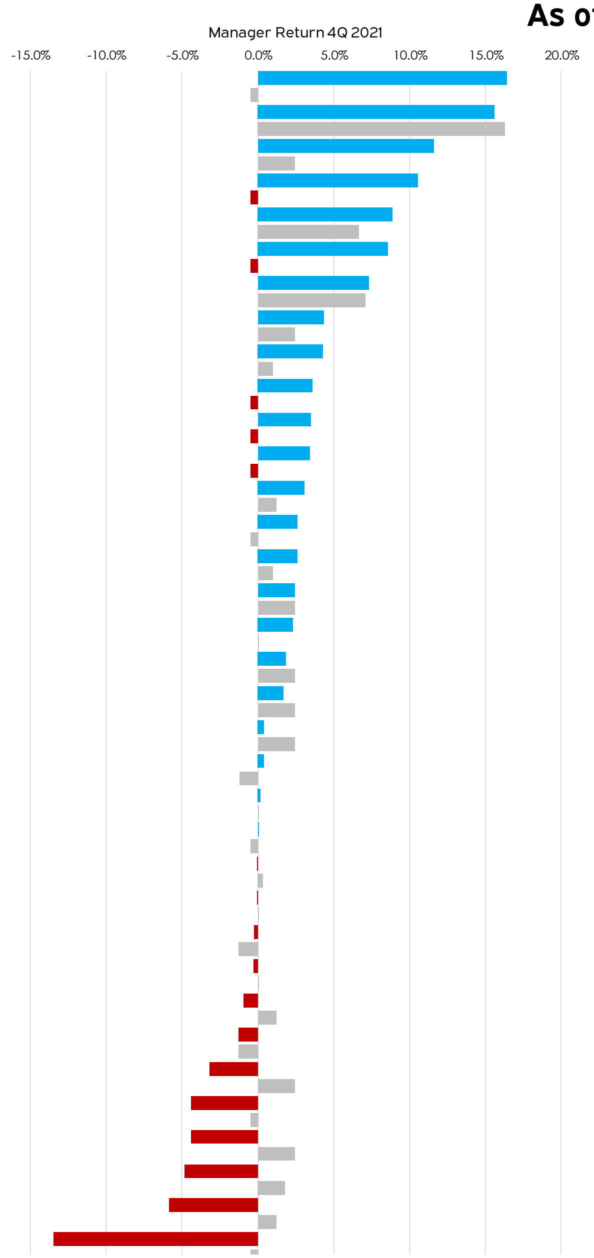
MEKETA

SJCERA Total Plan

As of March 31, 2022

San Joaquin County Employees' Reitrement Association: Manager Value-Added (Return)
As of December 31, 2021

Manager/Mandate	Manager Return	Benchmark Return	Dollar Impact	Benchmark Added Value	Manager BNAV
12/31/2021			3,703,114,044		3,703,114,044
SJCERA Total	**2.5%**	**2.7%**			
Policy Benchmark					
Ocean Avenue III	16.4%	-0.5%	8,429,826		51,341,899
MSCI ACWI +2% Blend					
Invesco REIT	15.6%	16.3%	8,646,782		55,413,880
FTSE NAREIT Index					
Raven II	11.6%	2.4%	1,207,939		10,414,168
CPI + 6% Annual					
Ocean Avenue II	10.6%	-0.5%	4,091,464		38,704,604
MSCI ACWI +2% Blend					
Private Core Real Estate	8.9%	6.7%	16,824,608		189,573,050
Private Real Estate Benchmark					
Morgan Creek VI	8.6%	-0.5%	2,307,763		26,828,214
MSCI ACWI +2% Blend					
NT MSCI World	7.3%	7.1%	97,818,566		1,343,292,580
MSCI World IMI					
Raven III	4.3%	2.4%	2,169,154		50,211,888
CPI + 6% Annual					
Bridgewater All Weather	4.3%	1.0%	9,584,839		222,437,674
T-bill + 4%					
Ocean Avenue IV	3.6%	-0.5%	1,321,510		36,893,083
MSCI ACWI +2% Blend					
Oaktree	3.5%	-0.5%	1,110,731		32,102,053
MSCI ACWI +2% Blend					
BlackRock Global Energy & Power	3.4%	-0.5%	776,108		22,706,488
MSCI ACWI +2% Blend					
AQR	3.0%	1.2%	918,450		30,222,118
5% Annual					
Mesa West IV	2.6%	-0.5%	762,708		29,459,557
CPI + 6% Annual					
PanAgora Diversified Risk Multi Asset	2.6%	1.0%	5,857,596		227,479,441
T-bill + 4%					
BlackRock Direct Lending	2.4%	2.4%	1,242,401		51,001,686
CPI + 6% Annual					
Dodge & Cox Long Duration	2.3%	0.0%	3,563,499		155,475,526
BB US Long Duration Treasuries					
HPS European	1.8%	2.4%	372,620		20,406,329
CPI + 6% Annual					
Davidson Kempner	1.6%	2.4%	567,895		34,480,593
CPI + 6% Annual					
Crestline Opportunity II	0.4%	2.4%	73,833		18,787,084
CPI + 6% Annual					
PIMCO RAE Emerging Markets	0.4%	-1.2%	297,277		79,063,012
MSCI Emerging Markets					
DoubleLine	0.1%	0.0%	159,707		114,076,357
BB Aggregate					
Morgan Creek V	0.0%	-0.5%	947		9,473,506
MSCI ACWI +2% Blend					
Neuberger Berman	0.0%	0.3%	(11,724)		106,585,329
Global Credit Hybrid					
Stone Harbor Absolute Return	0.0%	0.0%	(18,298)		130,703,213
3-Month Libor TR USD					
GQG Emerging Markets	-0.2%	-1.3%	(149,619)		65,051,537
MSCI Emerging Markets					
Dodge & Cox Fixed Income	-0.3%	0.0%	(693,703)		216,782,099
BB Aggregate					
Lombard Odier	-0.9%	1.2%	(563,931)		59,423,753
5% Annual					
Graham Tactical Trend	-1.3%	-1.3%	(1,148,987)		88,930,888
SG Trend Index					
Medley Opportunity II	-3.2%	2.4%	(314,967)		9,904,617
CPI + 6% Annual					
Stellex II	-4.4%	-0.5%	(207,313)		4,689,279
MSCI ACWI +2% Blend					
White Oak Summit Peer	-4.4%	2.4%	(1,630,370)		36,744,876
CPI + 6% Annual					
Mount Lucas	-4.8%	1.8%	(4,558,868)		94,386,507
BTOP 50					
P/E Diversified Global Macro	-5.9%	1.2%	(1,967,393)		33,464,750
5% Annual					
Morgan Creek III	[illegible]	[illegible]	[illegible]		[illegible]

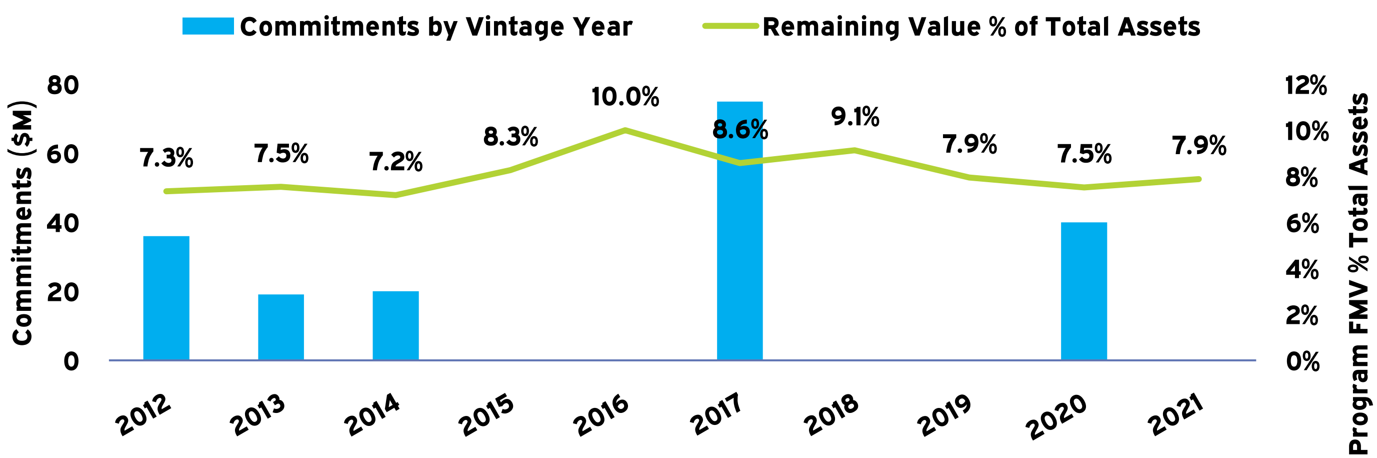


Real Estate Program

March 31, 2022

Introduction

The Retirement Association's target allocation towards real estate assets is 10-12%. As of December 31, 2021, 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 $320.0 million at quarter-end.



Program Status

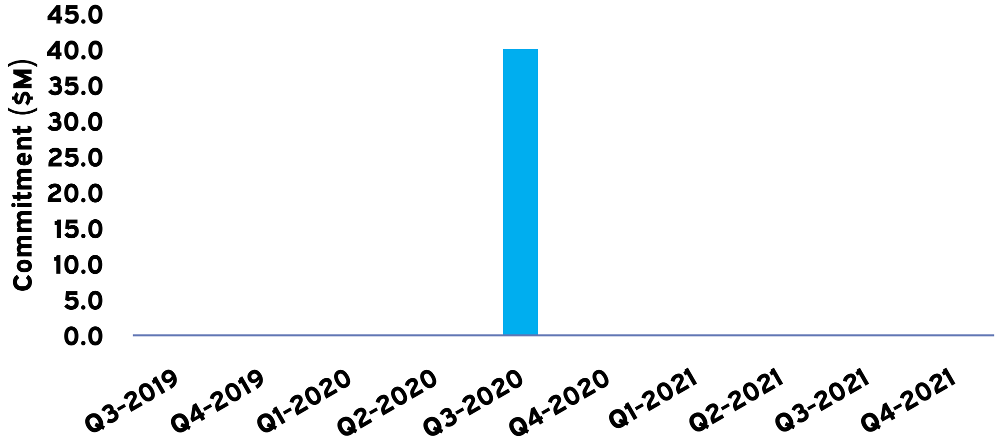
No. of Investments	18
Committed ($M)	501.6
Contributed ($M)	445.9
Distributed ($M)	353.4
Remaining Value ($M)	320.0

Performance Since Inception

	Program
DPI	0.79x
TVPI	1.51x
IRR	7.5%

Commitments

Recent Quarterly Commitments

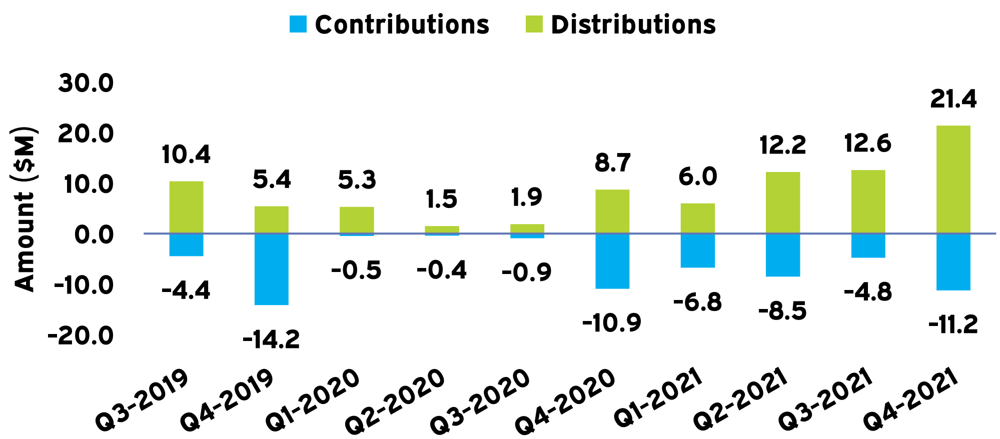


Commitments This Quarter

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	9.27
Grandview I	2017	Opportunistic	North America	1.34
Prologis Logistics	1970	Core	North America	0.61

Largest Distributions This Quarter

Fund	Vintage	Strategy	Region	Amount ($M)
Grandview I	2017	Opportunistic	North America	9.78
Stockbridge RE III	2017	Value-Added	North America	4.61
AG Core Plus IV	2014	Value-Added	North America	4.25

Significant Events

→ Berkeley Partners Value Industrial Fund V completed nine additional acquisitions during the fourth quarter, representing an aggregate purchase price of $137.2 million. The nine assets span across the Seattle (1), Colorado (1), Philadelphia (2), Atlanta (1), Boston (3), and Washington DC (1) markets. Fund V also made one disposition during the quarter on December 29, 2021, selling Plano Road in Dallas for $11.2 million, producing a 1.4x gross multiple and a 20% gross IRR at the property level.

→ During the fourth quarter, Grandview I-A acquired three new properties, including one housing and two industrial assets, all of which total $6.3 million in contributions to date. Grandview I also completed the sale o CenterState East, an industrial asset in Lakeland, FL, on December 15, 2021, resulting in $24.6 million in net proceeds to the fund. Additional realizations during the quarter include MC Estates Mezzanine and a large portion of the Tampa Industrial investment.

→ During the fourth quarter, Stockbridge Value Fund III distributed $4.6 million to San Joaquin as a result of the sale of Broadstone Lofts, a multifamily property in Houstin, TX, on December 3, 2021.

→ In the fourth quarter, AG Core Plus Realty Fund IV sold four properties in the US for a total gross sales price of $452 million. Fund IV also realized its position in Freddie Mac K-Series Bonds II, in addition to selling two other properties in Europe based in London and Dublin.

→ During the fourth quarter, RREEF America REIT II generated a total gross return of 10.88%, comprised of 1.07% income and 9.81% appreciation. Accordingly, such significant appreciation returns resulted in a 10.6% net change in value percentage for San Joaqun's investment during the quarter.

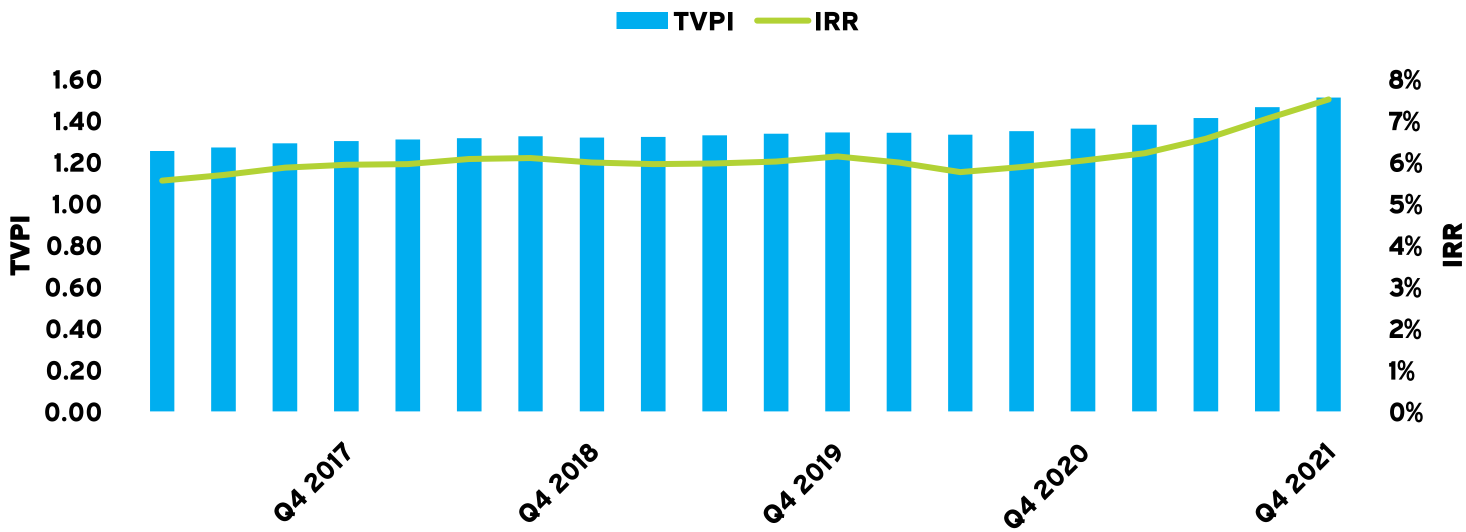
By Strategy

Group	Number	Committed ($M)	Contributed ($M)	Unfunded ($M)	Distributed ($M)	Remaining Value ($M)	Exposure ($M)	DPI (X)	TVPI (X)	IRR (%)
Core	3	120.5	124.7	0.0	28.9	204.5	204.5	0.23	1.87	8.2
Opportunistic	9	204.1	181.7	23.8	209.5	37.5	61.3	1.15	1.36	5.9
Value-Added	6	177.0	139.5	39.7	115.1	78.0	117.7	0.82	1.38	10.2
Total	**18**	**501.6**	**445.9**	**63.5**	**353.4**	**320.0**	**383.6**	**0.79**	**1.51**	**7.5**

By Vintage

Group	Number	Committed ($M)	Contributed ($M)	Unfunded ($M)	Distributed ($M)	Remaining Value ($M)	Exposure ($M)	DPI (X)	TVPI (X)	IRR (%)
Open-end	3	120.5	124.7	0.0	28.9	204.5	204.5	0.23	1.87	8.2
2005	2	45.0	44.5	0.5	37.8	1.7	2.2	0.85	0.89	-1.5
2007	4	96.0	84.0	12.0	114.9	6.8	18.8	1.37	1.45	7.4
2011	2	50.0	38.3	11.7	47.2	4.2	15.9	1.23	1.34	9.6
2012	2	36.0	33.9	2.9	48.8	0.0	2.9	1.44	1.44	12.4
2013	1	19.1	18.3	0.8	22.4	9.3	10.1	1.23	1.74	13.7
2014	1	20.0	19.0	1.8	12.1	14.3	16.1	0.64	1.39	9.0
2017	2	75.0	62.8	13.7	40.7	55.2	68.9	0.65	1.53	21.3
2020	1	40.0	20.5	20.2	0.6	24.0	44.2	0.03	1.20	NM
Total	**18**	**501.6**	**445.9**	**63.5**	**353.4**	**320.0**	**383.6**	**0.79**	**1.51**	**7.5**

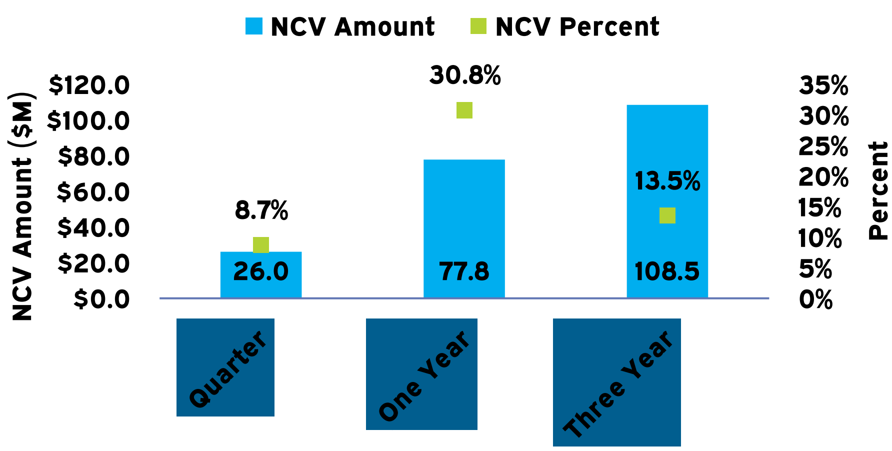
Since Inception Performance Over Time



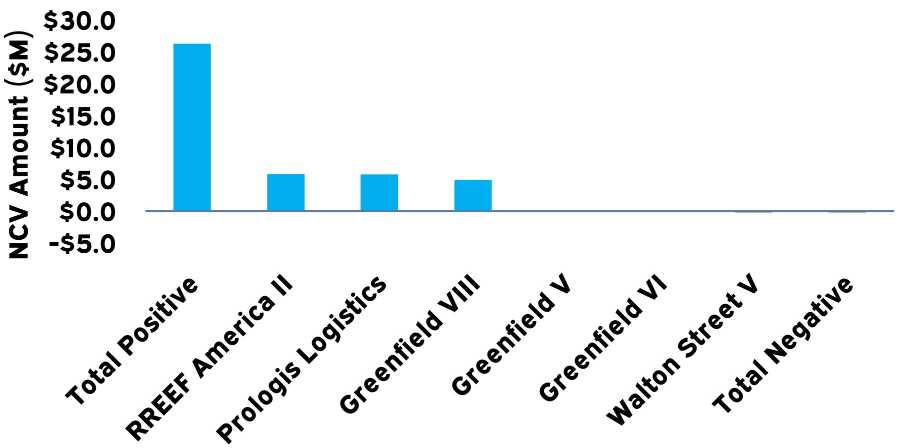
Horizon IRRs

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	30.1	13.5	11.1	11.5	7.5
Public Market Equivalent	51.4	19.5	10.6	10.9	9.9

Periodic NCV



1 Quarter Drivers Of NCV

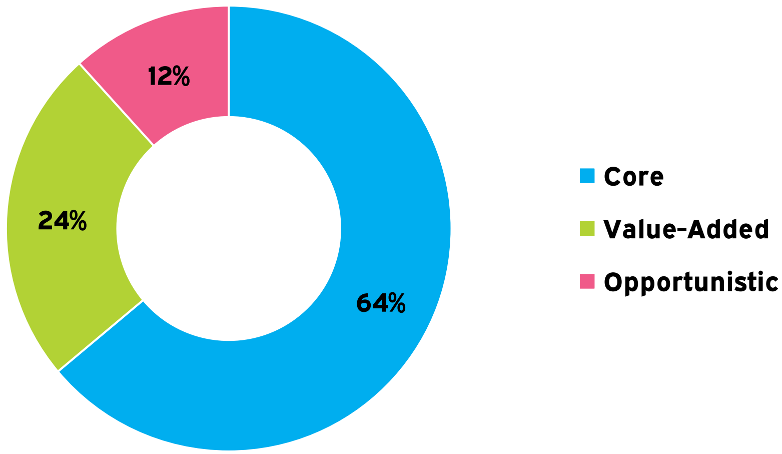


Fund Performance: Sorted By Vintage And Strategy

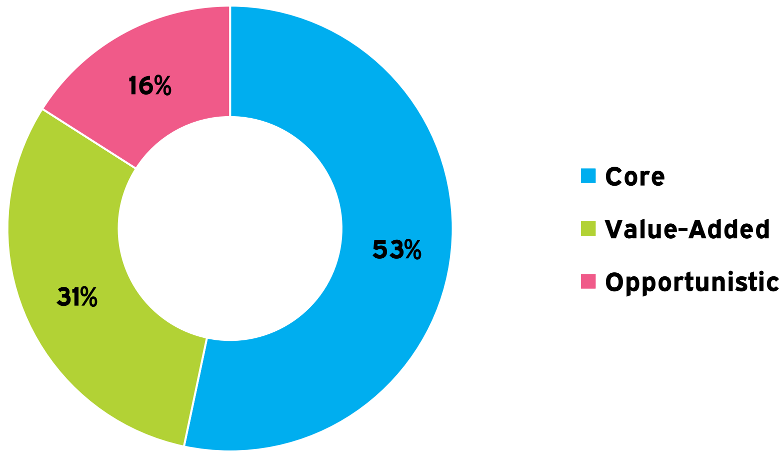
By Investment	Vintage	Strategy	Committed ($M)	Contributed ($M)	Unfunded ($M)	Distributed ($M)	Remaining Value ($M)	TVPI (X)	IRR (%)
Principal US	Open-end	Core	25.0	25.0	0.0	0.0	42.1	1.68	9.0
Prologis Logistics	Open-end	Core	50.5	54.7	0.0	20.2	101.9	2.23	7.9
RREEF America II	Open-end	Core	45.0	45.0	0.0	8.7	60.6	1.54	8.7
Miller GLobal Fund V	2005	Opportunistic	15.0	14.5	0.5	17.6	0.0	1.21	3.4
Walton Street V	2005	Opportunistic	30.0	30.0	0.0	20.3	1.7	0.73	-3.4
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	32.4	0.9	1.58	7.8
Walton Street VI	2007	Opportunistic	15.0	13.3	1.7	15.2	5.6	1.57	8.2
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	1.32	9.5
Miller Global VII	2012	Opportunistic	15.0	12.1	2.9	15.9	0.0	1.32	14.2
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	22.4	9.3	1.74	13.7
AG Core Plus IV	2014	Value-Added	20.0	19.0	1.8	12.1	14.3	1.39	9.0
Grandview I	2017	Opportunistic	30.0	23.7	7.7	19.1	19.7	1.64	24.8
Stockbridge RE III	2017	Value-Added	45.0	39.1	5.9	21.5	35.6	1.46	19.0
Berkeley V	2020	Value-Added	40.0	20.5	20.2	0.6	24.0	1.20	NM
Total			**501.6**	**445.9**	**63.5**	**353.4**	**320.0**	**1.51**	**7.5**

By Strategy

Percent of FMV

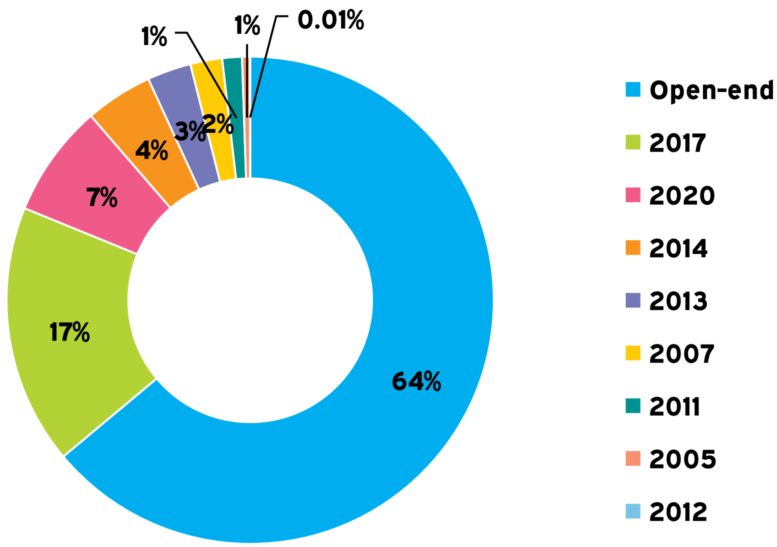


Percent of Exposure

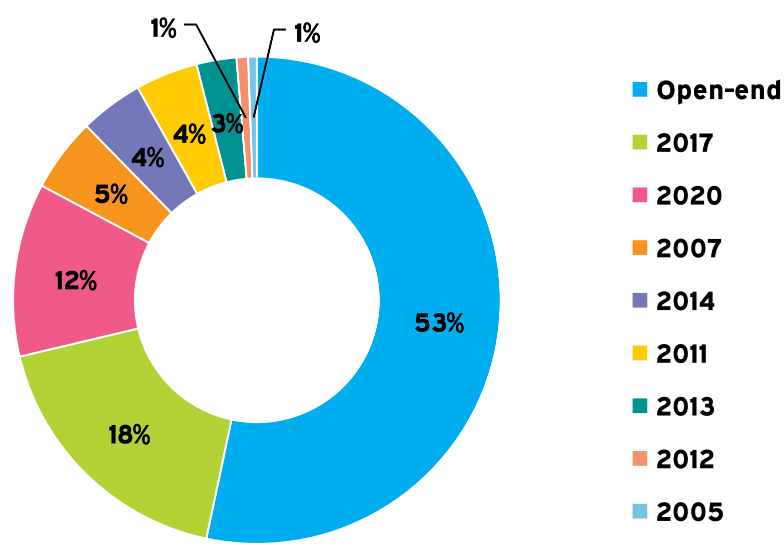


By Vintage

Percent of FMV

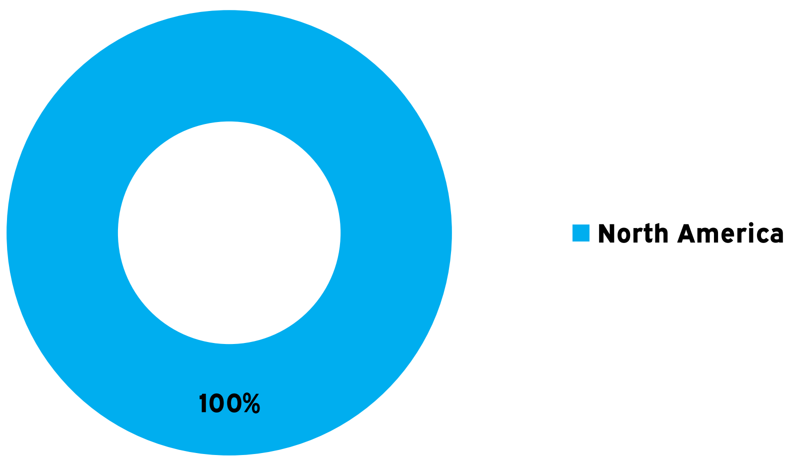


Percent of Exposure

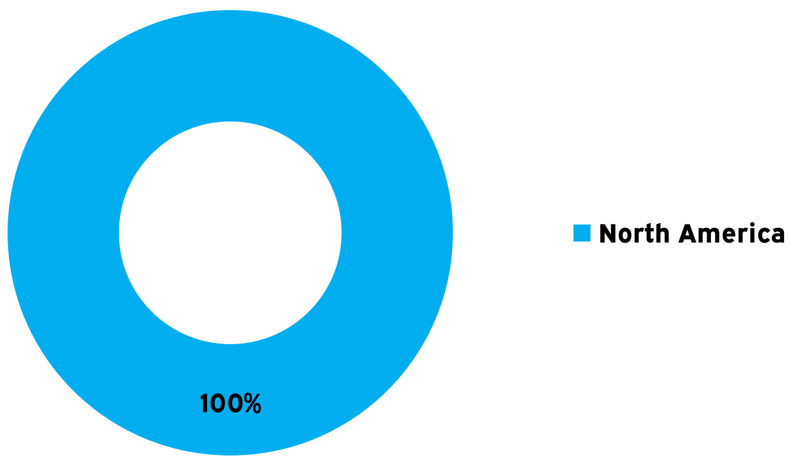


By Geographic Focus

Percent of FMV

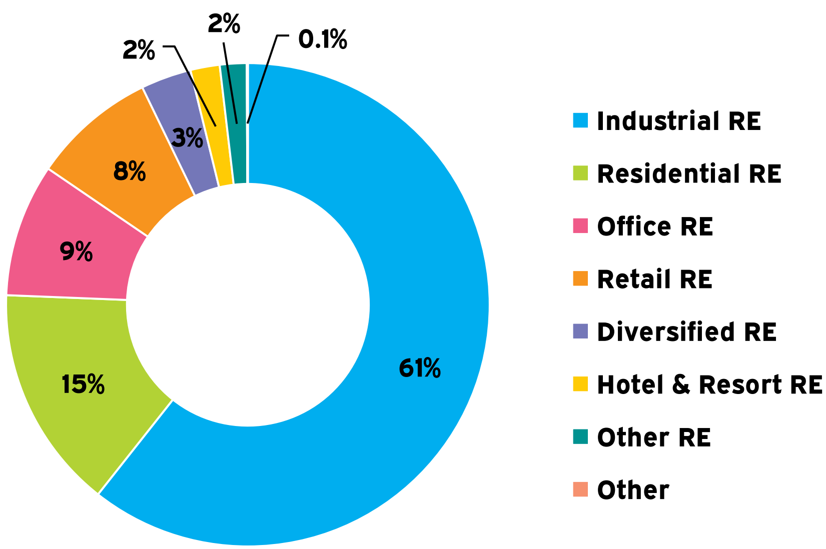


Percent of Exposure



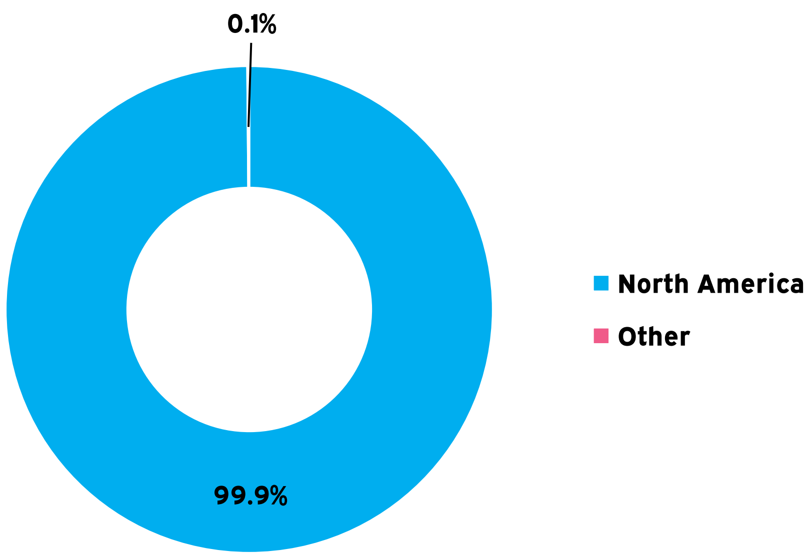
By Sector

Percent of FMV



By Geography

Percent of FMV



AG Core Plus Realty Fund IV, L.P.

AG Core Plus Realty Fund IV is an open-end fund focused on making core-plus commercial real estate investments. The Partnership will focus on the acquisition of equity interests in high-quality office, retail, multi-family, and industrial real estate assets located mainly in the largest US markets. The Partnership will focus on real estate assets where the firm believes it can utilize its value-added expertise to enhance and stabilize returns.

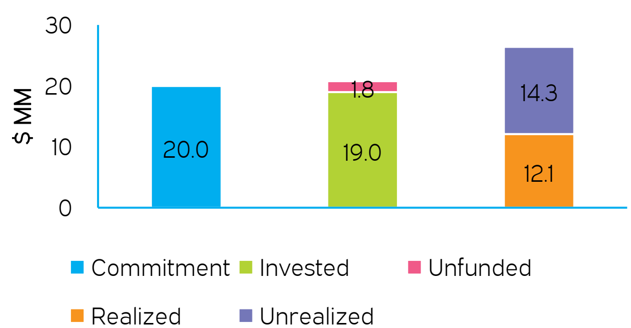
General

Manager Location	New York, New York
Fund Size ($M)	$1,308
Vintage	2014
Strategy	Value-Added
Target Geography	North America

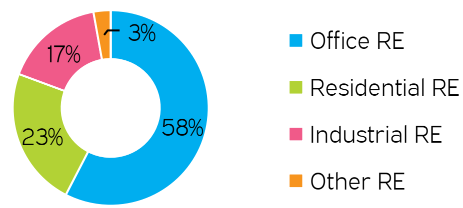
Performance

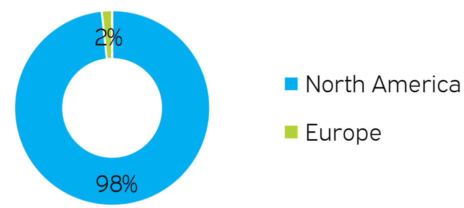
DPI	0.64x
TVPI	1.39x
IRR	9.0%

Status



Fund Diversification (by Unrealized Value)





Portfolio Holdings

Asset	Industry	Invested[1] ($M)	Realized[1] ($M)	Unrealized ($M)	TVPI (X)
Cityside Huntington Metro	Residential RE	36.1	69.7	0	1.93
Burbank Collection	Office RE	33.7	52.3	0	1.55
Dallas Multi-Family Portfolio	Residential RE	33.1	74.3	0	2.25
College Terrace	Diversified RE	29.3	46.2	0	1.58
Westshore Portfolio	Office RE	25.0	39.3	0	1.57
Belvedere Place	Office RE	21.4	28.5	0	1.33
Vineyard Gardens	Residential RE	17.7	30.4	0	1.72
160 Blackfriars Road	Office RE	16.8	33.9	0	2.02
Silverstream Apartments	Residential RE	14.6	22.8	0	1.56
Other (35)		88.1	182.0	969.5	NM
Total		**315.8**	**579.6**	**969.5**	**NM**

[1] The manager provided incomplete underlying holdings detail. Invested capital and realized proceeds were not provided for unrealized and partially realized investments. Therefore, TVPI performance metrics for "Other" and Total are not meaningful.

Almanac Realty Securities VI, L.P.

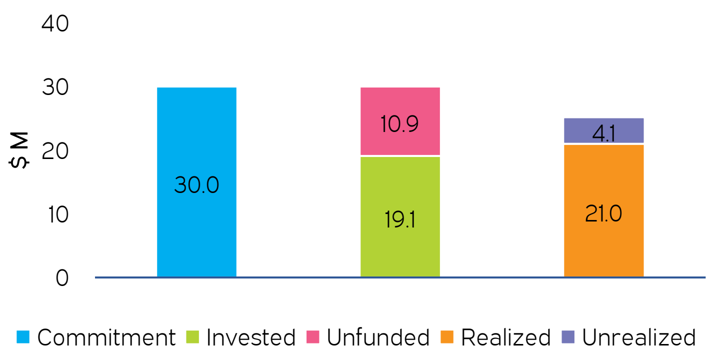
General

Manager Location	New York, New York
Fund Size ($M)	$819
Vintage	2011
Strategy	Value-Added
Target Geography	North America

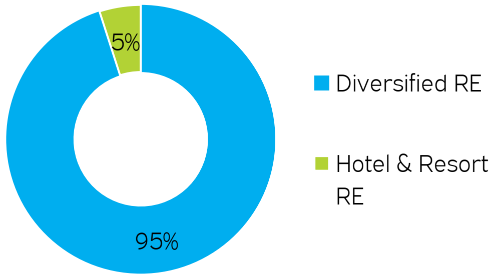
Performance

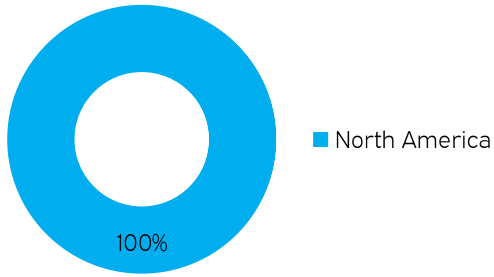
DPI	1.10x
TVPI	1.32x
IRR	9.5%

Status



Fund Diversification (by Unrealized Value)





Portfolio Holdings

Asset	Industry	Invested ($M)	Realized ($M)	Unrealized ($M)	TVPI (X)
Drawbridge Realty Trust	Diversified RE	150.0	204.1	0	1.36
HRI (convertible)	Diversified RE	150.0	76.6	119.3	1.31
RAIT Financial Trust	RE Services	100.0	147.9	0	1.48
Nolan Real Estate	Residential RE	69.8	107.0	0	1.53
Winter Properties	Diversified RE	55.0	75.8	0	1.38
HRI (non-convertible)	Diversified RE	50.0	81.7	0	1.63
Shaner Hospitality Finance	Hotel & Resort RE	3.0	2.8	6.2	3.05
Total		**577.8**	**696.0**	**125.5**	**1.42**

Berkeley Partners Fund V, L.P.

Berkeley V will continue its value-added strategy focused on building a diversified portfolio of light industrial properties across the United States. The Fund will seek to acquire under-managed properties in targeted major regional markets with above average employment and population growth. Berkeley has focused on major Texas markets, the Southeast, West Coast, and North East.

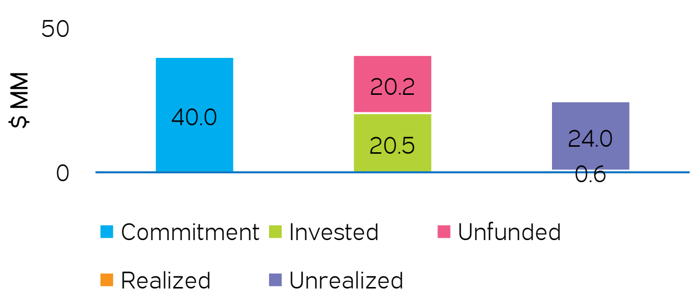
General

Manager Location	San Francisco, California
Fund Size ($M)	$275
Vintage	2020
Strategy	Value-Added
Target Geography	North America

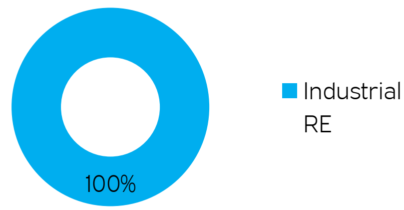
Performance

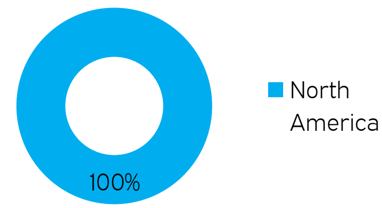
DPI	0.03x
TVPI	1.20x
IRR	NM

Status



Fund Diversification (by Unrealized Value)





Portfolio Holdings

Asset	Industry	Invested[1] ($M)	Realized[1] ($M)	Unrealized ($M)	TVPI (X)
333 Centennial Parkway	Industrial RE	49.0	0	70.5	1.44
11 Ricker Avenue	Industrial RE	38.3	0	39.0	1.02
Longmont Campus	Industrial RE	34.0	0	41.9	1.23
Wellmoor Court	Industrial RE	30.0	0	30.8	1.03
1, 3, & 7 Chelsea Pkwy	Industrial RE	24.3	0	25.2	1.04
North Point	Industrial RE	15.5	0	22.0	1.42
Fortune Boulevard	Industrial RE	15.3	0	16.2	1.07
1323 34th Ave East	Industrial RE	14.6	0	15.1	1.04
Warren Drive	Industrial RE	12.2	0	14.5	1.19
Other (21)		166.9	18.5	178.7	1.18
Total		**399.9**	**18.5**	**453.9**	**1.18**

[1] The manager provided incomplete underlying holdings detail. Realized proceeds were not provided for investments other than fully realized deals. Therefore, TVPI performance metrics may not be meaningful for unrealized investments.

Colony Realty Partners III, L.P.

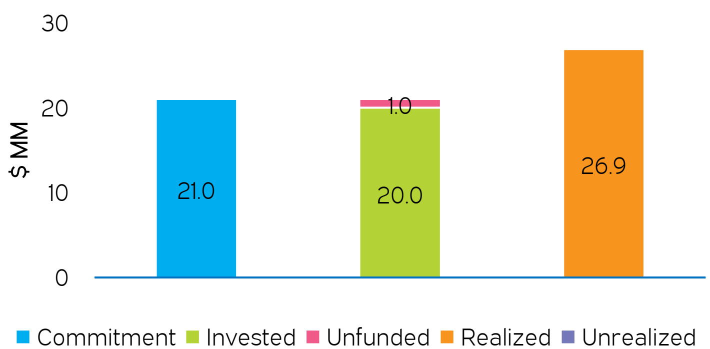
General

Manager Location	Boston, Massachusetts
Fund Size ($M)	$366
Vintage	2007
Strategy	Value-Added
Target Geography	North America

Performance

DPI	1.35x
TVPI	1.35x
IRR	5.3%

Status



Fund Diversification (by Unrealized Value)

Fund is fully liquidated.

Portfolio Holdings

Fund is fully liquidated.

Colony Realty Partners IV, L.P.

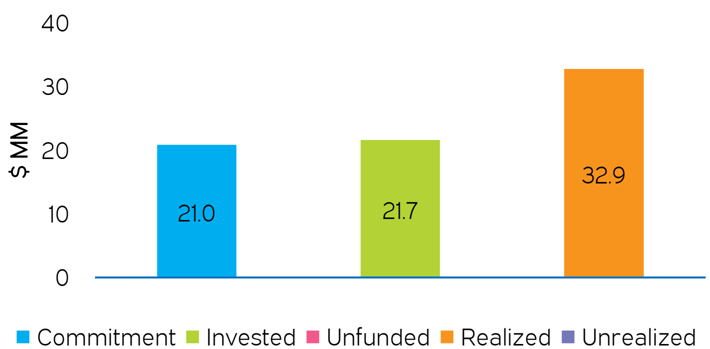
General

Manager Location	Boston, Massachusetts
Fund Size ($M)	$111
Vintage	2012
Strategy	Value-Added
Target Geography	North America

Performance

DPI	1.51x
TVPI	1.51x
IRR	11.9%

Status



Fund Diversification (by Unrealized Value)

Fund is fully liquidated.

Portfolio Holdings

Fund is fully liquidated.

MEKETA

Greenfield Acquisition Partners V, L.P.

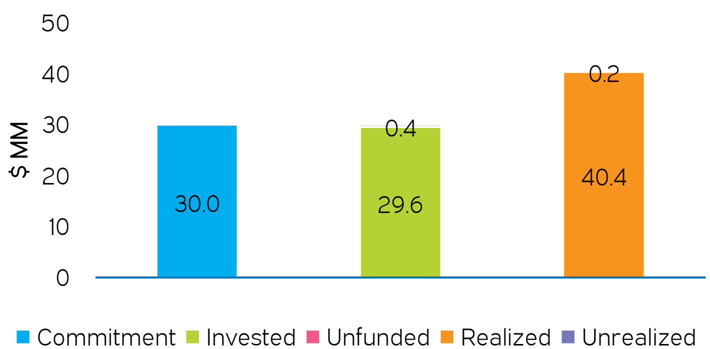
General

Manager Location	Blenheim, New Zealand
Fund Size ($M)	$1,000
Vintage	2007
Strategy	Opportunistic
Target Geography	North America

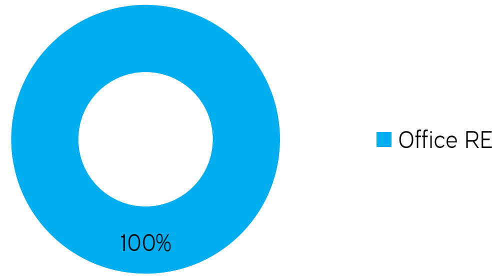
Performance

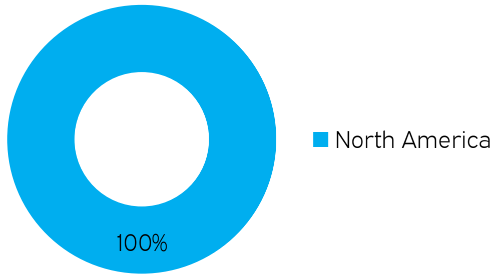
DPI	1.37x
TVPI	1.37x
IRR	8.3%

Status



Fund Diversification (by Unrealized Value)





Portfolio Holdings

Asset	Industry	Invested ($M)	Realized ($M)	Unrealized ($M)	TVPI (X)
Clayton - MSLS	RE Operating Cos	228.5	371.8	0	1.63
Canal Street - Sheraton	Hotel & Resort RE	110.5	179.3	0	1.62
GreenCo	Other RE	100.3	119.3	0	1.19
Stone St - Double Tree	Hotel & Resort RE	92.7	145.2	0	1.57
39th St - Element	Hotel & Resort RE	63.1	171.1	0	2.71
Watergate	Office RE	49.6	19.5	8.1	0.56
Raith Green	Other RE	47.1	74.3	0	1.58
Tribune - Stamford	Residential RE	46.7	61.8	0	1.32
Kirkpatrick	Other RE	41.1	42.6	0	1.04
Other (35)		516.6	672.2	0	1.30
Total		**1,296.2**	**1,857.1**	**8.1**	**1.44**

Greenfield Acquisition Partners VI, L.P.

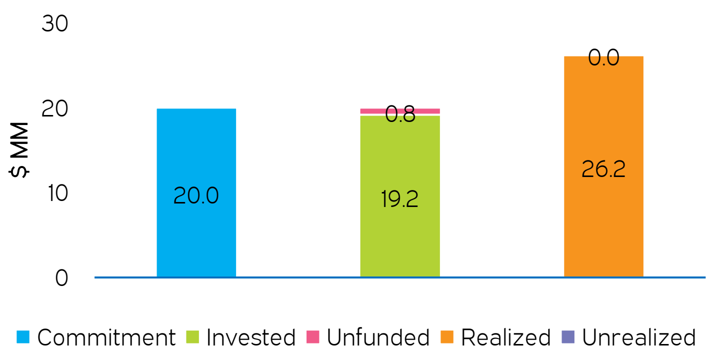
General

Manager Location	Blenheim, New Zealand
Fund Size ($M)	$354
Vintage	2011
Strategy	Opportunistic
Target Geography	North America

Performance

DPI	1.37x
TVPI	1.37x
IRR	9.6%

Status



Fund Diversification (by Unrealized Value)

No unrealized investments remain.

Portfolio Holdings

Asset	Industry	Invested ($M)	Realized ($M)	Unrealized ($M)	TVPI (X)
Maryland COPT II	Office RE	93.1	85.5	0	0.92
413 East Huron	Residential RE	31.9	38.8	0	1.22
Ace Hotel	Hotel & Resort RE	27.2	49.6	0	1.83
Texas Industrial	Industrial RE	26.8	56.5	0	2.11
Wisconsin Liberty	Office RE	22.1	18.4	0	0.83
Broadway Lofts	Residential RE	21.7	59.8	0	2.76
54 Wilton Road	Office RE	19.4	9.2	0	0.47
205 W. Wacker Drive	Office RE	15.8	22.8	0	1.44
Center 78	Office RE	14.7	18.6	0	1.26
Other (22)		179.6	274.3	0	1.53
Total		**452.2**	**633.4**	**0**	**1.40**

Greenfield Acquisition Partners VII, L.P.

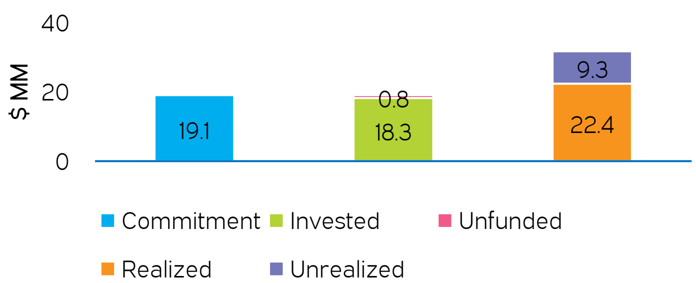
General

Manager Location	Blenheim, New Zealand
Fund Size ($M)	$382
Vintage	2013
Strategy	Opportunistic
Target Geography	North America

Performance

DPI	1.23x
TVPI	1.74x
IRR	13.7%

Status



Fund Diversification (by Unrealized Value)

Portfolio Holdings

Asset	Industry	Invested[1] ($M)	Realized[1] ($M)	Unrealized ($M)	TVPI (X)
Savannah Port Logistics Center	Industrial RE	49.9	49.2	43.6	1.86
Edge Green	Other RE	45.7	42.6	12.4	1.20
Parkland Mezzanine	Other RE	40.0	10.6	37.1	1.19
Barnett Industrial	Industrial RE	38.8	55.2	0	1.42
Northbridge Centre	Office RE	34.1	44.1	0	1.29
GIJV - Chicago	Industrial RE	34.0	64.8	0	1.91
Painted Prairie	Other RE	31.2	16.8	32.9	1.59
Twelve Bridges	Other RE	29.9	44.1	11.5	1.86
Minnesota Office/Flex Portfolio	Office RE	25.7	29.5	0	1.15
Other (37)		431.1	544.1	77.4	1.44
Total		**760.4**	**901.1**	**215.0**	**1.47**

[1] The manager provided incomplete underlying holdings detail. As a result, invested capital and realized proceeds are as of September 30, 2021, while fair value is as of December 31, 2021. Therefore, TVPI performance metrics may not be meaningful.

Grandview I-A, LP. (Greenfield Acquisition Partners VIII, L.P.)

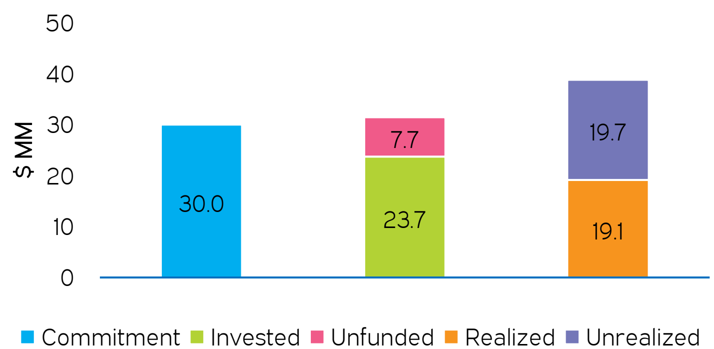
General

Manager Location	Blenheim, New Zealand
Fund Size ($M)	$146
Vintage	2017
Strategy	Opportunistic
Target Geography	North America

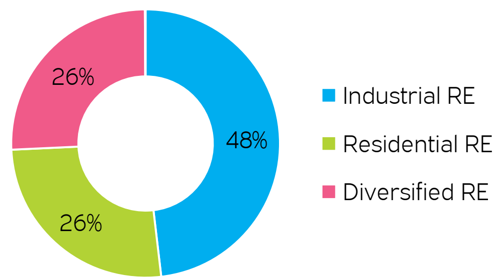
Performance

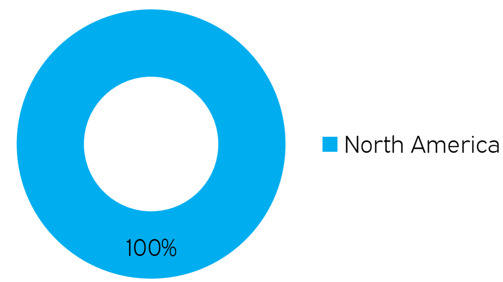
DPI	0.81x
TVPI	1.64x
IRR	24.8%

Status



Fund Diversification (by Unrealized Value)





Portfolio Holdings

Asset	Industry	Invested ($M)	Realized ($M)	Unrealized ($M)	TVPI (X)
Elk Grove Technology Park	Industrial RE	45.3	74.8	3.8	1.74
7600 Assateague	Industrial RE	34.8	48.7	0	1.40
139 East Houston Street	Diversified RE	33.3	0	26.3	0.79
Windler Homestead	Residential RE	20.5	12.2	12.5	1.20
CenterState East	Industrial RE	18.5	32.6	0	1.76
First Central Tower	Office RE	15.3	32.1	.1	2.11
MC Estates Mezzanine	Other RE	10.3	16.5	0	1.60
Plano Commerce Center	Industrial RE	9.0	1.4	11.9	1.47
Forney Logistics Center	Industrial RE	8.7	0	13.0	1.49
Other (11)		54.6	45.3	34.9	1.47
Total		**250.3**	**263.6**	**102.5**	**1.46**

Miller Global Fund V, L.P.

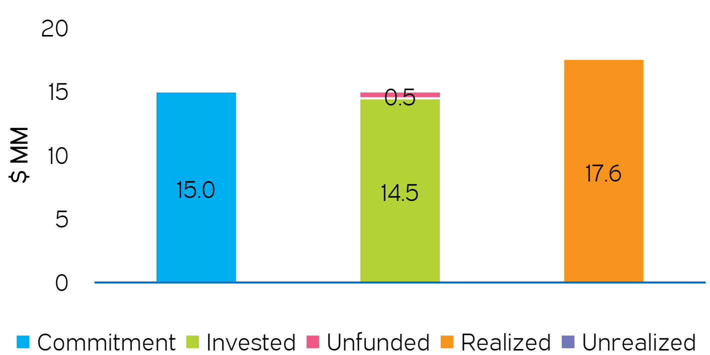
General

Manager Location	Denver, Colorado
Fund Size ($M)	$290
Vintage	2005
Strategy	Opportunistic
Target Geography	North America

Performance

DPI	1.21x
TVPI	1.21x
IRR	3.4%

Status



Fund Diversification (by Unrealized Value)

Fund is fully liquidated.

Portfolio Holdings

Fund is fully liquidated.

Miller Global Fund VI, L.P.

General

Manager Location	Denver, Colorado
Fund Size ($M)	$327
Vintage	2007
Strategy	Opportunistic
Target Geography	North America

Fund Diversification (by Unrealized Value)

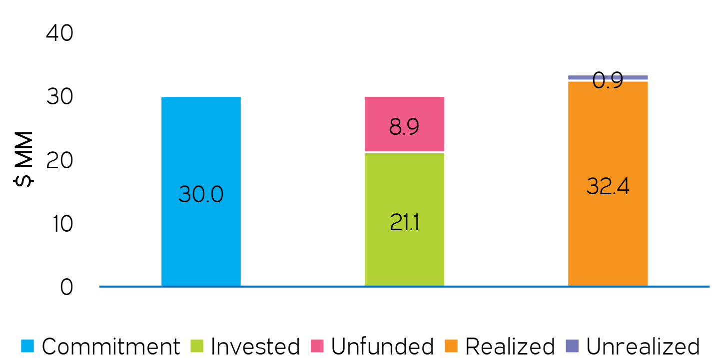
Performance

DPI	1.53x
TVPI	1.58x
IRR	7.8%

Portfolio Holdings

Asset	Industry	Invested ($M)	Realized ($M)	Unrealized ($M)	TVPI (X)
JW Marriott Resort/TPC San Antonic	Hotel & Resort	72.0	200.2	0	2.78
1333 H Street	Office RE	48.0	51.6	0	1.07
1900 West Loop South	Office RE	22.5	11.1	9.2	0.90
Embassy Suites Springfield	Hotel & Resort	20.5	44.1	0	2.15
18 Gramercy Park South	Residential RE	13.8	32.7	0	2.37
Park Ridge IV	Office RE	12.4	17.0	0	1.37
Point at Inverness	Office RE	11.2	20.2	0	1.80
Total		**200.4**	**376.9**	**9.2**	**1.93**

Status



Miller Global Fund VII, L.P.

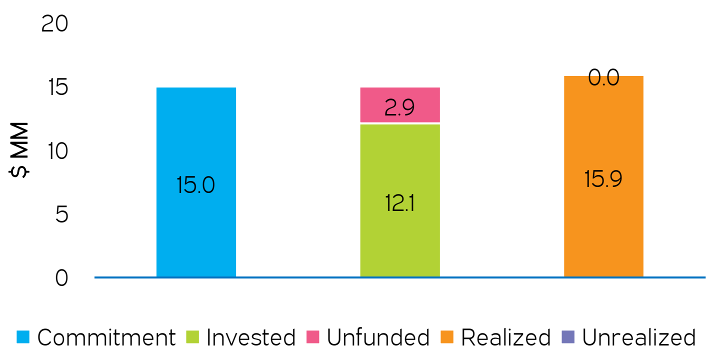
General

Manager Location	Denver, Colorado
Fund Size ($M)	$227
Vintage	2012
Strategy	Opportunistic
Target Geography	North America

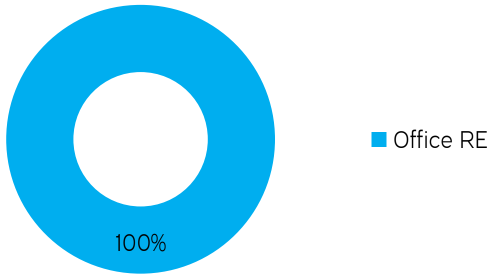
Performance

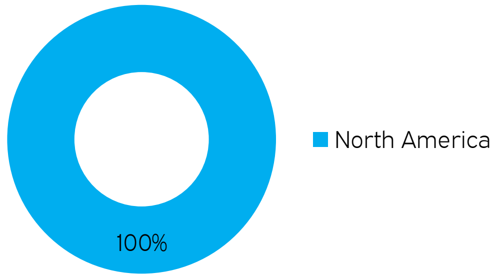
DPI	1.31x
TVPI	1.32x
IRR	14.2%

Status



Fund Diversification (by Unrealized Value)





Portfolio Holdings

Asset	Industry	Invested ($M)	Realized ($M)	Unrealized ($M)	TVPI (X)
Panorama	Office RE	51.0	85.3	0	1.67
Westgate Buildings II and III	Office RE	31.9	71.5	0	2.24
Capital Ridge	Office RE	20.5	41.0	0	2.00
Westgate Building I	Office RE	18.5	20.5	0	1.11
Dry Creek Centre	Office RE	14.0	43.0	0	3.06
Pima Northgate	Office RE	12.4	4.2	.4	0.37
Ocean Ridge	Office RE	11.3	11.5	0	1.02
Total		**159.6**	**277.1**	**.4**	**1.74**

Principal US Property Account

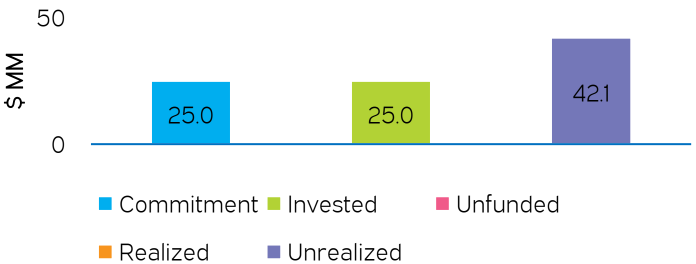
General

Manager Location	Des Moines, Iowa
Fund Size ($M)	$10,731
Vintage	Open-end
Strategy	Core
Target Geography	North America

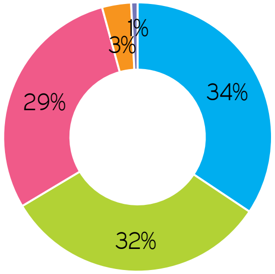
Performance

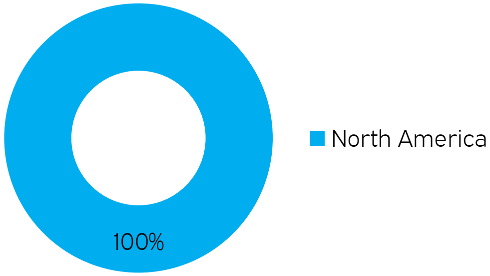
DPI	0.00x
TVPI	1.68x
IRR	9.0%

Status



Fund Diversification (by Unrealized Value)





Portfolio Holdings

Asset	Industry	Invested ($M)	Realized[1] ($M)	Unrealized ($M)	TVPI (X)
Principal US Multifamily	Residential RE	2,974.5	0	3,865.8	1.30
Principal US Office	Retail RE	2,365.9	0	2,797.0	1.18
Principal US Industrial	Industrial RE	1,707.3	0	3,529.8	2.07
Principal US Retail	Retail RE	1,299.2	0	1,341.4	1.03
Principal Joint Ventures	Diversified RE	376.0	0	421.3	1.12
Short-term investments	Not Disclosed	65.5	0	65.5	1.00
Principal US Land	Other RE	28.1	0	27.4	0.97
Total		**8,816.6**	**0**	**12,048.1**	**1.37**

[1] The manager provided incomplete underlying holdings detail. Holdings detail shows invested capital and fair value but does not include realized proceeds. Therefore, TVPI performance metrics are not meaningful.

Prologis Targeted U.S. Logistics

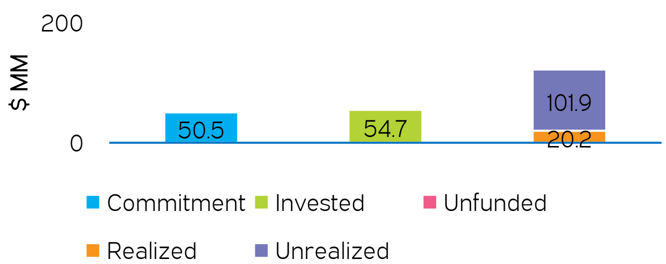
General

Manager Location	
Fund Size ($M)	$13,200
Vintage	Open-end
Strategy	Core
Target Geography	North America

Performance

DPI	0.37x
TVPI	2.23x
IRR	7.9%

Status



Fund Diversification (by Unrealized Value)

Portfolio Holdings

Asset	Industry	Invested[1] ($M)	Realized[2] ($M)	Unrealized ($M)	TVPI (X)
Prologis East	Industrial RE	0	0	4,399.6	NM
Prologis Midwest	Industrial RE	0	0	2,826.2	NM
Prologis South	Industrial RE	0	0	5,039.6	NM
Prologis West	Industrial RE	0	0	11,876.1	NM
Total		**0**	**0**	**24,141.4**	**NM**

[1] The manager provided incomplete underlying holdings detail. Holdings detail only shows fair value. Therefore, TVPI performance metrics are not meaningful.
[2] The manager provided incomplete underlying holdings detail. Holdings detail shows invested capital and fair value but does not include realized proceeds. Therefore, TVPI performance metrics are not meaningful.

RREEF America REIT II, Inc.

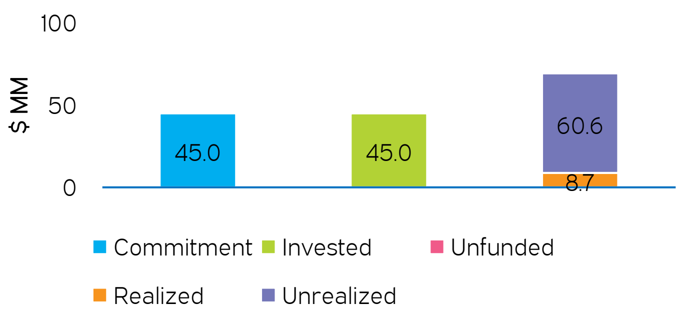
General

Manager Location	London, England
Fund Size ($M)	$14,200
Vintage	Open-end
Strategy	Core
Target Geography	North America

Performance

DPI	0.19x
TVPI	1.54x
IRR	8.7%

Status



Fund Diversification (by Unrealized Value)

Portfolio Holdings

Asset	Industry	Invested ($M)	Realized[1] ($M)	Unrealized ($M)	TVPI (X)
Apartment	Residential RE	3,786.6	0	4,900.0	1.29
Office	Office RE	3,477.7	0	4,228.9	1.22
Industrial	Industrial RE	3,388.3	0	6,782.7	2.00
Retail	Retail RE	2,132.3	0	2,223.8	1.04
Total		**12,784.9**	**0**	**18,135.5**	**1.42**

[1] The manager provided incomplete underlying holdings detail. Holdings detail only shows invested capital and fair value. Therefore, TVPI performance metrics are not meaningful.

Stockbridge Real Estate Fund III, L.P.

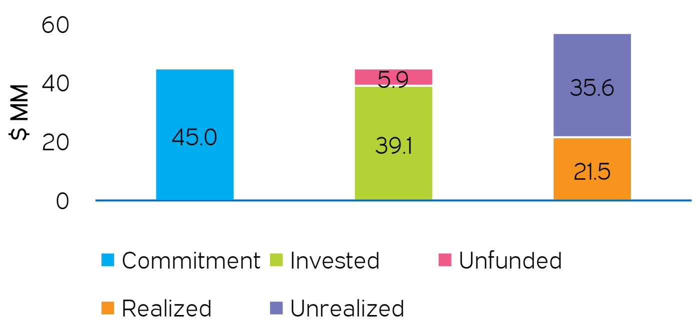
General

Manager Location	San Francisco, California
Fund Size ($M)	$355
Vintage	2017
Strategy	Value-Added
Target Geography	North America

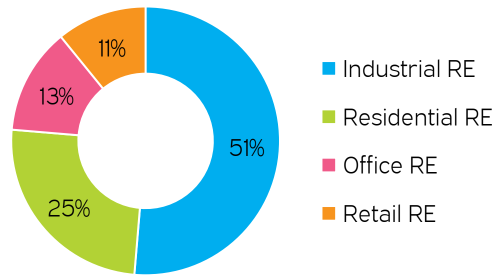
Performance

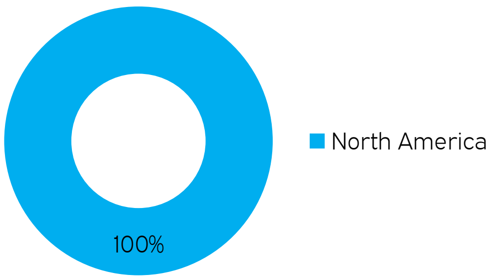
DPI	0.55x
TVPI	1.46x
IRR	19.0%

Status



Fund Diversification (by Unrealized Value)





Portfolio Holdings

Asset	Industry	Invested ($M)	Realized[1] ($M)	Unrealized ($M)	TVPI (X)
Chicago Infill Industrial	Industrial RE	46.9	0	68.2	1.46
LINQ Apartments	Residential RE	46.2	0	50.7	1.10
Burnham 600	Office RE	29.8	0	18.5	0.62
110 E Broward	Office RE	27.5	0	20.4	0.74
Glenwood Park Lofts	Residential RE	15.3	0	24.1	1.57
Barrett Pavilion	Retail RE	13.9	0	23.9	1.72
TOP Kearny	Industrial RE	12.8	0	26.2	2.05
TOP Tippecanoe	Industrial RE	10.2	0	21.6	2.13
Airport Way Corporate	Industrial RE	8.8	0	12.8	1.45
Other (8)		20.3	0	37.4	1.85
Total		**231.7**	**0**	**303.9**	**1.31**

[1] The manager provided incomplete underlying holdings detail. Holdings detail only shows invested capital and fair value. Therefore, TVPI performance metrics are not meaningful.

Walton Street Real Estate Fund V, L.P.

The Fund will make value-added and opportunistic equity and/or debt investments in real estate related assets and companies. The manager targets institutional quality assets in desirable markets with a focus on: (i) value enhancement potential, (ii) value investing, and (iii) opportunistic areas of event-driven investment.

General

Manager Location	Chicago, Illinois
Fund Size ($M)	$1,597
Vintage	2005
Strategy	Opportunistic
Target Geography	North America

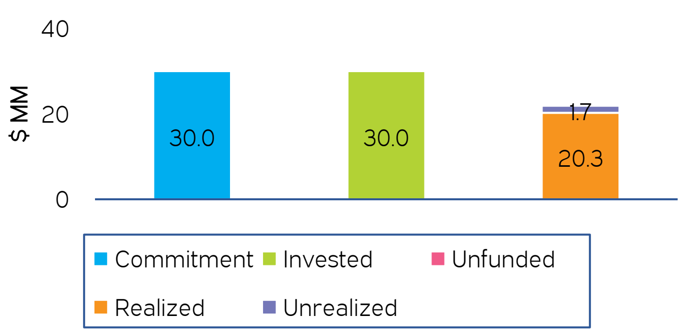
Fund Diversification (by Unrealized Value)

No unrealized investments remain.

Performance

DPI	0.68x
TVPI	0.73x
IRR	-3.4%

Status



Portfolio Holdings

Asset	Industry	Invested ($M)	Realized ($M)	Unrealized ($M)	TVPI (X)
Constitution Sq Resi 1	Diversified RE	166.5	300.2	0	1.80
Crescent Hotel Ventana	Hotel & Resort Ops	135.0	200.6	0	1.49
Altta Homes	Residential RE	101.3	65.1	0	0.64
American Senior Living	Other RE	71.2	23.6	0	0.33
Higgins Portfolio	Diversified RE	62.4	1.0	0	0.02
Empire Ctr Note Purchase	Office RE	56.7	70.3	0	1.24
El Milagro	Residential RE	31.9	0	0	0.00
Boston Malls	Retail RE	23.0	3.1	0	0.14
305 Walnut	Office RE	16.7	9.9	0	0.60
Other (16)		47.8	96.4	0	2.02
Total		**712.5**	**770.2**	**0**	**1.08**

Walton Street Real Estate Fund VI, L.P.

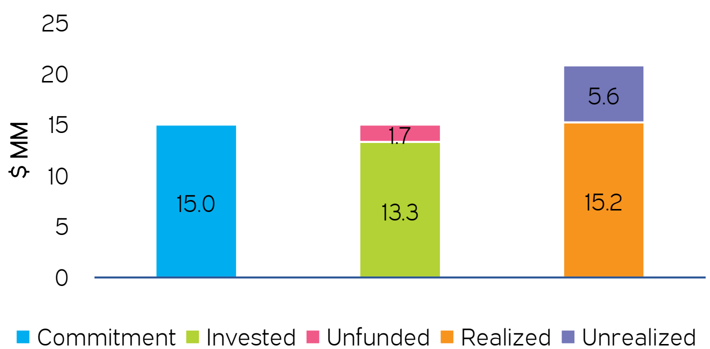
General

Manager Location	Chicago, Illinois
Fund Size ($M)	$667
Vintage	2007
Strategy	Opportunistic
Target Geography	North America

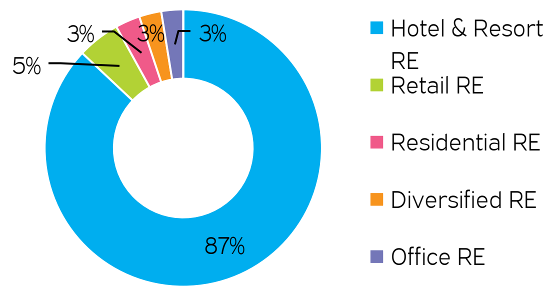
Performance

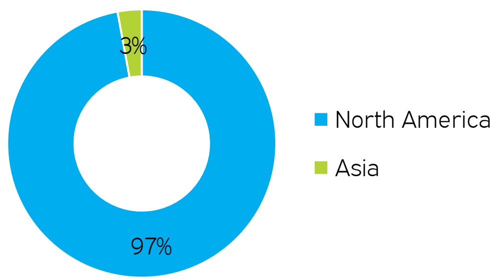
DPI	1.14x
TVPI	1.57x
IRR	8.2%

Status



Fund Diversification (by Unrealized Value)





Portfolio Holdings

Asset	Industry	Invested ($M)	Realized ($M)	Unrealized ($M)	TVPI (X)
Rivers Casino	Hotel & Resort RE	184.8	132.3	463.0	3.22
Thompson Chicago	Hotel & Resort RE	61.2	17.6	7.4	0.41
PECO Retail Portfolio	Retail RE	47.8	23.5	14.0	0.79
Eye Street Assemblage	Diversified RE	43.2	0	14.0	0.32
Atlas Park	Retail RE	37.0	35.4	12.8	1.30
India Portfolio - Shriram	Residential RE	22.7	0	15.6	0.69
City Plaza	Office RE	20.0	18.5	13.8	1.62
Elliot Corporate	Office RE	14.1	1.7	0	0.12
Total		**430.7**	**229.0**	**540.7**	**1.79**

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: Barclays Capital U.S. Corporate High Yield Bond Index Private Equity: MSCI ACWI Investable Market Index Real Assets (excluding Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index and S&P Global Natural Resources Index Real Assets (including Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index, S&P Global Natural Resources Index, and Dow Jones U.S. Select Real Estate Securities Index Real Estate: Dow Jones U.S. Select Real Estate Securities Index
Remaining Value	The investor's value as reported by a fund manager on the investor's capital account statement. All investor values in this report are as of the date of this report, unless otherwise noted. Some funds may be denominated in non-USD currencies, and such remaining values represent the fund's local currency value translated to USD at the rate as of the date of this report.
TVPI	Acronym for "Total Value-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculations represents Distributed plus Remaining Value, then divided by Contributed. TVPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.
Unfunded	The remaining balance of capital that a fund manager has yet to call against a commitment amount. Meketa updates unfunded balances for funds to reflect all information provided by fund managers provided in their cash flow notices. Some funds may be denominated in non-USD currencies, and such unfunded balances represent the fund's local currency unfunded balance translated to USD at the rate as of the date of this report.

Economic and Market Update

Data as of March 31, 2022

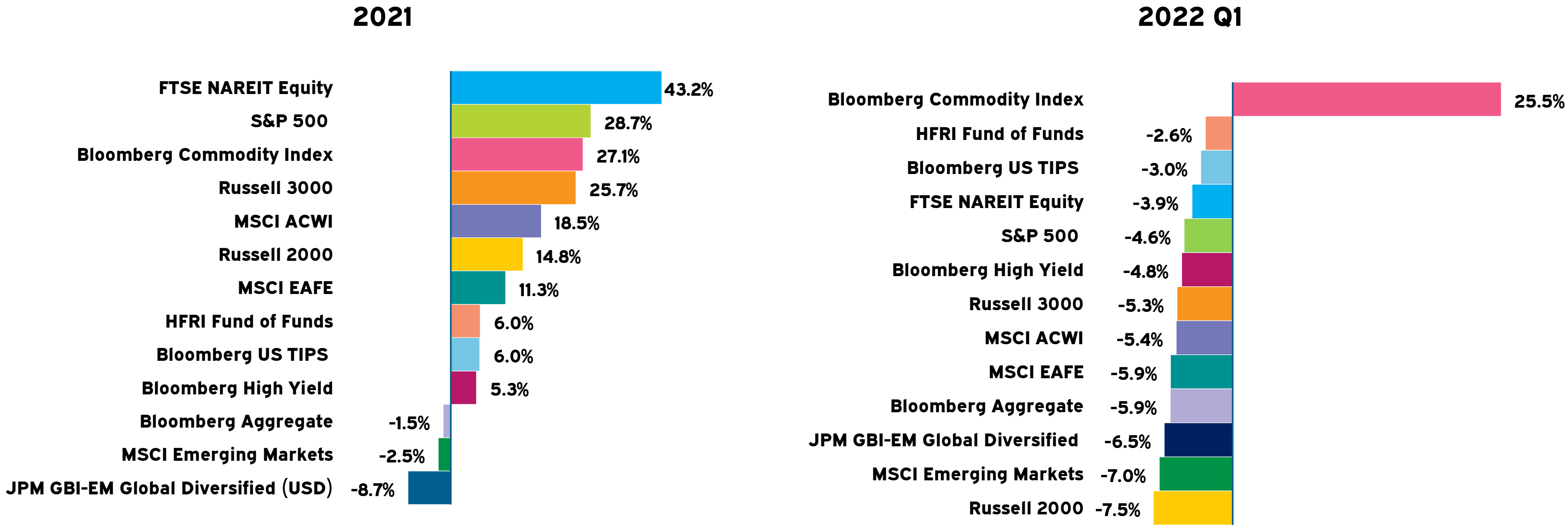
Q1 Commentary

→ The first quarter saw market volatility, driven by persistently high inflation, expectations for policy to tighten faster than previously expected, and Russia's invasion of Ukraine.

- Except for commodities, all asset classes declined during the quarter.
- Equities declined across the board with double-digit losses in China particularly weighing on emerging markets.
- Value oriented equities outpaced growth in the US influenced by higher interest rates.
- Bonds in the US had one of their worst quarters on record, declining more than equities.
- Rates rose across the US yield curve, with the curve inverting by some measures by month-end.
- Inflation remains high globally given lingering supply issues from the pandemic and the conflict in Ukraine.
- The pace of policy tightening will likely increase due to persistent inflation.

→ The conflict in eastern Europe will have considerable economic and financial consequences for the global economy including the pacing of policy rate tightening, the risk of policy mistakes, and supply shocks pushing inflation even higher around the world.

Index Returns[1]



→ Outside of emerging markets and the broad US investment grade bond market (Bloomberg Aggregate), most asset classes appreciated in 2021.

→ Most major asset classes suffered negative returns in the first quarter of 2022 with the notable exception of commodities. TIPS declined less than most other asset classes in the inflationary environment.

[1] Data Source: Bloomberg and FactSet. Data is as of March 31, 2022.

Domestic Equity Returns[1]

Domestic Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	3.7	-4.6	15.6	18.9	16.0	14.6
Russell 3000	3.2	-5.3	11.9	18.2	15.4	14.3
Russell 1000	3.4	-5.1	13.3	18.7	15.8	14.5
Russell 1000 Growth	3.9	-9.0	15.0	23.5	20.9	17.0
Russell 1000 Value	2.8	-0.7	11.7	13.0	10.3	11.7
Russell MidCap	2.6	-5.7	6.9	14.9	12.6	12.8
Russell MidCap Growth	1.6	-12.6	-0.9	14.8	15.1	13.5
Russell MidCap Value	3.0	-1.8	11.5	13.6	10.0	12.0
Russell 2000	1.2	-7.5	-5.8	11.7	9.7	11.0
Russell 2000 Growth	0.5	-12.6	-14.3	9.9	10.3	11.2
Russell 2000 Value	2.0	-2.4	3.3	12.7	8.6	10.5

US Equities: Russell 3000 Index returned -5.3%, and value indices outperformed growth in Q1.

→ Despite positive returns in March, US equities posted negative returns for the first quarter of 2022 across all market capitalizations and styles given persistently high inflation and geopolitical uncertainty.

→ Value stocks declined far less than growth stocks in the rising rate environment. Strong returns in the energy sector and weakness in the technology sector contributed to the results.

→ Large company stocks (Russell 1000) outperformed small company stocks (Russell 2000).

[1] Source: Bloomberg. Data is as of March 31, 2022.

Foreign Equity Returns[1]

Foreign Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	0.2	-5.4	-1.5	7.5	6.8	5.5
MSCI EAFE	0.6	-5.9	1.2	7.8	6.7	6.3
MSCI EAFE (Local Currency)	2.1	-3.7	6.2	8.2	6.5	8.6
MSCI EAFE Small Cap	0.0	-8.5	-3.6	8.5	7.4	8.3
MSCI Emerging Markets	-2.3	-7.0	-11.4	4.9	6.0	3.4
MSCI Emerging Markets (Local Currency)	-2.1	-6.1	-9.9	6.2	7.5	6.3
MSCI China	-8.0	-14.2	-32.5	-3.0	3.5	4.5

International Developed Market Equities: MSCI EAFE -5.9% in Q1.

→ Returns in international developed markets were also negative for the first quarter of 2022.

→ Declines were driven by a sharp fall in stocks in Europe hurt by a high reliance on Russian oil and gas.

→ Continued strength in the US dollar also weighed on results.

Emerging Markets: MSCI EM -7.0% in Q1.

→ Emerging market stocks declined more than developed market stocks for the quarter.

→ China was a key driver of results as its zero COVID-19 policy led to renewed lockdowns in Shanghai. Concerns related to regulations on US-listed China stocks and overall slower growth also weighed on returns.

→ Russian stocks and the ruble plunged with sanctions and trading halts.

[1] Source: Bloomberg. Data is as of March 31, 2022.

Fixed Income Returns[1]

Fixed Income	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-2.7	-6.1	-4.2	1.8	2.3	2.6	3.3	6.6
Bloomberg Aggregate	-2.8	-5.9	-4.2	1.7	2.1	2.2	2.9	6.8
Bloomberg US TIPS	-1.9	-3.0	4.3	6.2	4.4	2.7	2.6	7.6
Bloomberg High Yield	-1.1	-4.8	-0.7	4.6	4.7	5.7	6.0	4.6
JPM GBI-EM Global Diversified (USD)	-1.5	-6.5	-8.5	-1.1	0.2	-0.7	6.4	5.1

Fixed Income: Bloomberg Universal -6.1% in Q1.

→ The broad US investment grade bond market (Bloomberg Aggregate) experienced one of its worst quarters on record given continued concerns about policy tightening and inflation. The nominal 10-year Treasury yield finished the quarter at 2.3%, a level 0.8% above the end of 2021.

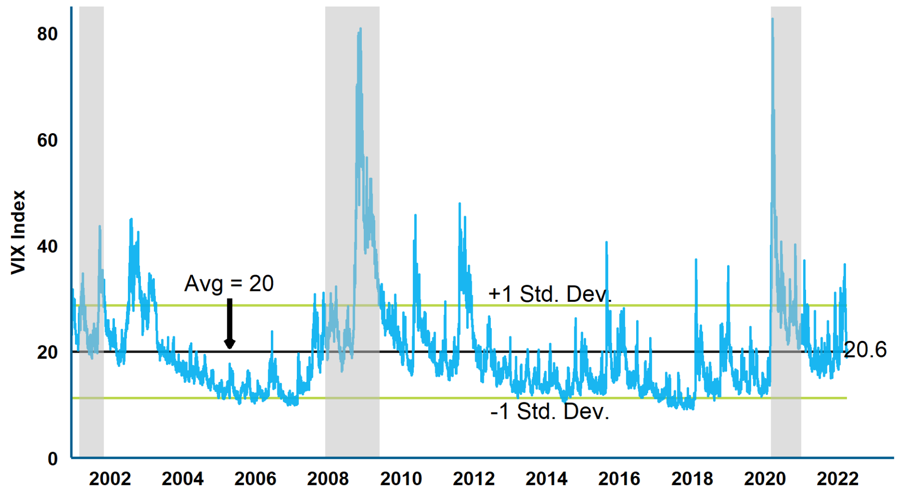
→ TIPS also declined in the rising rate environment, but less than other bond sectors, helped by their inflation component.

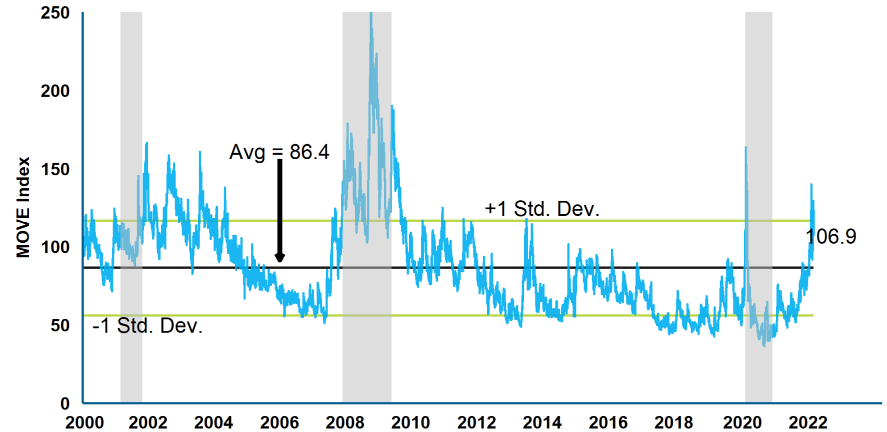
→ US credit spreads widened in the first quarter, particularly in high yield, as risk assets fell. Spreads remain at relatively low levels, though, given strong corporate health and high investor demand in the low-rate environment.

→ Emerging market debt prices also declined in the quarter driven by the Russian invasion of Ukraine.

[1] Source: Bloomberg. JPM GBI-EM is from InvestorForce. Data is as of March 31, 2022.

Equity and Fixed Income Volatility[1]



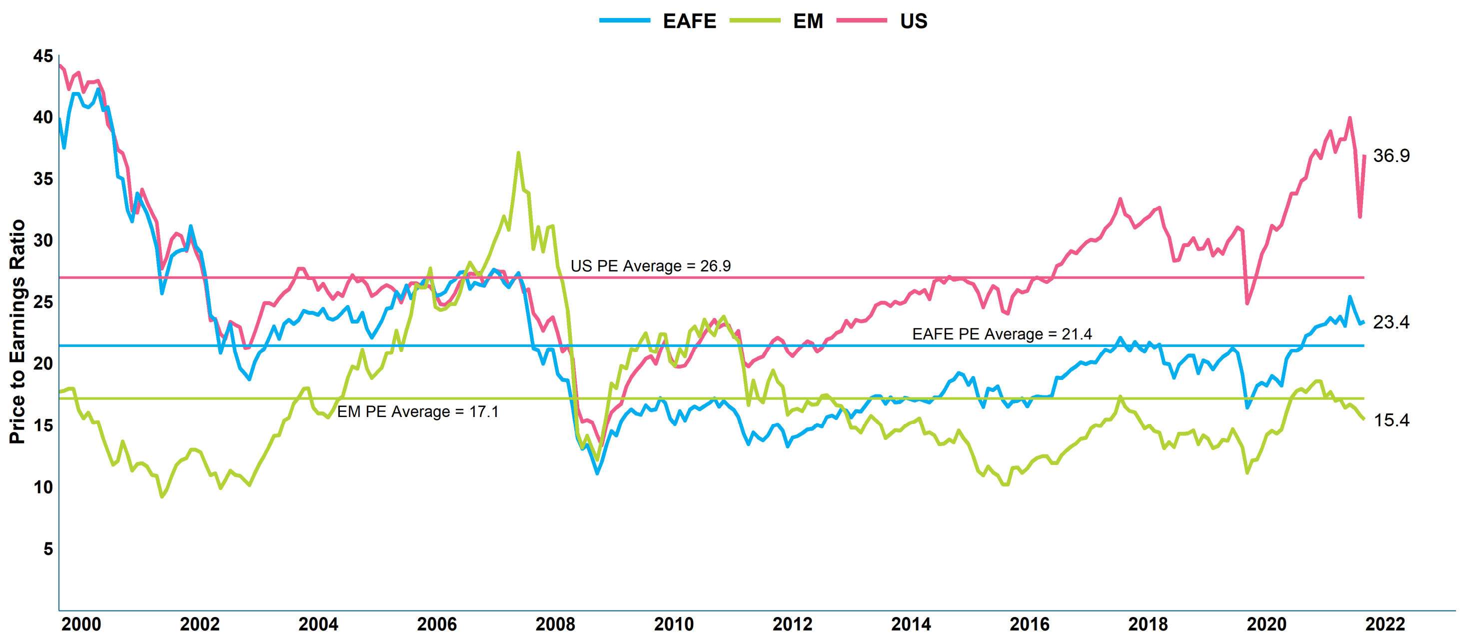


→ Volatility in equities (VIX) increased for the first quarter but finished well below the March peak of 36.5.

→ Fixed income volatility (MOVE) also increased and remains elevated driven largely by expectations that the Federal Reserve would tighten monetary policy faster than previously expected.

[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 2022. The average line indicated is the average of the VIX and MOVE values between January 2000 and the present month-end respectively.

Equity Cyclically Adjusted P/E Ratios[1]

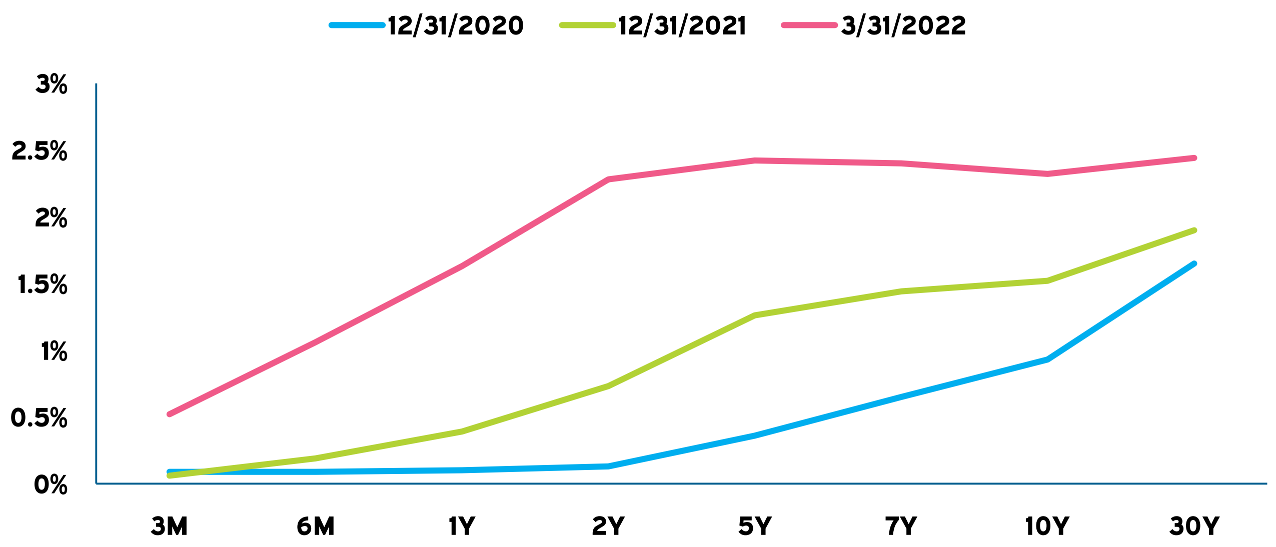


→ US equity valuations retreated in the first two months of 2022, and rebounded in March with the market recovery. They remain well above long-term averages (near +2 standard deviations).

→ International developed market valuations remain below the US, with those for emerging markets under its 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 31, 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to month-end respectively.

US Yield Curve[1]

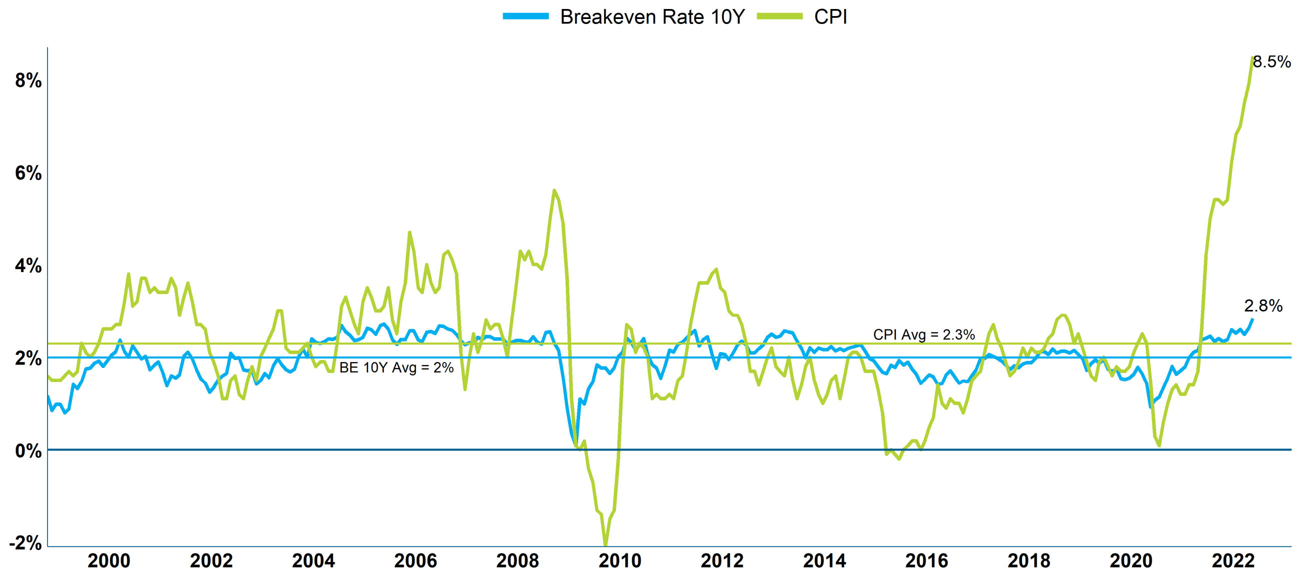


→ The trends of higher rates across maturities and curve flattening continued during the first quarter of 2022 as markets repriced inflation, rate expectations, and an accelerated pace of the Federal Reserve reducing its balance sheet.

→ The spread between two-year and ten-year Treasuries declined significantly over the quarter and became negative after quarter-end which historically has often signaled a recession.

[1] Source: Bloomberg. Data is as of March 31, 2022.

Ten-Year Breakeven Inflation and CPI[1]



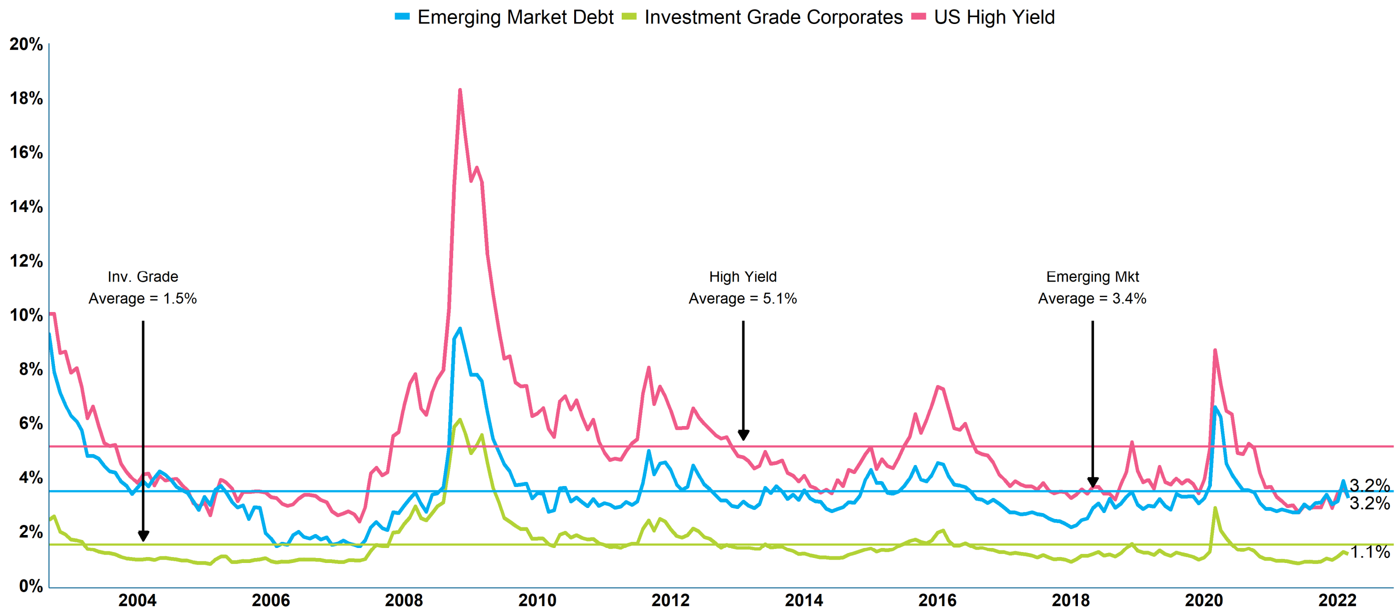
→ Inflation expectations (breakevens) increased during the quarter but are off their peak of close to 3.0%. They remain well above the long-term average.

→ Trailing twelve-month CPI continued to rise in March, reaching 8.5%, a level not seen since the early 1980s and far above the long-term average of 2.3%.

→ Rising prices for energy and food, and for new and used cars, remained key drivers of higher inflation.

[1] Source: Bloomberg. Data is as of March 31, 2022. 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]



→ Credit spreads (the spread above a comparable maturity Treasury) increased over the quarter leading to negative returns.

→ In the US, high yield spreads increased more than investment grade spreads, but declined less due to the higher relative income. Emerging market spreads finished the quarter at the same level as US high yield.

→ The search for yield in a low-rate environment and continued strong corporate fundamentals with low default risk have been key drivers in the decline in credit spreads to below long-term averages in the US. High yield spreads remain well below the long-term average.

[1] Sources: Bloomberg. Data is as of March 31, 2022. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the present month-end respectively.

Global Economic Outlook

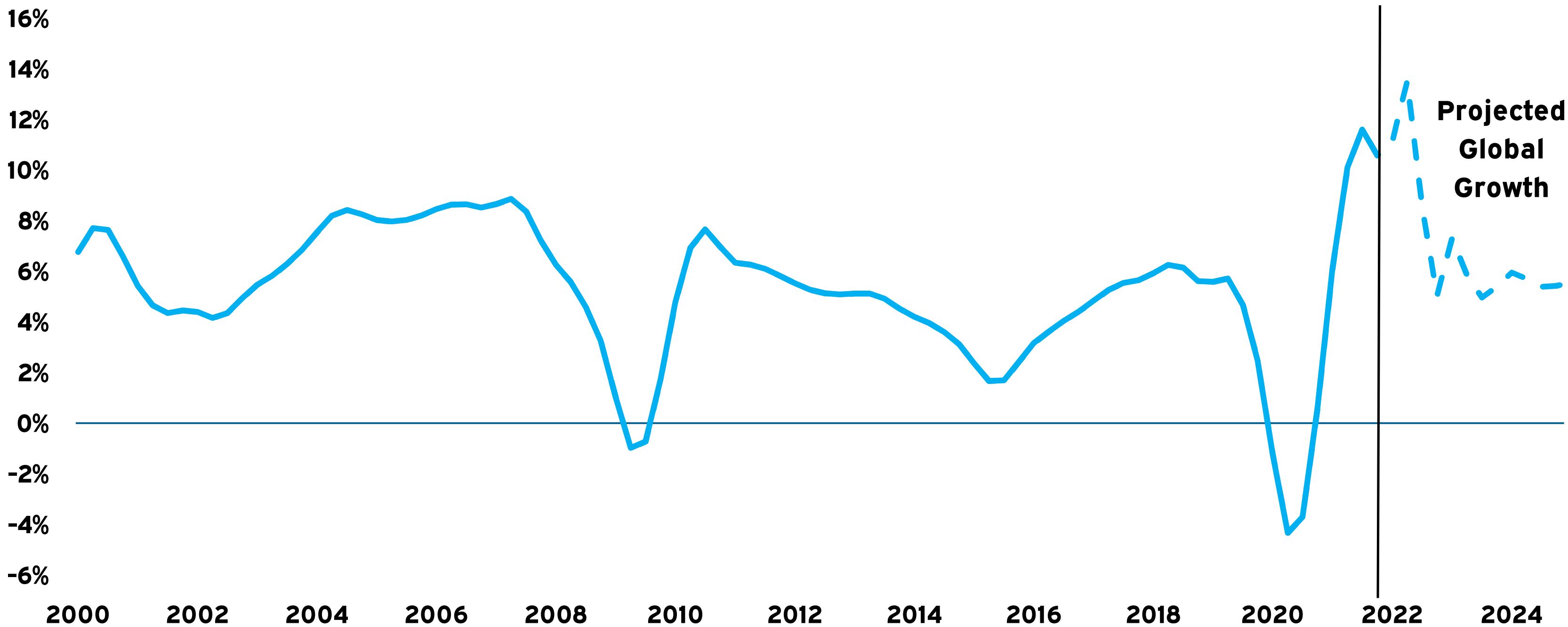
The IMF significantly lowered global growth forecasts in their latest projections, driven by the economic impacts of the war in Ukraine.

- → The IMF forecasts final global GDP to come in at 6.1% in 2021 and 3.6% in 2022 (0.8% below the prior 2022 estimate), both still above the past ten-year average of 3.0%.
- → In advanced economies, GDP is projected to increase 3.3% in 2022 and 2.4% in 2023. The US has limited economic ties with Russia but saw another downgrade in the 2022 growth forecast (3.7% versus 4.0%) largely due to policy reduction happening faster than previously expected. The euro area economy saw a significant downgrade in expected growth (2.8% versus 3.9%) in 2022 as rising energy prices particularly weigh on the region that is a net importer of energy. The Japanese economy is expected to grow 2.4% this year.
- → Growth projections for emerging markets are higher than developed markets, at 3.8% in 2022 and 4.4% in 2023. China's growth was downgraded (4.4% versus 4.8%) for 2022 given tight COVID-19 restrictions and continued property sector problems.
- → The global inflation forecast was significantly increased for 2022 (7.4% versus 3.8%) due to the war in Ukraine.

	Real GDP (%)[1]			Inflation (%)[1]		
	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average
World	3.6	3.6	3.0	7.4	4.8	3.5
Advanced Economies	3.3	2.4	1.6	5.7	2.5	1.5
US	3.7	2.3	2.1	7.7	2.9	1.9
Euro Area	2.8	2.3	0.9	5.3	2.3	1.2
Japan	2.4	2.3	0.5	1.0	0.8	0.5
Emerging Economies	3.8	4.4	4.2	8.7	6.5	5.1
China	4.4	5.1	6.7	2.1	1.8	2.1

[1] Source: IMF World Economic Outlook. Real GDP forecasts from April WEO Update. Inflation forecasts are as of the April 2022 Update. "Actual 10 Year Average" represents data from 2012 to 2021.

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



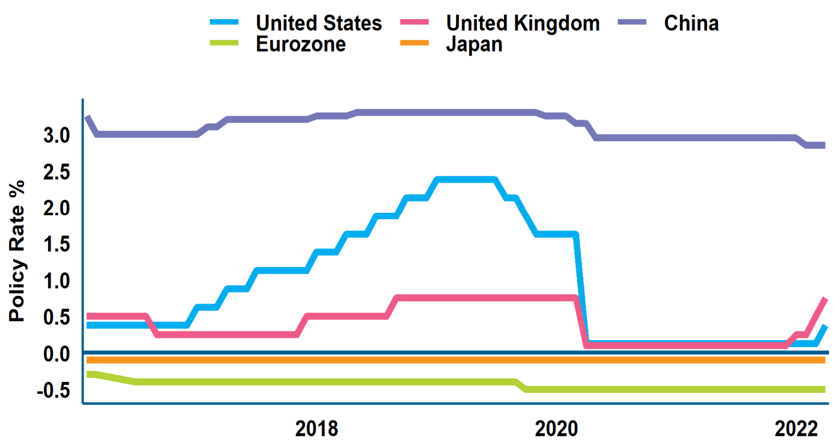
→ Global economies are expected to slow in 2022 compared to 2021 but are forecasted to have another year of largely above-trend growth as economies continue to emerge from the pandemic.

→ Looking forward, the track of the conflict between Russia and Ukraine, continued supply chain issues, ongoing inflationary pressures, tighter monetary policy, and lingering pandemic problems all remain key.

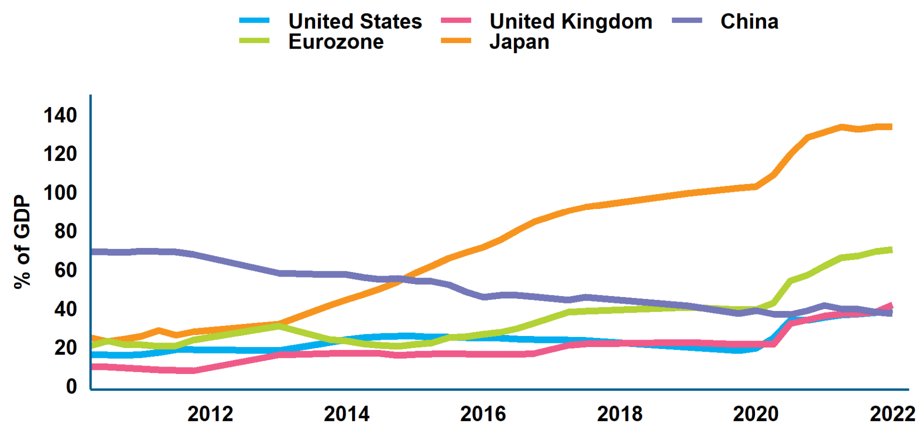
[1] Source: Oxford Economics (World GDP, US$ prices & PPP exchange rate, nominal, % change YoY). Updated March 2022.

Central Bank Response[1]

Policy Rates



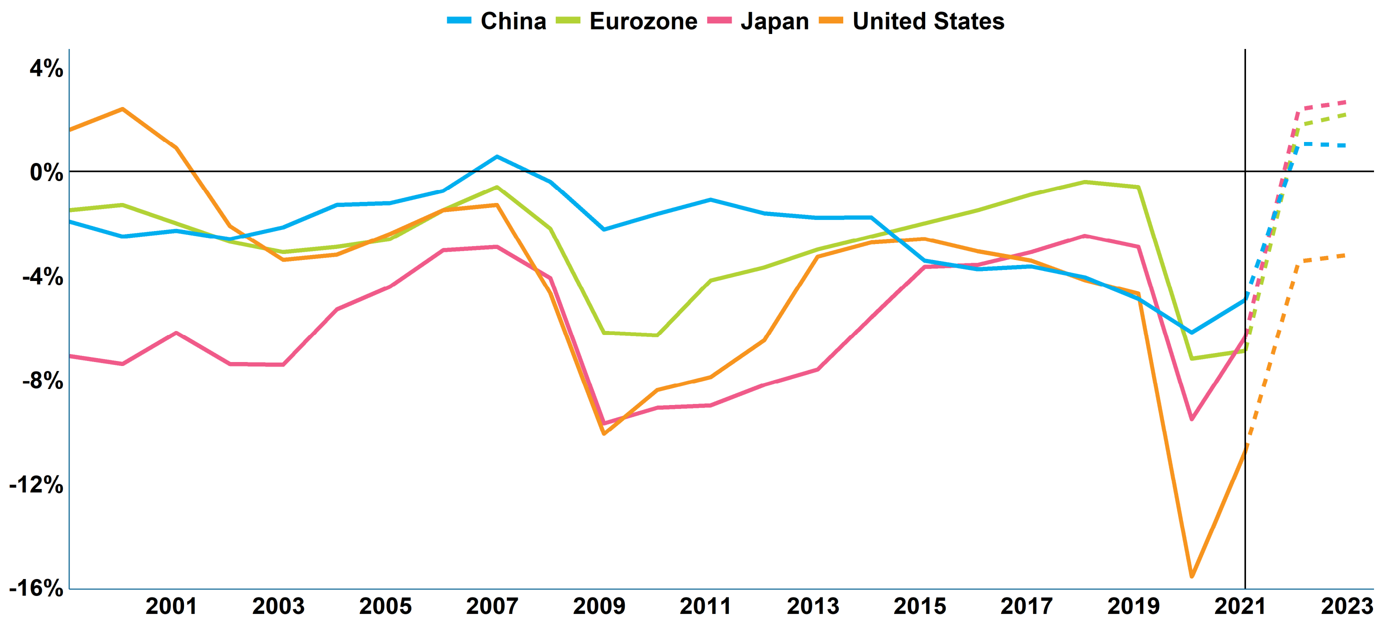
Balance Sheet as % of GDP



- → After global central banks took extraordinary action to support the economy during the pandemic including policy rate cuts and emergency stimulus through quantitative easing (QE), many are considering reducing support in the face of high inflation.
- → The pace of withdrawing support will likely vary across central banks with the US expected to take a more aggressive approach. The risk remains for a policy error, particularly overtightening, as the war in Ukraine could suppress global growth.
- → The one notable outlier is China, where the central bank recently lowered rates and reserve requirements in response to slowing growth.

[1] Source: Bloomberg. Policy rate data is as of March 31, 2022. 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, 2021.

Budget Surplus / Deficit as a Percentage of GDP[1]

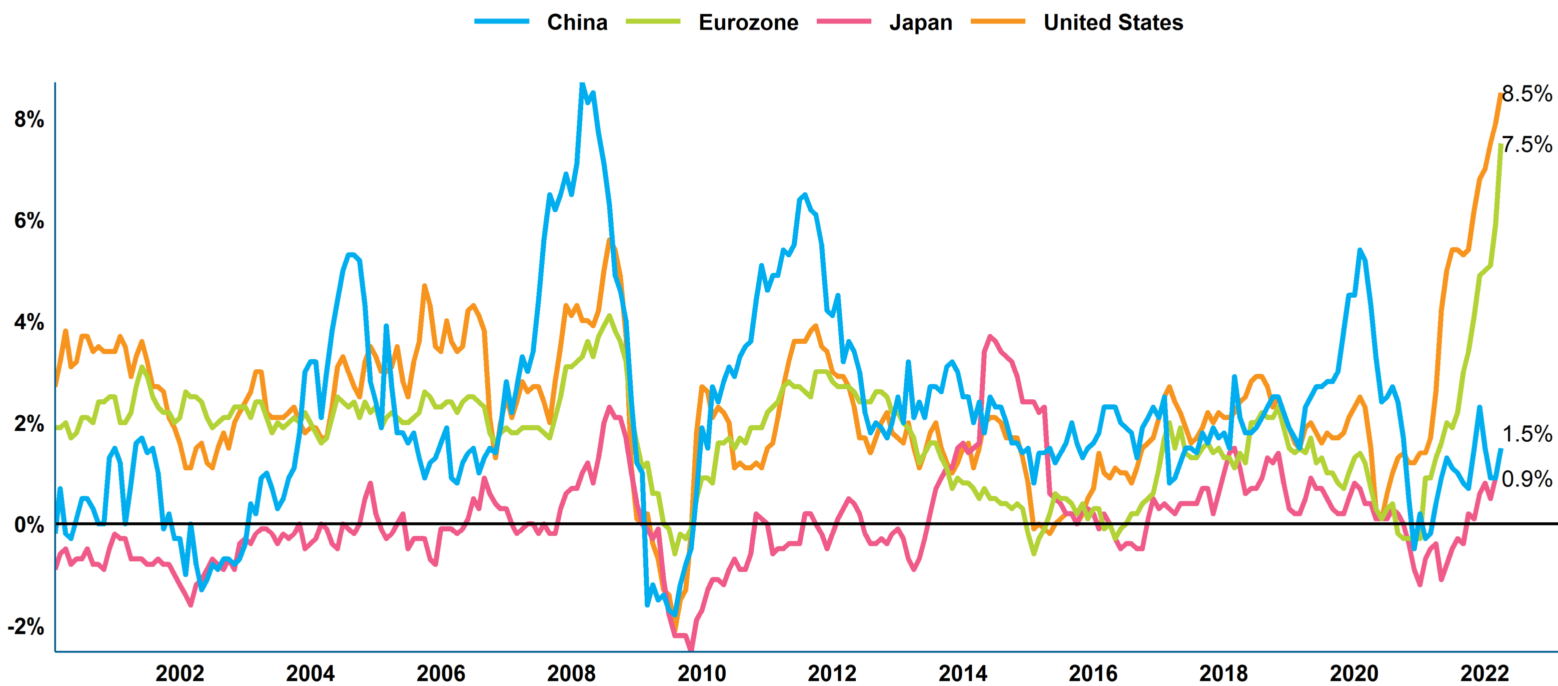


→ Budget deficits as a percentage of GDP drastically increased for major world economies, particularly the US, due to massive fiscal support and the severe economic contraction's effect on tax revenue in 2020 and 2021.

→ As fiscal stimulus programs end, and economic recoveries continue, deficits should improve in the coming years.

[1] Source: Bloomberg. Data is as of March 31, 2022. Projections via IMF Forecasts from April 2022 Report. Dotted lines represent 2022 and 2023 forecasts.

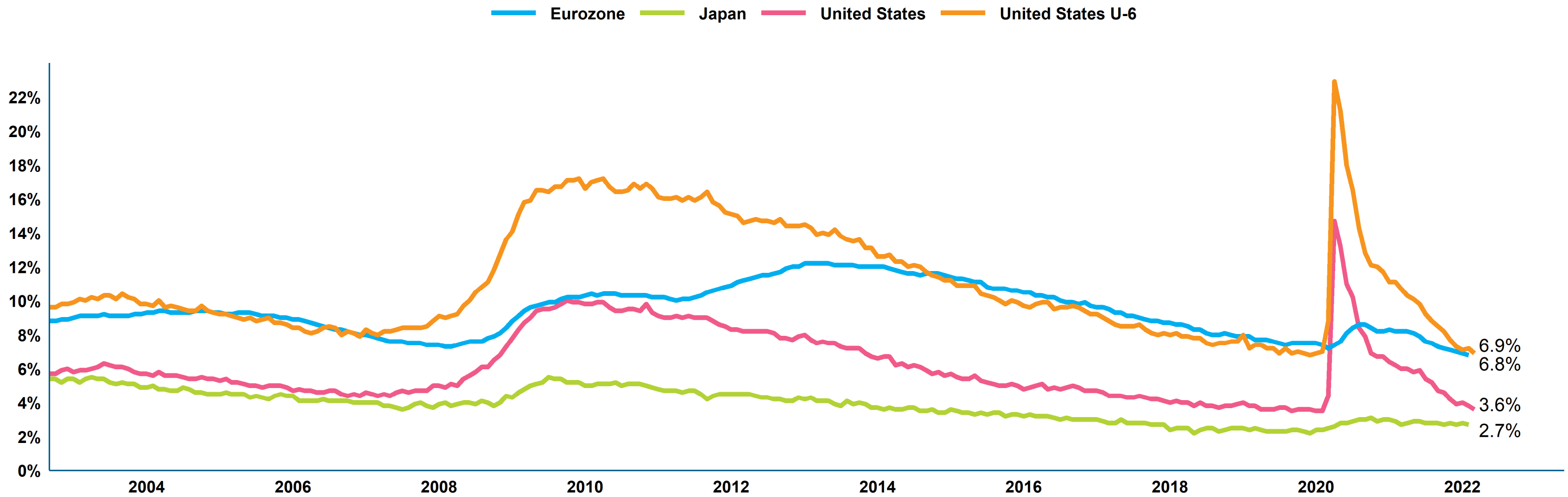
Inflation (CPI Trailing Twelve Months)[1]



- → Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it continues to reach levels not seen in decades.
- → Supply issues related to the pandemic and higher prices in many key commodities driven by the Russia and Ukraine conflict have been key drivers of inflation globally.

[1] Source: Bloomberg. Data is as of March 2022, except for Japan, where the most recent data available is as of February 28, 2022.

Unemployment[1]

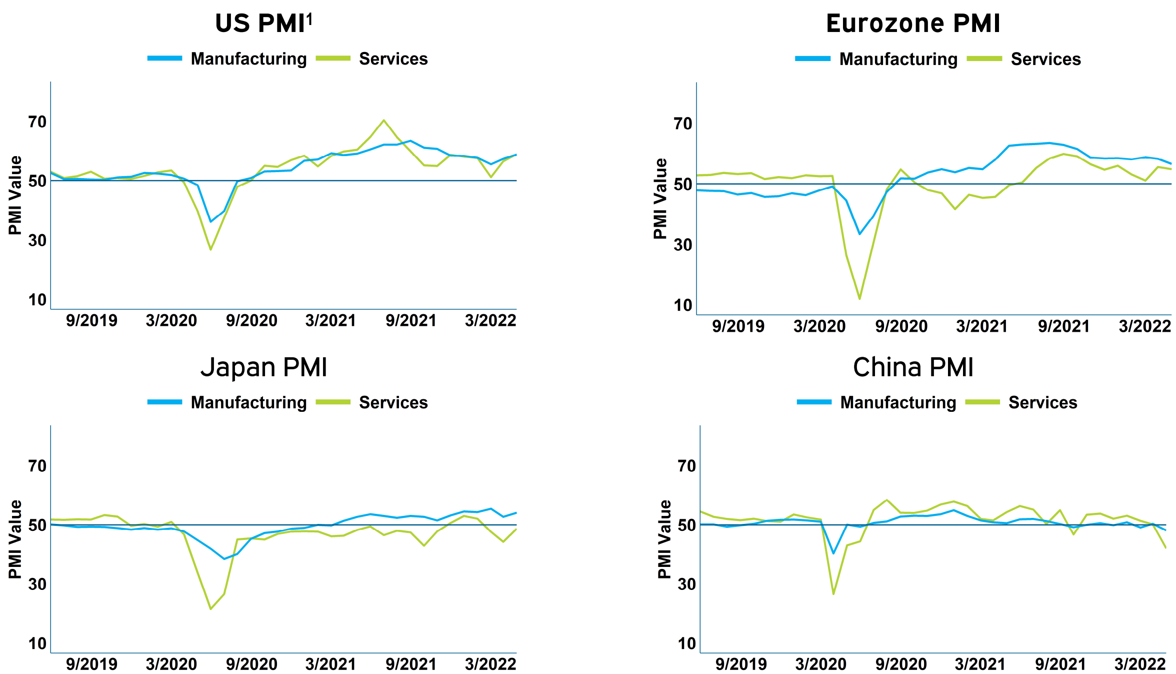


→ As economies have largely reopened due to vaccines for the virus, improvements have been seen in the labor market.

→ US unemployment, which experienced the steepest rise from the pandemic, has declined back to pre-pandemic levels. The broader measure (U-6) that includes discouraged and underemployed workers has declined but is much higher at 6.9%.

[1] Source: Bloomberg. Data is as of March 31, 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of February 28, 2022.

Global PMIs



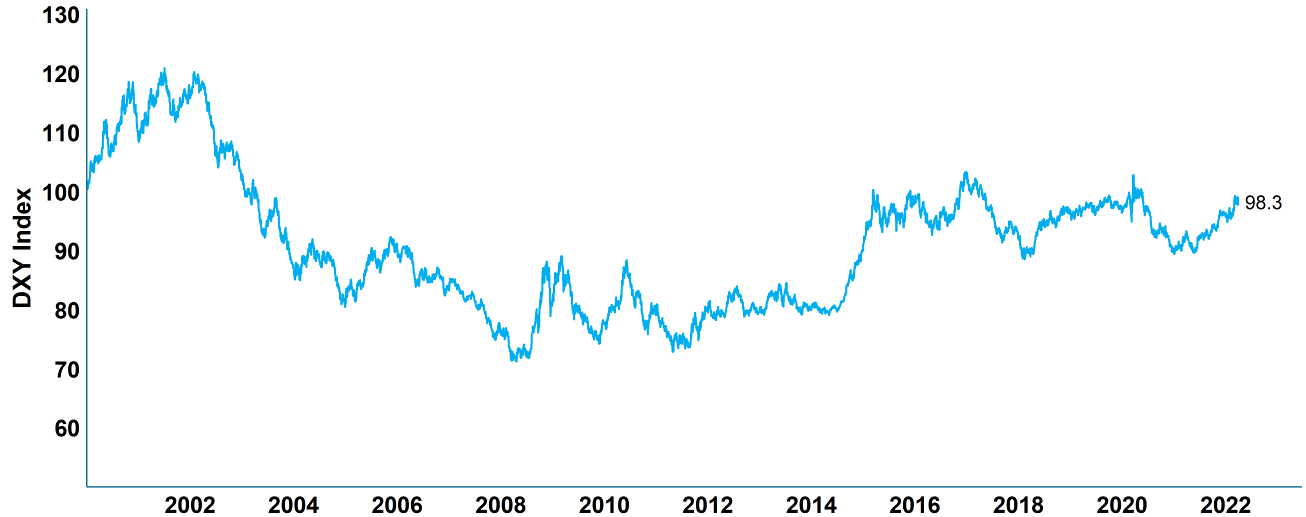
→ After improvements from the lows of the pandemic, Purchasing Managers Indices (PMI), based on surveys of private sector companies, have experienced pressures recently.

→ Service sector PMIs have seen some improvements in the US and Europe lately as the effects of the Omicron variant wane, while Japan and China remain in contraction due to a rise in COVID-19 cases.

→ In most countries, manufacturing PMIs are in expansion territory as pandemic-related production issues ease and orders increase. China is the one exception, though, with the manufacturing PMI falling below 50 in March due to increased COVID-19 restrictions.

[1] Source: Bloomberg. US Markit Services and Manufacturing PMI, Caixin Services and Manufacturing PMI, Eurozone Markit Services and Manufacturing PMI, Jibun Bank Services and Manufacturing PMI. Data is as of March 2022. Readings below 50 represent economic contractions.

US Dollar versus Broad Currencies[1]



- → The US dollar continued its 2021 trend of strengthening against a broad basket of peers in the first quarter of 2022 with further increases after month-end.
- → Safe-haven flows and higher rates have been key drivers of the dollar's continued strength.
- → A few commodity-sensitive currencies like the Brazilian real, South African rand, and Mexican peso have recently outpaced the dollar, given persistently high commodity prices.

[1] Source: Bloomberg. Data as of March 28, 2022.

Summary

Key Trends in 2022:

→ The war in eastern Europe has created significant uncertainty going forward with a wide range of potential outcomes. Volatility will likely remain high.

→ Expect growth to slow globally in 2022 but remain above trend. The track of the pandemic and war will be key.

→ Inflationary pressures could linger, particularly if the Russian invasion of Ukraine intensifies or expands.

→ The end of many fiscal programs will put the burden of continued growth on consumers. Higher energy and food prices will depress their ability to spend in other areas.

→ Monetary policy will likely tighten globally but will remain relatively low. The risk of policy error remains.

→ Valuations remain high in the US, but low rates and strong margins should be supportive.

→ Outside the US, valuations remain lower in both emerging and developed markets, but risks remain.

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

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

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

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

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

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. 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%.

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

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

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

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

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

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

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

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

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MEMORANDUM

TO: SJCERA Board of Retirement
FROM: Meketa Investment Group
DATE: June 3, 2022
RE: SJCERA Manager Certification Update: 1Q 2022 Overview and Responses

Summary of Responses

Meketa reviewed the SJCERA Quarterly Manager Certification Updates for the quarter ending March 31, 2022, from all funded managers. *In Meketa's opinion, 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.
- Six managers reported litigation or regulatory investigation information:
  Almanac, Angelo Gordon, BlackRock, HPS, PIMCO, and White Oak.
- Eleven managers reported investment team changes:

  Angelo Gordon, AQR, BlackRock, Crestline, Dodge & Cox, HPS, Invesco, Northern Trust, Oaktree, Parametric, and Principal.
- Nine managers reported material management changes:

  Berkeley, DWS, GQG, Invesco, Miller, Northern Trust, Parametric, PIMCO, and Prologis.
- Three managers reported material business changes:

  Dodge & Cox, HPS, and Parametric.
- Bridgewater and Graham chose not to provide responses to the SJCERA compliance questionnaire and directed Meketa to a standard quarterly business or compliance updates.

[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	Q2 Complied with Plan IPS	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	Yes	Yes*	Yes*	No	No	Yes	Yes
Ocean Avenue	PE Buyout FOF	Yes	Yes	Yes	Yes	No	No*	No	No	Yes	Yes
Morgan Creek	Multi-Strat FOF	Yes	Yes	Yes	N/A*	No	No	No	No	Yes	Yes
Stellex Capital II	PE – Special Situations	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
AG Core Plus	Pvt. Non-core RE	Yes	Yes	Yes	N/A*	Yes*	Yes*	No	No	Yes	Yes
Almanac Realty	Pvt. Non-core RE	Yes	Yes	Yes	N/A*	Yes*	No	No	No	Yes	Yes
Greenfield	Pvt. Non-core RE	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Miller Global[3]	Pvt. Non-core RE	Yes	Yes	Yes	Yes	No	No	Yes*	No	Yes	Yes
Stockbridge	Pvt. Non-core RE	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Walton Street	Pvt. Non-core RE	Yes	Yes	Yes	N/A*	No	No	No	No	Yes	Yes
Traditional Growth											
Northern Trust	All Cap Global	Yes	Yes	Yes	Yes	No*	Yes*	Yes*	No	Yes	Yes
GQG	Emerging Mkts.	Yes	Yes	Yes	Yes	No	No	Yes*	No	Yes	Yes
PIMCO	Emerging Mkts.	Yes	Yes	Yes	Yes	Yes*	No	Yes*	No	Yes	Yes
Invesco	REITS	Yes	Yes	Yes	Yes	No*	Yes*	Yes*	No	Yes	Yes
Stabilized Growth											
Bridgewater[1]	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	No	No	No	Yes	Yes
Stone Harbor	Bank Loans	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
BlackRock	Direct Lending	Yes	Yes	Yes	Yes	Yes*	Yes*	No	No	Yes	Yes
Crestline	Opportunistic	Yes	Yes	Yes	N/A*	No	Yes*	No	No	Yes	Yes
Davidson Kempner[2]	Opportunistic	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Medley[2]	Direct Lending	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mesa West	Comm. Mortgage	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Oaktree	Leveraged Direct	Yes	Yes	Yes	N/A*	No*	Yes*	No	No	Yes	Yes
HPS	Direct Lending	Yes	Yes	Yes	Yes	Yes*	Yes*	No	Yes*	Yes	Yes
Raven Capital	Direct Lending	Yes	Yes	Yes	N/A*	No	No	No	No	Yes	Yes
White Oak	Direct Lending	Yes	Yes	Yes	Yes	Yes*	No	No	No	Yes	Yes
Berkeley Partners	Value Add RE	Yes	Yes	Yes	Yes	No	No	Yes*	No	Yes	Yes
Principal	Pvt. Core RE	Yes	Yes	Yes	N/A*	No*	Yes*	No*	No	Yes	Yes
Prologis Targeted U.S.	Pvt. Core RE	No*	Yes	Yes	Yes	No*	No	Yes*	No	Yes	Yes
DWS / RREEF	Pvt. Core RE	Yes	Yes	Yes	N/A*	No	No	Yes*	No	Yes	Yes

SJCERA Overview of Investment Mgr. Compliance Report (continued)

Manager	Sub-Segment	Q1 RIA in Good Standing	Q2 Complied with Plan IPS	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
Principal Protection											
Dodge & Cox	Core Fixed Income	Yes	Yes	Yes	Yes	No	Yes*	No	Yes*	Yes	Yes
DoubleLine[2]	MBS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crisis Risk Offset℠											
Dodge & Cox	Long Duration	Yes	Yes	Yes	Yes	No	Yes*	No	Yes*	Yes	Yes
Mount Lucas	Syst. Trend Following	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Graham[1]	Syst. Trend Following	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
AQR	Alt. Risk Premia	Yes	Yes	Yes	Yes	No	Yes*	No	No	Yes	Yes
PE Investments	Alt. Risk Premia	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Lombard Odier	Alt. Risk Premia	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Overlay											
Parametric	PIOS Overlay Prgm	Yes	Yes	Yes	Yes	No*	Yes*	Yes*	Yes*	Yes	Yes
Consultant											
Meketa	Consultant	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes

* Detailed written response provided below.

1) Bridgewater and Graham chose not to provide responses to the SJCERA compliance questionnaire and instead directed Meketa to a standard quarterly business update.

2) Manager declined to provide *written* responses.

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
Performance Information through March 31, 2022								
Aggressive Growth								
BlackRock	Global Infrastructure	7/2019	Good Standing	MSCI ACWI +2%	n/a	n/a	n/a	n/a
Ocean Avenue II[1]	PE Buyout FOF	5/2013	Good Standing	MSCI ACWI +2%	1,251	1,878	n/a	n/a
Ocean Avenue III[1]	PE Buyout FOF	4/2016	Good Standing	MSCI ACWI +2%	203	1,907	n/a	n/a
Ocean Avenue IV	PE Buyout FOF	12/2019	Good Standing	MSCI ACWI +2%	n/a	n/a	n/a	n/a
Morgan Creek III[1]	Multi-Strat FOF	2/2015	Good Standing	MSCI ACWI +2%	-3,418	-1,599	n/a	n/a
Morgan Creek V[1]	Multi-Strat FOF	6/2013	Good Standing	MSCI ACWI +2%	-1,144	-160	n/a	n/a
Morgan Creek VI[1]	Multi-Strat FOF	2/2015	Good Standing	MSCI ACWI +2%	-471	439	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	250	270	n/a	n/a
Almanac Realty VI[3]	Pvt. Non-core RE	2011	Good Standing	Private RE Benchmark	-1,620	-1,290	n/a	n/a
Greenfield V[3]	Pvt. Non-core RE	2007	Good Standing	Private RE Benchmark	-1,620	-1,290	n/a	n/a
Greenfield VI[3]	Pvt. Non-core RE	2011	Good Standing	Private RE Benchmark	-4,740	-3,890	n/a	n/a
Greenfield VII[3]	Pvt. Non-core RE	2013	Good Standing	Private RE Benchmark	970	770	n/a	n/a
Grandview[3]	Pvt. Non-core RE	2018	Good Standing	Private RE Benchmark	2,380	n/a	n/a	n/a
Miller Global VI[3]	Pvt. Non-core RE	2007	Good Standing	Private RE Benchmark	-1,180	-590	n/a	n/a
Miller Global VII[3]	Pvt. Non-core RE	2012	Good Standing	Private RE Benchmark	-5,970	-4,330	n/a	n/a
Stockbridge III[3]	Pvt. Non-core RE	2017	Good Standing	Private RE Benchmark	1,320	n/a	n/a	n/a
Walton Street V[3]	Pvt. Non-core RE	2005	Good Standing	Private RE Benchmark	-2,010	-1,830	n/a	n/a
Walton Street VI[3]	Pvt. Non-core RE	2007	Good Standing	Private RE Benchmark	-490	-400	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	162	-78	42	80
Invesco	REITS	8/2004	Good Standing	FTSE EPRA/NAREIT ex-US Equity	-154	-29	93	89
Stabilized Growth								
Bridgewater[2]	Risk Parity	3/2012	Good Standing	Bridgewater All Weather Blend	350	200	n/a	n/a
PanAgora	Risk Parity	4/2016	Good Standing	T-Bill +4%	343	220	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.	-10	n/a	n/a	n/a
Stone Harbor[1]	Abs. Return	4/2008	Good Standing	3-Month Libor	162	142	n/a	n/a
BlackRock	Direct Lending	05/2020	Good Standing	Custom Credit Benchmark	n/a	n/a	n/a	n/a
Crestline[1]	Opportunistic	11/2013	Good Standing	CPI +6%	-737	-584	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 03/31/2022, lagged 1 quarter.

Performance Information through March 31, 2022								
		Inception			Ann. Excess (bps)		Peer Ranking	
Manager	Sub-Segment	Date	Status	Benchmark	3 Yrs	5 Yrs	3 Yrs	5 Yrs
Stabilized Growth (continued)								
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%	-1,900	-1,724	n/a	n/a
Mesa West IV[1]	Comm. Mortgage	3/2017	Good Standing	CPI +6%	-165	n/a	n/a	n/a
Oaktree[1]	Leveraged Direct	3/2018	Good Standing	MSCI ACWI +2%	179	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%	2,881	1,718	n/a	n/a
Raven Capital III[1]	Direct Lending	8/2015	Good Standing	CPI +6%	-118	-26	n/a	n/a
White Oak[1]	Direct Lending	3/2016	Good Standing	CPI +6%	-588	-354	n/a	n/a
White Oak[1]	Direct Lending	3/2020	Good Standing	CPI +6%	n/a	n/a	n/a	n/a
Principal[3]	Pvt. Core RE	10/2015	Good Standing	Private RE Benchmark	-80	-30	n/a	n/a
Prologis Targeted US[3]	Pvt. Core RE	9/2007	Good Standing	Private RE Benchmark	1,140	1,090	n/a	n/a
DWS / RREEF[3]	Pvt. Core RE	4/2016	Good Standing	Private RE Benchmark	300	130	n/a	n/a
Principal Protection								
Dodge & Cox	Core Fixed Income	10/1990	Good Standing	BB Aggregate Bond	120	102	14	12
DoubleLine	MBS	2/2012	Good Standing	BB Aggregate Bond	60	79	9	5
Crisis Risk Offset[1]								
Dodge & Cox	Long Duration	2/2016	Good Standing	BB US Long Duration Treasury	-51	-39	n/a	n/a
Mount Lucas	Sys. Trend Following	1/2005	Good Standing	BTOP50 Index	283	93	n/a	n/a
Graham[2]	Sys. Trend Following	4/2016	Good Standing	SG Trend	40	-67	n/a	n/a
AQR	Alt. Risk Premia	5/2016	Good Standing	5% Annual	-755	-779	n/a	n/a
P/E Investments	Alt. Risk Premia	7/2016	Good Standing	5% Annual	-1,212	-661	n/a	n/a
Lombard Odier	Alt. Risk Premia	1/2019	Good Standing	5% Annual	-1,165	n/a	n/a	n/a
Other								
Northern Trust	Govt. Short Term	1/1995	Good Standing	US T-Bills	-17	-29	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.

Almanac Custodian Reconciliation

No. The Fund relies on the audit exception to the Custody Rule by providing audited financials within 120 days.

Almanac Litigation

From time to time, Neuberger Berman and its employees are the subject of, or parties to examinations, inquiries and investigations conducted by US federal and state regulatory and other law enforcement authorities, non-US regulatory and other law enforcement authorities and self-regulatory organizations, including, but not limited to, the Securities and Exchange Commission ("SEC"), Financial Industry Regulatory Authority ("FINRA"), the National Futures Association ("NFA"), and the Municipal Securities Rulemaking Board (the "MSRB"). Neuberger Berman routinely cooperates freely with such examinations, inquiries and investigations. Neuberger Berman is also involved, from time to time, in civil legal proceedings and arbitration proceedings concerning matters arising in connection with the conduct of its business. Neuberger Berman believes that none of these matters either individually or taken together, will have a material adverse impact on the firm's business. All material proceedings in which there has been a final determination against any of Neuberger Berman's US registered investment advisers or its broker-dealer are disclosed in such affiliate's Form ADV Part 1 (if a registered investment adviser), Form BD (if a registered broker-dealer) or NFA Basic (if a CFTC registrant), each of which is publicly available through the SEC at http://www.adviserinfo.sec.gov, FINRA at http://www.finra.org, or the NFA at www.nfa.futures.org, respectively.

With regard to current litigation related specifically to Almanac Realty Investors, on September 14, 2020, an action was filed in Wisconsin state court (the "Wisconsin Action") related to Vanta Commercial Properties, LLC, formerly T. Wall Properties L.L.C. ("Vanta"), a former portfolio investment (exited in November 2017) of Almanac Realty Securities V, L.P. ("ARS V"), a private fund managed by NBAA, the successor in interest to Almanac Realty Investors, LLC ("ARI"). The plaintiffs in that action (the "Wisconsin Plaintiffs") allege nine "Counts"—all of which arise out of or relate to operating agreement of Vanta – and name ARS V, ARI and other entities and individuals associated with Almanac as defendants. The principal allegations are that the defendants engaged in a "Scheme," involving Vanta's officers and directors, to liquidate Vanta's real estate holdings without the approval of the board of directors required under the operating agreement. Defendants believe the lawsuit is without merit and are vigorously defending the action, including by bringing suit in Delaware Court of Chancery (the "Delaware Action") to enjoin the Wisconsin Plaintiffs from pursuing the Wisconsin Action. The Wisconsin Plaintiffs agreed to a voluntary stay of the Wisconsin Action pending the resolution of the Delaware Action, which the Wisconsin court entered on December 2, 2020.

ARS V (among others) filed the Delaware Action on October 30, 2020, seeking to enjoin the Wisconsin Plaintiffs from pursuing the Wisconsin Action in its entirety in view of an exclusive and mandatory forum-selection provision contained in the Vanta operating agreement. On April 22, 2021 via letter opinion, the Court of Chancery granted the motion of ARS V (and the other Delaware plaintiffs) to permanently enjoin the Wisconsin Plaintiffs from pursuing eight of the nine Counts in the Wisconsin Action; the Court

Manager Responses to Highlighted Questions (continued)

later denied the motion as to the one remaining Count via letter opinion on May 19, 2021, and entered a final order as to both letter opinions on May 26, 2021 (the "Final Order"). Following the issuance of the Final Order, the defendants in the Delaware Action (i.e., Wisconsin Plaintiffs) appealed the Final Order to the Delaware Supreme Court. On December 15, 2021, the Delaware Supreme Court affirmed the Final Order in a summary order.

On December 30, 2021, the Wisconsin Plaintiffs filed a motion seeking to lift the stay of the Wisconsin Action and to file an amended complaint that purports to assert the one non-enjoined Count following affirmance of the Final Order in the Delaware Action. On January 5, 2022, the Wisconsin Court set a hearing on Plaintiff's motion for February 18, 2022; Plaintiff's motion remains pending. On January 12, 2022, the Wisconsin Court set a scheduling conference for February 4, 2022.

Angelo Gordon Custodian Reconciliation

N/A – this Fund does not have a custodian.

Angelo Gordon Litigation

Please see attached summary of current litigation. We do not believe the attached lawsuits present material liability for the Firm of any of its funds or accounts.

Summary of Angelo, Gordon Related Litigation

As of April 18, 2022

As of the date above, Angelo, Gordon & Co., L.P. (the "firm") is a named party in the following pending proceedings:

Culligan Soft Water Company v. Clayton Dubilier & Rice, LLC, et al.

In 2012, the firm and a firm affiliate were named as defendants in a New York lawsuit regarding the 2004 acquisition of Culligan Soft Water Company ("Culligan") by the private equity firm Clayton Dubilier & Rice LLC ("CDR"). The firm and its affiliate were named as defendants in connection with their 2010 purchase of portions of Culligan's debt. This is a derivative action by Culligan's minority shareholders to recover the funds which they allege CDR removed from the Company through the issuance of illegal dividends and payments in management and consulting fees, director fees and other compensation to itself and its affiliates which were paid for in part by the refinancing of Culligan's debt.

Confidential Employment Matter

On May 13, 2019, a former employee ("Plaintiff") of the firm filed a Confidential Charge of Discrimination with the United States Equal Employment Opportunity Commission ("EEOC") alleging discrimination, sexual harassment, hostile work environment, and retaliation. Plaintiff subsequently filed a civil action on November 27, 2019 in the Circuit Court of Cook County, Illinois (the "Lawsuit"), asserting breach of contract and negligent supervision claims against an affiliate of the firm (the "Company") and asserting separate tort claims against another former employee of the firm. The lawsuit is a matter of public record.

On December 11, 2019, the Company filed a motion in the Lawsuit to compel arbitration pursuant to the terms of Plaintiff's employment contract or, in the alternative, to dismiss the action in its entirety. On December 21, 2021, the Court entered an order granting the Company's motion and dismissing the

Manager Responses to Highlighted Questions (continued)

Lawsuit with prejudice. On January 6, 2022, the Court vacated its December 21, 2021 Order and requested the parties re-submit their briefing on the Company's December 2019 motion to dismiss. That motion is now pending before the Court. On February 7, 2022, the EEOC issued a "Dismissal and Notice of Rights" declining to take further action on Plaintiff's May 2019 complaint and providing Plaintiff with notice of her right to initiate legal proceedings in federal or state court within ninety days.

Consumer Financial Protection Bureau v. The National Collegiate Master Student Loan Trust, et al.

In 2017, certain of the firm's affiliated funds, along with other noteholders and deal parties, filed a motion to intervene in a Delaware matter in which plaintiff and the purported owner of the trusts entered into a consent judgment that would subject the trusts to various fines, penalties and oversight and permit the purported owners to obtain more control over the assets and cashflow of the trusts.

Angelo Gordon Real Estate Inc. v. Benlab Realty, LLC, et al.

In 2020, an AG entity filed a suit against the defendants seeking the return of deposits in connection with the defendants' default on several purchase and sale agreements.

Cheney v. AG-JCM Wells Avenue Property Owner, LLC, et al.

In 2020, certain AG entities were named as defendants in a Massachusetts personal injury lawsuit relating to an incident at a real estate portfolio property in Newton, Massachusetts.

Wells Fargo Bank, National Association v. Margate Funding I, Ltd., et al.

In 2021, an AG entity was named as defendant in an interpleader action brought by the Trustee of a CDO. Trustee initiated the interpleader action for the purpose of adjudicating the rights of the interpleader defendants, which include certain of the firm's funds.

Jimenez v. Walmart, Inc., et al.

In 2022, certain AG entities were named as defendants in a California personal injury lawsuit relating to an incident at a real estate portfolio property in Chula Vista, California.

The above lawsuits do not present material liability for the firm or any of its funds or accounts.

Angelo Gordon Investment Personnel Change

In March 2022 an associate on the US Real Estate team left the firm to enter their family business.

In March 2022 an analyst joined the US Real Estate team in the New York office.

AQR Investment Personnel Changes

Within our Macro and Multi-Strategy investment team, which supports the strategy, there have been one senior-level (Managing Director and above) investment professional departure over the past quarter ending March 31, 2022.

Berkeley Management Level Changes

Yes, Andrew Holmberg was promoted to Partner in February 2022. He joined the firm in 2014 and is involved with financing, acquisitions, portfolio management, investor relations and overall strategy.

Manager Responses to Highlighted Questions (continued)

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 receives subpoenas or requests for information in connection with regulatory inquiries and/or investigations by its various regulators, some of which are ongoing. None of these matters has had or is 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 Investment Personnel Changes

Regarding SJCERA's Direct Lending Fund IX mandate, Tim O'Hara, Co-head of Global Credit departed, but this does not affect the day-to-day management of the mandate.

Regarding SJCERA's Global Energy & Power Infrastructure Fund mandate, our Team continues to grow with a focus on strategic hires aligned with the growth and evolution of our business. During the first quarter, Adam Waltz (Managing Director), who has an extensive background in digital infrastructure, joined the team from Morgan Stanley. We have also expanded our geographic footprint by adding a presence in Asia by moving two existing team members, Edward Winter (Managing Director) and Derek Fernandes (Associate), to BlackRock's Singapore office. We continue to see increased attractive investment opportunities in the region and expect to continue to grow the team in Singapore over time. Lastly, our Team added Misan Eyesan (Vice President) in our London office, where she was previously working in the BlackRock Investment Institute on private and public markets investing.

Crestline Custodian Reconciliation

The investment is not held at a custodian. SJCERA's investment is administered and reconciled by the Fund's independent administrator: SEI Global Services, Inc.

Crestline Investment Personnel Changes

- Nathan Snodgrass was hired on 1/17/2022 as a Vice President for the Investment team and is responsible for sourcing, underwriting, and asset management.

Manager Responses to Highlighted Questions (continued)

- Eli Goldaris was hired on 3/22/2022 as an Analyst for the investment team and is responsible for asset management.
- Annabelle Kim, Analyst responsible for underwriting and asset management departed the investment team on 1/1/2022. Her responsibilities were assumed by Zach Hood, Analyst.
- Jane Lynch, Senior Analyst responsible for underwriting and asset management departed the team on 3/19/2022. Her responsibilities were assumed by Andrea Adler, Senior Analyst.

Dodge & Cox Investment Personnel Changes

Turnover

Dodge & Cox has experienced an extremely low level of personnel turnover throughout our history. Jay J. Stock, Derivatives Trader, resigned during the quarter after 19 years with the firm. There were no additions to the investment team during the quarter.

On January 1, 2022, David Hoeft, Senior Vice President, assumed the role of CIO from Charles Pohl. As we announced last January, Charles will be retiring on June 30, 2022.

Dodge & Cox Material Business Changes

Dodge & Cox has returned to office in a hybrid model as of March 28, 2022, in both the U.S. and in London. We continue to follow the guidance of national U.S. and UK public health officials, the state of California, and the cities of San Francisco and London. Our team in Shanghai is working from home, given local conditions and regulations there.

We are piloting a 4/1 hybrid model, where staff work in the office Mondays through Thursdays and have the option to work remotely on Fridays.

Initially starting with a 4/1 hybrid model will enable us to reconnect after a long period of fully remote work, reinforcing our culture of collaboration, inclusiveness, and teamwork. We are enjoying the benefits of catching up with colleagues informally, while also reacquainting ourselves with our commuting routines and working in the office together again.

Together with our hybrid model, we are also exploring additional options for flexibility, including "flex weeks." This pilot program allows employees to work from home at various points in the year, at their managers' discretion.

We have also implemented a vaccine mandate, including a vaccine booster requirement, and a mask-optional office policy. We are not currently admitting outside visitors to our offices. At the end of April, we will reassess our no-visitors policy, as well as the effectiveness of our 4/1 hybrid model, taking into consideration the feedback we receive from our employees.

DWS / RREEF Custodian Reconciliation

N/A. The Fund does not provide custodial services. Shares of the fund are uncertificated.

Manager Responses to Highlighted Questions (continued)

DWS / RREEF Management Level Changes

Yes. After 16 years with the firm, Marc Feliciano left DWS in February 2022. With Marc's departure, the firm announced new responsibilities for several key senior members of the real estate team. Mike Nigro was been named CIO of the Americas Real Estate business. In this role, Mike manages our investment process and Chairs the Americas Real Estate Investment Committee. Mike also has oversight responsibilities for our Asset Management, Development, and Engineering teams. Vikram Mehra was named Head of Portfolio Management and was added as a voting member of the Americas Real Estate Investment Committee. Vikram is a 16-year veteran of the firm, a CFA Charter holder and has been COO of the private real estate platform in the Americas since 2015.

GQG Management Level Changes

In 1Q2022, EJ Blanchfield, Managing Director - Head of Human Capital, joined the Firm. EJ has no direct involvement with the portfolio.

HPS Litigation

Yes, however, to our knowledge, there is not any litigation or governmental regulatory proceedings involving the Firm that HPS believes will have a material adverse effect upon the Firm.

HPS Investment Personnel Changes

There has been one hire of a Vice President and one hire of an Executive Director on the dedicated Asset Value[1] team during the first quarter of 2022[2]. There have been no departures from the dedicated European Asset Value team during the first quarter of 2022.

1 Formerly known as European Asset Value.

2 Per most recent headcount data as of March 31, 2022.

HPS Material Business Changes

In February 2022, an affiliate of The Guardian Life Insurance Company of America made a passive minority investment in HPS.

Invesco Litigation

From time to time, Invesco Advisers, Inc., which has and maintains robust compliance programs and practices designed to comply with Rule 206(4)-7 under the Investment Advisers Act of 1940 and Rule 38a-1 under the Investment Company Act of 1940, may receive formal or informal requests from governmental or regulatory bodies about its activities. No requests currently pending are expected to result in any matter that could have a material adverse impact on its business or operations.

Invesco Investment Personnel Changes

Charles "Chip" McKinley joined Invesco Real Estate as a Senior Portfolio Manager. David Askew joined Invesco Real Estate as a Senior Analyst.

Manager Responses to Highlighted Questions (continued)

Invesco Management Level Changes

On February 1, 2022, Nelson Peltz and Ed Garden of Trian Fund Management, L.P. (Trian Partners), Invesco's second-largest shareholder, stepped down as members of Invesco's Board in light of their appointment to the Board of Directors of Janus Henderson Group plc. Trian Partners remains confident in Invesco's leadership, business momentum and long-term strategy.

Jennifer Krevitt joined Invesco as Senior Managing Director and Chief Human Resources Officer on January 31, 2022. Washington Dender, who has served as Global Head of Human Resources since 2009, will retire from Invesco in late March 2022. He remains actively involved in the business and will work closely with Jennifer and the HR team to ensure a smooth transition

Mesa West Management Level Changes

In October 2021, Danielle Duenas, Originations – Vice President, departed the firm and her role responsibilities are being handled by the in-place Originations team. In November 2021, David Myers, Asset Management – Vice President, departed the firm and his role responsibilities are being handled the in-place Asset Management team. The Asset Management team also hired a new Analyst to support the Asset Management team. Typical turnover has occurred at the analyst and administrative levels.

Miller Management Level Changes

Yes, there has been a personnel change at the management level of the Firm during the quarter. Trevor Crandall unexpectedly passed away during Q1 2022. Lisa Matter, General Counsel, has succeeded to the role of Chief Compliance Officer. The accounting and finance team has divided the Investor Relations and Quarterly Reporting duties among the remainder of the team.

Morgan Creek Custodian Reconciliation

N/A

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 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 Investment Personnel Changes

Yes. There was one addition to the Global Index Equity Team. Errol Mitchell joined the firm as a portfolio manager.

Manager Responses to Highlighted Questions (continued)

All Northern Trust Asset Management's passive mandates are managed using an integrated team-based approach whereby investment decisions are made in a systematic manner and are not dependent on a specific individual. Each portfolio manager has the combined role of portfolio management and research, and serves as either the dedicated lead or back-up portfolio manager for an account. Each portfolio manager's primary responsibility is to ensure that the portfolio is managed strictly in accordance with the objectives and guidelines for the portfolio.

Our index portfolio managers do not have an assigned number of accounts or clients. Assignments are periodically rotated to ensure that all members of the team are familiar with each portfolio and that the portfolio is managed strictly in accordance with its objectives and guidelines.

Northern Trust Management Level Changes

SENIOR MANAGEMENT CHANGES

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

2022

- April; Thomas Swaney has joined Northern Trust Asset Management as Executive Vice President, co-head of fixed income and will work alongside Colin Robertson, Executive Vice President and co-head of fixed income. As co-heads, Tom and Colin will equally share overall oversight responsibility – which includes strategy, process and approach – for our fixed income strategies. They will also share personnel management responsibilities. Tom is an accomplished fixed income investor and leader, with deep expertise in credit, risk management and derivatives. He brings extensive experience to the team, having served in senior roles at several global financial firms during his 25-year career in investment management.
- January; Michael Hunstad, Ph.D., head of quantitative strategies, has expanded his leadership responsibilities to include overseeing our Index Equity and Tax-Advantaged Equity teams. We believe aligning our three equity investment disciplines under Mike's proven leadership will foster even greater innovation and operational efficiencies across our equity platform – and will further strengthen our ability to deliver investment solutions to meet the growing needs of our valued clients. Jake Weaver, director of index equity, and Mary Lukic, director of tax-advantaged equity, will continue to lead these respective groups, reporting directly to Mike.

Oaktree Custodian Reconciliation

Not applicable.

Oaktree Litigation

As a leading global investment manager, Oaktree and its affiliates, investment professionals, and portfolio companies are routinely involved in litigation in the ordinary course of their business and investing activities. In some cases, Oaktree or its officers are simply named as additional defendants in litigation arising out of the

Manager Responses to Highlighted Questions (continued)

business activities of portfolio companies, such as landlord/tenant disputes and personal injury claims brought against entities owned by Oaktree's real estate funds. Other claims involve Oaktree and its professionals more directly, such as bankruptcy or restructuring disputes arising out of the investment activities of Oaktree's distressed debt and control investing funds. In addition, Oaktree is subject to the authority of a number of U.S. and non-U.S. regulators, including the U.S. 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 litigation or 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 litigation or regulatory enforcement action that might reasonably be expected to have such an effect.

Oaktree Investment Personnel Changes

Below, please find the investment professionals (vice president and above) who have departed from the Middle Market Finance Group during the quarter ending March 31, 2022.

Join Date	Departure Date	Name	Title1 / Role	Reason for Departure
07/2017	03/2022	Margaret Reilly	Vice President, Research Analyst	Left to pursue other endeavors

1 Title at the time of departure

Ocean Avenue Investment Personnel Changes

No—Note that we had Lina Aluzri, a first year analyst, leave us for a position at a direct buyout fund in April. We are in the process of replacing Lina. Lina's involvement with the portfolio was very minimal given that she was the most junior member of our team.

Parametric Litigation

Parametric is part of Morgan Stanley Investment Management, the asset management division of Morgan Stanley. The distinct investment brands of Eaton Vance Management, Parametric, Atlanta Capital and Calvert, 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

After more than 18 years, Justin Henne, Managing Director, Investment Management and Strategy, has decided to leave Parametric effective May 27, 2022. Justin made this personal decision as he looks to transition his career to a different path.

Manager Responses to Highlighted Questions (continued)

Effective May 1, 2022, Clint Talmo, Director, Investment Strategy, and Ricky Fong, Director, Investment Strategy, will both begin reporting to Tom Lee, Chief Investment Officer. Clint will continue to lead the team that manages client-directed Overlay accounts. Ricky, who previously led the Overlay team that manages primarily ERISA based policy-driven accounts, will now oversee the three teams that manage all policy driven Overlay accounts.

Parametric Management Level Changes

On January 1, 2022, Jon Rocafort joined Jim Evans to become Co-Head of Parametric's Fixed Income Solutions team. While this is a new title for both, Jim's role, and the role that Jon is sharing with him, remains to lead all aspects of Parametric's Fixed Income team. On June 30th, 2022, Jim Evans will begin his transition to retirement as he steps down from the co-head role. Jon Rocafort will become the sole Head of Fixed Income Solutions and replace Jim on Parametric's Executive Committee. Jim will report to Jon and continue to remain involved with the firm's Fixed Income Solutions team supporting the new leadership, consulting with clients, working on product development and mentoring early-career employees. Jim expects to retire sometime in 2023.

Parametric Material Business Changes

As announced in March, over the course of 2022, Parametric will recalibrate its approach to the Australian market to bring it in line with the sales/service approach similar to what it has in the EMEA region. This will include increasing leverage of its MSIM (Morgan Stanley Investment Management) support teams and a reconfiguration of the Parametric direct resourcing model. The firm remains committed to its clients and prospects in the Australian market.

On January 1, 2022, Jon Rocafort joined Jim Evans to become Co-Head of Parametric's Fixed Income Solutions team. While this is a new title for both, Jim's role, and the role that Jon is sharing with him, remains to lead all aspects of Parametric's Fixed Income team. On June 30th, 2022, Jim Evans will begin his transition to retirement as he steps down from the co-head role. Jon Rocafort will become the sole Head of Fixed Income Solutions and replace Jim on Parametric's Executive Committee. Jim will report to Jon and continue to remain involved with the firm's Fixed Income Solutions team supporting the new leadership, consulting with clients, working on product development and mentoring early-career employees. Jim expects to retire sometime in 2023.

PIMCO Litigation

During the period, PIMCO has not been the subject of any lawsuit or regulatory proceeding that could reasonably be expected to have had a material adverse effect on PIMCO's ability to provide investment management services.

Notwithstanding the foregoing, PIMCO notes the following litigation matters:

- On April 18, 2018, PIMCO and PIMCO Investments LLC were named in a complaint filed in the US Virgin Islands. In addition to PIMCO and PI, the complaint names certain BlackRock entities as defendants (together, the "Defendants"). The complaint alleges, among other things, that

Manager Responses to Highlighted Questions (continued)

the Defendants engaged in a coordinated effort designed to damage the business operations of Ocwen, the mortgage servicing company, which had certain business relationships with Altisource Asset Management Corporation, both companies in which the plaintiffs hold equity interests. On August 8, 2018, the plaintiffs filed an amended complaint. The substance of the allegations in the amended complaint are the same as the original complaint. PIMCO believes the claims are without merit and intends to vigorously defend the matter.

- On September 24, 2019, a lawsuit was filed against PIMCO, PIMCO Investments LLC and two PIMCO employees in Orange County Superior Court by a current PIMCO employee. The lawsuit alleges, among other things, discrimination and unequal pay based on gender, race, and disability status. The complaint also alleges fraud in connection with a flexible work request and other employment opportunities. The allegations in the complaint are not accurate and PIMCO will demonstrate that she was treated and compensated fairly.
- On December 17, 2019, PIMCO was named as a defendant in a lawsuit filed in Louisiana state court. The lawsuit was filed by creditors to a Midwest-based agriculture company, the majority equity holders of which are two PIMCO-managed private funds. We believe that the claims asserted are without merit and expect the case to be defended vigorously.
- On August 3, 2020, three PIMCO employees, who served as directors of a Florida-headquartered company, were named in a complaint filed in Florida state court by the company's prior controlling equity owner. The complaint was amended on August 31, 2020 to also name PIMCO as a defendant. The complaint alleges claims for tortious interference of contract, aiding and abetting breach of fiduciary duty, and defamation, related to a Stockholders Agreement, to which the Plaintiff and a subsidiary of a PIMCO-managed private fund are parties. PIMCO is not a party to the Stockholders Agreement and believes the claims are without merit and intends to defend the case vigorously.
- On November 18, 2020, a lawsuit was filed against PIMCO and several PIMCO employees in Orange County Superior Court by two current PIMCO employees. The lawsuit alleges, among other things, discrimination and unequal pay based on gender and disability status, and retaliation. On February 18, 2021, an amended complaint was filed, adding three additional plaintiffs, including one current employee and two former employees. The allegations in the complaint are not accurate and PIMCO will demonstrate that the employees were treated and compensated fairly.
- On September 22, 2021, PIMCO was named as a defendant in an amended complaint filed in the Southern District of New York. Wells Fargo, as trustee, filed the action related to the sale of defaulted securities by a CDO. Certain PIMCO-managed funds own the CDO's senior notes and, as such, PIMCO – in its capacity as investment manager – has been named as a defendant in the interpleader action to represent the interests of the senior noteholders. The complaint contains no allegations of wrongdoing by PIMCO or any PIMCO-managed investment vehicle.

Manager Responses to Highlighted Questions (continued)

With respect to regulatory matters, as a registered investment adviser, PIMCO is in frequent contact with its regulators. Please note however, that as a general practice, PIMCO does not comment on pending regulatory matters.

PIMCO Management Level Changes

Gained - PIMCO Investment Professionals

Date	Name	Title	Department	Office
Mar-22	Jaynita Sodhi	Executive Vice President	Account Management	Newport Beach
Mar-22	Joshua David Spitz	Executive Vice President	Portfolio Management	Newport Beach
Mar-22	Brett Condron	Managing Director	Account Management	New York

Lost - PIMCO Investment Professionals

Date	Name	Title	Department	Years at PIMCO	Reason	Office
Mar-22	Sonali Wilson	Executive Vice President	Account Management	9	Other*	New York
Mar-22	Taizo Yoshida	Executive Vice President	Account Management	16	Other*	Tokyo
Mar-22	Neil Dewar	Executive Vice President	Analysts	22	Other*	New York
Mar-22	Matt Michalovsky	Executive Vice President	Portfolio Management	9	Other*	Newport Beach
Mar-22	Dimitris Tsitsiragos	Executive Vice President	Portfolio Management	<1	Other*	London
Feb-22	Ichiro Takeuchi	Managing Director	Account Management	18	Other*	Tokyo
Feb-22	Chitrang Purani	Executive Vice President	Portfolio Management	11	Other*	New York
Jan-22	Steven Plump	Executive Vice President	Account Management	14	Other*	New York
Jan-22	Andrew Bosomworth	Managing Director	Portfolio Management	20	Other*	Munich

**PIMCO deems any reason for departure outside of a transfer to a PIMCO affiliate as confidential information.*

Principal Custodian Reconciliation

Not applicable. The Principal US Property Account is a commingled account. Attached is the December 31st monthly statement. We do not receive reports from their 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 any pending litigation will have a material adverse effect on our business, financial position or net income. Please see our public filings for details. Also, regulatory bodies, such as the SEC, the Financial Industry Regulatory Authority, the Department of Labor and other regulatory bodies regularly make routine inquiries and conduct examinations or investigations concerning our compliance with, among other things, securities laws, ERISA and laws

Manager Responses to Highlighted Questions (continued)

governing the activities of investment advisors. While the outcome of any regulatory matter cannot be predicted, management does not believe that any regulatory matter will have a material adverse effect on our business, financial position or our ability to fully perform our duties to clients.

Principal Investment Personnel Changes

Effective March 1, 2022, John Berg transitioned leadership of the Principal U.S. Property Account to co-portfolio managers Meighan Phillips and Darren Kleis who now serve as co-portfolio managers at the completion of, after a thoughtful, measured and multi-year transition. John continues his role as the Head of Private Equity Portfolio Management, actively participating in strategy of the Account through weekly production meetings, Senior Strategy Committee and Investment Committee.

Principal Management Level Changes

Principal Real Estate Investors has experienced limited turnover of its senior management and staff.

Prologis Registered Investment Advisor Status

No. 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

Not applicable.

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, as of March 21, 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.

Manager Responses to Highlighted Questions (continued)

Prologis Management Level Changes

In February 2022, Prologis announced Tim Arndt will be the company's new chief financial officer effective April 1, 2022. Mr. Arndt, who has been with Prologis since 2004 and has served as Treasurer prior to this promotion, will succeed long-time CFO Tom Olinger, who has retired. As the new CFO, Mr. Arndt will be responsible for the company's worldwide corporate finance function. His areas of responsibility will include treasury, cash management, financial planning and reporting, accounting, tax, investor relations and internal audit.

Raven Custodian Reconciliation

N/A, not invested in an SMA or mutual fund.

Walton Street Custodian Reconciliation

SJCERA is invested in commingled funds and not a separate account. As the Funds are invested solely in real estate and real estate related investments, reconciliation to a custodian is not applicable.

White Oak Litigation

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

Regarding the client arbitration demand that claimed, among other things, that White Oak violated its Most Favored Nation (MFN) covenant, the arbitrator issued her final award on August 4, 2021 that found, among other things, that White Oak had complied with its MFN covenant. The investor claimant subsequently filed an action in the Southern District of New York to confirm in part the arbitrator’s decision. On March 17, 2022, the Court confirmed in part and vacated in part the arbitration award. The Court decision and the arbitration award both recognize that White Oak had unsuccessfully attempted to return the client’s assets after White Oak terminated the IMA and that White Oak should not be penalized for the client’s failure to notify White Oak where to send those assets. The Court explained that the client is entitled to receive the net asset value of its investments with White Oak as of August 4, 2021, which was the date of the final arbitration award and explained that White Oak may return assets to the client. Those assets have been distributed as of August 4, 2021. The client was also seeking in the arbitration and court proceeding a refund of the management fees it had paid to White Oak under the IMA. However, the Court made clear in its decision that White Oak is entitled to retain the management fees it earned under the IMA. The court also found that White Oak had violated ERISA. There remain unresolved issues following the Court’s March 17, 2022 judgment, including how much White Oak owes in attorney fees and prejudgment interest, and White Oak is working with its counsel to evaluate its options with respect to such issues, including the possibility of filing an appeal.

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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
Angelo Gordon	Aggressive Growth	Value Added Real Estate						New York, NY
Almanac Reality VI	Aggressive Growth	Value Added Real Estate						New York, NY
AQR	Diversifying Strategies	Alternative Risk Premia	Apr-19	Jul-19		4/21/2020		Stamford, CT
BlackRock	Stabilized Growth, PC	Direct Lending				3/18/2019*		San Francisco, CA
BlackRock	Aggressive Growth	Infrastructure				3/18/2019*	8/22/2019	New York, NY
Berkeley Partners	Aggressive Growth	Private Real Estate				10/16/2020	8/14/2020	San Francisco, CA
Bridgewater (AW)	Stabilized Growth, RP	Risk Parity				7/29/2020	10/6/2017	Westport, CT
Crestline	Stabilized Growth, PC	Opportunistic				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		6/3/2020		San Francisco, CA
Dodge & Cox	Diversifying Strategies, CRO	Long Duration				6/3/2020		San Francisco, CA
DoubleLine	Diversifying Strategies, PP	MBS		Mar-21		11/29/2018*		Los Angeles, CA
GQG	Traditional Growth	Emerging Markets				10/16/2020		San Francisco, CA
Graham	Diversifying Strategies, CRO	Systematic Trend Following				7/23/2020		Rowayton, CT
Greenfield/Grandview V, VI, VII	Aggressive Growth	Opportunistic Real Estate		Oct-21				Greenwich, CT
HPS EU	Stabilized Growth, PC	Direct Lending		Mar-20		8/3/2017*		New York, NY
Invesco	Traditional Growth	REITs, Core US		Oct-21		5/6/2020*		Atlanta, GA
Lombard	Diversifying Strategies	Alternative Risk Premia		Jun-22	Dec-22	10/19/2020		New York, NY
Medley	Stabilized Growth, PC	Direct Lending		Jul-21	Mar-22	3/12/2015		San Francisco/New York
Mesa West III & IV	Stabilized Growth, PC	Comm. Mortgage		Oct-21		8/22/2019	8/22/2019	Los Angeles, CA
Miller Global VI, VII	Aggressive Growth	Opportunistic Real Estate						Denver, CO
Morgan Creek III, V, & VI	Aggressive Growth	Multi-Strat FOF		Oct-21		8/22/2019	8/22/2019	Chapel Hill, NC
Mount Lucas	Diversifying Strategies, CRO	Systematic Trend Following		May-18		3/17/2020	2/12/2021	Newton, PA
Northern Trust	Traditional Growth	MSCI World IMI						Chicago, IL
Northern Trust	Cash	Collective Govt. Short Term						Chicago, IL
Neuberger Berman	Stabilized Growth, LC	Global Credit		Oct-21		10/20/2020		Chicago, IL
Oaktree	Stabilized Growth, PC	Leveraged Direct Lending				11/6/2020		New York, NY
Ocean Avenue	Aggressive Growth	PE Buyout FOF		Oct-21				Santa Monica, CA
P/E Diversified	Diversifying Strategies	Alternative Risk Premia		Oct-21		2/17/2020		Boston, MA
PanAgora	Stabilized Growth, RP	Risk Parity		Mar-18		4/7/2020*		Boston, MA
Parametric	Cash	Cash Overlay				10/27/2020*		Minneapolis, MN
PIMCO (RAE)	Traditional Growth	Emerging Markets				7/23/2020*	8/22/2019	Newport Beach, CA
Principal US	Stabilized Growth, RE	Core Real Estate						Des Moines, IA
Prologis	Stabilized Growth, RE	Core Real Estate						San Francisco, CA
Raven II & III	Stabilized Growth, PC	Direct Lending		Apr-18			2/23/2018	New York, NY
RREEF America II	Stabilized Growth, RE	Core Real Estate						Kansas City, MO
Stellex Capital	Aggressive Growth	Private Equity		Oct-21			5/8/2020	New York, NY
Stockbridge RE III	Aggressive Growth	Value Added Real Estate						San Francisco, CA
Stone Harbor	Stabilized Growth, LC	Absolute Return		Oct-21		9/29/2020*	2/3/2021	New York, NY
Walton Street	Aggressive Growth	Opportunistic Real Estate						Chicago, IL
White Oak Summit Peer	Stabilized Growth, PC	Direct Lending				7/24/2020		San Francisco, CA
White Oak Yield Spectrum	Stabilized Growth, PC	Direct Lending		Feb-19		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

Terminated Managers

Terminated 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	2020	Newport Beach, CA

MEKETA
INVESTMENT GROUP

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MEMORANDUM

TO: SJCERA Board of Retirement
FROM: Meketa Investment Group
DATE: June 3, 2022
RE: Lombard Odier – Manager Update

Manager: Lombard Odier			
Inception Date:	Jan 2019	SJCERA AUM (3/31/2022):	$56 million
Strategy:	Alternative Risk Premia v10	Benchmark:	5% Annual

Summary & Recommendation

Lombard Odier has experienced consistently poor absolute and relative performance since its inception slightly more than three years ago. The measurement period proved to be an exceedingly difficult one for all asset managers as it encompassed the Covid pandemic. That said, Lombard Odier's performance has been consistently poor on an absolute basis and below what we would expect from an Alternative Risk Premia (ARP) manager over the measurement time period. Given its persistent underperformance since the inception of the mandate, **Meketa recommends Lombard Odier be placed on "Watch" status for a period of 6-9 months.**

Discussion

Lombard Odier was hired in January 2019 to manage a portion of the Alternative Risk Premia ("ARP") allocation within strategic Crisis Risk Offset ("CRO") class. The ARP sleeve is designed to be liquid and produce positive long-term returns that have low correlation to equities, fixed income, and Systematic Trend Following ("STF"). ARP strategies use transparent rules in liquid markets across various asset groups (equities, fixed income, currencies, and commodities). ARP strategies invest long and short in securities and markets in a market-neutral fashion, to isolate returns from ARP (such as value, carry, momentum, and low-volatility).

SJCERA Portfolio Annualized Returns (as of 3/31/2022)

Manager	Mkt Value ($000)	*Asset Class*	QTR	1 YR	3 YR	Since Inception	Inception Date
Lombard Odier (Net)	**56,001**	**Alt. Risk Premia**	**-5.8**	**-2.9**	**-6.7**	**-5.0**	**1/2019**
5% Annual	---	---	*1.2*	*5.0*	*5.0*	*5.0*	---
Excess Return	---	---	-7.0	-7.9	-11.7	-10.0	---

Lombard Odier has failed to outperform its benchmark over all measurement periods since the inception of the mandate. Lombard Odier is measured against a goal-based benchmark rather than a market based one which is common in the ARP space given the focus on uncorrelated returns. This type of benchmark can prove difficult, at times, to outperform especially in volatile periods. That said, Lombard Odier has struggled in absolute terms and not just on a relative basis, producing negative absolute returns over all measurement periods as well.

Product and Organization Review Summary

	Areas of Potential Impact				
	Level of Concern ^	Investment process (client portfolio)	Investment Team	Performance Track Record	Team/ Firm Culture
Product					
Key people changes	None				
Changes to team structure/individuals' roles	None				
Product client gain/losses	None				
Changes to the investment process	None				
Personnel turnover	None				
Organization					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
Recommended Action	**None**	**Watch Status - X**		**Termination**	

Investment Philosophy & Process, per manager

The team seeks to build all-weather ARP portfolios with a focus on avoiding overfitting, liquid premia, and including ESG concerns where possible. Risk premia are grouped into income oriented or risk mitigation premia. Risk Mitigation premia have an insurance buyer profile and seek to provide positive results in extreme scenarios but can be exposed to smaller losses in trendless market. Income premia have an insurance seller profile and seek to deliver stable returns with low volatility but can be exposed to large losses during risk off periods.

The team first categorizes each premia as either left or right tail based on their return distribution profile. Left tail strategies tend to be market neutral and typically include income/carry strategies, while right tail strategies tend to be directional, including both trend and momentum strategies. As a further comparison, left tail strategies tend to exhibit low volatility but negative skew from being exposed to potential large losses during risk-off scenarios, while right tail strategies exhibit positive skew with the potential to deliver outsized returns during periods of prolonged (negative or positive) trends. However, right tail strategies will suffer in trendless markets or periods of sharp reversals. Risk is allocated equally between the two categories of premia that are believed to be complimentary. The team does not believe in timing premia and relies on a risk allocation process instead, which targets smoother returns in different market conditions. Proprietary risk measures are used that focus on the potential for extreme losses, skewness, conditional correlations, and liquidity.

Disclosure

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.

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

San Joaquin County Employees' Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)[1] — April 2022

	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]			$ 3,895,958,899	100.0%	100.0%	-3.2	-2.3	-4.5	3.0	7.5	7.0	7.8	Apr-90
Policy Benchmark[4]						*-3.8*	*-3.7*	*-5.3*	*0.7*	*7.6*	*7.3*	*7.6*	
Difference:						0.6	1.4	0.8	2.3	-0.1	-0.3	0.2	
75/25 Portfolio[5]						*-7.3*	*-8.6*	*-12.4*	*-6.9*	*8.4*	*7.9*	*7.3*	
Difference:			.			4.1	6.3	7.9	9.9	-0.9	-0.9	0.5	
Broad Growth			$ 2,892,484,429	74.2%	75.0%	-4.8	-3.5	-6.4	3.0	8.4	8.2	8.4	Jan-95
Aggressive Growth Lag[2]			$ 324,260,158	8.3%	10.0%	10.0	10.0	10.0	37.7	18.3	16.5	-2.6	Feb-05
MSCI ACWI +2%Lag						*6.0*	*7.7*	*7.7*	*22.1*	*21.0*	*12.6*	*0.0*	
Difference:						4.0	2.3	2.3	15.6	-2.7	3.9	-2.6	
BlackRock Global Energy&Power Lag[3]	*$50,000*	*Global Infrastructure*	$ 24,546,720	0.6%		2.9	2.9	2.9	9.8	--	--	10.1	Jul-19
MSCI ACWI +2% Lag						*4.2*	*7.3*	*7.3*	*21.4*	--	--	*20.3*	
Difference:						-1.3	-4.4	-4.4	-11.6	--	--	-10.2	
Ocean Avenue II Lag[3]	*$40,000*	*PE Buyout FOF*	$ 40,884,792	1.0%		17.0	17.0	17.0	72.7	35.9	32.6	19.0	May-13
MSCI ACWI +2% Lag						*4.2*	*7.3*	*7.3*	*21.4*	*23.4*	*13.9*	*11.8*	
Difference:						12.8	9.7	9.7	51.3	12.5	18.7	7.2	
Ocean Avenue III Lag[3]	*$50,000*	*PE Buyout FOF*	$ 49,737,032	1.3%		13.3	13.3	13.3	58.2	25.4	32.9	26.8	Apr-16
MSCI ACWI +2% Lag						*4.2*	*7.3*	*7.3*	*21.4*	*23.4*	*13.9*	*13.2*	
Difference:						9.1	6.0	6.0	36.8	2.0	19.0	13.6	
Ocean Avenue IV Lag[3]	*$50,000*	*PE Buyout*	$ 44,642,679	1.1%		17.5	17.5	17.5	38.1	--	--	38.2	Dec-19
MSCI ACWI +2% Lag						*4.2*	*7.3*	*7.3*	*21.4*	--	--	*23.0*	
Difference:						13.3	10.2	10.2	16.7	--	--	15.2	
Morgan Creek III Lag[6]	*$10,000*	*Multi-Strat FOF*	$ 6,071,365	0.2%		0.0	0.0	0.0	-11.3	-10.8	-2.1	-3.1	Feb-15
MSCI ACWI +2% Lag						*4.2*	*7.3*	*7.3*	*21.4*	*23.4*	*13.9*	*12.5*	
Difference:						-4.2	-7.3	-7.3	-32.7	-34.2	-16.0	-15.6	
Morgan Creek V Lag[6]	*$12,000*	*Multi-Strat FOF*	$ 8,273,506	0.2%		0.0	0.0	0.0	12.2	11.9	12.3	13.7	Jun-13
MSCI ACWI +2% Lag						*4.2*	*7.3*	*7.3*	*21.4*	*23.4*	*13.9*	*11.8*	
Difference:						-4.2	-7.3	-7.3	-9.2	-11.5	-1.6	1.9	
Morgan Creek VI Lag[6]	*$20,000*	*Multi-Strat FOF*	$ 25,628,214	0.7%		0.0	0.0	0.0	23.2	18.6	18.3	10.8	Feb-15
MSCI ACWI +2% Lag						*4.2*	*7.3*	*7.3*	*21.4*	*23.4*	*13.9*	*12.5*	
Difference:						-4.2	-7.3	-7.3	1.8	-4.8	4.4	-1.7	
Stellex Capital Partners II Lag[3]	*$50,000*	*Special Situations PE*	$ 11,491,112	0.3%		-2.4	-2.4	-2.4	--	--	--	-17.3	Jul-21
MSCI ACWI +2% Lag						*4.2*	*7.3*	*7.3*	--	--	--	*10.3*	
Difference:						-6.6	-9.7	-9.7	--	--	--	-27.6	
Non-Core Private Real Assets Lag[6]	*$341,100*	*Private Real Estate*	$ 112,984,738	2.9%		4.2	4.2	8.1	12.2	4.7	4.9	-3.8	Nov-04
MSCI ACWI +2% Lag						*2.0*	*2.1*	*3.5*	*2.5*	*5.0*	*6.3*	*8.0*	
Difference:						2.2	2.1	4.6	9.7	-0.3	-1.4	-11.8	
Opportunistic Private Real Estate													
Greenfield V[3]	*$30,000*	*Opportunistic Pvt. RE*	$ 222,885	0.0%		-1.4	-1.4	-2.0	-2.0	-9.0	-5.3	-3.1	Jul-08
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*14.1*	
Difference:						-7.9	-8.1	-16.8	-16.8	-16.2	-12.9	-17.2	
Greenfield VI[3]	*$20,000*	*Opportunistic Pvt. RE*	$ 35,318	0.0%		-7.3	-7.3	-37.5	-37.5	-40.2	-31.3	-13.2	Apr-12
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*9.4*	
Difference:						-13.8	-14.0	-52.3	-52.3	-47.4	-38.9	-22.6	
Greenfield VII[3]	*$19,100*	*Opportunistic Pvt. RE*	$ 9,317,604	0.2%		10.7	10.7	25.9	25.9	16.9	15.3	14.3	Oct-14
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*13.2*	
Difference:						4.2	4.0	11.1	11.1	9.7	7.7	1.1	
Grandview[3]	*$30,000*	*Opportunistic Pvt. RE*	$ 19,658,666	0.5%		26.0	26.0	50.4	50.4	31.0	--	16.2	Apr-18
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	--	*12.3*	
Difference:						19.5	19.3	35.6	35.6	23.8	--	3.9	
Miller Global Fund VI[3]	*$30,000*	*Opportunistic Pvt. RE*	$ 943,634	0.0%		9.0	9.0	164.1	164.1	-4.6	1.7	0.7	May-08
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*9.4*	
Difference:						2.5	2.3	149.3	149.3	-11.8	-5.9	-8.7	

[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 3/31/22, and lagged 1 quarter.
[3] Manager returns are as of 3/31/22, and lagged 1 quarter. Since Inception date reflects one quarter lag.
[4] 4/1/20 to present benchmark is **32%** MSCI ACWI IMI, **10%** BB Aggregate Bond Index, **17%** *50%* BB High Yield/*50%* S&P Leveraged Loans, 6% NCREIF ODCE +1% lag; **10%** T-Bill +4%, **10%** MSCI ACWI +2%, **15%** CRO Custom Benchmark. Prior to 4/1/20 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] Manager returns are as of 12/31/21, 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 2022

	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 (continued)													
Miller Global Fund VII[3]	*$15,000*	*Opportunistic Pvt. RE*	$ 45,087	0.0%		-3.1	-3.1	-88.3	-88.3	-52.5	-35.7	-6.3	Dec-12
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*13.4*	
Difference:						-9.6	-9.8	-103.1	-103.1	-59.7	-43.3	-19.7	
Walton Street V[3]	*$30,000*	*Opportunistic Pvt. RE*	$ 1,662,030	0.0%		-11.6	-11.6	-10.7	-10.7	-12.9	-10.7	-4.7	Nov-06
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*10.3*	
Difference:						-18.1	-18.3	-25.5	-25.5	-20.1	-18.3	-15.0	
Walton Street VI[3]	*$15,000*	*Opportunistic Pvt. RE*	$ 5,597,145	0.1%		8.4	8.4	19.2	19.2	2.3	3.6	7.7	Jul-09
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*12.2*	
Difference:						1.9	1.7	4.4	4.4	-4.9	-4.0	-4.5	
Value-Added Private Real Estate													
AG Core Plus IV[3]	*$20,000*	*Value-Added Pvt. RE*	$ 14,323,468	0.4%		3.3	3.3	14.7	14.7	9.7	10.3	6.1	Sep-15
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*12.8*	
Difference:						-3.2	-3.4	-0.1	-0.1	2.5	2.7	-6.7	
Almanac Realty VI[3]	*$30,000*	*Value-Added Pvt. RE*	$ 4,141,803	0.1%		3.2	3.2	15.9	15.9	-9.0	-5.3	21.8	Feb-13
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*13.8*	
Difference:						-3.3	-3.5	1.1	1.1	-16.2	-12.9	8.0	
Berkeley Partners Fund V, LP	*$40,000*	*Value-Added Pvt. RE*	$ 23,993,057	0.6%		4.1	4.1	38.5	38.5	--	--	36.7	Aug-20
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	--	--	*22.1*	
Difference:						-2.4	-2.6	23.7	23.7	--	--	14.6	
Stockbridge RE III[3]	*$45,000*	*Value-Added Pvt. RE*	$ 35,554,041	0.9%		8.7	8.7	52.9	52.9	20.4	--	14.3	Jul-18
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	--	*12.3*	
Difference:						2.2	2.0	38.1	38.1	13.2	--	2.0	
Traditional Growth[2]			$ 1,354,557,164	34.8%	32.0%	-7.8	-8.4	-12.8	-4.8	7.4	8.1	9.0	Jan-95
MSCI ACWI IMI Net						*-7.9*	*-8.2*	*-13.0*	*-6.2*	*10.0*	*10.0*	*7.8*	
Difference:						0.1	-0.2	0.2	1.4	-2.6	-1.9	1.2	
Global Equity			$ 1,303,607,940	33.5%									
Northern Trust MSCI World IMI		*All Cap Global*	$ 1,165,362,991	29.9%		-8.2	-8.4	-13.2	-4.6	--	--	10.1	Sep-20
MSCI World IMI Net						*-8.2*	*-8.0*	*-13.1*	*-4.7*	--	--	*9.9*	
Difference:						0.0	-0.4	-0.1	0.1	--	--	0.2	
SJCERA Transition		*All Cap Global*	$ 3,026	0.0%		NM	NM	NM	NM	--	--	NM	Jul-20
Emerging Markets			$ 138,241,923										
GQG Active Emerging Markets		*Emerging Markets*	$ 61,314,433	1.6%		-5.9	-11.9	-13.4	-14.8	--	--	0.7	Aug-20
MSCI Emerging Markets Index Net						*-5.6*	*-10.5*	*-12.2*	*-18.3*	--	--	*1.7*	
Difference:						-0.3	-1.4	-1.2	3.5	--	--	-1.0	
PIMCO RAE Fundamental Emerging Markets		*Emerging Markets*	$ 76,927,490	2.0%		-5.4	-10.5	-9.0	-9.3	4.4	4.3	4.7	Apr-07
MSCI Emerging Markets Index						*-5.5*	*-10.4*	*-12.1*	*-18.1*	*2.6*	*4.7*	*3.7*	
Difference:						0.1	-0.1	3.1	8.8	1.8	-0.4	1.0	
REITS			$ 50,949,224	1.3%									
Invesco All Equity REIT		*Core US REIT*	$ 50,949,224	1.3%		-2.3	-0.1	-8.1	11.3	8.7	8.8	9.4	Aug-04
FTSE NAREIT Equity Index						*-4.4*	*-1.3*	*-8.1*	*11.9*	*9.6*	*8.6*	*9.2*	
Difference:						2.1	1.2	0.0	-0.6	-0.9	0.2	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 2022

	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			$ 1,213,667,107	31.2%	33.0%	-2.4	-0.9	-2.4	5.0	7.1	6.3	4.0	Jan-05
Risk Parity			$ 423,381,235	10.9%		-5.7	-7.1	-10.3	-2.6	6.1	5.7	4.4	
T-Bill +4%						*0.3*	*1.0*	*1.4*	*4.1*	*4.8*	*5.2*	*4.5*	
Difference:						-6.0	-8.1	-11.7	-6.7	1.3	0.5	-0.1	
Bridgewater All Weather		*Risk Parity*	$ 210,830,797	5.4%		-6.1	-7.0	-9.7	-0.5	5.8	5.6	4.8	Mar-12
T-Bill +4%						*0.3*	*1.0*	*1.4*	*4.1*	*4.8*	*5.2*	*5.4*	
Difference:						-6.4	-8.0	-11.1	-4.6	1.0	0.4	-0.6	
PanAgora Diversified Risk Multi-Asset		*Risk Parity*	$ 212,550,438	5.5%		-5.4	-7.2	-11.0	-4.6	6.2	5.7	6.5	Apr-16
T-Bill +4%						*0.3*	*1.0*	*1.4*	*4.1*	*4.8*	*5.2*	*5.0*	
Difference:						-5.7	-8.2	-12.4	-8.7	1.4	0.5	1.5	
Liquid Credit			$ 224,938,113	5.8%		-2.2	-4.1	-5.3	-4.1	1.6	2.3	1.9	Oct-06
50% BB High Yield, 50% S&P/LSTA Leveraged Loans						*-1.7*	*-3.0*	*-4.1*	*-1.2*	*3.3*	*3.8*	*5.5*	
Difference:						-0.5	-1.1	-1.2	-2.9	-1.7	-1.5	-3.6	
Neuberger Berman		*Global Credit*	$ 98,179,088	2.5%		-3.0	-6.3	-8.0	-6.6	1.4	--	2.1	Feb-19
33% ICE BofA HY Constrained, 33% S&P/LSTA LL, 33% JPM EMBI Glbl Div.						*-3.0*	*-6.1*	*-7.7*	*-5.6*	*1.5*	*--*	*2.4*	
Difference:						0.0	-0.2	-0.3	-1.0	-0.1	--	-0.3	
Stone Harbor Absolute Return		*Absolute Return*	$ 126,759,025	3.3%		-1.5	-2.4	-3.1	-2.2	1.8	2.3	2.7	Oct-06
3-Month Libor Total Return						*0.0*	*-0.1*	*-0.1*	*0.0*	*0.9*	*1.3*	*1.4*	
Difference:						-1.5	-2.3	-3.0	-2.2	0.9	1.0	1.3	
Private Credit Lag[2]			$ 361,259,241	9.3%		2.9	2.9	2.9	9.3	4.2	3.7	3.6	
50% BB High Yield, 50% S&P/LSTA Leveraged Loans						*1.3*	*0.7*	*0.7*	*5.2*	*7.2*	*5.3*	*6.0*	
Difference:						1.6	2.2	2.2	4.1	-3.0	-1.6	-2.4	
BlackRock Direct Lending Lag[3]	*$100,000*	*Direct Lending*	$ 68,931,284	1.8%		1.8	1.8	1.8	8.0	--	--	9.3	May-20
CPI +6% Annual Blend [5]						*0.8*	*3.1*	*3.1*	*13.4*	*--*	*--*	*16.0*	
Difference:						1.0	-1.3	-1.3	-5.4	--	--	-6.7	
Mesa West RE Income IV Lag[3]	*$75,000*	*Comm. Mortgage*	$ 25,501,797	0.7%		2.6	2.6	2.6	9.5	8.1	--	7.8	Mar-17
CPI +6% Annual Blend [4]						*0.8*	*3.1*	*3.1*	*13.4*	*9.7*	*--*	*9.1*	
Difference:						1.8	-0.5	-0.5	-3.9	-1.6	--	-1.3	
Crestline Opportunity II Lag[7]	*$45,000*	*Opportunistic*	$ 18,469,641	0.5%		0.0	0.0	0.0	13.4	1.5	2.8	5.0	Nov-13
CPI +6% Annual Blend [4]						*0.8*	*3.1*	*3.1*	*13.4*	*9.7*	*9.1*	*9.1*	
Difference:						-0.8	-3.1	-3.1	0.0	-8.2	-6.3	-4.1	
Davidson Kempner Distr Opp V Lag[3]	*$50,000*	*Opportunistic*	$ 45,314,047	0.0%		3.7	3.7	3.7	20.2	--	--	35.4	Oct-20
CPI +6% Annual Blend [4]						*0.8*	*3.1*	*3.1*	*13.4*	*--*	*--*	*11.7*	
Difference:						2.9	0.6	0.6	6.8	--	--	23.7	
Oaktree Lag	*$50,000*	*Leveraged Direct*	$ 31,338,491	0.8%		5.9	5.9	5.9	18.1	17.4	--	11.7	Mar-18
CPI +6% Annual Blend [6]						*0.8*	*3.1*	*3.1*	*13.4*	*13.1*	*--*	*9.4*	
Difference:						5.1	2.8	2.8	4.7	4.3	--	2.3	
HPS EU Asset Value II Lag[3]	*$50,000*	*Direct Lending*	$ 31,786,710	0.8%		1.3	1.3	1.3	6.4	--	--	1.2	Aug-20
CPI +6% Annual Blend [4]						*0.8*	*3.1*	*3.1*	*13.4*	*--*	*--*	*11.4*	
Difference:						0.5	-1.8	-1.8	-7.0	--	--	-10.2	
Raven Opportunity II Lag[7]	*$45,000*	*Direct Lending*	$ 5,529,199	0.1%		0.0	0.0	0.0	8.0	-3.3	1.8	-3.0	Aug-14
CPI +6% Annual Blend [4]						*0.8*	*3.1*	*3.1*	*13.4*	*9.7*	*9.1*	*9.1*	
Difference:						-0.8	-3.1	-3.1	-5.4	-13.0	-7.3	-12.1	
Raven Opportunity III Lag[3]	*$50,000*	*Direct Lending*	$ 53,292,281	1.4%		6.1	6.1	6.1	14.6	8.6	8.9	4.0	Nov-15
CPI +6% Annual Blend [4]						*0.8*	*3.1*	*3.1*	*13.4*	*9.7*	*9.1*	*9.1*	
Difference:						5.3	3.0	3.0	1.2	-1.1	-0.2	-5.1	

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[2] Total class returns are as of 3/31/22, and lagged 1 quarter.

[3] Manager returns are as of 3/31/22, and lagged 1 quarter. Since Inception date reflects one quarter lag.

[4] 9% Annual until 7/1/2018 then CPI +6% Annual 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

[7] Manager returns are as of 12/31/21, 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 2022

	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[5]	*$50,000*	*Direct Lending*	$ 4,913,418	0.1%		0.0	0.0	0.0	4.0	-9.3	-8.1	-1.3	Jul-12
CPI +6% Annual Blend [4]						*0.8*	*3.1*	*3.1*	*13.4*	*9.7*	*9.1*	*9.1*	
Difference:						-0.8	-3.1	-3.1	-9.4	-19.0	-17.2	-10.4	
White Oak Summit Peer Fund Lag[3]	*$50,000*	*Direct Lending*	$ 33,572,006	0.9%		2.8	2.8	2.8	0.5	3.9	5.6	5.9	Mar-16
CPI +6% Annual Blend [4]						*0.8*	*3.1*	*3.1*	*13.4*	*9.7*	*9.1*	*10.2*	
Difference:						2.0	-0.3	-0.3	-12.9	-5.8	-3.5	-4.3	
White Oak Yield Spectrum Master V Lag[3]	*$50,000*	*Direct Lending*	$ 42,610,367	1.1%		0.7	0.7	0.7	2.5	--	--	0.3	Mar-20
CPI +6% Annual Blend [4]						*0.8*	*3.1*	*3.1*	*13.4*	--	--	*10.2*	
Difference:						-0.1	-2.4	-2.4	-10.9	--	--	-9.9	
Principal US[3]	*$25,000*	*Core Pvt. RE*	$ 42,082,981	1.1%		10.0	10.0	13.3	13.3	6.4	7.3	7.8	Jan-16
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*11.2*	
Difference:						3.5	3.3	-1.5	-1.5	-0.8	-0.3	-3.4	
Prologis Logistics[3]	*$35,000*	*Core Pvt. RE*	$ 101,909,179	2.6%		6.0	6.0	29.9	29.9	18.6	18.5	8.1	Dec-07
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*9.6*	
Difference:						-0.5	-0.7	15.1	15.1	11.4	10.9	-1.5	
RREEF America II[3]	*$45,000*	*Core Pvt. RE*	$ 60,557,253	1.6%		10.6	10.6	23.8	23.8	10.2	8.9	9.3	Jul-16
NCREIF ODCE + 1% Lag Blend						*6.5*	*6.7*	*14.8*	*14.8*	*7.2*	*7.6*	*12.0*	
Difference:						4.1	3.9	9.0	9.0	3.0	1.3	-2.7	
Diversifying Strategies			$ 851,140,125	21.8%	25.0%	1.4	2.2	3.3	4.0	3.8	3.5	6.4	Oct-90
Principal Protection			$ 303,606,089	7.8%	10.0%	-2.6	-5.6	-7.2	-6.4	0.2	1.6	6.0	Oct-90
BB Aggregate Bond Index						*-3.8*	*-7.5*	*-9.5*	*-8.5*	*0.4*	*1.2*	*5.6*	
Difference:						1.2	1.9	2.3	2.1	-0.2	0.4	0.4	
Dodge & Cox		*Core Fixed Income*	$ 198,722,924	5.1%		-3.3	-6.4	-8.4	-7.6	1.6	2.3	6.7	Oct-90
BB Aggregate Bond Index						*-3.8*	*-7.5*	*-9.5*	*-8.5*	*0.4*	*1.2*	*5.6*	
Difference:						0.5	1.1	1.1	0.9	1.2	1.1	1.1	
DoubleLine Capital		*MBS*	$ 10,889,067	0.3%		-0.1	-2.1	-3.0	-1.9	2.2	2.7	4.4	Feb-12
BB Aggregate Bond Index						*-3.8*	*-7.5*	*-9.5*	*-8.5*	*0.4*	*1.2*	*1.7*	
Difference:						3.7	5.4	6.5	6.6	1.8	1.5	2.7	
Loomis Sayles		*Core Fixed Income*	$ 93,994,098	2.4%		-3.3	--	--	--	--	--	-6.1	Mar-22
BB Aggregate Bond Index						*-3.8*	--	--	--	--	--	*-6.5*	
Difference:						0.5	--	--	--	--	--	0.4	

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[3] Manager returns are as of 3/31/22, and lagged 1 quarter. Since Inception date reflects one quarter lag.

[4] 9% Annual until 7/1/2018 then CPI +6% Annual thereafter.

[5] Manager returns are as of 12/31/21, 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 2022**

	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			$ 547,534,036	14.1%	15.0%	4.6	8.7	12.0	12.6	6.4	4.9	6.9	Jan-05
CRO Custom Benchmark [2]						*-1.2*	*-0.8*	*-1.4*	*3.8*	*5.6*	*4.6*	*5.2*	
Difference:						5.8	9.5	13.4	8.8	0.8	0.3	1.7	
Long Duration			$ 127,920,791	3.3%		-8.5	-14.6	-17.7	-12.3	0.4	1.4	0.5	
BB US Long Duration Treasuries						*-8.9*	*-15.0*	*-18.5*	*-12.2*	*0.7*	*1.7*	*1.2*	
Difference:						0.4	0.4	0.8	-0.1	-0.3	-0.3	-0.7	
Dodge & Cox Long Duration		*Long Duration*	$ 127,920,791	3.3%		-8.5	-14.6	-17.7	-12.3	0.4	1.4	0.5	Feb-16
BB US Long Duration Treasuries						*-8.9*	*-15.0*	*-18.5*	*-12.2*	*0.7*	*1.7*	*1.2*	
Difference:						0.4	0.4	0.8	-0.1	-0.3	-0.3	-0.7	
Systematic Trend Following			$ 247,108,386	6.3%		9.1	26.0	34.8	28.4	15.7	8.6	9.7	
BTOP50 Index						*4.9*	*12.6*	*14.5*	*19.8*	*10.4*	*6.5*	*5.3*	
Difference:						4.2	13.4	20.3	8.6	5.3	2.1	4.4	
Mt. Lucas Managed Futures - Cash		*Systematic Trend Following*	$ 128,876,745	3.3%		10.5	26.9	36.5	30.3	16.5	8.6	9.3	Jan-05
BTOP50 Index						*4.9*	*12.6*	*14.5*	*19.8*	*10.4*	*6.5*	*5.3*	
Difference:						5.6	14.3	22.0	10.5	6.1	2.1	4.0	
Graham Tactical Trend		*Systematic Trend Following*	$ 118,231,641	3.0%		7.6	25.2	32.9	26.4	14.7	8.4	5.3	Apr-16
SG Trend Index						*7.1*	*21.7*	*26.0*	*28.6*	*14.2*	*9.1*	*5.4*	
Difference:						0.5	3.5	6.9	-2.2	0.5	-0.7	-0.1	
Alternative Risk Premia			$ 172,504,859	4.4%		11.0	9.2	15.6	17.3	-0.9	1.8	7.6	
5% Annual						*0.4*	*1.2*	*1.6*	*5.0*	*5.0*	*5.0*	*6.3*	
Difference:						10.6	8.0	14.0	12.3	-5.9	-3.2	1.3	
AQR Style Premia		*Alternative Risk Premia*	$ 52,692,887	1.4%		11.9	7.9	24.7	29.5	1.2	-0.5	-0.1	May-16
5% Annual						*0.4*	*1.2*	*1.6*	*5.0*	*5.0*	*5.0*	*5.0*	
Difference:						11.5	6.7	23.1	24.5	-3.8	-5.5	-5.1	
PE Diversified Global Macro		*Alternative Risk Premia*	$ 61,987,896	1.6%		21.7	23.3	40.4	38.4	0.3	2.4	2.2	Jun-16
5% Annual						*0.4*	*1.2*	*1.6*	*5.0*	*5.0*	*5.0*	*5.0*	
Difference:						21.3	22.1	38.8	33.4	-4.7	-2.6	-2.8	
Lombard Odier		*Alternative Risk Premia*	$ 57,824,076	1.5%		3.3	1.0	-2.7	-0.8	-5.8	--	-3.9	Jan-19
5% Annual						*0.4*	*1.2*	*1.6*	*5.0*	*5.0*	--	*5.0*	
Difference:						2.9	-0.2	-4.3	-5.8	-10.8	--	-8.9	
Cash[3]			$ 109,893,631	2.8%	0.0%	0.0	0.0	0.0	0.0	0.6	0.8	2.3	Sep-94
US T-Bills						*0.0*	*0.1*	*0.1*	*0.1*	*0.7*	*1.1*	*2.3*	
Difference:						0.0	-0.1	-0.1	-0.1	-0.1	-0.3	0.0	
Northern Trust STIF		*Collective Govt. Short Term*	$ 103,311,115	2.7%		0.0	0.1	0.1	0.1	0.6	0.8	2.5	Jan-95
US T-Bills						0.0	0.1	0.1	0.1	0.7	1.1	*2.3*	
Difference:						0.0	0.0	0.0	0.0	-0.1	-0.3	0.2	
Parametric Overlay[4]		*Cash Overlay*	$ 42,440,714	1.1%		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

INVESTMENT GROUP

Economic and Market Update

April 2022 Report

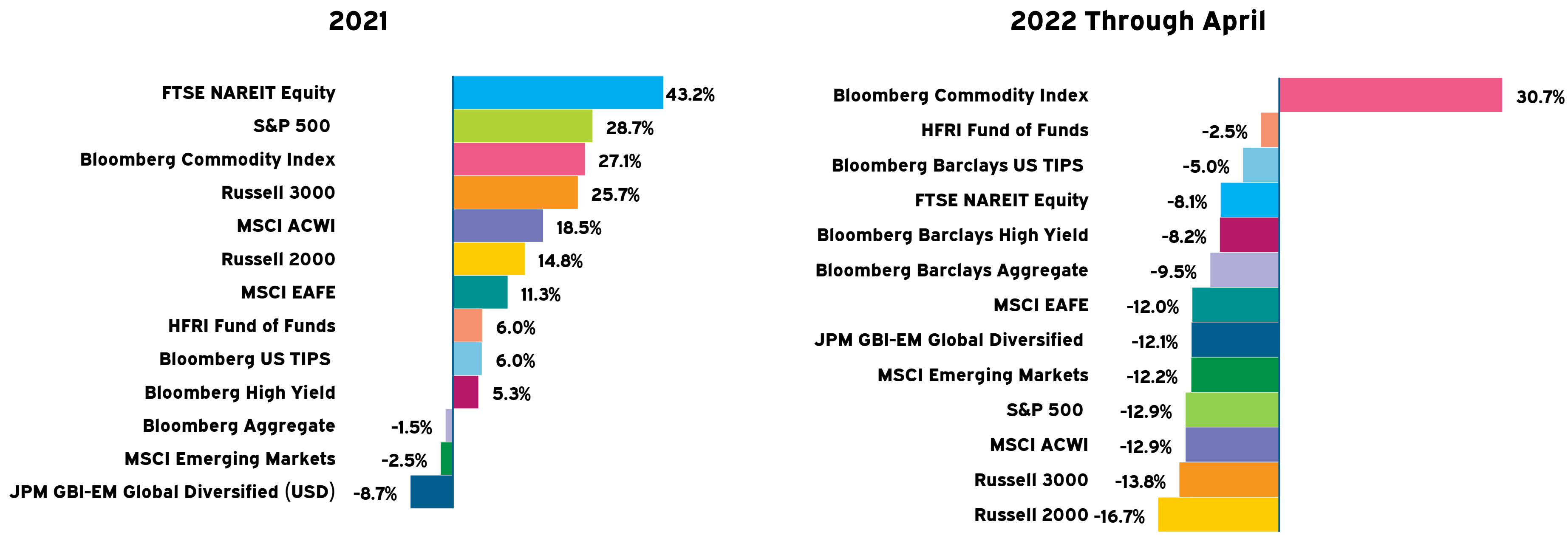
Commentary

→ Market volatility rose sharply in April due to continued inflation pressures, driven by supply chain issues, global stimulus, and the war in Ukraine.

- Except for commodities, all asset classes declined in April.
- Equities fell across the board with the US experiencing the steepest declines.
- Value-oriented equities outpaced growth in the US, influenced by higher interest rates and notable weakness in some high-profile technology companies.
- The global bond selloff continued, as rates rose further on inflation fears and policy expectations.
- Rates rose across the US yield curve, with the curve steepening after a brief early month inversion.
- Inflation remains high globally given lingering supply issues from the pandemic and the conflict in Ukraine.
- The pace of policy tightening will likely increase due to persistent inflation.

→ The conflict in Ukraine, lingering COVID-19 issues, persistent inflation, and strict lockdowns in China will all have considerable economic and financial consequences for the global economy going forward.

Index Returns[1]



- → Outside of emerging markets and the broad US investment grade bond market (Bloomberg Aggregate), most asset classes rose in 2021.
- → In April, most major asset classes extended their losses from the first quarter, with US stocks and bonds having one of their worst starts to a year on record. Commodities continue to be the one exception to the trend, adding 4.1% in April and bringing the year-to-date return to over 30%.

[1] Source: Bloomberg and FactSet. Data is as of April 30, 2022.

Domestic Equity Returns[1]

Domestic Equity	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-8.7	-4.6	-12.9	-0.5	13.8	13.7	13.6
Russell 3000	-9.0	-5.3	-13.8	-3.9	13.1	13.0	13.2
Russell 1000	-8.9	-5.1	-13.6	-2.8	13.6	13.4	13.5
Russell 1000 Growth	-12.1	-9.0	-20.0	-6.0	16.7	17.3	15.5
Russell 1000 Value	-5.6	-0.7	-6.3	0.5	9.6	9.1	11.1
Russell MidCap	-7.7	-5.7	-12.9	-7.1	10.5	10.7	11.9
Russell MidCap Growth	-11.3	-12.6	-22.4	-17.7	8.7	12.1	12.1
Russell MidCap Value	-5.9	-1.8	-7.7	-0.9	10.2	8.6	11.3
Russell 2000	-9.9	-7.5	-16.7	-17.9	6.7	7.2	9.9
Russell 2000 Growth	-12.3	-12.6	-23.3	-27.4	4.1	7.1	9.8
Russell 2000 Value	-7.8	-2.4	-10.0	-7.7	8.4	6.7	9.7

US Equities: Russell 3000 Index declined 9%, and value indices outperformed growth in April.

→ The steep declines in US stocks were driven by an overall weakening of economic data and persistent inflation, leading to expectations for the Federal Reserve to increase rates much faster than previously expected.

→ Value stocks declined far less than growth stocks for the month, maintaining the recent trend as rising rates and inflation continued to weigh on growth companies.

→ Large company stocks outpaced small company stocks for the month, extending year-to-date relative outperformance.

[1] Source: Bloomberg. Data is as of April 30, 2022.

Foreign Equity Returns[1]

Foreign Equity	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-6.3	-5.4	-11.4	-11.3	4.3	4.9	5.0
MSCI EAFE	-6.5	-5.9	-12.0	-9.1	4.4	4.8	5.7
MSCI EAFE (Local Currency)	-1.4	-3.7	-5.1	2.9	6.5	6.0	8.7
MSCI EAFE Small Cap	-6.9	-8.5	-14.8	-14.4	4.9	5.0	7.6
MSCI Emerging Markets	-5.6	-7.0	-12.2	-19.3	2.2	4.3	3.0
MSCI Emerging Markets (Local Currency)	-3.5	-6.1	-9.4	-15.3	4.1	6.2	6.0
MSCI China	-4.1	-14.2	-17.7	-37.1	-5.0	2.1	3.9

International Developed Market Equities: MSCI EAFE -6.5% in April.

→ Non-US stocks fell less than US stocks in April, leading to their smaller year-to-date declines.

→ The war in Ukraine, high inflation, continued strength in the US dollar, and slowing growth all weighed on stocks in Europe. A particularly weak currency and diverging monetary policy impacted Japan's results.

→ Like the US, value stocks outperformed growth stocks by a wide margin across developed markets, but not in emerging markets where value and growth declined equally in the month of April.

Emerging Markets: MSCI EM -5.6% in April.

→ Emerging market stocks suffered negative returns in April but outperformed developed market stocks.

→ China's strict COVID-19 policies, increased hawkishness from the US Fed, the war in Ukraine, and US dollar strength all contributed to declines.

[1] Source: Bloomberg. Data is as of April 30, 2022.

Fixed Income Returns[1]

Fixed Income	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-3.7	-6.1	-9.6	-8.5	0.6	1.4	2.1	3.9	6.5
Bloomberg Aggregate	-3.8	-5.9	-9.5	-8.4	0.4	1.2	1.7	3.5	6.7
Bloomberg US TIPS	-2.0	-3.0	-5.0	0.7	5.4	3.9	2.3	3.1	7.5
Bloomberg High Yield	-3.6	-4.8	-8.2	-5.2	2.8	3.7	5.3	7.0	4.8
JPM GBI-EM Global Diversified (USD)	-6.0	-6.5	-12.1	-15.9	-3.1	-1.3	-1.4	6.9	4.9

Fixed Income: Bloomberg Universal -3.7% in April.

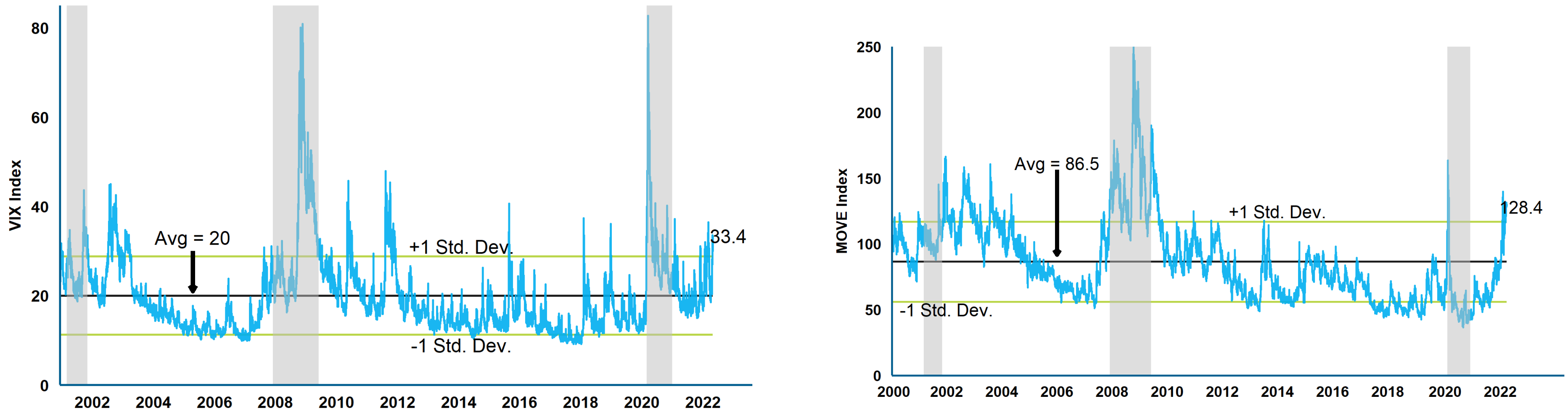
→ Continued concerns about policy tightening and inflation led to rates rising further in April resulting in the broad US investment grade bond market (Bloomberg Aggregate) having its worst start to a year on record. The nominal 10-year Treasury yield approached 3% by month-end and real yields moved toward becoming positive (this eventually happened after month-end).

→ US credit spreads continued to widen, particularly in high yield, as risk assets fell.

→ Emerging market debt experienced the worst declines for the month and year-to date periods with the conflict in Ukraine, rising rates in the US, and strict lockdowns in China all contributing.

[1] Source: Bloomberg. JPM GBI-EM is from InvestorForce. Data is as of April 30, 2022.

Equity and Fixed Income Volatility[1]

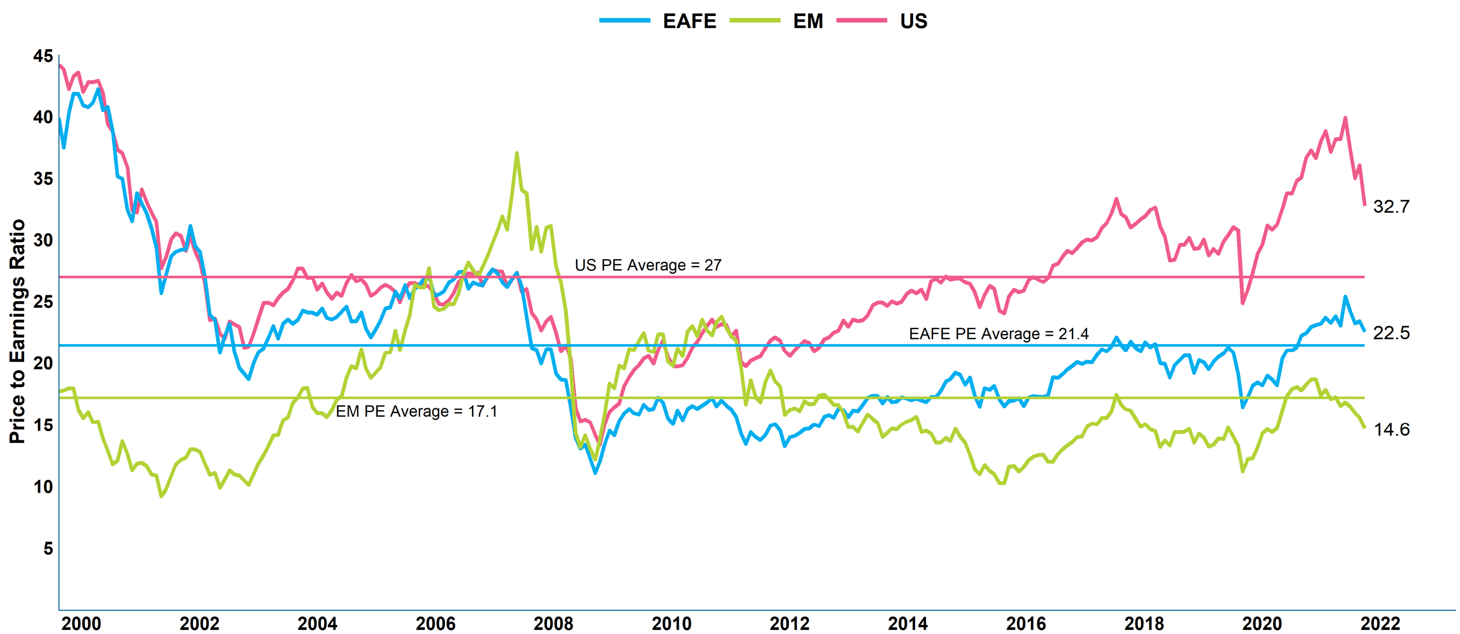


→ Volatility in both equities (VIX) and fixed income (MOVE) surged in April remaining well above long run averages.

→ Concerns over high inflation and the related faster pace of expected policy tightening has led to volatility across markets remaining elevated.

[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 2022. The average line indicated is the average of the VIX and MOVE values between January 2000 and the present month-end respectively.

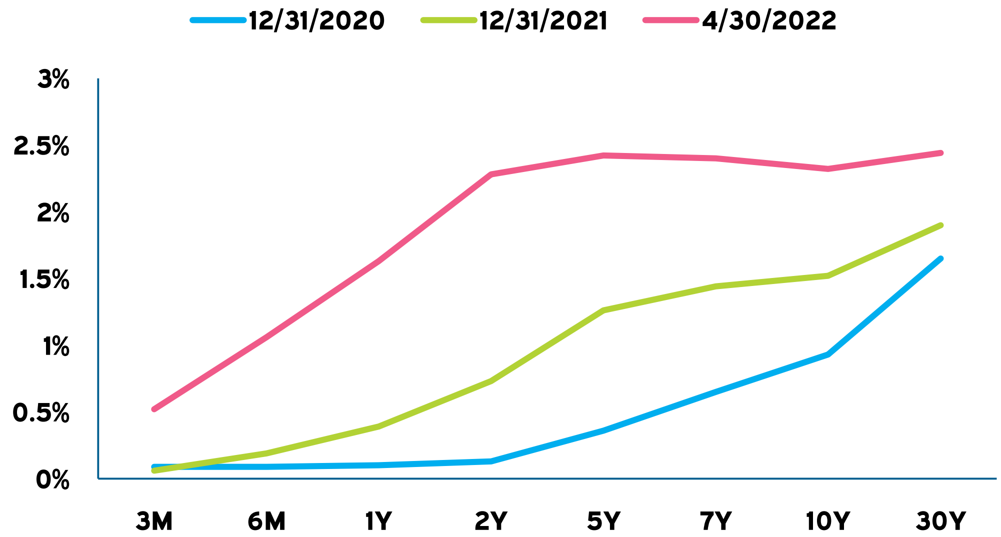
Equity Cyclically Adjusted P/E Ratios[1]



- → After a pause in March, US stocks resumed their sell-off in April. Despite the recent sell-off, valuations remain well above long-term averages (near +2 standard deviations).
- → International developed market valuations remain below the US, with those for emerging markets 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 30, 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to month-end respectively.

US Yield Curve[1]

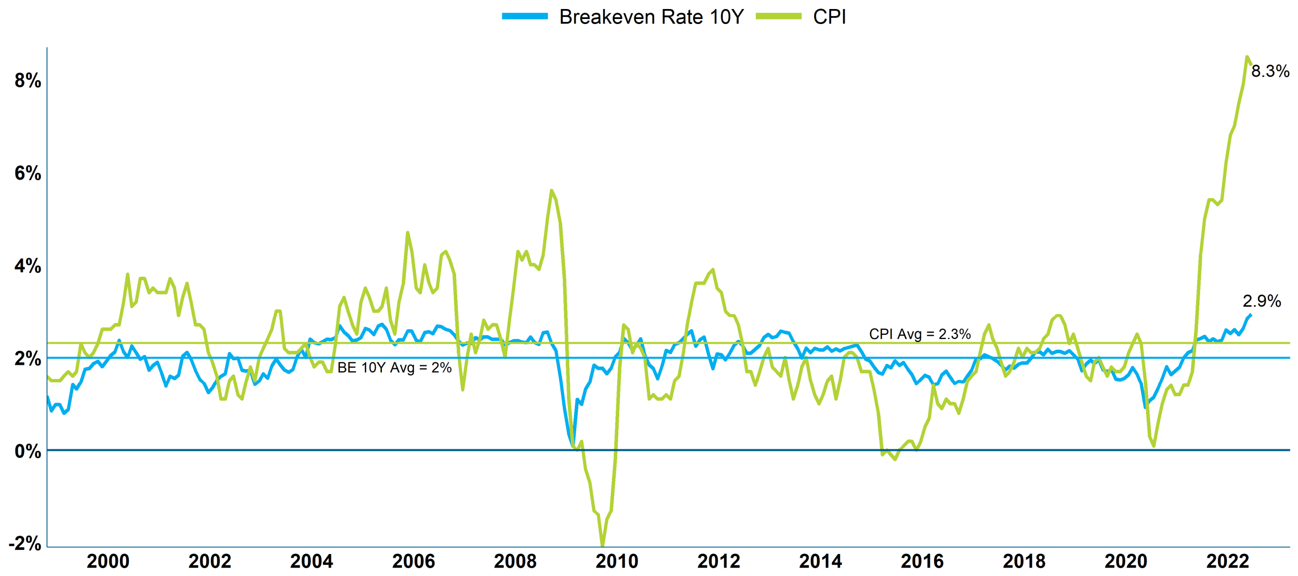


→ In April, the trend of higher rates across maturities persisted as markets continue to reprice inflation, rate expectations, and an accelerated pace of the Federal Reserve reducing its balance sheet.

→ After a brief inversion at the start of the month, which historically has often signaled building recessionary pressures, the curve steepened, with the spread between two-year and ten-year Treasuries finishing April at 22.7 basis points.

[1] Source: Bloomberg. Data is as of April 30, 2022.

Ten-Year Breakeven Inflation and CPI[1]



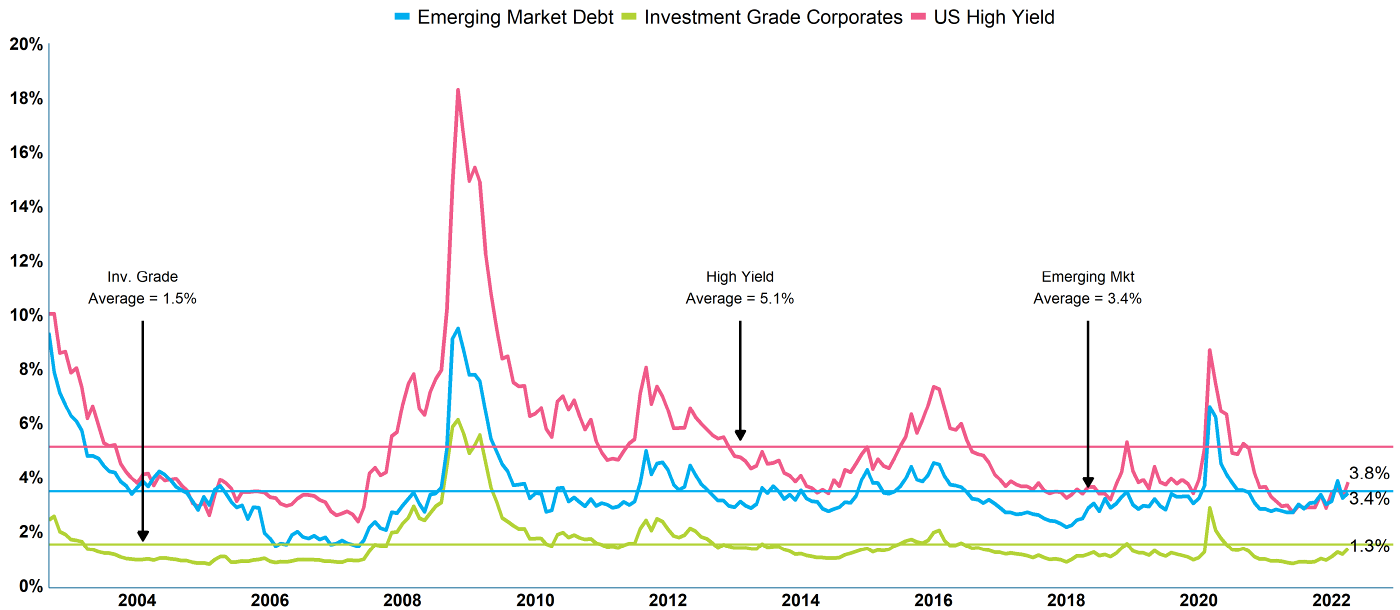
→ Inflation expectations (breakevens) increased slightly in April making a new peak above 3% during the month. It is worth noting that breakevens declined significantly after month-end, on expectations inflation could be peaking.

→ Trailing twelve-month CPI declined slightly in April (8.3% versus 8.5%) remaining well above the long-term average of 2.3%.

→ Rising prices for energy and food, and for new and used cars, remained key drivers of higher inflation.

[1] Source: Bloomberg. Data is as of April 30, 2022. 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]



→ Credit spreads (the spread above a comparable maturity Treasury) increased further in April in the risk-off environment extending losses for the year, particularly for riskier bonds.

→ In the US, spreads for high yield increased more than investment grade. Emerging market spreads also increased during the month but finished lower than US high yield.

→ Despite the recent increase, US high yield spreads remain well below the long-term average (3.8% versus 5.1%).

[1] Sources: Bloomberg. Data is as of April 30, 2022. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the present month-end respectively.

Global Economic Outlook

The IMF significantly lowered global growth forecasts in their latest projections, driven by the economic impacts of the war in Ukraine.

→ The IMF forecasts final global GDP to come in at 6.1% in 2021 and 3.6% in 2022 (0.8% below the prior 2022 estimate), both still above the past ten-year average of 3.0%.

→ In advanced economies, GDP is projected to increase 3.3% in 2022 and 2.4% in 2023. The US has limited economic ties with Russia but saw another downgrade in the 2022 growth forecast (3.7% versus 4.0%) largely due to policy tightening happening faster than previously expected. The euro area saw a significant downgrade in expected growth (2.8% versus 3.9%) in 2022 as rising energy prices particularly weigh on the region that is a net importer of energy. The Japanese economy is expected to grow 2.4% this year.

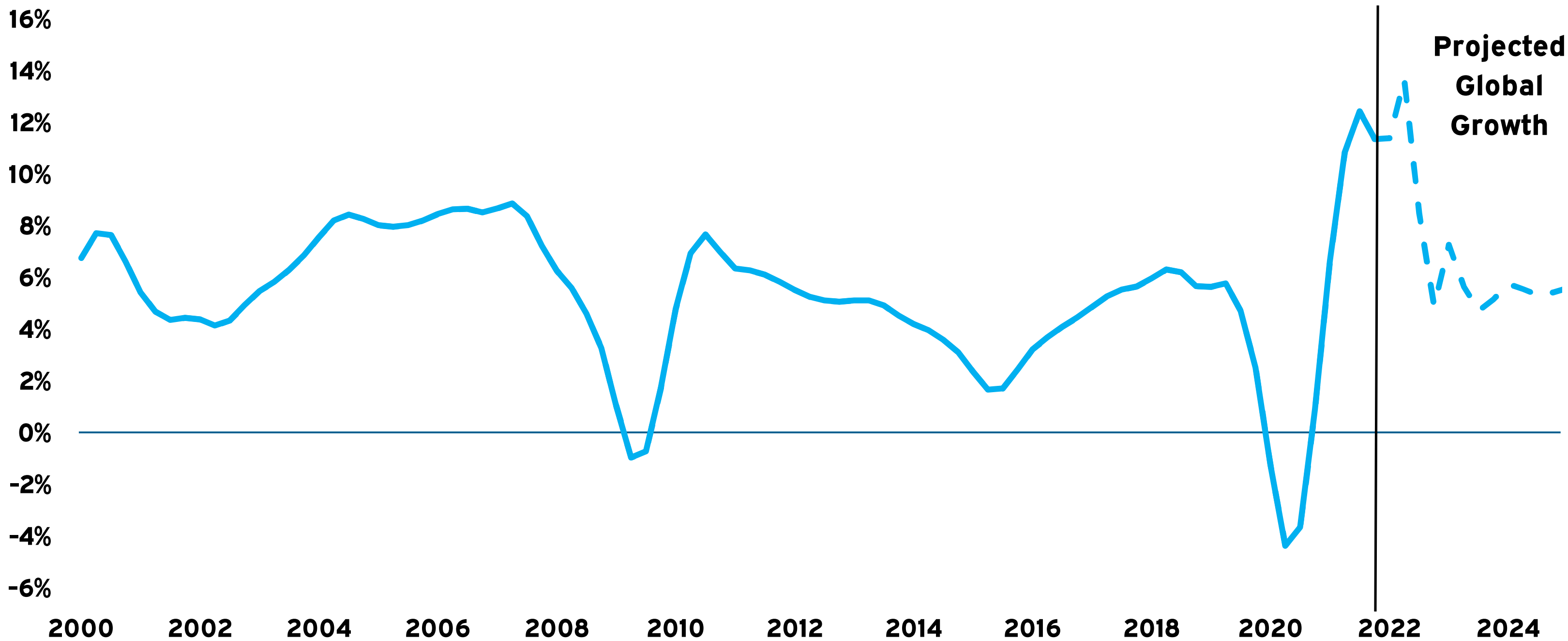
→ Growth projections for emerging markets are higher than developed markets, at 3.8% in 2022 and 4.4% in 2023. China's growth was downgraded (4.4% versus 4.8%) for 2022 given tight COVID-19 restrictions and continued property sector problems.

→ The global inflation forecast was significantly increased for 2022 (7.4% versus 3.8%) due to the war in Ukraine.

	Real GDP (%)[1]			Inflation (%)[1]		
	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average
World	3.6	3.6	3.0	7.4	4.8	3.5
Advanced Economies	3.3	2.4	1.6	5.7	2.5	1.5
US	3.7	2.3	2.1	7.7	2.9	1.9
Euro Area	2.8	2.3	0.9	5.3	2.3	1.2
Japan	2.4	2.3	0.5	1.0	0.8	0.5
Emerging Economies	3.8	4.4	4.2	8.7	6.5	5.1
China	4.4	5.1	6.7	2.1	1.8	2.1

[1] Source: IMF World Economic Outlook. Real GDP forecasts from April WEO Update. Inflation forecasts are as of the April 2022 Update. "Actual 10 Year Average" represents data from 2012 to 2021.

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

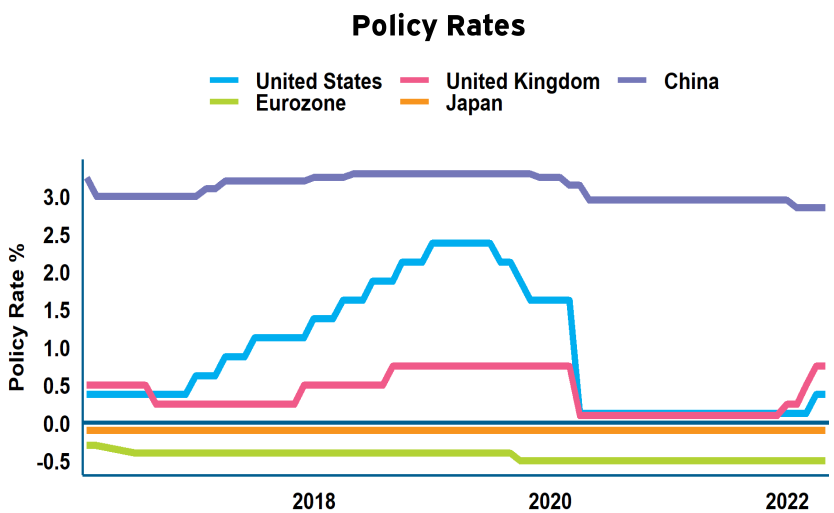


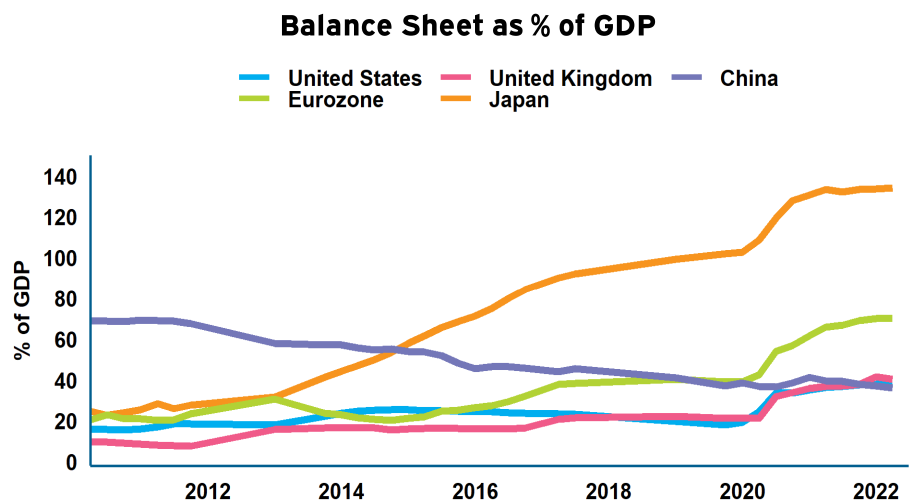
→ Global economies are expected to slow in 2022 compared to 2021 but are forecasted to have another year of largely above-trend growth as economies continue to emerge from the pandemic.

→ Looking forward, the track of the conflict between Russia and Ukraine, continued supply chain issues, ongoing inflationary pressures, tighter monetary policy, and lingering pandemic problems all remain key with the risk for continued downgrades in growth forecasts.

[1] Source: Oxford Economics (World GDP, US$ prices & PPP exchange rate, nominal, % change YoY). Updated April 2022.

Central Bank Response[1]





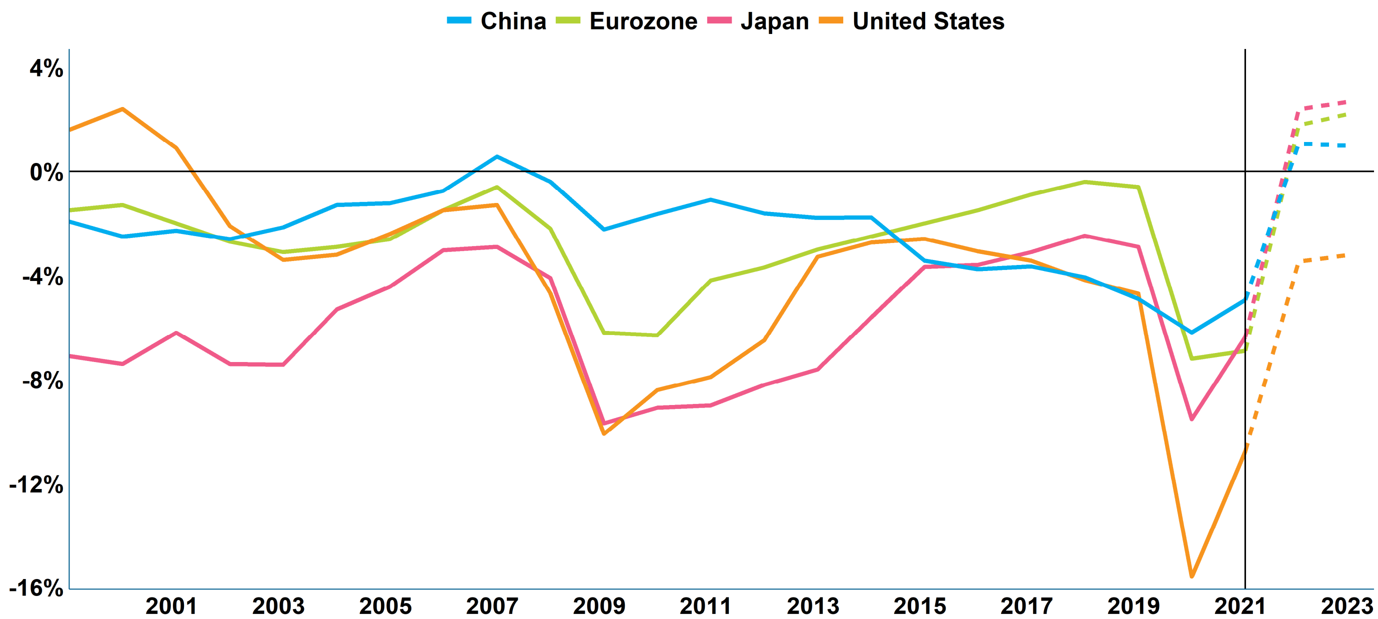
→ After global central banks took extraordinary action to support economies during the pandemic including policy rate cuts and emergency stimulus through quantitative easing (QE), many are considering reducing support in the face of high inflation.

→ The pace of withdrawing support will likely vary across central banks with the US expected to take a more aggressive approach. The risk remains for a policy error, particularly overtightening, as the war in Ukraine and a tough COVID-19 policy in China could suppress global growth.

→ The one notable outlier is China, where the central bank recently lowered rates and reserve requirements in response to slowing growth.

[1] Source: Bloomberg. Policy rate data is as of April 30, 2022. 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, 2022.

Budget Surplus / Deficit as a Percentage of GDP[1]

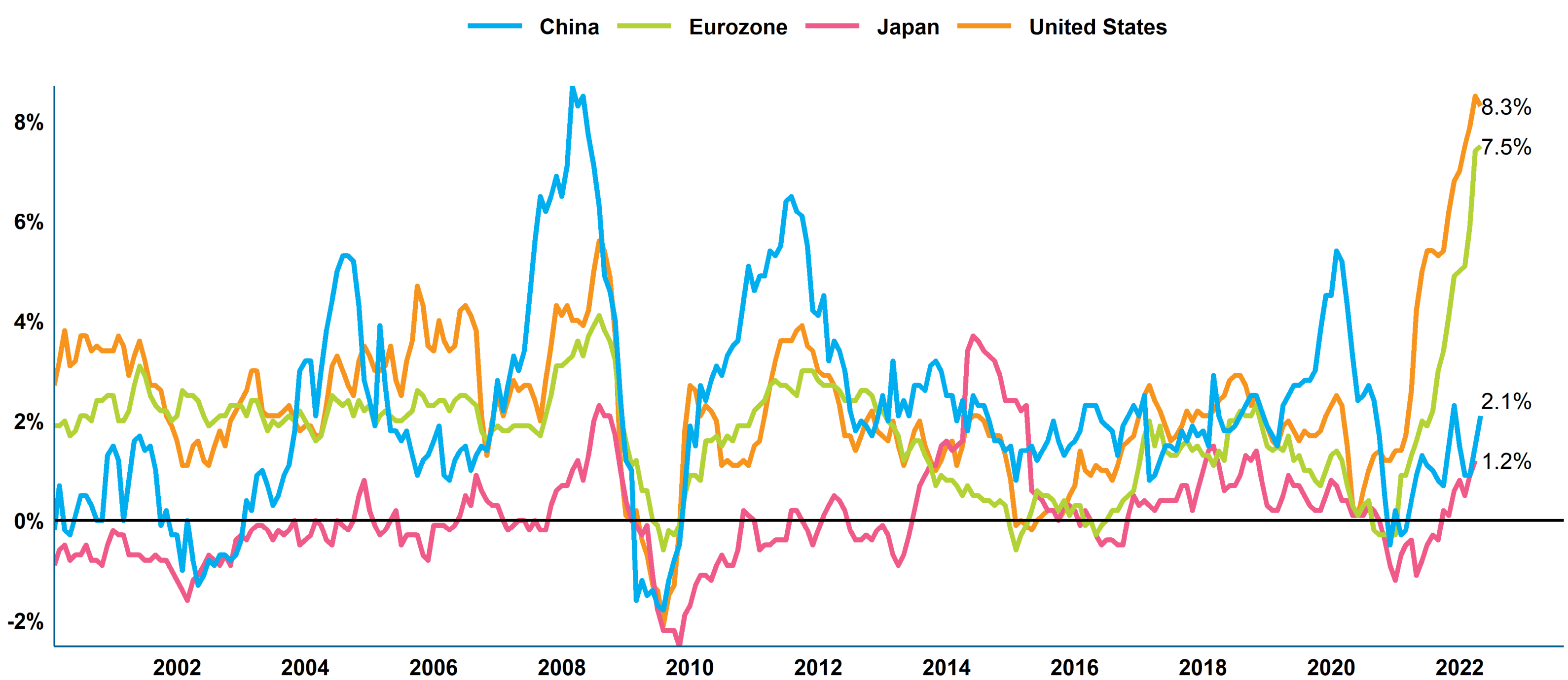


→ Budget deficits as a percentage of GDP drastically increased for major world economies, particularly the US, due to massive fiscal support and the severe economic contraction's effect on tax revenue in 2020 and 2021.

→ As fiscal stimulus programs end, and economic recoveries continue, deficits should improve in the coming years.

[1] Source: Bloomberg. Data is as of March 31, 2022. Projections via IMF Forecasts from April 2022 Report. Dotted lines represent 2022 and 2023 forecasts.

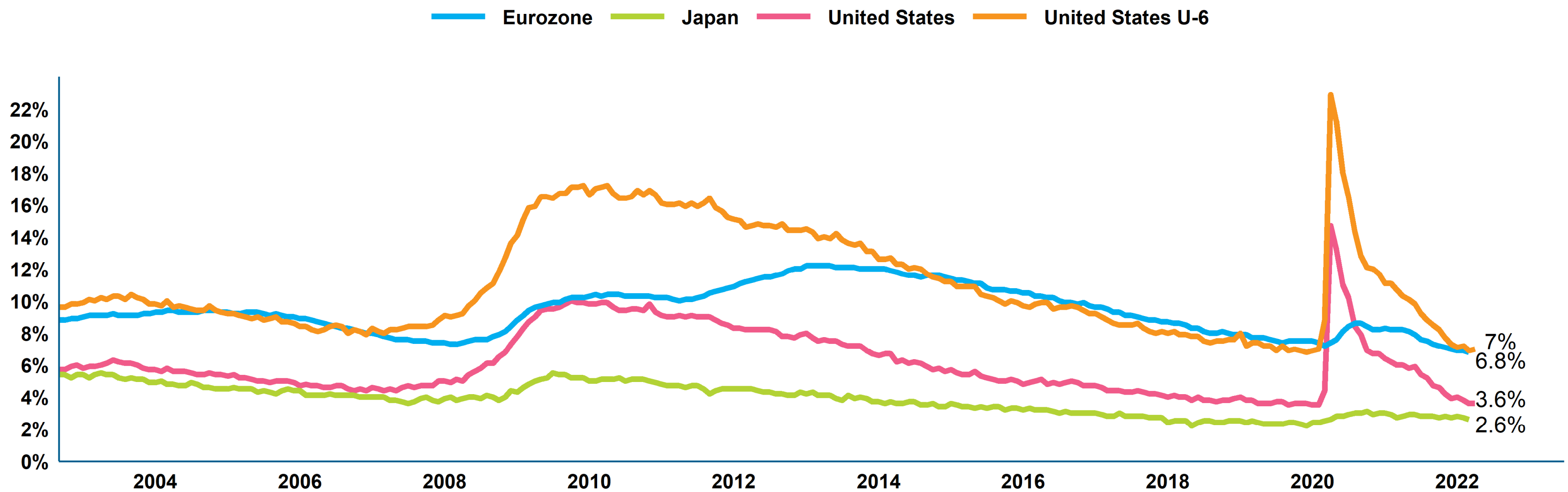
Inflation (CPI Trailing Twelve Months)[1]



- → Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it remains at levels not seen in decades.
- → Supply issues related to the pandemic and higher prices in many commodities driven by the Russia and Ukraine conflict have been key drivers of inflation globally.

[1] Source: Bloomberg. Data is as of April 2022, except for Japan, where the most recent data available is as of March 31, 2022.

Unemployment[1]

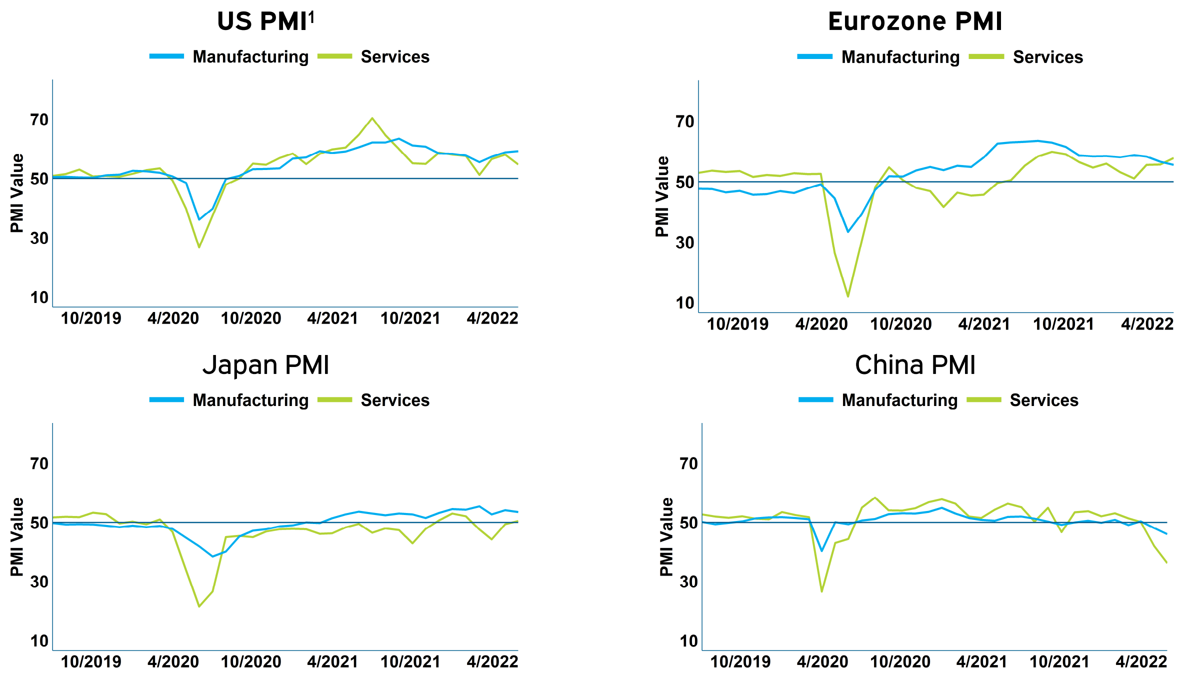


→ As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market.

→ US unemployment, which experienced the steepest rise from the pandemic, has declined back to pre-pandemic levels. The broader measure (U-6) that includes discouraged and underemployed workers declined but is much higher at 7.0%.

[1] Source: Bloomberg. Data is as of April 30, 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of March 31, 2022.

Global PMIs



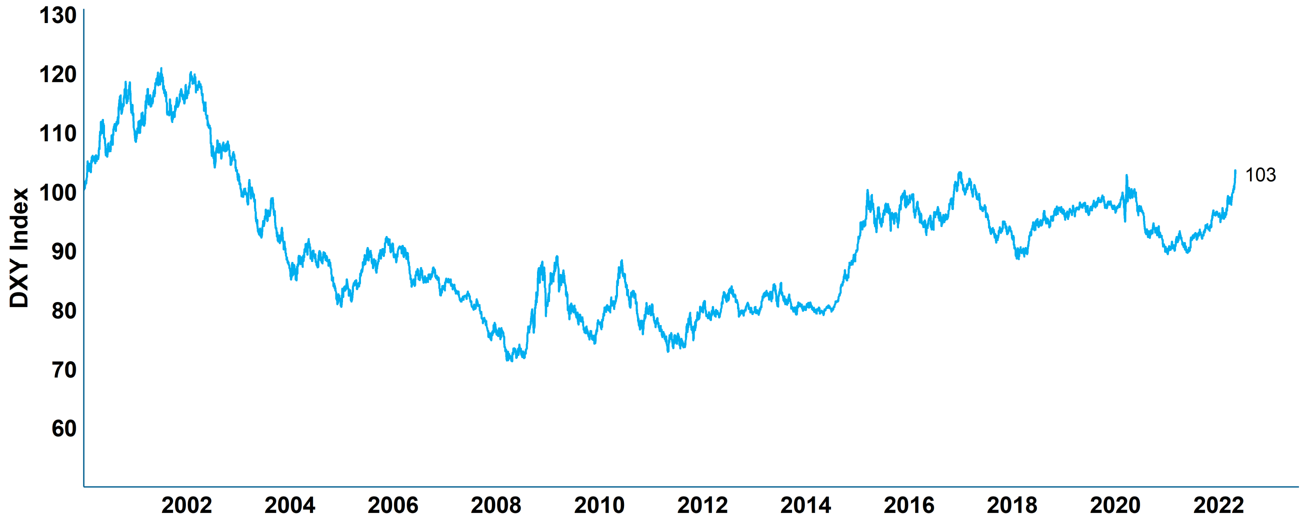
→ After improvements from the lows of the pandemic, Purchasing Managers Indices (PMI), based on surveys of private sector companies, have experienced some pressures recently.

→ Service sector PMIs have seen some improvements in the US and Europe lately as the effects of the Omicron variant wane, while Japan and China remain weaker due to a rise in COVID-19 cases, with China still in contraction due to their strict policies.

→ In most countries, manufacturing PMIs are in expansion territory as pandemic-related production issues ease and orders increase. China is the one exception, though, with the manufacturing PMI falling below 50 due to increased COVID-19 restrictions.

[1] Source: Bloomberg. US Markit Services and Manufacturing PMI, Caixin Services and Manufacturing PMI, Eurozone Markit Services and Manufacturing PMI, Jibun Bank Services and Manufacturing PMI. Data is as of April 2022. Readings below 50 represent economic contractions.

US Dollar versus Broad Currencies[1]



- → The US dollar continued its trend of strengthening against a broad basket of peers in April of 2022 with further increases after month-end.
- → Safe-haven flows, relatively stronger growth, and higher rates have all been key drivers of the dollar's on-going strength.
- → The euro, yen, and yuan have all experienced significant declines versus the dollar, adding to inflation and slowing growth concerns.

[1] Source: Bloomberg. Data as of April 30, 2022.

Summary

Key Trends in 2022:

→ The war in Ukraine has created significant uncertainty, with a wide range of potential outcomes. Volatility will likely remain high.

→ Expect growth to slow globally in 2022 but remain above the long-term trend for the year. The pandemic's impact on economic activity and the war will be key.

→ Inflationary pressures could linger, particularly if the Russian invasion of Ukraine intensifies or expands.

→ The end of many fiscal programs is expected to put the burden of continued growth on consumers. Higher energy and food prices will depress consumer ability to spend in other areas.

→ Monetary policy will likely tighten globally but will remain relatively accommodative. The risk of overtightening policy impacting growth remains.

→ Valuations remain high in the US, but relatively low interest rates and strong margins could be supportive of equity markets.

→ Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including continued strength in the US dollar, higher inflation particularly weighing on Europe, and China maintaining its restrictive COVID-19 policies.

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MEMORANDUM

TO: SJCERA Board of Retirement
FROM: Meketa Investment Group ("Meketa")
DATE: June 3, 2022
RE: SJCERA Private Credit Benchmark Review

Given the current inflationary environment and the uncertainty over how long it will persist, Meketa has conducted a reviewed SJCERA's private credit benchmark (CPI + 6%). Given the low probability that Private Credit managers would be able to succeed a CPI based benchmark in a high inflation environment we believe it is prudent to look at alternative benchmarks that are more in line with what is achievable given the fundamentals of the asset class. Based on review, we believe the benchmark that most closely aligns with the risk-reward profile of Private Credit is the S&P/LSTA Leveraged Loan index. In addition, to account for the illiquidity and return characteristics of Private Credit relative to the leverage loan market we believe a premium should be added in addition to the benchmark. We believe a 3% premium is reasonable and is consistent with the unique attributes of the Private Credit market.

Recommended Benchmark Changes

Private Credit	
Current Benchmark Target	**New Benchmark Target**
CPI + 6% Annual	S&P/LSTA Leveraged Loans + 3%

Discussion

Benchmarking is one of the key components of Plan governance. Benchmarks provide a standard which the performance of a portfolio or investment manager is measured. Benchmarks allow investors to assess success of the Plan or manager, and to better understand not only allocation decisions made by the Board but to better understand and analyze risk and returns. If an investment outperforms or underperforms its benchmark, an investor should understand why it happened, whether it was to be expected, and most importantly what it signifies moving forward.

As background, when reviewing any benchmark, consideration should be given to the characteristics of a valid benchmark. These qualities include:

- Investable – It is possible to forgo active management and simply hold the benchmark. That is, investors can effectively purchase all securities in the benchmark.
- Accessible – Difficult-to-produce benchmarks should be avoided.
- Transparent – Understanding the underlying constituency of a benchmark is critical to understanding its suitability for a particular manager.

- **Independent** – A manager's performance should not impact the prescribed benchmark return.
- **Relevant** – Spurious correlation exists between many random sets of data over various time periods. High correlation or low tracking error to a particular benchmark is not enough to conclude the benchmark is appropriate for a particular manager.

Unfortunately, some asset classes, primarily private asset classes, by their very nature do not lend themselves to investable benchmarks. Investors in Private Credit have inherent challenges when it comes to benchmarking. Private Credit investments are generally illiquid, and unlike publicly traded securities, comparable reference data is rarely available.

One decision point in the benchmarking process, is whether direct comparability or opportunity cost are more important for comparisons purposes. The current benchmark of CPI +6% annual represents an opportunity cost comparison as it measures the performance of Private Credit relative to a goal that's broadly in line with the objectives of the Plan as a whole. This methodology, however, has the shortcoming in that inflation (CPI) is not directly linked to the risk/reward profile of Private Credit. In other words, there is not a direct linkage that ties changes in inflation to changes in the performance of Private Credit. This shortcoming is amplified in scenarios, like the current high inflation environment, wherein this lack of direct linkage in performance of the asset class relative to its benchmark becomes exaggerated. For example, inflation over the last year or so has increased fourfold, yet there is no mechanism within the market that would, likewise, increase the return potential of Private Credit by a similar amount.

An alternative to using a goal-based / opportunity cost approach for benchmarking is to try and create greater direct comparability by benchmarking to a publicly traded proxy that exhibits many of the same characteristics of the asset class. With Private Credit the closest publicly traded proxy is the leveraged loan market. Leveraged loans, also know as bank loans. The S&P/LSTA Leveraged Loan index is an unmanaged index of the institutional leveraged loan market. Given the illiquidity and other unique attributes inherent in private credit relative to the leverage loan market it is common practice to assign a return premium to account for those difference. Though there is variability across plans, 3% has become a common premium assigned to private credit mandates. We believe it represents a reasonable premium given the liquidity and unique risks of private credit. Meketa, therefore, recommends the private credit benchmark transition from CPI +6% to S&P/LSTA Leveraged Loan index +3%.

San Joaquin County Employees' Retirement Association

June 2022

Strategic Asset Allocation

Part 3 – Portfolio Selection

Table of Contents

Introduction

Project Goal:

To review and possibly modify SJCERA's Strategic Allocation Policy, reflecting the Board's unique definition, tolerance for, and beliefs about investment risk.

The purpose of this presentation is to:

1. Review the revised asset-liability model output.
   - Examine several optimized portfolios-based feedback from the board at the May 2022 meeting.
   - Focus is identifying portfolios that produce a 6.75%, 7.00%, and moving global equity to a 60% maximum
   - Continue to examine changes to the strategic policy given the current 7.00% return expectation

2. Discuss next steps.
   - The intent of today is to move forward with the selection of new portfolio targets. At the July meeting, Meketa will come back to the board with final approval and steps for implementation.

Asset-Liability Study Recap

Asset-Liability Study Recap

To this point, the SJCERA Board has seen three dedicated asset-liability study presentations:

- February 2022
  - Review of 2022 capital market assumptions.
- March 2022
  - Review of Asse liability and actuarial concepts.
- April 2022
  - Examination and modeling of the current Strategic Asset allocation
- May 2022
  - Examination of initial model output and begin process of selecting a new long-term policy portfolio.

June 2022 (current meeting)

- Evaluating revised model outputs and possible selection of new target allocations.

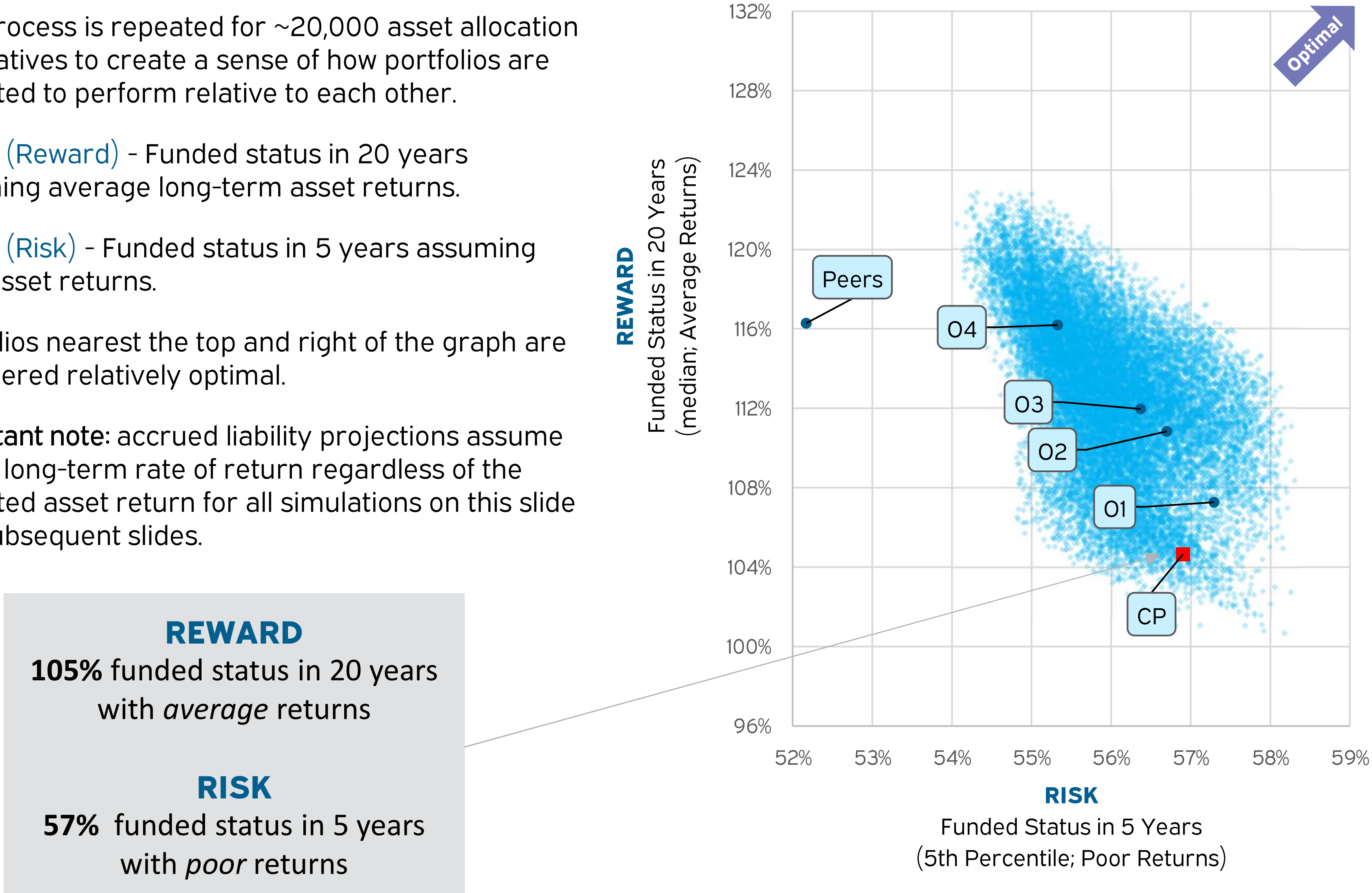
Asset-Liability Study - Stochastic

Asset-Liability Model – Optimized Allocations

- The following allocations were selected for the following reasons:
  1. 6.75% target long-term return; minimize changes to the current policy
  2. 6.75%-7% target long-term return; higher illiquidity; optimize growth and alternative assets
  3. Same objectives as #2 with slightly different optimization approach, more risk parity, less CRO
  4. ~7% target 10-year return expectation

	Current Policy (CP)	Optimized 1 (O1)	Optimized 2 (O2)	Optimized 3 (O3)	Optimized 4 (O4)	60% Global Equity (60% GE)
Principal Protection	10%	11%	7%	7%	5%	10%
Global Equity	32%	30%	34%	34%	40%	60%
Aggressive Growth	10%	14%	14%	16%	16%	5%
Credit	17%	11%	17%	15%	15%	0%
Core Private Real Estate	6%	9%	9%	9%	9%	5%
Crisis Risk Offset (CRO)	15%	15%	15%	13%	11%	10%
Risk Parity	10%	10%	4%	6%	4%	10%
Total	100%	100%	100%	100%	100%	100%
Expected Return (20 Years)	6.6%	6.7%	6.9%	7.0%	7.2%	6.5%
Standard Deviation (1st)	9.5%	9.4%	10.3%	10.5%	11.5%	12.9%
Sharpe Ratio	0.52	0.53	0.51	0.50	0.48	0.37
Illiquid Allocation	19%	23%	27%	27%	29%	5%

- This process is repeated for ~20,000 asset allocation alternatives to create a sense of how portfolios are expected to perform relative to each other.
- Y-axis (Reward) - Funded status in 20 years assuming average long-term asset returns.
- X-axis (Risk) - Funded status in 5 years assuming poor asset returns.
- Portfolios nearest the top and right of the graph are considered relatively optimal.
- **Important note:** accrued liability projections assume a 7.0% long-term rate of return regardless of the expected asset return for all simulations on this slide and subsequent slides.



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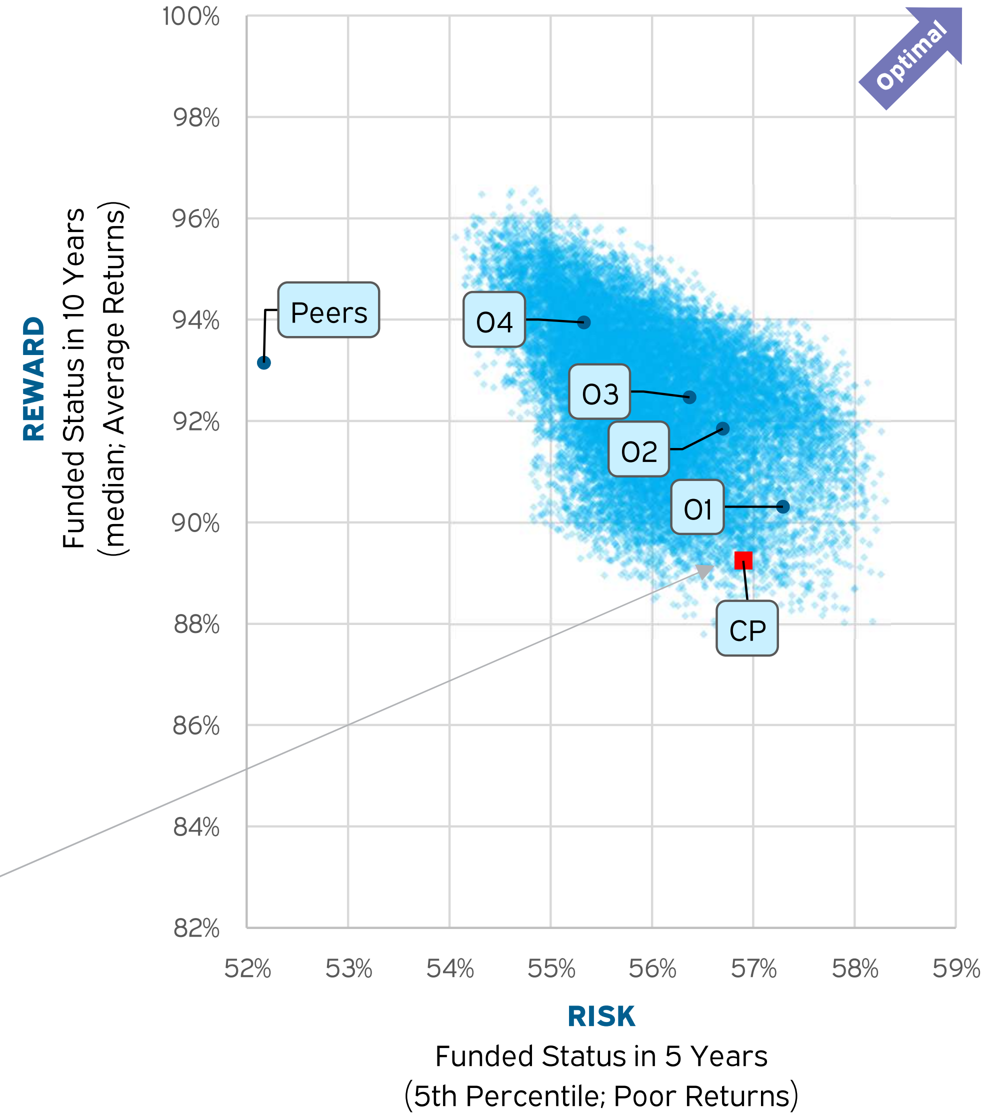
Asset-Liability Study – Analysis → Funded Status Scatter Plot

- This process is repeated for ~20,000 asset allocation alternatives to create a sense of how portfolios are expected to perform relative to each other.
- Y-axis (Reward) - Funded status in 10 years assuming average long-term asset returns.
- X-axis (Risk) - Funded status in 5 years assuming poor asset returns.
- Portfolios nearest the top and right of the graph are considered relatively optimal.
- **Important note:** accrued liability projections assume a 7.0% long-term rate of return regardless of the expected asset return for all simulations on this slide and subsequent slides.

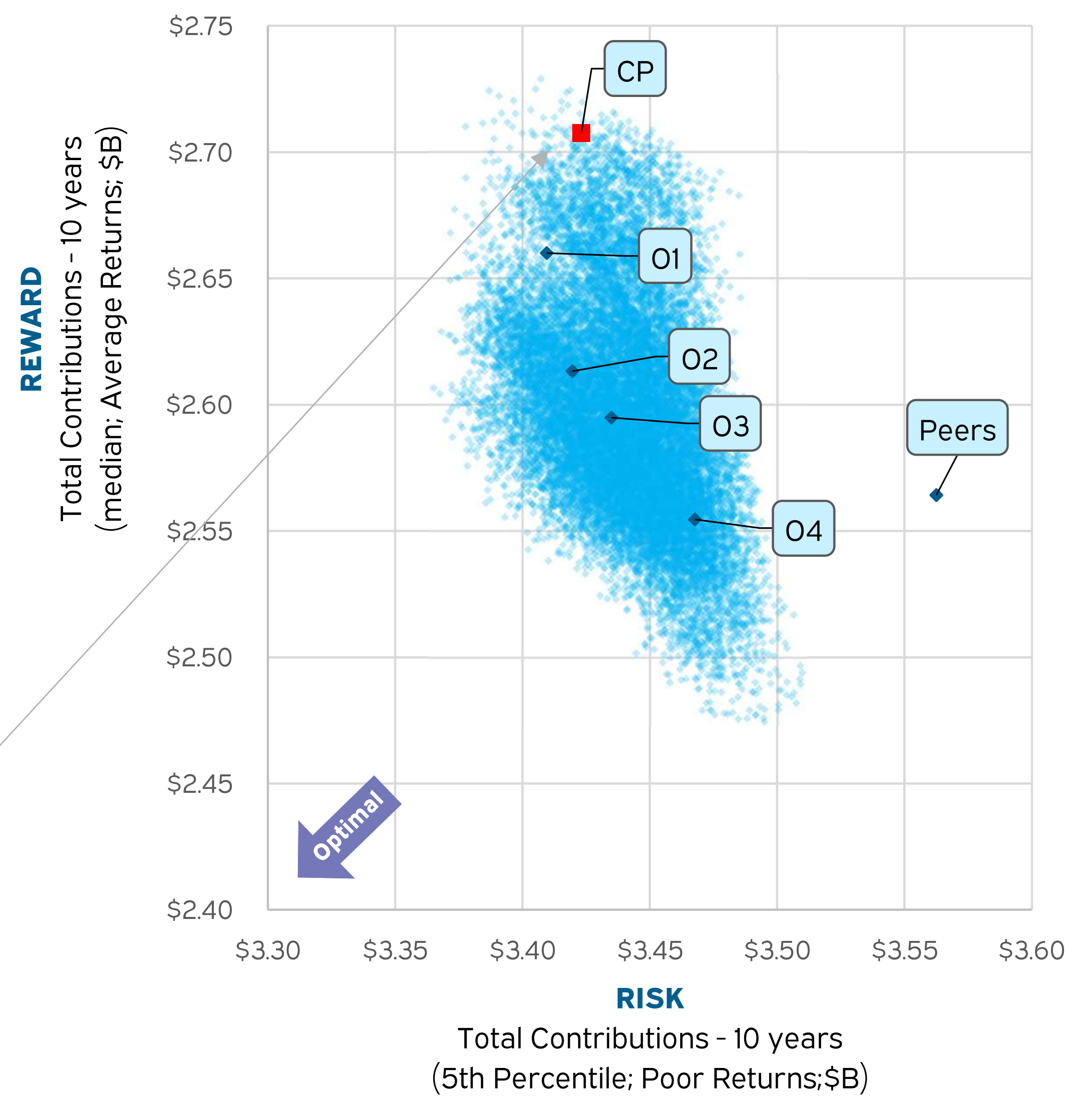
REWARD
89% funded status in 10 years with *average* returns

RISK
57% funded status in 5 years with *poor* returns



Asset-Liability Study – Contribution Expectation Scatter Plot

- This scatter plot changes the "lens" from funded status to contribution expectations.
- Y-axis (Reward) – Total expected contributions over the next 10 years plus the funded status shortfall (if any) assuming average asset returns.
- X-axis (Risk) - Total expected contributions over the next 10 years assuming poor asset returns.



REWARD

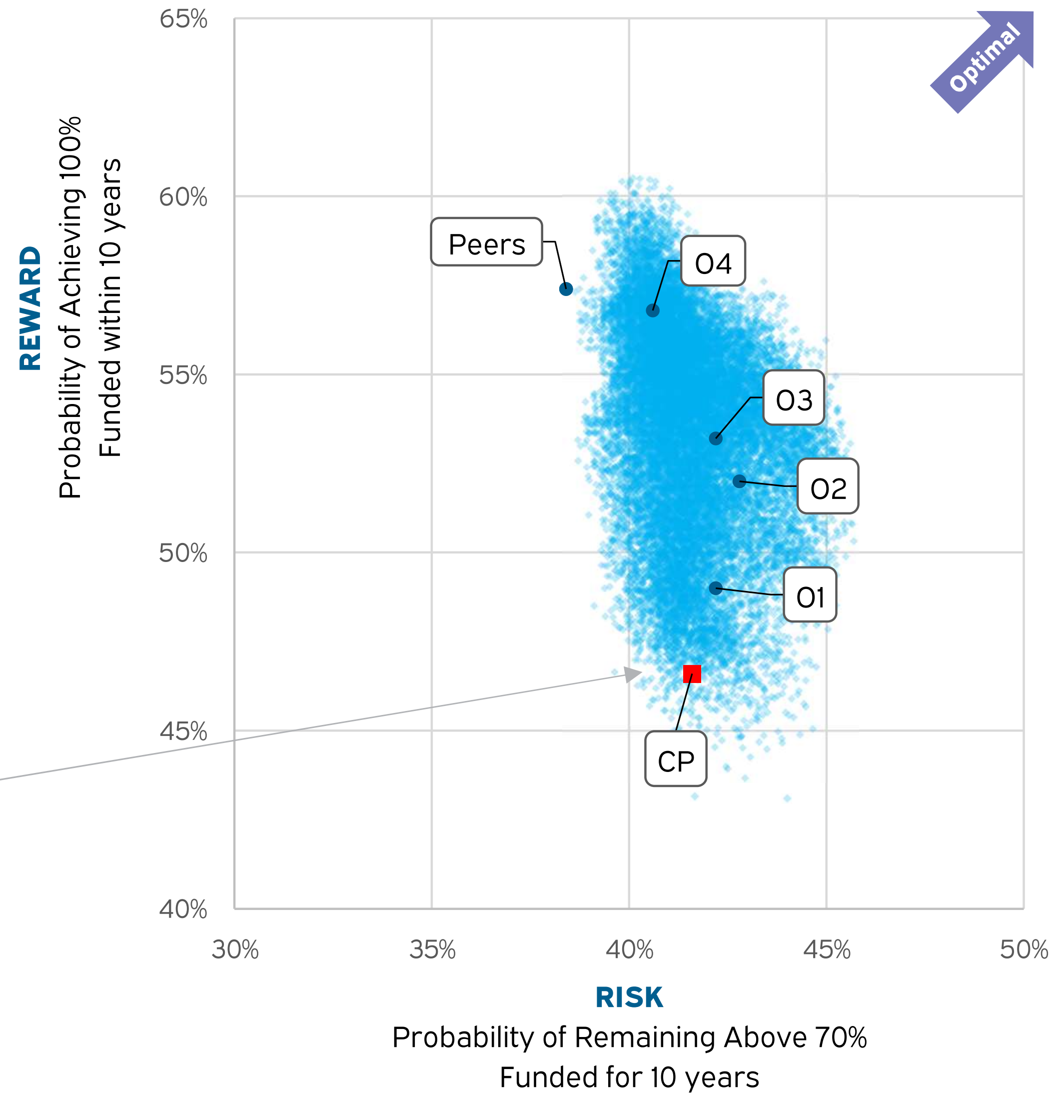
$2.7b of expected contributions over the next 10 years assuming *average* asset returns

RISK

$3.4b of expected contributions over the next 10 years assuming *poor* asset returns

Asset-Liability Study – Milestones Scatter Plot

- This scatter plot analyzes the probabilities of reaching "reward" and "risk" milestones.
- Y-axis (Reward) – Probability the plan reaches 100% funded at any point in the next 10 years.
- X-axis (Risk) – Probability the plan remains above 70% funded in all years in the next 10 years.



REWARD

There is a **47%** probability the plan reaches 100% funded at *any* point in the next 10 years

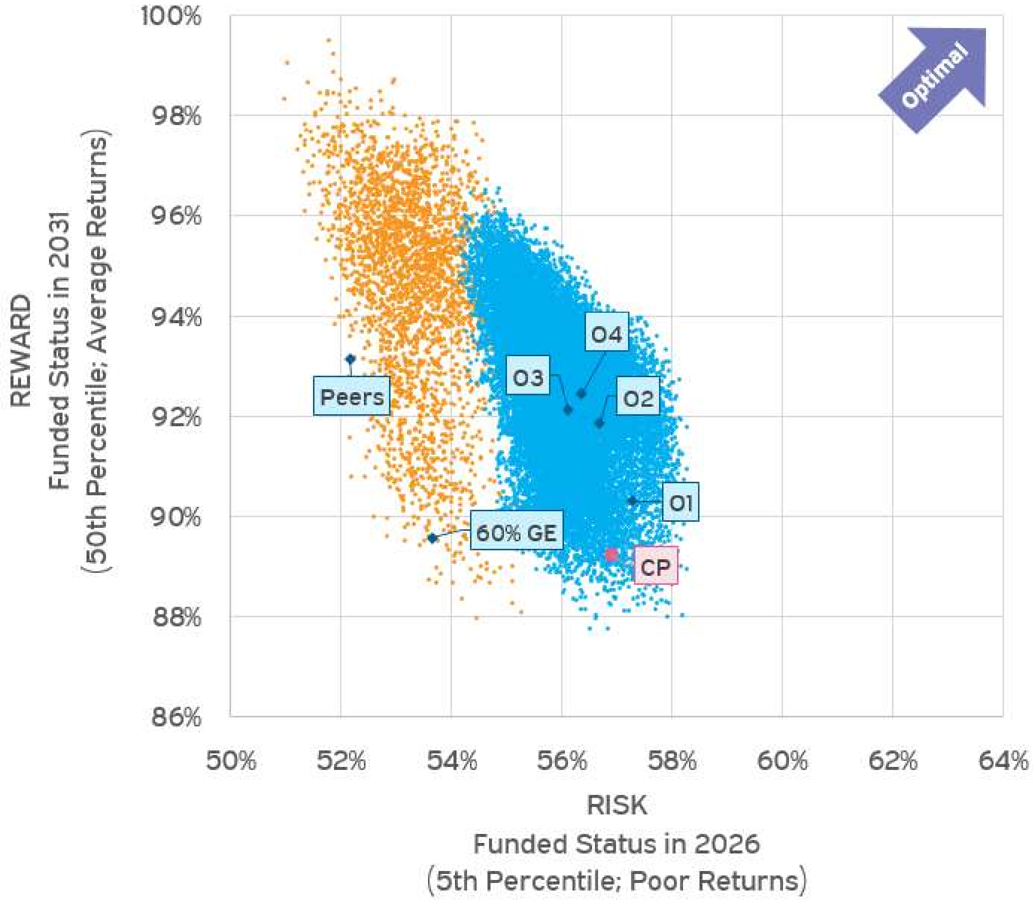
RISK

There is a **42%** probability the plan remains above 70% funded *every* year for the next 10 years

San Joaquin County Employees' Retirement Association

Asset-Liability Study – 60% Global Equity Examples

- The following chart is meant to show the risk and reward chart shown on a prior slide, with the addition of alternative policies with a 60% allocation to global equity (orange dots)
- Allocations with 60% global equity are estimated to be materially higher illiquidity and/or less efficient than the policies shown under the constraints of this study (blue dots)



Conclusions and Next Steps

Conclusions and Next Steps

- There are a multitude of factors for the Board to consider.
- Constructing a portfolio that targets a 7.00% return target is possible, but it will require changes to the policy portfolio.
  - None of these changes are a departure from the path SJCERA is currently on.
  - If the Board selects a portfolio that targets a return materially lower than 7.00%, SJCERA's actuary may recommend additional changes.
- Following review and discussion with the SJCERA board the revised optimized portfolios look at various portfolios given different return and asset class objections.
- Meketa recommends the board consider a portfolio that targets a roughly 7% return (portfolios 2 or 3).

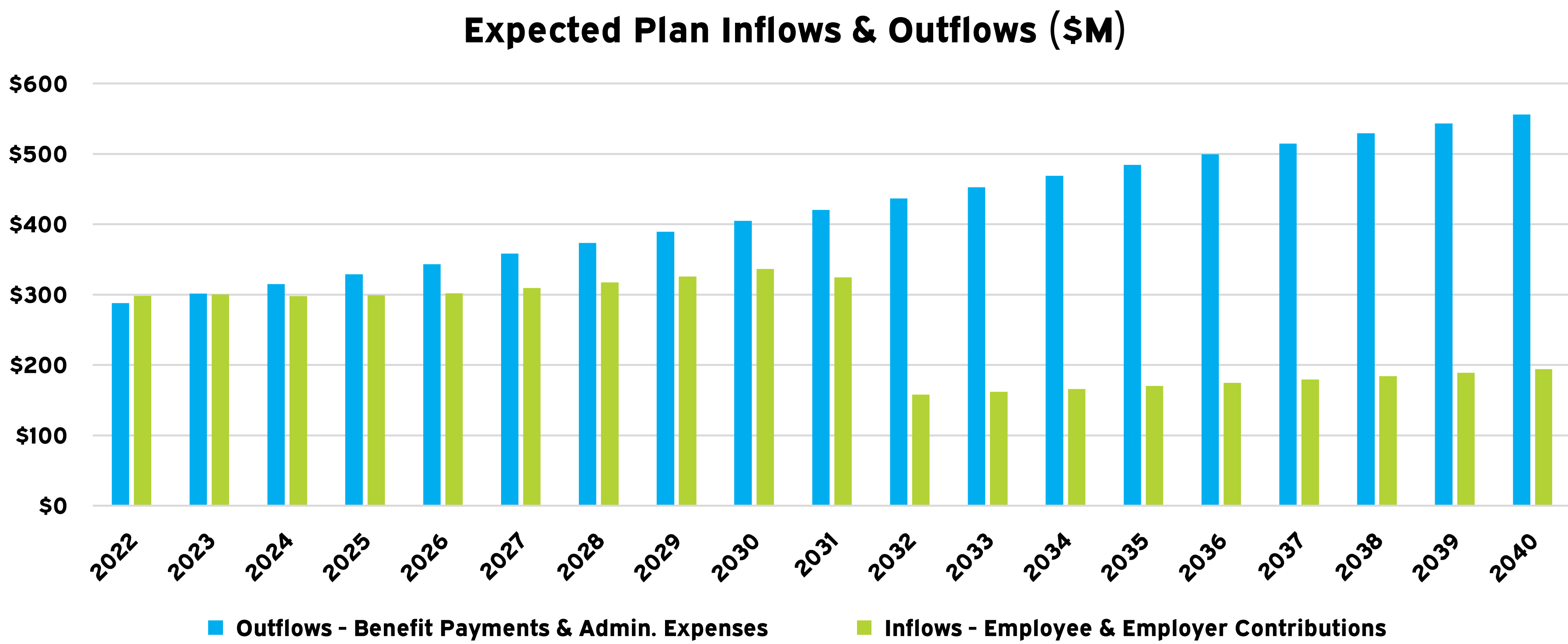
Meeting Date	Activity
June 2022	Final Model and Portfolio Selection
July 2022	Implementation plan for Selected portfolio

*Relative to the long-term policy allocation

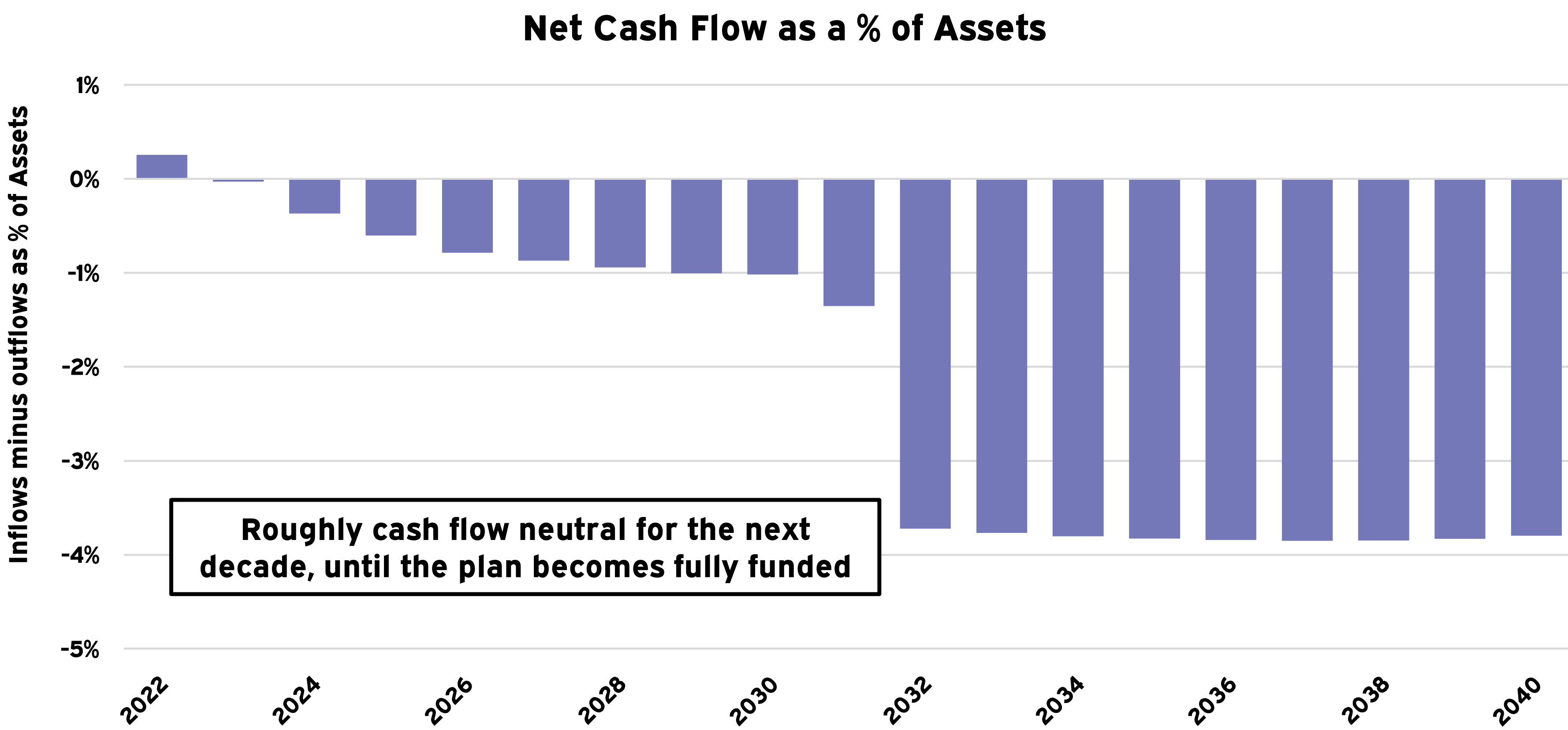
Appendix

Appendix – Assumptions and Methods

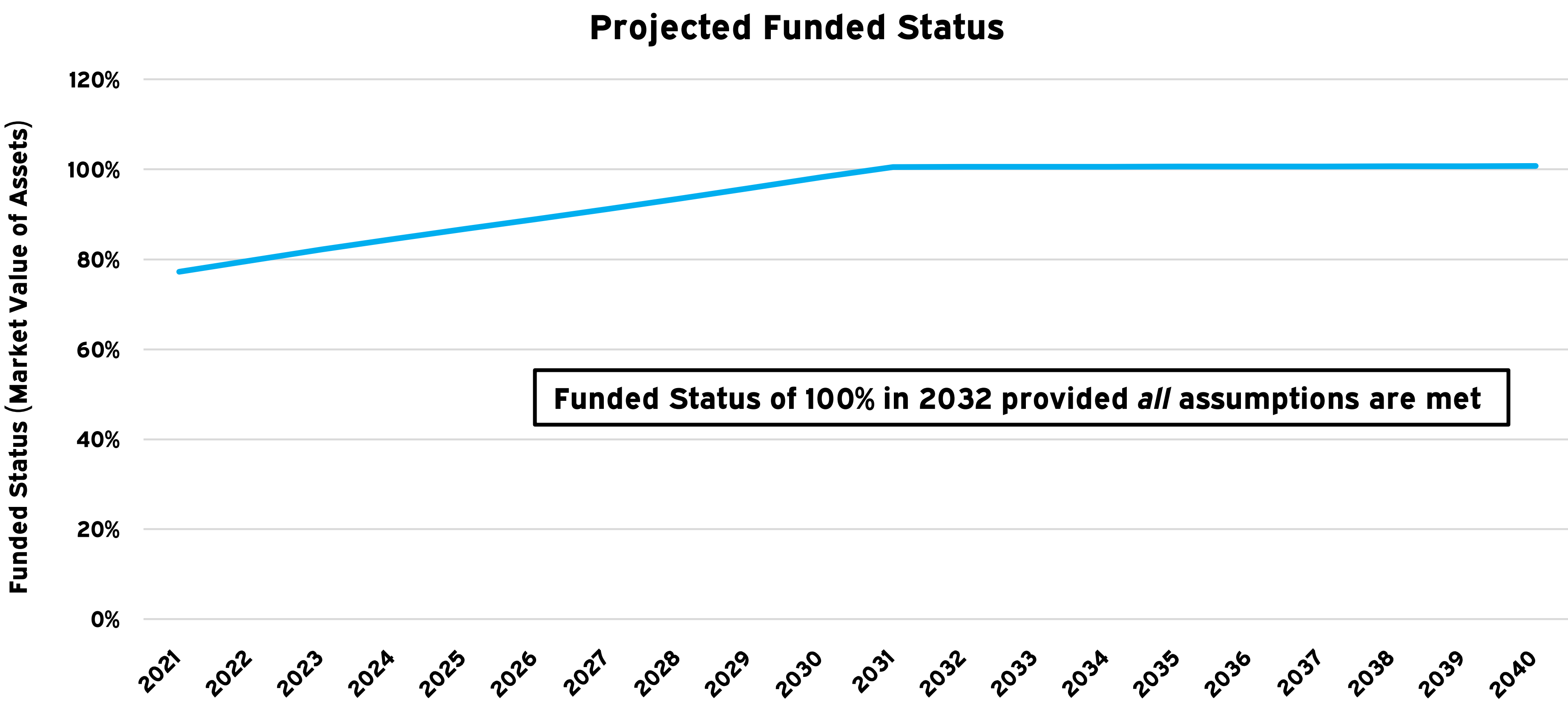
- Capital Market Assumptions: Meketa 2022 Capital Market Expectations – 10 & 20-year assumptions
- Assets: Market value of assets as of December 31, 2021 as detailed in Meketa's quarterly performance report.
- Asset Rebalancing: Annual
- Liabilities and normal cost: The liabilities, normal cost, expected benefit payments and projected payroll used in this study are based on cash flows received from Cheiron on 3/1/2022. All liability projections assume a 7.0% long-term rate of return regardless of the asset allocation being tested.
- Funding policy: Detailed in the January 1, 2021 actuarial valuation report provided by Cheiron.
- Plan Provisions and Assumptions: Additional details regarding provisions and assumptions are documented in the January 1, 2021 actuarial valuation report provided by Cheiron.



- A deterministic asset-liability study is one in which **all assumptions are assumed to be met** every single year of the projection.
- The following expected benefit payments and contributions are what the actuary forecasts using census data as of January 1, 2021.

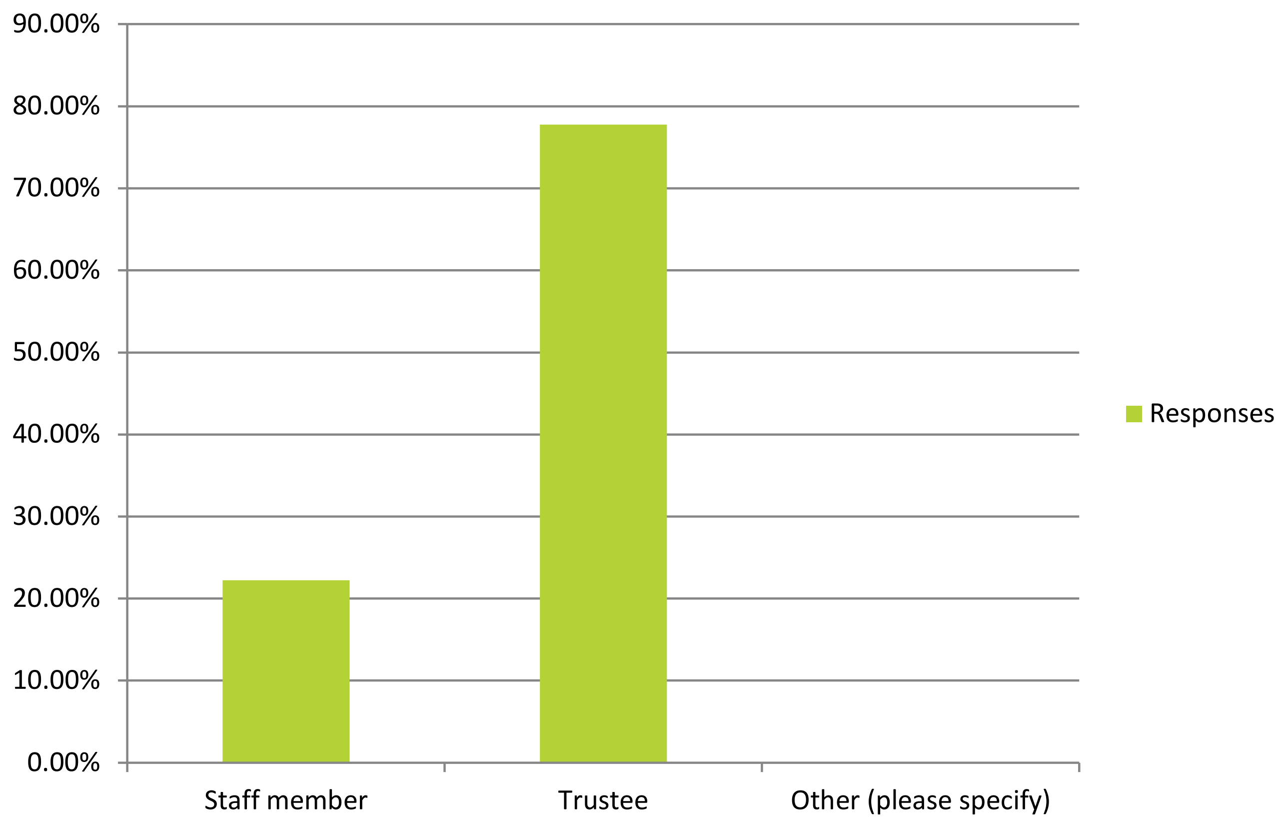


- A negative cash flow is typical for a mature pension plan.
- Plan asset increases/decreases will make the net outflow smaller/larger.

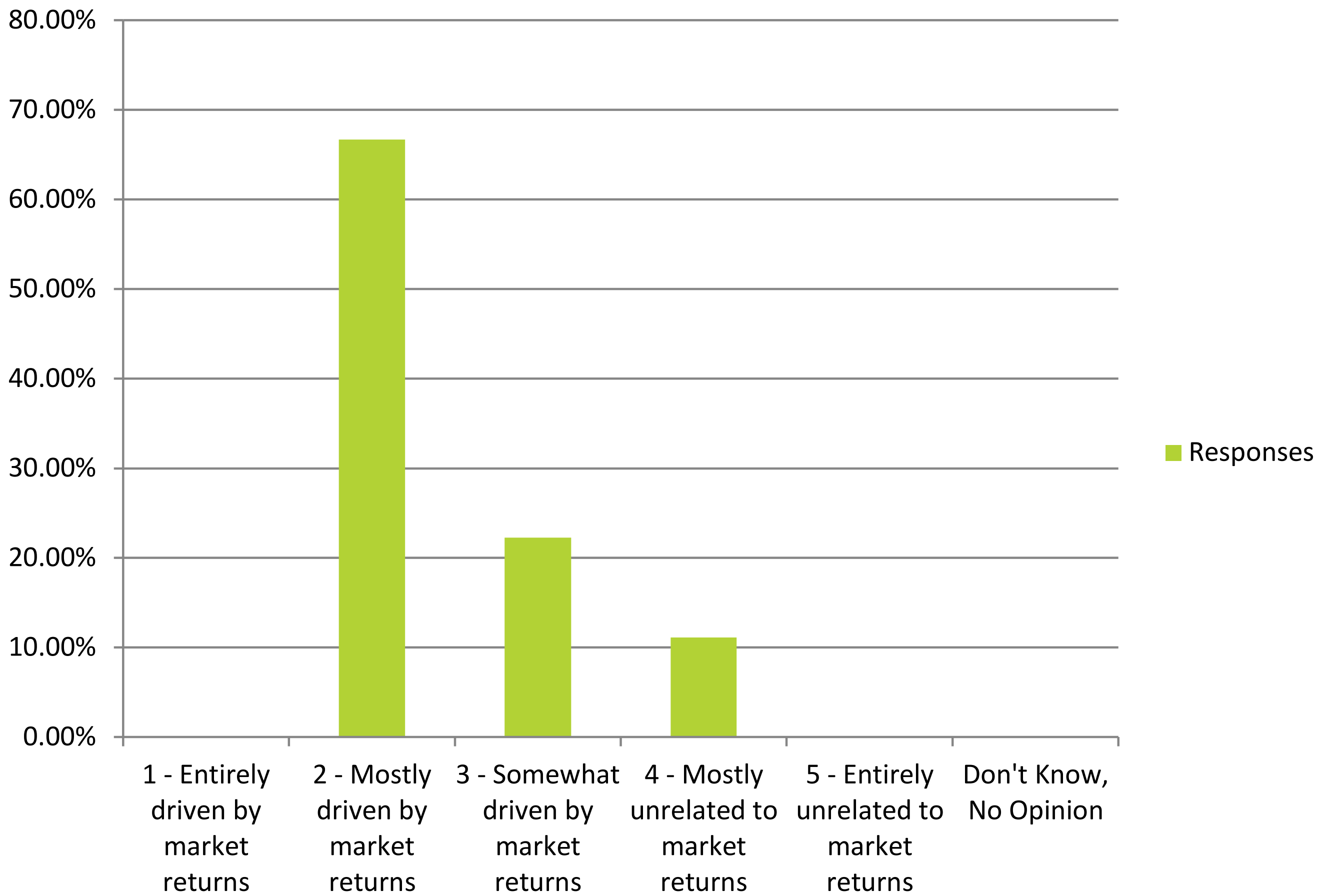


The 2022 Meketa Capital Market Expectations suggest there is a 38% probability the Plan exceeds the 7.00% long-term rate of return assumption over the next decade.

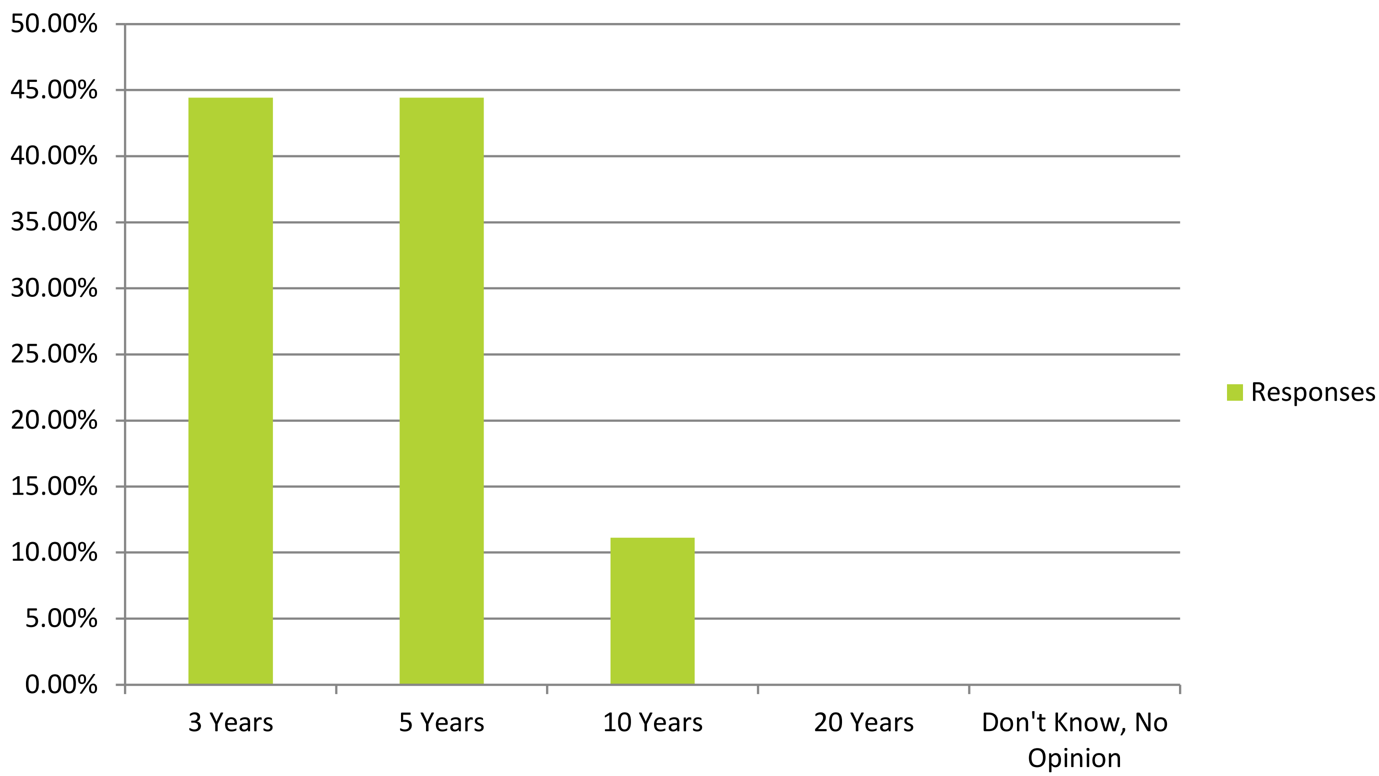
→ Are responding to this survey as staff or trustee?



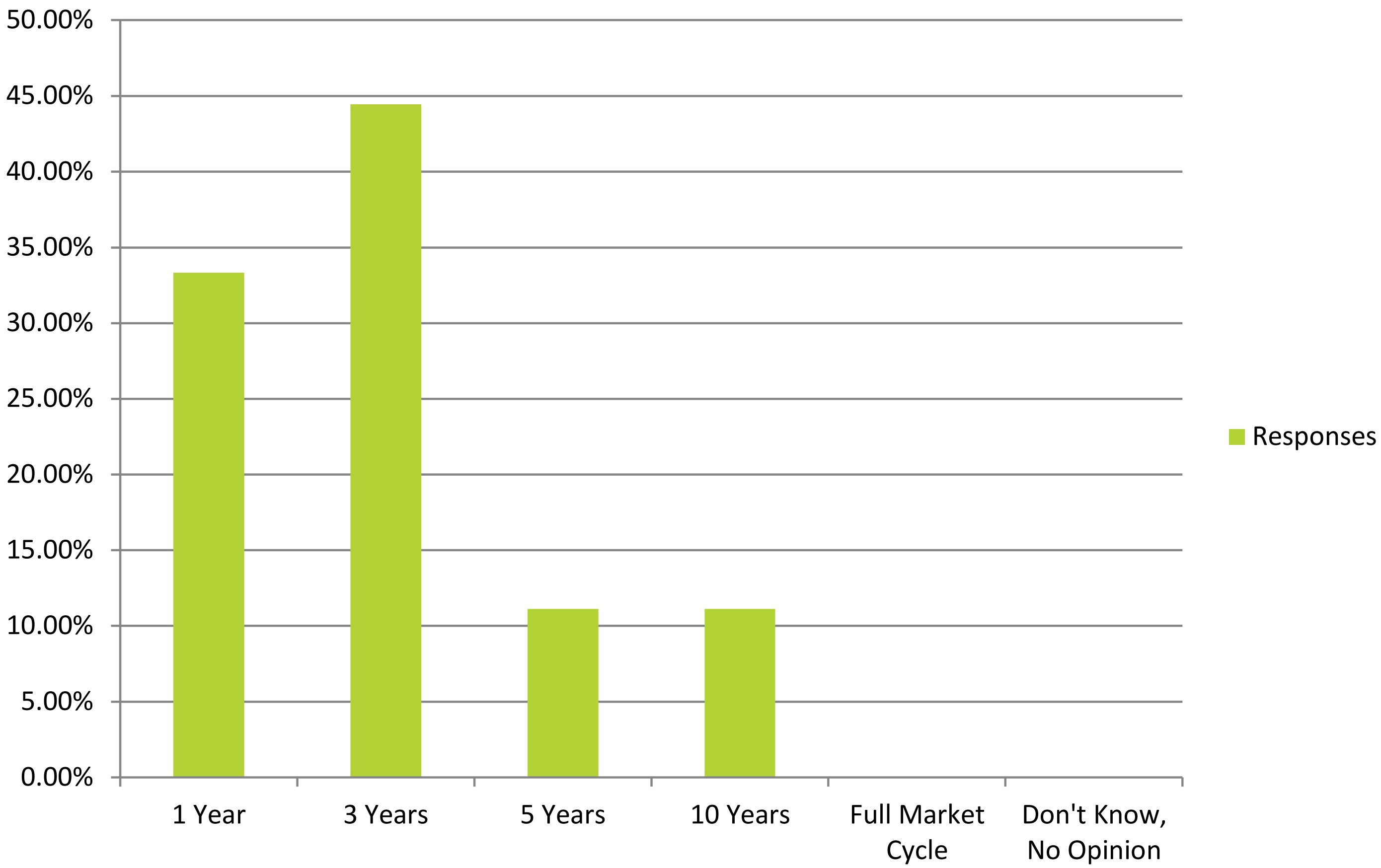
→ To what degree do you believe the portfolio returns are driven by the overall market?



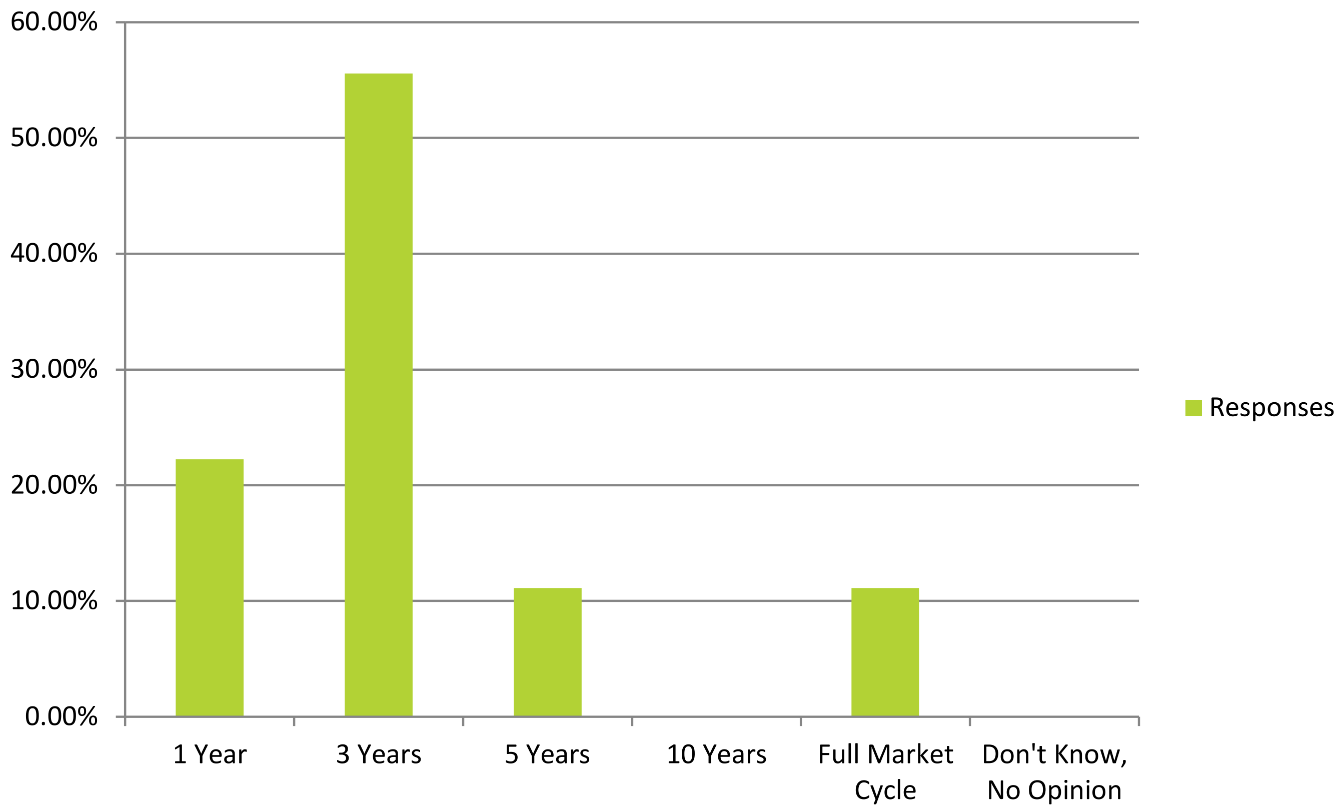
→ What is the minimum relevant time frame for evaluating the portfolio's performance relative to the actuarial rate of return (7.0%)?



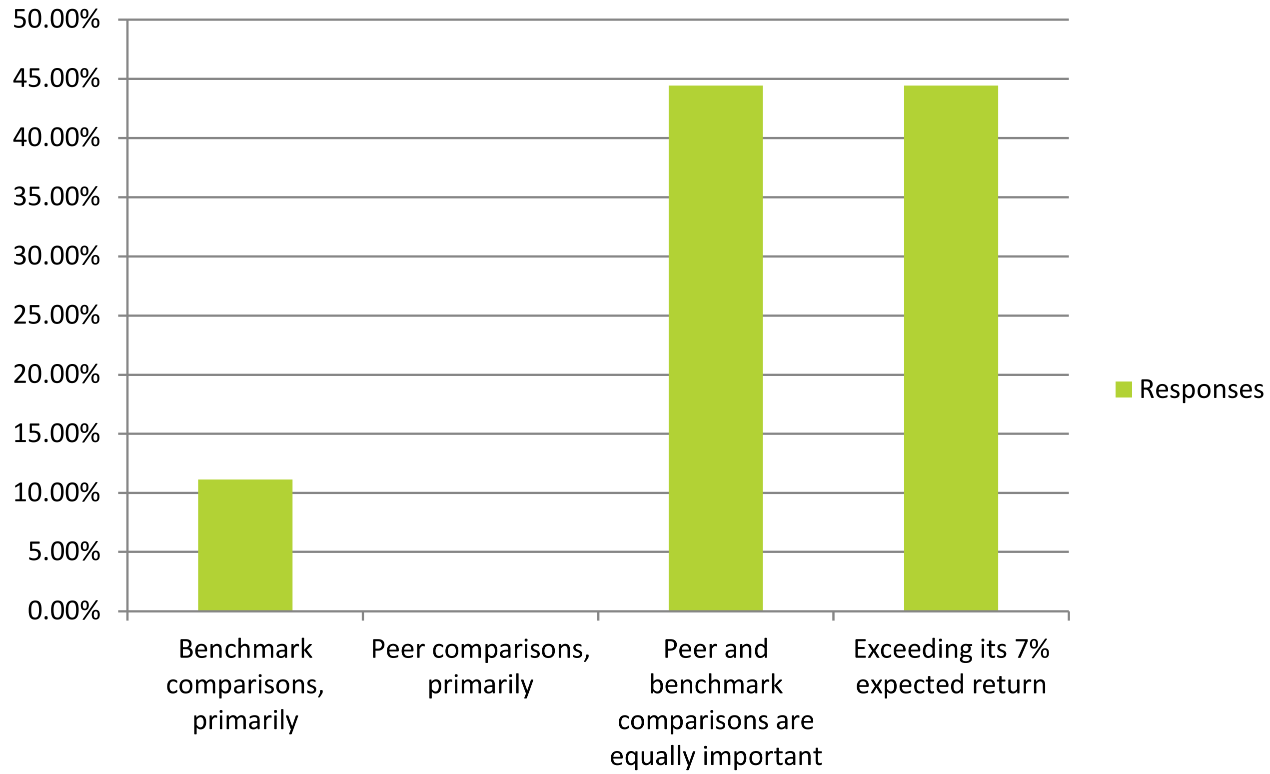
→ What is the minimum relevant/meaningful time frame when assessing SJCERA's performance relative to the benchmark?



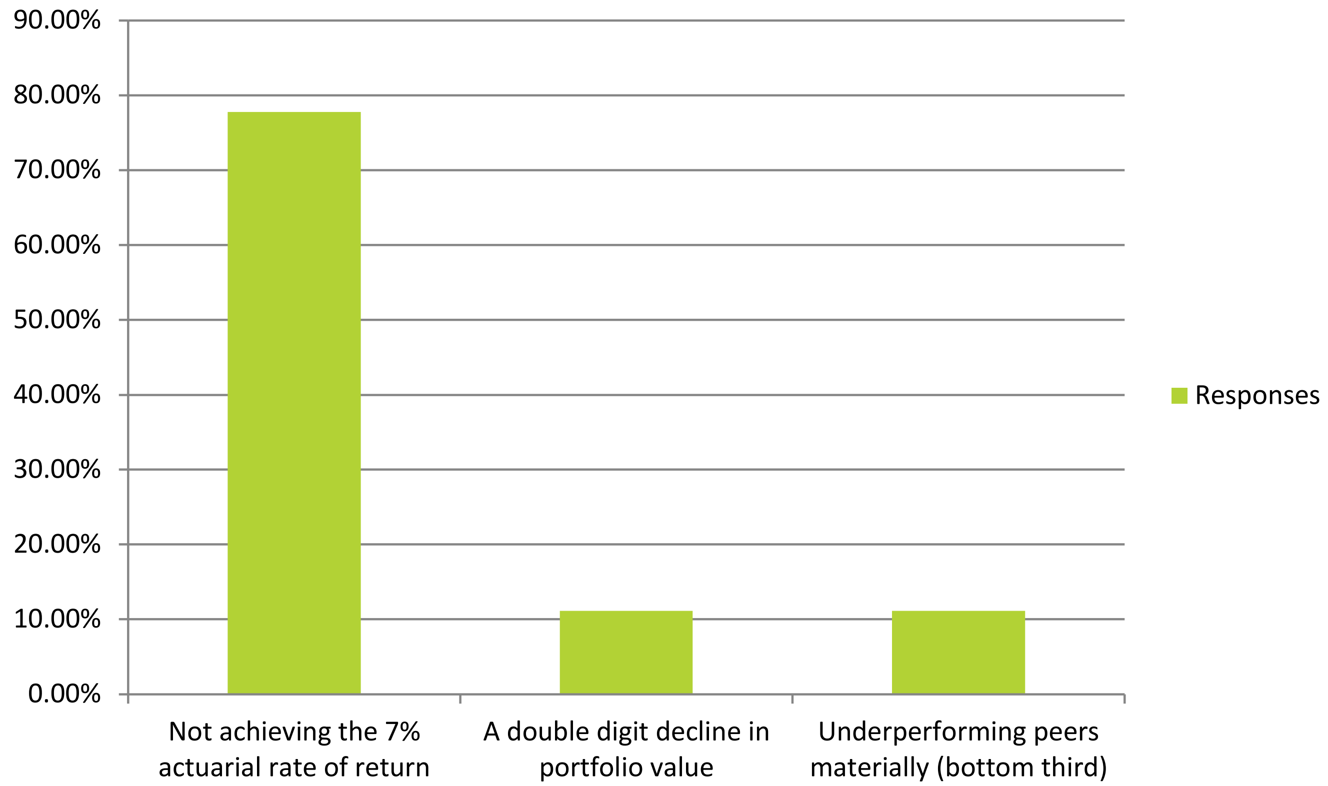
→ What is the minimum relevant/meaningful time frame when assessing SJCERA's performance relative to the peer set?



→ Generally, which do you believe is more important for assessing the portfolio?

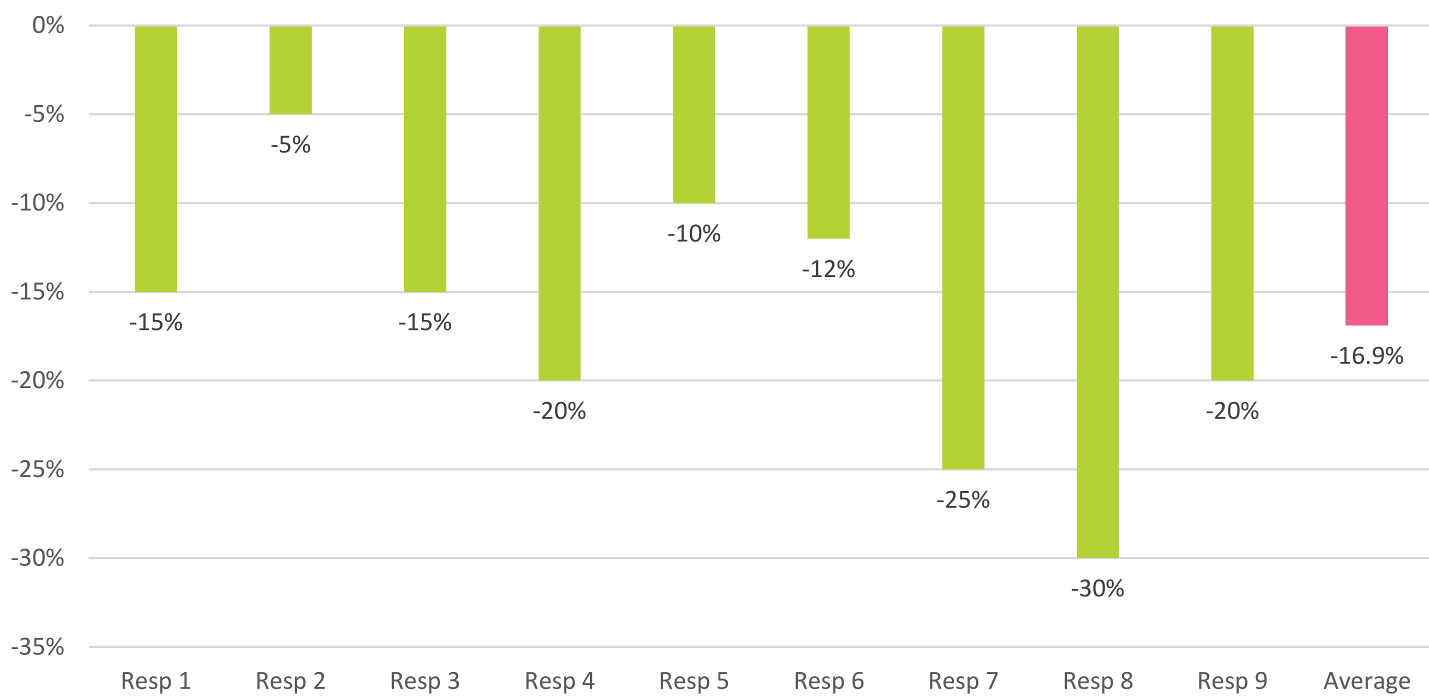


→ Which of the following outcomes are you most concerned about over the next 3 years?

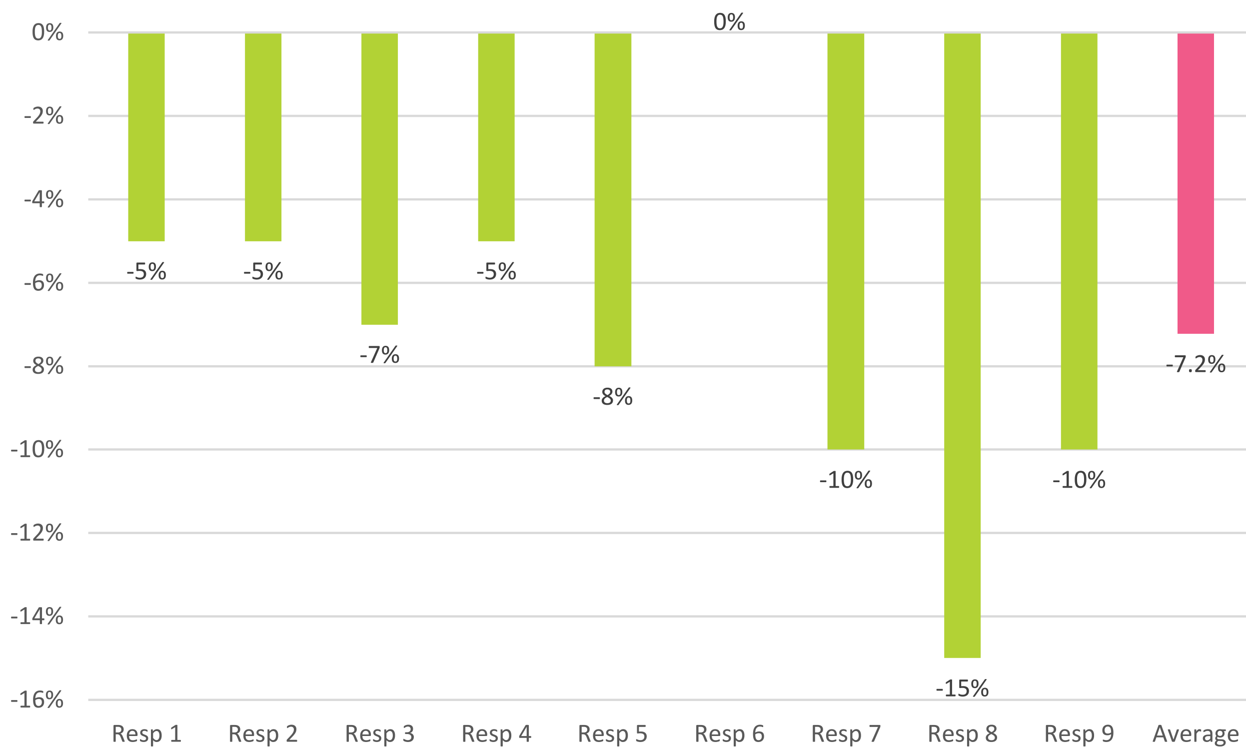


Risk Tolerance Survey Results

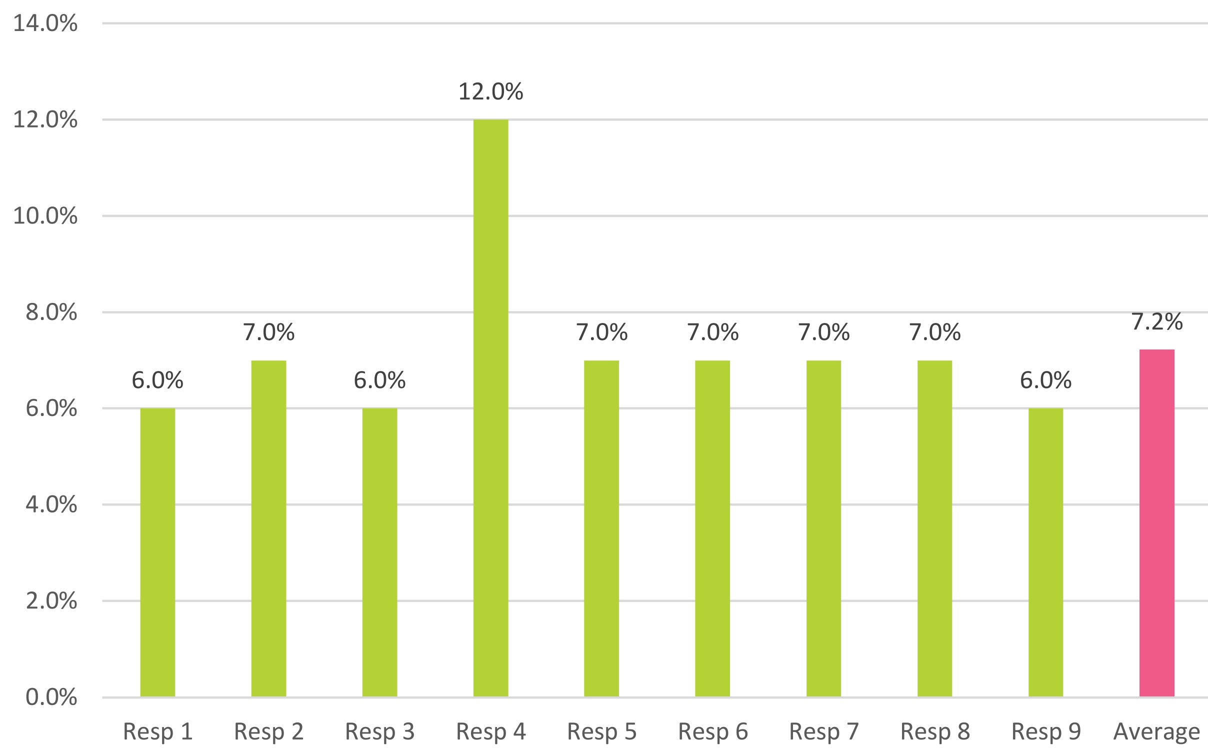
→ Based on the current portfolio, I believe the portfolio's maximum potential drawdown (decline in market value from peak to trough) should be no worse than -x.x%.



→ I would consider x.x% to be a bad but not necessarily catastrophic year.

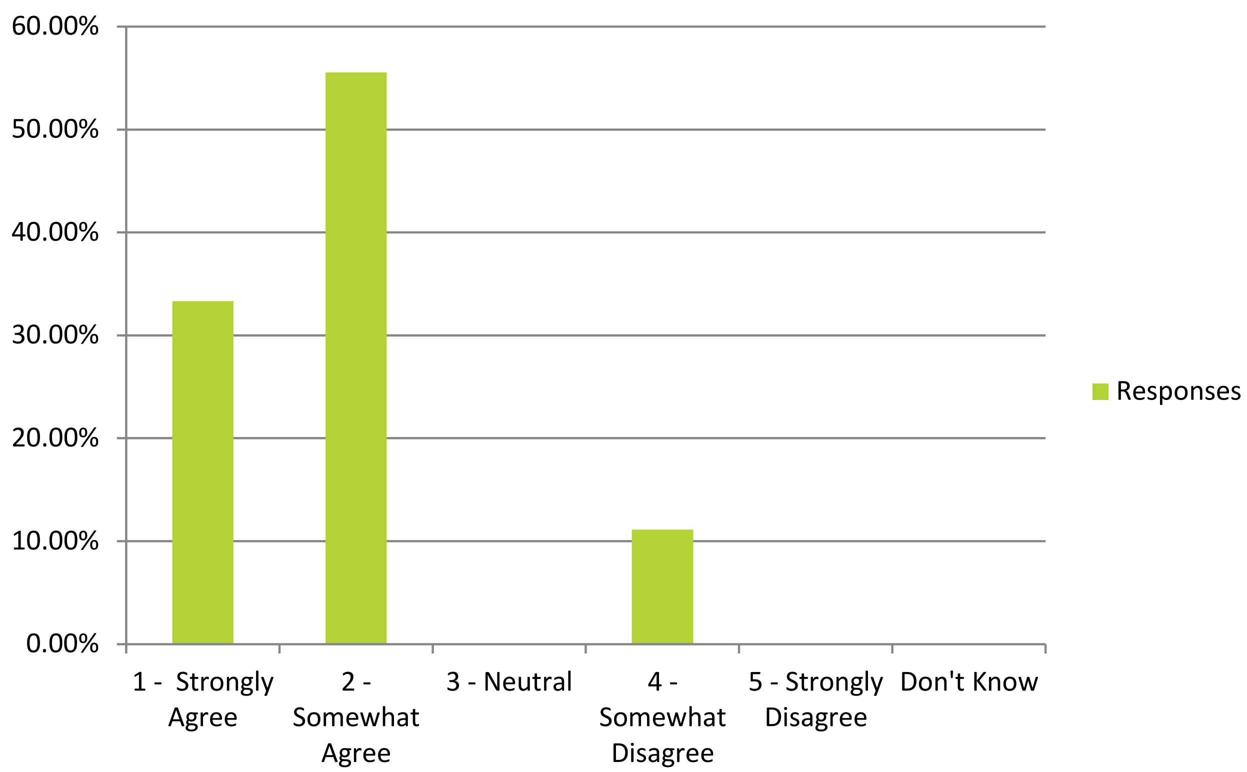


→ I would consider a return of x.x% to be a good, but not great, year. (Assume that the portfolio is performing in line with the benchmark and peer median.)

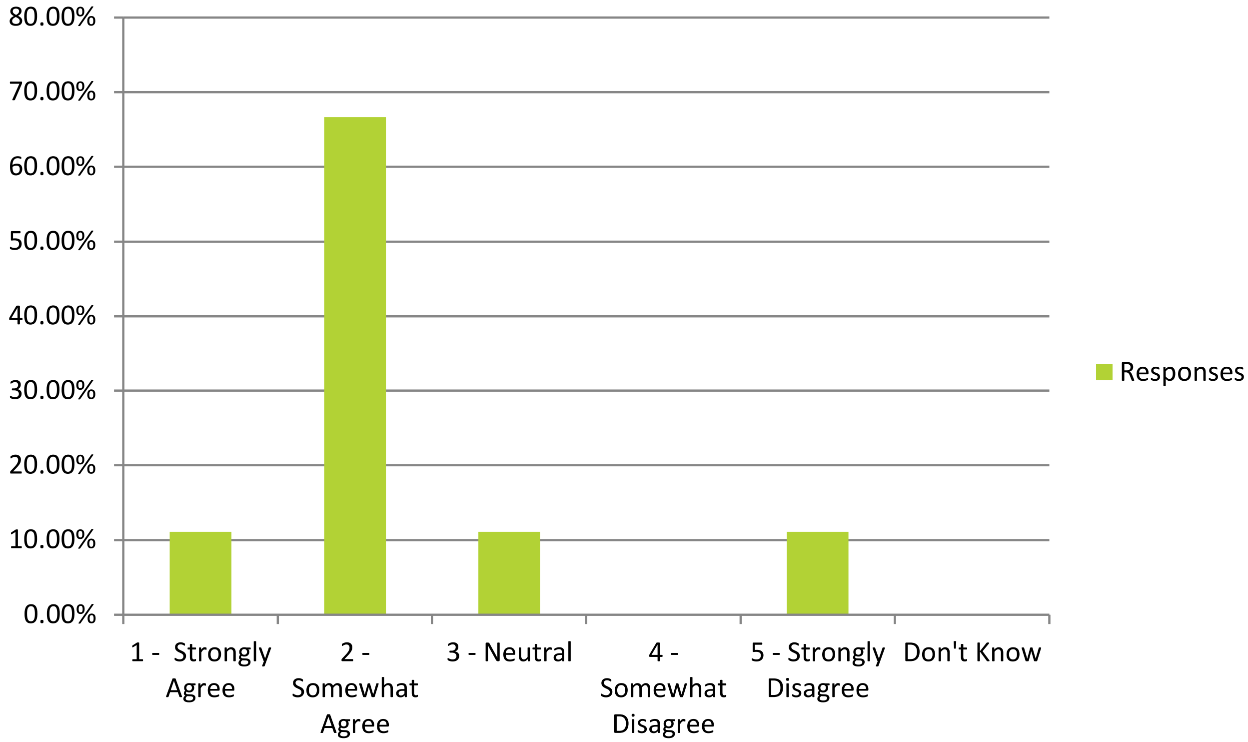


Risk Tolerance Survey Results

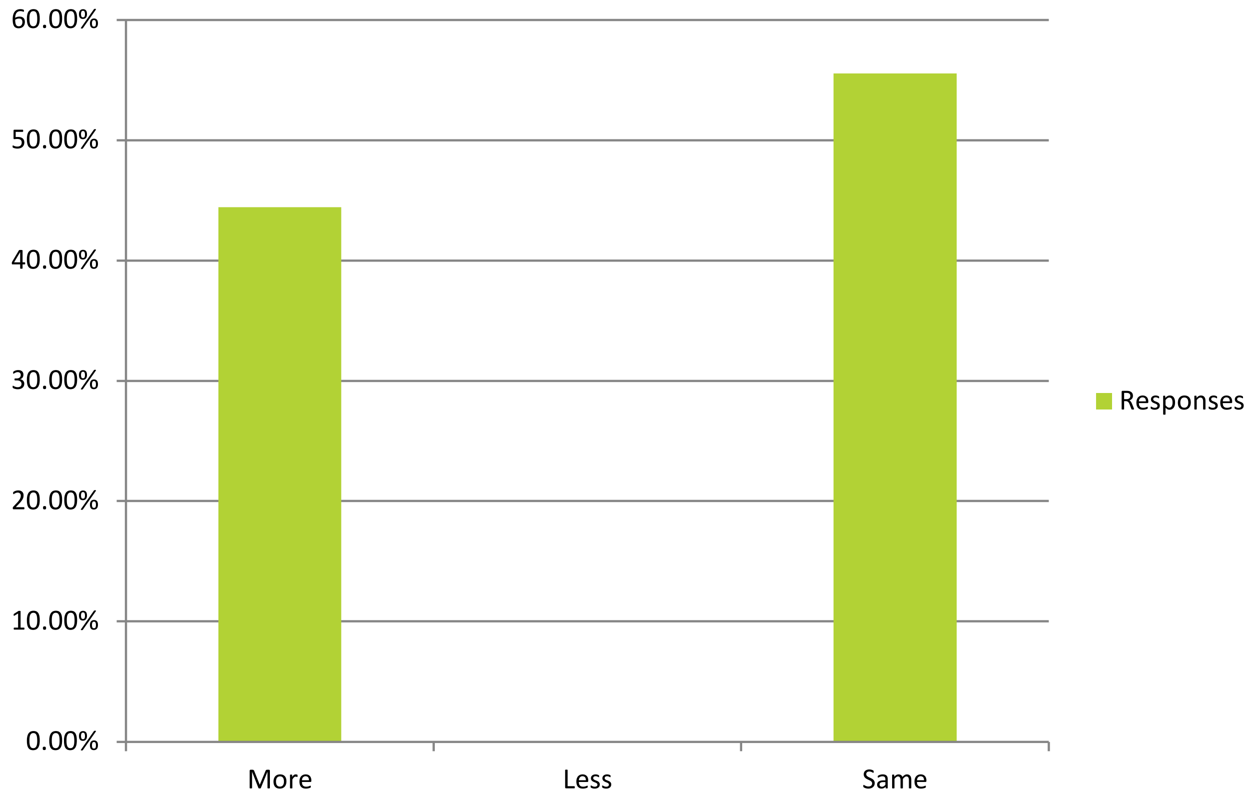
→ If the average pension is down 15% in a given year, and SJCERA's portfolio is only down 12%, meaning we've outperformed our peers by 3%, I would consider the portfolio's performance to be a success, despite the decline in value.



→ If the average pension is up 10% in a given year, and SJCERA's is only up 7%, meaning we've underperformed our peers by 3%, I would consider the portfolio's performance to be a success, despite the relative underperformance.

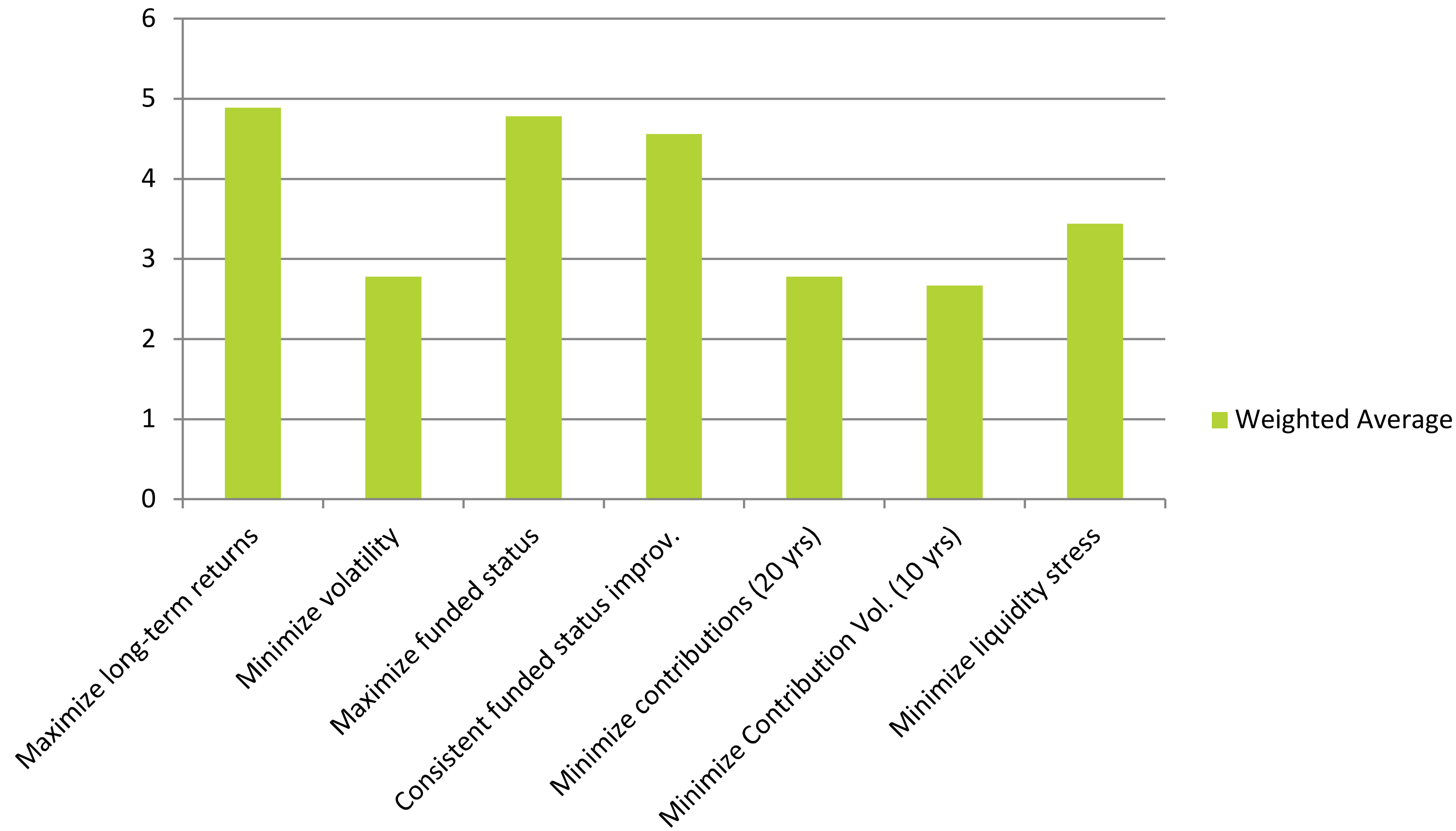


→ Should we be taking more, less, or the same amount of risk in the portfolio for the next 2-3 years?



Risk Tolerance Survey Results

→ Please rank each asset allocation goals below based on the goals that are most important to you with 5 being most important and 1 being least important.



Asset Class Constraints

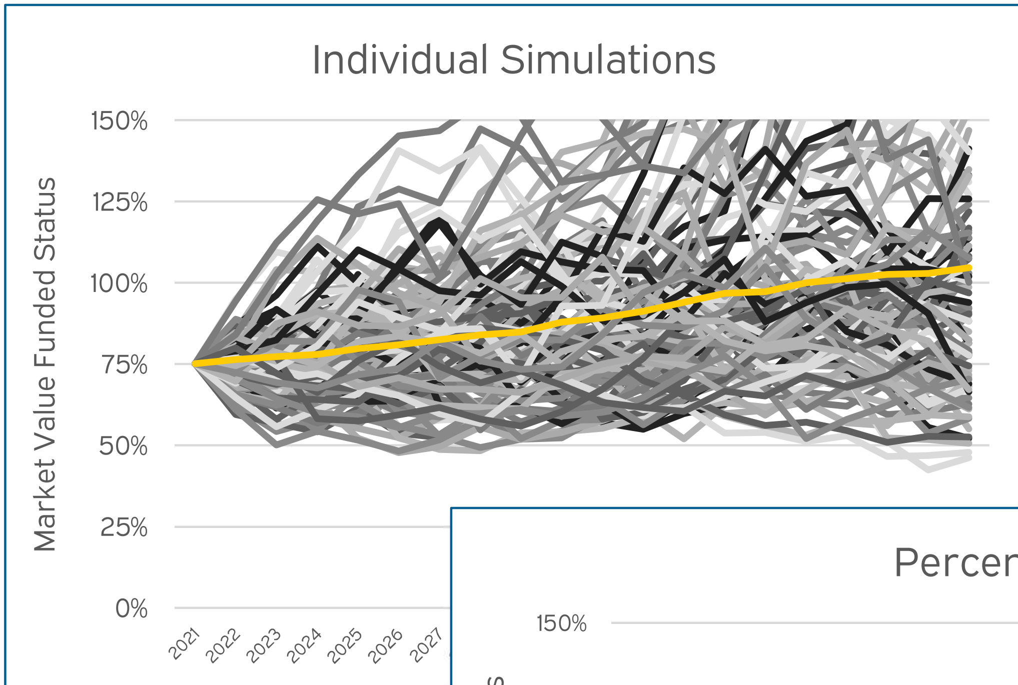
Asset Class /Strategy	Minimum	Maximum
Traditional Growth	24%	40%
Aggressive Growth*	6%	20%
Credit**	11%	23%
Liquid Credit	2%	8%
Private Credit	9%	15%
Core Private Real Estate**	5%	9%
Risk Parity**	0%	10%
Principal Protection	5%	11%
Crisis Risk Offset	5%	15%

Summary

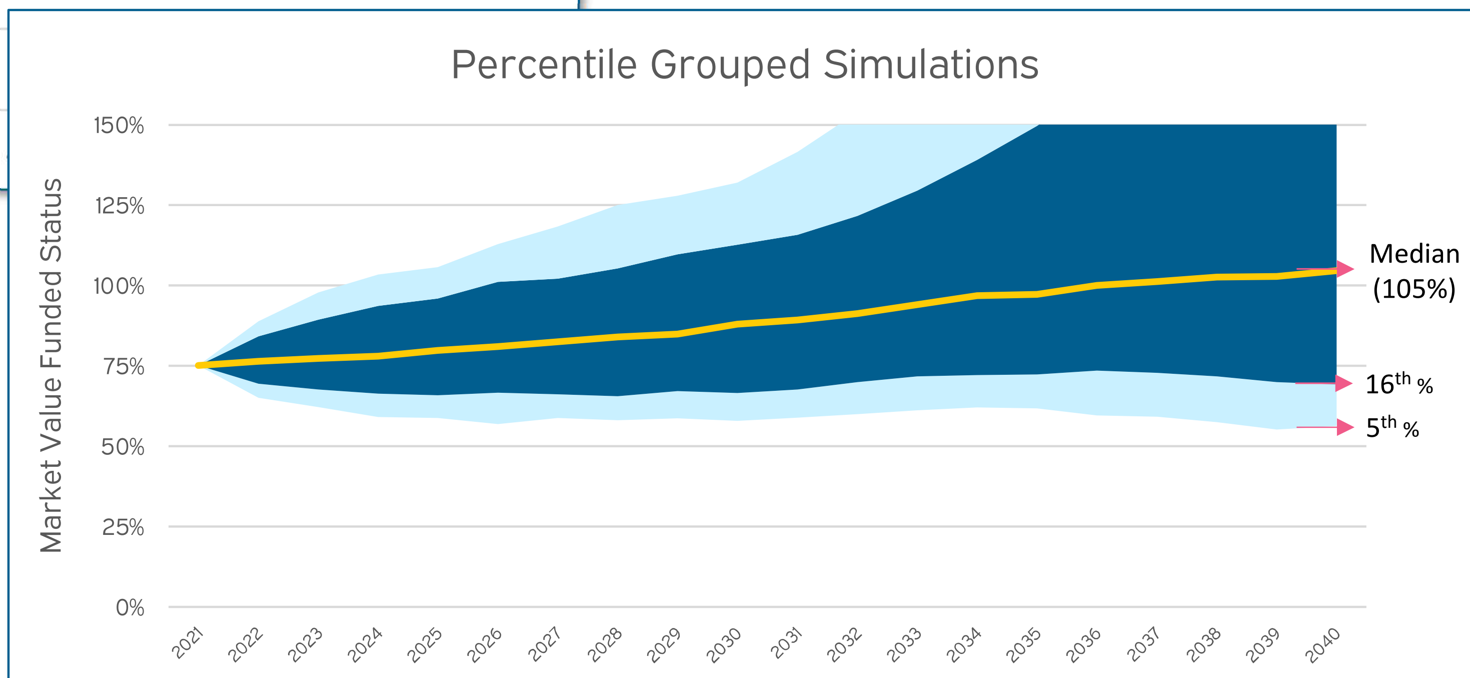
- Constraints represent a combination of:
  1) avoidance of model biases
  2) implementable portfolios
- Key element for SJCERA's liquidity consideration is the minimum allocation to Principal Protection.
- Meketa recommends SJCERA maintain a minimum amount in Principal Protection to withstand nearly any broad market drawdown.

*Modeled as 50/50 Private Equity and Opportunistic/Value added Real Estate
** Component of Stabilized Growth allocation

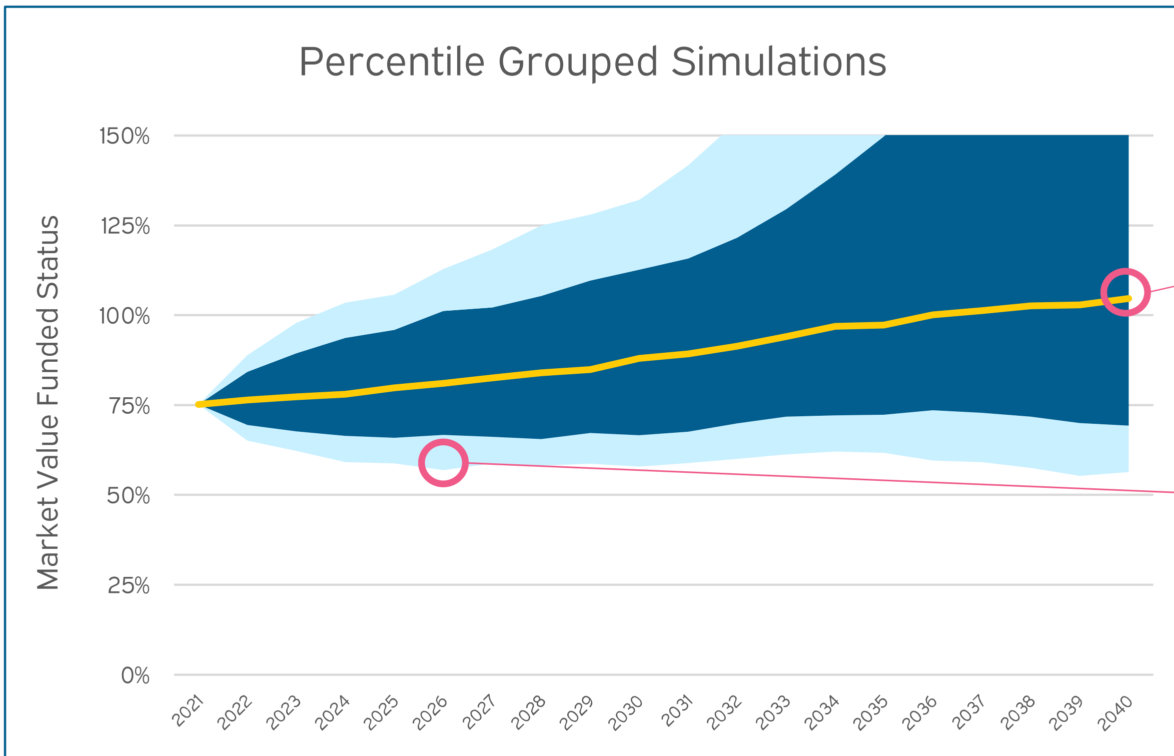
Asset-Liability Study – Recap



- The chart to the left displays a stochastic simulation of the funded status outcomes based on the current investment policy, projected benefit payments, funded status and funding policy.
- The chart below summarizes those results into corridors of percentiles.
- Example: There is a 50% probability the funded status greater than 105% in 2040.



- This study uses a "Risk/Reward" framework to make relative comparisons between asset allocations.
  - Reward – An outcome where all the underlying assumptions prove to be accurate over the long-term (50th percentile over a 20-year time horizon).
  - Risk – An outcome with a low probability (5th percentile) but a more detrimental impact on the Plan, especially when that outcome occurs in the short-term (5-year time horizon).



REWARD
105% funded status in 20 years with *average* returns

RISK
57% funded status in 5 years with *poor* returns*

* Revised from April due to a reallocation to capital market asset classes

Important Notice

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All information including, but not limited to, MIG's investment views, returns or performance, risk analysis, sample trade plans, idea filtration process, benchmarks, investment process, investment strategies, risk management, market opportunity, representative strategies, portfolio construction, capitalizations, expectations, targets, parameters, guidelines, and positions may involve our views, estimates, assumptions, facts and information from other sources that are believed to be accurate and reliable and are as of the date this information is presented—any of which may change without notice. We have no obligation (express or implied) to update any or all of the Information or to advise you of any changes; nor do we make any express or implied warranties or representations as to the completeness or accuracy or accept responsibility for errors. This information is for illustrative purposes only and does not constitute an exhaustive explanation of the investment process, investment allocation strategies or risk management.

All performance and risk targets contained herein are subject to revision by MIG and are provided solely as a guide to current expectations. There can be no assurance that any investment or other product described herein will achieve any targets or that there will be any return on capital. Past performance is not indicative of future results. MIG does not provide tax advice. Accordingly, any discussion of U.S. tax matters contained herein is not intended or written to be used, and cannot be used, in connection with the promotion, marketing or recommendation by anyone unaffiliated with MIG of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

Certain information contained in this document constitutes "forward-looking statements," which can be identified by the use of forward-looking terminology such as "may", "will", "should", "expect", "anticipate", "target", "project", "estimate", "intend", "continue" or "believe" or the negatives thereof or other variations thereon or comparable terminology. Due to various risks and uncertainties, actual events or results or the actual performance of the Funds and investments may differ materially from those reflected or contemplated in such forward-looking statements."

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

REPORT TO THE BOARD OF RETIREMENT AND AUDIT COMMITTEE

FOR THE YEAR ENDED DECEMBER 31, 2021

SAN JOAQUIN COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION
FOR THE YEAR ENDED DECEMBER 31, 2021

TABLE OF CONTENTS

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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, 2021, and have issued our report thereon dated May 24, 2022. 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 21, 2022. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Matters

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, 2021. 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.

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- 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. There were no such adjustments.

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 24, 2022.

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 24, 2022

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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, 2021, 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 24, 2022.

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. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weakness or significant deficiencies my exist that were not identified.

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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*.

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 24, 2022

Schedule of Findings

None.

Status of Prior Year Findings

2020-001 – Investment Adjustment

During our audit procedures over investments, we determined that the net appreciation and fair value of one investment account was overstated by $9.4 million. This occurred due to timing of management turnover 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 management.

Management Response

Management agrees with the recommendation.

Current Year Status

Implemented.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

ANNUAL FINANCIAL REPORT
WITH
INDEPENDENT AUDITOR'S REPORT

FOR THE YEAR ENDED
DECEMBER 31, 2021

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
FOR THE YEAR ENDED DECEMBER 31, 2021

TABLE OF CONTENTS

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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, 2021, 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, 2021, 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, 2021, 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, 2021, 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.

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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.

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, 2020, financial statements, and our report dated May 25, 2021, 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, 2020, 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 24, 2022, 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 24, 2022

MANAGEMENT'S DISCUSSION AND ANALYSIS

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
DECEMBER 31, 2021

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, 2021. 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 increased by $652.1 million, or 18.39 percent, to $4.2 billion as of December 31, 2021.

- SJCERA's funding objective is to meet long-term benefit obligations through contributions and investment income. As of January 1, 2021, the date of the last actuarial valuation, the funded ratio for the actuarial liability was approximately 67.0 percent. In general, this indicates that for every dollar of benefits liability, SJCERA has about 67 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 $922.7 million, an increase of $364.2 million from the prior year. The increase was mainly caused by the increase in net investment gains/(losses) compared to the prior year.

- Expenses for the year were $270.6 million, an increase of $14.5 million, or 5.67 percent, from the prior year's $256.1 million. This increase was primarily due to the $14.1 million increase in pension benefit payments to retirees.

Overview of Financial Statements

The SJCERA 2021 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, 2021, with comparative totals as of December 31, 2020.

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, 2021, with comparative totals as of December 31, 2020.

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 Notes 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, 2021, SJCERA's Fiduciary Net Position was $4.2 billion, an increase of $652.1 million. Employer and member contributions of $350.1 million and a net investment gain of $572.3 million were offset by benefits payments and administrative expenses of $270.1 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, 2021 and 2020.

SJCERA Fiduciary Net Position				
	2021	2020	Increase (Decrease) Amount	Percent Change
Cash and Receivables	$ 469,732,200	$ 244,626,021	$ 225,106,179	92.02%
Investments	3,893,690,230	3,389,474,004	504,216,226	14.88%
Other Assets	254,019	276,901	(22,882)	-8.26%
Total Assets	4,363,676,449	3,634,376,926	729,299,523	20.07%
Total Liabilities	164,888,445	87,664,677	77,223,768	88.09%
Total Fiduciary Net Position Restricted for Pension Benefits	$ 4,198,788,004	$ 3,546,712,249	$ 652,075,755	18.39%

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 through earnings on investments. The additions for the year ended December 31, 2021, totaled $922.7 million. Net investment gains totaled $572.3 million. The overall year 2021 revenues increased by $364.2 million from that of the prior year, primarily due to more investment gains.

In 2021, the County of San Joaquin (County), the 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 increased by $66.0 million, or 27.40 percent, over the prior year, and member contributions increased by $2.9 million, or 7.12 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 2021 totaled $270.1 million, an increase of 5.67 percent over 2020. 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				
	2021	2020	Increase (Decrease) Amount	Percent Change
Additions				
Employer Contributions	$ 306,662,635	$ 240,700,988	$ 65,961,647	27.40%
Member Contributions	43,455,640	40,568,995	2,886,645	7.12%
Net Investment Income (Loss) and Miscellaneous Income	572,291,948	276,996,530	295,295,418	106.61%
Transfer from Healthcare Custodial Fund	270,570	172,041	98,529	57.27%
Total Additions	922,680,793	558,438,554	364,242,239	65.23%
Deductions				
Retirement Benefit Payments	261,371,770	247,254,985	14,116,785	5.71%
Death Benefits	608,396	808,150	(199,754)	-24.72%
Refund of Contributions	3,985,433	3,488,542	496,891	14.24%
Administrative and Other Expenses	4,639,439	4,536,455	102,984	2.27%
Total Deductions	270,605,038	256,088,132	14,516,906	5.67%
Net Increase	652,075,755	302,350,422	349,725,333	115.67%
Fiduciary Net Position Restricted for Pension Benefits				
Beginning of Year	3,546,712,249	3,244,361,827	302,350,422	9.32%
End of Year	$ 4,198,788,004	$ 3,546,712,249	$ 652,075,755	18.39%

Plan Administration
SJCERA membership

The table below provides comparative SJCERA membership data for the last two years. Total membership as of December 31, 2021, was 15,363, an increase of 481 members, or 3.23 percent, compared to December 31, 2020.

SJCERA Membership As of December 31, 2021 and 2020				
Category	2021	2020	Increase (Decrease) Amount	Percent Change
Active Members	6,347	6,417	(70)	-1.09%
Retired Members	6,529	6,352	177	2.79%
Deferred Members	2,487	2,113	374	17.70%
Total Membership	15,363	14,882	481	3.23%

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 fiscal years ended 2021 and 2020. 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, 2021 and 2020 (Dollars in Thousands)				
		2021		2020
Basis for Budget Calculation (Accrued Actuarial Liability):				
Actual Administrative Expenses	$	3,665	$	3,740
Accrued Actuarial Liability as Basis for Budget Calculation*		5,013,632		4,721,287
Administrative Expenses as a Percentage of:				
The Basis for Budget Calculation		0.07%		0.08%
Limit per CERL		0.21%		0.21%

* Based on valuations dated January 1, 2020 and January 1, 2019, 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, 2021, contains a detailed discussion of the funding requirements. This valuation is used for funding purposes and establishing employer and member contributions rates. As of the January 1, 2021 actuarial valuation, the AAL was $5.2 billion and the actuarial value of assets was $3.5 billion, resulting in a UAL of $1.7 billion. The funded ratio increased from 64.3 percent last year to 67.0 percent on an actuarial value of assets basis. Using the market value of assets as of the valuation date, the funded ratio increased from 64.7 percent to 68.1 percent.

For the year ended December 31, 2021, 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, 2021 valuation as the basis for calculating the total pension liability (TPL) and projected to December 31, 2021. Based on this actuarial valuation, the TPL was $5.4 billion compared to a fiduciary net position of $4.2 billion, resulting in the employers' net pension liability (NPL) of $1.2 billion and a fiduciary net position as a percentage of TPL of 77.5 percent. The NPL as a percentage of covered payroll was 259.31 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 24, 2022

BASIC FINANCIAL STATEMENTS

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENT OF FIDUCIARY NET POSITION
AS OF DECEMBER 31, 2021 (WITH COMPARATIVE TOTALS)

	2021		2020	
	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	$ 323,434,089	$ 72,537	$ 146,456,177	$ -
Cash Collateral - Securities Lending	84,977,773	-	83,589,197	-
Total Cash and Short-Term Investments	408,411,862	72,537	230,045,374	-
Receivables				
Investment Income Receivables	3,563,318	-	3,400,405	-
Contributions Receivable	11,131,624	-	10,074,285	-
Securities Sold, Not Received	46,579,831	-	1,065,084	-
Miscellaneous Receivables	45,565	-	40,873	-
Total Receivables	61,320,338	-	14,580,647	-
Investments, at Fair Value				
Principal Protection	330,858,456	-	322,514,912	-
Credit	498,464,537	-	479,100,892	-
Global Public Equity	1,542,821,008	-	1,258,623,730	-
Aggressive Growth	571,896,533	-	456,340,240	-
Risk Parity	449,916,750	-	409,233,403	-
Crisis Risk Offset	499,732,946	-	463,660,827	-
Total Investments, at Fair Value	3,893,690,230	-	3,389,474,004	-
Other Assets				
Prepaid Expenses	99,975	-	140,655	-
Equipment and Fixtures, Net	154,044	-	136,246	-
Total Other Assets	254,019	-	276,901	-
Total Assets	4,363,676,449	72,537	3,634,376,926	-
Liabilities				
Cash Overdraft	-		-	23,676
Securities Lending - Cash Collateral	78,775,961	-	83,589,197	-
Securities Purchased, Not Paid	84,977,773	-	2,986,539	-
Accrued Expenses and Other Payables	1,127,029	-	1,076,401	-
Securities Lending Interest and Other Payables	7,682	-	12,540	-
Total Liabilities	164,888,445	-	87,664,677	23,676
Fiduciary Net Position Restricted for Pension and Post-Employment Healthcare Benefits	$ 4,198,788,004	$ 72,537	$ 3,546,712,249	$ (23,676)

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, 2021 (WITH COMPARATIVE TOTALS)

	2021		2020	
	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund
Additions				
Contributions				
Employer Contributions	$ 306,662,635	$ -	$ 240,700,988	$ -
Member Contributions	43,455,640	-	40,568,995	-
Employer Contributions to Healthcare Benefits	-	3,938,219	-	3,863,817
Total Contributions	350,118,275	3,938,219	281,269,983	3,863,817
Net Investment Income (Loss)				
Net Appreciation (Depreciation) in Fair Value of Investments	554,256,496	-	256,770,057	-
Interest	22,966,328	-	20,997,097	-
Dividends	10,179,197	-	5,563,699	-
Real Estate Income, Net	9,333,819	-	11,223,598	-
Investment Expenses	(25,722,039)	-	(18,016,050)	-
Miscellaneous Investment Income	39	-	2,390	-
Net Investment Income (Loss), Before Securities Lending Income	571,013,840	-	276,540,791	-
Securities Lending Income				
Earnings	388,378	-	581,476	-
Rebates	519	-	(165,250)	-
Fees	(97,171)	-	(103,839)	-
Net Securities Lending Income	291,726	-	312,387	-
Total Net Investment Income (Loss)	571,305,566	-	276,853,178	-
Miscellaneous Income	986,382	-	143,352	-
Transfer Between Plans	270,570	-	172,041	-
Total Additions	922,680,793	3,938,219	558,438,554	3,863,817
Deductions				
Benefit Payments	261,371,770	3,571,436	247,254,985	3,791,627
Death Benefits	608,396	-	808,150	-
Refunds of Member Contributions	3,985,433	-	3,488,542	-
Administrative Expenses				
General Administrative Expenses	3,664,872	-	3,739,745	-
Other Expenses				
Information Technology Expenses	163,828	-	197,080	-
Actuary Fees	206,203	-	123,800	-
Fund Legal Fees	604,536	-	475,830	-
Total Administrative and Other Expenses	4,639,439	-	4,536,455	-
Transfer Between Plans	-	270,570	-	172,041
Total Deductions	270,605,038	3,842,006	256,088,132	3,963,668
Changes in Fiduciary Net Position	652,075,755	96,213	302,350,422	(99,851)
Fiduciary Net Position Restricted for Pension and Post-Employment Healthcare Benefits				
Beginning of Year	3,546,712,249	(23,676)	3,244,361,827	76,175
End of Year	$ 4,198,788,004	$ 72,537	$ 3,546,712,249	$ (23,676)

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

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
NOTES TO THE BASIC FINANCIAL STATEMENTS
DECEMBER 31, 2021

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 certain special districts 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, 2021, were as follows:

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

SJCERA is a multiple-employer retirement system covering the County and the 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 – DEFINED BENEFIT PENSION PLAN DESCRIPTION (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, 2021, is presented below.

Year 2021	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	4,645	57	687	-	2,219	3,291	1,194	1,072	8,745	4,420
Safety	911	5	224	-	456	381	162	59	1,753	445
Total	5,556	62	911	-	2,675	3,672	1,356	1,131	10,498	4,865

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 have elapsed since the date 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.

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

b. <u>Plan Benefits</u> (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 2021, the annual compensation limit under Internal Revenue Code Section 401(a)(17) is $290,000 and the annual benefit limit under Internal Revenue Code Section 415(b) is $230,000. 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 2021, the Tier 2 annual compensation limit is $128,059 for those included in the Federal Social Security System and $153,671 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 (previously San Francisco-Oakland-San Jose) 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, 2020, members who retired prior to April 2, 1988, will receive a 3.0% increase on April 1, 2021. Their accumulated carry-over balances will be reduced by 1.5%. Members who retired on or after April 2, 1988, but prior to April 2, 2019, will receive a 2.5% increase on April 1, 2021. Their accumulated carry-over balances will be reduced by 1.0%. Those who retired on or after April 2, 2019, will receive a 1.5% increase in their benefits, with no change in the carry-over balances.

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, 2021, 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, 2021.

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, 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, 2021.
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, 2021, is presented below:

	Balance December 31, 2020	Additions	Adjustments	Balance December 31, 2021
Original Cost	$ 1,684,360	$ -	$ -	$ 1,684,360
Accumulated Depreciation and Amortization	(1,548,114)	(34,776)	52,574	(1,530,316)
Net Book Value	$ 136,246	$ (34,776)	$ 52,574	$ 154,044

Depreciation and amortization expense for the year ended December 31, 2021, was $34,776.

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

f. Operating Lease

SJCERA leases office facilities on the fourth floor of 6 S. El Dorado Street in Stockton. In June 2018 SJCERA signed a new 12-year lease with significantly reduced rent. The lease specifies the rate for each year of the term. Total rent expense for the current year was $214,019. The terms of the lease expire at the end of June 2030.

The table below presents SJCERA's future projected rent expense based on the remaining term of the lease agreement is $2,024,259.

Year Ended December 31	Total Remaining
2022	$ 219,114
2023	224,210
2024	229,306
2025	234,401
2026	239,497
Thereafter	877,731
	$ 2,024,259

g. 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.

h. 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 that 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.

NOTE 4 – CASH AND INVESTMENTS (Continued)

a. Investment in Securities Lending Program (Continued)

As of December 31, 2021, SJCERA had the following securities out on loan.

	Fair Value of Securities Lent	Cash Collateral Value	Non-Cash Collateral Value
U.S. Equities	$ 15,060,535	$ 11,585,121	$ 3,860,345
U.S. Debt Securities	95,792,790	73,142,774	25,174,902
Total U.S. Securities	110,853,325	84,727,895	29,035,247
Non-U.S. Equities	2,875,207	-	3,052,518
Non-U.S. Debt Securities	72,005,787	249,878	76,159,234
Total Non-U.S. Securities	74,880,994	249,878	79,211,752
Total	$ 185,734,319	$ 84,977,773	$ 108,246,999

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 2021 was $291,727. As of December 31, 2021, there was no credit risk exposure to borrowers because the collateral exceeded the amount borrowed. The securities on loan at year-end were $186 million and the collateral received for those securities on loan was $193 million.

b. Cash and Short-Term Investments

The carrying value of cash and short-term investments as of December 31, 2021, consists of the following.

	Amount
Cash and Cash Equivalents - Custodian	$ 323,375,584
Cash and Cash Equivalents - County Treasury	131,042
Total Cash and Cash Equivalents	323,506,626
Cash Collateral - Securities Lending - Custodian	84,977,773
Total Cash and Short-Term Investments	$ 408,484,399

NOTE 4 – CASH AND INVESTMENTS (Continued)

c. Long-Term Investments

SJCERA owned the following long-term investments as of December 31, 2021.

	Fair Value
Investments-Categorized	
Principal Protection	$ 330,858,456
Credit	498,464,537
Global Public Equities	1,542,821,008
Aggressive Growth	571,896,533
Risk Parity	449,916,750
Crisis Risk Offset (CRO)	499,732,946
Total Investments-Categorized	3,893,690,230
Investments-Not Categorized	
Investments Held by Broker-Dealers Under Securities Loans	
U.S. Equities	11,585,121
U.S. Debt Securities	73,142,774
Non-U.S. Debt Securities	249,878
Total Investments Held by Broker-Dealers Under Securities Loans	84,977,773
Total Investments	$ 3,978,668,003

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, 2021.

Quality Ratings	Fair Value
AAA	$ 204,239,194
AA	5,282,238
A	26,779,086
BAA	81,085,258
BA	31,124,478
B	15,102,147
CAA	7,979,610
CA	12,793,904
C	2,800,660
Not Rated	275,454,041
Subtotal	662,640,616
U.S. Government Agencies - Implied AAA (FNMA, FHLB, FHLMC, FFCB, SLMA, Other)	166,682,377
Total Investments in Fixed Income Securities	$ 829,322,993

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, 2021, 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, 2021, 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	$ 103,696,020	27.02
U.S. Government Bonds	228,722,925	16.65
Government-Issued Commercial Mortgage-Backed	2,542,516	19.33
Municipal/Revenue Bonds	2,508,922	15.30
Agency	6,271,271	17.99
Short-Term Bills and Notes	37,198,967	0.10
Total U.S. Government and Agency Instruments	380,940,621	
Corporate Securities:		
Asset Backed Securities	34,036,055	15.92
Collateralized Bonds	2,000	24.53
Commercial Mortgage-Backed	17,611,854	14.70
Corporate Bonds	149,144,039	12.42
Corporate Convertible Bonds	1,641,443	33.80
Non-Government Backed Collateralized Mortgage Obligations (CMOs)	42,238,480	18.95
Total Corporate Securities	244,673,871	
Real Estate Financing	203,708,501	
Total Fixed Income Securities	$ 829,322,993	

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, 2021, follows.

Currency	Fair Value
British Pound Sterling	$ 4
Canadian Dollar	1,224,694
Euro Currency	97,440
Total	$ 1,322,138

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, 2021.

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	$ 55,904,367	$ 54,898,523	$ 1,005,844	$ -
Preferred Stocks	1,040,670	1,040,670	-	-
Total Equities	**56,945,037**	**55,939,193**	**1,005,844**	**-**
Fixed Income				
Asset Backed Securities	34,036,055	-	34,036,055	-
Collateralized Bonds	2,000	-	2,000	-
Commercial Mortgage-Backed	17,611,854	-	17,611,854	-
Corporate Bonds	158,377,398	-	158,377,398	-
Corporate Convertible Bonds	1,641,443	-	1,641,443	-
Funds - Corporate Bonds	56,642,825	-	56,642,825	-
Funds - Government Bonds	15,832,517	-	15,832,517	-
Funds - Fixed Income ETF	16,705,180	16,705,180	-	-
Government Issued Commercial Mortgage-Backed	2,542,516	-	2,542,516	-
Government Agencies	6,271,270	-	6,271,270	-
Government Bonds	232,818,957	-	232,818,957	-
Government Mortgage-Backed Securities	103,696,020	-	103,696,020	-
Municipal/Provincial Bonds	2,508,922	-	2,508,922	-
Non-Government Backed CMOs	42,238,480	-	42,238,480	-
Total Fixed Income	**690,925,437**	**16,705,180**	**674,220,257**	**-**
Other Assets				
Short-Term Bills and Notes	81,692,143	-	81,692,143	-
Futures Contracts	(70,018)	-	(70,018)	-
Option Contracts	952,882	-	952,882	-
Swaps	531,014	-	531,014	-
Total Other Assets	**83,106,021**	**-**	**83,106,021**	**-**
Collateral from Securities Lending	**84,977,773**	**-**	**84,977,773**	**-**
Total Investments by Fair Value Level	**915,954,268**	**$ 72,644,373**	**$ 843,309,895**	**$ -**
Investments Measured at the Net Asset Value (NAV)				
Global Equities Funds	1,422,355,592			
Emerging Markets Global Equity	65,051,537			
Fixed Income Funds	160,098,153			
Private Credit	149,142,578			
Risk Parity Funds	449,916,750			
Multi-Strategy Funds	223,785,549			
Hedge Funds - Fixed Income	18,958,303			
Private Equity Funds	271,870,652			
Private Real Estate Funds	301,534,621			
Total Investments Measured at NAV	**3,062,713,735**			
Total Investments	**$ 3,978,668,003**			

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, 2021:

Investments Measured at NAV	Fair Value	Unfunded Commitment	Redemption Frequency If Currently Eligible	Redemption Notice Period
Global Equities Funds	$ 1,422,355,592	$ -	Daily, Weekly, Semi-Monthly, Monthly	1-30 days
Emerging Markets Global Equity	65,051,537	-	Weekly	T-4 Days
Fixed Income Funds	160,098,153	13,187,037	Daily, Not Eligible	1 day
Private Credit	149,142,578	102,048,333	Not Applicable	Not Applicable
Risk Parity Funds	449,916,750	-	Monthly	5-15 days
Multi-Strategy Funds	223,785,549	-	Daily, Weekly, Semi-Monthly, Monthly	0-15 days
Hedge Funds - Fixed Income	18,958,303	12,717,985	Daily, Quarterly, Not Eligible	0-60 days
Private Equity Funds	271,870,652	117,101,832	Not Eligible	Not Applicable
Private Real Estate Funds	301,534,621	123,021,435	Quarterly, Not Eligible	5-90 Days, Not Applicable
Total Investments Measured at NAV	$ 3,062,713,735	$ 368,076,622		

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.

NOTE 4 – CASH AND INVESTMENTS (Continued)

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 2019, 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 September 13, 2019, the Board adopted a revised strategic asset allocation policy for SJCERA's investments. On October 11, 2019, 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, 2021. 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	10.00%	Return	Growth
Traditional Growth	32.00%	Return	Growth, Currency
Risk Parity	10.00%	Balanced Return	Growth, Interest Rates, Inflation
Credit	17.00%	Income, Growth	Growth
Core Real Assets	6.00%	Income, Growth	Growth, Interest Rates
Principal Protection	10.00%	Income, Stability	Interest Rates
Crisis Risk Offset (CRO)	15.00%	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, 2021, 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. As of December 31, 2021, SJCERA had $0 in swap agreements.

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, 2021

Global Bonds	Futures Contracts	Option Contracts
Canadian Government Bond	$ (1,127,475)	$ -
Long Gilt	(3,381,170)	-
Japanese Government Bond	23,720,942	-
Euro Bond	14,632,868	-
U.S. Ten Year Notes	(23,745,313)	73,834
British Pound Sterling	(35,125)	-
Total	$ 10,064,727	$ 73,834

SJCERA measures derivative interest rate risk using duration with varying maturities of less than three months to more than 10 years. At December 31, 2021, SJCERA had the following investment derivative interest rate risks.

Interest Rate Risk Analysis
As of December 31, 2021
(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	$ 2,061	$ -	$ 2,061	$ -	$ -	$ -	$ -	$ -
Swap Agreements	-	830	-		-	830	-	-
Credit Contracts	-	(299)	-	-	-	(299)	-	-
Total	$ 2,061	$ 531	$ 2,061	$ -	$ -	$ 531	$ -	$ -

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, 2021, SJCERA had the derivative foreign currency exposures listed in the table below.

FOREIGN CURRENCY RISK ANALYSIS
As of December 31, 2021

Currency	Futures Contracts	Equity Contracts	Options Contracts
Australian Dollar	$ (15,502,140)	$ -	$ -
British Pound Sterling	(15,476,081)	-	63,350
Canadian Dollar	(12,489,900)	4,056,209	-
Euro Currency	(15,250,844)	-	80,500
Japanese Yen	(14,895,325)	-	-
Swiss Franc	(15,251,400)	-	-
Total	$ (88,865,690)	$ 4,056,209	$ 143,850

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, 2021.

NOTE 5 – DERIVATIVE FINANCIAL INSTRUMENTS (Continued)

Investment Derivatives
As of December 31, 2021

Derivative Type	Notional Amount	Fair Value
Futures Contracts	$ (29,466,315)	$ (70,018)
Option Contracts	1,299,435	952,882
Swap Agreements	-	531,014
Total	$ (28,166,880)	$ 1,413,878

NOTE 6 – CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

Defined Benefit Pension Plan

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.

Employer Contributions

For 2021, 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, 2020.

In 2021, the County made additional $72,461,044 contributions. The Court made additional $975,000 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 $97,140,039 as of December 31, 2021. 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	**2021** (Per 1/1/2020 Valuation)		
Expressed as a Percentage of Active Member Payroll	Normal Cost	UAL Amortization	Total
TIER 1			
For General Members:			
Paying Basic Rate Only *(G.C. 31621.3)*	19.85%	29.65%	49.50%
Paying Basic Rate with COLA Cost Share	16.94%	29.65%	46.59%
Paying 114% of Basic Rate with COLA Cost Share	16.38%	29.65%	46.03%
For Safety Members:			
Paying Basic Rate Only *(G.C. 31639.5)*	32.87%	61.28%	94.15%
Paying Basic Rate with COLA Cost Share	27.79%	61.28%	89.07%
Paying 133% of Basic Rate with COLA Cost Share	26.17%	61.28%	87.45%
Composite Total for General and Safety Combined:			
Paying Basic Rate Only *(G.C. 31621.3)*	22.34%	35.62%	57.96%
Paying Basic Rate with COLA Cost Share	19.02%	35.62%	54.64%
Paying 114%/133% of Basic Rate with COLA Cost Share	18.26%	35.62%	53.88%
TIER 2			
For General Members:	9.97%	29.65%	39.62%
For Safety Members:	15.46%	61.28%	76.74%
Composite Total for General and Safety Combined:	10.59%	33.10%	43.69%

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**
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%
2015	39.84% - 43.06%	30.34%

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 2021 contribution rates were determined using the actuarial valuation performed as of January 1, 2020.

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 2021, member contributions totaled $43,455,640 and employer contributions totaled $306,662,635. Member contributions increased by $2.9 million, or 7.12 percent, over the prior year, and employer contributions increased by $66.0 million, or 27.4 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 2021 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 represent 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 are established to account 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, 2021, 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 1.0 percent of the fair value of total assets at December 31, 2021.

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 the special districts' 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, 2021, is as follows.

Reserves:	
Active and Deferred Members	$ 451,026,190
Employer Advance	1,988,767,415
County Additional 5% Contributions	174,390,406
MVCD Additional Contributions	393,642
Court Additional Contributions	3,235,506
Retired Members	1,175,560,436
Class Action Settlement - Post-4/1/82	75,271
Contingency	43,633,169
Market Stabilization Designation	302,814,226
Unappropriated Earnings (Restricted)	58,891,743
Total Reserves	$ 4,198,788,004

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, 2021. Measurements as of the reporting date are based on the fair value of assets as of December 31, 2021, and the total pension liability as of the valuation date, January 1, 2021, projected to December 31, 2021. 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, 2021, and determined based upon rolling forward the total pension liability from the actuarial valuation as of January 1, 2021. 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, 2021 (Dollars in Millions)		
Total Pension Liability	$	5,418
Plan Fiduciary Net Position		4,199
Employers' Net Pension Liability	$	1,219
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		77.5%

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, 2021, 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, 2021 actuarial valuation, the Entry Age Normal Funding Method (Cost Method) was used. The actuarial assumptions include a 7.00 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 2021. 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 18 years remaining. The remaining UAL as of December 31, 2013, which is amortized over a closed 19-year period, has 12 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 13 years as of January 1, 2021. 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, 2021, and accepted actuarial procedures were applied to project the total pension liability to December 31, 2021. Key methods and assumptions used in the latest actuarial valuations as of January 1, 2021, 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, 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 years
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	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.

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, 2021, the pension plan's accrued actuarial liabilities were $5.21 billion and the actuarial value of assets was $3.49 billion, resulting in UAL of $1.72 billion. The funded status (ratio) of actuarial value of assets over accrued actuarial liabilities was 67.0 percent.

As of the January 1, 2021 actuarial valuation, the funded status increased to 67.0 percent from 64.3 percent on an actuarial value of assets basis. It increased to 68.1 percent from 64.7 percent on a market value of assets. There were no assumption changes made as of January 1, 2021.

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 2021 and the long-term expected real rates of return.

Asset Class	Target Allocation	Arithmetic Long-Term Expected Real Rate of Return
Aggressive Growth	10.00%	9.10%
Traditional Growth	32.00%	5.70%
Stabilized Growth	33.00%	3.00%
Principal Protection	10.00%	-1.10%
Crisis Risk Offset (CRO)	15.00%	1.45%
Cash	0.00%	-1.90%
Total	100.00%	

e. Discount Rate

The discount rate used to measure the total pension liability was 7.00 percent as of December 31, 2021. 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, 2021.

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

f. Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The table below presents the net pension liability of SJCERA as of December 31, 2021, calculated using the discount rate of 7.00 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 (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Total Pension Liability	$ 6,149,231,064	$ 5,417,999,785	$ 4,818,103,645
Pension Plan Fiduciary Net Position	4,198,788,004	4,198,788,004	4,198,788,004
Collective Net Pension Liability	$ 1,950,443,060	$ 1,219,211,781	$ 619,315,641
Fiduciary Net Position as a Percentage of the Total Pension Liability	68.3%	77.5%	87.1%

g. Rate of Return

For the year ended December 31, 2021, the annual money-weighted rate of return on investments, net of investment expense, was 13.68 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NOTE 9 – INVESTMENT EXPENSES

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 – GENERAL ADMINISTRATIVE EXPENSES

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, 2021, was 0.07 percent of the accrued actuarial liability. SJCERA was in compliance with this requirement during 2021.

NOTE 11 – PENDING LITIGATION

Allum, et al. v. SJCERA, et al.

SJCERA Retirees Edward Allum and Pauline Toy ("Plaintiff Retirees") sued SJCERA and its Board of Retirement ("SJCERA Respondents") in San Joaquin County Superior Court, on behalf of a class of similarly situated retirees ("post-'82 Retirees"), alleging that SJCERA breached a 2001 class action settlement agreement and committed other alleged wrongdoing by taking a variety of actions, and allegedly failing to take a variety of actions, related to the reserving for, and payment of, supplemental retirement benefits ("post-'82 Benefits") ("*Allum* Class Action"). Plaintiff Retirees claimed over $25 million in damages. The SJCERA Respondents denied the post-'82 Retirees' claims of wrongdoing with respect to the post-'82 Benefits and vigorously defended themselves in the *Allum* Class Action. SJCERA and cross-defendant County of San Joaquin each filed and prevailed on their Motions for Summary Judgment. The Third District Court of Appeal affirmed the Superior Court's decision, and the California Supreme Court denied appellants' petition for review. This case has been concluded, with the SJCERA Respondents and County as the prevailing parties.

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 $368.1 million at December 31, 2021.

NOTE 13 – SUBSEQUENT EVENTS

SJCERA has evaluated subsequent events through May 24, 2022, 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*

	2021	2020	2019	2018
Total Pension Liability				
Service cost	$ 116,888,677	$ 115,229,486	$ 110,608,926	$ 103,300,553
Interest (includes interest on service cost)	360,520,733	350,095,503	337,480,353	325,161,265
Change of benefit terms	-	-	-	-
Differences between expected and actual experience	(17,017,994)	(58,571,957)	4,950,114	(49,383,683)
Changes of assumptions	-	135,011,307	16,016,526	81,854,664
Benefit payments, including refunds of member contributions	(265,965,599)	(251,551,677)	(236,350,072)	(221,443,668)
Net Change in Total Pension Liability	194,425,817	290,212,662	232,705,847	239,489,131
Total Pension Liability - Beginning	5,223,573,968	4,933,361,306	4,700,655,459	4,461,166,328
Total Pension Liability - Ending (a)	$ 5,417,999,785	$ 5,223,573,968	$ 4,933,361,306	$ 4,700,655,459
Fiduciary Net Position				
Contributions - employer	$ 306,662,635	$ 240,700,988	$ 225,528,756	$ 208,757,572
Contributions - member	43,455,640	40,568,995	38,098,688	35,377,951
Transfer between plans	270,570	172,041	299,014	324,269
Net investment income (loss)	572,291,948	276,996,530	380,674,528	(56,397,598)
Benefit payments, including refunds of member contributions	(265,965,599)	(251,551,677)	(236,350,072)	(221,443,668)
Administrative expenses	(4,639,439)	(4,536,455)	(4,931,163)	(4,865,082)
Net Change in Fiduciary Net Position	652,075,755	302,350,422	403,319,751	(38,246,555)
Fiduciary Net Position - Beginning	3,546,712,249	3,244,361,827	2,841,042,076	2,879,288,631
Fiduciary Net Position - Ending (b)	$ 4,198,788,004	$ 3,546,712,249	$ 3,244,361,827	$ 2,841,042,076
Net Pension Liability (a)-(b)	$ 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	77.50%	67.90%	65.76%	60.44%
Covered Payroll**	$ 470,179,036	$ 460,456,931	$ 453,710,584	$ 436,763,447
Net Pension Liability as a Percentage of Covered Payroll	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

2021-2017

	2021	2020	2019	2018	2017
Actuarially Determined Contributions	$ 233,148,239	$ 218,611,737	$ 203,058,574	$ 188,322,653	$ 179,824,882
Contributions in Relation to the Actuarially Determined Contributions	306,662,635	240,700,988	225,528,756	208,757,572	200,051,742
Contribution Deficiency / (Excess)	$ (73,514,396)	$ (22,089,251)	$ (22,470,182)	$ (20,434,919)	$ (20,226,860)
Covered Payroll*	$ 470,179,036	$ 460,456,931	$ 453,710,584	$ 436,763,447	$ 425,886,951
Contributions as a Percentage of Covered Payroll	65.22%	52.27%	49.71%	47.80%	46.97%

2016-2012

	2016	2015	2014	2013	2012
Actuarially Determined Contributions	$ 159,122,523	$ 150,371,556	$ 136,686,133	$ 119,494,319	$ 108,062,510
Contributions in Relation to the Actuarially Determined Contributions	159,122,523	150,371,556	136,686,133	119,494,319	108,062,510
Contribution Deficiency / (Excess)	$ -	$ -	$ -	$ -	$ -
Covered Payroll*	$ 392,227,914	$ 396,136,470	$ 376,030,944	$ 362,650,568	$ 356,419,000
Contributions as a Percentage of Covered Payroll	40.57%	37.96%	36.35%	32.95%	30.32%

* Covered Payroll reported by plan sponsors for 2014 through 2021. 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*

	2021	2020	2019	2018
Annual Money-Weighted Rate of Return, Net of Investment Expense	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, 2021

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, 2021, in the Schedule of Contributions from the Employers and Other Contributing Sources:

Valuation Date	January 1, 2020
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 - 19 years Remaining UAL as of January 1, 2014 - 13 years Subsequent Unexpected Changes in UAL after January 1, 2014 - 15 years Single Equivalent Period as of January 1, 2019 - 15 years
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, 2021, can be found in the January 1, 2020 actuarial valuation report.

OTHER SUPPLEMENTARY INFORMATION

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

	2021
General Administrative Expenses	
(Expenses Subject to the Statutory Limit)	
Personnel Services	
Staff Salaries	$ 1,538,018
Cafeteria Benefits	129,620
Insurance	303,087
Social Security	122,258
Retirement	773,149
Total Personnel Services	2,866,132
Professional Services	
Professional and Specialized Services	478,509
Allocated Department Costs	(77,983)
Total Professional Services	400,526
Communications	
Postage	14,658
Telephone	11,537
Travel	(3,866)
Total Communications	22,329
Rentals/Equipment	
Office Space and Equipment	214,019
Total Rentals/Equipment	214,019
Miscellaneous	
Office Supplies/Expense	24,571
Subscriptions and Periodicals	9,037
Memberships	3,428
Maintenance	15,462
Insurance	109,278
Total Miscellaneous	161,776
Total General Administrative Expenses	3,664,782
Other Expenses	
(Expenses Not Subject to the Statutory Limit)	
Information Technology Expenses	163,918
Actuary Fees	206,203
Fund Legal Fees	604,536
Total Other Expenses	974,657
Total General Administrative and Other Expenses	$ 4,639,439

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF INVESTMENT EXPENSES
FOR THE YEAR ENDED DECEMBER 31, 2021

	2021
Investment Management Fees	
Principal Protection	$ 1,012,397
Global Public Equities	1,221,908
Credit	4,166,451
Risk Parity	1,641,208
Aggressive Growth	14,092,344
Credit Risk Offset	2,197,315
Short-Term Investments/Cash/Cash Equivalents	141,956
Total Investment Management Fees	24,473,579
Other Investment Fees and Expenses	
Custodian Fees	178,491
Investment Consultant Fees	310,200
Miscellaneous Investment Expense	759,769
Total Other Investment Fees and Expenses	1,248,460
Total Investment Expense	25,722,039
Securities Lending Fees	
Securities Lending Fees and Rebates	96,652
Total Investment Fees and Expenses	$ 25,818,691

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

		2021
Nature of Service		
Actuarial-Retainer and Valuation	$	206,203
Audit		60,670
Fund Legal Fees		604,536
Business Technology Services		163,918
Total Payments to Consultants	$	1,035,327

OTHER INFORMATION

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF COST SHARING EMPLOYER ALLOCATIONS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2021

Employer	Proportionate Share [1]	Net Pension Liability [2]
County of San Joaquin	92.6416%	$ 1,129,497,101
SJC Superior Court	3.9249%	47,853,124
Lathrop-Manteca Rural Fire Protection District	1.5476%	18,868,904
Waterloo-Morada Rural Fire Protection District	0.6574%	8,014,899
Tracy Public Cemetery District	0.0739%	900,992
SJC Mosquito and Vector Control District	0.5544%	6,759,359
SJC Historical Society and Museum	0.0492%	599,258
Mountain House Community Services District	0.5338%	6,507,632
San Joaquin County Law Library	0.0172%	210,512
Total	100.0000%	$ 1,219,211,781

(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, 2021.

(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, 2021

		Deferred Outflows of Resources				Deferred Inflows of Resources				Pension Expense		
Employer	Net Pension Liability	Differences Between Expected and Actual Experience	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	Differences Between Projected and Actual Investment Earnings	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	$ 1,129,497,101	$ 1,834,345	$ 96,147,445	$ 5,147,151	$ 103,128,941	$ 54,319,749	$ 280,547,698	$ 9,043,277	$ 343,910,724	$ 129,365,963	$ (1,305,502)	$ 128,060,461
SJC Superior Court	47,853,124	77,715	4,073,455	4,182,153	8,333,323	2,301,351	11,885,895	3,793,289	17,980,535	5,480,816	(141,355)	5,339,461
Lathrop-Manteca Rural Fire Protection District	18,868,904	30,644	1,606,199	2,947,683	4,584,526	907,443	4,686,712	2,383,571	7,977,726	2,161,133	426,330	2,587,463
Waterloo-Morada Rural Fire Protection District	8,014,899	13,016	682,261	2,333,830	3,029,107	385,452	1,990,763	904,354	3,280,569	917,979	456,776	1,374,755
Tracy Public Cemetery District	900,992	1,463	76,696	195,789	273,948	43,330	223,791	87,398	354,519	103,194	41,287	144,481
SJC Mosquito and Vector Control District	6,759,359	10,977	575,384	713,547	1,299,908	325,071	1,678,909	356,249	2,360,229	774,177	6,174	780,351
SJC Historical Society and Museum	599,258	973	51,011	284,343	336,327	28,819	148,845	57,945	235,609	68,635	121,913	190,548
Mountain House Community Services District	6,507,632	10,569	553,956	1,474,464	2,038,989	312,965	1,616,384	707,702	2,637,051	745,346	365,031	1,110,377
San Joaquin County Law Library	210,512	342	17,920	102,060	120,322	10,124	52,288	59,296	121,708	24,111	26,330	50,441
Local Agency Formation Commission	-	-	-	12,062	12,062	-	-	-	-	-	3,016	3,016
Totals	$ 1,219,211,781	$ 1,980,044	$ 103,784,327	$ 17,393,082	$ 123,157,453	$ 58,634,304	$ 302,831,285	$ 17,393,081	$ 378,858,670	$ 139,641,354	$ -	$ 139,641,354

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
NOTES TO THE OTHER INFORMATION
FOR THE YEAR ENDED DECEMBER 31, 2021

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, 2021. Measurements are based on the fair value of assets as of December 31, 2021, and the Total Pension Liability of $5,417,999,785 as of December 31, 2021, was measured as of a valuation date of January 1, 2021, and projected to December 31, 2021.

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.

2022 CONFERENCES AND EVENTS SCHEDULE 2022

EVENT DATES 2022 BEGIN	END	EVENT TITLE	EVENT SPONSOR	LOCATION	REG. FEE	WEBLINK FOR MORE INFO	EST. BOARD EDUCATION HOURS
May 27	May 27	Attorneys Round Table	CALAPRS	Webinar	$50	calaprs.org	4 hrs*
Jun 24	Jun 24	Administrators' Round Table	CALAPRS	Webinar	$50	calaprs.org	5 hrs*
Jun 27	Jun 29	NCPERS Chief Officer Summit	NCPERS	San Francisco, CA		ncpers.org	16hrs
Jul 17	Jul 20	Public Pension Investment Management Program	SACRS	Berkeley, CA	$500	sacrs.org	24 hrs
Aug 6	Aug 10	National Association of State Retirment Administrators	NASRA	Long Beach, CA	TBD	nasra.org	TBD
Aug 21	Aug 23	Public Pension Funding Forum	NCPERS	Los Angeles, CA	$720	ncpers.org	4.75 hrs *
Aug 29	Sep 1	Principles of Pension Governance for Trustees	CALAPRS	TBD	$500	calaprs.org	9 hrs*
Sep 8	Sep 8	Investments Round Table	CALAPRS	Webinar	$50	calaprs.org	4 hrs*
Sep 16	Sep 16	Attorneys Round Table	CALAPRS	Webinar	$50	calaprs.org	4 hrs*
Sep 28	Sep 29	ILPA Institute: Private Equity for the Trustee San Francisco	ILPA	San Francisco, CA	$1499	ilpa.org	12 hrs*
Oct 28	Oct 28	Trustees Round Table	CALAPRS	Webinar	$50	calaprs.org	4 hrs*
Nov 8	Nov 11	SACRS Fall Conference	SACRS	Long Beach, CA	$120	sacrs.org	11 hrs*

** Estimates based on prior agendas*

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

SUMMARY OF PENDING TRUSTEE AND EXECUTIVE STAFF TRAVEL

2022 Event Dates	Sponsor / Event Description	Location	Traveler(s)	Estimated Cost	BOR Approval Date
Jun 24	CALAPRS Administrators' Round Table	Webinar	Johanna Shick, Brian McKelvey	$100	N/A
Jun 27-29	NCPERS - 2022 Chief Officers Summit	San Francisco	Johanna Shick, Brian McKelvey	$3,500	5/6/22
Jul 17-20	SACRS UC Berkeley Program	Berkeley, CA	Brian McKelvey	$3,500	N/A
Sep 6-8	IREI Fall Advisory Board Meeting	Southern Calif	Mike Restuccia	TBD	Pending

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

SUMMARY OF COMPLETED TRUSTEE AND EXECUTIVE STAFF TRAVEL

Event Dates 2022	Sponsor / Event Description	Location	Traveler(s)	Estimated Cost	Actual Cost	Event Report Filed
Feb 11	CALAPRS Administrators' Roundtable	Webinar	McKelvey, Shick	$100	$100	N/A
Feb 18	CALAPRS Attorneys' Roundtable	Webinar	Morrish	$50	$50	N/A
Mar 5 - 8	CALAPRS General Assembly	San Diego, CA	McKelvey, Shick	$4,000	$1,798.50	N/A
Apr 29	Special Virtual Trustee Round Table	Virtual Conference	Moore, Bassett, Weydert, McKelvey	$200	$200	N/A
May 10 - 13	SACRS Spring Conference	Rancho Mirage, CA	Weydert, Keokham, McKelvey, Morrish	$6,800	TBD	N/A
May 27	CALAPRS Administrators' Roundtable	Webinar	Morrish	$50	$50	N/A

2022 LEGISLATION

Last Updated: 5/24/2022

BILL NO.	AUTHOR	DESCRIPTION	LAST ACTION DATE	LOC	SPONSOR
Legislation Impacting SJCERA:					
AB 498	Quirk-Silva	This bill would delete the term "grade" and replace it with the term "group" for purposes of the definition of compensation earnable. Define the phrase "group or class of positions" to mean a number of employees considered together because they share similarities in job duties, work location, collective bargaining unit, or other logical work-related grouping, and would specify that a single employee is not a group or class.	09/10/21	Senate Rules Comm.	
AB 1824	Cooper	This bill represents the annual omnibus bill to propose technical "housekeeping" amendments to the CERL and PERL. This bill would 1) allow members to designate a corporation, trust, or estate to receive their last check upon death, 2) prohibit retirement date from being earlier than date of application filed with Board or more than 60 days after the date of filing the application, 3) require any computation for absence related to death benefit calculation be based on the compensation held by member at beginning of absence, and 4) make other non-substantive changes to the CERL.	05/04/22	Senate L, P.E. & R Comm.	SACRS
AB 1944	Lee/Garcia	~~**This bill would specify that if a member of a legislative body elects to teleconference from a location that is not public, the address does not need to be identified in the notice and agenda or be accessible to the public when the legislative body has elected to allow members to participate via teleconferencing**~~. **This bill would (1) require the agenda to identify any member of the legislative body that will participate in the meeting remotely, (2) require an updated agenda reflecting all of the members participating in the meeting remotely to be posted, if a member of the legislative body elects to participate in the meeting remotely after the agenda is posted, (3) authorize, under specified circumstances and upon a determination by a majority vote of the legislative body, a member to be exempt from identifying the address of the member's teleconference location in the notice and agenda or having the location be accessible to the public, if the member elects to teleconference from a location that is not a public place**. This bill would require all open and public meetings of a legislative body that elects to use teleconferencing to provide a video stream accessible to members of the public and an option for members of the public to address the body remotely during the public comment period through an audio-visual or call-in option.	05/05/22	Assembly LOCAL GOV. Comm. (3rd reading)	
AB 1971	Cooper	This bill would: ~~**1) delete the requirement that Board of Retirement regulations be approved by the Board of Supervisors,**~~ 2) allow a member to purchase service credit for an uncompensated leave of absence due to the serious illness of a family member, 3) authorize the board to grant members subject to a temporary mandatory furlough the same service credit and FAC calculation as they would have received if there had been no furlough; 4) authorize a member retired for service to serve on a part-time governmental board or commission without reinstatement to membership, provided ~~**hours do not exceed 20 per week and**~~ compensation does not exceed $60,000 annually, 5) authorize a member retired for service who is subsequently granted a disability retirement to change the type of optional or unmodified allowance that they elected at the time the service retirement was granted, 6) a member retired for service who subsequently files an application for disability retirement and, if eligible for disability, would require adjustments to be made in the retirement allowance retroactive to the disability retirement, 7) require reclassifying a disability retiree's benefit to a service retirement in the same amount if they are subsequently determined not to be incapacitated and the employer will not reinstate them ~~**8) clarifies the CERL provisions preventing windfalls for members who retire for disability from multiple systems.**~~	04/21/22	Assembly PE & R Comm. (3rd reading)	SACRS

BILL NO.	AUTHOR	DESCRIPTION	LAST ACTION DATE	LOC	SPONSOR
AB 2449	Rubio	Existing law, until January 1, 2024, authorizes a local agency to use teleconferencing without complying with specified teleconferencing requirements when a declared state of emergency is in effect. This bill would authorize a local agency to use teleconferencing without complying with those specified teleconferencing requirements if at least a quorum of the members of the legislative body participates in person from a singular location clearly identified on the agenda that is open to the public and situated within the local agency's jurisdiction.	05/23/22	Assembly LOCAL GOV. Comm. (3rd reading)	
AB 2493	Chen	This bill would authorize a county retirement system to adjust retirement payments based on disallowed compensation for peace officers and firefighters of that system. The bill would provide that if the retirement system determines that the compensation reported for a peace officer or firefighter is disallowed compensation, the system would require the employer to discontinue reporting the disallowed compensation. This bill would apply to determinations made on or after July 30, 2020.	05/11/22	Senate L, P.E. & R Comm. and JUD Comm.	
AB 2647	Levine	This bill would require a local agency to make agendas and other writings distributed to the members of the governing board available for public inspection at a public office or location that the agency designates or post the writings on the local agency's internet website in a position and manner that makes it clear that the writing relates to an agenda item for an upcoming meeting.	05/12/22	Senate Rules Comm.	
SB 1100	Cortese	This bill would authorize the presiding member of the legislative body conducting a meeting to remove an individual for willfully interrupting the meeting. The bill would require removal to be preceded by a warning by the presiding member, that the individual is disrupting the proceedings, a request that the individual curtail their disruptive behavior or be subject to removal, and a reasonable opportunity to cease the disruptive behavior. The bill defines "willfully interrupting" to mean intentionally engaging in behavior that substantially impairs or renders infeasible the orderly conduct of the meeting.	05/05/22	Assembly L. Gov. Comm. and JUD Comm.	
SB 1328	McGuire, Cortese	~~**This bill would prohibit state and local boards from investing in Russia or Belarus, including their governments, financial institutions, a company with business operations in, or a company that supplies military equipment to Russia or Belarus.**~~ **This bill would prohibit boards of specified state and local public retirement systems from making additional or new investments in prohibited companies, as defined, domiciled in Russia or Belarus, as defined, companies that the United States government has designated as complicit in the aggressor countries', as defined, war in Ukraine, or companies that supply military equipment to the aggressor countries, and to liquidate the investments of the board in those companies.**	05/23/22	Senate APPR. Comm. (3rd reading)	
Other Bills of Interest:					
AB 1722	Cooper	PERL, until January 1, 2023, provides state safety members who retire for industrial disability a retirement benefit equal to the greatest amount resulting from three possible calculations. This bill would delete the January 1, 2023 termination date which would make them operative in perpetuity.	05/19/22	Assembly APPR Comm. (3rd reading)	
AB 1795	Fong	This bill would require state bodies to provide all persons the ability to participate both in-person and remotely in any meeting and to address the body remotely.	2/18/22	Assembly G.O. Comm.	
SB 850	Laird	This bill, for purpose of the additional percentage of the special death benefit for service-connected deaths provided under PERL, would require that payment be made to the person having custody of the member's child or children, if the member does not have a surviving spouse or if the surviving spouse dies before each child marries or reaches ate 22. Provisions of this bill would be retroactive to January 1, 2013.	05/23/22	Senate APPR Comm. (Consent calendar)	
SB 1114	Newman	This bill would make nonsubstantive changes to the PERL (spot bill).	02/23/22	Senate RLS Comm.	

BILL NO.	AUTHOR	DESCRIPTION	LAST ACTION DATE	LOC	SPONSOR
SB 1168	Cortese	This bill would require PERS to determine the average benefit paid upon the death of a member and would require the board, beginning on July 1, 2023, to increase the $500 beneficiary payment annually in a specified amount, not to exceed the CPI increase, until the beneficiary payment reaches the average benefit paid.	05/12/22	Assembly PE & R Comm.	
SB 1173	Gonzalez/ Wiener	This bill would prohibit the boards of PERS & STRS from making new investments or reinvestments of funds in fossil fuel companies and require liquidation of fossil fuel investments by July 1, 2027.	05/19/22	Senate APPR. Comm. (3rd reading)	
SB 1420	Dahle	This bill would require a PERS agency that increases the compensation of a member who was previously employed by a different agency to bear all the actuarial liability for the action, if it results in an increase beyond what would have been reasonably expected for the member.	04/27/22	Senate L, P.E. & R. Comm. (Failed, reconsideration granted)	
Federal Legislation:					
HR 2954	Neal	Called the "Securing a Strong Retirement Act of 2022", this bill would (1) increase RMD age to 75 from 72 over the next decade, (2) provide greater latitude to decide to recoup inadvertent overpayments, (3) permit first responders to exclude service-connected disability pension payments from gross income after reaching retirement age, and (4) expand the Employee Plans Compliance Resolution System (EPCRS) to allow more types of errors to be corrected through self-correction.	03/30/22	Senate Finance Comm.	
HR 3684	DeFazio	Called the "Infrastructure Investment and Jobs Act", better known as the $1 trillion infrastructure bill, includes a crypto tax-reporting provision requiring digital asset brokers to report their users' annual transactions to the IRS effective year-end 2022.	11/15/21	Became Public Law No. 117-58	
HR 4728	Takano	To amend the Fair Labor Standards Act to reduce the standard workweek from 40 hours per week to 32 hours per week.	07/27/21	House Comm. on Education and Labor	

2022 TENTATIVE State Legislative Calendar

Feb 18	Last day for new bills to be introduced
Apr 7	Spring Recess begins upon adjournment
May 27	**Last day for bills to be passed out of the house of origin**
Jun 15	Budget Bill must be passed by midnight
Jul 1 - Aug 1	Summer Recess upon adjournment provided budget bill passed
Aug 25	Last day to amend bills on the floor
Aug 31	Last day for each house to pass bills; Final Study Recess begins upon adjournment
Sept 30	Last day for Governor to sign or veto bills.

April 14, 2022

The Honorable Bill Dodd, Chair
Senate Governmental Organization Committee
State Capitol
Sacramento, CA 95814

RE: SB 1328 (as amended March 3, 2022)

Dear Chairman Dodd,

The State Association of County Retirement Systems (SACRS) is writing to express concern with SB 1328, specifically how it impacts the ability of County Employees Retirement Law (CERL) plans to administer their investment programs and ensure trust fund assets are expended solely for the purpose of paying benefits and reasonable administrative expenses. SACRS is not opposed to the humanitarian goals of the bill, however executing a divestment in accordance with the bill's provisions presents significant obstacles.

The 20 CERL plans are varied in size, plan member demographics, investment portfolios and assets, but the one thing they have in common is that they use external investment managers to invest trust fund assets. This is a cost-effective and efficient way to access institutional markets without the necessity of employing experts in active investing, and it satisfies the constitutional fiduciary duty to prudently manage the trust. This bill would require the plan to engage in a detailed analysis to identify prohibited holdings and hire a research firm to perform the same analysis, and then notify companies that were flagged and require certain actions. There are additional administrative steps to be followed, all of which require the expenditure of trust fund assets and personnel time in smaller, local retirement systems that do not have the capacity of corporate governance divisions in the bigger, statewide pension systems.

The reality is that the CERL plans collectively have minimal exposure to investments with direct ties to Russia and Belarus but the definition of "active business operations" is sufficiently broad to include any company that has a facility or any personnel in those countries. This would include companies like Amazon, McDonald's and other global enterprises. Divesting from every company with "active business operations" could mean significantly changing the investment mandates given to external investment managers which would override the plenary authority of the CERL Boards in making active investment management decisions.

The humanitarian crisis that is unfolding in Ukraine has already led to unprecedented sanctions on Russia's economy and financial assets tied to Russia. The speed of global reaction to the invasion has resulted in a "de facto divestment" that has rendered the de miminis assets the CERL plans had prior to the invasion worth even less or stranded, with uncertainty over how these positions can be unwound if and when Russian markets re-open.

Prior legislation on other divestment matters have focused on the influence and impact of the statewide retirement systems, inherently recognizing the scale and administrative constraints of local retirement systems. With SB 1328, SACRS requests the same discretion be extended to local retirement boards to determine the most appropriate course to navigate current Russian divestment efforts.

Respectfully,

Vivian Gray
SACRS President

cc: Senator Mike McGuire
Senator Dave Cortese
Consultant Senate Governmental Organization Committee

San Joaquin County Employees' Retirement Association

May 27, 2022

TO: Board of Retirement

FROM: Johanna Shick
Chief Executive Officer

SUBJECT: Chief Executive Officer Report

CONGRATULATIONS PARIS AND FAMILY!
Paris and her husband are now the proud parents of a beautiful baby girl. I know you all join me in wishing them the very best.

Strengthen the long-term financial health of the Retirement Plan
Evaluate the appropriateness of actuarial assumptions

- *Conduct Actuarial Experience Study to assess the appropriateness of, and impact of COVID-19 on key actuarial assumptions.*
  The experience study is underway. SJCERA's actuary plans to present preliminary results of both the experience study and the actuarial valuation at the July Board meeting. The final of both reports scheduled to be presented at the August Board meeting.

Review and confirm or refresh asset allocation

- *Conduct Asset-Liability Study to assess Board's risk tolerance and the level of risk needed to meet the actuarial assumptions*
  The asset liability study is well underway. At the June 3 Board meeting, the Board will be presented several model portfolios based on the Board's specified risk tolerance and asked to select a strategic asset allocation. Cheiron, SJCERA's actuary, will then use the approved target allocation to update their assumptions and recommendations as part of the 2022 experience study. They will also provide a recommendation to the Board about the future return assumption.

- *Optimize Strategic Asset Allocation policy in light of studies and market projections.*
  - *Review fixed income and other asset classes*
    Analysis of the asset classes will begin after the Board adopts a strategic asset allocation by selecting one of the model portfolios.

  - *Conduct a pacing study of private market assets*
    In accordance with SJCERA's real estate and private equity pacing studies, the Board will be presented three potential investment opportunities at the June 3 Board meeting: two private equity funds (Bessemer Venture Partners (BVP) XII and BVP Forge) and one private real estate fund (AEW).

- *Deliver target investment return*
  In 2022, equity and fixed income markets have been very challenging; however, SJCERA's diversified portfolio continues to benefit from its downside protection strategies. In particular, the Crisis Risk Offset sleeve of the portfolio. Year-to-date as of April 30, 2022, equity markets are down -13.0 percent, fixed income markets are down -9.5 percent, while our Crisis Risk Offset allocation is up +12 percent.

Modernize the operations infrastructure

Implement Pension Administration System (PAS)

- *Contract with Project Manager to lead PAS Implementation and Data Conversion projects*

The Board approved the staff recommendation to contract with Linea Solutions, Inc. to provide RFP development related services at its July 9, 2021 meeting. At that time, staff noted that the additional scope of work, Project Management Oversight, was anticipated to occur in 2022, at a proposed cost of $1,783,040 over three years, the costs for which would be included in the 2022 Administrative Budget. This item will be included in the mid-year budget adjustment, which will be reviewed by the Administrative Committee in June, and brought to the full Board for approval in July.

As Linea nears completion of their RFP development services work, ACEO Brian McKelvey and I will work with Counsel to negotiate and execute the contract with Linea for the project management and oversight portion of the work. The project management services work will occur throughout all phases of the PAS project, including data cleansing/conversion, and PAS system development and implementation/stabilization. At a high level, services will include development and management of a master project plan, reporting, budget tracking, issue tracking and resolution, risk identification and mitigation, resource planning, test planning and support, system design verification, organizational change management and training, implementation activity support, and project wrap-up.

- *Contract with Pension Administration System (PAS) vendor*
  At the May 6 meeting, the Board approved the evaluation team's recommendation to contract with Tegrit Software Ventures to implement their pension administration system. Brian McKelvey, Counsel, Linea and I have begun contract negotiations with Tegrit. Work on the PAS project is expected to begin first quarter 2023. Costs for the project will be included in the 2023 budget.

- *Contract with Data Conversion vendor*
  At the May 6 meeting, the Board approved the evaluation team's recommendation to contract with Managed Business Solutions (MBS) to provide data cleansing services. Brian McKelvey, Counsel, Linea and I have begun contract negotiations with MBS. Work on the Data Conversion project is expected to start Summer of 2022. The 2022 costs for the Data Conversion vendor will be included in the mid-year budget adjustment, which will be reviewed by the Administrative Committee in June, and brought to the full Board for approval in July.

Enhance the member experience

- *Complete improvements to website architecture and functionality*
  Website vendor, Rolling Orange, is now building the site. Deployment of SJCERA's searchable and easy-to-use website is expected this summer.

Improve technology for business operations

- *Begin Windows Server infrastructure implementation*
  Information Systems Analyst II, Lolo Garza, has installed the Windows infrastructure hardware, and is waiting on the vendor to deliver the remaining networking components to complete the project. Once the networking components are installed, he will complete configuration and testing in time for the Data Conversion project to begin this summer.

- *Begin Enterprise-Wide Risk* Management (EWRM) methodologies implementation
  Management Analyst III Greg Frank and Brian McKelvey finalized the list of organizational risks. Upon my review and approval, next steps include development of a heat map and risk assessment document which are planned to be finalized this summer.

Align resources and organizational capabilities

- *Implement strategies designed to support staff and maintain morale during PAS project*

  Employees of the Month. Congratulations to Margarita Arce for being named Employee of the Month! In addition to becoming well known as a customer service standout (she exemplifies the 3 Rs of customer service: responsive, respectful, right), she was named Employee of the Month for being a go-getter. She efficiently completes her workload, catches the organization up on any outstanding scanning or other tasks, and comes asking for more. She does all this on top of fielding member phone calls (which this month were heavier than usual due to the new account numbers for Valley Strong Credit Union). I think she must have super powers…I wonder if she has a cape? Congratulations Margarita on this well-deserved recognition!

Enhance education and development across all levels of the organization

Staff Training

SJCERA's Administrative Secretary, Elaina Petersen serves as our training coordinator. As part of those duties, she monitors SJCERA's compliance with County Mandatory Training Guidelines. Unfortunately, during the first two years of the pandemic, many County-mandated trainings were unavailable, making it impossible to fully comply with the Training Guidelines. Now that courses are available, Elaina conducted a comprehensive review of training each staff member needs to complete. Currently, SJCERA staff is 66 percent in compliance with San Joaquin County Employee Mandatory Training guidelines. As a result of her efforts, 100 percent of staff have now completed the County's video IT security training series, *The Inside Man: Season 2*, which contained 12 lessons on topics including mobile device security, phishing, password security, social engineering and physical security. In addition, several of us completed the "Coaching the Experienced Driver" training this month and the remainder of staff will be scheduled over the coming months. Elaina is pacing training attendance to avoid significant impact on workload production, while still aiming to return to 100 percent compliance by December 31, 2022.

Brian McKelvey attended the SACRS conference, and solicited volunteers at the Administrators' breakout session to participate in a sub-group to explore the idea of creating a secure centralized data base to streamline administration of reciprocity.

Information Systems Manager, Adnan Khan attended the Public Retirement Information Systems Management (PRISM) conference in Scottsdale, Arizona. The topics presented were particularly relevant and included Pension Administration Conversion, Reducing Project Risk, Testing, and Cyber Security, among others.

SJCERA's General Counsel, Deputy County Counsel Jason Morrish, is scheduled to attend the CALAPRS Attorney's Roundtable on May 27, 2022.

Maintain Business Operations

Monitor Investment Program

- *Northern Trust Asset Management announced leadership change*. Northern Trust announced that Shundraw Thomas, President of Northern Trust Asset Management, will be leaving the company on June 1, 2022, in order to pursue an entrepreneurial opportunity. During this transition, the Asset Management executive leadership team will oversee and manage the business's day-to-day operations to ensure a seamless transition; they will report directly to Northern Trust's Chairman, President and CEO, Mike O'Grady.

- *Parametric's Head of Overlay Services Departs.* Justin Henne, head of Parametric Portfolio Associates' Overlay Services is leaving the company just before Memorial Day. Directors of Investment Strategy Clint Talmo and Richard Fong will co-lead the Overlay Services team. Talmo and Fong have been with Parametric (or its predecessor Clifton Group) for 8 and 12 years, respectively. Given the systematic nature of the SJCERA overlay program Meketa has indicated they have no concerns about the upcoming transition but will continue to monitor this change in team structure.

Educate Members
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 Understanding Your Retirement seminar and the other explaining Service Credit Purchases. Both emails are attached to this report foryour reference.

Provide Excellent Customer Service.
A few quotes from our members:

- “Margaret Arce was extremely helpful and nice to help me!!! The best person I’ve had to work with in my sisters-laws issues!!! Bless her!”
- “So grateful you have Vickie working in the retirement office. Her voice is soft, pleasant, and I could see her smile. Thank you, Vickie, for your professionalism. It is very much appreciated.”
- “I have been emailing to change healthcare from a county sponsored plan to an AARP plan. Leonor made a personal call to clarify my intentions and give me additional guidance.”

Support Employers

- *Provide Input on Legislation.* The County’s Administrative Office asked for input on AB 2493. The bill attempts to modify the implementation of the California Supreme Court’s *Alameda* decision for Safety members and makes employers (instead of members and/or the retirement system) responsible for paying the amounts owed. If passed, significant legal analysis would be required (including whether it is applicable to SJCERA since we have already fully implemented *Alameda* and there are no pending appeals). However, I informed the County that the biggest concern would likely be the potential financial liability the County would incur, and forwarded a copy of CSAC’s letter of opposition to the bill to the Chief Administrators Officer’s office.

- *Assist on Retirement-Related Labor Negotiations.* I encourage all employers to contact me when they are considering new contract provisions that may affect compensation and/or retirement benefits. This month I provided the Waterloo-Morada Fire District with information about the retirement eligibility of specific pay types and connected them with Cheiron to perform an actuarial study as required by Government Code section 31515.5.

- *Provide Retirement System Administration Related Information.* In response to my email encouraging employers to attend the Board meetings at which the Board will be considering changes to the asset allocation and actuarial assumptions, a representative from the Lathrop-Manteca Fire District contacted me with a number of investment related questions. Investment Officer Paris Ba researched and drafted the responses to the questions, which were subsequently provided to the employer.

Policy Compliance. SJCERA’s CEO Performance Review Policy requires a total compensation survey every three years to ensure its competitiveness. The last survey was conducted in 2019, making the next salary survey due in 2022. The County’s Human Resources division has agreed to conduct the CEO salary survey later this spring or summer, which is when they anticipate conducting salary surveys for other unrepresented County positions. If County’s study of other unrepresented positions is delayed, I have requested that SJCERA’s study proceed separately so as to meet our policy deadline of completion in 2022.

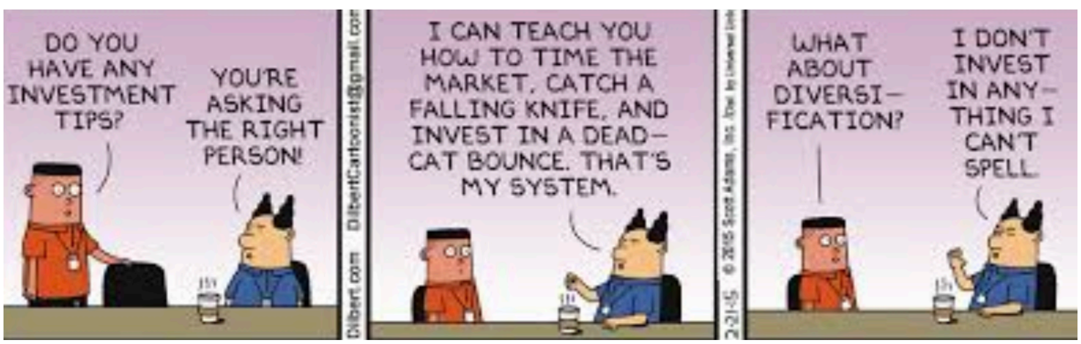
Northern Trust Fee Schedule. One of Management Analyst III, Greg Frank’s duties is to monitor contract related due dates. As part of that work, he reached out to Northern Trust to obtain a new five-year fee schedule. We are happy to report the new five-year fee schedule is the same as the previous schedule.

Manage Emerging Organizational Needs

Merger of Valley Strong Credit Union and Financial Center Credit Union (FCCU). As a result of the merger between FCCU and Valley Strong Credit Union all FCCU members' account numbers have changed. This change affects more than 1600 retired SJCERA members with direct deposit. During the transition period, Valley Strong is internally mapping old account numbers to the new ones so members' monthly benefit payments are deposited in the new account. After the initial period, however, Valley Strong had informed members they would need to complete a new direct deposit form. Instead, Brian McKelvey, Financial Officer Carmen Murillo, Retirement Services Officer Melinda DeOliveira, Accounting Technician II Marissa Smith, IT Manager Adnan Khan, IT Systems Analyst II Lolo Garza and IT Systems Specialist Jordan Regevig developed a streamlined solution, which will allow SJCERA to automatically update our records in June, replacing the old FCCU account number with the new Valley Strong account number. Accounting Technician II, Marissa Smith compiled the list of affected members and Communications Officer Kendra Fenner wrote and coordinated the mailing of a letter to those affected. A copy of the letter is attached to this report. We expect the automated update to be completed by the July 1 payroll.

Conclusion

It's been another productive month, and staff, consultants and the Board are all making good progress on our goals. While all SJCERA's goals are important, the work on the asset liability study, asset allocation, and assumptions are among the most significant this year because they will have long-standing impact. SJCERA and its Board of Retirement are fortunate to have consultants who are experts in their fields to conduct our asset-liability study, and to educate and advise us on the asset allocation and actuarial assumption decisions the Board will be making over the next few meetings. With about 15,000 members relying on SJCERA for their retirement benefits (which is the primary source of income in retirement for most retirees), having expert advisors on our team helps the Board fulfills its fiduciary responsibilities and make sound decisions based on the best information available at the time. Clearly, we operate prudently (unlike Dilbert's boss in the cartoon below).



From: "ISD Service Desk [ISD]" <isdservicedesk@sjgov.org>
Subject: [EXT] Virtual Seminar to Help You Prepare for Retirement
Date: May 5, 2022 at 3:29:03 PM PDT
To: "ISD Service Desk [ISD]" <isdservicedesk@sjgov.org>

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 seminar is for you!

JUNE 2, 2022: 9:00 AM - Noon

Sign up for this three-hour virtual seminar and let SJCERA help you prepare for 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

Click here to register **Active Members - Seminars page**

You will receive the Zoom link via email immediately after you complete your registration. The seminar can be accessed via Zoom on 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 two years or less from retirement.

Thank you,

ISD Service Desk
Information Systems Division
San Joaquin County
209-953-HELP (4357)

From: "ISD Service Desk [ISD]" <isdservicedesk@sjgov.org>
Subject: [EXT] Purchasing Service Credit Can Increase Your Retirement Benefit
Date: May 18, 2022 at 10:42:50 AM PDT
To: "ISD Service Desk [ISD]" <isdservicedesk@sjgov.org>

Sent on behalf of Johanna Shick, Chief Executive Officer, SJCERA:

(Sent to all County Employees)

Purchasing Service Credit Can Increase Your Retirement Benefit
Service credit measures the time earned as a SJCERA member and is one of the three factors used to determine your retirement benefit. (The other two are your age at retirement and your final average compensation.) Typically, the more years of service credit you have, the greater your monthly retirement benefit will be.

As an active SJCERA member, you may be eligible to increase your SJCERA retirement benefit by purchasing eligible service credit prior to retirement. Types of service credit eligible for purchase include:

- Medical Leave of Absence
- Previous County Service
- Redeposit of Withdrawn SJCERA Contributions
- SJCERA Membership Interrupted by Military Service
- Prior Public Agency Service

To learn more, read the Service Credit Purchase fact sheet available on the Forms and Publications page at www.SJCERA.org.

Thank you,

ISD Service Desk
Information Systems Division
San Joaquin County
209-953-HELP (4357)

San Joaquin County Employees'
Retirement Association

May 13, 2022

Firstname Lastname
Street Address
City, State ZIP

Dear Firstname Lastname:

SJCERA is working directly with Valley Strong Credit Union to ensure your monthly benefit payment will continue to be deposited into your new Valley Strong account. If you stay with Valley Strong as your financial institution, no action is needed.

SJCERA will automatically update our records in June to replace your old Financial Center Credit Union (FCCU) account number with your new Valley Strong account information.

If you decide to change financial institutions, please submit a completed *Direct Deposit Authorization* form by June 15, 2022. The form is available on the Forms & Publications page at www.SJCERA.org.

If you have any questions, please call (209) 468-2163 or email ContactUs@sjcera.org and enter "Valley Strong" in the subject line.

Thank you,

Carmen Murillo
Finance Officer

6 South El Dorado Street, Suite 400 • Stockton, CA 95202
(209) 468-2163 • ContactUs@sjcera.org • www.sjcera.org

2022 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. Conduct Actuarial Experience Study to assess the appropriateness of, and impact of COVID-19 on key actuarial assumptions. 70 percent complete.
      The experience study is underway. SJCERA's actuary plans to present preliminary results of both the experience study and the actuarial valuation at the July Board meeting. The final of both reports scheduled to be presented at the August Board meeting.

   b. **Review and confirm or refresh asset allocation**
      i. Conduct Asset-Liability Study to assess Board's risk tolerance and the level of risk needed to meet the actuarial assumptions. 80 percent complete.
      Investment consultant Meketa has made the following asset-liability study Board presentations:
      - February 2022 – Review of 2022 capital market assumptions
      - March 2022 – Review of asset-liability and actuarial concepts
      - April 2022 – Examination and modeling of the current strategic asset allocation
      - May 2022 – Examination of initial model output and begin process of selecting a long-term policy portfolio
      - June 2022 – Final model and portfolio selection
      - Upcoming July 2022 – Implementation plan for selected portfolio

      The goal is to finalize the portfolio selection and implementation procedures by the end of Summer.

      ii. Optimize Strategic Asset Allocation policy in light of studies and market projections. 20 percent complete.
         1. *Review fixed income and other asset classes.*
         Investment consultant Meketa is in the initial stages of reviewing asset classes in collaboration with the asset-liability study with the goal of presenting a recommendation(s) to the Board at the end of year.

         2. *Conduct a pacing study of private market assets.*
         Following the selection of new portfolio targets, Meketa intends to conduct pacing studies of SJCERA's private market classes. This is expected to be presented to the Board in the fall.

      iii. Deliver target investment return. 40 percent complete.
      The equity and fixed income markets have been challenging, and with about 60 percent of the year remaining (as of the date of this report), it's impossible to accurately predict the actual return the portfolio will achieve as of December 31. The results achieved based on the Board's currently adopted asset allocation follow.

      As of April 30, SJCERA's total portfolio was $3.8 billion. As of the most recent quarterly report ending March 31, SJCERA exceeded its assumed rate over the one-, three- and five-year periods: with net annualized returns of one-year 9.3 percent, three-year 9.0 percent, and five-year return of 7.9 percent.

      The total portfolio outperformed the policy benchmark for the quarter and one-year periods by 0.2 percent and 2.6 percent, and the Median Public Fund for the quarter and one-year periods by 2.2 percent and 2.1 percent. Over the three-, five-, and ten-year periods, the portfolio trailed its benchmark by -1.0 percent, -0.5 percent and -0.5 percent. However, the portfolio produced higher risk adjusted returns, as measured by the Sharpe Ratio, than the Median Public Fund over all time periods,

To assist the Board in understanding market conditions and making sound decisions about the portfolio Meketa has provided a number of education sessions. At the March Board meeting, Meketa conducted an education session on inflation. Highlights of the presentation included: 1) inflation indicators, 2) different categories of the Consumer Price Index, 3) history of inflation, 4) inflation expectations, 5) labor shortage and wage growth, 6) money supply, and 7) asset class performances. Meketa intends to present additional educational sessions on the current market environment and rising interest rates as well as the outlook of defined benefit plans at upcoming meetings this year.

c. Optimize the investment manager lineup

i. Conduct a review of current managers and mandates to better align with our Strategic Asset Allocation policy. 50 percent complete.
This project is being conducted in conjunction with the asset-liability study (see 1.b. i. and ii. above).

2. Modernize the operations infrastructure

a. Implement Pension Administration System (PAS)

i. Contract with Project Manager to lead PAS Implementation and Data Conversion projects
100 percent complete.
SJCERA is under contract with Linea Solutions to lead the PAS implementation and data conversion projects.

ii. Contract with Pension Administration System (PAS) vendor. 85 percent complete.
The request for proposal (RFP) was issued and the evaluation team (staff and Linea) scored the proposals. At the May 6 meeting, the Board approved the evaluation team's recommendation, Managed Business Solutions (MBS) to provide data cleansing services. We are currently in contract negotiations with MBS.

iii. Contract with Data Conversion vendor. 85 percent complete.
The request for proposal (RFP) was issued and the evaluation team (staff and Linea) scored the proposals. At the May 6 meeting, the Board approved the evaluation team's recommendation, Tegrit Software Ventures to implement their pension administration system. We are currently in contract negotiations with Tegrit.

iv. Identify project risks and mitigations. 65 percent complete.
Staff developed an initial list of project risks. Now that the PAS and data conversion vendors have been selected, we will work with Linea to refine the list to include vendor risks. Next steps include managing and mitigating ongoing project risks and developing quarterly reporting.

v. Program/Test new PAS 0 percent complete.
This project will begin during the initial stages of the PAS implementation and continue throughout the entire life of the project. First steps, starting in November, include verifying requirements and finalizing the implementation project plan.

vi. Maintain functionality of legacy PAS until new PAS is implemented and stabilized.
35 percent complete.
We continue to have weekly calls with IGI on maintenance items and have initiated new import functionality needed to update over sixteen-hundred Valley Strong Credit Union member accounts

programmatically. Maintaining the functionality of the legacy system will continue for at least three years until we go-live with the new PAS system.

SJCERA management met with Mindwrap and are cooperatively designing an automated workflow process for member refunds using OptixWS, our existing document management system. Once the refund automation is implemented, SJCERA will be able to configure OptixWS to further automate and improve our benefits processes in advance of the new PAS solution. This automation will be in place for at least three years and will provide improved workflow management and reporting capabilities and processing efficiencies until the new PAS solution is in place.

b. Enhance the member experience

i. Complete improvements to website architecture and functionality. 60 percent complete.
The final website design has been approved and the vendor is now building the site. Deployment of SJCERA's searchable and easy-to-use website is expected this summer.

ii. Identify the conditions necessary to enable a full-service member portal, and develop and initiate a plan to fulfill those conditions. 0 percent complete.
This project is scheduled to begin this summer. Steps include: identify best practices, identify policies and procedures requiring amending, validate legal requirements and any required policy and procedure amendments, obtain Board approval on policy changes, implement amended policies and procedures, and report progress. This project is expected to be completed by end of year.

c. Improve technology for business operations

i. Adopt industry standard business processes wherever possible. 0 percent complete.
This project is an ongoing process throughout the entire pension administration system implementation. This project is expected to begin in November 2022.

ii. Refine new PAS requirements to support business processes and performance measurements 0 percent complete.
Work on this goal will occur in conjunction with the pension administration system (PAS) implementation. The goal should be rescheduled for the 2023 calendar year, as the PAS project is expected to begin in February 2023.

iii. Implement recommended items resulting from 2021 cybersecurity and disaster recovery plan assessments. 75 percent complete.
Linea Secure has completed their final deliverable in SJCERA's cybersecurity audit project: a red team exercise. Linea's team simulated an adversarial attack, attempting to identify and exploit potential weaknesses within the organization's cybersecurity defenses. Linea Secure presented the results of the red team exercise to SJCERA's IT in April. The final step includes implementing Linea's recommendation of Phase 1 – Baseline Governance. This project is expected to be completed in the Fall.

iv. Begin Windows Server infrastructure implementation. 70 percent complete.
The Windows infrastructure servers have been installed and we are waiting on the vendor to deliver the networking components. We anticipate completing the installation and configuration this summer.

v. Begin Enterprise-Wide Risk Management (EWRM) methodologies implementation. 35 percent complete.

Identification and categorization of organizational risks have been finalized. Next steps include the development of a heat map and risk assessment document which are planned to be finalized this summer.

3. Align resources and organizational capabilities

a. Develop and implement a workforce planning process

i. Address project staffing and training needs. 25 percent complete.

The Board-approved budget included filling one additional (previously vacant) technician position in preparation for the reallocation of other staff members' time to the project. That position has now been filled and training has begun. Staff anticipates additional resources will be needed as the project progresses and those resources will need to be engaged with sufficient orientation/training time to ensure productivity during peak project workload periods.

The next steps include: 1) reviewing the processes and resource refinement, 2) train staff, and 3) implement refinements.

ii. Implement strategies designed to support staff and maintain morale during PAS project 35 percent complete.

We continue to provide activities and celebrations intended to recognize and support staff. Efforts include: Employee of the Month; recognition in the CEO reports, which are distributed with a personal thank you note from the CEO to staff members mentioned in the report; during Random Acts of Kindness week, staff received a variety of treats each day and the entire organization helped collect "change for change" to raise funds for a local charity; on Earth Day each staff member discovered an earth stress-ball and a jeans coupon, and there were snacks to share; for Cinco de Mayo staff participated in a potluck. In addition, staff is developing an initial list or morale strategies and formulating a timeline.

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. 50 percent complete.

An initial list of training and development opportunities across the organization was expanded to include County training resources. Over the next quarter, training plans will be developed by each unit leader for each role.

In addition, the following training and development opportunities have been implemented thus far this year.

- Designated executive staff are attending administrators and investment related training through SACRS and CALAPRS. Designated benefits staff are being provided developmental leadership opportunities in work-above-class assignments. Two lead-level staff members are attending the CALAPRS management academy to support their career path opportunities. Additionally, now that they are offered virtually, more staff than ever are attending CALAPRS roundtable events, which provide training and information sharing opportunities with staff from other California retirement systems.

- SJCERA's managers and supervisors were provided with the nine key phrases identified as vital to enhancing engagement in a study of 250,000 Chief Human Resource Officers and Management Executives.

- In April, SJCERA staff completed a video training series provided by County Information Service Division called The Inside Man: Season 2 which contained 12 lessons on mobile device security, phishing, password security, social engineering and physical security. All SJCERA staff has completed this training. A plan is in place to ensure that all staff have complete all County-required training by year-end.

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What's the Difference?
Time-Weighted Return vs. Internal Rate of Return

Investors often ask about the difference between time-weighted return ("TWR") and internal rate of return ("IRR").

In general, TWR is used by the investment industry to measure the performance of funds investing in publicly traded securities. By contrast, IRR is normally used to gauge the return of funds that invest in illiquid, non-marketable assets—such as buyout, venture or real estate funds.

Investors want to know why public and private investment returns are reported differently and how the calculation methodologies differ.

Therefore, this article will

1. Explain why public and private investment performance is reported differently,
2. Define TWR and IRR,
3. Highlight the differences between IRR and TWR by calculating both numbers from the return stream of a hypothetical investment.

While investor knowledge of TWR is widespread given its broad adoption with marketable investments, familiarity with IRR continues to be less extensive. However, IRR remains the standard for private investments.

"TWR...does not consider the effect of cash moving in and out of a fund.

WHY PUBLIC AND PRIVATE SECURITIES RETURNS ARE REPORTED DIFFERENTLY

Managers of public securities funds typically do not control investor cash flows. Investors in these funds enter and exit at will. On the other hand, investors in many private or alternative funds face restrictions on their ability to invest additional assets or to redeem existing assets. These restrictions can take the form of multi-year "lock-ups" or no ability to achieve liquidity absent the sale of underlying assets.[1]

As discussed below, this difference in the nature of fund cash flows constitutes the main reason why public and private securities returns are reported differently.

TIME-WEIGHTED RETURN, WHAT IS IT?

TWR measures a fund's compounded rate of growth over a specific time period. (Fabozzi, Frank, Investment Management, © 1995, pp 611-618).

While TWR measures the return of a fund's investments, it does not consider the effect of investor cash moving in and out of a fund. Thus, TWR is suitable for measuring the performance of marketable investment managers because they do not control when investor cash enters or exits their funds.

According to the CFA Institute, "Time-weighted rate of return allows the evaluation of investment management skill between any two time periods without regard to the total amount invested at any time during that time period. The measure is independent of the total amount invested because the manager normally does not control the inflow and outflow of money."

HOW TIME-WEIGHTED RETURN WORKS

Table A below illustrates the mechanics of TWR for the hypothetical ABC Equity Mutual Fund (numbers in bold are used for the TWR calculation).

On December 31, Year 1, ABC had $1000 in assets. During the first quarter of Year 2 it had a 10 percent return, but this return ranked far below its peers, so $730 exited the fund. In the second quarter, ABC earned 3 percent and $300

Table A

ABC Equity Mutual Fund	December 31 Year 1	Q1 Year 2	Q2 Year 2	Q3 Year 2	Q4 Year 2
Beginning portfolio value		1000	370	81	7.8
Gain or (loss) for the quarter %		**10**	**3**	**(4)**	**6**
Gain or (loss) for the quarter $		100	11	(3.2)	0.5
Quarterly cash inflows/(outflows)		(730)	(300)	(70)	0
Ending portfolio value	1000	370	81	7.8	8.3

1 An additional means of achieving liquidity is through a secondary sale, which is not within the scope of this paper and often can require taking a significant discount to net asset value to enable such a sale.

more dollars came out. In the third quarter, the fund lost 4 percent and $70 was withdrawn. In the fourth quarter, ABC gained 6 percent and did not lose assets.

What is the annual TWR for ABC Equity Mutual Fund?
The TWR formula in this case is

$[(1+R_1)(1+R_2)(1+R_3)(1+R_4)] - 1 = TWR,$
where R is the quarterly return. Using the quarterly return numbers from above gives the following result:

$[(1.1)(1.03)(.96)(1.06)] - 1 = 15.3\% = \text{Annual TWR}$

Thus, ABC earned a 15.3 percent return. *Note that the fund's cash outflows had no impact on performance.*

Now let's turn our attention to IRR, a measure for which fund cash flows have major significance.

INTERNAL RATE OF RETURN, WHAT IS IT?

According to the CFA Institute, IRR is the annualized implied discount rate calculated from a series of cash flows. It is the return that equates the present value of all invested capital in an investment to the present value of all returns, or the discount rate that will provide a net present value of all cash flows equal to zero.

Said differently, IRR is the discount rate that equates the cost of an investment with the present value of the cash generated by that investment.

> "*IRR...equates the cost of investment with the present value of the cash generated by that investment.*

The CFA Institute recommends that IRR be used to measure the return of investments in private securities. A major reason for this recommendation is that private investment managers typically exercise a greater degree of control over the amount and timing of their funds' cash flows. How private managers exercise this control is crucial in assessing their investment skill.

Thus, private fund managers need a return calculation method that takes into account their control over fund cash flows. IRR does this.

HOW INTERNAL RATE OF RETURN WORKS

To see the importance of cash flows in the IRR calculation, let's use the same quarterly returns and cash flows presented in Table B to calculate the IRR of the hypothetical XYZ Private Investment Fund (numbers in bold are used for the IRR calculation).

Table B

XYZ Private Investment Fund	December 31 Year 1	Q1 Year 2	Q2 Year 2	Q3 Year 2	Q4 Year 2
Beginning portfolio value		1000	370	81	7.8
Gain or (loss) for the quarter %		10	3	(4)	6
Gain or (loss) for the quarter $		100	11	(3.2)	0.5
Quarterly cash inflows/(outflows)		**(730)**	**(300)**	**(70)**	**(8.3)**
Ending portfolio value	1000	370	81	7.8	0

The one-year example shown in Table B is for illustrative purposes only. Actual private capital programs generally take years to mature and have lives as long as a decade or more.

As will be seen, IRR uses different numbers than TWR.

In this case, on December 31, an investor makes a $1000 investment in XYZ. In the first quarter, XYZ's investments are written up in value by 10 percent and the fund distributes assets to investors totaling $730. In the second quarter, XYZ's investments are written up 3 percent and $300 of portfolio assets are distributed. In the third quarter, XYZ writes down investments by 4 percent and distributes $70 worth of assets. In the fourth quarter, remaining fund investments are written up 6 percent and distributed at $8.3.

What is the IRR on this investment?
The IRR formula in this instance involves two steps: [2]

1. Solve the equation below for X, with CF being the quarterly cash flows.

$$-CF_0 + \frac{CF_1}{(1+X)} + \frac{CF_2}{(1+X)^2} + \frac{CF_3}{(1+X)^3} + \frac{CF_4}{(1+X)^4} = 0$$

2. Place the "X" from the equation above into the following equation.

$$(1+X)^4 - 1 = IRR$$

Using the numbers from the example above gives the following:

1. $$-1000 + \frac{730}{(1.076)} + \frac{300}{(1.076)^2} + \frac{70}{(1.076)^3} + \frac{8.3}{(1.076)^4} = 0$$

2. $(1.076)^4 - 1 = 34.0\% = IRR$

Thus, XYZ earned a 34 percent IRR. *Note that the primary driver of this return is the amount and timing of XYZ's cash inflows and outflows.*

ANALYSIS OF THE DIFFERENCES BETWEEN TIME-WEIGHTED RETURN AND INTERNAL RATE OF RETURN IN THE EXAMPLES

In the foregoing examples, we demonstrated TWR using hypothetical returns of the ABC Equity Mutual Fund, and we showed IRR using hypothetical cash flows of the XYZ Private Investment Fund.

These two methods reflect the differing nature of cash flows for public and private fund managers. Public fund managers do not control their funds' cash flows, and TWR does not account for the timing of these flows. Private fund managers, on the other hand, exercise a degree of control over the timing and magnitude of their funds' cash flows, and IRR takes these flows into account.

In the two examples, IRR was roughly twice the TWR. However, TWR and IRR will not always differ. Sometimes the two may be similar, depending on returns and cash flows.

IRR was higher than the TWR due to the "front loading" and strongest quarterly return in the initial quarter of XYZ Private Investment Fund's cash outflows, i.e., most of the cash ($730) was returned to investors in the first quarter.

2 Step one calculates the sub-period IRR from the quarterly cash flows. Step two annualizes this number. Many spreadsheet programs have IRR calculation functions as a standard feature.

TWR VS. IRR CHEAT SHEET

	Time-Weighted Return (TWR)	Dollar-Weighted Return / Internal Rate of Return (IRR)
Definition	TWR is the return produced over time by a fund independent of contributions or withdrawals. TWR measures a fund's compounded rate of growth over a specified time period.	IRR is the discount rate that equates the cost of an investment with the cash generated by that investment. IRR tracks the performance of actual dollars invested and distributed over time.
Major Differentiator	TWR measures the performance of public fund managers. TWR eliminates the impact of the timing of fund cash flows and isolates the portion of a portfolio's return that is attributable solely to the manager's actions. TWR is used for public fund managers because they normally do not control cash flowing into or out of their funds.	IRR measures the performance of private fund managers. IRR accounts for the timing and magnitude of fund cash flows. IRR is used for private fund managers because they typically exercise a degree of control over the amount and timing of fund cash flows.
Formula	Annual TWR Formula Given Four Quarterly Returns: $[(1+R_1)(1+R_2)(1+R_3)(1+R_4)] - 1$ R = Quarterly Returns	Two-Step Formula to Calculate Annualized IRR from Four Quarterly Cash Flows: 1. Solve the following equation for "X" $-CF_0 + \frac{CF_1}{(1+X)} + \frac{CF_2}{(1+X)^2} + \frac{CF_3}{(1+X)^3} + \frac{CF_4}{(1+X)^4} = 0$ 2. Put "X" in the equation below $(1+X)^4 - 1 = IRR$ CF = Quarterly Cash Flows

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APRIL 2022

Is the U.S. economy heading to a recession?

Anwiti Bahuguna, Ph.D.
Head of Multi-Asset Strategy

The Fed takes a potentially aggressive path in its effort to tame inflation, and investors fear recession is on the horizon.

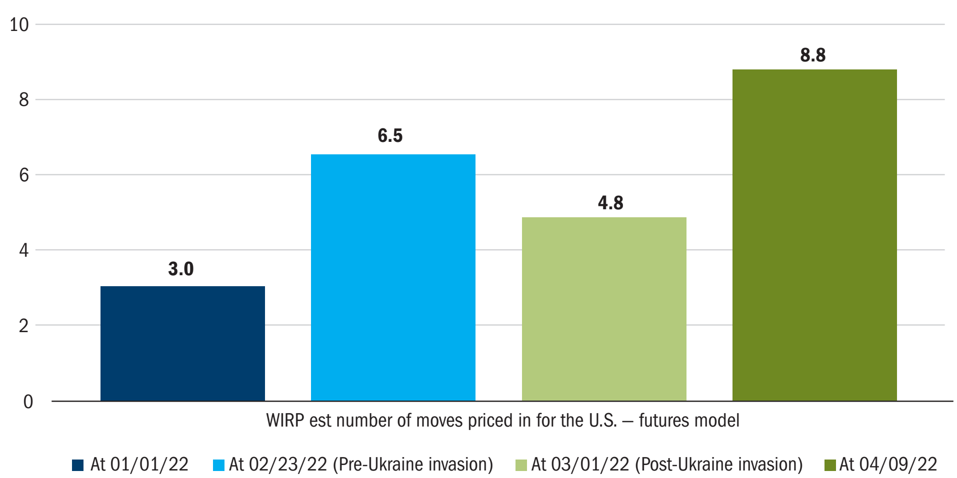
Key points:

1. The Federal Reserve is pursuing an aggressive monetary policy to combat inflation.
2. Some yield curves are inverted, but this does not necessarily mean a recession is forthcoming.
3. Recessions have different drivers, so they can differ in severity, duration and their impact on markets.

The Fed gets real about inflation

For the last two years, inflation has been a bogeyman for the markets — higher and stickier than expected. At the outset of 2022, markets expected the Federal Reserve to pursue a measured schedule of interest rate increases and to end quantitative easing. But recently, to combat higher than expected inflation, the Fed has been telegraphing a more aggressive position. After pricing in very few interest rate hikes at the beginning of the year, markets are now expecting nine hikes (including a couple 50bps hikes in the second quarter) bringing the federal funds rate to 2.00%–2.25% by the end of the year.

Exhibit 1: Estimated number of Fed hikes in 2022, Bloomberg WIRP



Source: Macrobond, Bloomberg and Columbia Threadneedle Investments

Yield curve inversion can be a faulty predictor

Recession fears became headline news with the recent near inversion of the 2s10s Treasury curve. But in our view, a single yield curve inversion on its own is an imperfect recession predictor: An inversion may precede a recession, but not all inversions culminate in a recession. Additionally, among the many permutations of bond pairings that one could look at to understand the yield curve, not all the curves are flattening or inverting. At present, about 20% of the yield curves that we follow are close to inversion (the short end of the yield curve has been steepening). Historically, this number has been closer to 90%+ prior to recessions.

Moreover, the fundamentals of the U.S. economy remain strong. The labor market, in particular, continues to post solid gains, adding about a half million new jobs every month, with jobless claims hovering at historically low levels. We expect this consumer strength and resulting consumer spending to continue supporting U.S. economic growth. The Purchasing Managers Indices (PMIs), which reflects the sentiments of manufacturers, is also still indicating confidence in an expanding economy.

However, there is a growing list of risks to growth, with the ending of fiscal and monetary stimulus and sanctions on Russia and the war in Ukraine. We expect growth to slow down sharply to “near trend growth rates” from the very high growth rate last year. The Fed is trying to engineer this slowdown, but the fear is they may overshoot. Given these risks and the Fed’s newly aggressive posture, it is not at all surprising that the possibility of an economic recession is on the minds of investors.

Not all recessions are the same

Suppose the signals from the bond markets are accurate, with the hiking cycle culminating in 2023, followed by a recession in the second half of 2023 or early 2024. It’s important to understand that not all recessions are the same in terms of duration or severity.

- The most painful recessions of late have been “financial recessions” — those precipitated by a bursting bubble in the financial sector. These are characterized by large declines in GDP, the biggest drawdowns in equities and other risk assets, and tend to last longer. Examples of these include the 2007–2008 financial crisis or the technology-led recession in early 2000s. Currently, we see low risk of such a financial-market-led recession. While speculation and potential contagion from sanctioned Russian assets in a globally interdependent financial system are a risk, the banking system is well-capitalized, and there are no signs of liquidity issues or credit excesses that need to be wound down.

- A “classic” or real-imbalances-led recession caused by unwinding of consumption or capital investment bubbles also seems unlikely given the strength of the U.S. consumer. These recessions are typically short-lived with a mild contraction in GDP and about average (25%) equity drawdown. In the U.S. currently, consumer confidence is reflecting worries about inflation but also shows support from the strong labor market. While inflation is reducing real incomes, resulting in a slowdown in spending, it is not clear that this is

First quarter GDP numbers released in late April showed an unexpected decline of 1.4%, but this was mostly technical and not necessarily recessionary. Overall growth was dragged down by a surge in imports — which has a negative impact on GDP — as ports reopened and supply chains improved to allow goods into the U.S. Excluding the quirkiness of GDP accounting and inventory adjustments in the quarter, underlying trend growth, as measured by private domestic demand, was solid and still above trend. In fact, capital spending by companies added to growth and residential investments did not detract despite higher mortgage rates. In the coming quarters, rising rates and declining real incomes could take a bite out of consumer spending and result in further slowdown.

recessionary. Meanwhile, business sentiment is holding up and there is not substantial evidence of business spending collapsing. Indeed, given oil prices, we expect rig activity to expand and add to capex. Other segments of business activity may see some slowdown such as housing construction, but overall household and corporate balance sheets do not portend a problematic unwinding of excesses.

- A central-bank-led recession is induced by over-tightening of monetary policy. There is an understandable and real risk that inflation has persisted long enough such that policymakers are playing catch-up (i.e., the Fed is "behind the curve") and will end up tightening interest rates well above what the economy can handle. Such recessions are similar to classic recessions in terms of equity and growth drawdowns and duration. Of the handful of examples we have for such recessions, impact is lopsided due to the Great Depression, which has widely been recognized as a central bank policy error. Calibrating monetary policy precisely enough to slow growth but not to cause a downturn is a significant challenge for the central banks given the relatively blunt tools at their disposal. In our view, current recession concerns are based on this last prospective path for the economy.

Risk assets can still do well, even when the yield curve is correct

Even if one does extrapolate a forthcoming recession based on yield curve inversion, our work shows that stock prices tend to appreciate between curve inversions and recessions. As the table on asset class returns below shows, the period between an inversion of the 2s10s Treasury curve and a recession (when it has occurred) has frequently seen equities rise, and sometimes quite strongly. Keep in mind that the table below is based on very few observations, and each episode of recession is different (as indicated above).

Asset class returns (%)

From the first inversion of the yield curve to the ensuing recession's start

First inversion date	Aug-78	Sep-80	Dec-88	May-98	Dec-05	Aug-19
Recession date	Feb-80	Aug-81	Aug-90	Apr-01	Jan-08	Mar-20
S&P 500 Index	9.6	4.2	29.1	6.1	16.9	2.6
Commodities	87.8	-30.9	13.6	6.9	9.8	-7.0
2-Year Treasury	–	4.8	15.6	17.3	11.5	1.8
10-Year Treasury	–	-4.2	18.6	17.1	10.9	4.2
U.S. Corporate Investment Grade	-7.4	-4.3	19.6	17.5	8.8	4.6
U.S. Corporate High Yield	–	–	6.6	0.6	14.0	1.9
U.S. Municipal Bonds	–	-7.0	16.7	16.9	8.4	3.1
U.S. Mortgage-Backed Securities	-2.3	-6.7	21.6	21.1	12.3	2.9

Source: Bloomberg (U.S. 10-yr.–2-yr. Yield Curve, S&P 500 Price Returns, BCOM Price Returns, FTSE U.S. Treasury Total Returns, Bloomberg Fixed Income Total Returns)

How to chart the course from here

Inflation data and the Fed's reaction to it remains a key metric to watch. Do growth and inflation gauges moderate enough in the coming months to reduce rate hike expectations and avoid overtightening? Answers to these questions will help determine the course of market performance for the remainder of the year. In the meanwhile, in our own multiasset portfolios, we stay the course — remaining modestly overweight equities, underweight fixed income and overweight alternative asset classes, such as commodities.

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Does the EM debt repricing present a good entry point?

The Russia-Ukraine conflict, a spike in commodity prices and rising global inflation have raised fresh questions about the outlook for emerging markets (EM) debt. Recent forecasts from the International Monetary Fund and World Bank suggest global growth is slowing. And the U.S. Federal Reserve appears set to front-load rate hikes in this tightening cycle, heightening the risk of a recession.

Against this backdrop, it's no surprise that the asset class has been under pressure. But are we at a point of maximum pessimism, where much of the risk is priced in? With the average yield on benchmark EM indexes in the 6% to 7% range, is now a good entry point into the asset class?

While this is a heterogenous universe, demanding discrete analysis for each sovereign and credit instrument, our investment team's research shows many developing economies are now in better shape than they have been in the past. Therefore, a cautiously optimistic view may be warranted for emerging markets debt. Here are a few broad trends that support that conclusion.

Heading down the right path on inflation

Many emerging markets central banks began raising interest rates much earlier than their developed-market (DM) counterparts in this cycle. Policymakers are keenly aware of the detrimental economic impacts caused by structurally high inflation, having dealt with it frequently in the past. While higher inflation is mainly being driven by more volatile factors (food and energy) across these economies, EM central banks have to work harder at proving their credibility and to avoid inflation expectations becoming entrenched. Higher interest rates also help protect EM countries against capital outflows as the Fed starts to raise rates.

Many EM countries have aggressively hiked policy rates

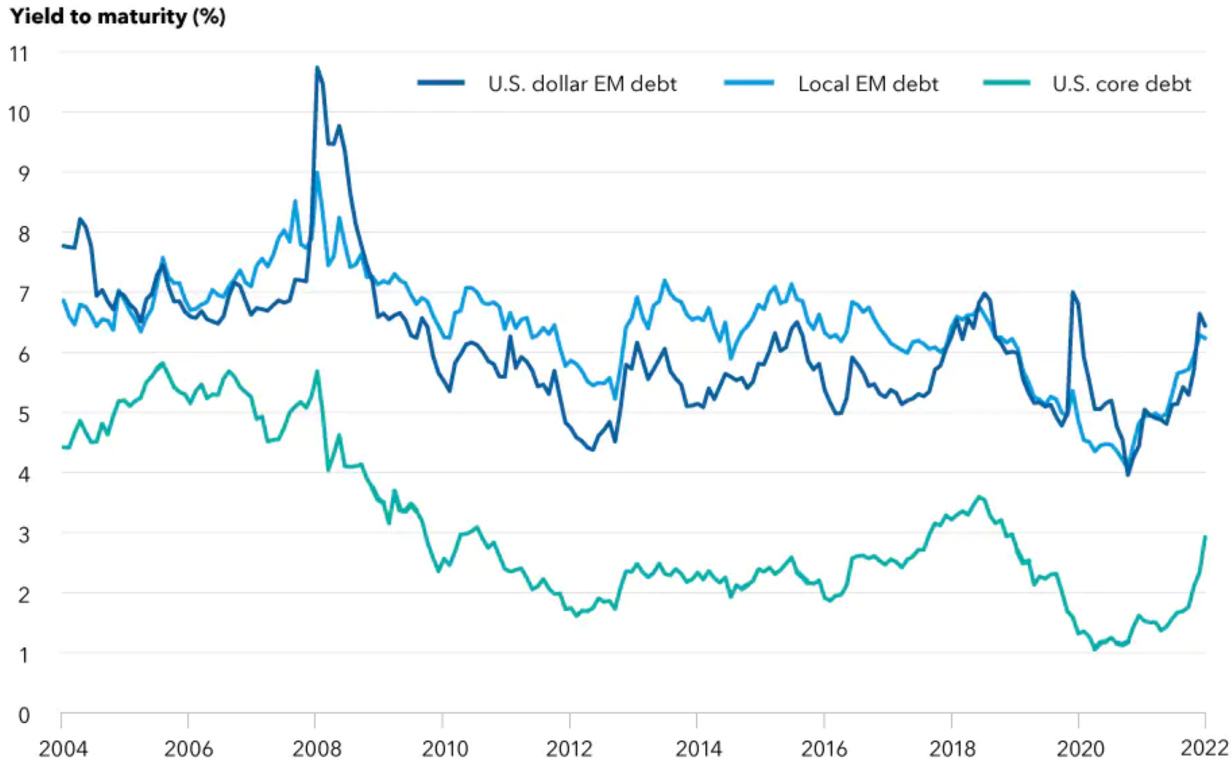
Sovereign policy rates (%)	12/31/2020	04/27/2022	Change
Brazil	2.00	11.75	**9.75**
Chile	0.50	7.00	**6.50**
Peru	0.25	4.50	**4.25**
Colombia	1.75	5.00	**3.25**
Mexico	4.00	6.50	**2.50**
Czech Republic	0.25	5.00	**4.75**
Poland	0.10	4.50	**4.40**
Hungary	0.60	5.40	**4.80**
Romania	1.25	3.00	**1.75**

Source: Bloomberg. Data as of April 27, 2022.

Valuations in some markets provide fair compensation for elevated inflation

Nominal and real yields in a number of developing countries appear to provide fair compensation for elevated inflation. Interest rate differentials between EM and DM countries have moved back in line with historical averages on both a nominal and real basis, while analysis shows EM currencies to be cheap.

EM local, hard currency bond yields top those of U.S. core bonds



Sources: J.P. Morgan, Bloomberg. U.S. dollar EM debt, represented by J.P. Morgan Emerging Markets Bond Index (EMBI) Global Diversified; local EM debt, represented by J.P. Morgan Government Bond Index – Emerging Markets (GBI-EM) Global Diversified; U.S. core debt, represented by Bloomberg U.S. Aggregate Index. Data as of March 31, 2021.

As valuations have cheapened and yields have risen, potentially negative outcomes appear to be at least partially priced in across some EMs. As the chart below indicates, historically, two-year returns have been positive when yields reach 6.7% or higher. The current yield level, based on a 50/50 blend of the EM hard and local currency sovereign bond indexes, stands at approximately 7.07%, as of April 29, 2022. High starting yields can help offset subsequent price volatility and may signal an attractive entry point for investors seeking to add income-generating bonds to their portfolios.

EM yields have risen and fundamentals appear stable

Source: Bloomberg, J.P. Morgan, Morningstar. Data as of April 5, 2022. Yield-to-worst and forward returns callouts shown are for 50% J.P. Morgan EMBI Global Diversified Index (hard currency) / 50% J.P. Morgan GBI-EM Global Diversified Index (local currency). Callout dates for yield peaks are: 5/31/2010, 9/30/2015, 12/31/2015, 10/31/2018, 11/30/2018 and 12/31/2018. Forward returns based on annualized returns. EM: emerging markets. YTW: yield to worst. Yield to worst is the lowest yield that can be realized by either calling or putting on one of the available call/put dates, or holding a bond to maturity. Calling and putting refer to features of some bonds that enable an issuer to redeem the bond early, or a bondholder to demand early repayment from the issuer.

Stronger balance of payments despite higher fiscal deficits

Fiscal deficits rose in many emerging economies during the pandemic but appear largely manageable as these countries' stimulus measures tended to be limited compared to those implemented across developed markets. Broadly speaking, EM public debt levels also remain well below those of developed markets. Many balance-of-payment positions (a measure of the difference between all of the money flowing in and out of a country) improved during the pandemic, as COVID-19-related restrictions weakened domestic demand and undervalued exchange rates helped EM countries' competitiveness. Some emerging markets even have current account surpluses.

Commodity exporters benefiting from favorable prices

The recent spike in commodity prices is supportive of many commodity-exporting EM countries. They are benefiting from gains in terms of trade, which in turn can help correct external and fiscal imbalances as well as mitigate the impact from weaker global growth. Latin American commodity exporters stand to gain the most from higher commodity prices, especially as they have few direct trade links with Russia and Ukraine. Most EM Asian countries are net commodity importers and so may see external balances deteriorate, although many are running current account surpluses. The EMEA region (Europe, the Middle East and Africa) is mixed, including some countries that are likely to be hit the hardest by the spike in commodity prices, such as Turkey, and some that will benefit the most, like oil-exporting countries in the Middle East. That said, commodity prices are only one factor affecting these economies. For instance, political risk can become a dominant factor in an election year. This and other drivers of volatility may temper any near-term upside.

The technical backdrop is supportive

Primary market issuance has slowed since mid-March, while interest payments and principal redemptions have exceeded the amount of new issuance, contributing to a supportive technical backdrop. Meanwhile, investors appear to have taken a less favorable view of EM debt recently. According to Barclays, EM debt mutual funds and exchange-traded funds have seen US$13.5 billion in outflows year to date through April 19, 2022. As EM central banks continue to raise rates, widening the interest rate differential with developed markets, we could see a meaningful turnaround in flow activity.

Current volatility could create an opportunity

Our investment team favors a well-diversified portfolio in our core emerging markets debt strategies, with exposure to local currency and dollar-denominated sovereign debt as well as corporate bonds. We don't like to stack risks to any one view or belief, and that's even more true in this market environment.

The combination of relatively weak global growth and high inflation remains a challenging backdrop for EM debt, especially with a more front-loaded Fed hiking cycle. On a more positive note, proactive central bank actions, fundamentals and technical factors look attractive on a historical basis and relative to developed markets. From a valuation perspective, and acknowledging that past results are not indicative of future performance, when yields have been at or near current levels, long-term returns in EM debt have historically been positive. With this in mind, the current volatility in the asset class could be a good entry point for long-term investors.

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The J.P. Morgan Emerging Market Bond Index (EMBI) Global Diversified is a uniquely weighted emerging market debt benchmark that tracks total returns for U.S. dollar-denominated bonds issued by emerging market sovereign and quasi-sovereign entities. This index is unmanaged, and its results include reinvested dividends and/or distributions but do not reflect the effect of account fees, expenses or U.S. federal income taxes.

J.P. Morgan Government Bond Index — Emerging Markets (GBI-EM) Global Diversified covers the universe of regularly traded, liquid fixed-rate, domestic currency emerging market government bonds to which international investors can gain exposure. This index is unmanaged, and its results include reinvested dividends and/or distributions but do not reflect the effect of account fees, expenses or U.S. federal income taxes.

The Bloomberg U.S. Aggregate Index represents the U.S. investment-grade fixed-income markets. This index is unmanaged, and its results include reinvested dividends and/or distributions but do not reflect the effect of sales charges, commissions, account fees, expenses or U.S. federal income taxes.

Investments are not FDIC-insured, nor are they deposits of or guaranteed by a bank or any other entity, so they may lose value.

Investors should carefully consider investment objectives, risks, charges and expenses. This and other important information is contained in the fund prospectuses and summary prospectuses, which can be obtained from a financial professional and should be read carefully before investing.

Lower rated bonds are subject to greater fluctuations in value and risk of loss of income and principal than higher rated bonds.

The return of principal for bond funds and for funds with significant underlying bond holdings is not guaranteed. Fund shares are subject to the same interest rate, inflation and credit risks associated with the underlying bond holdings.

Investing in developing markets may be subject to additional risks, such as significant currency and price fluctuations, political instability, differing securities regulations and periods of illiquidity, which are detailed in the fund's prospectus. Investments in developing markets have been more volatile than investments in developed markets, reflecting the greater uncertainties of investing in less established economies. Individuals investing in developing markets should have a long-term perspective and be able to tolerate potentially sharp declines in the value of their investments.

The indexes are unmanaged and, therefore, have no expenses. Investors cannot invest directly in an index.

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May 2022

In This Issue

Bipartisan Retirement Legislation Begins Taking Shape in the Senate

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Leaders of the Senate Committee on Health, Education, Labor & Pensions has begun the process of crafting bipartisan retirement legislation to be unveiled this spring. The committee chair, Sen. Patty Murray (D-Wash.), and its ranking member, Sen. Richard Burr (R-N.C.) expect to introduce legislation that builds on the Retirement Improvement and Savings Enhancement Act, or RISE Act, which was introduced in the House in November.

In addition, the bill may include new emergency savings options, assistance for people to find retirement accounts left behind at old jobs, and improved transparency around defined-contribution plan fee disclosures, Murray noted.

"It's clear retirement plans right now just aren't working for most Americans," Murray said. She noted that most employers don't offer a plan, one in nine workers don't participate, and one in six don't believe their retirement savings will last a decade.

The COVID-19 crisis exposed weaknesses, she said, underscoring how sudden financial strain can upend lives in a way that can impact people for years to come, casting a cloud over

CONTINUED ON PAGE 5

Windfall Elimination Provision

By Tony Roda

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Let's start with a quick overview about why the public pension community should care about this issue. The Windfall Elimination Provision (WEP) reduces your Social Security benefit if you also earn a retirement benefit from non-Social Security employment. Roughly 25 percent of state and local government employees across the U.S. are not covered by Social Security. Many of these workers will also separately earn a Social Security-covered benefit, particularly those in education and public safety, whose work schedules often allow them to hold a second job that is covered by Social Security.

WEP is a blunt instrument. Social Security benefits are based on tranches of average monthly earnings (AME) multiplied by specific percentages. For the first tranche of AME, which is up through $1,024, the standard Social Security benefit is calculated as $1,024 multiplied by 90 percent. Under WEP, however, that first tranche of income is multiplied by only 40 percent. Doing the math and carrying the numbers through on an annual basis shows a reduction to your Social Security benefit of $6,144 per year. That's certainly a significant amount.

Legislation has been introduced since the 1980s to fully repeal WEP and its sister penalty, the Government Pension Offset (GPO), which affects spousal and survivor benefits. In this current 117th Congress, the full repeal bills are H.R. 82 by Rep. Rodney Davis (R-IL) and S. 1302 by Sen. Sherrod Brown (D-OH). Unfortunately, most observers do not believe full repeal legislation is viable.

Likewise, Rep. John Larson (D-CT), the Chairman of the House Ways and Means Committee's Subcommittee on Social Security, has introduced H.R. 5723, Social Security 2100: A Sacred Trust, which would repeal both WEP and GPO for five years. This legislation is a comprehensive reform of the Social Security program, including increases in payroll taxes and benefit enhancements. Chairman Larson has spoken to House Speaker Nancy Pelosi (D-CA) about scheduling the bill for floor consideration. He would like for the bill to be scheduled this spring or early summer so that its consideration would be contemporaneous with House passage of the SECURE Act 2.0, a significant retirement security measure. The main challenge with the Larson bill, thus far, is that it only has Democratic support, thereby making passage in the House difficult but, in the Senate, impossible.

This leaves us with two pieces of legislation that deal only with WEP, but could, if reconciled, gain enough traction for House passage and the possibility of approval by the Senate. House Ways and Means Committee Chairman Richard Neal (D-MA) has introduced H.R. 2337, and Committee Ranking Member Kevin Brady (R-TX) has introduced H.R. 5834. The bills take a similar approach – (1) provide current retirees who are being impacted by WEP a monthly rebate (Neal's bill is set at $150; Brady's at $100), and (2) begin utilizing a new proportional formula instead of WEP. The Brady bill would give future retirees ages 21 and over the better of the new formula or WEP. This type of provision is commonly referred to as a "hold harmless" provision. Chairman Neal's bill would extend the hold

CONTINUED ON PAGE 5

Enter Bigfoot: American Legislative Exchange Council Invites Itself into Debate over Pensions' ESG Investing

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The American Legislative Exchange Council is at it again. ALEC, as the group is known, has long advocated policies that target public pensions. Now it's stirring the pot by taking aim at public pension plans' authority to reflect economic, social, and governance concerns in their investing strategies. ALEC is made up of conservative, free-market-oriented state lawmakers and funded by organizations such as the Koch Family Foundation. The group's modus operandi is to write "fill in the blanks" templates, or model laws, and then lobby state lawmakers to implement them.

Its latest model legislation seeks to stop public pensions from making investments focused on ESG factors by stipulating that only financial criteria may be considered in making investment decisions. The template would mandate that investment advisers haven't "sacrificed investment return...to promote goals unrelated to those pecuniary interests" of state pension fund beneficiaries, according to news reports.

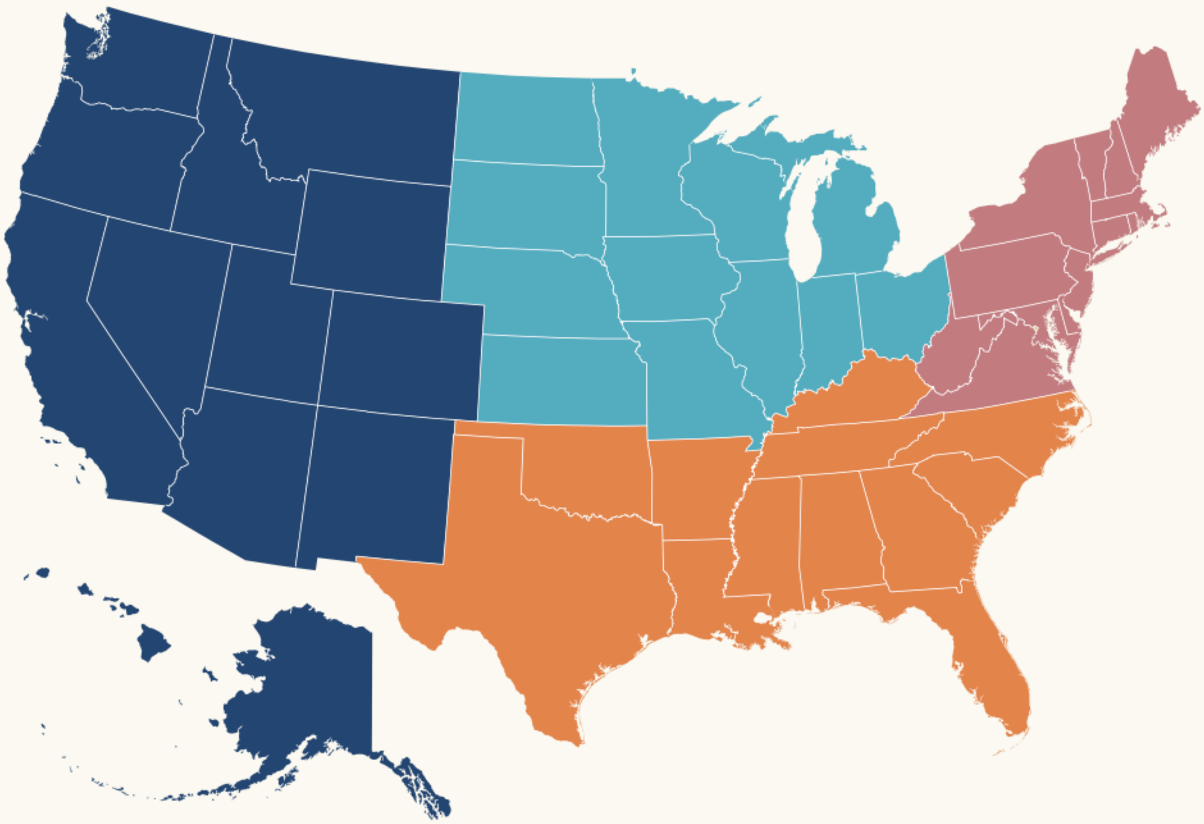
ALEC is made up of conservative, free-market-oriented state lawmakers and funded by organizations such as the Koch Family Foundation.

"Politically motivated investing, by definition, takes rates of return off the table," Jonathan Williams, the chief economist at ALEC, told The Wall Street Journal.

CONTINUED ON PAGE 6

NCPERS Around the Regions

This month, we will highlight Pennsylvania, Kansas, Florida and Alaska.



NORTHEAST: Pennsylvania

Recently completed internal governance reviews of two of Pennsylvania's three public employee retirement systems were in the spotlight at a legislative hearing.

Eighteen witnesses appeared before the House State Government Committee's Subcommittee on Public Pensions, Benefits and Risk Management to discuss the findings of reports conducted by Funston Advisory Services. One report examined the Public School Employees' Retirement System (PSERS) while the other looked at the State Employees' Retirement System (SERS). The witnesses included six experts from Funston, plus six from each of the two retirement systems.

The SERS report was a fiduciary and governance review of the plan, which has assets of approximately $40 billion. Funston conducted a similar report six years ago.

"They had implemented virtually all of what we recommended in 2016," said Randy Miller, project manager with Funston, the *Tribune-Democrat* of Johnstown reported. "There was a huge improvement."

Joseph Torta, SERS executive director, testified that human capital challenges are significant. Pay steps were lessened from 35 to 20 over the years, resulting in a "transient workforce" at SERS and other commonwealth agencies, he said. SERS has 267 positions and 53 are currently vacant. "I don't know if that's consistent with other Commonwealth agencies, but it is a significant impediment to providing services to our members and participants," Torta said, according to the *Tribune-Democrat*.

CONTINUED ON PAGE 7

BIPARTISAN RETIREMENT LEGISLATION CONTINUED FROM PAGE 1

their retirement prospects. She said people who were struggling to make ends meet in good times proved to be severely vulnerable in bad times, and many had to tap any savings they had, including retirement savings.

Murray cited specific weaknesses in 401(k) plans that she wants legislation to correct. For example, she noted, "401(k)s are not required to have spousal protections like defined-benefit plans are." Additionally, she said, "Fee disclosures currently provided by 401k plans are not cutting it." Four in 10 participants believe they are not paying fees, she noted.

Murray said she sees "a lot of bipartisan interest in enhancing savings, improving retirement options, and strengthening Americans' financial futures."

Burr came at the issue from a different angle, declaring defined contribution plans "the reliable superstar of the retirement community," provided that people participate.

In testimony before the Senate, Doug Chittenden, head of client relationships at TIAA-CREF, said Congress should expand lifetime income options in defined contribution plans, specifically fixed annuities with delayed liquidity features. He also urged Congress to allow 403(b) plans to participate in multiple employer plans. Petros Koumantaros, managing director and CEO of Spectrum Pension Consultants, said that financial hardship withdrawals from defined contribution plans increased 280% in 2020 over 2019, among businesses his firm is involved with. He encouraged Congress to pass emergency savings legislation that provides workers with penalty-free access to an emergency savings withdrawal from a retirement plan.

Cindy Hounsell, president and founder of the non-profit Women's Institute for a Secure Retirement, or WISER, called for action to help women save for retirement. Lower wages, part-time work, and time spent out of the workforce because of caregiving are some of the factors that make it harder for women to save for retirement, she said.

Separately, in the House, lawmakers approved the Securing a Strong Retirement Act of 2021 on a roll call vote of 414-5. The bipartisan bill builds on the Setting Every Community Up for Retirement Enhancement Act, known as the SECURE Act, which became law in late 2019. ◆

WINDFALL ELIMINATION PROVISION CONTINUED FROM PAGE 2

harmless treatment in perpetuity. The Neal bill would transfer funds from general revenues to offset the cost of the changes. The Brady bill is designed to be budget neutral to the Social Security trust fund.

The good news is that the seeds of a compromise are present, and Congressmen Neal and Brady have a long history of working together and prioritizing the resolution of the WEP issue. A recent letter from retired teachers' groups in the key states of Massachusetts (for Committee Chairman Neal) and Texas (for Ranking Member Brady) outlines the framework of a potential compromise:

- Extend the hold harmless provision to all persons ages 16 and above at the time of passage. Those persons not yet age 16 at the time of passage would be subject to the new proportional formula.
- A $150 per month rebate against the WEP penalty for all current retirees.

In my view, this approach has a great deal of merit. Discussions between Congressmen Neal and Brady are ongoing and, as mentioned above, finding a bipartisan compromise in the House is absolutely essential for the bill to have any chance of passage in the Senate. Congressman Brady is the key to achieving this bipartisanship, and his retirement at the end of the 117th Congress places even greater urgency on the need for Congress to act this year.

Please be assured that NCPERS will continue to keep its members informed on the latest developments regarding the Windfall Elimination Provision. ◆

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EXECUTIVE DIRECTORS CORNER CONTINUED FROM PAGE 3

ALEC's move is sailing against the wind of a larger trend, as many retirement systems and local governments across the country are flexing their financial muscle to demand changes in corporate behavior. Their actions underscore what we already know: NCPERS investors are long-term investors who see the dangers and risks of climate change clearly, and are acting accordingly. Pension systems in New York City, New York State, California, and Maine are among those that have taken investment policy stances on environmental grounds.

That trend, predictably, has stirred a backlash, particularly in energy-producing states. Alaska, North Dakota, and Texas lawmakers have proposals on the table to prevent investing in companies that use sustainable strategies to make financial decisions and to cut ties with asset managers, banks and insurers that do so. Texas Comptroller Glenn Hegar in March sent letters to 19 major financial companies as part of an initiative to bar state agencies from working with investment firms that boycott the energy sector.

There is no question that this is rocky terrain. The topic of ESG investing is just coming to the forefront, and will continue to be debated for years. This much is clear: No matter where we end up, we won't get there by simply ignoring issues like climate change, social inequities, and sound governance, because they're not going away. Cool heads must prevail if we are to have investment policies that are both sustainable and financially responsible.

State and local funds, with their considerable heft as investors, are a formidable force in this debate, and are genuinely working hard to devise investment strategies that seek to balance ESG values with their fiduciary duty to protect the retirement funds of members. Balancing competing considerations is something pension funds do, and do well. It's the essence of long-term investing.

The last thing state and local governments need is for purely ideological organizations like ALEC to barge into a necessary and important debate with heavy-handed solutions. Pension funds are navigating these questions, guided by transparent investment policies that are intended to be living documents, and they are asking all the right questions. This is a healthy process. Shoving policies down their throats is counterproductive and unwelcome.

AROUND THE REGIONS CONTINUED FROM PAGE 4

PSERS, a $73 billion plan, commissioned Funston to conduct the review in 2019. The firm looked into governance structure and bylaws, among other topics.

The report provided 25 recommendations. Terri Sanchez, interim executive director, said 10 of the recommendations have been adopted or are being worked on, including four of six governance reforms.

Beverly Hudson, deputy executive director for administration, noted that efforts are under way to get candidates for the permanent executive director role before the board by July. Sanchez said another staffing priority is to hire a chief compliance officer, which would remove compliance work from the internal audit team, enabling it to focus on its core mission.

The PSERS fund performed well in the fiscal year 2021. Its total net assets grew by $13.5 billion, pushing the fund to an all-time high of $72.5 billion, according to a year-end report. Chris Santa Maria, a public school teacher and chairman of the PSERS board, pointed out the fund's performance. He said the work done with guidance from the Funston report has helped in "turning the page on a rough year."

"While we were being investigated and simultaneously dealing with the unusual work challenges of a pandemic, not a single, not one, benefit payment to over 230,000 members was lost or even delayed," Santa Maria said.

MIDWEST: Kansas

Kansas Governor Laura Kelly on April 20 signed budget legislation authorizing a 5% pay raise for state workers, the first increase since 2018.

The state is also making headway on] [also adopted] legislation to transfer [$854 million] [$1.125 billion into the Kansas Public Employees Retirement System (KPERS) to cover missed payments and other shortfalls.

The legislation, SB 421, would transfer $1.125 billion from the State General Fund directly to the KPERS Trust Fund. Of that amount, the first $254 million would pay off outstanding accounts receivable for KPERS-School employer contributions withheld in FY 2017 and FY 2019. The remaining $871 million would be applied to the KPERS-School unfunded actuarial liability. The measure did not include a cost-of-living adjustment for those currently receiving pension checks, something that has not occurred since the 1990s.

The move significantly improves the pension's funded ratio, which will likely rise above 80% with the bill. It is expected to save the state hundreds of millions of dollars in the next five years, the *Topeka Capital-Journal* reported.

Sen. Rick Billinger, a Republican who chairs the Senate Ways and Means Committee, said the state employees' pay raise took on a

CONTINUED ON PAGE 8

AROUND THE REGIONS CONTINUED FROM PAGE 7

heightened importance given historic levels of inflation.

"We understand we need to make sure we get all the state employees a better wage so they can afford to deal with inflation alone, much less just making a good living," Billinger told the *Topeka Capital-Journal*. "I think the big difference is we realize we need to take care of our people."

Separately, Democratic Gov. Laura Kelly on April 21 vetoed a measure tucked into a spending bill that would have allowed Kansas legislators to reconsider a decision not to join the state pension system for teachers and government workers, the Associated Press reported.

The Kansas constitution gives governors line-item veto power in spending bills, and Kelly used it to strike what she called "an exclusive opportunity" for members of the Republican-controlled Legislature that's not available to other public employees.

State law currently requires lawmakers to decide when they are elected whether they will participate in the state pension system, a move that sets aside part of their salaries to help pay for their retirement benefits. The law says that the decision is "irrevocable."

The provision would allow lawmakers to reverse that decision before their 2023 session begins in January. Kelly noted that "Other public employees including teachers, public safety officers and nurses are not allowed this special election under law," and questioned whether the IRS would allow such a change if the federal government reviewed it.

SOUTH:
Florida

The Florida House and Senate unanimously approved legislation to extend the Florida Retirement System deferred retirement option plan (DROP) by three years for law enforcement officers. Assuming it is not vetoed by the Governor, the bill would become law July 1, 2022.

The aim is to help retain veteran officers at all agencies in the state that participate in FRS. The legislation also increases the employer contribution to all active investment plan participants by an additional 3%.

FRS members have two plan options available: the pension plan and the investment plan, which is a defined contribution plan. DROP allows eligible members to participate in the program and defer receipt of retirement benefits while continuing employment with his or her FRS employer. Under existing law, eligible members may elect to participate in DROP for a period not to exceed a maximum of 60 calendar months.

There will be a six year eligibility window for the DROP extension, during which a law enforcement can extend participation by up to three years. To qualify, the officer must be participating in the DROP on or after July 1, 2022 and prior to July 1, 2028.

CONTINUED ON PAGE 9

AROUND THE REGIONS CONTINUED FROM PAGE 8

WEST: Alaska

Momentum appears to be gathering in Alaska to consider new pension programs for state employees as House-passed legislation to create a pension for police and firefighters moves to the Senate.

The state legislature abolished pensions for new workers in 2006. Proposals to reverse that decision have been introduced regularly, but have not become law. This year, unprecedented hiring problems and a shrinking pension liability are changing the equation, the *Anchorage Daily News* reported.

"The single biggest change is the desperate situation we have in recruiting and keeping everyone from troopers to teachers to firefighters to wastewater plant operators," said Sen. Jesse Kiehl, a Democrat.

Enactment of the legislation, House Bill 55, would create a new pension fund for police and firefighters, who would be required to contribute at least 8% of their pay and could retire at age 55 if they work for 20 years. The *Anchorage Daily News* noted that the projected cost of $4 million and $7 million per year is less than the cost of hiring and training replacements for public safety workers who leave the state because there's no pension.

On April 4, Sen. Mia Costello, a Republican who chairs the Senate Labor and Commerce Committee, held hearings to review the legislation. Witnesses included David Kerschner, a principal at Buck, who provided a fiscal analysis, and William B. Fornia, president of Pension Trustee Advisors Inc., who outlined how a shared-risk hybrid retirement program would work.

A few days earlier, dozens of firefighters rallied on the steps of the Capitol in support of HB 55.

"I think a lot of legislators are starting to realize that when they hear from these chiefs and heads of these departments that this is a real problem," said Paul Miranda, president of the Alaska Professional Fire Fighters Association, the newspaper reported.

Unless House Bill 55 advances in the Senate, it will die with the end of the legislative session and have to start over from scratch at the start of 2023.

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Calendar of Events 2022

May

Trustee Educational Seminar (TEDS)
May 21 – 22
Washington, DC

Program for Advanced Trustee Studies (PATS)
May 21 – 22
Washington, DC

NCPERS Accredited Fiduciary (NAF) Program
May 21 – 22
Washington, DC

Annual Conference & Exhibition (ACE)
May 22 – 25
Washington, DC

June

Chief Officers Summit
June 27 – 29, 2022
San Francisco, CA

August

Public Pension Funding Forum
August 21 – 23
Los Angeles, CA

October

Public Safety Conference
October 25 – 28
Nashville, TN

The Voice for Public Pensions

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