

AGENDA
INVESTMENT COMMITTEE MEETING
MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (MCERA)

One McInnis Parkway, 1st Floor
Retirement Board Chambers
San Rafael, CA

March 20, 2024 – 9:00 a.m.

This meeting will be held at the address listed above and, absent technological disruption, will be accessible via videoconference and conducted in accordance with Government Code section 54953 and 54954.2 through December 31, 2025.

Instructions for watching the meeting and/or providing public comment, as well as the links for access, are available on the [Watch & Attend Meetings](https://www.mcera.org/retirementboard/agendas-minutes/watchmeetings) page of MCERA's website. Please visit <https://www.mcera.org/retirementboard/agendas-minutes/watchmeetings> for more information.

The Board of Retirement encourages a respectful presentation of public views to the Board. The Board, staff and public are expected to be polite and courteous, and refrain from questioning the character or motives of others. Please help create an atmosphere of respect during Board meetings.

CALL TO ORDER

ROLL CALL

**CONSIDER ANY BOARD MEMBER REQUESTS TO TELECONFERENCE FOR
"JUST CAUSE" OR "EMERGENCY," AS SET FORTH ON THIS AGENDA BELOW**

A. OPEN TIME FOR PUBLIC EXPRESSION

Note: The public may also address the Committee regarding any agenda item when the Committee considers the item.

Open time for public expression, from three to five minutes per speaker, on items not on the Committee Agenda. While members of the public are welcome to address the Committee during this time on matters within the Committee's jurisdiction, except as otherwise permitted by the Ralph M. Brown Act (Government Code Sections 54950 et seq.), no deliberation or action may be taken by the Committee concerning a non-agenda item. Members of the Committee may (1) briefly respond to statements made or questions posed by persons addressing the Committee, (2) ask a question for clarification, or (3) provide a reference to staff for factual information.

B. MANAGER REPORTS

1. Manager Overview – Jim Callahan, Callan LLC
2. TimesSquare – International Small Cap Fund – Magnus Larsson, Jeff Braemer
TIME CERTAIN: 9:05 a.m.

C. NEW BUSINESS

1. Capital Market Assumptions (ACTION) – Jim Callahan, Jay Kloepper, Callan LLC
Discuss and review capital market assumptions and consider possible changes to current asset allocation
2. Fixed Income Allocation (ACTION)
Review, discuss and take possible action on fixed income allocation
3. Investment Manager Updates
 - a. Dimensional Fund Advisors Co-CIO Announcement
 - b. UBS Trumbull Property Fund Updates
 - c. AEW Core Property Trust Updates
4. Investment Policy Statement Update (ACTION)
Consider and take possible action on recommended amendment to the Investment Policy Statement
 - a. Appendix B-3, State Street Global Advisors MSCI World ex-US Index Fund, Statement of Objectives, Guidelines & Procedures: Update Performance Objectives
5. Future Meetings

D. INVESTMENT CONSULTANT QUARTERLY REPORT

1. Summary Report as of December 31, 2023
 - a. Flash Performance Update as of February 29, 2024

Note on Process: Items designated for information are appropriate for Committee action if the Committee wishes to take action.

Note on Voting: As provided by statute, the Alternate Safety Member votes in the absence of the Elected General or Safety Member, and in the absence of both the Retired and Alternate Retired Members. The Alternate Retired Member votes in the absence of the Elected Retired Member. If both Elected General Members, or the Safety Member and an Elected General Member, are absent, then the Elected Alternate Retired Member may vote in place of one absent Elected General Member.

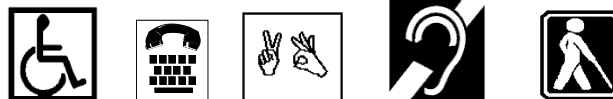
Note on Board Member requests to participate by teleconference under Government Code section 54953, subdiv. (f): At least a quorum of the Committee must be present together physically at the meeting to invoke this provision. The provision is limited to “just cause” and “emergency” circumstances, as follows:

“Just cause” is only: (1) a childcare or caregiving need of a child, parent, grandparent, grandchild, sibling, spouse or domestic partner that requires them to participate remotely; (2) a contagious illness that prevents a member from attending in person; (3) a need related to a physical or mental disability, as defined; or (4) travel while on official business of MCERA or another state or local agency. A Board member invoking “just cause” must provide a general description of the circumstances relating to their need to appear remotely at a given meeting, and it may not be invoked by a Board member for more than two meetings in a calendar year.

“Emergency circumstances” is only: “a physical or family medical emergency that prevents a member from attending in person.” The Board member invoking this provision must provide a general description of the basis for the request, which shall not require the member to disclose personal medical information. Unlike with “just cause,” the Board must by majority vote affirm that an “emergency circumstance” situation exists.

As to both of the above circumstances, the Board member “shall publicly disclose at the meeting before any action is taken whether any other individuals 18 years of age or older are present in the room at the remote location with the member and the general nature of the member’s relationship with any such individuals.” Also, the Board member “shall participate through both audio and visual technology,” and thus be both audible and visible to those attending. Finally, no Board member may invoke these teleconference rules for more than three consecutive months or 20 percent of the regular meetings of the Board.

Note on teleconference disruption that interrupts the live stream: In the event of a technological or similar disruption, and provided no Board/committee members are attending by teleconference, the meeting will continue in person.



Agenda material is provided upon request. Requests may be submitted by email to MCERABoard@marincounty.org, or by phone at (415) 473-6147.

MCERA is committed to assuring that its public meetings are accessible to persons with disabilities. If you are a person with a disability and require an accommodation to participate in a County program, service, or activity, requests may be made by calling (415) 473-4381 (Voice), Dial 711 for CA Relay, or by email at least five business days in advance of the event. We will do our best to fulfill requests received with less than five business days’ notice. Copies of documents are available in alternative formats upon request.

The agenda is available on the Internet at <http://www.mcera.org>

B.1 Manager Overview

This is a discussion with no backup.

TimesSquare Capital Management, LLC



An International Small Cap CIT
Portfolio Review Presentation To

Marin County Employees' Retirement Association

Magnus S. Larsson, Portfolio Manager
Jeffrey D. Braemer, CFA, Head of Client Services

March 20, 2024

TimesSquare Capital Management Presenters

Magnus S. Larsson | Portfolio Manager

28 Years of Experience | 11 Years at TimesSquare



Magnus is a Partner and Portfolio Manager on TimesSquare's International equity team which covers Developed, Emerging, and Frontier markets. Prior to joining TimesSquare in 2012, Magnus was a Portfolio Manager at Nordea Investment Management where he focused on European small and mid cap equities. Prior to Nordea, he held a similar role at SEB Asset Management as a Portfolio Manager focusing on European small and mid caps. Magnus' prior experience also includes a Financial Analyst role specializing in small and mid cap equity research with Borsinsikt and a position as an Institutional Equity Sales Director at Beeson Gregory. Magnus holds a B.S. in Economics and Business Administration from the University of Orebro, Sweden as well as a B.A. in Social Science.

Jeffrey D. Braemer | Head of Client Services

35 Years of Experience | 15 Years at TimesSquare



Jeff is a Partner and Head of Client Services. His responsibilities include client service, team leadership, as well as portfolio attribution analysis and general investment research. He is also a member of the Management Committee that oversees TimesSquare. Before joining TimesSquare in 2008, he was a Director for Client Service and Marketing at Jacobs Levy Equity Management, where he co-led the client service and portfolio analysis department. In that capacity, he was a primary point person for all client needs. Prior to that, Jeff began his career in 1988 at Batterymarch Financial Management where he ultimately was a product specialist for U.S. and non-U.S. equity portfolios. He has a B.A. in Political Science from Washington University in St. Louis and an M.S. in Management from Boston University. He is a member of the CFA Institute and the CFA Society New York. He also holds FINRA Series 7 and 63 licenses.

Table of Contents

I. TimesSquare Capital Management, LLC

- Firm Overview
- Assets Under Management & Client Overview

II. TimesSquare International Small Cap Strategy

- Overview
- Team
- Process
- Stock Examples
- Risk Factor Environment

III. Portfolio Results & Characteristics

IV. Historical Performance

V. Appendix

- ESG Integration
- Disclosures

TimesSquare Capital Management, LLC

Firm Overview

Client Base

\$8.3B of Client AUM

- Corporate – \$1.2B
- Endowment & Foundation – \$348M
- Intermediary – \$4.5B
- Public – \$1.5B
- Taft Hartley – \$665M
- Trust – \$24M

Strategy Availability: Separately Managed Accounts, Model Delivery, Mutual Funds and CITs

Personnel

48 employees

- 19 equity partners
- 24 investment professionals
 - 22 years industry experience (avg.)
 - 11 years at TSCM (avg.)

Corporate

- Founded in 2000
- Headquartered in New York City
- Independent affiliate of Affiliated Managers Group, Inc. (AMG) since 2004

Committed to Bringing the Best of TimesSquare to our Clients

Investments

- ❖ Quality Growth investment philosophy
- ❖ Specialists in mid to small capitalization companies
- ❖ Time-tested strategies driven by experienced investment professionals
- ❖ Integrated risk management

Client Relations

- ❖ Dedicated to delivering exemplary service
- ❖ Direct access to investment professionals and sector experts
- ❖ Investment strategies tailored to meet client needs
- ❖ Individualized client reporting capabilities

Infrastructure

- ❖ Robust compliance program
- ❖ Integrated trading systems with pre/post trade compliance
- ❖ Independent Governance Committees focused on proxy voting, pricing and best execution
- ❖ Cybersecurity controls

Partnership Structure

- ❖ Alignment of economic interests with client-base
- ❖ Retain and attract top industry talent
- ❖ Full control of firm governance

AUM & Product Capabilities

AUM: \$8.3 Billion

As of December 31, 2023

Strategies	Total Strategy Assets (\$M)	Separately Managed Account	Mutual Fund	Collective Investment Trust (CIT)	Model Account Delivery	Strategy Capacity (\$B)**	Inception Date
U.S. Small Cap Growth	\$1,957	✓	✓	✓	✓	\$5.0	9/30/2000
U.S. Small/Mid Cap Growth	\$278	✓			✓	\$10.0	10/31/2000
U.S. Mid Cap Growth	\$4,516	✓	✓	✓	✓	\$20B	9/30/2000
U.S. FOCUS Growth (Mid Cap)	\$67*	✓			✓		8/31/2005
International Small Cap	\$1,044	✓	✓	✓		\$4.0	3/31/2012
Emerging Markets Small Cap	\$219	✓	✓			\$1.5	12/31/2016
Global Small Cap	\$186	✓	✓			\$3.0	12/31/2017
Global Health Care	\$29	✓		Private Fund structure		\$1.5	3/31/2020

We are growth equity specialists

* Includes approximately \$30 million in FOCUS Growth assets under advisory (AUA).

** Capacity limits will be reassessed on a periodic basis via individual strategy liquidity analysis

Client Overview: A Diverse Client Base

Financial Services

AMG Funds LLC
 CIBC Private Wealth Management
 Empower
 GuideStone Capital Management
 MissionSquare Retirement
 Nomura Asset Management Co., Ltd.
 Oppenheimer Asset Management
 PGIM Investments
 Steadyhand Investment Management Ltd.
 Wells Fargo Advisors

Endowment & Foundation

Allegheny College
 Archdiocese of Indianapolis
 Erie Community Foundation
 Fisher Center for Alzheimer's Research
 Foundation
 Holland Hospital
 Howard University
 Idaho Endowment Fund Investment Board
 Kemper & Ethel Marley Foundation
 Realdania
 San Diego Foundation
 Truth Initiative Foundation

Public

City of Tallahassee
 HEB Manitoba
 Indiana Public Retirement System
 Marin County Employees' Retirement Association
 Metropolitan St. Louis Sewer District
 Oakland County Employees' Retirement System
 Regional Transportation Authority
 State Board of Administration of Florida
 Tennessee Consolidated Retirement System
 Worldwide Assurance for Employees of Public Agencies

Taft-Hartley

Laborers' District Council & Contractors Pension Fund of Ohio
 Maritime Association - I.L.A. Pension Fund
 National Electric Benefit Fund
 Operating Engineers Pension Trust Fund of Washington, DC
 San Diego Electrical Industry Trust
 UFCW Rocky Mountain Unions & Employers Pension Plan

Corporate

AMETEK
 Baxter International
 Boeing
 Corteva Agriscience
 Geneva Benefits Group
 Hallmark Cards
 McLaren Health Care Corporation
 Pacific Gas and Electric Company
 Paramount Global
 PepsiCo, Inc.
 Savings Banks Employees Retirement
 Association
 Sutter Health

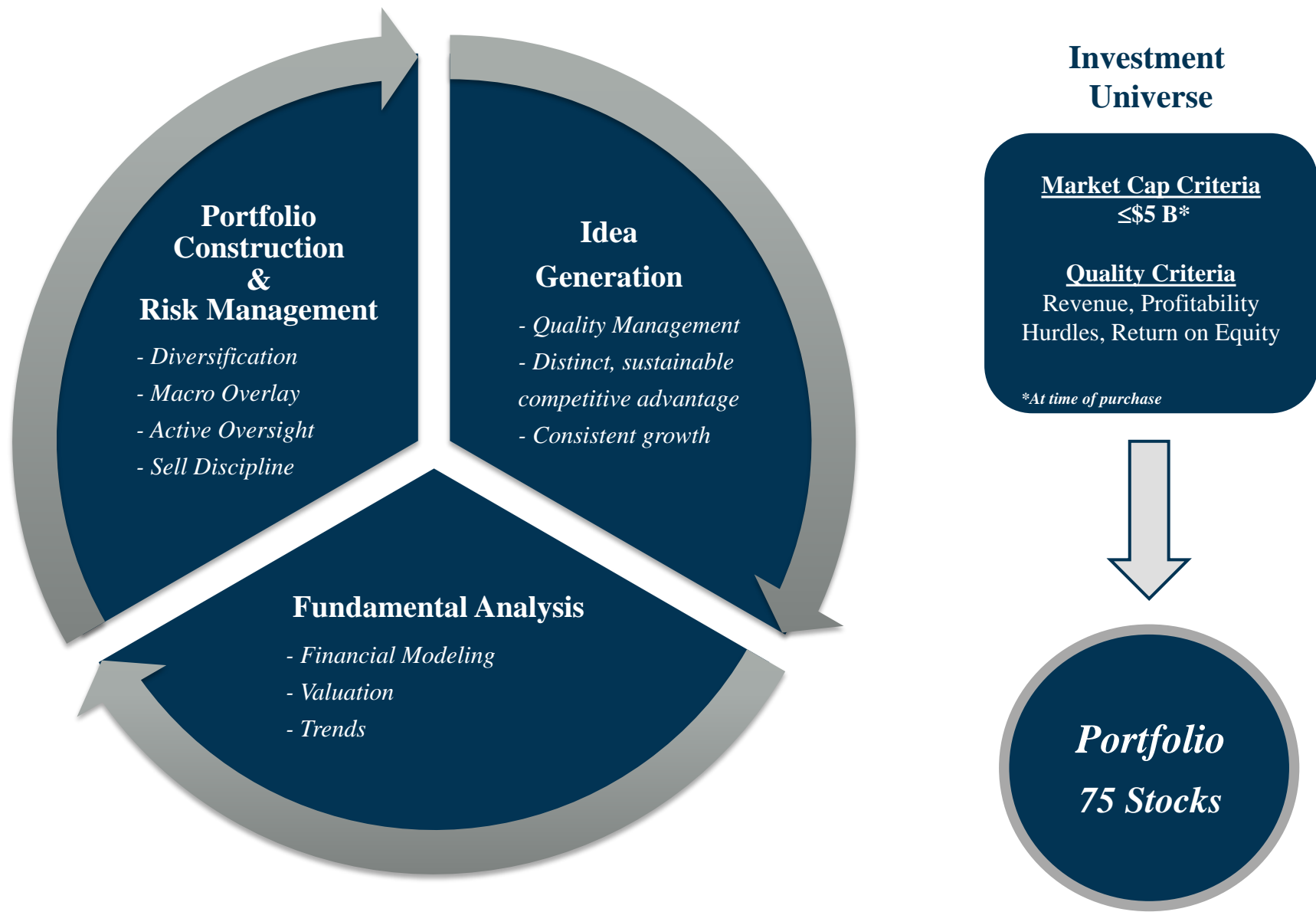
Please see the Appendix for Disclosures regarding this list.

TimesSquare International Small Cap Strategy

International Small Cap: Investment Team

Portfolio Managers	Credentials	Investment Focus	Years of Experience	Years at TimesSquare
	Magnus S. Larsson BS/University of Orebro, Sweden BA/University of Orebro, Sweden	Global / Japan	28	11
	David A. Hirsh BA/Lafayette College	Global / Europe	25	11
Analysts				
	Marisa L. Hernandez, CFA MBA/Massachusetts Institute of Technology Civil Engineer/University of Uruguay	Global Emerging Markets	23	1
	David L. Oh MBA/Harvard University BA/Yale University	Global Emerging Markets / Asia	21	4
	Reuben Scherzer MBA/Fordham University BS/Yeshiva University	Europe	23	3

International Small Cap: Investment Process



Stock Example: Steadfast Group



Steadfast Group (SDF-AU) is Australasia's largest insurance broker network with 426 brokerages across Australia, New Zealand, and Singapore. The Steadfast dual strategies include growing the insurance broker network as well equity interests in network brokers, underwriting agencies, and complementary businesses.

MARKET OPPORTUNITY

- With a clear focus on small and medium-sized enterprises (SMEs), Steadfast addresses the needs of customers who are “too big and too small” in Australasia. The company recently expanded to the U.S. where there is similar unmet demand in the SME market segment.
- The increased complexity of insurance coverage led to increased demand for advice for independent insurance brokers. This provides Steadfast with opportunities to add more brokers to its network and acquire existing network partners over time.
- Continues to benefit from the rising premium rate cycle, acquisitions, and technology efficiencies.

FUNDAMENTAL ANALYSIS

- Over the last 5 years, the top line sales has grown by 19% p.a. while EBITDA increased by 20% p.a.
- Strong balance sheet
- Consistent EBITDA margins

QUALITATIVE ASSESSMENT

- Founded in 1996 and still led by its founder, the group has shown a remarkable track record.
- Continuously acquiring insurance brokers and underwriting agencies to strengthen its network. A clear part of the group strategy is to be the natural acquirer of independent network brokers who are looking to manage generational shifts.
- Ongoing investment in SDF's proprietary IT systems provides smaller brokers significant operational leverage through when they join the network.
- Substantial ownership by management and brokers within the SDF network.

RISKS

- Premium rate risk
- Volume loss from a weak economic environment
- Increase in M&A multiples could reduce the acquisition runway
- Operational risk with respect to its roll-up strategy

Source: TimesSquare Capital Management and Steadfast Group reports as of September 30, 2023. Information about specific companies or securities including whether they are profitable or not, is provided as a means of illustrating our investment thesis.

International Small Cap Risk Management: Risk Characteristics

As of December 31, 2023

1 Yr	International Small Cap Portfolio
Average Active Style Exposure	
GEM Profitability	0.33
GEM Size	0.25
GEM Momentum	0.22
GEM Growth	0.13
GEM Mid Capitalization	0.12
GEM Investment Quality	0.07
GEM Beta	0.07
GEM Liquidity	-0.03
GEM Residual Volatility	-0.05
GEM Earnings Quality	-0.14
GEM Earnings Yield	-0.21
GEM Leverage	-0.27
GEM Long-Term Reversal	-0.29
GEM Dividend Yield	-0.30
GEM Earnings Variability	-0.43
GEM Book-to-Price	-0.66

Since Inception*	International Small Cap Portfolio
Average Active Style Exposure	
GEM Size	0.22
GEM Growth	0.19
GEM Profitability	0.18
GEM Momentum	0.13
GEM Mid Capitalization	0.09
GEM Residual Volatility	0.04
GEM Beta	0.03
GEM Liquidity	0.01
GEM Earnings Yield	-0.10
GEM Leverage	-0.14
GEM Investment Quality	-0.16
GEM Dividend Yield	-0.20
GEM Earnings Quality	-0.28
GEM Earnings Variability	-0.29
GEM Long-Term Reversal	-0.30
GEM Book-to-Price	-0.56

Given our preference for best-in-class companies, we consistently have a positive exposure to profitability and growth. We also tend to be underweight value.

*Composite inception date: April 1, 2012.



Source: Barra Global Total Market Model for Long Term Investors – Stable Variant (GEMTLT)

Please see Disclosures for additional information.

International Small Cap Risk Management: Risk Attribution Results

As of December 31, 2023

	Trailing 1 Yr	Trailing 3 Yrs	Trailing 5 Yrs	Since Inception*
Compounded Effect				
Country	2.08	-0.16	-0.07	-0.16
Currency	-0.81	0.08	-0.30	-0.03
Industry	1.69	0.19	0.58	0.08
Market	-0.50	-0.13	-0.21	-0.17
Style	-0.85	-2.84	-0.72	-0.71
Total Factors Effect	1.60	-2.86	-0.72	-0.98
Specific Effect	-2.13	-1.80	-0.95	1.60

-  Since the inception of the strategy, specific effect (active edge) has been the primary driver of outperformance while the impact from factors has remained less significant.
-  In the last 3 years, underperformance was primarily caused by an **outsized factor effect** (-2.86%), while also impacted by specific effect
 - Factor effect:
 - Negative exposure to Book-to-Price factor (-1.47%) and Earnings Yield (-0.64%)
 - Negative exposure to Long-Term Reversal (-1.13%)
 - Specific effect: -1.80% from idiosyncratic/company-specific effect

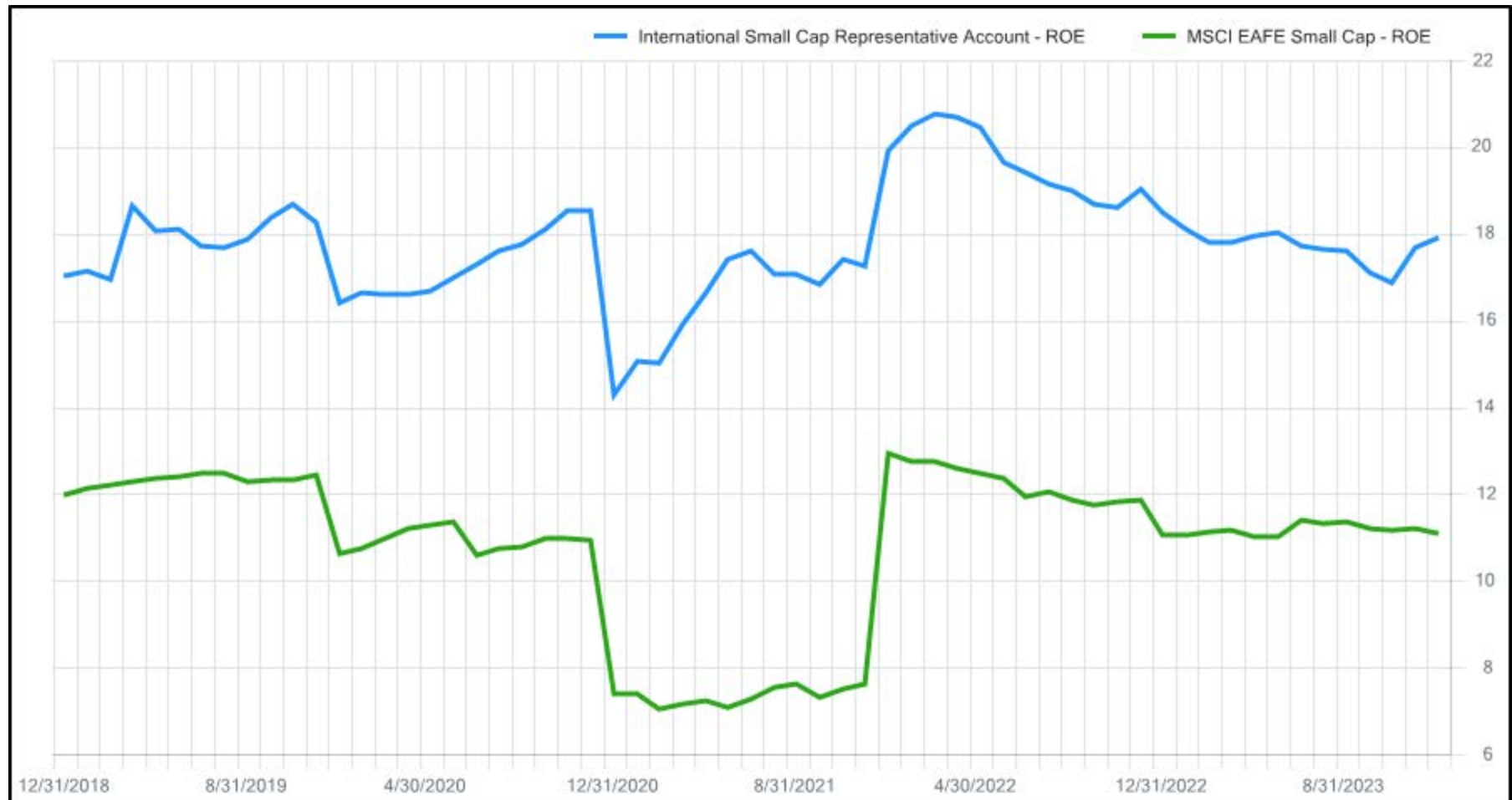
*Composite inception date: April 1, 2012. Annualized for periods over 1 year.

Source: FactSet, Barra Global Total Market Model for Long Term Investors – Stable Variant (GEMTLT)

Please see Disclosures for additional information

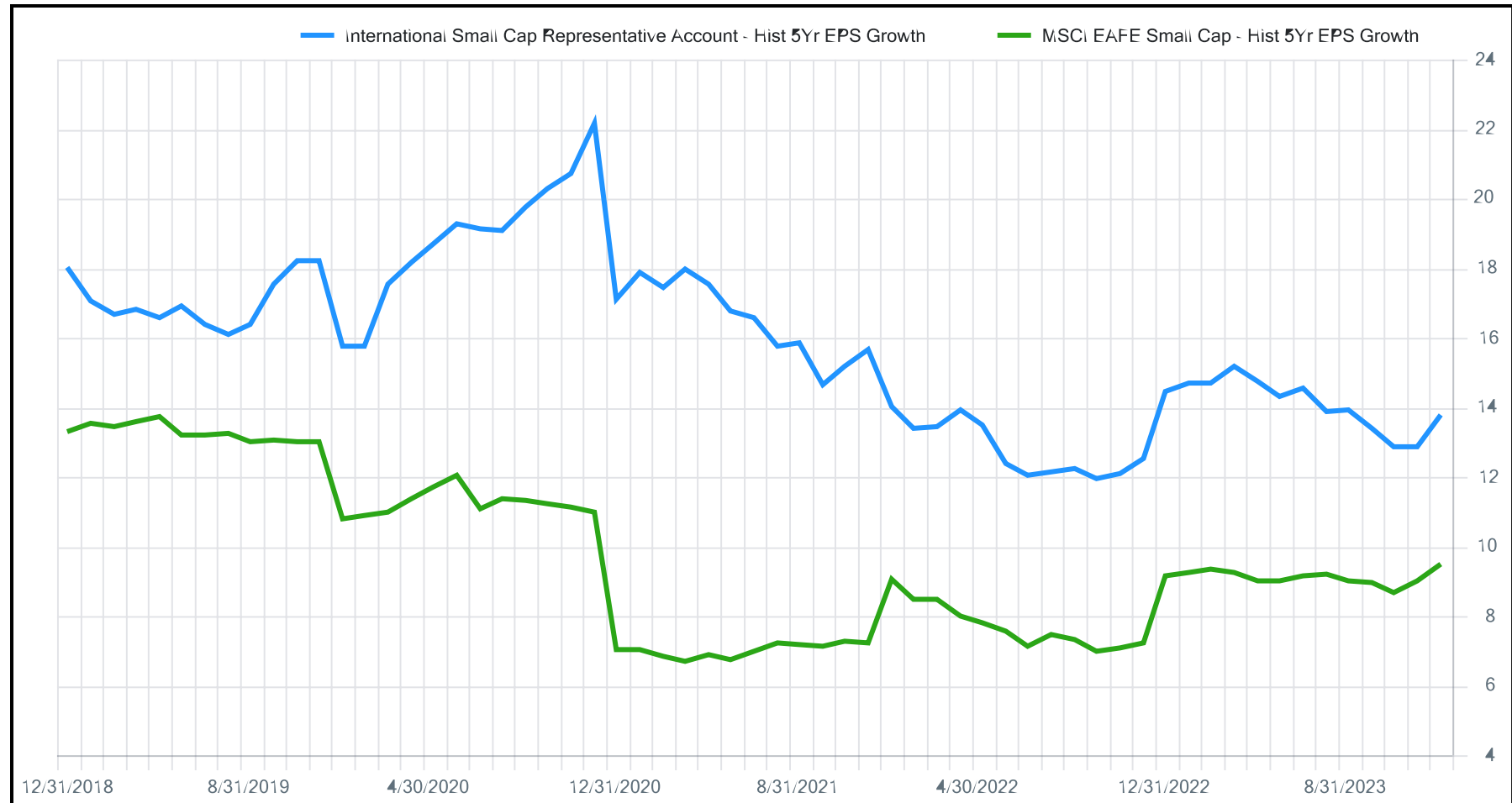
International Small Cap: Historical ROE

🌐 The higher fundamental characteristics (ROE and EPS growth) of our holdings have remained intact throughout time



Source: FactSet. International Small Cap Representative Account.
Composite inception date: April 1, 2012 relative to MSCI EAFE SC
Please see Disclosures for additional information.

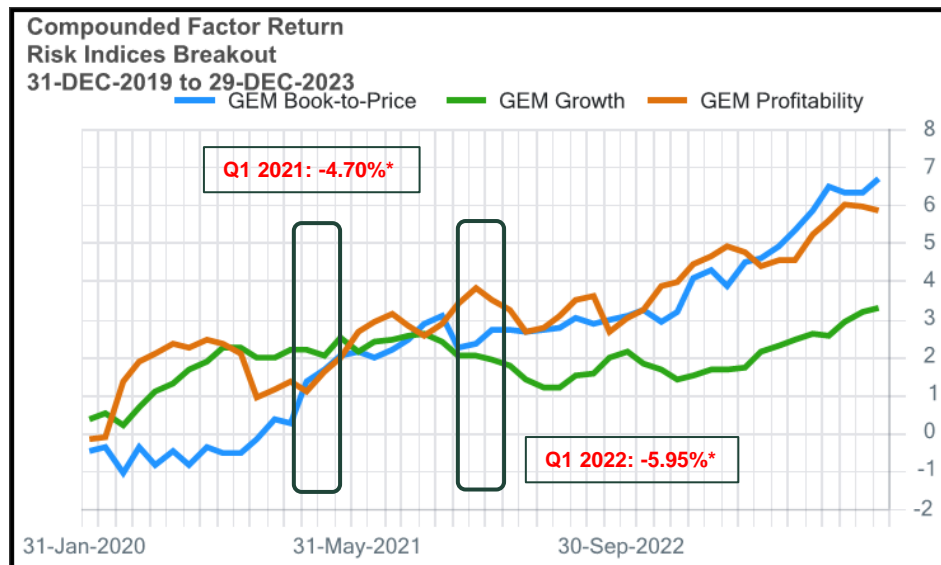
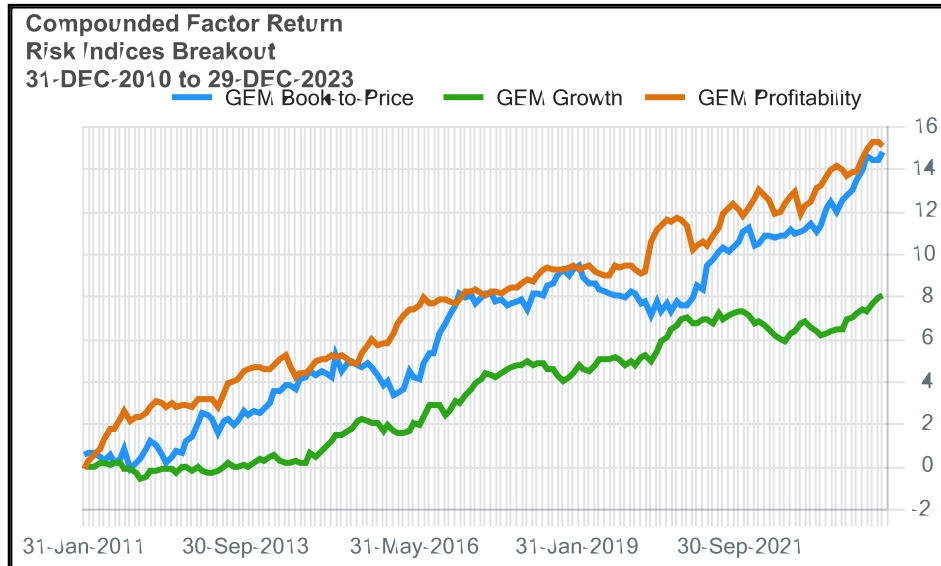
International Small Cap: Historical EPS Growth



Source: FactSet. International Small Cap Representative Account.
 Composite inception date: April 1, 2012 relative to MSCI EAFE SC
 Please see Disclosures for additional information.

Market Long-term Factor Performance

As of December 31, 2023



- Over the last 10+ years through 12/31/2023, Profitability as a factor has had consistent performance
- In 2020, Growth moved up significantly with between **2 and 6 standard deviations above average** in most regions. Meanwhile, Profitability remained flattish with many XUS regions seeing **two standard deviations or more below average**. This suggests that revenue growth rather than earnings growth was in favor as we discussed.
- In 2021, Value started moved up sharply.
- Over the last three years through 12/31/2023, Value came out as the top performing fundamental factor while Growth was the worst performing fundamental factor. Profitability was less appreciated by investors than Value.

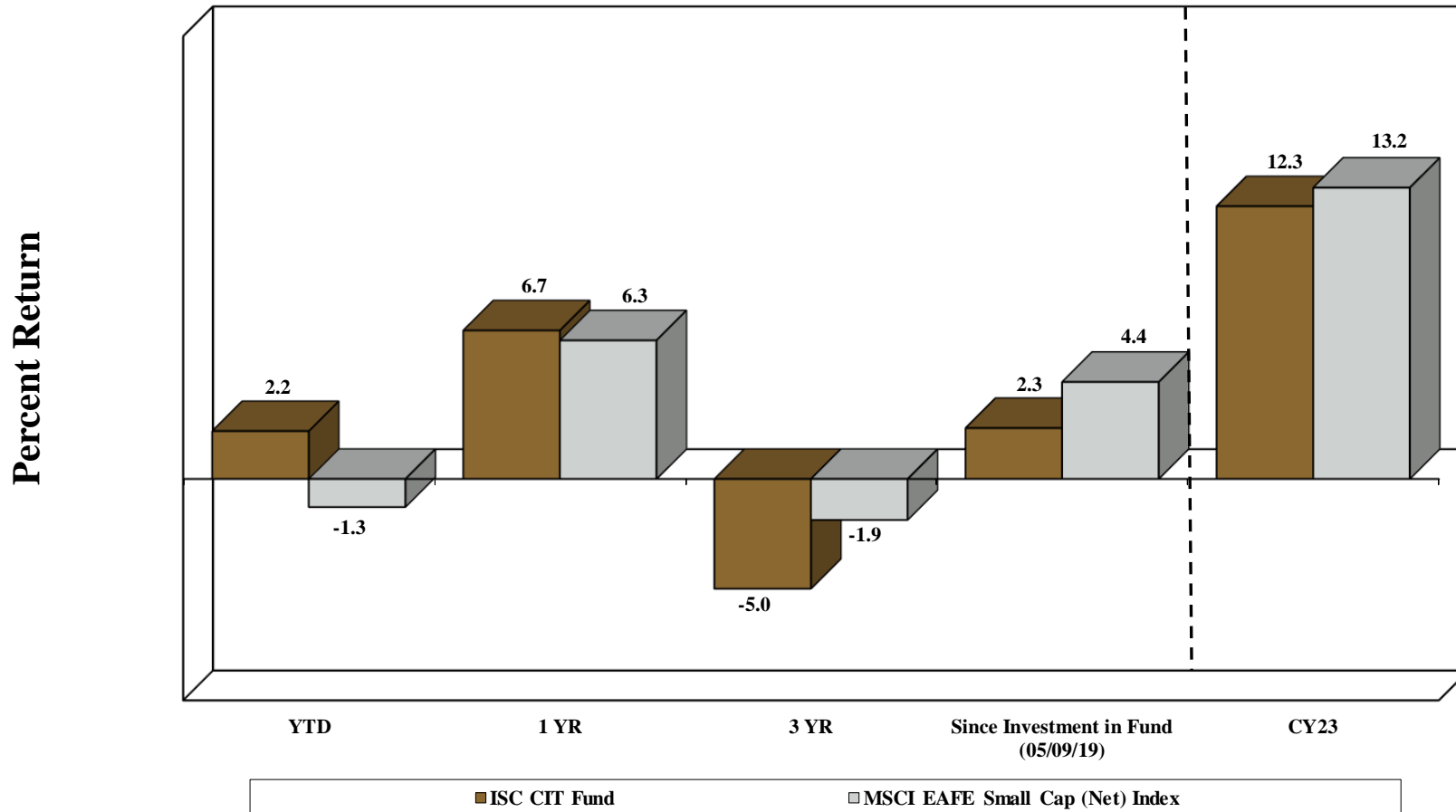
** International Small Cap Growth Composite relative return vs. MSCI EAFE Small Cap-ND*

*Source: Source: FactSet, Barra Global Total Market Model for Long Term Investors – Stable Variant (GEMTLT)
Please see Disclosures for additional information.*

Portfolio Results & Characteristics

TimesSquare International Small Cap CIT Fund

Total Returns for the Period Ending February 29, 2024



Market Value February 29, 2024: \$153,875,367

Please see Appendix for Additional Disclosures.

Returns are Annualized greater than 1 YR

TimesSquare International Small Cap CIT Fund

Portfolio Country Allocation

As of February 29, 2024

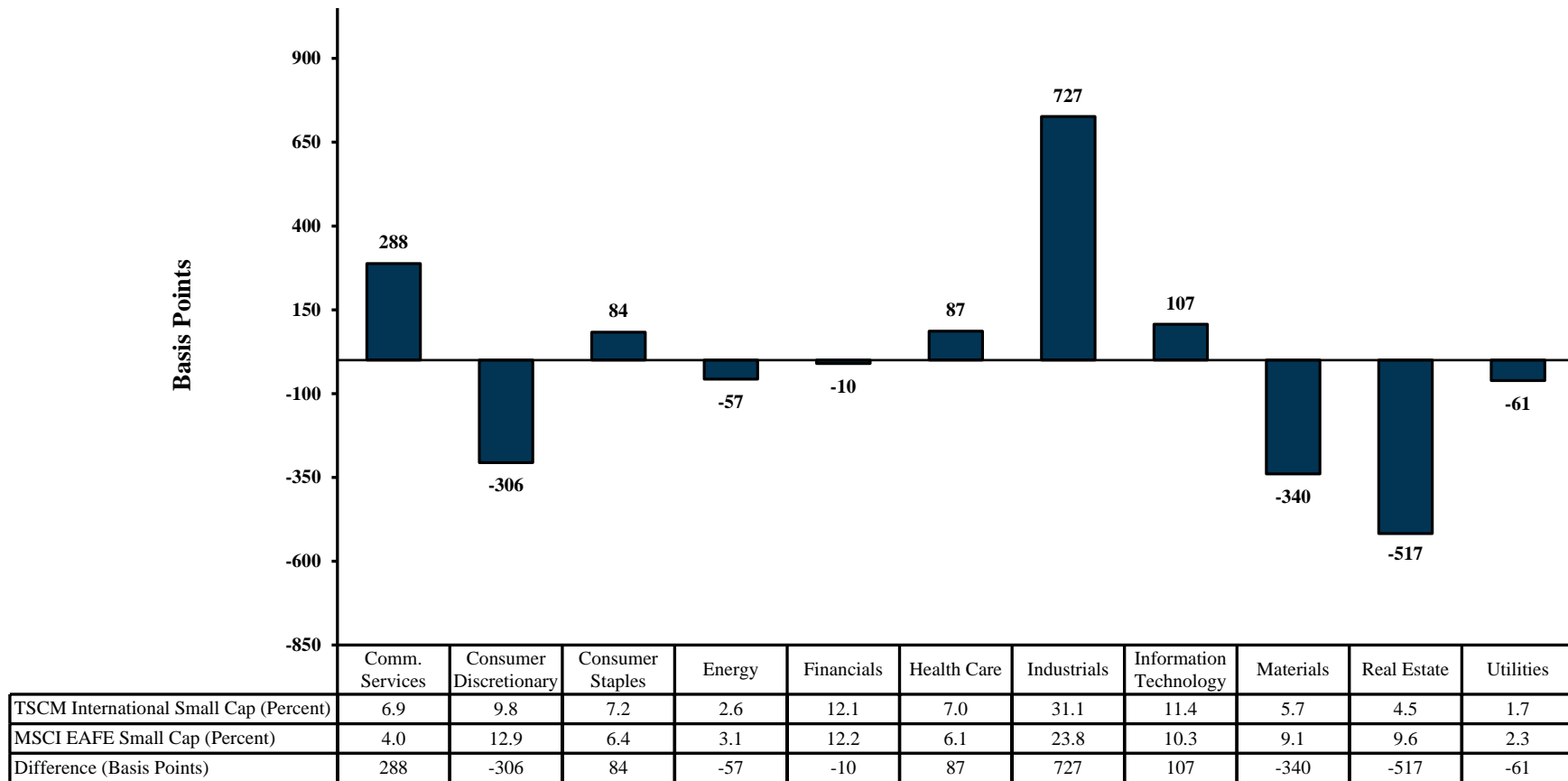
<i>Region / Country</i>	<i>Portfolio (%)</i>	<i>MSCI EAFE SC (%)</i>	<i>Region / Country</i>	<i>Portfolio (%)</i>	<i>MSCI EAFE SC (%)</i>
<i>Europe</i>	53.3	49.2	<i>Asia / Pacific Ex Japan</i>	8.3	13.3
Austria	0.0	1.0	Australia	7.3	9.4
Belgium	0.0	1.4	Hong Kong	1.0	1.4
Denmark	4.1	2.2	New Zealand	0.0	0.6
Finland	2.9	1.2	Singapore	0.0	1.8
France	9.1	4.1			
Germany	4.1	4.4	<i>Middle East</i>	2.7	3.0
Ireland	1.3	0.3	Israel	2.7	3.0
Italy	3.4	3.4			
Netherlands	2.2	1.6	<i>Americas</i>	4.1	0.0
Norway	0.0	2.3	Canada	4.1	0.0
Portugal	0.0	0.3			
Spain	5.3	1.9	<i>Emerging Markets</i>	2.8	0.0
Sweden	4.2	6.0	Taiwan	1.2	0.0
Switzerland	2.3	4.5	Uruguay	1.6	0.0
United Kingdom	14.2	14.6			
<i>Japan</i>	28.7	34.5			

The representative portfolio is an account that we believe most closely reflects the current portfolio management style for this strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio may differ from those of other managed accounts. The characteristics relate to the portfolio as of a particular point in time and should not be regarded as predictive. Data for the MSCI EAFE Small Cap Index is sourced from FactSet.

This information is supplemental to the International Small Cap Disclosures included in the Appendix.

TimesSquare International Small Cap CIT Fund Portfolio Sector Over/Underweight

As of February 29, 2024



The representative portfolio is an account that we believe most closely reflects the current portfolio management style for this strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio may differ from those of other managed accounts and from those of a start-up portfolio. The characteristics relate to the portfolio as of a particular point in time and should not be regarded as predictive. Data for the MSCI EAFE Small Cap Index is sourced from FactSet.

This information is supplemental to the International Small Cap Disclosures included in the Appendix.

TimesSquare International Small Cap CIT Fund

Attribution Highlights: YTD through February 29, 2024

Performance Contribution by Region Relative to MSCI EAFE Small Cap (Net) Index

MSCI REGIONS	REGION ALLOCATION	STOCK SELECTION	CURRENCY EFFECT	ACTIVE CONTRIBUTION
Europe	0.08	2.58	0.08	2.74
Japan	-0.35	0.43	0.14	0.22
Americas	-0.06	0.00	0.04	-0.02
Asia/Pacific Ex Japan	0.10	0.16	-0.03	0.23
Middle East	-0.02	0.46	-0.04	0.40
Emerging Markets	-0.17	0.00	0.07	-0.11
TOTAL (Includes Cash & Equivalents)	-0.43	3.63	0.34	3.55

Greatest Contributors

Security	Region	Contrib to Equity Return %
Saab	Europe	0.61
Rakuten Bank, Ltd.	Japan	0.60
RENK Group	Europe	0.46
Organo Corp.	Japan	0.40
CyberArk Software Ltd.	Middle East	0.36

Greatest Detractors

Security	Region	Contrib to Equity Return %
CareNet, Inc.	Japan	-0.33
Goldwin Inc.	Japan	-0.26
MERLIN Properties	Europe	-0.25
Safestore Holdings	Europe	-0.23
Adventure, Inc.	Japan	-0.22

Please see Appendix for Additional Disclosures.

Source: FactSet

TimesSquare International Small Cap CIT Fund

Attribution Highlights: Full Year 2023

Performance Contribution by Region Relative to MSCI EAFE Small Cap (Net) Index

MSCI REGIONS	REGION ALLOCATION	STOCK SELECTION	CURRENCY EFFECT	ACTIVE CONTRIBUTION
Europe	0.08	-0.69	-0.18	-0.79
Japan	-0.32	-2.65	0.27	-2.71
Americas	-0.24	0.00	0.07	-0.17
Asia/Pacific Ex Japan	0.51	-0.41	-0.11	-0.01
Middle East	0.14	1.34	0.02	1.50
Emerging Markets	1.45	0.00	0.01	1.46
TOTAL (Includes Cash & Equivalents)	1.36	-2.40	0.03	-1.01

Greatest Contributors

Security	Region	Contrib to Equity Return %
Saab	Europe	1.34
Organo Corp.	Japan	1.29
Accton Technology Corp.	Emerging	1.08
Technip Energies	Europe	0.78
Arcadis	Europe	0.75

Greatest Detractors

Security	Region	Contrib to Equity Return %
Keywords Studios	Europe	-0.72
IPH Ltd.	Asia/Pacific Ex Japan	-0.60
APM Human Services Int'l Ltd.	Asia/Pacific Ex Japan	-0.49
St. James's Place	Europe	-0.46
Spirent Communications	Europe	-0.45

Please see Appendix for Additional Disclosures.

Source: FactSet

TimesSquare International Small Cap CIT Fund

Portfolio Ten Largest Holdings

Security Name	Description (Year of Initial Purchase*)	Country	02/29/24 % of Total	Price	Cap Size (\$ mil)	YTD thru 02/29/24 Portfolio Return (%)	Contribution Portfolio Return (%)
Steadfast Group	The region’s largest general insurance broker network (2015)	Australia	2.76	\$3.77	4,160	-5.24	-0.17
Rakuten Bank	Japan’s leading digital bank, operating with no physical branches or proprietary ATM network & providing all its banking services online (2023)	Japan	2.43	\$19.90	3,473	33.22	0.60
Saab	Engages in the production & sale of products, services & solutions for military defense, commercial aviation & civil security (2022)	Sweden	2.33	\$78.90	10,513	30.91	0.61
Siegfried Holding	Contract Development & Manufacturing Outsourcer providing the active pharmaceutical ingredients for drug therapies & manufacturing of the final dosages (2021)	Switzerland	2.11	\$1,006.19	4,274	-1.40	-0.00
Arcadis	Global design, engineering & consulting firm for industrial, infrastructure & regulated end markets (2021)	Netherlands	2.09	\$58.33	5,248	8.18	0.15
Organo	Water treatment company, offering recycling & purification services & products for larger enterprises & smaller commercial customers (2022)	Japan	1.99	\$51.25	2,354	23.40	0.40
Daiei Kankyo Co.	A leading Japanese waste management company that offers a one-stop waste management service encompassing collection, intermediate treatment, recycling & final disposal (2023)	Japan	1.97	\$18.72	1,861	5.75	0.11
Technip Energies	One of world’s largest engineering, construction management & technology companies serving the energy sector (2022)	France	1.89	\$21.78	3,819	-6.84	-0.10
DMG MORI	One of the world’s leading manufacturers of high-end Computer Numerical Control (CNC) machines (2023)	Japan	1.84	\$23.11	2,899	20.47	0.32
Internet Initiative	Provider of Internet connectivity & wide area network services, network systems construction, operation & maintenance, & telecommunications equipment (2022)	Japan	1.78	\$18.56	3,281	-9.25	-0.20
			21.20	1.72			

TimesSquare International Small Cap CIT Fund Portfolio Characteristics

As of February 29, 2024

	ISC CIT FUND	MSCI EAFE Small Cap Index
Weighted Average Market Capitalization (\$ Billions)	3.9	2.9
Weighted Average ROE ¹	16.9%	11.1%
P/E (FY1 Forecast) ¹	17.8x	13.5x
Historical EPS Growth (5 YR) ¹	12.3%	9.3%
Number of Holdings	82	2,171

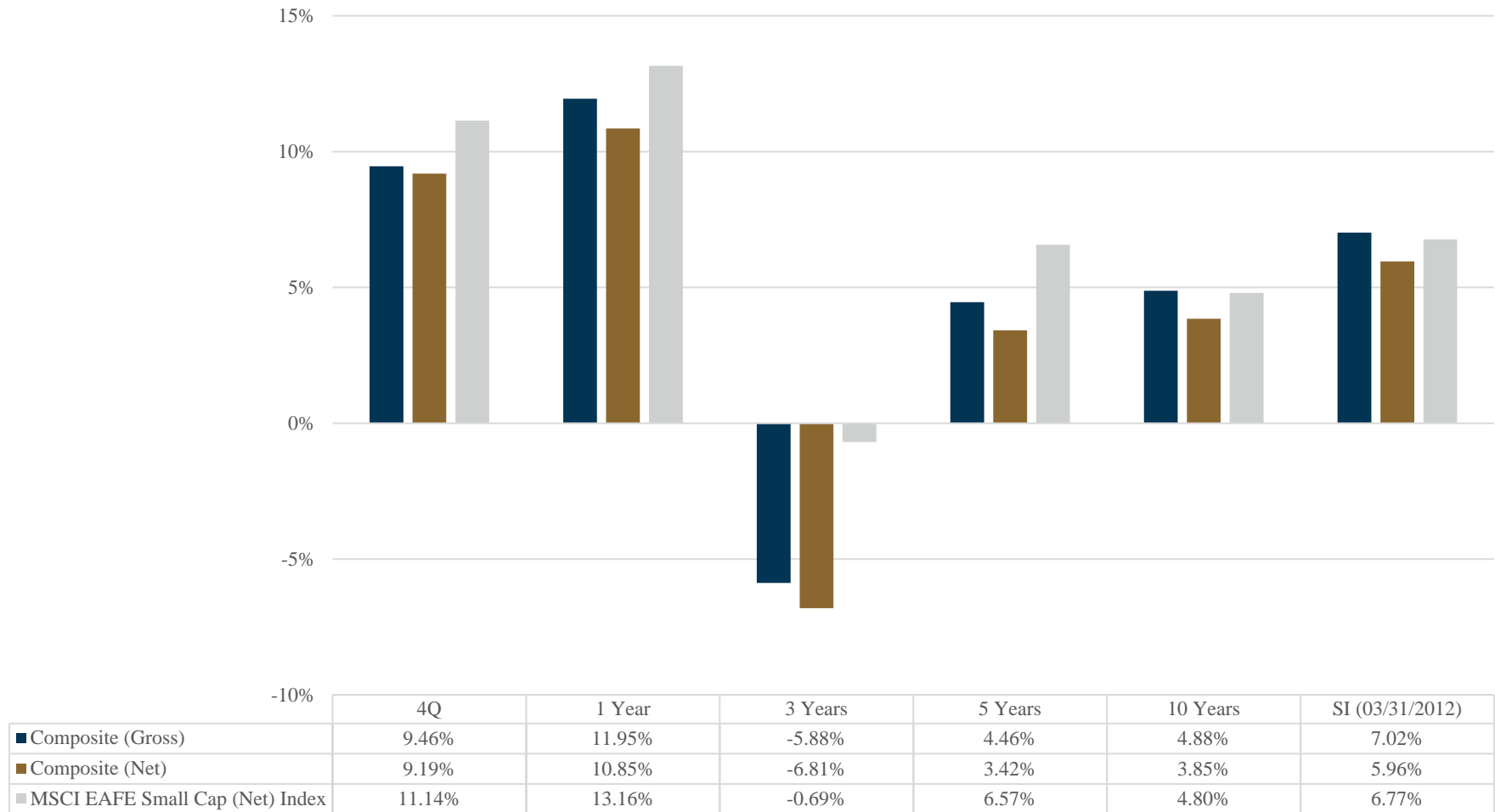
Please see Appendix for Additional Disclosures.

¹ Source: FactSet Estimates

Historical Performance

International Small Cap: Historical Performance

Returns as of December 31, 2023



Annualized

Please see the GIPS Report attached on page 30.

Past performance does not guarantee future results. There is risk that invested capital may be lost.

Data for the MSCI EAFE Small Cap (Net) Index is sourced from FactSet

Please see International Small Cap Disclosures in the Appendix.

International Small Cap: Annual Performance History

Calendar Year Returns

Calendar Years	Composite (Gross)	Composite (Net)	MSCI EAFE Small Cap (Net) Index
2023	11.95%	10.85%	13.16%
2022	-27.13	-27.88	-21.39
2021	2.22	1.21	10.10
2020	13.92	12.79	12.34
2019	30.98	29.70	24.96
2018	-23.72	-24.50	-17.89
2017	41.15	39.78	33.01
2016	1.67	0.66	2.18
2015	15.12	13.99	9.59
2014	2.80	1.78	-4.95
2013	27.71	26.48	29.30
2012*	7.92	7.12	4.47

*Past performance does not guarantee future results. There is a risk that invested capital may be lost.
Data for the MSCI EAFE Small Cap (Net) Index is based on gross-of-fee returns and sourced from FactSet.*

Please see International Small Cap Disclosures in the Appendix.

Appendix

Integrated ESG Approach

FUNDAMENTAL ANALYSTS

- Evaluate potential investments through multiple perspectives, including ESG, and document ESG assessment of portfolio holdings in investment database.
- Focus on ESG factors material to return and/or risk over the anticipated time horizon of our investments.
- Partner with ESG team in cases where material issues are identified to better understand and address these elements.



ESG SPECIALISTS

- Share a holistic perspective on best practices with the investment team and provide unbiased insights and feedback.
- Participate with Analysts in company engagements aimed at understanding and encouraging progress in areas of financially material ESG practices.
- Act as the hub for stewardship and capacity building activities across teams.

Collaborative approach driven by our core investment philosophy

General Disclosures

This presentation is being provided to the recipient specifically upon request. It is intended for institutional use only and must be accompanied by the disclosures set forth below. This presentation should not be provided by the recipient to any other parties.

The opinions and information expressed and provided are for general information only and are not intended to provide specific advice or recommendations but rather, a basis from which strategies can be built, taking into account the specific objectives of each portfolio, in terms of return, time horizon, and risk constraints, as well as diverging investment perspectives and assumptions. All material has been obtained from sources believed to be reliable, but its accuracy and completeness are not guaranteed.

Representative Client List Disclosure:

The Representative Client List includes the clients of TimesSquare Capital Management, LLC ("TimesSquare") that have consented to inclusion on this list, and is not based on performance criteria. Inclusion on this list does not represent an endorsement by or of these entities or of the services provided by TimesSquare or these entities. The Representative Client List is not specific to any one of TimesSquare's products or strategies.

Portfolio Holdings:

The holdings and weightings displayed represent a particular point in time. It should not be assumed that the securities continue to be held or continue to be held in the same percentage. In addition, the holdings and percentage weights of a particular client account may differ from the information shown. The sector weightings shown for TimesSquare's portfolios reflect the Global Industry Classification Standard (GICS) methodology.

Representative Portfolio:

The representative portfolio is an account that we believe most closely reflects the current portfolio management style for this strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio may differ from those of other managed accounts from when a client account first onboards with the firm. The characteristics relate to the portfolio as of a particular point in time and should not be regarded as predictive.

Notice to Consultants:

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Past Performance:

Past performance does not guarantee future results. There is risk that invested capital may be lost.

This presentation is intended for institutional investors.

International Small Cap Disclosures

January 1, 2013 through December 31, 2022

Year	Gross-of-Fees Return (%)	Net-of-Fees Return (%)	Benchmark Return (%)	Composite 3-Yr St Dev (%)	Benchmark 3-Yr St Dev (%)	Number of Portfolios	Internal Dispersion (%)	Total Composite Assets (USD mil)	Composite Percentage of Firm Assets (%)	Total Firm Assets (USD mil)
2013	27.71	26.48	29.30	N/A	N/A	2	N/A	25	0.12	20,354
2014	2.80	1.78	-4.95	N/A	N/A	2	N/A	26	0.14	18,802
2015	15.12	13.99	9.59	9.88	11.26	2	N/A	137	0.80	16,988
2016	1.67	0.66	2.18	11.92	12.11	1	N/A	108	0.66	16,169
2017	41.15	39.78	33.01	12.30	11.60	6	0.77	1787	9.96	17,935
2018	-23.72	-24.50	-17.89	14.99	12.86	8	0.39	2013	13.93	14,449
2019	30.94	29.67	24.96	14.80	11.89	11	0.71	2963	19.26	15,382
2020	13.92	12.79	12.34	22.24	20.27	11	0.77	2856	17.60	16,228
2021	2.22	1.21	10.10	20.38	19.20	11	0.51	2728	18.12	15,058
2022	-27.13	-27.88	-21.39	23.17	22.54	6	0.24	948	10.77	8,810

TimesSquare Capital Management, LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards.

International Small Cap Disclosures

TimesSquare Capital Management, LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. TimesSquare has been independently verified for the periods 10/1/2000 to 12/31/2022.

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The International Small Cap composite has been examined for the periods April 1, 2012 to December 31, 2022. The verification and performance examination reports are available upon request.

Firm and Composite Information

TimesSquare Capital Management, LLC ("TimesSquare") is a registered investment adviser that is owned by the former equity management team of TimesSquare Capital Management, Inc. ("TimesSquare Inc.") and Affiliated Managers Group, Inc. TimesSquare was formed to manage TimesSquare Inc.'s growth equity investment advisory business which was sold to TimesSquare in a transaction that closed on November 19, 2004.

This composite generally invests in non-US stocks with market capitalizations at time of purchase generally within the range of capitalizations of stocks in the MSCI EAFE Small Cap Net Index. Portfolios will hold approximately 70-75 securities. The process is fundamental research driven. Primary selection criteria include quality management, distinct competitive advantage, and strong, sustainable growth. Historical turnover has averaged 37% per year. Composite inclusion threshold \$500,000. Fee basis is 100 points. The composite creation and inception date is April 1, 2012.

From 04/01/2015 until 12/31/16, accounts are removed from the composites when significant cash flows occur. A significant cash flow is defined as an external flow that exceeds 10% of the composite's market value on the day of the cash flow. Effective January 1, 2017 this composite does not have a significant cash flow policy.

The opinions and information expressed and provided are for general information only and are not intended to provide specific advice or recommendations but rather, a basis from which strategies can be built, taking into account the specific objectives of each portfolio, in terms of return, time horizon, and risk constraints, as well as diverging investment perspectives and assumptions. All material has been obtained from sources believed to be reliable, but its accuracy and completeness are not guaranteed.

TimesSquare's list of composites is available upon request. Past performance does not guarantee future results. The firm's list of limited distributed pooled funds are available upon request.

Benchmark

Performance is measured against the MSCI EAFE Small Cap (Net) Index. MSCI EAFE Small Cap (Net) Index is a trade or service mark of MSCI Inc. The MSCI EAFE Small Cap (Net) Index is an unmanaged, market-weighted index of small companies in developed markets, excluding the U.S. and Canada. Its returns include net reinvested dividends but, unlike the Composite returns shown, do not reflect the payment of sales commissions or other expenses incurred in the purchase or sale of the securities included in the Index. All indexes, including the MSCI EAFE Small Cap (Net) Index, are based on gross-of-fee returns, including net reinvested dividends.

Benchmark returns are not covered by the report of independent verifiers.

Performance Calculations

The performance figures shown are calculated in U.S. dollars on a size-weighted basis and reflect the reinvestment of dividends and other earnings, and the deduction of brokerage commissions and other transaction costs. Performance is provided on a gross basis (before the deduction of management fees) as well as net of the highest fee level from the standard fee schedule listed for this strategy during the period presented. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. TimesSquare's fee schedule is available upon request and may also be found in Part 2A of our Form ADV.

Investment advisory fees generally charged by TimesSquare are described in Part 2A of its Form ADV. To illustrate performance net of fees, assume \$20,000,000 is placed under management for ten years sustaining 10% compound gross total return. If an advisory fee of 1.00% of average assets under management is charged per year, for each year of the ten-year period, the resulting compound annual return would be reduced to 9.0%. The ending dollar value of the account would be \$47,347,274 compared with the unreduced account value of \$51,874,849. Net of fee performance is available upon request.

Internal dispersion is calculated using the equal-weighted standard deviation of all accounts included in the composite on a gross basis for the entire year; it is not presented for periods less than one year or when there were five or fewer portfolios in the composite for the entire year.

The three-year annualized standard deviation measures the variability of the composite and the benchmark returns on a gross basis over the preceding 36-month period. The three-year annualized standard deviation calculation is not presented for the composite and/or benchmark for years when 36 monthly returns are not available. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

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Callan

March 20, 2024



Capital Market Assumptions and Fixed Income Allocation

Jay Kloepper
Capital Markets Research

Jim Callahan, CFA
President

Important Disclosures regarding the use of this document are included at the end of this document. These disclosures are an integral part of this document and should be considered by the user.

Agenda

Process overview

Current market conditions

- Special focus on inflation

2024 expectations

- Fixed Income
- Equity
- Alternatives

Detailed 2024 projections and resulting expected portfolio returns and risk

Fixed income allocation

Callan

Process Overview

How Are Capital Markets Projections Constructed?

Guiding objectives and process

Underlying beliefs guide the development of the projections:

- An initial bias toward long-run averages
- A conservative bias
- An awareness of risk premiums
- A presumption that markets are ultimately clear and rational

Reflect our beliefs that long-term equilibrium relationships between the capital markets and lasting trends in global economic growth are key drivers to setting capital markets expectations

Long-term compensated risk premiums represent “beta”—exposure to each broad market, whether traditional or “exotic,” with limited dependence on successful realization of alpha

The projection process is built around several key building blocks:

- Advanced modeling at the individual asset class level (e.g., a detailed bond model, an equity model)
- A path for interest rates and inflation
- A cohesive economic outlook
- A framework that encompasses Callan beliefs about the long-term operation and efficiencies of the capital markets

How are Capital Market Projections Constructed?

Projections are 10-year forward-looking, representing a medium to long-term planning horizon:

Differs from the actuarial assumptions, which tend to reflect longer-term horizons of 30-40 years

Projections consist of return and two measures that contribute to portfolio volatility: standard deviation and correlation

Cover most broad asset classes and inflation

Broad U.S. equity

- Large cap
- Small/mid cap

Global ex-U.S. equity

- Developed market
- Emerging market

U.S. fixed income

- Short duration
- Core U.S. fixed
- TIPS
- High yield
- Long duration (government, credit and G/C)

Global ex-U.S. fixed income

Real estate

Alternative investments: private equity, hedge funds, private debt

Cash

Inflation

2024 vs. 2023 Risk and Returns Assumptions

		PROJECTED RETURN			PROJECTED RISK		2023 - 2032			vs 2023										
Asset Class	Index	1-Year Arithmetic	10-Year Geometric*	Real	Standard Deviation	Projected Yield**	1-Year Arithmetic	10-Year Geometric*	Standard Deviation	Geometric* Delta	Std Dev Delta									
Equities																				
Broad U.S. Equity	Russell 3000	8.85%	7.65%	5.15%	17.40%	1.95%	8.75%	7.35%	18.05%	0.30%	-0.65%									
Large Cap U.S. Equity	S&P 500	8.70%	7.50%	5.00%	17.00%	2.00%	8.60%	7.25%	17.75%	0.25%	-0.75%									
Small/Mid Cap U.S. Equity	Russell 2500	9.80%	7.70%	5.20%	22.00%	1.75%	9.60%	7.45%	22.15%	0.25%	-0.15%									
Global ex-U.S. Equity	MSCI ACWI ex USA	9.65%	7.65%	5.15%	21.40%	3.70%	9.45%	7.45%	21.25%	0.20%	0.15%									
Developed ex-U.S. Equity	MSCI World ex USA	9.25%	7.50%	5.00%	20.15%	3.75%	9.00%	7.25%	20.15%	0.25%	0.00%									
Emerging Market Equity	MSCI Emerging Markets	10.65%	7.70%	5.20%	25.60%	3.55%	10.45%	7.45%	25.70%	0.25%	-0.10%									
Fixed Income																				
Short Duration Gov't/Credit	Bloomberg 1-3 Yr G/C	4.25%	4.25%	1.75%	2.40%	3.70%	3.75%	3.80%	2.30%	0.45%	0.10%									
Core U.S. Fixed	Bloomberg Aggregate	5.25%	5.25%	2.75%	4.25%	4.70%	4.25%	4.25%	4.10%	1.00%	0.15%									
Long Government	Bloomberg Long Gov	6.20%	5.40%	2.90%	13.75%	4.80%	4.55%	3.70%	13.50%	1.70%	0.25%									
Long Credit	Bloomberg Long Cred	6.85%	6.30%	3.80%	11.90%	6.20%	5.75%	5.20%	11.75%	1.10%	0.15%									
Long Government/Credit	Bloomberg Long G/C	6.55%	6.00%	3.50%	11.70%	5.55%	5.20%	4.65%	11.40%	1.35%	0.30%									
TIPS	Bloomberg TIPS	5.10%	5.05%	2.55%	5.40%	4.30%	4.10%	4.00%	5.30%	1.05%	0.10%									
High Yield	Bloomberg High Yield	7.30%	6.80%	4.30%	11.75%	8.45%	6.75%	6.25%	11.75%	0.55%	0.00%									
Global ex-U.S. Fixed	Bloomberg GI Agg xUSD	3.60%	3.15%	0.65%	9.80%	2.70%	2.70%	2.25%	9.80%	0.90%	0.00%									
Emerging Market Sovereign Debt	EMBI Global Diversified	6.75%	6.35%	3.85%	10.65%	7.70%	6.25%	5.85%	10.65%	0.50%	0.00%									
Alternatives																				
Core Real Estate	NCREIF ODCE	6.85%	6.00%	3.50%	14.00%	4.00%	6.60%	5.75%	14.20%	0.25%	-0.20%									
Private Infrastructure	MSCI Glb Infra/FTSE Dev Core 50/50	7.30%	6.35%	3.85%	15.20%	4.80%	7.15%	6.15%	15.45%	0.20%	-0.25%									
Private Equity	Cambridge Private Equity	12.15%	8.75%	6.25%	27.60%	0.00%	11.95%	8.50%	27.60%	0.25%	0.00%									
Private Credit	Cambridge Senior Debt Index	8.40%	7.40%	4.90%	15.70%	7.40%	8.00%	7.00%	15.50%	0.40%	0.20%									
Hedge Funds	Callan Hedge FoF Database	6.25%	6.05%	3.55%	8.20%	0.00%	5.80%	5.55%	8.45%	0.50%	-0.25%									
Commodities	Bloomberg Commodity	5.45%	3.90%	1.40%	18.05%	3.00%	5.05%	3.50%	18.00%	0.40%	0.05%									
Cash Equivalents										90-Day T-Bill	3.00%	3.00%	0.50%	0.90%	3.00%	2.75%	2.75%	0.90%	0.25%	0.00%
Inflation										CPI-U		2.50%		1.60%			2.50%	1.60%	0.00%	0.00%

* Geometric returns are derived from arithmetic returns and the associated risk (standard deviation).

** Projected Yields represent the expected 10-year average yield

Source: Callan

Callan

Current Market Conditions

Nobody Saw 2023 Coming

Recession was on everyone's radar for 2023, and the only disagreement was the quarter in which it would show up

- 4Q GDP finished the year at a healthy 3.3% clip after clocking a stunning 4.9% gain in 3Q, mocking all those who try to predict economic growth (including us)
 - This despite the Federal Reserve's rate hikes, elevated inflation, and geopolitical turmoil
 - Wage growth boosted consumer incomes and spending
- 2.2% GDP growth in 1Q and another 2.1% in 2Q.
 - Thanks to the strong job market, generational low unemployment rate, rising wages, and the pressure from millions of unfilled jobs
 - Inflation down from the 9% spike in summer 2022 to 3.4% in December 2023
 - How are we defying economic gravity?

The Fed may be close to completing its mission to raise interest rates to fight inflation

- 525 bps since March 2022, from 0.0%-0.25% to the current target range of 5.25%–5.5%
- Inverted yield curve since July 2022 (!)

Is recession still inevitable, and if so, when?

- Strong GDP growth suggests no easing in tight labor markets for some time; the prospect for continued inflationary pressure from the labor market is high
- Getting inflation down to the Fed's stated goal of 2% will take time, and some discomfort. Squeezing out the last of excess inflation will require a period of below trend growth, a loosening of the labor market, and the pain of a rise in unemployment

Equity Markets Surge in 4Q, Following Decline in 3Q

Stocks have recovered losses of 2022, bonds still have ground to make up

S&P 500 surged 11.7% in 4Q23

- Loss through first three quarters of 2022 was 23.9%; the rebound in the following five quarters brought the index back to a positive return of 1.7% over the past two years

Fixed income recovered in 4Q, surging 6.8% after suffering a sharp loss of -3.2% in 3Q

- The Bloomberg Aggregate was on track for another negative year through 3Q; softening Fed language on rates in 4Q turned the market around
- CPI-U: declined in 4Q compared to 3Q, still up 3.4% year-over-year, and the index is 10% higher than it was at the start of 2022

Economic data defied expectations of recession in 2023

- GDP growth came in at 2.1% in 1Q, 2.2% in 2Q, 4.9% in 3Q, and a very healthy 3.3% in 4Q

Returns for Periods ended 12/31/23

	Quarter	1 Year	2 Years	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	12.07	25.96	0.88	15.16	11.48	7.74
S&P 500	11.69	26.29	1.69	15.69	12.03	7.56
Russell 2000	14.03	16.93	-3.55	9.97	7.16	7.91
Global ex-U.S. Equity						
MSCI World ex USA	10.51	17.94	0.54	8.45	4.32	4.62
MSCI Emerging Markets	7.86	9.83	-6.32	3.69	2.66	--
MSCI ACWI ex USA Small Cap	10.12	15.66	-3.79	7.89	4.88	7.28
Fixed Income						
Bloomberg Aggregate	6.82	5.53	-4.19	1.10	1.81	3.85
90-day T-Bill	1.37	5.01	3.22	1.88	1.25	1.90
Bloomberg Long Gov/Credit	13.24	7.13	-11.62	1.12	3.22	5.21
Bloomberg Global Agg ex-US	9.21	5.72	-7.29	-1.56	-0.79	2.25
Real Estate						
NCREIF Property Index	-3.02	-7.94	-1.44	4.33	6.80	8.03
FTSE Nareit Equity	16.22	13.73	-7.25	7.39	7.65	9.27
Alternatives						
HFRI Fund Weighted	3.64	7.57	1.55	7.01	4.54	6.31
Cambridge Private Equity*	-0.42	4.17	0.19	14.59	14.27	13.87
Bloomberg Commodity	-4.63	-7.91	3.40	7.23	-1.11	2.83
Gold Spot Price	11.02	13.45	6.44	10.09	5.59	8.19
Inflation - CPI-U	-0.34	3.35	4.89	4.07	2.79	2.54

*Cambridge PE data as of 9/30/23.

Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices

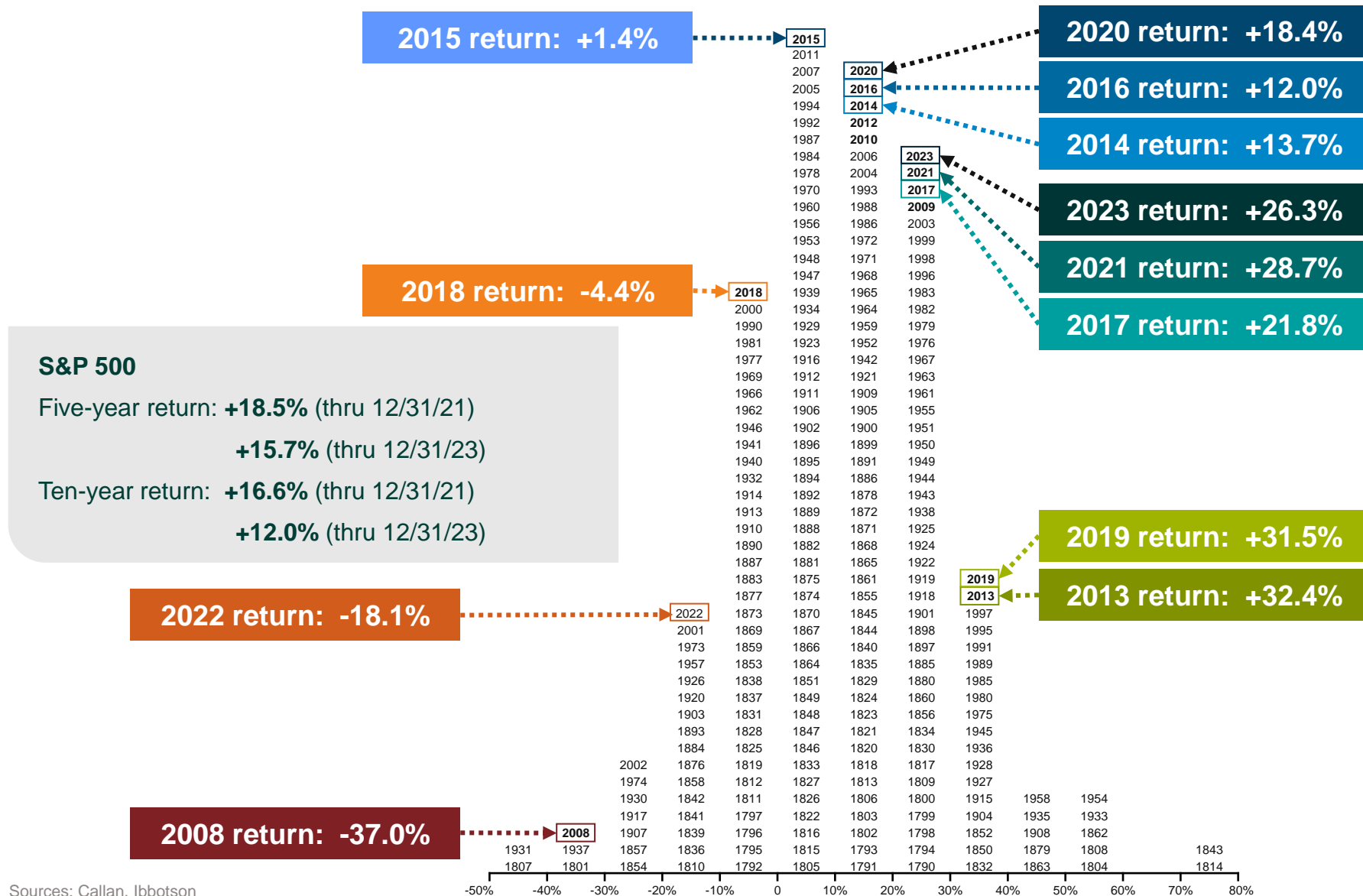
Callan Monthly Periodic Table of Investment Returns

Monthly Returns												
Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023	YTD
Small Cap Equity	High Yield	Global ex-U.S. Fixed Income	Dev ex-U.S. Equity	Large Cap Equity	Small Cap Equity	Emerging Market Equity	High Yield	High Yield	Global ex-U.S. Fixed Income	Real Estate	Small Cap Equity	Large Cap Equity
9.75%	-1.29%	3.73%	2.84%	0.43%	8.13%	6.23%	0.28%	-1.18%	-0.92%	10.63%	12.22%	26.29%
Real Estate	Small Cap Equity	Large Cap Equity	Real Estate	High Yield	Large Cap Equity	Small Cap Equity	U.S. Fixed Income	U.S. Fixed Income	High Yield	Dev ex-U.S. Equity	Real Estate	Dev ex-U.S. Equity
8.98%	-1.69%	3.67%	1.89%	-0.92%	6.61%	6.12%	-0.64%	-2.54%	-1.16%	9.40%	9.46%	17.94%
Dev ex-U.S. Equity	Dev ex-U.S. Equity	Emerging Market Equity	Large Cap Equity	Small Cap Equity	Dev ex-U.S. Equity	Real Estate	Large Cap Equity	Emerging Market Equity	U.S. Fixed Income	Large Cap Equity	Dev ex-U.S. Equity	Small Cap Equity
8.20%	-2.33%	3.03%	1.56%	-0.92%	4.75%	3.74%	-1.59%	-2.62%	-1.58%	9.13%	5.47%	16.93%
Emerging Market Equity	Large Cap Equity	U.S. Fixed Income	High Yield	U.S. Fixed Income	Emerging Market Equity	Dev ex-U.S. Equity	Global ex-U.S. Fixed Income	Global ex-U.S. Fixed Income	Large Cap Equity	Small Cap Equity	Large Cap Equity	High Yield
7.90%	-2.44%	2.54%	1.00%	-1.09%	3.80%	3.24%	-1.97%	-3.30%	-2.10%	9.05%	4.54%	13.44%
Large Cap Equity	U.S. Fixed Income	Dev ex-U.S. Equity	U.S. Fixed Income	Emerging Market Equity	Real Estate	Large Cap Equity	Real Estate	Dev ex-U.S. Equity	Emerging Market Equity	Emerging Market Equity	Global ex-U.S. Fixed Income	Emerging Market Equity
6.28%	-2.59%	2.22%	0.61%	-1.68%	3.02%	3.21%	-3.35%	-3.37%	-3.89%	8.00%	4.46%	9.83%
High Yield	Global ex-U.S. Fixed Income	High Yield	Global ex-U.S. Fixed Income	Global ex-U.S. Fixed Income	High Yield	High Yield	Dev ex-U.S. Equity	Large Cap Equity	Dev ex-U.S. Equity	Global ex-U.S. Fixed Income	Emerging Market Equity	Real Estate
3.81%	-3.99%	1.07%	0.29%	-2.69%	1.67%	1.38%	-3.87%	-4.77%	-4.22%	5.52%	3.91%	9.67%
Global ex-U.S. Fixed Income	Real Estate	Real Estate	Emerging Market Equity	Dev ex-U.S. Equity	Global ex-U.S. Fixed Income	Global ex-U.S. Fixed Income	Small Cap Equity	Small Cap Equity	Real Estate	High Yield	U.S. Fixed Income	Global ex-U.S. Fixed Income
3.48%	-4.41%	-3.26%	-1.13%	-4.36%	0.26%	1.28%	-5.00%	-5.89%	-4.79%	4.53%	3.83%	5.72%
U.S. Fixed Income	Emerging Market Equity	Small Cap Equity	Small Cap Equity	Real Estate	U.S. Fixed Income	U.S. Fixed Income	Emerging Market Equity	Real Estate	Small Cap Equity	U.S. Fixed Income	High Yield	U.S. Fixed Income
3.08%	-6.48%	-4.78%	-1.80%	-4.48%	-0.36%	-0.07%	-6.16%	-6.11%	-6.82%	4.53%	3.73%	5.53%

Sources: ● Bloomberg Aggregate ● Bloomberg Corp High Yield ● Bloomberg Global Aggregate ex US ● FTSE EPRA Nareit Developed
 ● MSCI Emerging Markets ● MSCI World ex USA ● Russell 2000 ● S&P 500

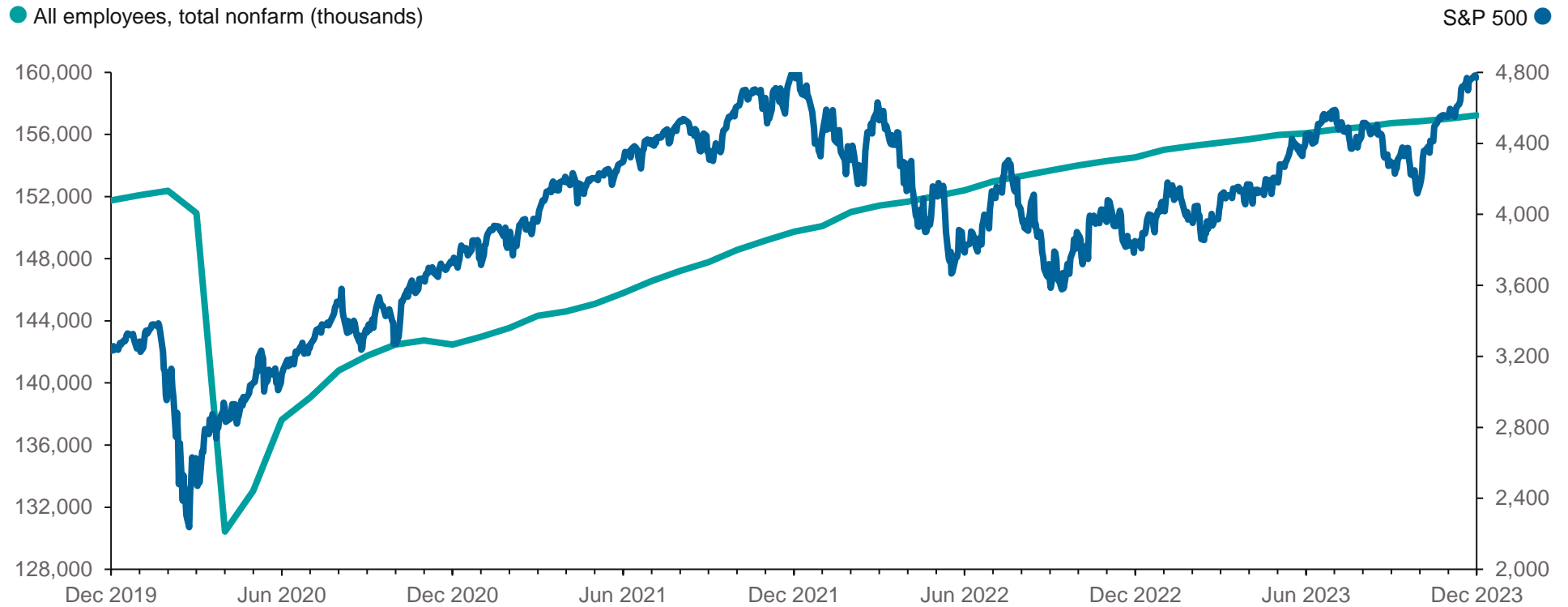
Stock Market Returns by Calendar Year

Performance in perspective: History of the U.S. stock market (233 years of returns)



Sources: Callan, Ibbotson

The Stock Market Is Not the Economy



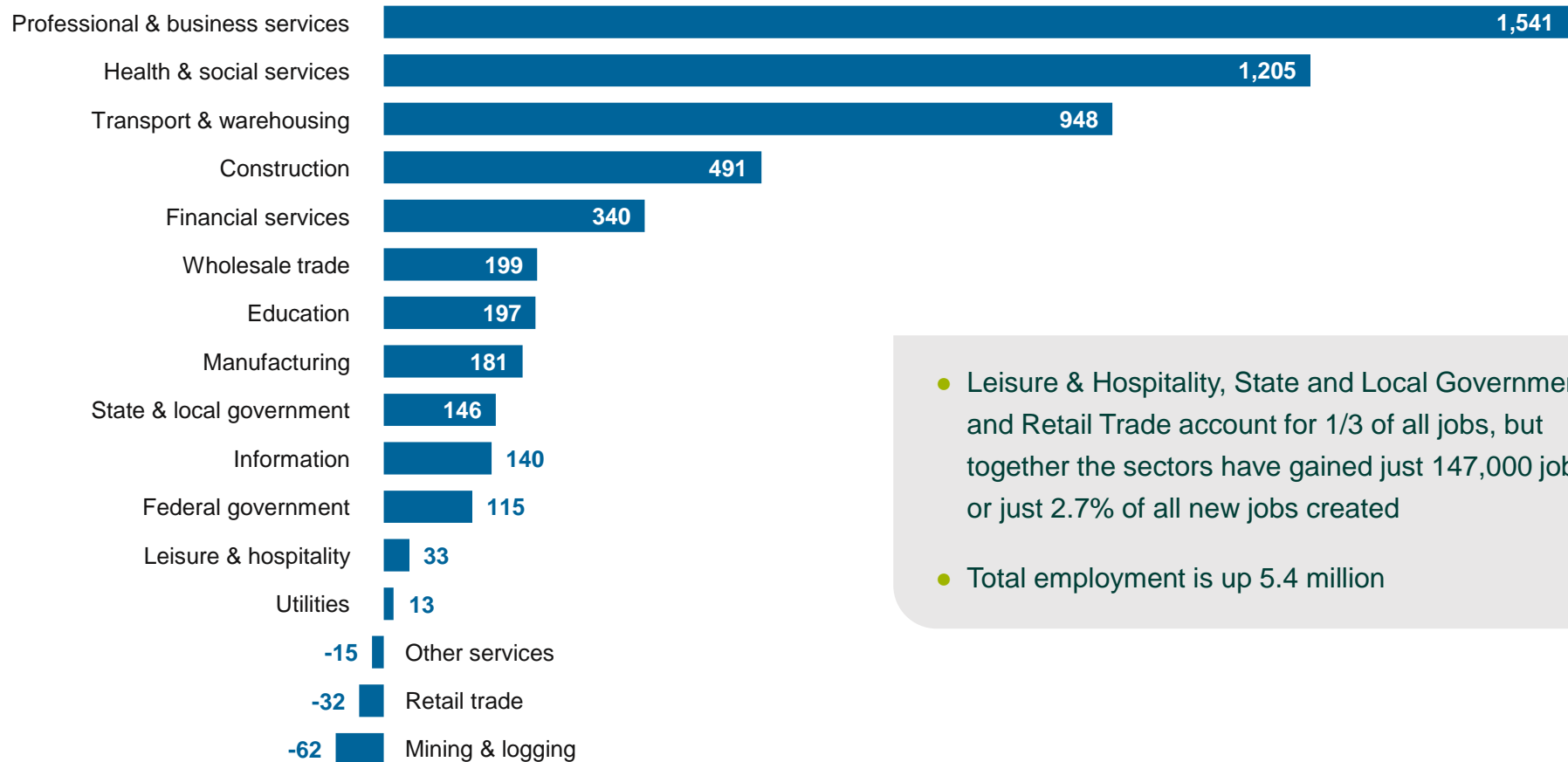
- The job market lost over 22 million jobs in the pandemic but regained the pre-pandemic high-water mark in the spring of 2022
- Job growth remained robust through the market upheaval in 2022 and has held up through 2023. Headline reports of sizeable layoffs in technology are ultimately small relative to the size of the broad job market

Sources: Federal Reserve Bank of St. Louis, S&P Dow Jones Indices

While the Recovery Continues, Employment Landscape Remains Uneven

Leisure / hospitality and state and local government remain below pre-pandemic levels

Change in Payroll Employment Since 12/31/19, through 12/31/23 (thousands)



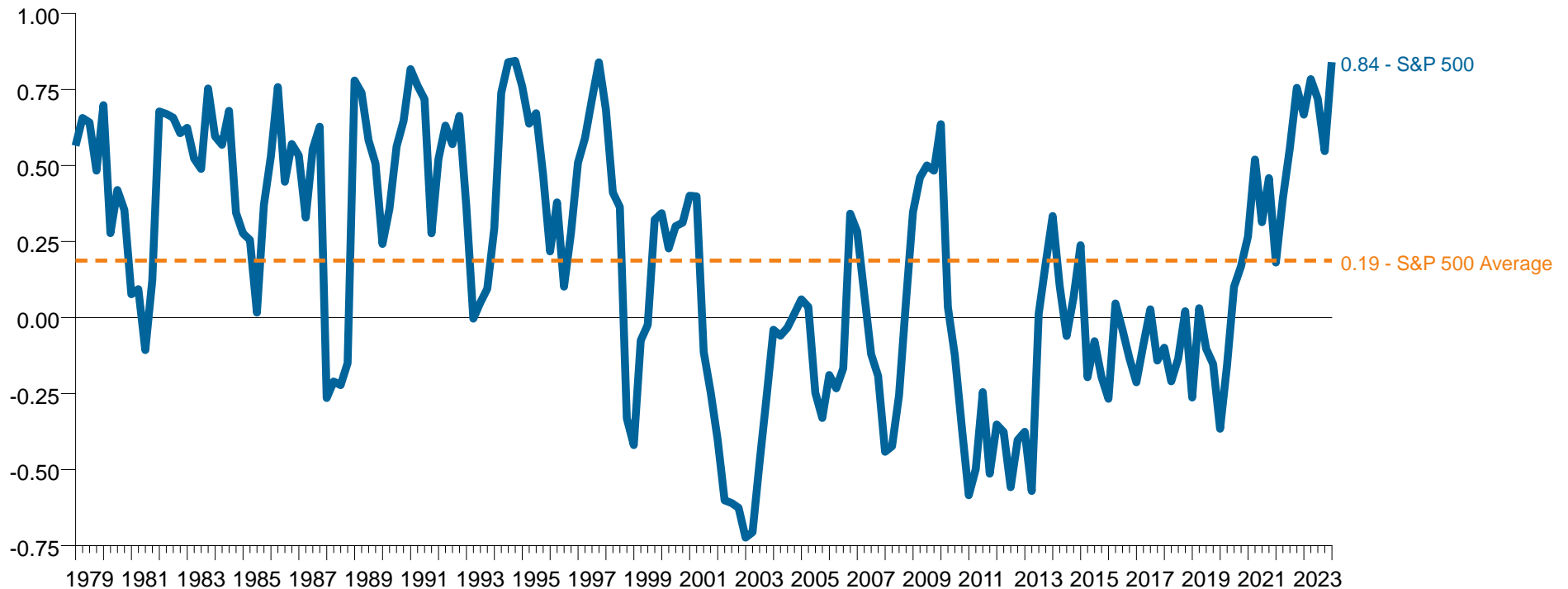
- Leisure & Hospitality, State and Local Government, and Retail Trade account for 1/3 of all jobs, but together the sectors have gained just 147,000 jobs, or just 2.7% of all new jobs created
- Total employment is up 5.4 million

Sources: IHS Markit, Department of Labor

Is the Stock-bond Correlation Shifting to a Higher Level?

Stocks and bonds rebound strongly together in 4Q23

Rolling 1 Year Correlation of S&P 500 to Bloomberg Aggregate for 45 Years Ended 12/31/23



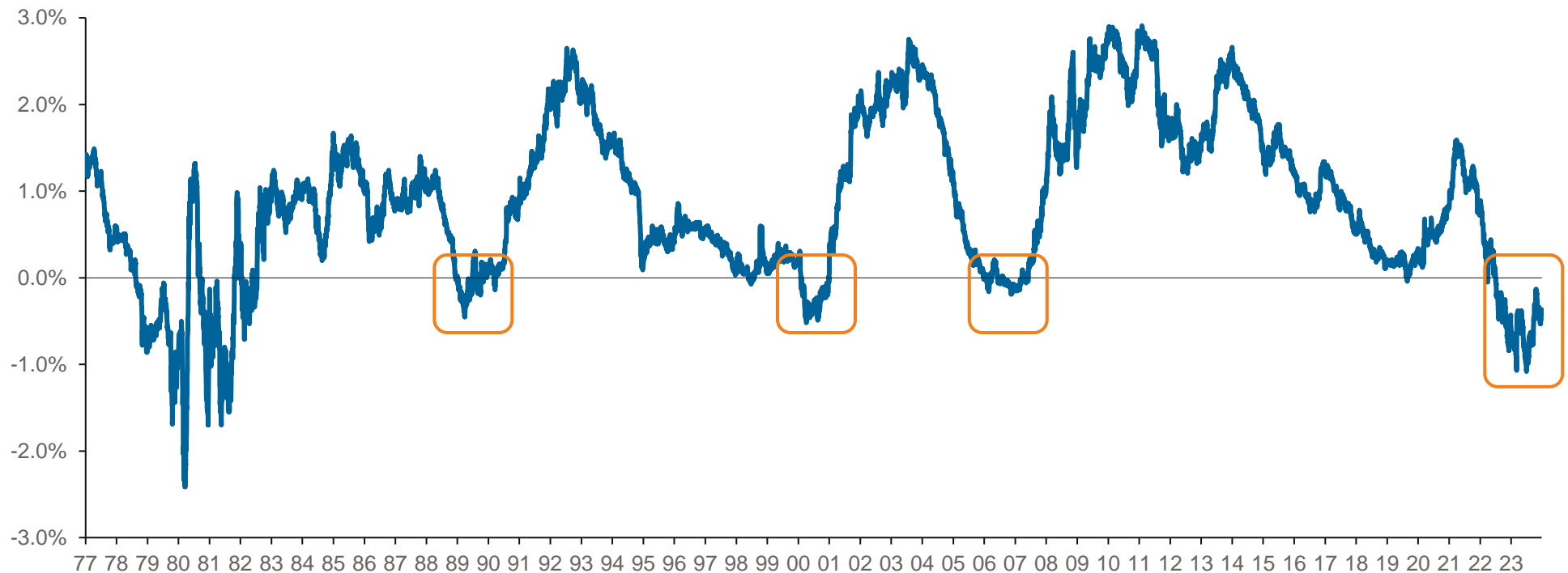
Forward-looking bond returns are now much higher thanks to the rise in interest rates and the resulting higher yields

- However, the equity risk premium has likely narrowed, and we may be seeing a return to a regime of higher correlation between stocks and bonds, potentially lessening the diversification benefit of bonds to stocks

Sources: Bloomberg, Callan, S&P Dow Jones Indices

The Bond Market Has Been Expecting a Recession Since July 2022

10-Year Treasury vs. 2-Year Treasury Spread



Inversion in the 10-year to 2-year Treasury yields does not always forecast a recession, but most recessions are preceded by a yield curve inversion

- Yield curve inversion means investors expect a recession will occur and interest rates will be cut, and therefore increase their demand for securities with longer duration with higher potential for capital gain when rates fall

Bond investors beginning to anticipate “higher for longer” rate regime?

- Inversion started in July 2022, bottomed at -1.08% in July 2023, and ended December 2023 at -0.35%

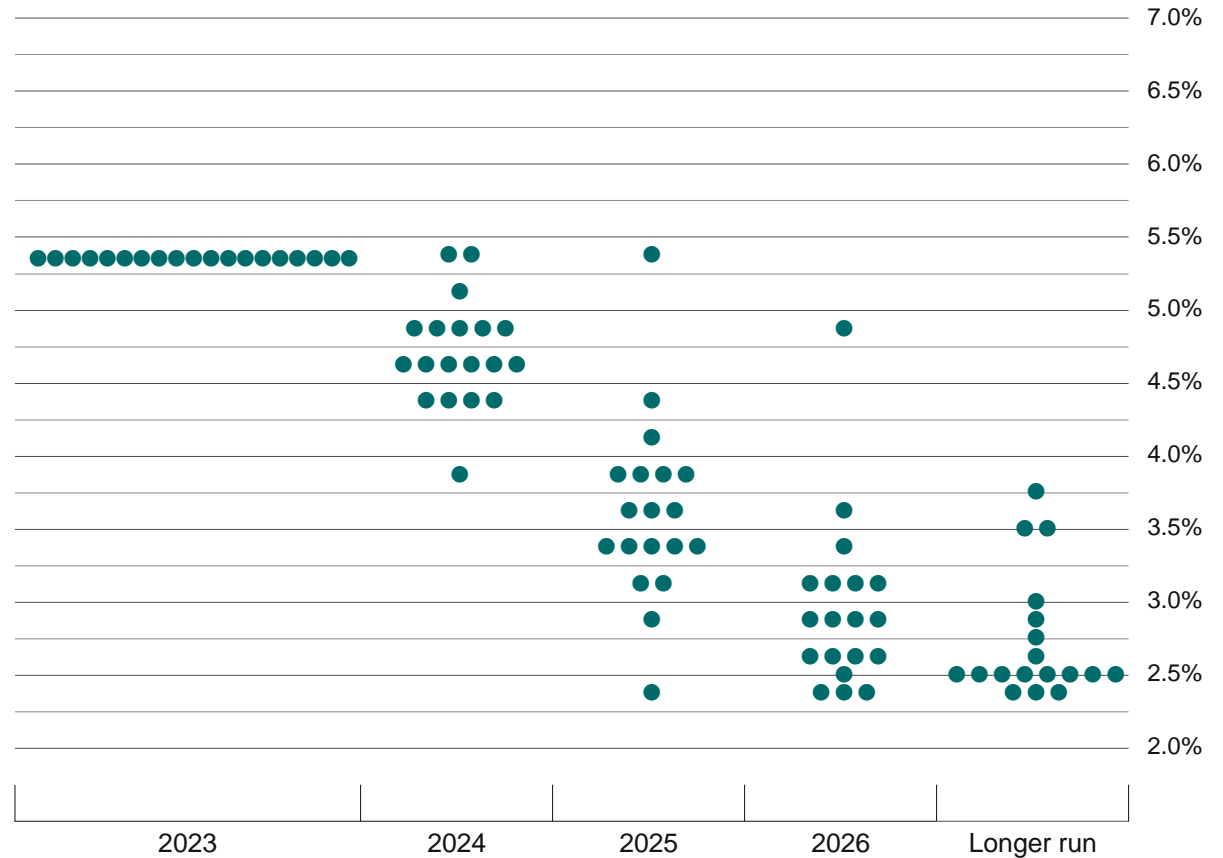
Source: Federal Reserve Bank of St. Louis

The Fed's 'Dot Plot'

December 13, 2023

Federal Open Market Committee (FOMC) participants' assessments of appropriate monetary policy

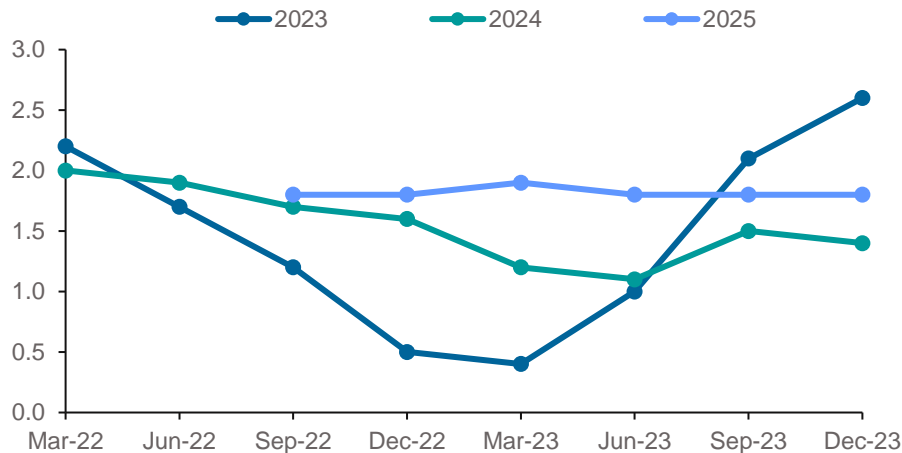
- Median year-end in 2024 = 4.6% (down from 5.1% projection at September meeting)
- Longer-run unchanged at 2.5%
- Dispersion of views wider in 2025 but narrower over “longer run”
- Market expects more cuts next year based on CME FedWatch as of December 2023. Fed Funds expectations:
 - 27% expect 4.00% to 4.25%
 - 37% expect 3.75% to 4.00%
 - 21% expect 3.50% to 3.75%



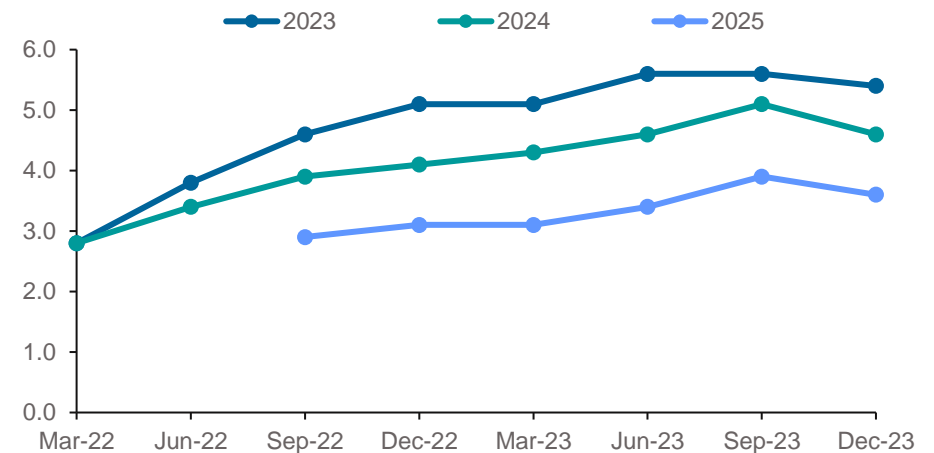
Source: Federal Reserve (One participant did not submit longer-run projections for the federal funds rate.)

The Shifting Mindset at the Fed

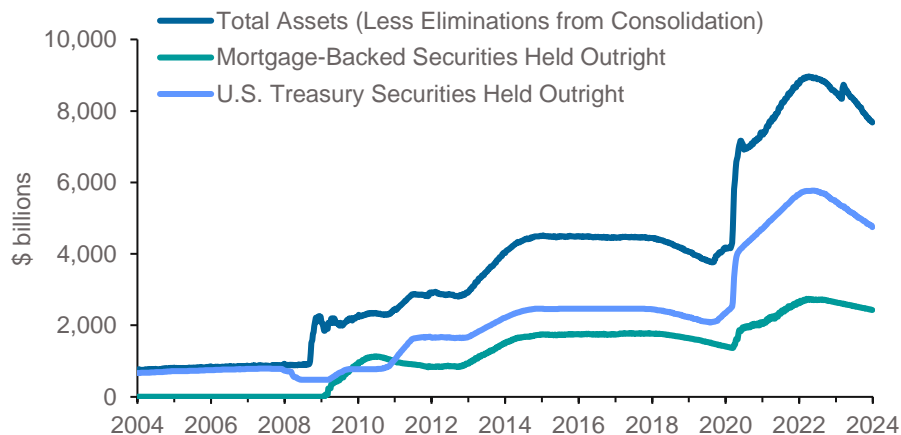
**Fed Projection of Change in Real GDP
By Fed Meeting Date and Projection Year**



**Fed Projection of Fed Funds Rate
By Fed Meeting Date and Projection Year**



Fed Balance Sheet



The big swing in the Fed's GDP projection reflects the surprising nature of economic resilience

- The Fed steadily increased projections for the appropriate Fed Funds Rate in response to this economic strength
 - Inflation down from recent highs but well above the Fed's long-term 2% target
- The Fed is also unwinding its balance sheet
 - This has a more direct impact on longer-term rates than the Fed Funds Rate and could help to slow economic activity if it causes rates to rise

Source: Federal Reserve, Financial Times

Recession Watch

Common definition of recession: two consecutive quarters of decline in GDP

Actual definition: The National Bureau of Economic Research (NBER) Business Cycle Dating Committee defines a recession as “a significant decline in economic activity that is spread across the economy and that lasts more than a few months”

Indicators to watch

- Recession talk quietly disappeared from market analysis in 2023
 - Recession risk is not off the table, but the Fed’s success in lowering inflation without hampering economic growth pushes the risk out into 2024
- GDP came in 3.3% in 4Q, on the heels of a hot at 4.9% in 3Q 2023, putting further pressure on the job market and wages
- Housing market has weakened with the doubling of mortgage rates; existing home sales fell sharply in 2Q and 3Q, while inventory is at a 40-year low in the second half of 2023. Higher rates prevent homeowners from selling and moving
- Job market saw substantial job creation continuing through the year; job listings remain larger than the number of seekers
 - Initial unemployment claims are creeping up: a leading indicator
 - Headline layoffs have been concentrated in technology. The number of jobs lost has been modest relative to the broad economy, but the jobs are high paying with the potential to spur multiplier effects on spending
 - Retail trade, leisure and hospitality, and state and local government are large key employers of lower paid workers, and each sector has struggled to regain pre-pandemic levels of employment, while total number of jobs is up 4.5 million
- PMI flashed signs of recession in business activity and output in mid-2023 but turned positive in November and December; PMI is a leading indicator
- Inflation is coming down, but it is still above the Fed’s target of 2%, and prices across the economy are now “permanently” higher
- Fed’s resolve may be tested if economy slows sharply in the next 6–12 months. Thus far, concern about recession has not been discussed by the Fed in public. Strong job market and surprising GDP gains give the Fed headroom to execute policy on inflation

Callan

**Current Market Conditions:
Special Focus on Inflation**

Contributors to Recent Inflation: Primary Categories

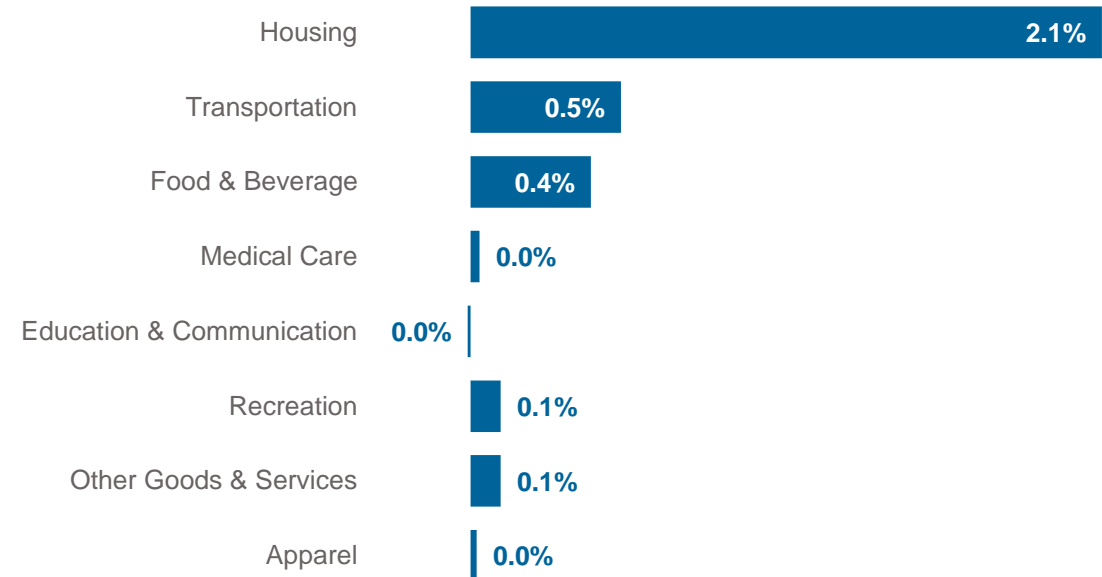
Housing is a broad category that includes Shelter, Fuels and Utilities, and Household Furnishings and Operations as sub-components

- Shelter makes up 34.4% of the overall index and accounted for over half of September's increase in year-over-year headline CPI

Energy is not shown in this view of CPI because it is a sub-component of other categories

- Energy makes up 6.9% of the index and is split evenly between Housing (fuel for powering homes) and Transportation (motor fuel)

Contribution to December 2023 Year-Over-Year Inflation

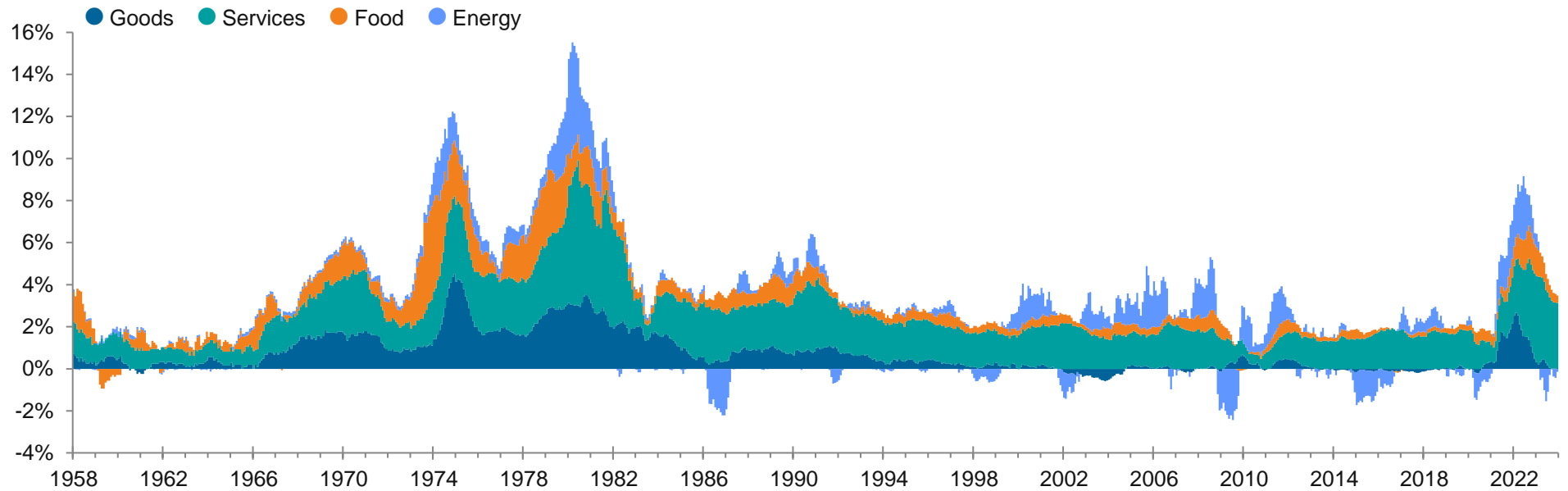


Primary Category	Primary Category Weight	Year-over-Year Change											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
All Items	100.0%	6.4%	6.0%	5.0%	4.9%	4.0%	3.0%	3.2%	3.7%	3.7%	3.2%	3.1%	3.4%
Housing	44.4%	8.2%	8.2%	7.8%	7.5%	6.8%	6.3%	6.2%	5.7%	5.6%	5.2%	5.2%	4.8%
Transportation	16.7%	3.8%	2.6%	-1.0%	0.2%	-2.0%	-5.1%	-3.0%	1.4%	2.4%	0.8%	0.9%	2.9%
Food & Bev	14.4%	9.9%	9.2%	8.3%	7.5%	6.6%	5.7%	4.8%	4.2%	3.7%	3.3%	2.9%	2.7%
Medical Care	8.1%	3.1%	2.3%	1.5%	1.1%	0.7%	0.1%	-0.5%	-1.0%	-1.4%	-0.8%	0.2%	0.5%
Education & Communication	5.8%	1.0%	1.0%	1.4%	1.6%	1.5%	1.1%	1.2%	1.0%	1.0%	0.9%	-0.1%	-0.1%
Recreation	5.4%	4.8%	5.0%	4.8%	5.0%	4.5%	4.3%	4.1%	3.5%	3.9%	3.2%	2.5%	2.7%
Other Goods & Svcs	2.7%	6.2%	6.1%	6.1%	6.6%	6.7%	6.3%	6.1%	5.8%	6.0%	6.2%	5.6%	5.5%
Apparel	2.5%	3.1%	3.3%	3.3%	3.6%	3.5%	3.1%	3.2%	3.1%	2.3%	2.6%	1.1%	1.0%

Source: U.S. Bureau of Labor Statistics

Broad Components of Inflation

Contribution to Inflation by Broad Component

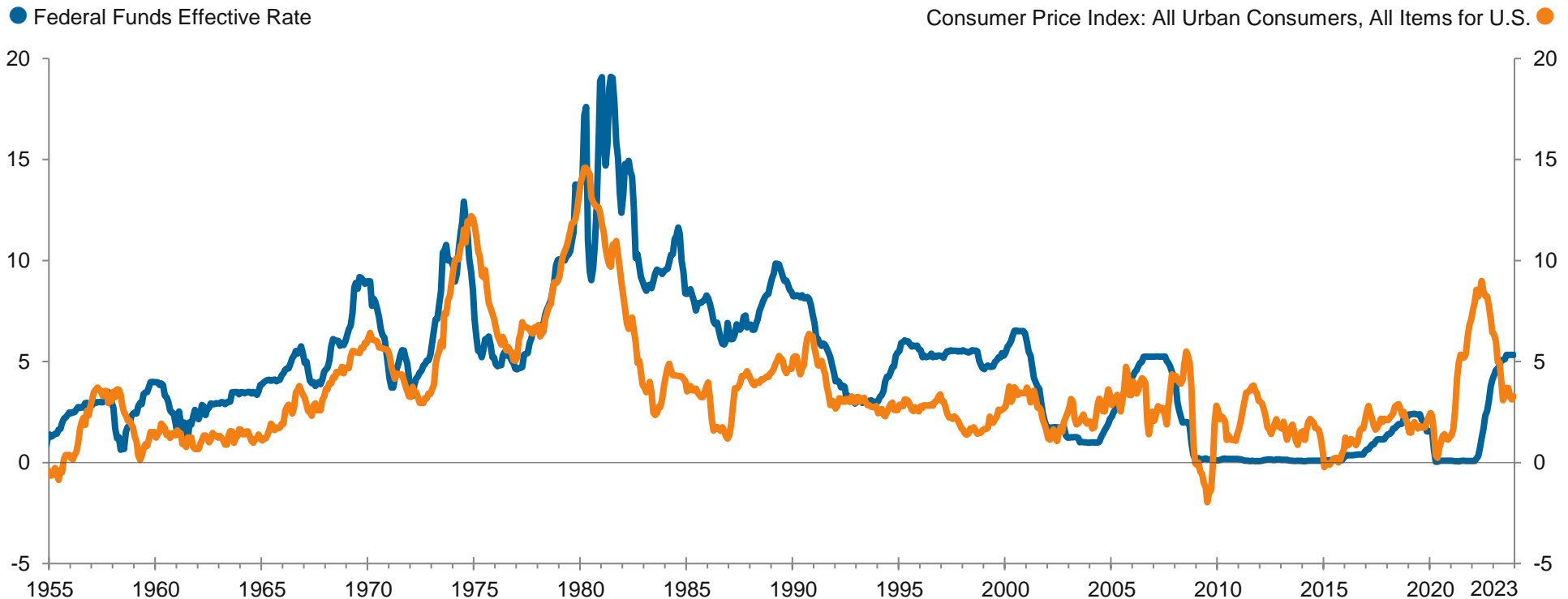


Category	Category Weight	Year-over-Year Change											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Headline CPI	100.0%	6.4%	6.0%	5.0%	4.9%	4.0%	3.0%	3.2%	3.7%	3.7%	3.2%	3.1%	3.4%
Food	13.5%	10.1%	9.5%	8.5%	7.7%	6.7%	5.7%	4.9%	4.3%	3.7%	3.3%	2.9%	2.7%
Energy	6.9%	8.7%	5.2%	-6.4%	-5.1%	-11.7%	-16.7%	-12.5%	-3.6%	-0.5%	-4.5%	-5.4%	-2.0%
Core CPI	79.5%	5.6%	5.5%	5.6%	5.5%	5.3%	4.8%	4.7%	4.3%	4.1%	4.0%	4.0%	3.9%
Goods Less Food and Energy	21.4%	1.4%	1.0%	1.5%	2.0%	2.0%	1.3%	0.8%	0.2%	0.0%	0.1%	0.0%	0.2%
Services Less Energy	58.2%	7.2%	7.3%	7.1%	6.8%	6.6%	6.2%	6.1%	5.9%	5.7%	5.5%	5.5%	5.3%

Source: U.S. Bureau of Labor Statistics. Note Goods excludes food and energy goods while Services excludes energy services.

Inflation vs. Interest Rates Over the Long Term

Federal Funds vs. Consumer Price Index



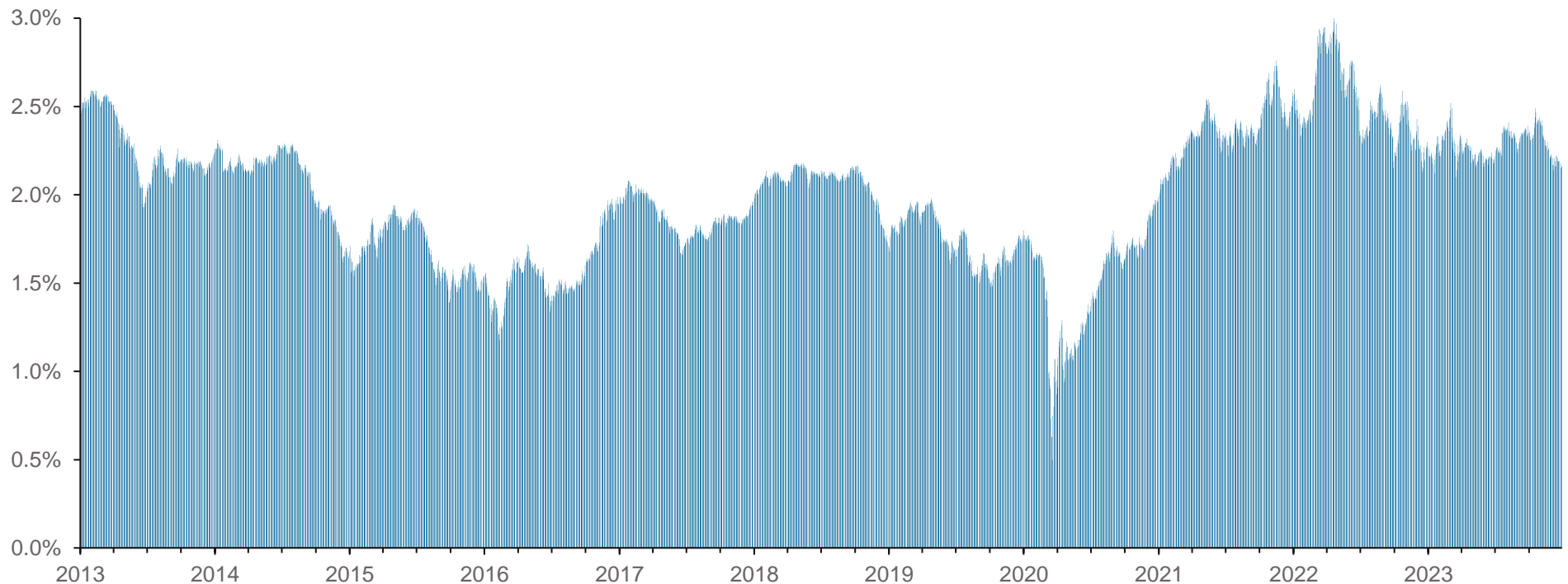
The recent inflation spike capped out at 9% in June 2022, well above the last inflation peak from 2005–08

- The gap between inflation and the Fed Funds rate reached an unprecedented level going back to 1955 but has closed quickly, as the Fed acted on rates and inflation has come down
- Yield history suggests that the Fed Funds rate is typically above inflation, not below it
 - This relationship was restored in May after 42 months of inversion starting in November 2019

Source: Federal Reserve Bank of St. Louis

10-Year Breakeven Rate: Bond Market Forecast of Inflation

10-Year Breakeven Inflation Rate



10-year breakeven inflation rate is the difference in yield between the nominal 10-year Treasury and the 10-year Treasury Inflation-Protected Security (TIPS)

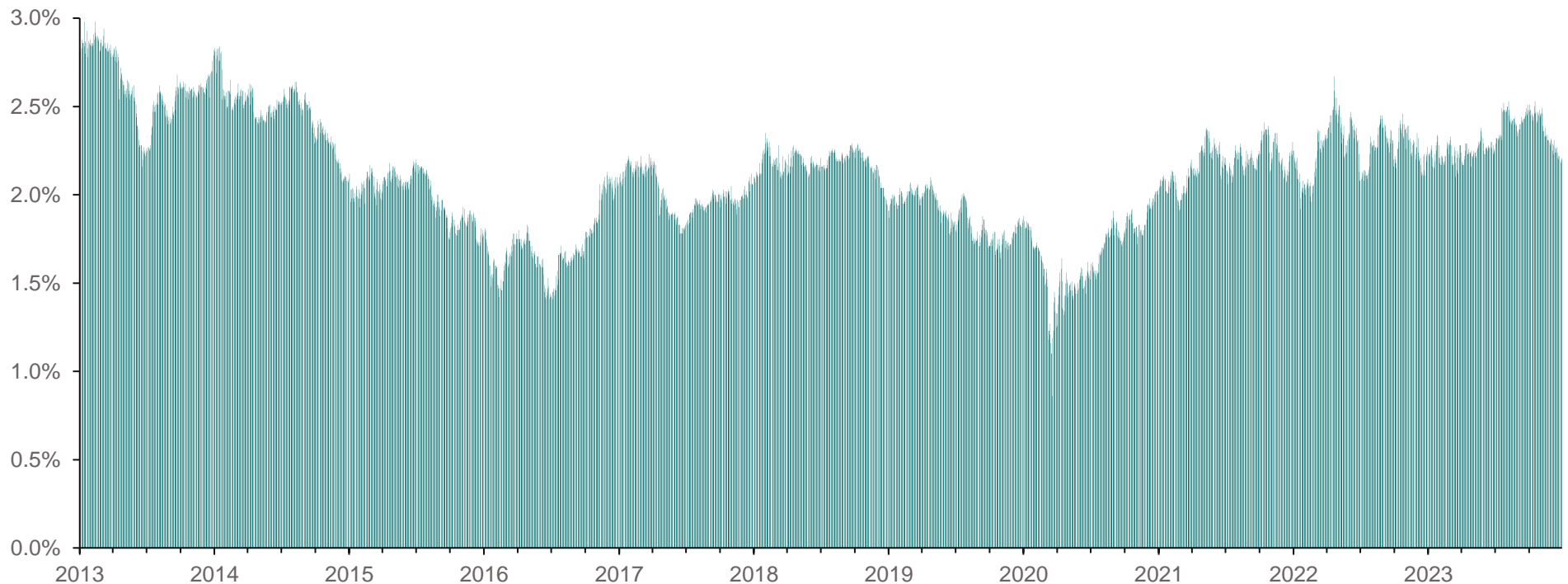
- Includes current higher levels of inflation
- Extra yield nominal Treasury would have to earn to maintain the same purchasing power as a TIPS investment

Values of implied inflation reached 3% in April 2022 but have since declined to around 2.25%

Source: Federal Reserve Bank of St. Louis

5-Year, 5-Year Forward Rate: Bond Market Forecast of Inflation

5-Year, 5-Year Forward Inflation Expectation Rate



The 5-year, 5-year forward rate is the bond market's estimate of the 5-year inflation rate 5 years from now

- Excludes current high levels of inflation

The market inflation expectation for the years 2029 through 2033 is around 2.25% after peaking at 2.7% in April 2022

Source: Federal Reserve Bank of St. Louis

Final Thoughts on the Macro Economy

U.S. economy remained strong through the rate hikes in 2022 and 2023. Why?

- Stimulus and lots of it = pent up demand
- Very tight labor market
- Housing market has taken a big hit but has NOT dragged down the economy as in rate hike episodes of yore
- We do NOT have a mortgage crisis similar to the one that struck in 2008-09 and nearly took down the banking system
- We do have a commercial real estate tsunami working through office in CBDs and retail trade, which will reshape the physical as well as business landscape of many communities in the U.S.
- And we do have a housing shortage that may have long-term generational problems that will upset income and wealth disparity

It may take longer than many believe to unravel the current growth momentum in the U.S. economy

Always expect a recession in our 10-year projections; *when* it will occur is the more difficult question than *if*

Risks are plentiful:

- Recession
 - Jobs and income
 - Sales and earnings growth
 - Fed reverses course sooner than expected
- Inflation
- Housing market
- Geopolitical strife

2024 Expectations

Callan

Fixed Income

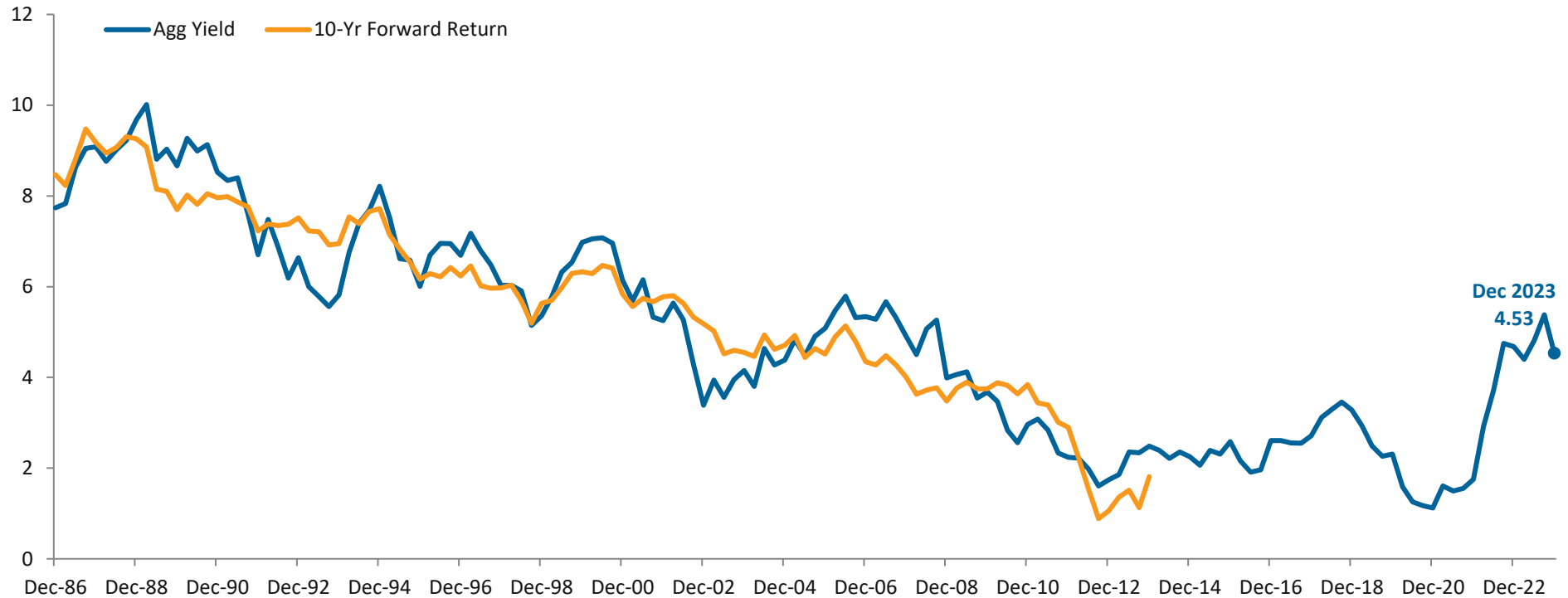
Projected Fixed Income Returns

10-year projections

	Income Return	+ Capital Gain/Loss	+ Credit Default	+ Roll Return	= 2024 Expected Return	2023 Expected Return	Change vs. 2023	2022 Expected Return	Change vs. 2022
Cash	3.00%	0.00%	0.00%	0.00%	3.00%	2.75%	0.25%	1.20%	1.80%
1-3 Year Gov/Credit	3.70%	0.40%	-0.10%	0.25%	4.25%	3.80%	0.45%	1.50%	2.75%
1-3 Year Government	3.50%	0.40%	0.00%	0.25%	4.15%	3.60%			
1-3 Year Credit	4.20%	0.40%	-0.20%	0.25%	4.65%	4.00%			
Intermediate Gov/Credit	4.30%	0.30%	-0.10%	0.25%	4.75%	4.10%	0.65%	1.70%	3.05%
Intermediate Gov	3.90%	0.30%	0.00%	0.25%	4.45%	4.00%			
Intermediate Credit	4.90%	0.40%	-0.30%	0.25%	5.25%	4.25%			
Aggregate	4.70%	0.40%	-0.10%	0.25%	5.25%	4.25%	1.00%	1.75%	3.50%
Government	4.20%	0.40%	0.00%	0.25%	4.85%	3.95%			
Securitized	4.50%	0.60%	0.00%	0.25%	5.35%	4.25%			
Credit	5.55%	0.20%	-0.40%	0.25%	5.60%	4.70%			
Long Duration Gov/Credit	5.70%	-0.10%	-0.20%	0.60%	6.00%	4.65%	1.35%	1.80%	4.20%
Long Government	4.80%	0.00%	0.00%	0.60%	5.40%	3.70%			
Long Credit	6.20%	-0.20%	-0.30%	0.60%	6.30%	5.20%			
TIPS	4.30%	0.50%	0.00%	0.25%	5.05%	4.00%	1.05%	1.25%	3.80%
Global ex-U.S. Fixed	2.70%	0.30%	-0.10%	0.25%	3.15%	2.25%	0.90%	0.80%	2.35%
High Yield	8.45%	0.20%	-2.10%	0.25%	6.80%	6.25%	0.55%	3.90%	2.90%
Emerging Markets Debt	7.70%	0.30%	-1.90%	0.25%	6.35%	5.85%	0.50%	3.60%	2.75%
Bank Loans	8.15%	0.00%	-1.60%	0.00%	6.55%	6.10%	0.45%	4.60%	1.95%

Starting Yield Strongly Predicts Forward Returns

Bloomberg Aggregate Index Starting Yield vs. 10-Year Forward Return



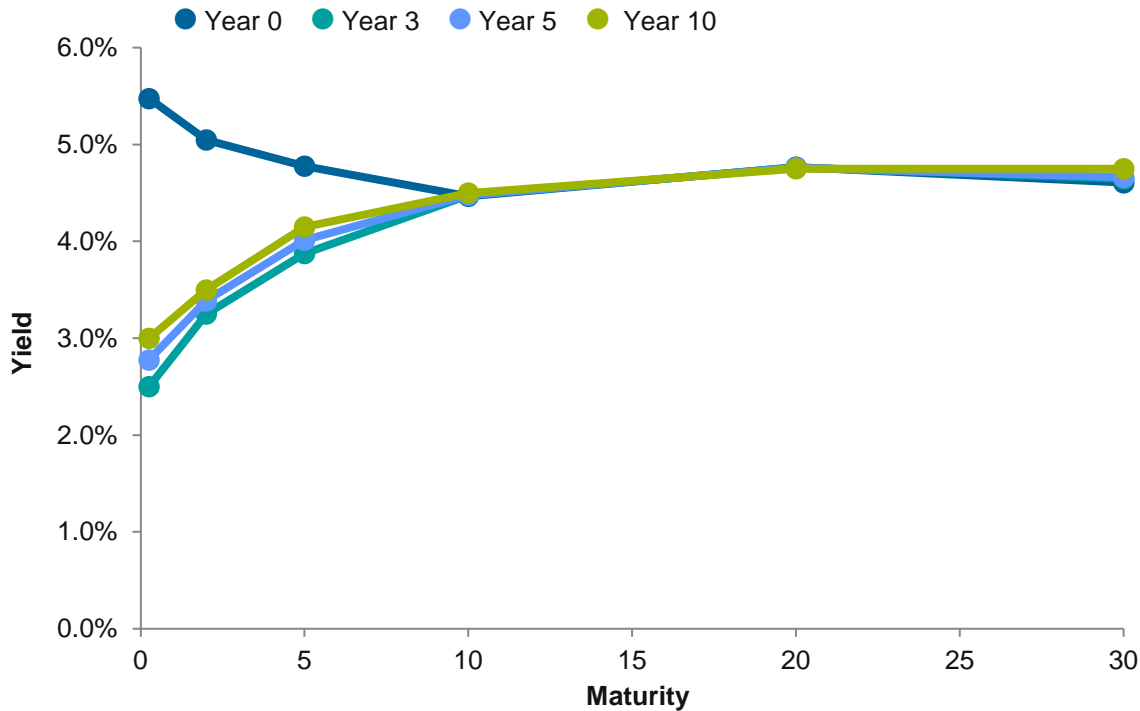
There is a strong relationship between starting yields and subsequent 10-Year returns

Yield on the Bloomberg Aggregate Index was 4.53% as of December 31, 2023

Source: Bloomberg

Shape of Yield Curve at Different Points in Forecast Horizon

Yield Curve Forecast



Our fixed income projections assume the yield curve returns to upward-sloping pattern within the next few years

- Short rates fall below Callan's equilibrium during an assumed overcorrection in Fed policy
- Short rates are then projected to return to long-term equilibrium by year 10 of our forecast

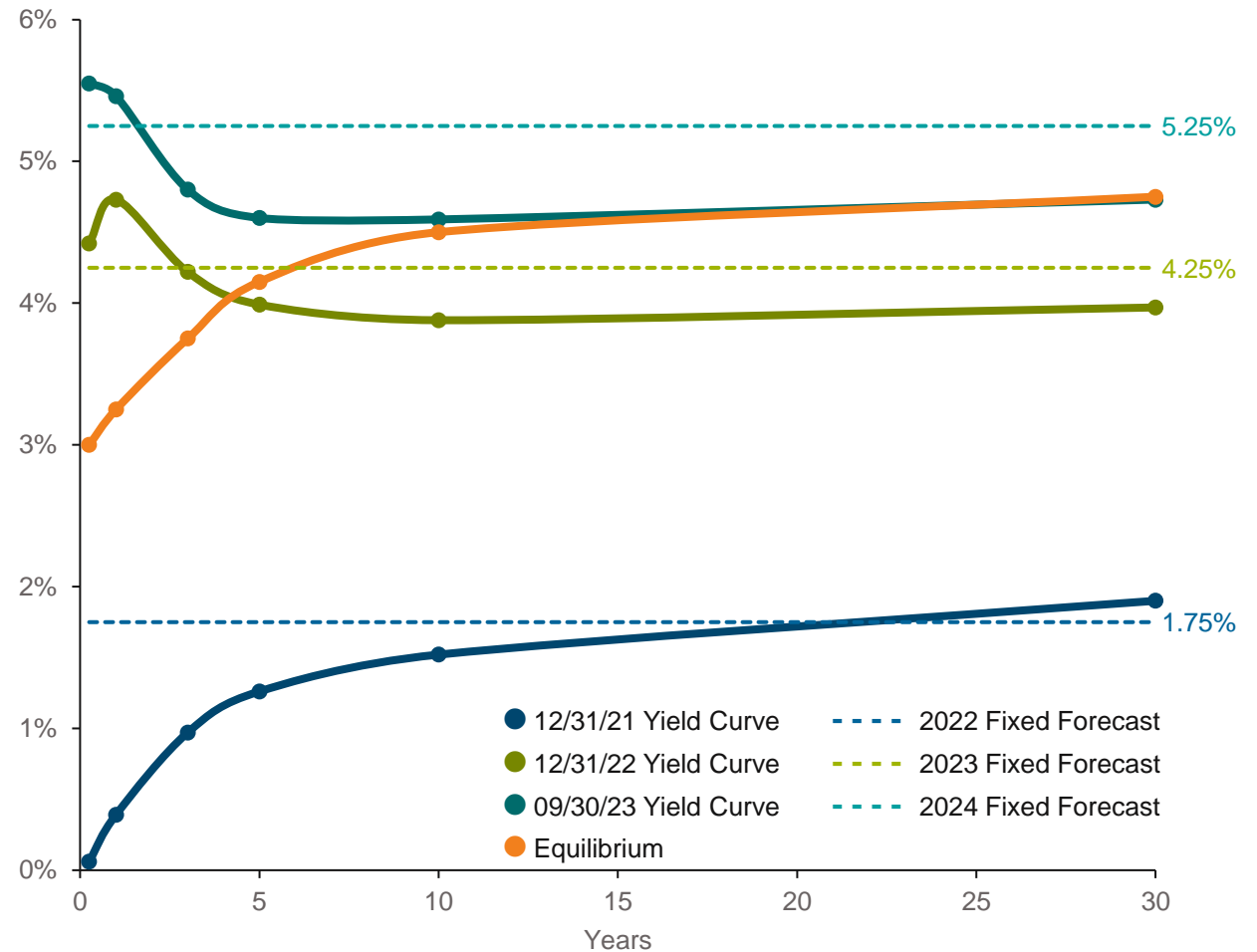
Core Fixed Income Assumptions Follow Yields

Our fixed income assumptions have risen meaningfully in the last few years along with an equally large upward move for the yield curve

2024 projection benefits further from expectation for capital gains

- Capital gains boost the return expectation above what would be expected from income alone

Fixed Income Yields and Forecasts



Source: Bloomberg

Correlation Changes With Interest Rate Regimes and Economic Conditions

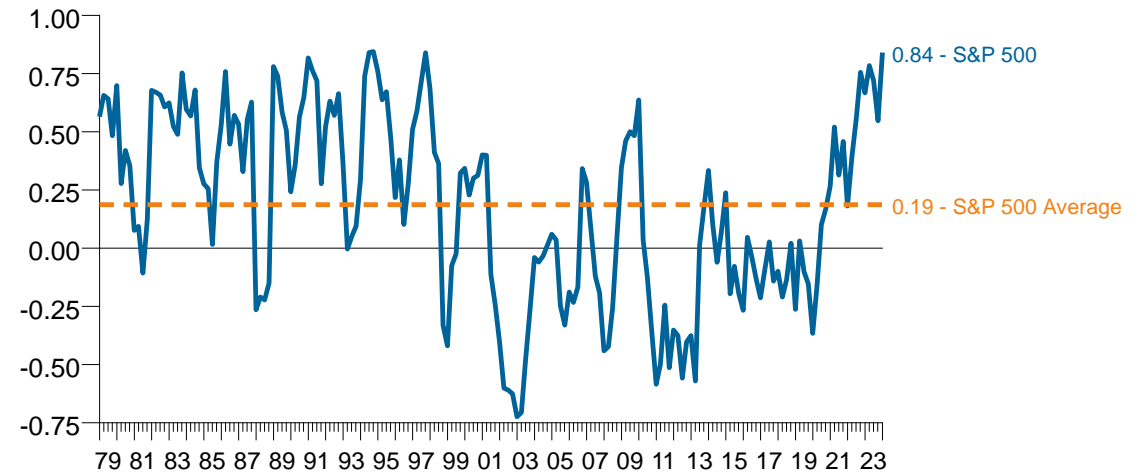
Rolling one-year correlation spiked in 2021 and 2022

Rolling five-year shows how correlation runs in cycles over time

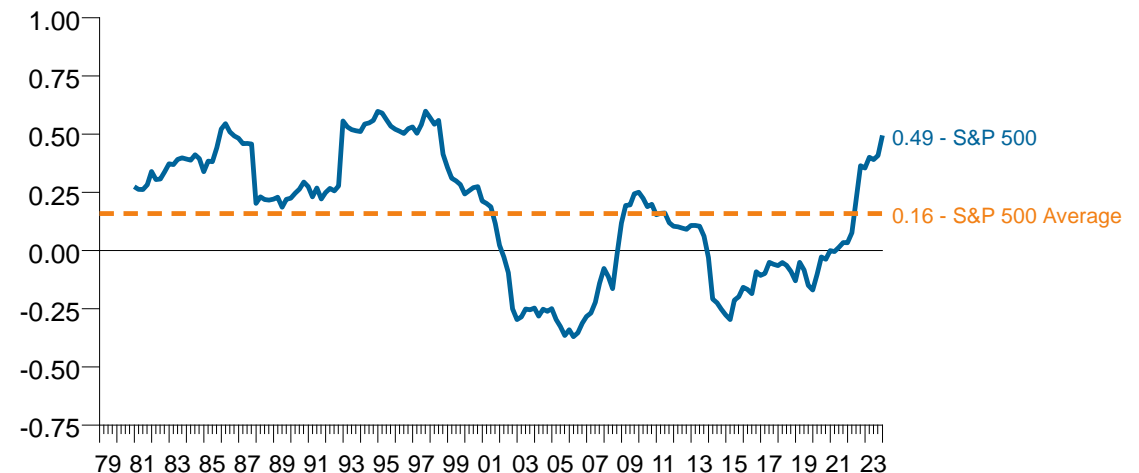
Table below examines correlation and the occurrence of negative returns for stocks and bonds together in three interest rate and inflation regimes. Regime 2 shows higher stock/bond correlation and suggests less diversification benefit under rising rates and inflation.

Period	Regime Description	Negative Return Frequency	Stock/Bond Correlation
Regime 1 1926–1965	Low, stable interest rates	7%	0.13
Regime 2 1966–1981	Secular rate rise	26%	0.48
Regime 3 1982–present	Secular rate decline	6%	0.05

Rolling 1 Year Correlation of S&P 500 to Bloomberg Aggregate



Rolling 5 Year Correlation of S&P 500 to Bloomberg Aggregate



Sources: Bloomberg, Callan, S&P Dow Jones Indices

Callan

Equity

Equity Forecasts

Overview

Fundamental Relationship

$$\text{Equity Return} = \text{Capital Appreciation} + \text{Income} \pm \text{Valuation Adjustment}$$

Capital Appreciation is composed of: Real Earnings Growth + Inflation
 Income is composed of: Dividend Yield + Net Share Buybacks

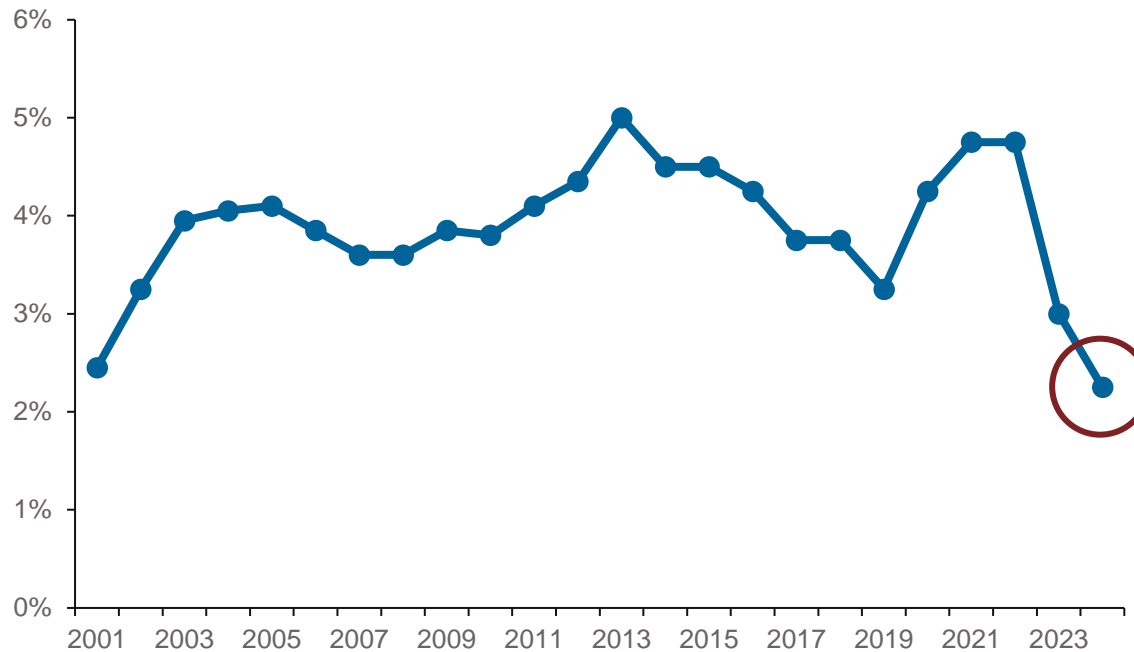
Building up U.S. equity (S&P 500) returns from long-term fundamentals, we arrive at 7.50%

- Real earnings growth is linked to real GDP growth over long horizons; we forecast **2.50%** over the next decade
- Inflation(CPI-U) forecasted at **2.50%** over the next ten years
 - Slightly above the Fed's inflation target of 2%
 - Realized inflation over past quarter century has been 2.5%
 - In line with the market-based forecast of breakeven inflation (yield difference between Treasuries and TIPS)
- Income return of **2.50%** from dividend yield and share buybacks
- Equity valuations are in line with historical norms so no valuation adjustment
- Small premium for Global ex-U.S. over U.S. stems from emerging market growth potential

Callan's Equity Risk Premia Forecasts Over Time

S&P 500 forecast minus Bloomberg Aggregate forecast

Forecasted Equity Risk Premium vs. Bonds

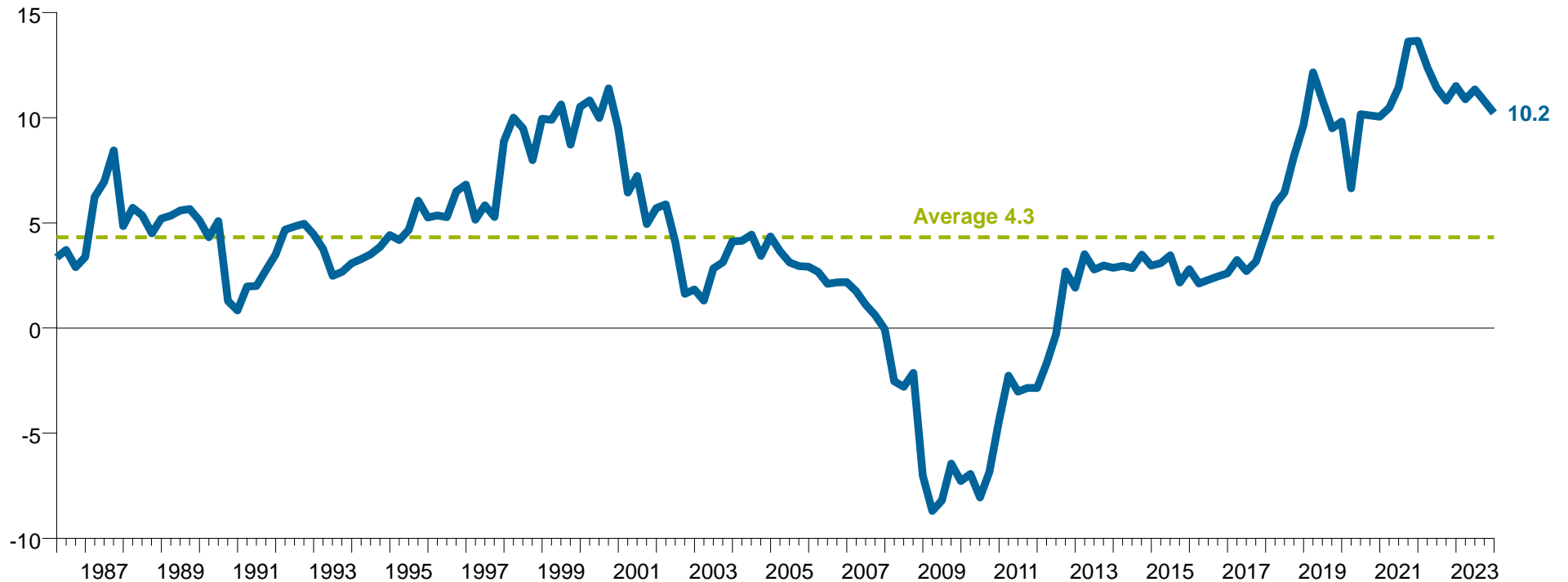


Callan's forecasted return spread between the S&P 500 and the Bloomberg Aggregate (2.25%) is the narrowest since 2001

Forecasts are annualized over 10 years.

Historical Equity Risk Premium Over Bonds

S&P 500 Rolling 40 Quarter Excess Return Relative to Bloomberg Aggregate



Our 2.25% equity risk premium over core bonds is low relative to the historical average of 4.3%, but the premium has been volatile and 2.25 is within the historical range

Sources: Bloomberg, S&P Dow Jones Indices

U.S. Equity Market: Key Metrics

S&P 500 valuation measures

S&P 500 Index: Forward P/E Ratio

Valuation Measure	Latest	30-year Average*	Std Dev Over- / Under-valued
Forward P/E	19.51x	16.59x	0.90
Shiller's P/E	32.43x	27.55x	0.79
Dividend yield	1.54%	2.00%	1.33
Price to book	3.97x	3.11x	1.10
Price to cash flow	14.82x	11.13x	1.64
EY minus Baa yield	-0.33%	0.04%	0.20



Forward P/E (19.5) is about one standard deviation above its long-term average (16.6)

Source: FactSet, FRB, Refinitiv Datastream, Robert Shiller, S&P Dow Jones Indices, Thomson Reuters, J.P. Morgan Asset Management.

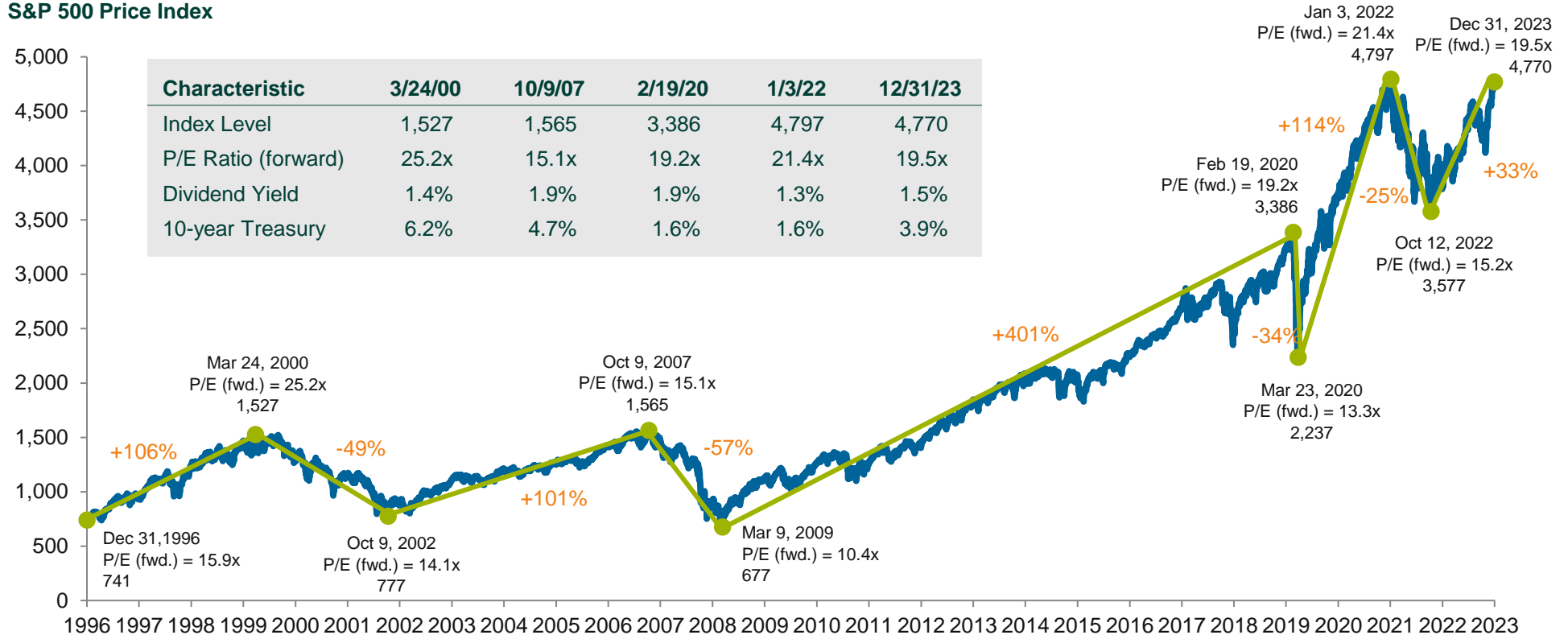
Price-to-earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since December 1998 and by FactSet since January 2022. Current next 12-months consensus earnings estimates are \$245. Average P/E and standard deviations are calculated using 30 years of history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over-/under-valued is calculated using the average and standard deviation over 30 years for each measure.

*Averages and standard deviations for dividend yield and P/CF are since November 1995 due to data availability. Guide to the Markets – U.S. Data are as of December 31, 2023.

U.S. Equity Market: Price Relative to History

S&P 500 Index at inflection points

S&P 500 Price Index



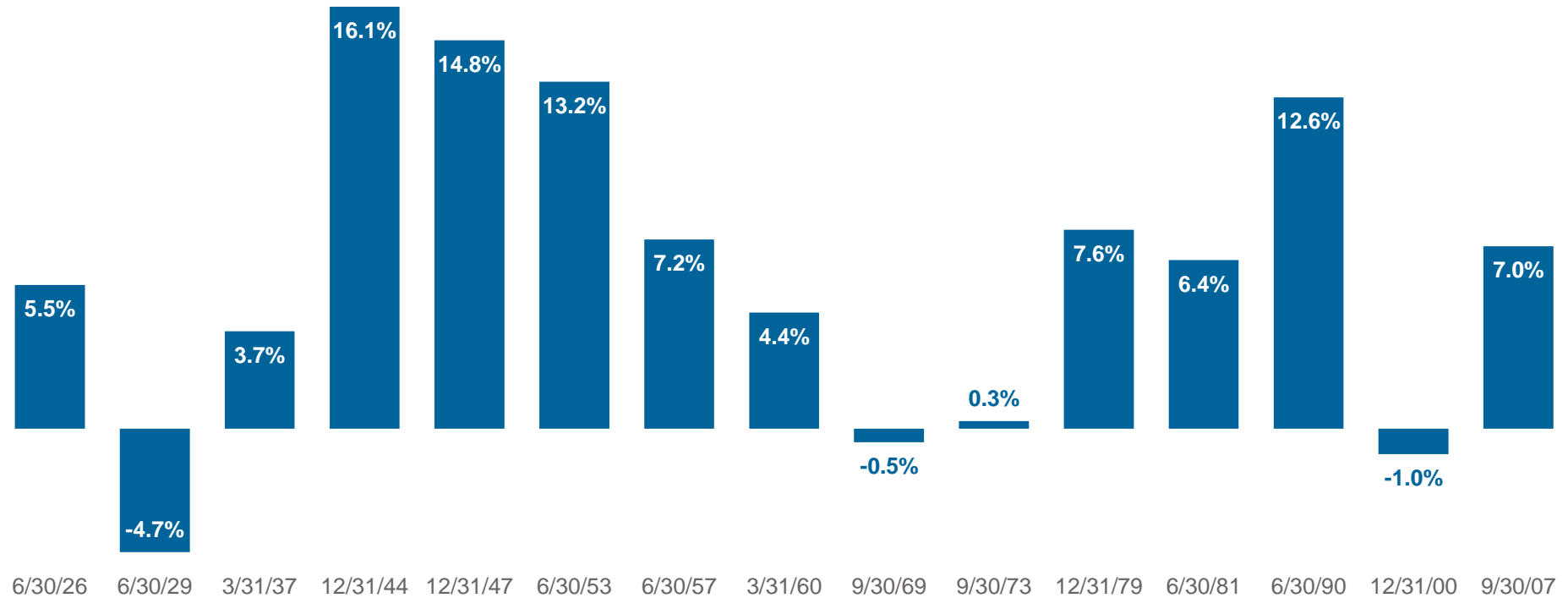
The S&P is still below its January 2022 peak

Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management.

Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price-to-earnings ratio is a bottom-up calculation based on IBES estimates and FactSet estimates since January 2022. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns. Guide to the Markets – U.S. Data are as of December 31, 2023.

Strategic Asset Allocation Through Recessions

Large Cap U.S. Stocks Minus T-Bills (one quarter preceding recession)



The above chart examines what returns could have looked like if an investor had perfect foresight of an incoming economic recession

Over 15 historical recessions, would foresight of recessions be helpful for investors with long-term 10-year time horizons?

- No, moving out of stocks (and into cash) would have underperformed through 12 out of 15 recessions

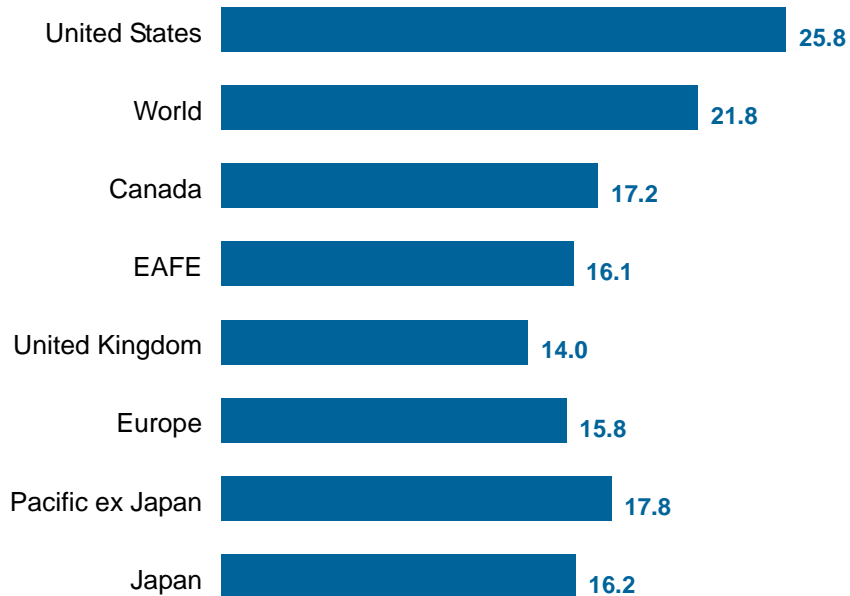
A reasonable approach to strategic asset allocation assumes that recessions occur from time-to-time, even if they are unpredictable

Sources: Ibbotson, Callan LLC, National Bureau of Economic Research

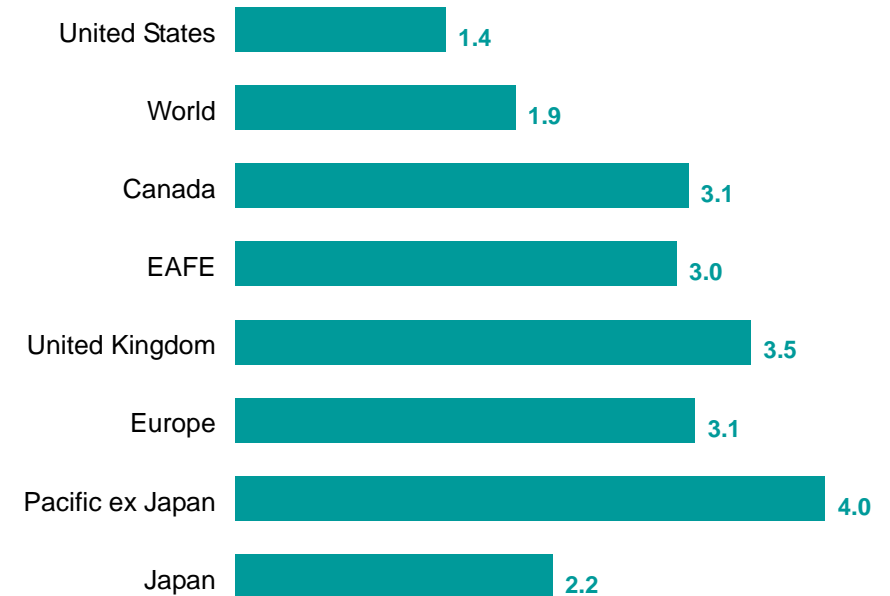
Global ex-U.S. Equity Assumptions

Developed market valuations and dividend yield

Price Earnings Ratio



Dividend Yield



Valuations have increased over most developed markets, especially the United States

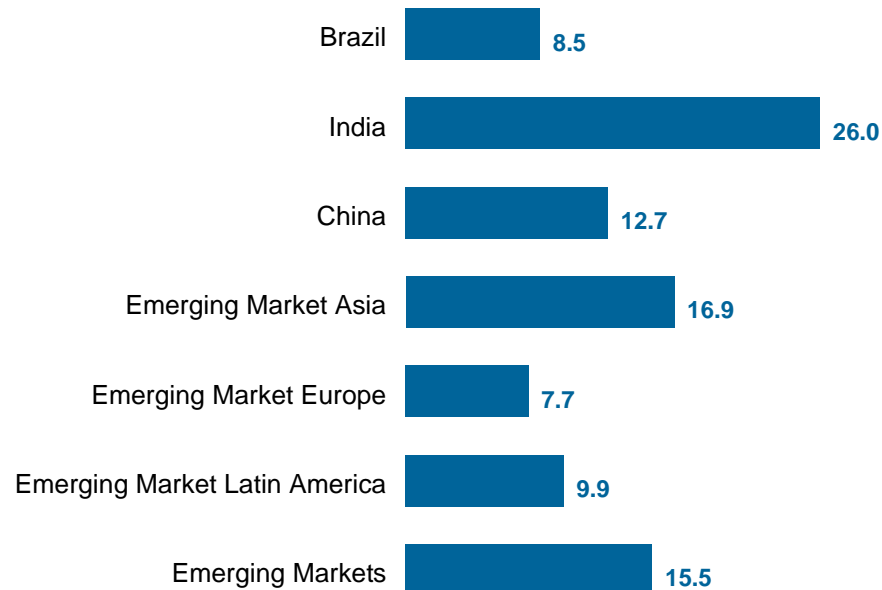
Dividend yields notably declined in the United States

Source: MSCI (Dec. 31, 2023)

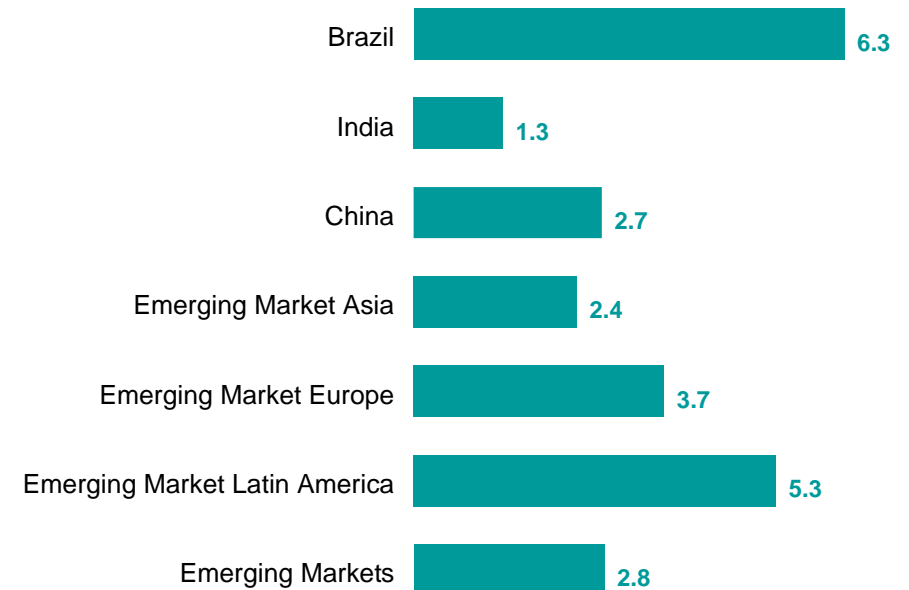
Global ex-U.S. Equity Assumptions

Emerging market valuations and dividend yield

Price Earnings Ratio



Dividend Yield



Emerging market valuations were mixed over the past year with China experiencing a notable decline

- Asia continues to have the highest regional valuations, Emerging Europe the lowest

Dividend yields have declined across most emerging market indices

Significant dilution is realized as growing companies issue more shares

Source: MSCI (Dec. 31, 2023)

Equity Forecasts

Building block model

Index	Forecasted Dividend Yield	Net Buyback Yield	Inflation	Real Earnings Growth	Valuation Adjustment	Total Expected Return
S&P 500	2.00%	0.50%	2.50%	2.50%	0.00%	7.50%
Russell 2500	1.75%	0.00%	2.50%	3.45%	0.00%	7.70%
MSCI World ex USA	3.75%	0.00%	2.00%	1.75%	0.00%	7.50%
MSCI Emerging Markets	3.55%	-2.90%	3.25%	3.80%	0.00%	7.70%

Our return expectations for US large cap (S&P 500) and non-US Developed markets (MSCI World ex-US) are the same, but the paths to those returns are different

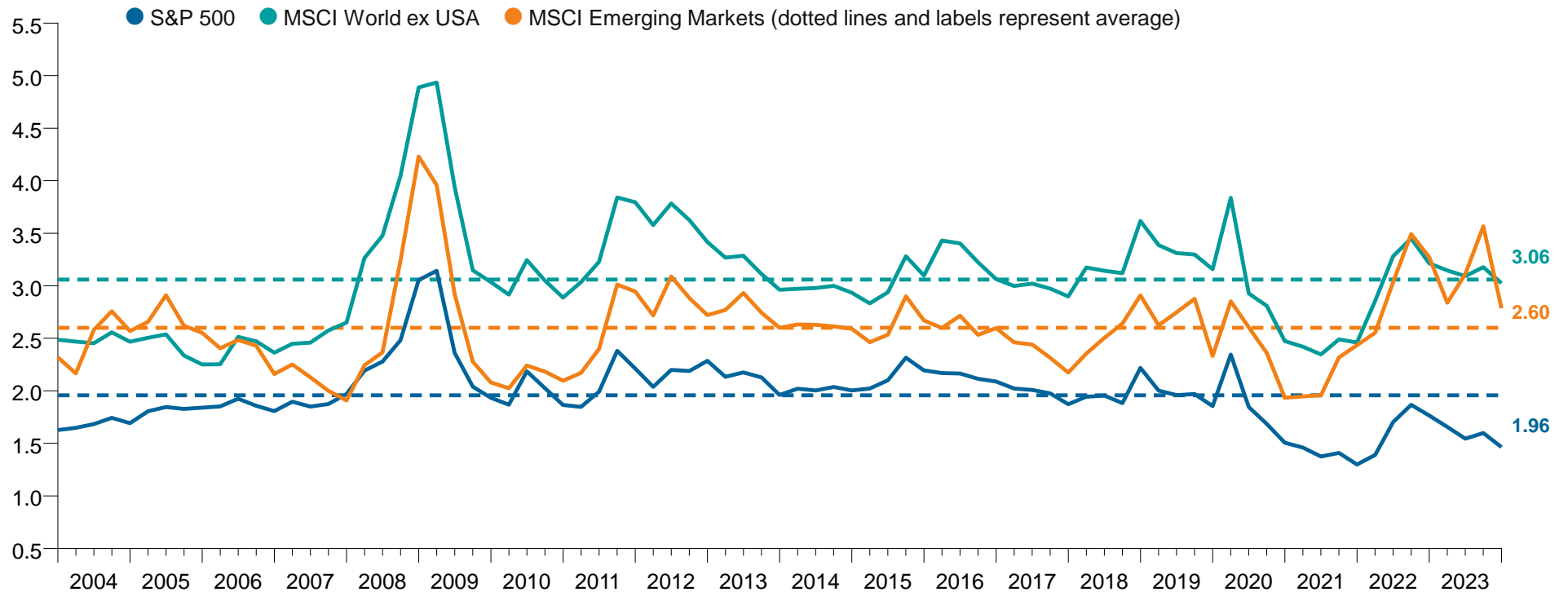
U.S. companies tend to deliver more return from earnings growth than from return of capital via dividends or buybacks

- Non-U.S. developed companies have the opposite relationship
- Emerging market companies tend to deliver strong earnings growth, which is somewhat offset by net issuance of shares as these companies issue stock to support growth

Equity Forecasts

Dividend Yields (past 20 years)

Dividend Yield for 20 Years Ended December 31, 2023



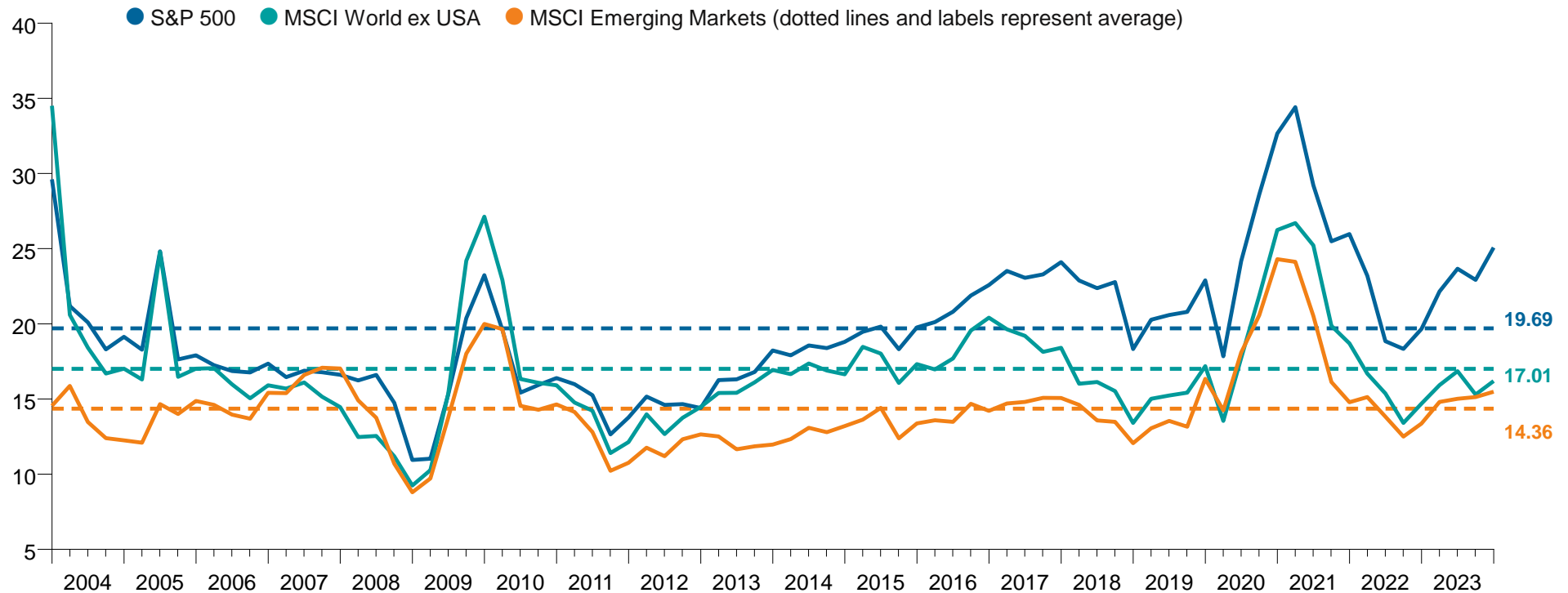
International equity has consistently provided higher dividend yields than U.S. equity

Dividend yield measure is one year trailing

Equity Forecasts

Price / Earnings Ratio

Price/Earnings Ratio (inc neg) for 20 Years Ended December 31, 2023



U.S., developed, and emerging price/earnings are broadly consistent with historical averages

P/E measure is one year trailing.

Callan

Alternatives

Core Real Estate

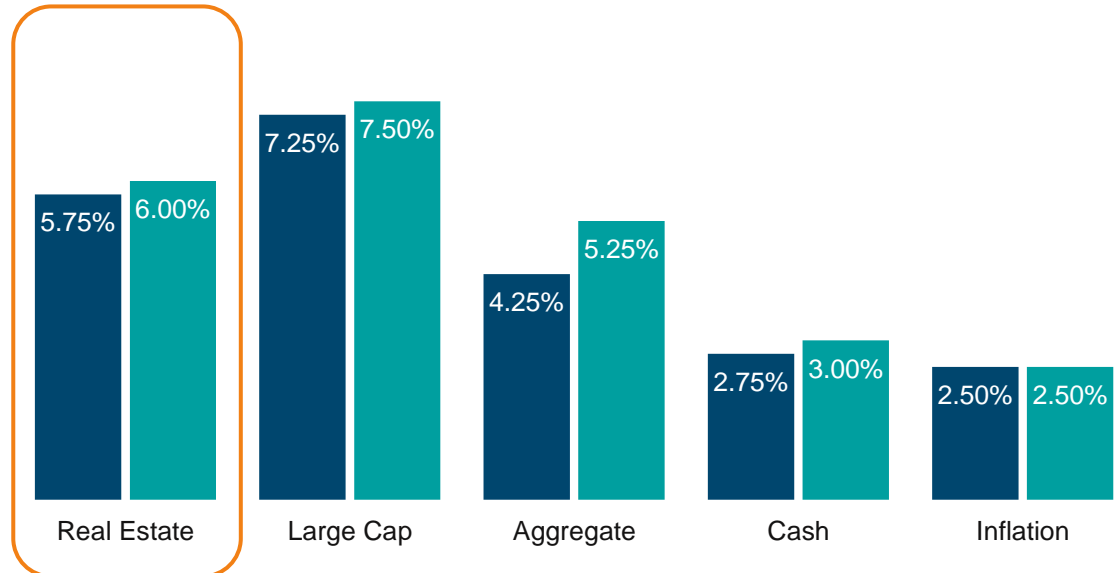
Real estate has characteristics of equity (ownership and appreciation) and bonds (income from rents). Real estate returned - 8.4% for the year ended September 30, 2023, on an unlevered property basis

While real estate, especially within offices, is expected to continue facing headwinds in the short-term, recent price declines could make more attractive entry points available for long-term investors

Slight increase in real estate returns compared to last year.

Return Projections

● 2023 ● 2024



Source: Callan, NCREIF NPI index

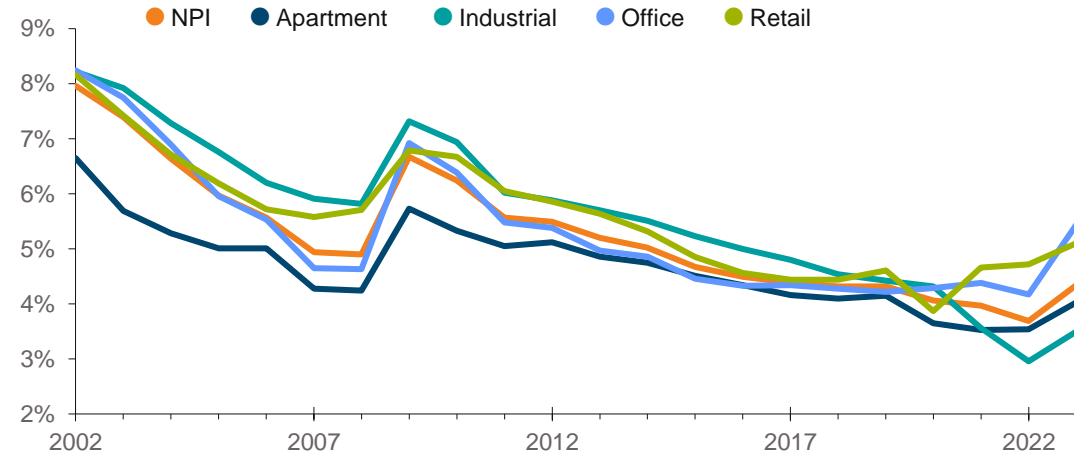
Core Real Estate

6% core real estate compound return (net of fees)

Return calculations assume 5.4% cost of leverage and 0.5x debt-to-equity (33% loan-to-value)

Income Return (unlevered property)	5.1%
Appreciation (unlevered property)	1.0%
Total Return (before leverage)	6.1%

Annual Cap Rates (through September 30, 2023)



Callan Return Assumptions (unlevered property returns)

	Office	Retail	Industrial	Apartments	Other	NPI Index
Income	5.7%	5.6%	4.3%	5.1%	5.8%	5.1%
Appreciation	0.0%	0.4%	2.3%	0.6%	0.9%	1.0%
Total Return	5.7%	6.0%	6.6%	5.7%	6.7%	6.1%

Source: NCREIF Property Index (NPI) cap rates correspond to unlevered property valuations

Private Equity

The private equity market in aggregate is driven by many of the same economic factors as public equity markets. However, we expect private equity to experience some write-downs that have not yet been reflected in performance

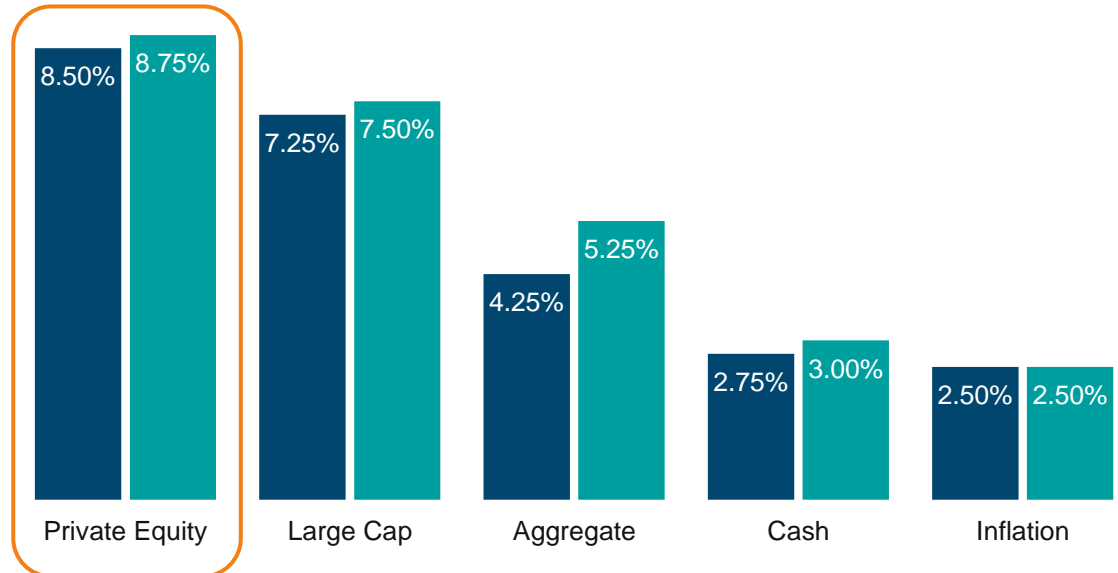
Private equity performance expectations rose in line with public equity expectations

We see tremendous disparity between the best- and worst-performing private equity managers

The ability to select skillful managers could result in realized returns significantly greater than projected here

Return Projections

● 2023 ● 2024



Source: Callan

Private Credit

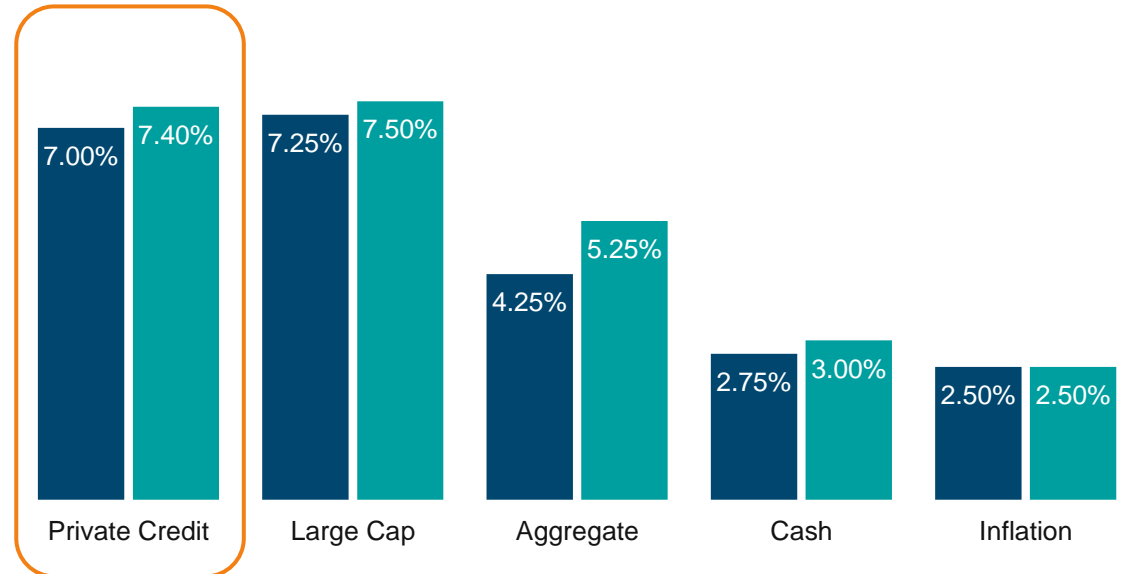
Return projection is anchored on middle market direct lending where yields have risen along with public fixed income yields

While banks are no longer major investors in this market, there is strong appetite from institutional and retail investors

Unlevered Yield	9.5%
Leverage	0.85x
Levered Yield	12.9%
Loss Ratio	2.4%
Net Arithmetic	8.5%
Net Compound Return	7.4%

Return Projections

● 2023 ● 2024



Source: Callan
Return calculation assumes 5.5% cost of leverage and 1.3% unlevered loss ratio

Callan

**Detailed 2024 Expectations and
Resulting Expected Portfolio Returns and
Risks**

2024 vs. 2023 Risk and Returns Assumptions

		PROJECTED RETURN			PROJECTED RISK		2023 - 2032			vs 2023	
Asset Class	Index	1-Year Arithmetic	10-Year Geometric*	Real	Standard Deviation	Projected Yield**	1-Year Arithmetic	10-Year Geometric*	Standard Deviation	Geometric* Delta	Std Dev Delta
Equities											
Broad U.S. Equity	Russell 3000	8.85%	7.65%	5.15%	17.40%	1.95%	8.75%	7.35%	18.05%	0.30%	-0.65%
Large Cap U.S. Equity	S&P 500	8.70%	7.50%	5.00%	17.00%	2.00%	8.60%	7.25%	17.75%	0.25%	-0.75%
Small/Mid Cap U.S. Equity	Russell 2500	9.80%	7.70%	5.20%	22.00%	1.75%	9.60%	7.45%	22.15%	0.25%	-0.15%
Global ex-U.S. Equity	MSCI ACWI ex USA	9.65%	7.65%	5.15%	21.40%	3.70%	9.45%	7.45%	21.25%	0.20%	0.15%
Developed ex-U.S. Equity	MSCI World ex USA	9.25%	7.50%	5.00%	20.15%	3.75%	9.00%	7.25%	20.15%	0.25%	0.00%
Emerging Market Equity	MSCI Emerging Markets	10.65%	7.70%	5.20%	25.60%	3.55%	10.45%	7.45%	25.70%	0.25%	-0.10%
Fixed Income											
Short Duration Gov't/Credit	Bloomberg 1-3 Yr G/C	4.25%	4.25%	1.75%	2.40%	3.70%	3.75%	3.80%	2.30%	0.45%	0.10%
Core U.S. Fixed	Bloomberg Aggregate	5.25%	5.25%	2.75%	4.25%	4.70%	4.25%	4.25%	4.10%	1.00%	0.15%
Long Government	Bloomberg Long Gov	6.20%	5.40%	2.90%	13.75%	4.80%	4.55%	3.70%	13.50%	1.70%	0.25%
Long Credit	Bloomberg Long Cred	6.85%	6.30%	3.80%	11.90%	6.20%	5.75%	5.20%	11.75%	1.10%	0.15%
Long Government/Credit	Bloomberg Long G/C	6.55%	6.00%	3.50%	11.70%	5.55%	5.20%	4.65%	11.40%	1.35%	0.30%
TIPS	Bloomberg TIPS	5.10%	5.05%	2.55%	5.40%	4.30%	4.10%	4.00%	5.30%	1.05%	0.10%
High Yield	Bloomberg High Yield	7.30%	6.80%	4.30%	11.75%	8.45%	6.75%	6.25%	11.75%	0.55%	0.00%
Global ex-U.S. Fixed	Bloomberg GI Agg xUSD	3.60%	3.15%	0.65%	9.80%	2.70%	2.70%	2.25%	9.80%	0.90%	0.00%
Emerging Market Sovereign Debt	EMBI Global Diversified	6.75%	6.35%	3.85%	10.65%	7.70%	6.25%	5.85%	10.65%	0.50%	0.00%
Alternatives											
Core Real Estate	NCREIF ODCE	6.85%	6.00%	3.50%	14.00%	4.00%	6.60%	5.75%	14.20%	0.25%	-0.20%
Private Infrastructure	MSCI Glb Infra/FTSE Dev Core 50/50	7.30%	6.35%	3.85%	15.20%	4.80%	7.15%	6.15%	15.45%	0.20%	-0.25%
Private Equity	Cambridge Private Equity	12.15%	8.75%	6.25%	27.60%	0.00%	11.95%	8.50%	27.60%	0.25%	0.00%
Private Credit	Cambridge Senior Debt Index	8.40%	7.40%	4.90%	15.70%	7.40%	8.00%	7.00%	15.50%	0.40%	0.20%
Hedge Funds	Callan Hedge FoF Database	6.25%	6.05%	3.55%	8.20%	0.00%	5.80%	5.55%	8.45%	0.50%	-0.25%
Commodities	Bloomberg Commodity	5.45%	3.90%	1.40%	18.05%	3.00%	5.05%	3.50%	18.00%	0.40%	0.05%
Cash Equivalents										0.25%	0.00%
Inflation										0.00%	0.00%

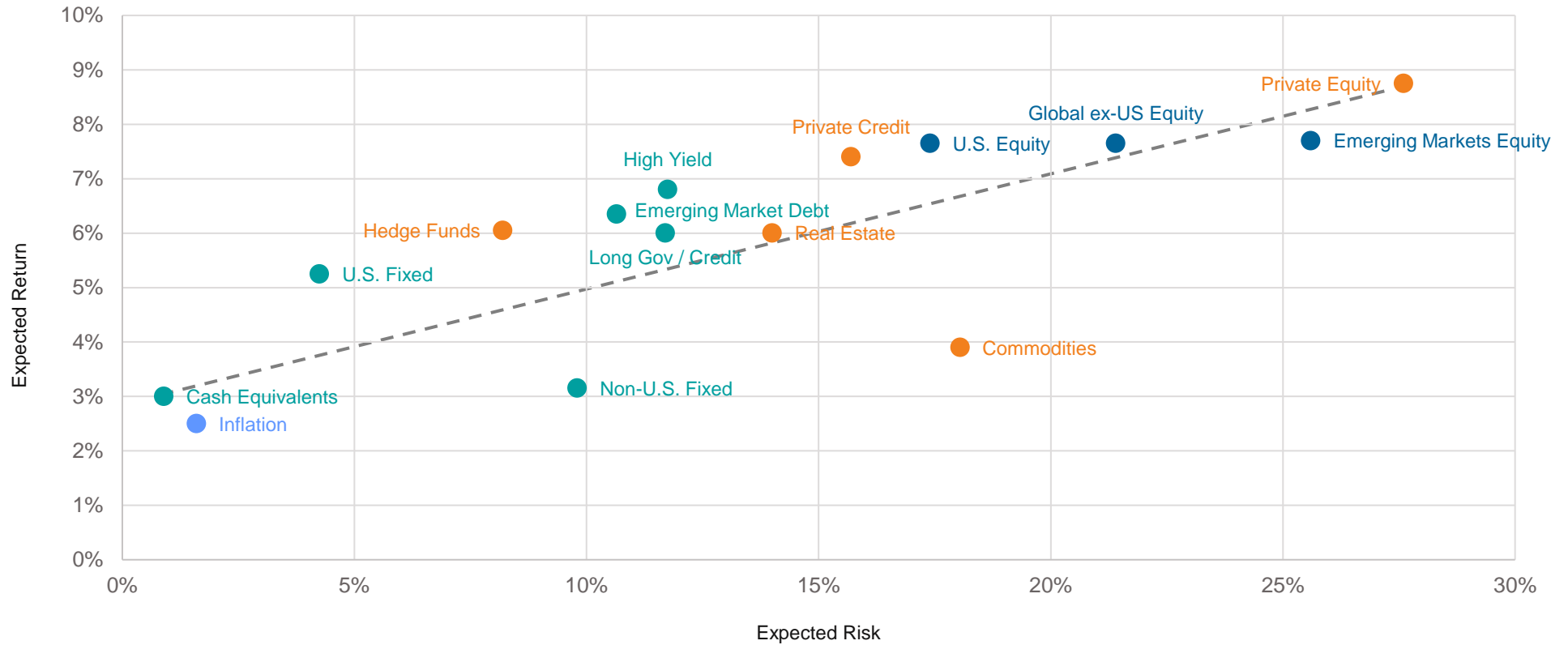
* Geometric returns are derived from arithmetic returns and the associated risk (standard deviation).

** Projected Yields represent the expected 10-year average yield

Source: Callan

Risk Aversion

Visualizing Callan's 2024–2033 Capital Market Assumptions



Source: Callan 2024–2033 return-risk capital markets assumptions

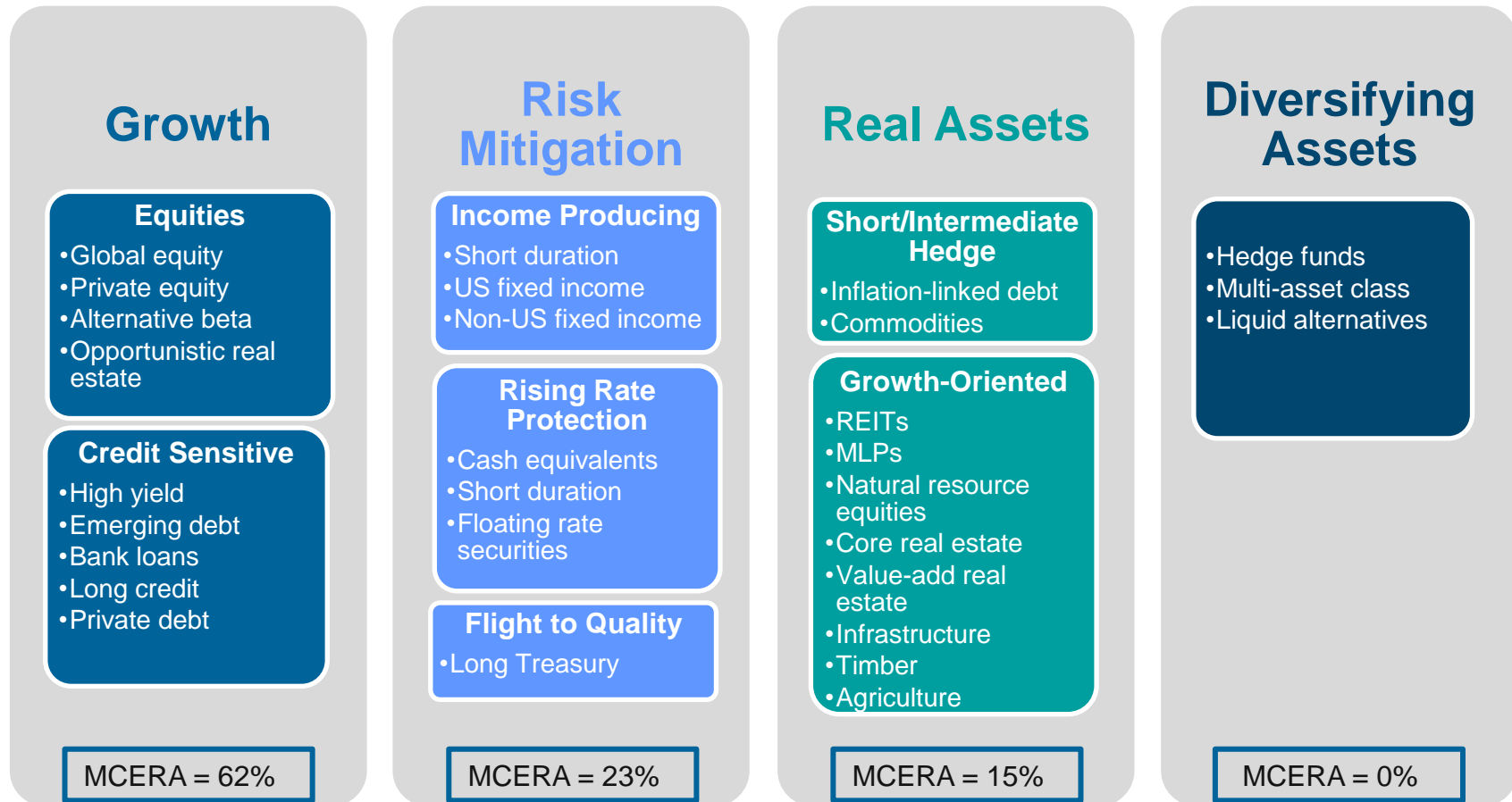
2024–2033 Callan Capital Markets Assumptions Correlations

Large Cap U.S. Equity	1.00																				
Smid Cap U.S. Equity	0.87	1.00																			
Dev ex-U.S. Equity	0.70	0.81	1.00																		
Em Market Equity	0.81	0.88	0.92	1.00																	
Short Dur Gov/Credit	0.05	0.01	0.04	-0.01	1.00																
Core U.S. Fixed	0.09	0.03	0.06	0.00	0.78	1.00															
Long Government	0.01	0.00	0.03	0.00	0.65	0.82	1.00														
Long Credit	0.40	0.35	0.35	0.35	0.62	0.80	0.69	1.00													
TIPS	-0.02	-0.05	-0.04	-0.07	0.55	0.70	0.54	0.52	1.00												
High Yield	0.74	0.74	0.71	0.74	0.13	0.15	0.02	0.45	0.06	1.00											
Global ex-U.S. Fixed	0.12	0.11	0.14	0.10	0.50	0.50	0.42	0.53	0.40	0.16	1.00										
EM Sovereign Debt	0.59	0.60	0.61	0.65	0.17	0.23	0.11	0.47	0.11	0.62	0.17	1.00									
Core Real Estate	0.33	0.33	0.33	0.33	0.17	0.22	0.08	0.31	0.12	0.30	0.14	0.22	1.00								
Private Infrastructure	0.47	0.47	0.45	0.47	0.14	0.18	0.10	0.33	0.08	0.34	0.18	0.32	0.65	1.00							
Private Equity	0.79	0.77	0.76	0.76	-0.04	-0.04	-0.08	0.27	-0.12	0.55	0.07	0.44	0.46	0.52	1.00						
Private Credit	0.67	0.67	0.64	0.68	0.04	0.06	-0.02	0.32	-0.05	0.55	0.11	0.47	0.26	0.27	0.65	1.00					
Hedge Funds	0.60	0.50	0.50	0.50	0.28	0.39	0.25	0.52	0.23	0.50	0.24	0.47	0.24	0.31	0.34	0.47	1.00				
Commodities	0.20	0.20	0.20	0.20	-0.04	-0.05	-0.10	0.04	0.00	0.18	0.05	0.15	0.16	0.15	0.16	0.14	0.17	1.00			
Cash Equivalents	-0.02	-0.07	-0.08	-0.08	0.27	0.16	0.12	0.04	0.14	-0.03	0.10	-0.02	0.02	-0.04	-0.04	-0.04	0.00	-0.02	1.00		
Inflation	0.00	0.02	0.00	0.02	-0.20	-0.22	-0.30	-0.20	0.25	-0.03	-0.12	-0.04	0.20	0.10	0.04	-0.04	-0.01	0.35	0.02	1.00	
	Large Cap	Smid Cap	Dev	Em Mkts	Short Dur	Core Fixed	Long Gov	Long Credit	TIPS	High Yield	Global ex-US Fixed	EM	Core Real Estate	Private Infra	Private Equity	Private Credit	Hedge Funds	Comm	Cash Equiv	Inflation	

Source: Callan

Asset Allocation - By Purpose

Goal-Based Investing



Asset class considerations:

Fees (hedge funds, private equity, private real estate); **Illiquidity** (private markets, private real estate, hedge funds, timber/farmland); **Lack of Transparency** (private equity, hedge funds); **Susceptible to Prolonged Underperformance** (commodities, emerging markets equity); **High Volatility** (emerging markets equity, unhedged non-US bonds, private equity, commodities); **Implementation Risk** (private markets, hedge funds); **Complexity** (hedge funds, private equity, commodities)

MCERA Asset Classes

2024 Expected Return and Risk

<u>Asset Class</u>	10-Year Compound Return	Projected Standard Deviation	Real Return
Broad Domestic Equity	7.65%	17.40%	5.15%
Global ex-US Equity	7.65%	21.40%	5.15%
Domestic Fixed Income	5.25%	4.25%	2.75%
Private Equity	8.75%	27.60%	6.25%
Real Assets	6.60%	11.10%	4.10%
Cash Equivalents	3.00%	0.90%	0.50%
Inflation	2.50%	1.60%	

Total Real Assets projection is customized to MCERA's mix:

- 8% private real estate, 7% public real assets
- Public real assets = 25% TIPS, 25% Commodities, 25% REITs, 25% Natural Resource Equity

The Opportunistic allocation has a 0% target, so it is not included in these projections

Source: Callan

MCERA Asset Classes

2024 Correlations

	Broad Domestic Equity	Global Ex-U.S. Equity	Domestic Fixed	Private Equity	Real Assets	Cash Equivalents	Inflation
Broad Domestic Equity	1.00						
Global Ex-U.S. Equity	0.79	1.00					
Domestic Fixed	0.08	0.04	1.00				
Private Equity	0.80	0.78	-0.04	1.00			
Real Assets	0.61	0.60	0.19	0.67	1.00		
Cash Equivalents	-0.03	-0.08	0.16	-0.04	0.01	1.00	
Inflation	0.00	0.01	-0.22	0.04	0.28	0.02	1.00

Total Real Assets projection is customized to MCERA's mix:

- 8% private real estate, 7% public real assets
- Public real assets = 25% TIPS, 25% Commodities, 25% REITs, 25% Natural Resource Equity

The Opportunistic allocation has a 0% target, so it is not included in these projections.

Source: Callan

Alternative Asset Mixes 2024

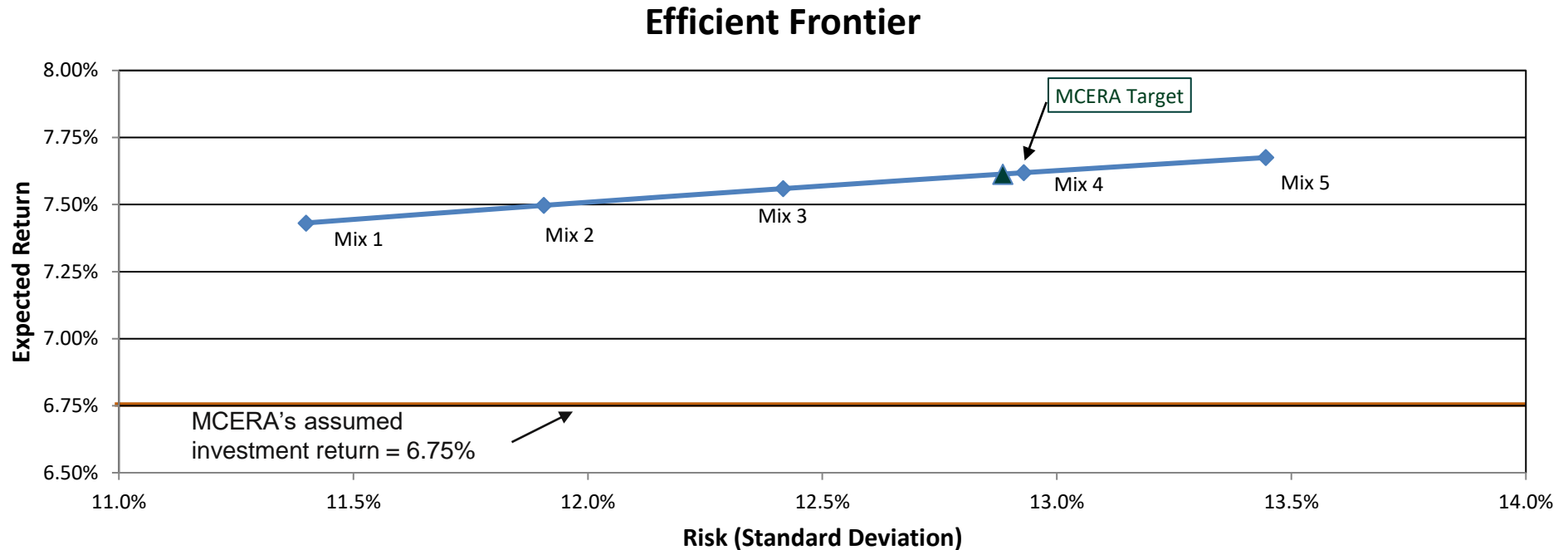
Current Asset Classes

Asset Class	MCERA Target	Min Allocation	Max Allocation	Alternative Asset Mixes				
				Mix 1	Mix 2	Mix 3	Mix 4	Mix 5
Broad US Equity	32%	0%	100%	25%	27%	29%	31%	32%
Broad International Equity	22%	0%	100%	20%	21%	22%	23%	25%
Broad US Fixed Income	23%	0%	100%	32%	29%	26%	23%	20%
Real Assets	15%	15%	15%	15%	15%	15%	15%	15%
Private Equity	8%	0%	8%	8%	8%	8%	8%	8%
Totals	100%			100%	100%	100%	100%	100%
Expected Return	7.6%			7.4%	7.5%	7.6%	7.6%	7.7%
Real Return	5.1%			4.9%	5.0%	5.1%	5.1%	5.2%
Risk (Standard Deviation)	12.9%			11.4%	11.9%	12.4%	12.9%	13.4%
Sharpe Ratio	0.36			0.39	0.38	0.37	0.36	0.35
% Equity	62%			53%	56%	59%	62%	65%
% Fixed Income	23%			32%	29%	26%	23%	20%
% Real Assets	15%			15%	15%	15%	15%	15%
% Illiquid	16%			16%	16%	16%	16%	16%

- Fixed income allocations are adjusted in 3% increments; Mix 4 lines up with the current Target return
- Mixes are constrained to hold 15% real assets (current target)
- Private equity limited to a maximum of 8% (current target)
- Private equity allocations above 8% are reallocated to public equity
- The resulting impact on total portfolio return is modest, risk fluctuates a bit more

MCERA 2024 Efficient Frontier – Nominal Return

Maximum Private Equity Allocation = 8%



MCERA's asset allocation target is an optimal allocation, since it lies on the efficient frontier depicting risk and return

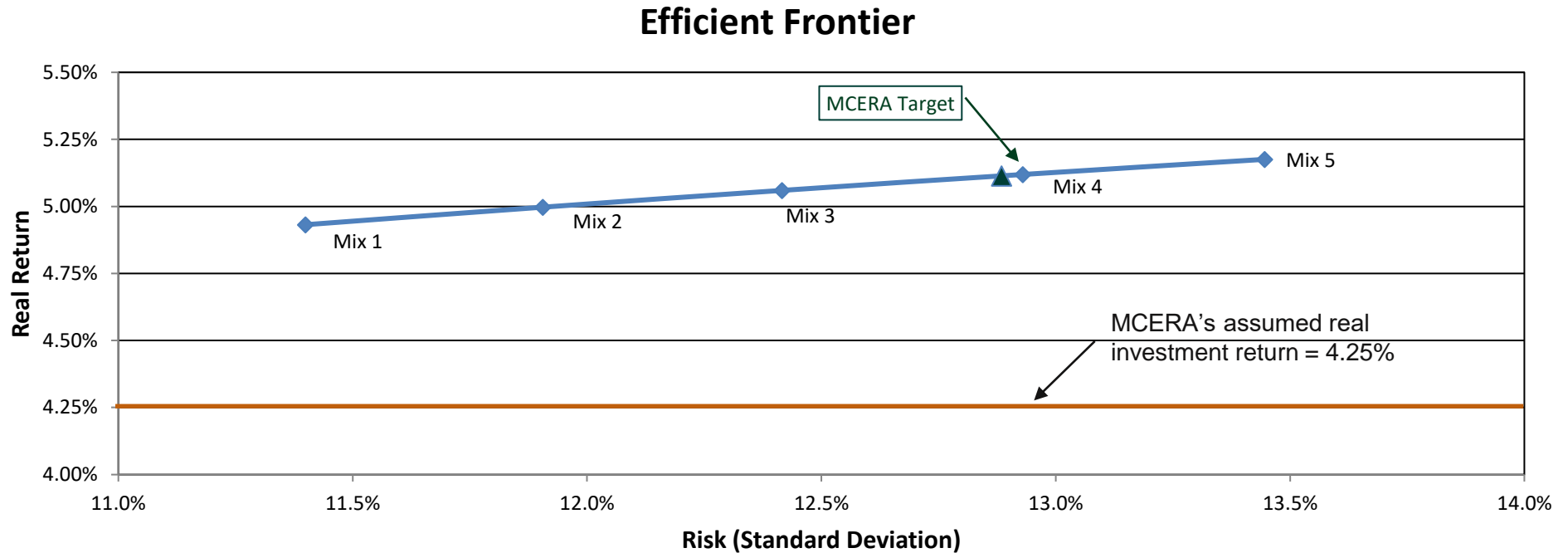
Current target is a well-diversified portfolio that includes fixed income, public equity, private equity and real assets, including private real estate

All of the alternative mixes would meet the 6.75% plan return target in the expected case

Source: Callan

MCERA - 2024 Efficient Frontier – Real Return

Maximum Private Equity Allocation = 8%



MCERA's long term nominal return assumption of 6.75% and inflation assumption of 2.5% suggest a long term real return target of 4.25%

Callan's 10-year return expectation for the target asset allocation is 7.6%, and combined with our inflation assumption of 2.5%, yields a real return expectation of 5.1%, higher than the 4.25% assumed in the actuarial valuation

Source: Callan

Projected Rates of Return (10 Years)

Range of Projected Rates of Return

Projection Period: 10 Years

Optimization Set: 2024 PE Max 8

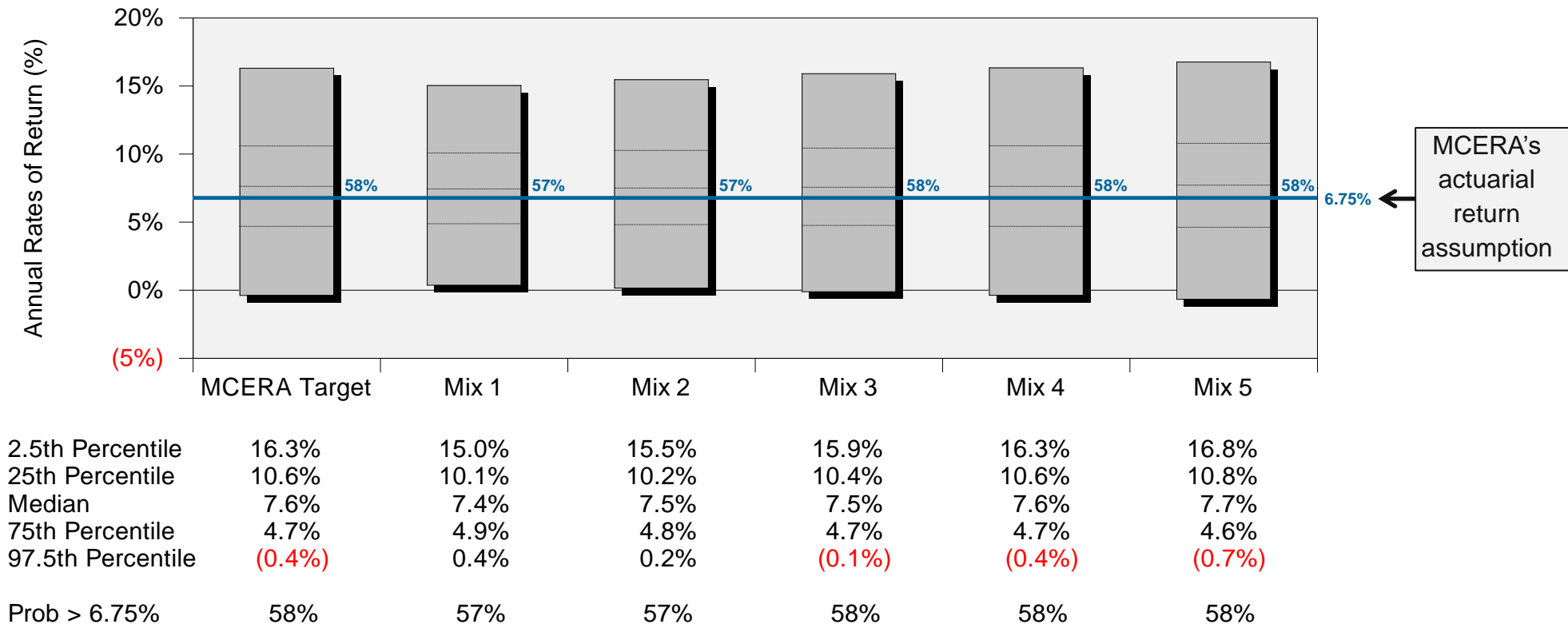


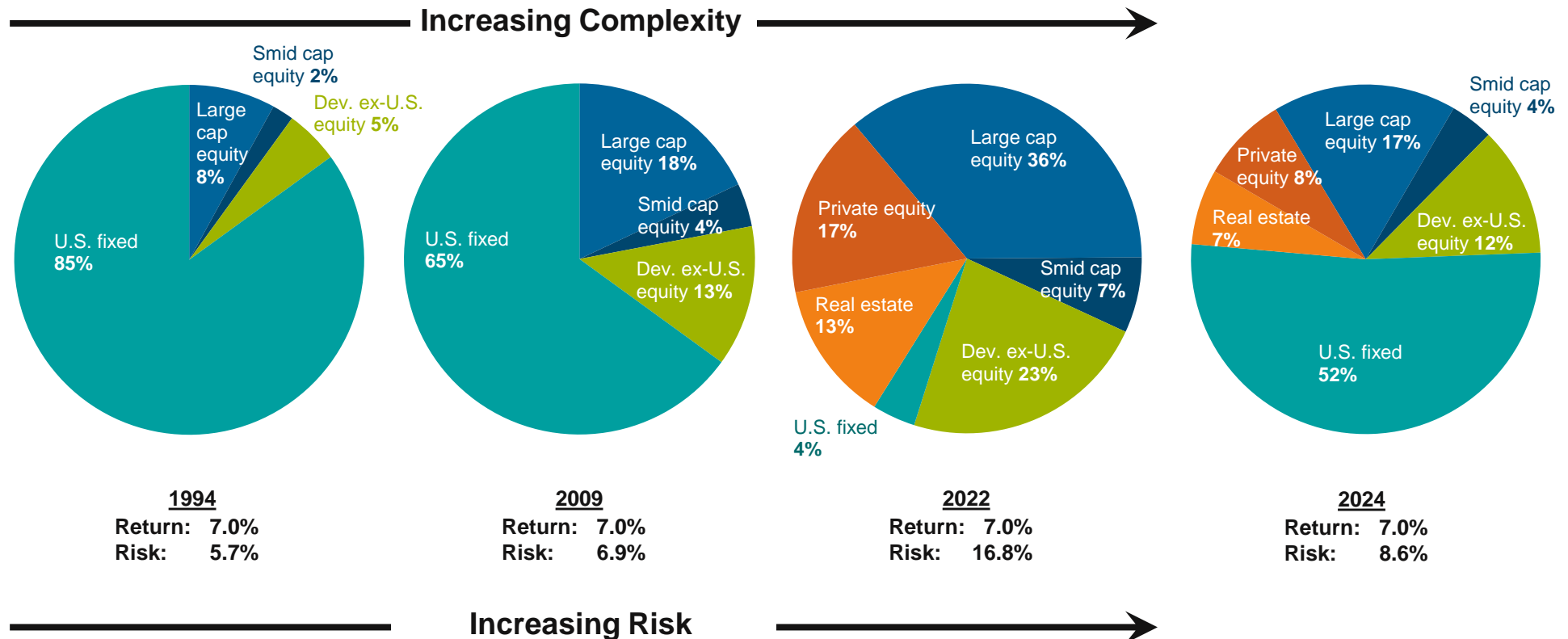
Chart reflects annualized return distribution over the next ten years

Bar heights proportional to return volatility

- Higher expected (median) returns associated with higher volatilities
- Increased volatility leads to lower worse-case (97.5th percentile) returns

The target has a reasonable chance (>58%) of earning 6.75% or better over the next 10 years

7% Expected Returns Over Past 30 Years



In 1994, our return expectation for broad U.S. fixed income was 6.2%.

Just 15% in return-seeking assets was required to earn a 7% projected return.

15 years later, an institutional investor would have needed an additional 20% of the portfolio in public equities for a total of 35% to achieve a 7% projected return.

In 2022 an investor was required to include 96% in return-seeking assets (including 30% in private markets investments) to earn a 7% projected return at almost 3x the volatility compared to 1994.

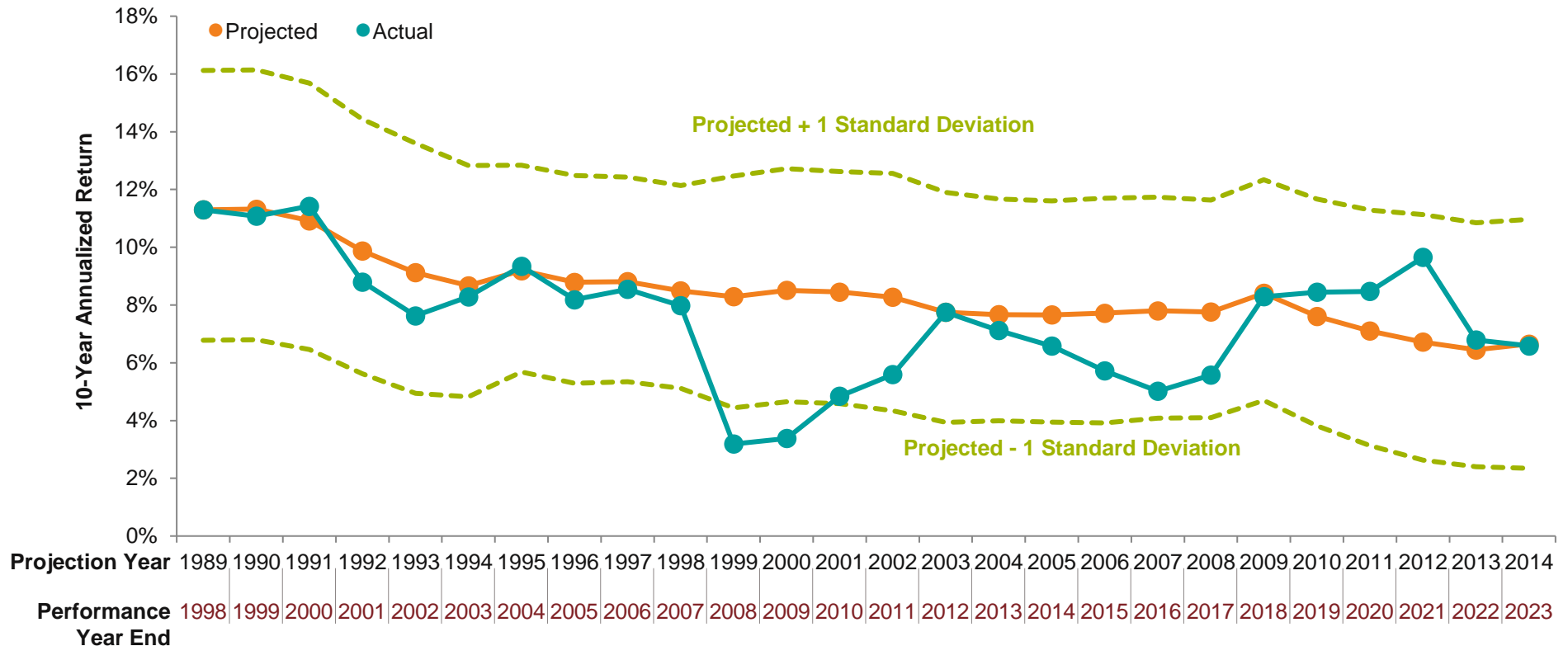
Today's 7% expected return portfolio is much more reasonable than it was just two years ago. The allocation to fixed income jumps to 52%, while risk is essentially cut in half. Private markets investments are also cut in half.

Actual Returns vs. Callan Projections

Projection Years 1989–2014

Historical Comparison: Actual Returns vs. Callan Capital Markets Projections

Portfolio (60% Equity, 30% Fixed, 10% Real Estate)



Our projections are generally within one standard deviation of the actual return experienced

The glaring exceptions are the 10-year periods ended in 2008 and 2009 which contained not one but two major collapses in the equity market: the Dot-Com Bubble in 2001-02 and the Global Financial Crisis in 2008

Source: Callan

Callan

Fixed Income Allocation

Overview

Callan reviewed 2024 capital markets projections

- ▶ Capital markets projections are key elements in helping MCERA set reasonable return and risk expectations for the appropriate time horizon

Summary of Important Changes for 2024 Capital Markets Assumptions

- ▶ Cash return raised to 3.0% from 2.75%
- ▶ Core fixed income return up 1%, from 4.25% to 5.25%
- ▶ Public equity returns up 20-30 bps; equity risk premium over both cash and fixed income narrowed
- ▶ Inflation held at 2.5%

We apply our capital markets projections to MCERA's asset allocation to provide projected risk and return outcomes

- ▶ The substantial increase in the core fixed income return over the past two years has been the most impactful on projected returns/risk
 - MCERA's 2022 asset allocation projections: 6.0% / standard deviation: 13.1%
 - MCERA's 2023 asset allocation projections: 7.2% / standard deviation: 13.2%
 - MCERA's 2024 asset allocation projections: 7.6% / standard deviation: 12.9%

This brings us to the current topic: what should MCERA do, if anything, with the fixed income allocation?

Fixed Income – Considerations to Increase, Decrease, Stay the Same

Increase

- ▶ With higher fixed income yields, incrementally take equity risk off the table and add to fixed income
 - MCERA's expected return will decline modestly, the reduction in expected risk is substantial and has the potential to improved the expected risk adjusted return.
 - MCERA is still expected to return in excess of the actuarial return rate of 6.75% with higher allocations to fixed income
 - Has the potential to better protect the portfolio in equity drawdown periods
 - MCERA's higher funded status allows for a more diversified and less risky approach

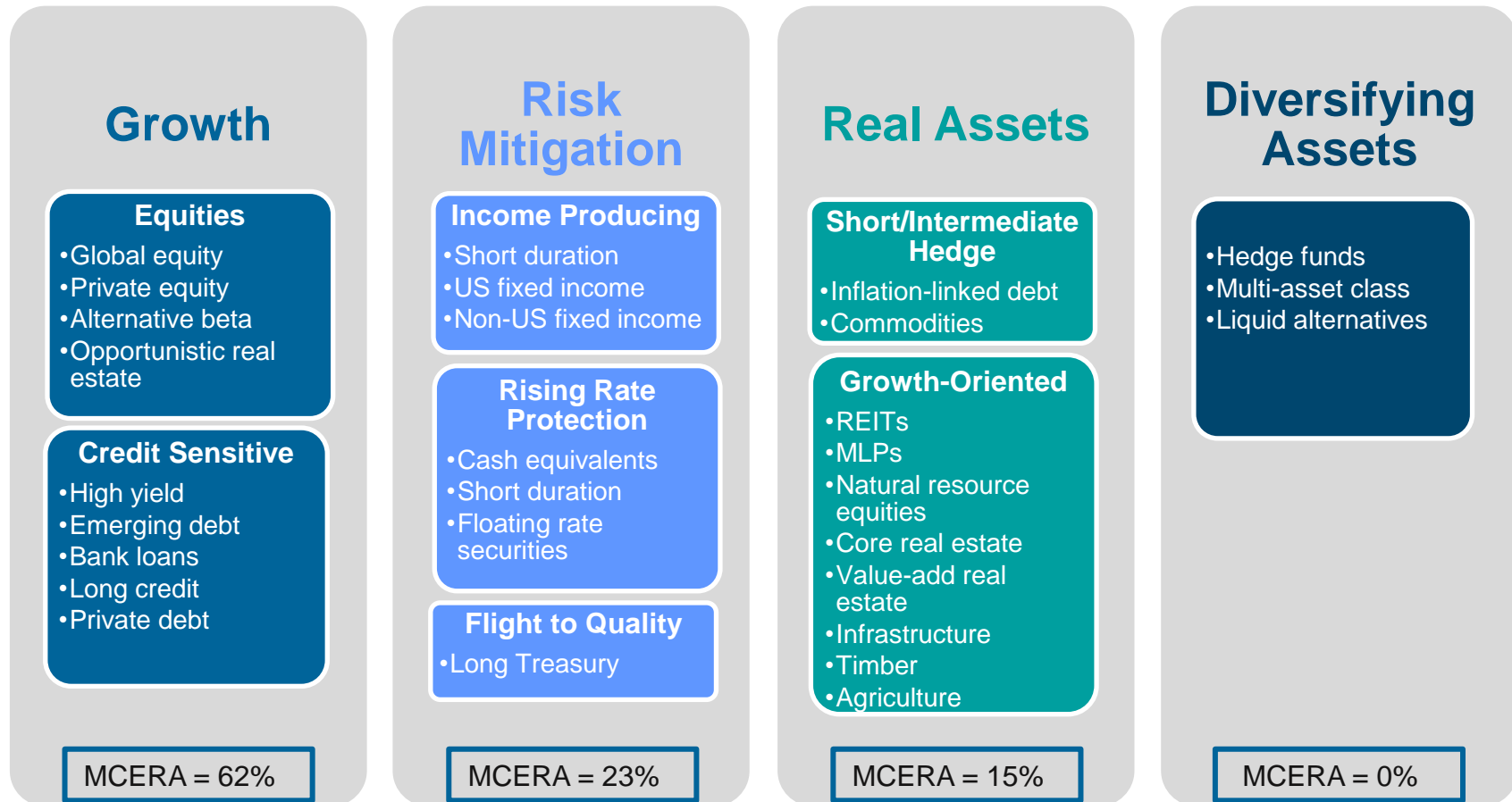
Decrease/Stay the Same

- ▶ Alternatively, MCERA could consider maintaining or slightly increasing this risk for a higher potential return.
 - MCERA is an open defined benefit plan with long-term liabilities. As a long-term investor, MCERA is able to look out well beyond these 10 year projections and can withstand the additional volatility for higher returns.
 - MCERA could decrease the fixed income allocation modestly for increased return (and risk) potential
 - Lower fixed income allocations have the potential to increase contribution and funded status volatility
 - Callan recommends the fixed income allocation be at least 20% to preserve its role as a diversifier, liquidity source, and primary asset class to provide downside protection

If a change is made, how does it affect the allocation to other asset classes?

Asset Allocation - By Purpose

Goal-Based Investing



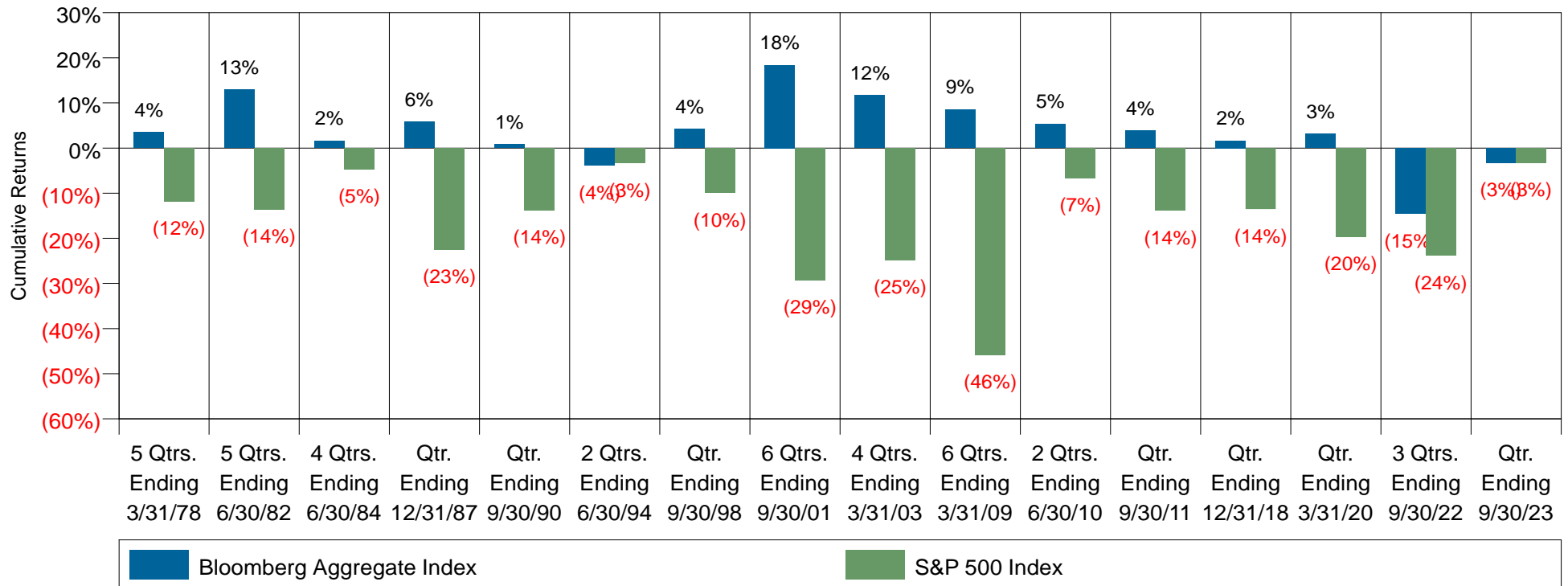
- MCERA's fixed income allocation accounts for the 23% allocation to Risk Mitigation.
 - Any changes to that allocation need to be reflected elsewhere.

Role of Fixed Income

- ▶ Fixed income is typically a low-risk, diversifying asset for the equity allocation rather than a primary source of additional return to a fund
 - Bonds offer protection in the short run
 - Dependable income provides comfort in economic downturns or sudden market corrections
- ▶ The fixed income allocation is the primary diversifier for the exposure to equities
- ▶ Fixed income can also serve as a very important source of liquidity
- ▶ Is the fixed income allocation, at 23% of the total plan (policy target), fulfilling an appropriate role?
- ▶ How should fixed income be sized to fulfill competing goals of safety, diversification, liquidity, and returns?
 - Does the allocation reliably provide liquidity and diversification

An Illustration of the Role of Fixed Income

Fixed Income Performance in Declining Equity Environments

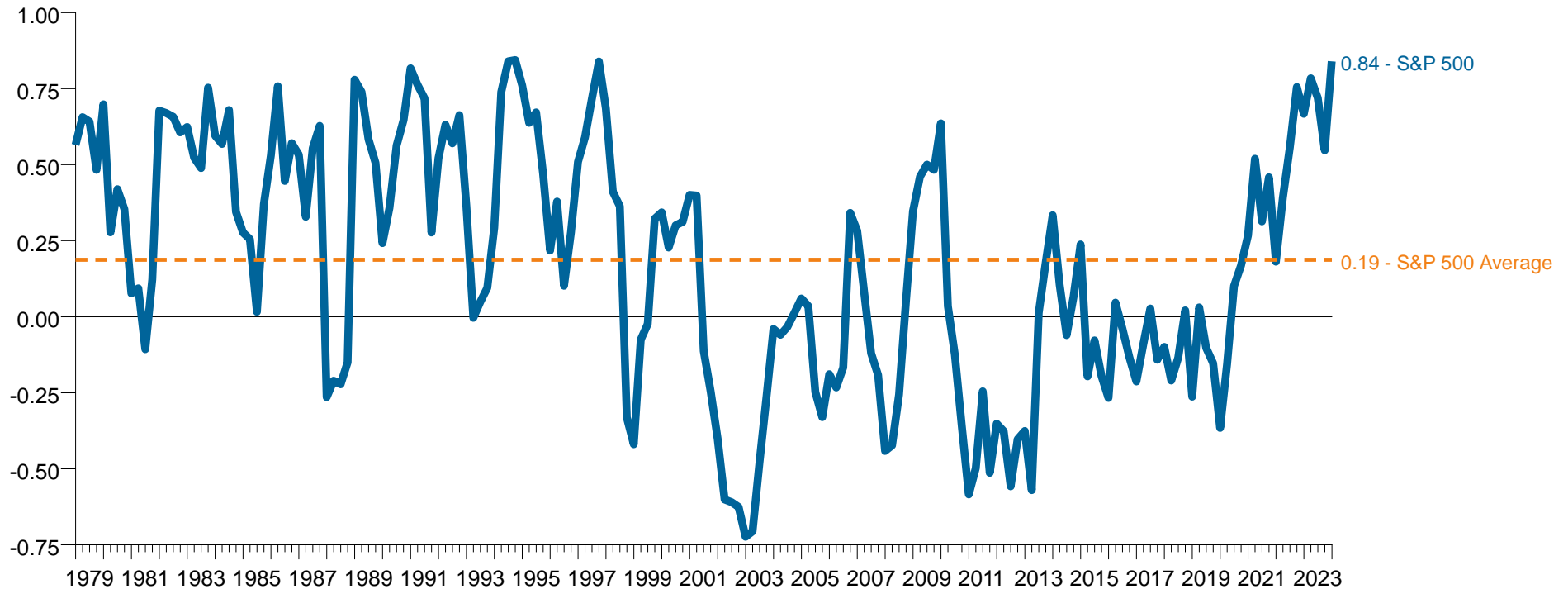


- The U.S. Aggregate index has had positive returns in every S&P 500 declining period for the most recent 35 years except three (first 2 quarters of 1994, first three quarters of 2022, and third quarter of 2023).

Is the Stock-bond Correlation Shifting to a Higher Level?

Stocks and bonds rebound strongly together in 4Q23

Rolling 1 Year Correlation of S&P 500 to Bloomberg Aggregate for 45 Years Ended 12/31/23



Forward-looking bond returns are now much higher thanks to the rise in interest rates and the resulting higher yields.

- However, the equity risk premium has likely narrowed, and we may be seeing a return to a regime of higher correlation between stocks and bonds, potentially lessening the diversification benefit of bonds to stocks.

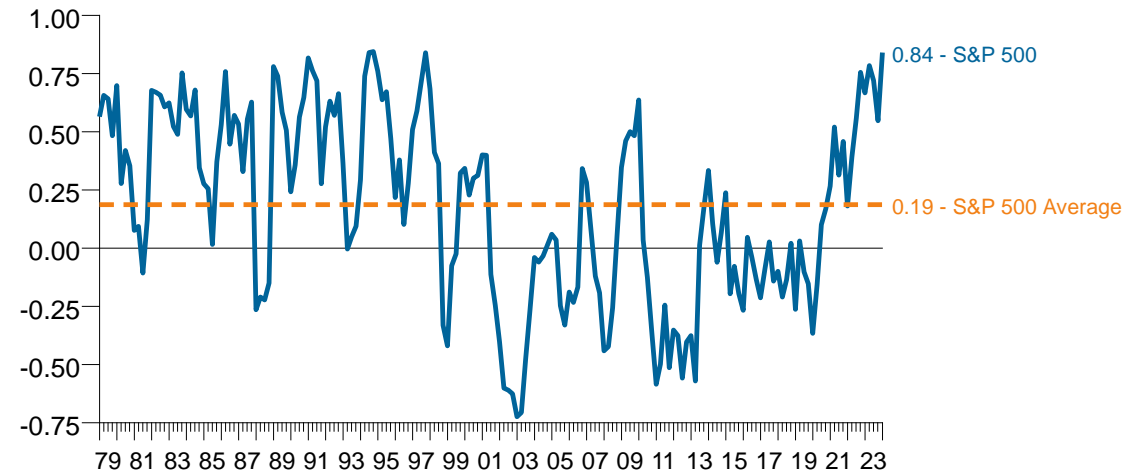
Sources: Bloomberg, Callan, S&P Dow Jones Indices

Correlation Changes With Interest Rate Regimes and Economic Conditions

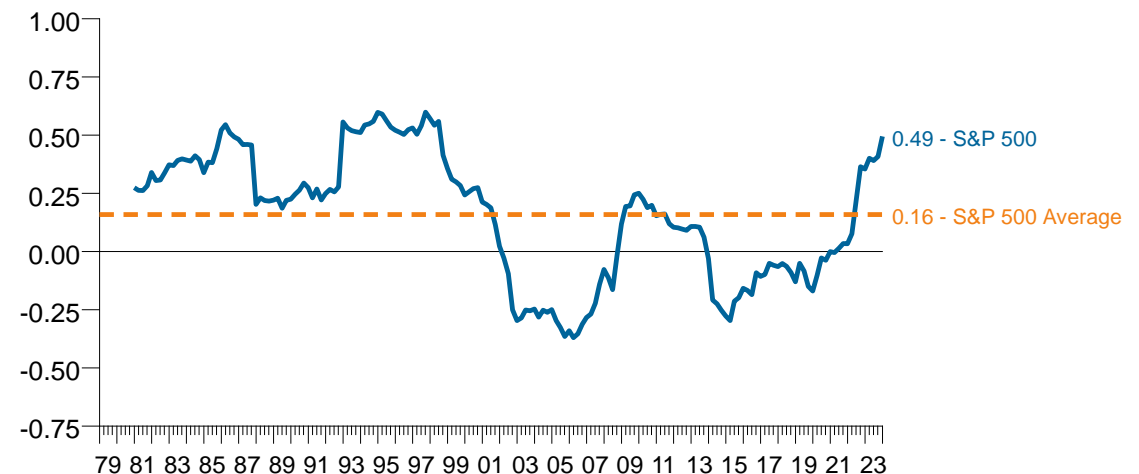
- Rolling one-year correlation spiked in 2021 and 2022.
- Rolling five-year shows how correlation runs in cycles over time.
- Table below examines correlation and the occurrence of negative returns for stocks and bonds together in three interest rate and inflation regimes. Regime 2 shows higher stock/bond correlation and suggests less diversification benefit under rising rates and inflation.

Period	Regime Description	Negative Return Frequency	Stock/Bond Correlation
Regime 1 1926–1965	Low, stable interest rates	7%	0.13
Regime 2 1966–1981	Secular rate rise	26%	0.48
Regime 3 1982–present	Secular rate decline	6%	0.05

Rolling 1 Year Correlation of S&P 500 to Bloomberg Aggregate



Rolling 5 Year Correlation of S&P 500 to Bloomberg Aggregate



Sources: Bloomberg, Callan, S&P Dow Jones Indices

2024 Risk and Returns Assumptions

Summary of Callan's Long-Term Capital Markets Assumptions (2024–2033)

Asset ClassIndex		Projected Return		Real	Projected Risk	Projected Yield
		1-Year Arithmetic	10-Year Geometric*		Standard Deviation	
Equities						
Broad U.S. Equity	Russell 3000	8.85%	7.65%	5.15%	17.40%	1.95%
Large Cap U.S. Equity	S&P 500	8.70%	7.50%	5.00%	17.00%	2.00%
Smid Cap U.S. Equity	Russell 2500	9.80%	7.70%	5.20%	22.00%	1.75%
Global ex-U.S. Equity	MSCI ACWI ex USA	9.65%	7.65%	5.15%	21.40%	3.70%
Developed ex-U.S. Equity	MSCI World ex USA	9.25%	7.50%	5.00%	20.15%	3.75%
Emerging Market Equity	MSCI Emerging Markets	10.65%	7.70%	5.20%	25.60%	3.55%
Fixed Income						
Short Duration Gov/Credit	Bloomberg 1-3 Year Gov/Credit	4.25%	4.25%	1.75%	2.40%	3.70%
Core U.S. Fixed	Bloomberg Aggregate	5.25%	5.25%	2.75%	4.25%	4.70%
Long Government	Bloomberg Long Gov	6.20%	5.40%	2.90%	13.75%	4.80%
Long Credit	Bloomberg Long Credit	6.85%	6.30%	3.80%	11.90%	6.20%
Long Government/Credit	Bloomberg Long Gov/Credit	6.55%	6.00%	3.50%	11.70%	5.55%
TIPS	Bloomberg TIPS	5.10%	5.05%	2.55%	5.40%	4.30%
High Yield	Bloomberg High Yield	7.30%	6.80%	4.30%	11.75%	8.45%
Global ex-U.S. Fixed	Bloomberg Global Agg ex US	3.60%	3.15%	0.65%	9.80%	2.70%
Emerging Market Sov Debt	EMBI Global Diversified	6.75%	6.35%	3.85%	10.65%	7.70%
Alternatives						
Core Real Estate	NCREIF ODCE	6.85%	6.00%	3.50%	14.00%	4.00%
Private Infrastructure	MSCI GI Infra/FTSE Dev Core 50/50	7.30%	6.35%	3.85%	15.20%	4.80%
Private Equity	Cambridge Private Equity	12.15%	8.75%	6.25%	27.60%	0.00%
Private Credit	Cambridge Senior Debt Index	8.40%	7.40%	4.90%	15.70%	7.40%
Hedge Funds	Callan Hedge FOF Database	6.25%	6.05%	3.55%	8.20%	0.00%
Commodities	Bloomberg Commodity	5.45%	3.90%	1.40%	18.05%	3.00%
Cash Equivalents	90-Day T-Bill	3.00%	3.00%	0.50%	0.90%	3.00%
Inflation	CPI-U		2.50%		1.60%	
* Geometric returns are derived from arithmetic returns and the associated risk (standard deviation).						
** Projected Yields represent the expected 10-year average yield						

Source: Callan

2024–2033 Callan Capital Markets Assumptions Correlations

Large Cap U.S. Equity	1.00																				
Smid Cap U.S. Equity	0.87	1.00																			
Dev ex-U.S. Equity	0.70	0.81	1.00																		
Em Market Equity	0.81	0.88	0.92	1.00																	
Short Dur Gov/Credit	0.05	0.01	0.04	-0.01	1.00																
Core U.S. Fixed	0.09	0.03	0.06	0.00	0.78	1.00															
Long Government	0.01	0.00	0.03	0.00	0.65	0.82	1.00														
Long Credit	0.40	0.35	0.35	0.35	0.62	0.80	0.69	1.00													
TIPS	-0.02	-0.05	-0.04	-0.07	0.55	0.70	0.54	0.52	1.00												
High Yield	0.74	0.74	0.71	0.74	0.13	0.15	0.02	0.45	0.06	1.00											
Global ex-U.S. Fixed	0.12	0.11	0.14	0.10	0.50	0.50	0.42	0.53	0.40	0.16	1.00										
EM Sovereign Debt	0.59	0.60	0.61	0.65	0.17	0.23	0.11	0.47	0.11	0.62	0.17	1.00									
Core Real Estate	0.33	0.33	0.33	0.33	0.17	0.22	0.08	0.31	0.12	0.30	0.14	0.22	1.00								
Private Infrastructure	0.47	0.47	0.45	0.47	0.14	0.18	0.10	0.33	0.08	0.34	0.18	0.32	0.65	1.00							
Private Equity	0.79	0.77	0.76	0.76	-0.04	-0.04	-0.08	0.27	-0.12	0.55	0.07	0.44	0.46	0.52	1.00						
Private Credit	0.67	0.67	0.64	0.68	0.04	0.06	-0.02	0.32	-0.05	0.55	0.11	0.47	0.26	0.27	0.65	1.00					
Hedge Funds	0.60	0.50	0.50	0.50	0.28	0.39	0.25	0.52	0.23	0.50	0.24	0.47	0.24	0.31	0.34	0.47	1.00				
Commodities	0.20	0.20	0.20	0.20	-0.04	-0.05	-0.10	0.04	0.00	0.18	0.05	0.15	0.16	0.15	0.16	0.14	0.17	1.00			
Cash Equivalents	-0.02	-0.07	-0.08	-0.08	0.27	0.16	0.12	0.04	0.14	-0.03	0.10	-0.02	0.02	-0.04	-0.04	-0.04	0.00	-0.02	1.00		
Inflation	0.00	0.02	0.00	0.02	-0.20	-0.22	-0.30	-0.20	0.25	-0.03	-0.12	-0.04	0.20	0.10	0.04	-0.04	-0.01	0.35	0.02	1.00	
	Large Cap	Smid Cap	Dev	Em Mkts	Short Dur	Core Fixed	Long Gov	Long Credit	TIPS	High Yield	Global ex-US Fixed	EM	Core Real Estate	Private Infra	Private Equity	Private Credit	Hedge Funds	Comm	Cash Equiv	Inflation	

Source: Callan

Alternative Asset Mixes 2024

Asset Class	MCERA Target	Min Alloc	Max Alloc	Alternative Asset Mixes				
				Mix 1	Mix 2	Mix 3	Mix 4	Mix 5
Broad US Equity	32%	0%	100%	25%	27%	29%	31%	32%
Broad International Equity	22%	0%	100%	20%	21%	22%	23%	25%
Broad US Fixed Income	23%	0%	100%	32%	29%	26%	23%	20%
Real Assets	15%	15%	15%	15%	15%	15%	15%	15%
Private Equity	8%	0%	8%	8%	8%	8%	8%	8%
Totals	100%			100%	100%	100%	100%	100%
Expected Return	7.6%			7.4%	7.5%	7.6%	7.6%	7.7%
Real Return	5.1%			4.9%	5.0%	5.1%	5.1%	5.2%
Risk (Standard Deviation)	12.9%			11.4%	11.9%	12.4%	12.9%	13.4%
Sharpe Ratio	0.36			0.39	0.38	0.37	0.36	0.35
% equity	62%			53%	56%	59%	62%	65%
% fixed income	23%			32%	29%	26%	23%	20%
% real assets	15%			15%	15%	15%	15%	15%
% illiquid	16%			16%	16%	16%	16%	16%

► Fixed income allocations are adjusted in 3% increments:

- Mix 4 shows the current target at 23%.
- Mix 3 increases the fixed income allocation to 26%. The expected return stays the same at 7.6% but the standard deviation declines from 12.9% to 12.4%.
- Mix 5 decreases the fixed income allocation to 20%. The expected return increases to 7.7% and standard deviation increases from 12.9% to 13.4%.

Conclusion

- ▶ MCERA to decide on the sizing of the fixed income allocation:
 - Increase it from 23%
 - Decrease it from 23%
 - Keep it the same
- ▶ Callan is comfortable with all three options, but would not decrease it (much) below 20%
 - MCERA's current range around its target are +/- 3% for fixed income.
- ▶ If changes are made, where do the assets come from or go?

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Past performance is no guarantee of future results.

C.2 Fixed Income Allocation

Please refer to the Fixed Income Allocation section in Agenda Item C.1, Capital Market Assumptions, above.

Memorandum

To: MCERA Board of Trustees
From: Jim Callahan, CFA
Anne Heaphy
Date: March 20, 2024
Subject: DFA CIO Update

DFA announced that Savina Rizova, the Global Head of Research since 2019 is being promoted to Co-CIO alongside Co-CEO & Co-CIO Gerard O'Reilly. She will continue to serve as the Global Head of Research. Rizova was already attending weekly meetings with the investment and trading teams which fall under the CIO role. She will slowly transition to an oversight role within these teams and will continue attending weekly meetings. Incremental responsibilities with the co-CIO title include oversight of the teams under her purview and attendance of mutual fund and ETF board meetings. DFA characterized this change as more of a title change rather than a change in responsibilities.

Callan does not have any concerns with this promotion. Gerard O'Reilly has been the sole CIO since 2017 when former Co-CIO & Co-CEO Eduardo Repetto left the firm. DFA has a history of having Co-executive positions, and we consider this a move back toward the historical norm. We believe that this is a logical transition, as O'Reilly has traditionally focused more on the business aspect of being CIO, while Rizova has focused on the research and development programs.

Memorandum

To: MCERA Board of Trustees
From: Jim Callahan, CFA
Anne Heaphy
Date: March 20, 2024
Subject: UBS Trumbull Property Fund Update

Strategic Capital Initiative:

UBS underwent a process throughout 2023 to bring strategic capital into Trumbull Property Fund (“TPF”) from an external party to help address the redemption queue. UBS’ original plans did not contemplate a sale of the platform; however, UBS Realty Management, under the advice of the UBS investment bank, eventually accepted that conceding control of the platform may be necessary to attract a strategic partner to commit a significant amount of capital. TPF’s independent board was engaged in June/July 2023 about the potential sale transaction and was supportive as long as any action taken was in the best interest of the investors. The UBS investment bank reviewed several options for a potential transaction, engaging with potential buyers that included asset management firms and other firms loosely associated with the real estate industry but without existing real estate investment management platforms. There were three finalists, of which UBS eventually entered into exclusivity with one potential buyer. Ultimately, UBS did not execute a transaction due to the inability to reach an agreement with the potential buyer. UBS Realty will continue to evaluate the potential for external capital, though efforts for a potential platform sale will be more passive than they have been.

Redemption Queue and Loyalty Fee Program:

The current redemption queue is approximately \$6.4 billion or 60% of NAV. TPF did not make a redemption payment in 4Q 2023 due to minimal disposition activity. UBS has not committed to making a redemption payment in 1Q 2024. Disposition activity will be a key determinant of potential redemption payments.

UBS recently announced several key changes to the Loyalty Fee Program. The Loyalty Incentive offers investors a fee discount of 15% for investments committed for three years or a 25% fee discount for investments committed for four years. MCERA had elected the four-year program for a 25% fee discount. UBS has now removed the three- and four-year terms indefinitely. Additionally, if an investor in the Loyalty Incentive program decided to redeem assets before the end of the commitment period, then there was a clawback of management fees for the applicable assets that were transitioning to the redemption queue. This clawback provision has now been removed.

These changes are favorable to investors as they are no longer committed to a fixed time period and have the ability to exit the loyalty fee program and enter the redemption queue at any point without foregoing the fee savings.

Memorandum

To: MCERA Board of Trustees
From: Jim Callahan, CFA
Anne Heaphy
Date: March 20, 2024
Subject: AEW Core Property Trust Personnel Update

Lily Kao and Sara Cassidy, the senior portfolio managers leading AEW's Core Property Trust ("CPT"), have been promoted and assigned additional responsibilities on the AEW platform. Kao is serving as head of asset management and Cassidy as head of portfolio management. They are responsible for oversight of asset management and portfolio management activities across all strategies and separate accounts. The spend approximately 75% of their business time on CPT. Callan believes Kao and Cassidy are well equipped to continue leading the fund, and we will closely monitor these added responsibilities.

**Investment Policy Statement
For**

Marin County Employees' Retirement Association



DRAFT~~FINAL~~
March~~January~~ 2024

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
INVESTMENT POLICY STATEMENT

Table of Contents

Introduction.....	1
Policies and Procedures	2
Investment Goal Statement	3
General Objectives and Guidelines	8
Investment Management Policy	13
Private Equity Policy	17
Duties of Responsible Parties	20
Policy Review	25

Appendices:

Appendix A	Strategic Asset Allocation
Appendix B	Individual Manager Guidelines
Appendix C	Individual Private Equity Sponsor Guidelines
Appendix D	Placement Agent Payment Disclosure Policy

INTRODUCTION

The Marin County Employees' Retirement Association ("MCERA") was established to provide retirement benefits to county employees and other local public agencies. The Board of Retirement (the "Board" and/or the "Board of Retirement") is comprised of the County Director of Finance, four members appointed by the County Board of Supervisors, four members elected by the membership, plus one alternate retiree and one alternate safety member. The Director of Finance may also designate a deputy, who is employed under the Director of Finance's authority, to act in his or her place and stead on the Board or any of its committees.

MCERA was organized in accordance with the provisions of California's 1937 County Employees Retirement Law ("1937 Act"). The powers and duties of the Board of Retirement are set forth in the 1937 Act and in Article XVI, section 17, of the State Constitution. This document provides a framework for the investment of the assets of MCERA. The Board of Retirement has established a standing Investment Committee, which is composed of all members of the Board of Retirement ("Investment Committee" or "Committee"). As set forth in the Investment Committee's Charter, the Committee has been delegated all investment authority of MCERA as set forth therein. The purpose of the Investment Policy is to assist the Board, through the Investment Committee, in effectively supervising and monitoring the assets of MCERA (the "Plan" or the "Fund"). Specifically, it will address the following issues:

- The general goals of the investment program;
- The policies and procedures for the management of the investments;
- Specific asset allocations, rebalancing procedures and investment guidelines;
- Performance objectives; and
- Responsible parties.

The Investment Committee establishes this investment policy in accordance with applicable local, State, and Federal laws. The Board and Committee members exercise authority and control over the Plan, by setting policy which the Staff executes either internally or through the use of external prudent experts. The Board and Committee oversee and guide the Plan subject to the following basic fiduciary responsibilities:

- Solely in the interest of, and for the exclusive purpose of, providing benefits to participants and their beneficiaries, minimizing contributions thereto, and defraying reasonable expenses of administering the Plan.
- Invest and manage Fund assets as a prudent investor would, by considering the purposes, terms, distribution requirements, and other circumstances of the Fund. In satisfying this standard of care, the trustees shall exercise reasonable care, skill, and caution.
- Diversify the investments of the Plan 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.

C.4

This policy statement is designed to allow for sufficient flexibility in the management oversight process to capture investment opportunities as they may occur, while setting forth reasonable parameters to ensure prudence and care in the execution of the investment program.

POLICIES AND PROCEDURES

The policies and procedures of MCERA's investment program are designed to maximize the probability that the investment goals will be fulfilled. Investment policies will evolve as Fund conditions change and as investment conditions warrant.

Asset Allocation Policy

MCERA adopts and implements an asset allocation policy that is predicated on a number of factors, including:

- A projection of actuarial assets, liabilities and benefit payments and the cost of contributions;
- Historical and expected long-term capital market risk and return behavior;
- An assessment of future economic conditions, including inflation and interest rate levels; and
- The current and projected funding status of the Plan.

This policy provides for diversification of assets in an effort to maximize the investment return of the Plan consistent with market conditions. Asset allocation modeling identifies asset classes the Plan will utilize and the percentage that each class represents of the total Fund. Due to the fluctuation of market values, positioning within a specified range is acceptable and constitutes compliance with the policy. It is anticipated that an extended period of time may be required to fully implement the asset allocation policy, and that periodic revisions will occur. MCERA's Staff and external consultants will monitor and assess the actual asset allocation versus policy and will evaluate any variation deemed significant.

The Board and Committee will implement the asset allocation policy (i) through the use of investment managers to invest the assets of MCERA in accordance with the investment guidelines incorporated into the investment management agreements executed with MCERA and/or (ii) through its investment in limited liability partnerships, limited liability corporations, commingled funds, group trusts or other commonly used investment vehicles, which invest allocated assets in accordance with the governing documents for the investment vehicle. When appropriate, passive management strategies may also be utilized.

INVESTMENT GOAL STATEMENT

The Plan's general investment goals are broad in nature. The objective shall be to efficiently allocate and manage the assets dedicated to the payment of Plan benefits and administrative expenses. The following goals, consistent with the above described purpose, are adopted:

- The overall goal of MCERA's investments is to provide Plan participants with retirement, disability, and death and survivor benefits as provided for under the County Employees Retirement Law of 1937 (CERL) and California Public Employees' Pension Reform Act of 2013 (PEPRA), as applicable. This will be accomplished through a carefully planned and executed long-term investment program.
- MCERA's assets will be managed on a total return basis. While MCERA recognizes the importance of the preservation of capital, it also adheres to the principle that varying degrees of investment risk are generally rewarded with compensating returns.
- The total portfolio over the long term will be expected to:
 1. Meet or exceed a long-term total portfolio real (above inflation) return commensurate with the target asset allocation contained in Appendix A to this document (annualized, net of fees, over a full market cycle, normally defined as 5-7 years);
 2. Meet or exceed the assumed actuarial rate of return over long-term periods; and
 3. Meet or exceed a weighted index of the total Plan's asset allocation policy and component benchmarks over rolling five-year periods by an appropriate amount (annualized, net of fees, over a full market cycle).
- MCERA's Investment Policy has been designed to produce a total portfolio, long-term real return. Consequently, prudent risk-taking is warranted within the context of overall portfolio diversification to meet this goal. The investment activities are designed and executed in a manner that serves the best interests of the members and beneficiaries of the Association.
- All transactions undertaken will be for the sole benefit of MCERA's members and beneficiaries and for the exclusive purpose of providing benefits to them, minimizing contributions to the Plan and defraying reasonable associated administrative expenses.
- MCERA has a long-term investment horizon, and utilizes an asset allocation plan that encompasses a strategic, long-run perspective of capital markets. It is recognized that a strategic long-run asset allocation plan implemented in a consistent and disciplined manner will be the major determinant of the Plan's investment performance.

Investment recommendations and subsequent actions are expected to comply with "prudent expert" standards. Board and Committee members are expected to comply with "prudent investor" standards.

Manager Utilization and Selection

The selection of investment managers is accomplished in accordance with all applicable local, State and Federal laws and regulations. Each investment manager and consultant functions under a formal contract which delineates responsibilities and appropriate performance expectations. A formal set of investment guidelines and investment administrative requirements for each investment manager has been established and is provided as an addendum to this document. With regard to investment in limited liability partnerships, limited liability corporations, commingled funds, group trusts or other commonly used investment vehicles, the management of the relevant investment vehicle and the investment guidelines will be as set forth in the fund's legal documentation.

Manager Authority

The Plan's investment managers, unless otherwise noted in their contract, shall have designated discretion to direct and manage the investment and reinvestment of assets allocated to their accounts in accordance with this document; applicable local, State and Federal statutes and regulations; and individual management investment plans and executed contracts. Commingled investments, including but not limited to investments in mutual funds, trusts, limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles, are expected to comply with the guidelines established in the governing documents or fund prospectus.

The Board, Committee, and Staff will consider the comments and recommendations of consultants in conjunction with other available information in making informed, prudent decisions.

Proxy Voting

MCERA acknowledges that the ownership of equities requires proxies to be voted. MCERA commits to managing its proxy voting rights with the same care, skill, diligence and prudence as is exercised in managing its other assets. As responsible fiduciaries, the Board of Retirement will exercise its proxy voting rights in the sole interest of the Plan's members and beneficiaries in accordance with all applicable statutes and MCERA's Proxy Voting and Corporate Governance Policy.

Securities Lending

The Board and/or Committee may authorize the execution of a "Securities Lending Program" which will be performed by the Plan custodian or qualified third-party securities lending agent(s). The program will be established by a written agreement authorized by the Board and/or Committee and monitored and reviewed by the Staff.

The following are the general guidelines for the securities lending program:

1. The lending program may be implemented through the use of agent lenders or principal lenders;

C.4

2. The lenders may lend financial securities including, but not limited to, U.S. and non-U.S. equities, corporate bonds, and U.S. and non-U.S. government securities;
3. If an agent program is implemented, the agent shall have full discretion over the selection of borrowers and shall continually review the creditworthiness of potential borrowers through extensive analysis of relevant information;
4. All loans shall be fully collateralized with cash, government securities or irrevocable bank letters of credit;
5. Cash collateral received from securities borrowers will be deposited upon receipt in a pre-approved short-term investment vehicle or vehicles;
6. Loans of U.S. securities are initially collateralized at 102% of the market value of the borrowed securities if the borrowed securities and the collateral are denominated in the same currency and at 105% if the borrowed securities and the collateral are denominated in different currencies. As the market value of the collateral falls below 102% (105%) of the market value of the borrowed securities, the borrower is marked to market each business day using yesterday's closing prices, subject to the lending agent's de minimis rules of change;
7. Securities on loan should be marked-to-market on a daily basis to assess adequacy of collateralization;
8. The lender shall provide periodic performance reports to MCERA;
9. The securities lending program should in no way inhibit the portfolio management activities of the other investment managers of the system;
10. Staff shall be responsible for making an annual report to the Board and/or Committee on securities lending activity; and
11. All other operational aspects of MCERA's securities lending program are hereby delegated to Staff.

Derivatives and Leverage

MCERA's investment managers may be permitted under the terms of individual investment guidelines to use derivative instruments to implement market decisions and security positions and to control portfolio risk. Derivatives are contracts or securities whose returns are derived from the returns of other securities, indices or instruments including, but not limited to, futures, forwards, options, swaps and options on futures. Examples of appropriate applications of derivative strategies include hedging interest rate and currency risk, rebalancing portfolio exposures, securitizing Fund level and manager cash, maintaining exposure to a desired asset class while effecting asset allocation changes and adjusting portfolio duration for fixed income. Portfolio liabilities associated with investments (i.e. mortgage forward bond purchases, futures, in-the-money short puts, reverse repurchase agreements, etc.) shall be backed by cash equivalents or deliverable securities.

MCERA's investment managers are not allowed to utilize derivatives for speculative purposes. All derivatives must be backed by collateral in the form of deliverable securities equal to or greater than the value of the total derivative exposure. In no circumstances can individual managers borrow funds to purchase derivatives. No derivatives positions can be established that create portfolio characteristics outside of portfolio guidelines. Managers must ascertain and carefully monitor the creditworthiness of any third parties involved in derivative transactions.

Rebalancing

MCERA has a long-term investment horizon and utilizes an asset allocation plan that encompasses a strategic, long-run perspective of capital markets. It is recognized that a strategic long-run asset allocation plan implemented in a consistent and disciplined manner will be the major determinant of the Plan's investment performance. MCERA's overlay manager reviews the Plan's strategic asset allocation on a daily basis and automatically rebalances the allocation back to target ranges.

In addition to the overlay program, staff will monitor asset weights in the Fund's portfolio and conduct a physical rebalance as necessary to remain within the ranges of the targeted asset allocations identified in the Fund's asset allocation plan.

The fund will systematically rebalance when the asset classes move outside their target ranges or when significant cash flows occur. Rebalancing will not be used to time rises or falls in equity or bond markets by moving away from long-term targets.

GENERAL INVESTMENT OBJECTIVES AND GUIDELINES

Equity Portfolios

Each equity investment manager retained by MCERA will follow a specific investment style and will be evaluated against a specific market index that represents their investment style. In addition, in the case of active managers, investment results may also be compared to returns of a peer group of managers with similar styles. Benchmarks for the various equity portfolios may include the following indices as well as those proposed by the managers reviewed by the Staff and approved by the Investment Committee or Board:

Domestic Equity Portfolio – Russell 3000 Index

Large Cap Stocks – Russell 1000 Index

Small Cap Stocks – Russell 2000 Index

International Equity Portfolio – MSCI ACWI ex-US IMI Index

International Large Cap Stocks – MSCI World ex-US Index

International Small Cap Stocks – MSCI EAFE Small Cap Index

International Emerging Markets Stocks – MSCI Emerging Markets Free Index

General equity guidelines for active managers include the following:

- American Depositary Receipts (ADRs) and foreign securities listed on a major US stock exchange or on the NASDAQ are permitted if specified in the manager's guidelines.
- Convertible securities may be held in equity portfolios and shall be considered equity holdings.
- Securities must be traded on a regulated stock exchange, or listed on the NASDAQ or a comparable foreign market operation.
- Forward or futures contracts for foreign currencies may be entered into for hedging purposes or pending the selection and purchase of suitable investments in, or the settlement of, any such securities transactions only in international equity portfolios.
- The following transactions are not permitted unless specifically authorized in the investment manager agreement or in the specific manager guidelines in the appendix:
 - The use of borrowed funds
 - Short sales or margin sales
 - Private placements (except 144As)
 - Futures, options, currency forwards and futures, and other derivative securities.

Fixed Income Portfolios

The fixed income portfolios will be managed on a total return basis, following specific investment styles and evaluated against specific market indices that represent a specific investment style or market segment. In addition, investment results may also be compared to returns of a peer group of managers investing with a similar style. The benchmarks for the various fixed income portfolios may include the following indices:

Fixed Income Portfolio – Bloomberg U.S. Aggregate Bond Index

U.S. Core Plus Fixed Income – Bloomberg U.S. Aggregate Bond Index

General fixed income guidelines include the following:

- Unless specified in the manager’s guidelines, the minimum average quality rating of the securities in any portfolio will maintain an average weighted credit quality of not more than 2 rating notches below the benchmark’s average weighted credit quality, at all times. For the avoidance of doubt, if the benchmark is rated AA-, then 2 notches below would be A.
- Ratings method: The ratings method used to test both the benchmark’s average credit rating and the portfolio’s average credit rating will be “split to the highest rating” of the three major rating agencies.
- Derivatives, including forward or futures contracts for foreign currencies, may be used to hedge the portfolio, or to effect portfolio management decisions in a timely, cost-effective manner. Borrowed funds shall not be used.
- An individual investment manager’s portfolio shall have an effective duration between 75% - 125% of the effective duration of the appropriate index, unless a broader range is permitted with the specific manager guidelines in the Appendix.
- The following transactions are prohibited unless specifically authorized by the Investment Committee or Board or by the specific manager guidelines in the Appendix:
 - Private placements (except 144As);
 - Interest Only CMOs, Principal Only CMOs, inverse floaters and any tranche that has a leveraged component embedded in the structure.

Real Estate Portfolios

The Real Estate portfolios will be managed on a total return basis, through a combination of income and appreciation, following specific investment styles and evaluated against a specific market index. In addition, investment results may also be compared to returns of a peer group of managers investing with a similar style. The benchmark for the various Real Estate portfolios may include the following index:

Real Estate Portfolio – NFI-ODCE Equal Weighted Index (Net)

Core Real Estate – NFI-ODCE Equal Weighted Index (Net)

- All investments in real estate shall be managed by external advisors.
- MCERA may invest in real estate through diversified institutional commingled vehicles. The vehicles can be limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles.
- The vehicle's manager(s) will have discretion with respect to the management of the fund's investment program, operating within the parameters delineated in the fund's legal documentation.

Real Assets Portfolio

The real assets portfolio will be managed on a total return basis, following specific investment styles and evaluated against specific market indices that represent a specific investment style or market segment. In addition, investment results may also be compared to returns of a peer group of managers investing with a similar style. The benchmarks for the various real assets portfolios may include the following indices:

Real Assets Portfolio – Blended Benchmark (25% Bloomberg U.S. TIPS Index, 25% Bloomberg Commodities Index, 25% S&P Global Natural Resources Index, 25% Dow Jones U.S. Select Real Estate Securities Index)

Treasury Inflation Protected Securities – Bloomberg U.S. TIPS Index

Commodities – Bloomberg Commodities Index

Global Natural Resources Equity – S&P Global Natural Resources Index

Real Estate Investment Trusts – Dow Jones U.S. Select Real Estate Securities Index

- MCERA may invest in real assets through separate accounts or diversified institutional commingled vehicles.
- The vehicle's manager(s) will have discretion with respect to the management of the fund's investment program, operating within the parameters delineated in the fund's legal documentation.

C.4

- The investment objective of the real assets program is to create a portfolio of high-quality real assets investments that will enhance long-term investment performance, meet inflation objectives, and diversify the asset base for the entire MCERA investment portfolio.

Private Equity Portfolios

MCERA will invest in private equity through institutional closed-end, finite-life commingled private equity fund-of-funds vehicles. The fund-of-funds vehicles will be limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles.

- Private equity investments will consist primarily of limited partnership investments in diversified private equity portfolios (e.g., venture capital, acquisition, special situation, subordinated debt, restructuring funds, and others).
- The vehicle's manager(s) will have discretion with respect to the management of the fund-of-funds investment program, operating within the parameters delineated in the investment vehicle's legal documents.
- The investment objective of the private equity allocation is to achieve consistent positive real returns and to maximize long-term total return net of fees within prudent levels of risk through capital appreciation and diversification.
- While the investment guidelines of each investment vehicle will be determined by the fund-of-funds legal documentation, the fund's manager, in managing the portfolio, should take prudent care.

Opportunistic Portfolio

MCERA may invest in opportunistic investments that will vary by assignment. Performance objectives or guidelines will be defined by MCERA in its retention of managers or selection of suitable investments and will be evaluated to test progress toward attainment of longer-term goals.

- MCERA may invest in opportunistic investments through separate accounts and diversified institutional commingled vehicles which may include limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles.
- The manager(s) will have discretion with respect to the management of the separate account or fund's investment program, operating within the parameters delineated in the separate account or fund's legal documentation.
- The investment objective of the opportunistic allocation is to achieve consistent positive real returns and to maximize long-term total return net of fees within prudent levels of risk through capital appreciation and diversification.

Short Term Investment/Cash Equivalents

MCERA is restricted from investing short term funds and cash equivalents in investment vehicles other than the Treasurer's Pool, the State Pool and the STIF funds maintained at the custodian bank. Retirement funds shall be invested in investments with an average maturity of one year or less.

Any exemption from these general guidelines requires prior written approval from the Board or Investment Committee.

Policy Implementation Overlay

The Board or Investment Committee may retain a "policy overlay manager" to rebalance portfolio exposures, bridge exposure gaps during transitions, 'securitize' Fund level cash, and securitize residual cash positions held by each manager. The policy overlay manager may use futures or swaps, when appropriate, to gain market exposure on existing cash positions. The manager will not use futures or other derivative instruments for speculative purposes.

INVESTMENT MANAGEMENT POLICY

MCERA will utilize externally managed portfolios based on specific styles and methodologies. The manager will acknowledge in writing, as more particularly set forth in Appendix B, that they are fiduciaries to MCERA with respect to the assets they manage and/or invest on MCERA's behalf, and will have discretion and authority to determine investment strategy, security selection and timing within their asset class and subject to the Policy guidelines and any other guidelines specific to their portfolio. Performance of the portfolio will be monitored and evaluated on a regular basis relative to each portfolio component's benchmark return and relative to peer groups of managers with similar investment styles where applicable.

Investment managers, as prudent experts, will be expected to know MCERA's investment policies (as outlined in this document) and any specific guidelines for their portfolios, and to comply with those policies and guidelines. It is each manager's responsibility to identify policies that may have an adverse impact on performance, and to initiate discussion with Staff toward possible amendment to said policies through Board or Investment Committee action.

The Investment Committee and Staff will also review each investment manager's adherence to its investment policy, and any material changes in the manager's organization (e.g., personnel changes, new business developments, etc.). The investment managers retained by MCERA will be responsible for informing the Investment Committee and Staff of all such material changes on a timely basis.

Investment managers under contract with MCERA shall have discretion to establish and execute transactions with established regional and national securities broker/dealers as needed. Unless otherwise authorized by the Board or Investment Committee, these investment managers must obtain the best available prices and most favorable executions with respect to all of the portfolio transactions as market conditions permit.

Unless specifically authorized by the Board or Investment Committee, the following transactions will be prohibited: short sales; selling on margin; "prohibited transactions" as defined under the Employee Retirement Income Security Act of 1974 (ERISA); transactions that involve a broker acting as a "principal", where such broker is also the investment manager who is making the transaction, and any or all investment activities forbidden by the SEC or other applicable governing bodies.

Selection Criteria for Investment Managers

Criteria will be established for each manager search undertaken by MCERA, and will be tailored to MCERA's needs in such a search. In general, eligible managers will possess attributes including, but not limited to, the following:

- The firm must be experienced in managing money for institutional clients in the asset class/product category/investment style specified by MCERA.

C.4

- The firm must display a record of stability in retaining and attracting qualified investment professionals, as well as a record of managing asset growth effectively, both in gaining and retaining clients.
- The firm must have an asset base sufficient to accommodate MCERA's portfolio. In general, managers should have at least \$100 million of discretionary institutional assets under management, and MCERA's portfolio should make up no more than 20% of the firm's total asset base. Exceptions shall be made on a case-by-case basis.
- The firm must demonstrate adherence to the investment style sought by MCERA, and adherence to the firm's stated investment discipline.
- The firm's fees should be competitive with industry standards for the product category.
- The firm must comply with the "Duties of the investment managers" outlined herein and conform to the CFA Institute standards for performance reporting.

Criteria for Investment Manager Termination and Watchlist

MCERA reserves the unilateral right to terminate a manager at any time for any reason. The occurrence of certain events will result in specific actions being taken. This section describes these events, the course of action that will be taken and the responsible parties. It also establishes a "Watchlist" as a means of monitoring and evaluating managers who meet any of the items identified under the Criteria For Investment Manager Termination. If a manager is on the Watchlist no additional assets will be allocated to the manager until the manager has been removed from the Watchlist, provided however that if the Investment Committee determines, after review and discussion with staff and its Investment Consultant, that it is appropriate and in alignment with the other goals established under this policy to make additional funds to a manager on the Watchlist then the Committee can vote to direct the staff to take this action. The Investment Committee will determine where to invest any additional assets that would otherwise have been allocated to the manager. Each manager on the Watchlist will be monitored closely by Staff and the Consultant and may be required to make special presentations to the Investment Committee and Staff if requested. MCERA may place a manager on the Watchlist at any time and when it is deemed warranted due to improved conditions, a manager may be removed from the Watchlist.

Illegal or Unethical Practice. The manager will report this event in writing to the Retirement Administrator not later than the close of the business day following discovery of the illegal or unethical practice. The Retirement Administrator will inform the Investment Committee in writing of this practice as soon as administratively possible. If the illegal or unethical practice has a material adverse effect upon the MCERA portfolio, or any attempt was made by the manager to hide this practice, the manager will normally be terminated upon review and action by the Investment Committee. If the practice is procedural and has been properly referred to the appropriate regulatory authorities, the Retirement Administrator will recommend to the Investment Committee whether or not to terminate the manager.

C.4

Guideline Violation. The manager will report any guideline violation in writing to the Retirement Administrator not later than the close of the second business day following discovery along with the manager's proposed remedy. If the violation results in a loss to MCERA, the manager will compensate MCERA for this loss. If the manager refuses to correct this violation, or if other violations occur, the Retirement Administrator may recommend termination of the manager to the Investment Committee. Guideline violations that have been corrected will be reported to the Investment Committee at their next regular meeting. Violations that have not been corrected, or violations that persist, will be reported to the Investment Committee as soon as administratively possible.

Deviation from Investment Process. If the Retirement Administrator determines that the manager has deviated materially from its stated investment process or philosophy, the Retirement Administrator will report to the Chair of the Investment Committee as soon as possible. The Retirement Administrator may also recommend termination of the manager, as soon as administratively possible, to the Investment Committee.

Loss of Key Personnel or Change in Ownership. The manager will inform the Retirement Administrator in writing within 24 hours following the loss of key personnel or a change in ownership. Loss of key personnel may result in termination of the manager. A material change in the ownership of the manager may result in the termination of the manager. The Retirement Administrator will make a recommendation regarding termination to the Investment Committee as soon as administratively possible.

Lack of Cooperation with Reasonable Requests. The manager is required to provide information, attend meetings and comply with other reasonable requests. Failure to do so may result in a recommendation to terminate the manager.

Underperformance. MCERA understands the cyclical nature of investment performance and the potential for its investment managers not to meet objectives over short-term periods. While it is not the Investment Committee's intention to terminate a manager for short-term underperformance relative to objectives, the Investment Committee has implemented the following process as a means of monitoring and evaluating managers that have experienced performance difficulties in the short-term to assess the impact on longer-term performance.

If a manager trails its relevant benchmark by more than 100 basis points (net of fees) and ranks in the bottom quartile of its peer universe (gross of fees ranking) for the trailing three years, or if a manager trails its relevant benchmark (net of fees) or ranks below median of its peer universe (gross of fees ranking) for the trailing five years, then the manager may be placed on the Watchlist.

If the underperformance of a manager on the Watchlist persists over a reasonable period in the future (as defined by the Staff, Investment Committee and Consultant based on the unique circumstances surrounding the manager and current market conditions), the Investment Committee may and will consider termination.

Procedures Following the Initiation of Watch Status.

The watch period will be established for a one-year total duration.

If at the end of the watch period, performance has improved to above-benchmark and/or above the manager median over a market cycle, the manager will be removed from the Watchlist.

If at the end of the watch period, the manager is underperforming the manager may be terminated or remain on the Watchlist for a period defined by the Investment Committee.

Unlike open-end funds and separate accounts for public market securities which are more easily liquidated, exiting open-end or closed-end commingled funds for private markets may have liquidity constraints. For these reasons, the Watchlist and terminating procedures used for traditional public market vehicles are not applicable for private market vehicles. Staff with the assistance of the Investment Consultant will make appropriate recommendations for exiting such positions.

PRIVATE EQUITY POLICY

MCERA's private equity investments allocation will consist primarily of limited partnership investments in diversified private equity portfolios (e.g., venture capital, acquisition, special situation, subordinated debt, and restructuring funds and others). MCERA will invest in private equity through institutional closed-end, finite-life commingled private equity fund-of-funds vehicles. The fund-of-funds vehicles will be limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles. Investments directly in stand-alone corporate finance limited partnerships and direct investments in companies are not currently considered appropriate. The vehicle's manager(s) will have discretion with respect to the management of the fund-of-funds investment program, operating within the parameters delineated in the fund's legal documentation. The investment manager of the fund-of-funds will acknowledge in writing by side letter or otherwise that they are Plan fiduciaries and will acknowledge having read and understood the guidelines set forth in this section of the Investment Policy Statement and any other guidelines specific to their portfolio as more particularly set forth in Appendix C.

To maintain an appropriate funded status on a net asset value basis, MCERA may be required to make periodic commitments to additional fund-of-funds vehicles managed by either the same or different fund-of-funds managers. MCERA's staff will work with the investment consultant and the managers to determine appropriate commitment timing and amounts and present a recommended plan to the Investment Committee annually.

To ensure adequate access and diversification, MCERA may utilize multiple fund-of-funds providers. There is no specific limit on the number of vendors to be utilized. However, to avoid unnecessary administrative burdens, MCERA will limit the number of vendors employed to the extent practical. Only those firms committed to providing ongoing access to the private equity arena through fund-of-funds offerings, who have a demonstrated record of investing client funds in top tier private equity partnerships and who limit assets accepted for management to sums that can in fact be committed in top tier funds will be considered.

MCERA recognizes that many well-qualified fund-of-funds providers make direct private equity investments within the fund-of-funds vehicle (e.g. secondary or co-investments). Such investments are permissible provided that they constitute a comparatively small portion of the total fund-of-funds' asset base (typically less than 35%).

Investment Objectives

The investment objective of the private equity allocation is to achieve consistent positive real returns and to maximize long-term total return within prudent levels of risk through capital appreciation and diversification. MCERA's holdings will be professionally managed on a cash-to-cash basis and will have broad exposure to key private corporate finance strategies (e.g., venture capital, acquisition, special situation, etc.), with allocations to the various strategies diversified in a manner consistent with institutional private equity programs generally.

Selection Criteria for Private Equity

Partnership Selection

As requested by MCERA, the investment consultant shall develop a proposed “Manager Candidate Profile” that will serve as the basis for evaluation of potential fund-of-funds providers consistent with MCERA’s investment policy. This document will specify the minimum selection criteria for potential vendors and also detail preferred characteristics. The consultant will then evaluate prospective candidates and submit a listing of those firms that appear to best meet the requirements and preferences. Staff and consultant will discuss these candidates and identify those that should be advanced for Board and/or Investment Committee consideration. Ultimately, the Investment Committee will determine which firms shall be retained.

The targeted private equity investments will be fund-of-funds vehicles that are commingled, closed-end, and finite-life limited liability entities.

Due to the inevitability of short-term market fluctuations that may cause variations in the investment performance, it is intended that the performance objectives outlined below will be achieved by the fund-of-funds over the life of the vehicle(s), generally 15 years. The Investment Committee will evaluate the Funds’ interim performance to test progress toward attainment of these longer-term goals. However, it is understood that there are likely to be short-term periods during which performance will deviate from expectations. Minimum expectations are as follows:

- For policy benchmarking purposes, over the long-term (rolling 10-year periods) the private equity portfolio is expected to generate returns in excess of the combined benchmark, consisting of 60% Russell 3000 and 40% MSCI ACWI ex-US IMI, employing a time-weighted return calculation.
- The private equity portfolio and manager returns will also be measured employing a dollar-weighted, internal rate of return (IRR) calculation and benchmarked against relevant peer group information from a recognized private equity database provider. The portfolio will also be benchmarked employing standard private equity performance ratio measures: Total Value to Paid-In Capital (TVPI) and Distributed Value to Paid-In Capital (DPI). IRR and ratio performance should be above median relative to recognized private equity industry peer database returns. Measures should be focused on returns net of all partnership fees and expenses.

Attainment of these objectives does not guarantee future investment by the Investment Committee in a specific manager’s fund-of-funds vehicles, nor does failure to achieve these guidelines ensure a lack of future investment support for follow-on vehicles. Providers are selected at the discretion of the Investment Committee.

In addition, the following stipulation(s) apply:

C.4

- The investment manager of the fund-of-funds vehicle shall be a Bank or a registered investment advisor under the Investment Advisors Act of 1940 (1940 Act).
- If the fund-of-funds vehicle provides distributions in cash or securities, the Fund will opt to receive cash.

Reporting Requirements

Reporting requirements will be governed by the fund-of-funds legal documentation, which at a minimum will provide for quarterly unaudited financial statement and other relevant investment holdings related exhibits, and annual audited financial statements and relevant investment holdings-related exhibits.

It is expected that the fund-of-funds investment managers will meet with the Board or Investment Committee as reasonably requested and at least annually.

Coordination with Total Fund Performance Reporting

MCERA relies on its custodian to generate short-term time-weighted performance statistics. This information is utilized by the Fund's investment consultant to evaluate ongoing investment performance. An integral part of the performance evaluation is a comparison of the total Fund's return in relation to a policy benchmark index comprised of market indices weighted in the same manner as the Fund's strategic asset allocation policy.

Given the private market nature of private equity investments and the long lead-time associated with such investments, a public market equity index shall be used in lieu of the private equity database return set forth in Appendix B for the private equity component of the total portfolio. The index used shall be a composite of the equity component of MCERA's total policy benchmark: 60% Russell 3000 and 40% MSCI ACWI ex-US IMI.

DUTIES OF RESPONSIBLE PARTIES

Duties of the MCERA Board of Retirement and Investment Committee

The Board of Retirement has the responsibility for administration of MCERA for the benefit of plan participants. The County Employees Retirement Law of 1937, Government Code Chapter 3, Part 3, Division 4, Title 3, Article 5, permits the Board of Retirement at its discretion to invest the assets of the Plan through the purchase, holding or sale of any form or type of investment, financial instrument or financial transaction when prudent in the informed opinion of the Board. In the interest of efficient and prudent administration of MCERA and investment of its assets, the Board of Retirement has delegated its responsibilities with respect to the investments to the Investment Committee, which consists of all members of the Board of Retirement. Although it is not the intent of the Investment Committee to become involved in the day-to-day investment decisions, the Investment Committee or its designee(s) will adhere to the following procedures in the management of MCERA's assets:

- The Investment Committee develops and approves guidelines for the execution of MCERA's investment program. Only the Board, through the Investment Committee, in its sole discretion can delegate its decision-making authority regarding the investment program. Staff is responsible for the timely implementation and administration of these decisions.
- A formal review of MCERA's investment structure, asset allocation and financial performance will be conducted annually or more frequently as the need arises. The review will include recommended adjustments to the long-term strategic asset allocation to reflect any changes in applicable regulations, long-term capital market assumptions, actuarial assumptions or MCERA's financial condition.
- The Investment Committee shall review MCERA's investments quarterly, or as needed, to ensure that policy guidelines continue to be met. The Investment Committee shall monitor investment returns on both an absolute basis and relative to appropriate benchmarks and peer group comparisons. The source of information for these reviews shall come from Staff, outside consultants, the custodian and MCERA's investment managers.
- The Investment Committee is comprised of all Board members.
- The Investment Committee may retain investment consultants to provide services such as conducting performance reviews, asset allocation, manager reviews and investment research. The comments and recommendations of the consultants will be considered in conjunction with other available information to aid the Investment Committee in making informed, prudent decisions.
- Trustees shall direct questions from managers regarding MCERA's Investment Policy or other matters relating to the Plan to the Retirement Administrator and/or investment consultant.

C.4

- The Investment Committee shall be responsible for taking appropriate action if investment objectives are not being met or if policies and guidelines are not being followed. Reviews for separate portfolios managed by external managers will focus on:
 1. Material changes in the managers' organizations, such as investment philosophy, personnel changes, acquisitions or losses of major accounts, etc. The managers will be responsible for keeping MCERA advised of any material changes in personnel, investment strategy, or other pertinent information potentially affecting performance.
 2. Investment performance relative to each manager's stated performance benchmark(s) as set forth in the manager's investment guidelines.
- The Investment Committee shall expect Staff to administer MCERA's investments in a cost-effective manner subject to Committee approval. These costs include, but are not limited to, management, consulting and custodial fees, transaction costs and other administrative costs chargeable to MCERA.
- The Board shall be responsible for selecting a qualified custodian with advice from Staff.
- The Investment Committee shall perform due diligence on each new manager prior to funding, and on each existing manager in accordance with the Due Diligence policy found at: <https://www.mcera.org/retirementboard/governance-policies>
- To maintain and strengthen the investment management of MCERA's Plan, Staff and Board/Investment Committee members shall be expected to participate in educational conferences/seminars related to their direct responsibility for the investment activities of MCERA in accordance with the Education Policy found at:
 - <https://www.mcera.org/retirementboard/governance-policies>

Duties of the Staff

The Retirement Staff, as designated by the Board and/or Investment Committee, plays a significant role in the management and oversight of the Plan. Staff duties include:

- Authority to invest the Fund's cash without requiring Board or Investment Committee permission, and as set forth elsewhere in MCERA's Investment Policy.
- Monitoring investment managers for adherence to appropriate policies and guidelines.
- Evaluating and managing the relationships with the consultants to the Fund to ensure that they are providing all the necessary assistance to Staff, Investment Committee, and the Board as set forth in their service contracts.
- Conducting manager searches, as set forth in this document, with necessary assistance from consultants as directed by the Board or Investment Committee.

C.4

- Restructuring portfolios following manager terminations with the assistance of consultants and managers, as needed.
- Organizing and/or participating in any special research required to manage the Plan more effectively or in response to any questions raised by Board/Investment Committee members.
- Supporting the Board or Investment Committee in the development and approval of the Investment Plan, implementing and monitoring the Plan, and reporting at least monthly on investment activity and matters of significance.
- Assisting with the negotiation of investment manager fees when needed.
- Ensuring that investment managers conform to the terms of their contracts and that their performance monitoring systems are sufficient to provide the Board or Investment Committee with timely, accurate and useful information.

Duties of the Public Markets Investment Managers

The following duties apply to managers investing in public market securities:

- Provide the Plan with a written agreement to invest within the guidelines established in the Investment Policy.
- Provide the Plan with proof of liability and fiduciary insurance coverage. Updated policy information will be provided to MCERA upon renewal and/or changes to the policy.
- Be an SEC-Registered Investment Advisor under the 1940 Act, and be recognized as providing demonstrated expertise over a number of years in the management of institutional, tax-exempt assets within a defined investment specialty.
- Adhere to the investment management style concepts and principles for which they were retained, including, but not limited to, developing portfolio strategy, performing research, developing buy, hold and sell lists, and purchasing and selling securities.
- Execute all transactions for the benefit of the Plan with brokers and dealers qualified to execute institutional orders on an ongoing basis at the best net cost to the Plan.
- Reconcile monthly accounting, transaction and asset summary data with custodian valuations, and communicate and resolve any significant discrepancies with the custodian.
- Submit written acknowledgement to the Retirement Administrator of these investment guidelines at the time of hire or upon any contract renewal or amendment.
- Maintain frequent and open communication with Staff and the Board or Investment Committee on all significant matters pertaining to the Investment Policy, including, but not limited to, the following:

C.4

- Major changes in the investment manager’s investment outlook, investment strategy and portfolio structure;
 - Significant changes in ownership, organizational structure, financial condition or senior personnel;
 - Any changes in the portfolio manager or client servicing personnel assigned to the Plan;
 - All pertinent issues which the investment manager deems to be of significant interest or material importance.
- Meet with the Board, Investment Committee or their designee(s) on an as-needed basis.

Duties of the Private Markets Investment Managers

The following duties apply to managers investing in private markets:

- Be a SEC-Registered Investment Advisor under the 1940 Act.
- Adhere to the investment management style concepts and principles set forth in the legal documentation of the relevant investment vehicle.
- Provide reporting as specified by the legal documentation of the relevant investment vehicle.
- Meet with the Board, Investment Committee or their designee(s) on an as-needed basis.

Duties of the Master Custodian

The master custodian shall be responsible for the following:

- Provide complete global custody and depository services for the designated accounts.
- Manage, if directed by the Board or Investment Committee, a Short Term Investment Fund (STIF) for investment of any cash not invested by managers, and ensure that all available cash is invested. If the cash reserves are managed externally, full cooperation must be provided.
- Provide in a timely and effective manner a monthly report of the investment activities implemented by the investment managers. If certain portfolios are custodied elsewhere, full cooperation must be provided.
- Collect all income and principal realizable and properly report it on the periodic statements.
- Provide monthly and fiscal year-end accounting statements for the portfolio, including all transactions; these should be based on accurate security values for both cost and market. These reports should be provided within acceptable time frames.

C.4

- Report to MCERA situations where accurate security pricing, valuation and accrued income is either not possible or subject to considerable uncertainty.
- Provide assistance to the Plan to complete such activities as the annual audit, transaction verification or other issues as required by the Board or Investment Committee.
- Manage a securities lending program to enhance income if directed by the Board or Investment Committee. If the securities lending program is managed externally, full cooperation must be provided.
- Securities transactions shall be settled under the contractual method.
- The use of due bills or substitute securities is expressly forbidden.

Duties of the General Investment Consultant

The investment consultant will act as a fiduciary for all services provided to MCERA. The Investment Consultant shall be responsible for the following:

- Make recommendations to the Board or Investment Committee regarding investment policy and strategic asset allocation.
- Assist MCERA in the selection of qualified investment managers and sponsors of limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles and assist in the oversight of existing managers and said sponsors, including monitoring changes in personnel, ownership and their investment process.
- Assist in the selection of a qualified custodian (including a securities lending agent and/or a cash manager) if necessary.
- Prepare a quarterly performance report including performance attribution on MCERA's managers and total assets and adherence to investment style and discipline.
- Provide topical research and education on investment subjects that are relevant to MCERA.
- Assist with the negotiation of investment management and custodian assignment and fees.

POLICY REVIEW

The Investment Committee will review this Policy at least every year to ensure that it remains relevant and appropriate. The Policy may be amended at any time by majority vote.

APPENDIX A**MCERA'S LONG-TERM STRATEGIC ASSET ALLOCATION TARGETS AND RANGES**

The strategic asset allocation targets have been developed as a function of the returns and risks of various asset classes and a rigorous analysis of MCERA's liabilities, taking into account the Board and Investment Committee's risk tolerance and long-term objectives. As asset class values change over time, deviations from the asset allocation targets may occur. Rebalancing the portfolio may be necessary to return the asset class allocations to targeted weights so as to ensure that the Board's intended strategy is consistently maintained over time. Rebalancing actions are the responsibility of the Staff and shall be reported to the Board or Investment Committee on a periodic basis.

Staff is authorized and directed (in the normal course of events) to act in accordance with this policy. Where particular circumstances arise and Staff determines rebalancing is not prudent, because doing so may generate unnecessary costs or otherwise not be in the best interests of MCERA, a full report of the actions taken or not taken shall be made to the Board or Investment Committee at the earliest opportunity.

MCERA's actual asset allocation shall be reviewed at the end of each quarter at a minimum and shall be based on current asset valuations. Estimated values may be used when current asset valuations are not available.

By using statistical models and employing a diversified portfolio strategy, MCERA seeks to create an efficient frontier, which is an optimal portfolio profile that accomplishes the lowest possible level of risk for a certain level of return. While asset allocation targets are an essential part of MCERA's investment policy, the inputs used to develop these benchmarks are not known with certainty. Indeed, the targets were derived using estimates of future returns and estimates of the risk of loss for each asset class. Because future results are only estimates based on historical returns and volatility for each asset class, a range of different allocations other than the target percentage may be statistically identical in risk-return terms to the targeted benchmark even though the actual allocations may be outside of the targeted percent. Thus, the efficient frontier is really a range of targeted allocations, rather than a strict target percent of asset allocations in a portfolio. In other words, the portfolio is on the efficient frontier if the allocations to each asset class are within a range around the target allocations.

C.4

The strategic policy asset allocation and rebalancing triggers are set out in the table below:

Asset Class	Target Percent	Allowable Range
<i>US Equity</i>	<i>32.0%</i>	<i>28.0% - 36.0%</i>
Large Cap Core	24.0%	21.0% - 27.0%
Small Cap Core	8.0%	6.0% - 10.0%
<i>Non-US Equities</i>	<i>22.0%</i>	<i>19.0% - 25.0%</i>
International Non-US Developed	11.0%	9.0% - 13.0%
International Small Cap Core	5.5%	4.5% - 6.5%
International Emerging Markets	5.5%	4.5% - 6.5%
<i>Fixed Income</i>	<i>23.0%</i>	<i>20.0% - 26.0%</i>
U.S. Core Plus Fixed Income	23.0%	20.0% - 26.0%
<i>Real Assets</i>	<i>7.0%</i>	<i>4.0% - 10.0%</i>
Treasury Inflation Protected Securities	1.75%	1.5% - 2.0%
Commodities	1.75%	1.5% - 2.0%
Global Natural Resources Equity	1.75%	1.5% - 2.0%
Real Estate Investment Trusts	1.75%	1.5% - 2.0%
<i>Real Estate</i>	<i>8.0%</i>	<i>4.0% - 12.0%</i>
<i>Private Equity</i>	<i>8.0%</i>	<i>0.0% - 12.0%*</i>
<i>Opportunistic</i>	<i>0.0%</i>	<i>0.0% - 5.0%</i>

** MCERA acknowledges that because of the nature of private equity investment, it may take several years to fund the private equity allocations and during the initial funding period, its allocation to private equity in market value terms may fall below the 8% target. During the initial funding period, as a proxy for private equity, MCERA intends to keep the assets committed to private equity partnerships invested in domestic and international equity. The result will be overweights in both of these asset classes relative to the long-term targets described above.*

The following principles apply when asset allocations are outside the allowable ranges noted above:

1. Cash held by MCERA and cash awaiting investment in private equity investments or other alternative investments may be securitized with exchange-traded futures to a Fund policy mix by MCERA's overlay manager. The use of derivative instruments is

C.4

permitted as long as it does not create economic leverage in the portfolio and the instruments comply with the Derivatives section of this investment policy.

2. In order to rebalance as efficiently as possible and save transactions costs, allocations may be brought back within the allowable range rather than exactly to the target percentage. On the first business day of each month, target allocations will be reviewed to determine if they have been breached. If a reallocation is required staff will, within one business day, notify the impacted manager(s) and implement required rebalancing subject to any requirements by the fund.
3. Private market portfolios, such as Real Estate, Private Equity, and certain Opportunistic allocations, because of their illiquid nature, are very costly to rebalance. MCERA's Staff will make reasonable attempts to keep these asset classes within the allowable ranges defined above. Given their illiquidity, the risk of these asset classes moving outside of the allowable ranges for an extended period is heightened. In these cases, MCERA's Staff will document a plan to rebalance the allocations within the allowable ranges in the most timely and cost-efficient manner possible given market and other conditions.
4. When physical securities are traded, assets will be moved between investment managers in accordance with the following principles:
 - a) Assets will be taken from investment managers in the overweight asset class(es) with consideration given to asset class structure, investment manager target weights, and confidence in the investment managers themselves. With respect to private market allocations, the illiquid nature of these classes will be taken into account and trading will normally be avoided where possible.
 - b) Primary emphasis should be on significantly different asset classes (e.g. equity vs. fixed income).
 - c) Assets will be directed to investment managers in the underweight asset class(es) with consideration given to the same factors listed above.

APPENDIX B - 1
STATE STREET GLOBAL ADVISORS (SSGA)
RUSSELL 1000 INDEX STRATEGY (LARGE CAP CORE)
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

The objective of the Russell 1000 Index strategy is to provide returns consistent with the US equity market as measured by the Russell 1000 Index.

MCERA Performance Objectives

- Match the return, gross of management fees, of the Russell 1000 Index over a complete market cycle.
- Minimize tracking error relative to the Russell 1000 Index.

Investment Guidelines

- All investments shall be managed in a diversified and prudent manner, subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees' Retirement Association as set forth in this Appendix B-1 and the Statement of Investment Policies, Objectives and Guidelines set forth in the Investment Management Agreement between MCERA and SSGA, dated January 11, 2019, as amended from time to time (the "SSGA Agreement").
- Sector and security selection, portfolio structure and timing of purchase and sales are delegated to SSGA subject to the SSGA Agreement.
- The following transactions are prohibited: short sales, selling on margin, writing options other than covered options, and "prohibited transactions" as defined under the Employee Retirement Income Security Act (ERISA), unless in reliance on an applicable Prohibited Transaction Exemption.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.

C.4

- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- Review every month transaction data with custodian reports, and communicate and seek to resolve any significant discrepancies with the custodian.
- State Street Global Advisors will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- State Street Global Advisors will keep MCERA apprised of relevant information regarding its organization and personnel. To the extent legally possible, SSGA will use its best efforts to promptly notify MCERA of any change in the lead personnel assigned to manage the account.

APPENDIX B - 2
DIMENSIONAL FUND ADVISORS (DFA)
DOMESTIC SMALL CAP EQUITY
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

The strategy will be invested in a broadly diversified portfolio of companies that are generally in the lowest 10% of total market capitalization or companies whose market capitalizations are smaller than the 1,000th largest U.S. company, whichever results in the higher market capitalization break, in each case as reasonably determined by Manager at the time of purchase. In general, with respect to companies eligible for purchase the higher the relative market capitalization of the U.S. small cap company, the greater its representation in the Managed Assets. Manager may also adjust the representation within the Managed Assets of an eligible company, or exclude a company, after considering such factors as market capitalization, free float, momentum, trading strategies, liquidity, profitability, and other factors that Manager determines to be appropriate, given market conditions.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the Russell 2000 Index (the “Benchmark”) over a complete market cycle.
- Perform in the top half of a peer universe of small cap core equity managers over a complete market cycle.

Investment Guidelines

- All investments shall be managed in a diversified and prudent manner, subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees’ Retirement Association.
- Sector and security selection, portfolio structure and timing of purchase and sales are delegated to the manager subject to the investment management contract.
- The following transactions are prohibited: short sales, selling on margin, writing options other than covered options, and “prohibited transactions” as defined under the Employee Retirement Income Security Act (ERISA).
- Transactions shall be executed on the basis of seeking “best price and execution” and pursuant to Investment Manager’s best execution and trading policies for the sole benefit of the Marin County Employees’ Retirement Association.
- The use of foreign equity instruments which trade on U.S.-based exchanges or on NASDAQ, including American Depositary Receipts (ADRs), are acceptable as domestic equity investments

C.4

but shall not constitute more than 15% of the portfolio (at market). Companies headquartered in the US will be considered domestic even if they are incorporated in a foreign jurisdiction.

- Securities in the Benchmark are permitted.
- Any security purchased or received in a corporate action is permitted.
- If not otherwise permitted herein, the use of other non-U.S. equity securities is prohibited. Notwithstanding the foregoing, securities of companies listed on exchanges or markets in the United States are permitted.
- The portfolio is expected to remain fully invested in that cash holdings should not exceed 10% of the market value in the portfolio; provided that such limit may be exceeded in situations where substantial withdrawals or inflows occur.
- DFA shall not purchase stock (or securities convertible into stock) of any single issuer if the purchase would cause this portfolio to include more than 5% of the outstanding voting stock, or more than 5% in (market) value of all outstanding securities of single issuer (assuming all shares are converted).
- Other than in connection with a corporate action, DFA shall not purchase private placements unless authorized in writing by the Board or Investment Committee.

Any material violation of these Investment Manager Guidelines shall be corrected promptly upon discovery and provided that a reasonable market exists.

Any material violation of these Investment Manager Guidelines shall be corrected promptly upon discovery, provided that in the event that the correction requires the buying and/or selling of securities, the Manager shall execute such purchase or sell trades of the applicable securities in an orderly fashion based upon prevailing market conditions.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- Review every month transaction data with custodian reports, and communicate and seek to resolve any significant discrepancies with the custodian.

C.4

- DFA will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. One of the lead portfolio managers will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- DFA will keep MCERA apprised of relevant information regarding its organization and personnel. DFA will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX B - 3
STATE STREET GLOBAL ADVISORS (SSGA)
MSCI WORLD EX-US INDEX FUND
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

The objective of the World ex-US Index Fund is to provide returns consistent with the developed non-US equity market as measured by the MSCI World ex-US Index.

MCERA Performance Objectives

- ~~Match the return, gross of management fees, of the MSCI World ex-US Index over a complete market cycle. Approximate as closely as practicable, before expenses, the performance of the MSCI World ex USA Index over the long term.~~
- Minimize tracking error relative to the MSCI World ex-US Index.

Investment Guidelines

- MCERA is responsible for determining that its investment in the SSGA World ex-US Index Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. State Street Global Advisors shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Asset (portfolio) statement and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- State Street Global Advisors will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

C.4

- State Street Global Advisors will keep MCERA apprised of relevant information regarding its organization and personnel. To the extent legally possible, SSGA will use its best efforts to promptly notify MCERA of any change in the lead personnel assigned to manage the account.

APPENDIX B - 4
TIMESQUARE CAPITAL MANAGEMENT COLLECTIVE INVESTMENT TRUST
TIMESQUARE INTERNATIONAL SMALL CAP FUND
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

TimesSquare Capital Management believes fundamental equity growth research with a particular emphasis on the assessment of management quality, an in-depth understanding of superior business models, and valuation discrepancies enables them to create a diversified international small cap fund that will generate quality risk-adjusted returns.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the MSCI EAFE Small Cap Index over a complete market cycle.
- Perform in the top half of a peer universe of International Small Cap equity managers over a complete market cycle.

Investment Guidelines

- MCERA is responsible for determining that its investment in the TimesSquare International Small Cap Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. TimesSquare shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Asset (portfolio) statement and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- A representative of TimesSquare will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative will be available to

C.4

meet with MCERA annually, or more often if deemed necessary by MCERA, to review the fund and its performance.

- TimesSquare will keep MCERA apprised of relevant information regarding its organization and personnel. The fund or its representative will notify MCERA promptly of any change in the lead personnel assigned to manage the account.

APPENDIX B - 5
FIDELITY INSTITUTIONAL ASSET MANAGEMENT (FIAM)
SELECT EMERGING MARKETS EQUITY
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

Fidelity Institutional Asset Management's (FIAM) investment philosophy is based on the premise that international and emerging markets are semi-efficient and pricing anomalies exist. The strategy seeks to exploit these inefficiencies through bottom-up stock selection based on fundamental company research, implemented within a framework of quantitative risk control.

MCERA Performance Objectives

- Exceed the return, net of management fees, of MSCI Emerging Markets Index (net) over a complete market cycle.
- Perform in the top half of a peer universe of emerging markets equity managers over a complete market cycle.

Investment Guidelines

- MCERA is responsible for determining that its investment in FIAM's Select Emerging Markets Equity commingled pool is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. FIAM shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Asset (portfolio) statement and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- A representative of FIAM will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the fund and its performance.

C.4

- FIAM will keep MCERA apprised of relevant information regarding its organization and personnel. FIAM will notify MCERA promptly of any change in the lead personnel assigned to manage the account.

APPENDIX B - 6
WELLINGTON MANAGEMENT COMPANY
CORE PLUS FIXED INCOME
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

Wellington will invest in a diversified portfolio of investment grade and below investment grade fixed income securities. Wellington will add value primarily from sector and issue selection decisions. Interest rate anticipation and duration management will play a limited role in the portfolio.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the Bloomberg U.S. Aggregate Index over a complete market cycle.
- Perform in the top half of a peer universe of core plus fixed income managers over a complete market cycle.

Investment Guidelines

- All investments are subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees' Retirement Association, with applicable State and Federal statutes, and shall be managed in a diversified and prudent manner. The manager shall invest within the scope of their stated style.
- Sector and security selection, portfolio structure and timing of purchase and sales are delegated to the manager subject to the investment management contract.
- The following transactions are prohibited: short sales where securities are borrowed solely for the purpose of shorting, selling on margin, and "prohibited transactions" as defined under the Employee Retirement Income Security Act (ERISA).
- Transactions shall be executed on the basis of "best price and execution" for the sole benefit of the Marin County Employees' Retirement Association's beneficiaries.
- The duration on the portfolio shall range between 75% - 125% of the duration on the Bloomberg U.S. Aggregate Index.
- MCERA expects its domestic fixed income investment managers to maintain diversified portfolios by sector and by issuer. No more than 5% of the portfolio shall be invested with a single investment grade issuer other than obligations of the US Government and its agencies. No more than 2% of the portfolio shall be invested with a single below investment grade issuer.

C.4

- Futures, options, swaps, forwards and other derivative securities are permitted investments. Any use of these instruments by Wellington will be in a non-leveraged manner, defined as follows:
 - The use of financial leverage is prohibited. The Account will not be considered leveraged as a result of authorized derivative positions provided the Account maintains cash and securities at least equal to the value of the obligations created by its net derivative positions in order to cover the obligations created by such positions.
- Wellington may invest up to 20% of the portfolio in securities rated below investment grade by all three of the major credit rating agencies. In the case of split ratings in which the three agencies have different ratings, the highest rating will be used in determining the credit rating of the security. If an issue is unrated, then an equivalent credit rating, as deemed by Wellington Management, may be used.
- Wellington may invest up to 20% of the portfolio in non-dollar denominated securities and currencies. The Portfolio may take currency positions unrelated to underlying portfolio holdings.
 - Non-dollar securities may be held on a currency hedged or un-hedged basis. The portfolio may invest in currency exchange transactions on a spot or forward basis. Both long and short currency exposures are permissible.
 - With respect to the 20% non-dollar investment limitation listed above, the Investment Manager may take effective foreign currency exposure up to 20% of the total portfolio (e.g. the entire non-dollar portfolio may be unhedged). Foreign currency exposure will be based on the absolute value of all positions (long and short) versus the dollar, except in the case of same country and currency exposures where these can be netted. Both long and short foreign currency positions may be held without owning securities denominated in such currencies.
- Wellington may invest up to 20% of the portfolio in private placements, including those issued pursuant to Rule 144A and/or Reg S and other restricted securities, the liquidity of which Wellington Management deems consistent with the Portfolio's investment objective.
- Wellington may invest up to 5% of the portfolio in U.S. and non-U.S. preferred and perpetual securities.
- Wellington will maintain an average weighted credit quality of not more than 2 rating notches below the benchmark's average weighted credit quality, at all times. For the avoidance of doubt, if the benchmark is rated AA-, then 2 notches below would be A.
 - Ratings method: The ratings method used to test both the benchmark's average credit rating and the portfolio's average credit rating will be "split to the highest rating" of the three major rating agencies.
- Investment in mortgage interest only (IO), principal only (PO), inverse floaters or other CMO derivatives that have highly uncertain or volatile duration or price movements are limited to 5% of the market value of the portfolio.

C.4

- Bank loans are permitted investments.
- All percentage limits refer to “at time of purchase.”

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA’s Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA’s Retirement Administrator and MCERA’s Investment Consultant.
- Review every month transaction data with custodian reports, and communicate and resolve any significant discrepancies with the custodian.
- Wellington will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. One of the lead portfolio managers will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- Wellington will keep MCERA apprised of relevant information regarding its organization and personnel. Wellington will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX B - 7
WESTERN ASSET MANAGEMENT COMPANY
CORE PLUS FIXED INCOME
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

In adhering to these guidelines, Western will invest in a diversified portfolio of investment grade and below investment grade fixed income securities. Western will add value primarily from sector and issue selection decisions. Interest rate anticipation and duration management will play a limited role in the portfolio.

Performance Objectives

- Exceed the return, net of management fees, of the Bloomberg U.S. Aggregate Index over a complete market cycle.
- Perform in the top half of a peer universe of core plus fixed income managers over a complete market cycle.

Investment Guidelines

- All investments are subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees' Retirement Association, with applicable State and Federal statutes; accordingly, as of the date of this amendment these guidelines conform to all applicable rules and regulations and the Client will notify Western if any change thereof materially impact these guidelines. Moreover, the portfolio shall be managed in a diversified and prudent manner. The manager shall invest within the scope of their stated style.
- Sector and security selection, portfolio structure and timing of purchase and sales are delegated to the manager subject to the investment management contract. For the avoidance of doubt, the following are Eligible Investments:
 - UST, US Agencies and US GSEs
 - Sovereigns/non-US
 - International Agencies
 - Non-US Local Authorities
 - US Munis
 - Supranationals
 - Corporates, including convertibles and preferreds
 - Bank Loans
 - Mortgage-backed (agency and non-agency, including CMBS), Asset-backed and CLO/CDO/CBO
 - Cash and Cash equivalents, including REPO and STIF
 - Futures, Options and Swaps

C.4

- Currency Forwards
 - Credit linked notes (max 3%)
 - Commingled vehicles (excluding Western Asset affiliated Registered Investment Companies)
 - Pure privates, including 144a, Reg S and 4(2) Commercial Paper
 - Equity (only related to corporate actions, tenders and workouts and exchanges)
 - At time of purchase illiquids are ineligible (illiquids defined as securities that cannot be sold within 7 days at or around the carry).
-
- The following transactions are prohibited: short sales where securities are borrowed solely for the purpose of shorting, selling on margin, and “prohibited transactions” as defined under the Employee Retirement Income Security Act (ERISA).
 - Transactions shall be executed on the basis of “best price and execution” for the sole benefit of the Marin County Employees’ Retirement Association’s beneficiaries.
 - The duration on the portfolio shall range between 75% - 125% of the duration on the Bloomberg U.S. Aggregate Index.
 - MCERA expects its domestic fixed income investment managers to maintain diversified portfolios by rating and by issuer. To this end, the following limits apply:
 - Max 5% per issuer in issues rated investment grade (other than obligations of the US Government and its agencies and excluding STIF) and,
 - Max 2% per issuer in issues rated below investment grade.
 - Futures, options, swaps, forwards and other derivative securities are permitted investments. Any use of these instruments by Western will be in a non-leveraged manner, defined as follows:
 - The use of financial leverage is prohibited. The Account will not be considered leveraged as a result of authorized derivative positions provided the Account maintains cash and securities at least equal to the value of the obligations created by its net derivative positions in order to cover the obligations created by such positions.
 - Western may invest up to 20% of the portfolio in securities rated below investment grade. In the case of split ratings in which the three agencies have different ratings, the highest rating will be used in determining the credit rating of the security. If an issue is unrated, then an equivalent credit rating, as deemed by Western, may be used.
 - Western may invest up to 20% of the portfolio in non-USD denominated securities and up to 20% of the portfolio may be invested in non-USD exposure via unhedged non-USD securities and foreign currency transactions. The Portfolio may take currency positions unrelated to underlying portfolio holdings.

C.4

- Non-dollar securities may be held on a currency hedged or un-hedged basis. The portfolio may invest in currency exchange transactions on a spot or forward basis. Both long and short currency exposures are permissible.
- Western will net within currencies and the resulting value will contribute to the max percentage permitted. Both long and short foreign currency positions may be held without owning securities denominated in such currencies.
- Western may invest up to 20% of the portfolio in private placements, including those issued pursuant to Rule 144A and/or Reg S and 4(2) commercial paper, the liquidity of which Western deems consistent with the Portfolio's investment objective.
- Western may invest up to 5% of the portfolio in U.S. and non-U.S. preferred and perpetual securities.
- Western will maintain an average weighted credit quality of not more than 4 rating notches below the benchmark's average weighted credit quality, at all times. For the avoidance of doubt, if the benchmark is rated AA-, then 4 notches below would be BBB+.
- Ratings method: The ratings method of the portfolio, including to test both the benchmark's average credit rating and the portfolio's average credit rating, will be "split to the highest rating" of the three major rating agencies (S&P, Moody's, Fitch), for unrated ok to use Manager's internally generated rating.
- Investment in mortgage interest only (IO), principal only (PO), inverse floaters or other CMO derivatives that have highly uncertain or volatile duration or price movements are limited to 5% of the market value of the portfolio.
- All percentage limits refer to "at time of purchase."

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus written certification of compliance with guidelines, performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.

C.4

- Review every month transaction data with custodian reports, and communicate and resolve any significant discrepancies with the custodian.
- Western will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. One of the lead portfolio managers will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- Western will keep MCERA apprised of relevant information regarding its organization and personnel. Western will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX B - 8
BLACKROCK
US TREASURY INFLATION PROTECTED SECURITIES FUND
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

The objectives of the US Treasury Inflation Protected Securities Fund are to provide returns consistent with the US TIPS market as measured by the Bloomberg US TIPS Index.

MCERA Performance Objectives

- Match the return as closely as practicable, gross of management fees, of the Bloomberg US TIPS Index over a complete market cycle.
- Minimize tracking error relative to the Bloomberg US TIPS Index.

Investment Guidelines

- MCERA is responsible for determining that its investment in the US Treasury Inflation Protected Securities Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. BlackRock shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus, performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- BlackRock will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of BlackRock will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

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- BlackRock will keep MCERA apprised of relevant information regarding its organization and personnel. BlackRock will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX B - 9
INVESCO
BALANCED-RISK COMMODITY
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

The Invesco Balanced-Risk Commodity strategy uses an active approach to commodity investing due to some of the unique return sources available in the commodity markets. The investment strategy focuses on four key drivers of commodity returns: term structure weighting, equal risk contribution, optimal roll, and tactical allocation.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the Bloomberg Commodities Index over a complete market cycle.
- Perform in the top half of a peer universe of commodity managers over a complete market cycle.

Investment Guidelines

- MCERA is responsible for determining that its investment in Invesco's Balanced-Risk Commodity Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. Invesco shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- Invesco will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of Invesco will be available to meet with MCERA

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annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

- Invesco will keep MCERA apprised of relevant information regarding its organization and personnel. Invesco will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX B - 10
KBI GLOBAL INVESTORS
GLOBAL RESOURCE SOLUTIONS
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

KBI Global Investors' (KBIGI) Global Resource Solutions strategy invests in companies providing solutions to the greatest global resource challenges. There are compelling investment opportunities in companies providing solutions to resource scarcity across water, food and energy.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the S&P Global Natural Resources Index over a complete market cycle.

Investment Guidelines

- MCERA is responsible for determining that its investment in the KBIGI Global Resource Solutions Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. KBIGI shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- KBIGI will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of KBIGI will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

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- KBIGI will keep MCERA apprised of relevant information regarding its organization and personnel. KBIGI will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX B - 11
BLACKROCK
REIT INDEX FUND
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

The objectives of the REIT Index Fund are to provide returns consistent with the US REIT market as measured by the Dow Jones US Select Real Estate Securities Index.

MCERA Performance Objectives

- Match the return as closely as practicable, gross of management fees, of the Dow Jones US Select Real Estate Securities Index over a complete market cycle.
- Minimize tracking error relative to the Dow Jones US Select Real Estate Securities Index.

Investment Guidelines

- MCERA is responsible for determining that its investment in the REIT Index Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. BlackRock shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- BlackRock will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of BlackRock will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

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- BlackRock will keep MCERA apprised of relevant information regarding its organization and personnel. BlackRock will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX B - 12
UBS
CORE REAL ESTATE
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

UBS Trumbull Property Fund is an open-ended core real estate commingled fund. UBS strives to invest predominantly in income producing properties diversified by both geographical region and by property type.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the NCREIF Open-Ended Core Diversified Equity (ODCE) Index over a complete market cycle.
- Perform in the top half of a peer universe of Open-Ended Core Real Estate managers over a complete market cycle.

Investment Guidelines

- MCERA is responsible for determining that its investment in the UBS Trumbull Property Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. UBS shall invest within the scope of its style as stated in the governing documents for the UBS Trumbull Property Fund.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Quarterly – Performance of the portfolio and benchmark for the quarter, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- UBS will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. Members of the investment team will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- UBS will keep MCERA apprised of relevant information regarding its organization and personnel. UBS will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX B - 13
AEW CAPITAL MANAGEMENT
CORE REAL ESTATE
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

AEW Core Property Trust is an open-ended core real estate commingled fund. AEW strives to invest predominantly in income producing properties diversified by both geographical region and by property type.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the NCREIF Open-Ended Core Diversified Equity (ODCE) Index over a complete market cycle.
- Perform in the top half of a peer universe of Open-Ended Core Real Estate managers over a complete market cycle.

Investment Guidelines

- MCERA is responsible for determining that its investment in the AEW Core Property Trust is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. AEW shall invest within the scope of its style as stated in the governing documents for the AEW Core Property Trust.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Quarterly – Performance of the portfolio and benchmark for the quarter, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- AEW will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. Members of the investment team will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- AEW will keep MCERA apprised of relevant information regarding its organization and personnel. AEW will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX B-14
CARVAL INVESTORS
CREDIT VALUE FUND V LP
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

CarVal Investors Credit Value Fund V LP is a closed-end fund that will make investments in distressed and credit-intensive assets within loan portfolios, corporate securities, structured credit, hard assets, and special opportunities.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the S&P/LSTA Leveraged Loan Index + 250 basis points over a complete market cycle.

Investment Guidelines

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.

Reporting Requirements

- Reporting requirements will be governed by the Partnership's legal documentation.
- A representative of CarVal will generally be available to meet or have discussions with MCERA, the Board of Retirement and/or Investment Committee, or their designee(s) as reasonably necessary to review the portfolio and its performance.

Any and all legal obligations related to MCERA's investment in the Partnership would be governed by the Partnership's legal documentation, notwithstanding anything in this Investment Policy Statement and any related appendices to the contrary.

APPENDIX B-15
FORTRESS INVESTMENT GROUP
FORTRESS CREDIT OPPORTUNITIES FUNDS V EXPANSION
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

Fortress Credit Opportunities Funds V Expansion is a closed-end fund that will make investments in a range of distressed and undervalued credit investments.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the S&P/LSTA Leveraged Loan Index + 250 basis points over a complete market cycle.

Investment Guidelines

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.

Reporting Requirements

- Reporting requirements will be governed by the Partnership's legal documentation.
- A representative of Fortress will generally be available to meet or have discussions with MCERA, the Board of Retirement and/or Investment Committee, or their designee(s) as reasonably necessary to review the portfolio and its performance.

Any and all legal obligations related to MCERA's investment in the Partnership would be governed by the Partnership's legal documentation, notwithstanding anything in this Investment Policy Statement and any related appendices to the contrary.

APPENDIX B-16
VÄRDE MANAGEMENT, L.P
THE VÄRDE DISLOCATION FUND
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

The Värde Dislocation Fund is a closed-end fund that will make investments in a broad universe of mispriced, stressed, and distressed credit opportunities.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the S&P/LSTA Leveraged Loan Index + 250 basis points over a complete market cycle.

Investment Guidelines

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.

Reporting Requirements

- Reporting requirements will be governed by the Partnership's legal documentation.
- A representative of Värde will generally be available to meet or have discussions with MCERA, the Board of Retirement and/or Investment Committee, or their designee(s) as reasonably necessary to review the portfolio and its performance.

Any and all legal obligations related to MCERA's investment in the Partnership would be governed by the Partnership's legal documentation, notwithstanding anything in this Investment Policy Statement and any related appendices to the contrary.

APPENDIX B - 17
PARAMETRIC PORTFOLIO ASSOCIATES
POLICY IMPLEMENTATION OVERLAY SERVICE
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

Parametric Portfolio Associates will use futures contracts to “securitize” cash investments in the portfolio, bridge exposure gaps during transitions, and to rebalance portfolio exposures.

MCERA Performance Objectives

- Produce returns approximately equal to the Fund’s guideline-based overlay portfolio benchmark.

Investment Guidelines

- All investments are subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees’ Retirement Association, with applicable State and Federal statutes, and shall be managed in a diversified and prudent manner. The manager shall invest within the scope of their stated style.
- Security selection and timing of purchase and sales are delegated to the manager subject to the investment management contract.
- The following transactions are prohibited: writing options other than covered options, and “prohibited transactions” as defined under the Employee Retirement Income Security Act (ERISA).
- Transactions shall be executed on the basis of “best price and execution” for the sole benefit of the Marin County Employees’ Retirement Association’s beneficiaries.
- Futures contracts, including short positions, are permitted in order to “securitize” existing cash positions, bridge exposure gaps during transitions, and to rebalance portfolio exposures. Futures are not to be used for speculative purposes.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio for the quarter, year-to-date and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- Review every month transaction data with custodian reports, and communicate and resolve any significant discrepancies with the custodian.
- Parametric Portfolio Associates will meet with the MCERA Board and/or the Investment Committee as often as deemed necessary by MCERA. One of the lead portfolio managers will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- Parametric Portfolio Associates will keep MCERA apprised of relevant information regarding its organization and personnel. Parametric Portfolio Associates will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

APPENDIX C-1
PATHWAY CAPITAL MANAGEMENT
PATHWAY PRIVATE EQUITY FUND 2008 (PPEF 2008)
PATHWAY PRIVATE EQUITY FUND INVESTORS 7 (PPEF I-7)
PATHWAY PRIVATE EQUITY FUND INVESTORS 8 (PPEF I-8)
PATHWAY PRIVATE EQUITY FUND INVESTORS 9 (PPEF I-9)
PATHWAY PRIVATE EQUITY FUND INVESTORS 10 (PPEF I-10)
PATHWAY PRIVATE EQUITY FUND INVESTORS 11 (PPEF I-11)
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

The Partnership's investment strategy is to create a diversified portfolio of private equity funds that pursue a variety of investment strategies, including but not limited to, buyouts, venture capital, and special situations.

MCERA Performance Objectives

- Produce returns approximately equal to or in excess of the Refinitiv/Cambridge (All Regions) All Private Equity Index as provided and set forth in the legal documentation of the Partnership.

Investment and other Guidelines

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.
- The investment manager shall at all times be a SEC-Registered Investment Advisor under the Investment Advisors Action of 1940, as amended.

Reporting Requirements

- Reporting requirements will be governed by the Partnership's legal documentation.
- The investment manager shall meet or shall cause the General Partner of the Partnership to meet with the Board and/or the Investment Committee or their designee(s) annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

APPENDIX C-2
ABBOTT CAPITAL MANAGEMENT
ABBOTT PRIVATE EQUITY FUND VI, LP (ACE VI)
ABBOTT PRIVATE EQUITY FUND VII, LP (ACE VII)
ABBOTT ANNUAL PROGRAM 2016, LP (AP 2016)
ABBOTT ANNUAL PROGRAM 2017, LP (AP 2017)
ABBOTT ANNUAL PROGRAM 2021, LP (AP 2021)
ABBOTT ANNUAL PROGRAM 2023, LP (AP 2023)
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES

Investment Approach

The Partnership's investment strategy is to create a diversified portfolio of private equity funds that pursue a variety of investment strategies, including but not limited to growth equity buyouts, venture capital, and special situations.

MCERA Performance Objectives

- Produce returns approximately equal to or in excess of the Refinitiv/Cambridge (All Regions) All Private Equity Index as provided and set forth in the legal documentation of the Partnership.

Investment and other Guidelines

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.
- The investment manager shall at all times be a SEC-Registered Investment Advisor under the Investment Advisors Action of 1940, as amended.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery.

Reporting Requirements

- Reporting requirements will be governed by the Partnership' legal documentation.
- The investment manager shall meet or shall cause the General Partner of the Partnership to meet with the Board, and/or the Investment Committee, or their designee(s) annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

APPENDIX D
RESOLUTION 2010/11-03
MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (MCERA)
PLACEMENT AGENT PAYMENT DISCLOSURE RESOLUTION AND POLICY

Adopted: December 9, 2009
Amended: February 9, 2011
Amended: November 2, 2011
Reviewed: May 6, 2015
Reviewed: May 9, 2018
Amended: May 5, 2021

WHEREAS, California Government Code section 7513.85, chaptered on October 11, 2009 to be effective immediately ("Section 7513.85"), requires all California public retirement systems to develop and implement, on or before June 30, 2010, a policy requiring the disclosure of payments to placement agents made in connection with system investments in or through external managers ("Placement Agent Payment Disclosure Policy" or "Policy").

WHEREAS, placement agent as described in this Policy includes all those identified in California Government Code section 7513.8, as amended.

WHEREAS, the Board of Retirement ("Board") of the Marin County Employees' Retirement Association ("MCERA") has determined, upon the recommendation of the MCERA Governance Committee, that adoption of a Placement Agent Payment Disclosure Policy is consistent with the Board's fiduciary responsibilities.

WHEREAS, Section 7513.85 requires the Placement Agent Payment Disclosure Policy to include, but not be limited to, six of the requirements enumerated in the Policy, and new California Government Code section 7513.9 requires additional disclosures that also are enumerated in this Policy.

WHEREAS, the MCERA Governance Committee has recommended, and the Board has determined, that the Placement Agent Payment Disclosure Policy or similar acknowledgement must be agreed to in writing, and a report shall be filed annually, by all of MCERA's current and future external investment managers.

WHEREAS, in compliance with Section 7513.85, any external investment manager or Placement Agent that violates this Policy shall not solicit new investments from MCERA for five years after the violation is committed, unless the Board decides, in open session by majority vote, to waive the five year prohibition upon a showing of good cause.

WHEREAS, the Board reserves the right to impose an additional penalty of a fine on a external investment manager who violates this Policy, and does not establish good cause therefore to the reasonable satisfaction of the Board; provided, however, that said fine may not exceed the fees due from MCERA to the manager from the date of the violation to the date of the fee's imposition.

NOW, THEREFORE, BE IT RESOLVED, THAT:

Prior to MCERA investing with any external investment manager, and contemporaneous with required annual filings of Statements of Economic Interests (Form 700) or similar disclosures with respect to all MCERA existing external investment managers, MCERA shall be provided with a written representation from the investment manager, in a form acceptable to MCERA's legal counsel, stating that (1) the external investment manager agrees with the disclosure and penalty provisions set forth in this Policy and (2) it has not used a Placement Agent in connection with MCERA's investment, or if the manager has used a Placement Agent, it will disclose the following:

1. The name of the Placement Agent(s) and the relationship between the external investment manager and Placement Agent(s).
2. A resume for each officer, partner, or principal of the Placement Agent detailing the person's education, professional designations, regulatory licenses, and investment and work experience.
3. A description of any and all compensation of any kind provided, or agreed to be provided, to the Placement Agent.
4. A representation that the compensation provided is the sole obligation of the external investment manager and not of MCERA or the limited partnership.
5. A description of the services performed, and to be performed, by the Placement Agent.
6. A statement whether the Placement Agent, or any of its affiliates, are registered with the Securities and Exchange Commission or the Financial Industry Regulatory Association, or any similar regulatory agent in a country other than the United States, and the details of that registration or explanation as to why no registration is required.
7. A statement whether the Placement Agent, or any of its affiliates, is registered as a lobbyist with any state or national government.
8. All campaign contributions made by the Placement Agent to any elected member of the Board, and to any member of the Marin County Board of Supervisors, during the prior 24-month period, which disclosure shall be amended if any campaign contributions are made during the time the Placement Agent is receiving compensation in connection with a system investment.
9. All gifts, as defined in Government Code section 82028, given by the Placement Agent to any member of the Board, or to the Board's investment consultant, during the time the Placement Agent is receiving compensation in connection with a system investment.
10. All current or former MCERA Board members, employees, or consultants or

11. A member of the immediate family of any such person who are either employed or receiving compensation from the Placement Agent.
12. The names of any current or former MCERA Board members, employees, or consultants who suggested the retention of the Placement Agent.

Policy Review

The Board shall review this Placement Agent Payment Disclosure Policy at least every three years to assure its efficacy and relevance. This Policy may be amended from time to time by majority vote of the Board.

Retirement Administrator's Certificate

I, Jeff Wickman, the duly appointed Retirement Administrator of the Marin County Employees' Retirement Association, hereby certify the amendment of this Policy.

Dated: May 5, 2021



Retirement Administrator

C.5 Future Meetings

This is a discussion with no backup.

Callan

March 20, 2023



Fourth Quarter 2023 Summary Investment Presentation

Jim Callahan, CFA
President

Anne Heaphy
Senior Vice President

Important Disclosures regarding the use of this document are included at the end of this document. These disclosures are an integral part of this document and should be considered by the user.

Callan

Economic and Capital Markets Review

Equity Markets Surge in 4Q, Following Decline in 3Q

Stocks have recovered losses of 2022, bonds still have ground to make up

S&P 500 surged 11.7% in 4Q23

- Loss through first three quarters of 2022 was 23.9%; the rebound in the following five quarters brought the index back to a positive return of 1.7% over the past two years.

Fixed income recovered in 4Q

- The Bloomberg Aggregate surged 6.8% after suffering a sharp loss of 3.2% in 3Q.
- The Aggregate was on track for another negative year through 3Q; softening Fed language on rates in 4Q turned the market around.
- CPI-U: declined in 4Q compared to 3Q but is still up 3.4% year-over-year, and the index is 10% higher than it was at the start of 2022

Economy defied recession fears

- GDP growth came in at 2.1% in 1Q, 2.2% in 2Q, 4.9% in 3Q, and a very healthy 3.3% in 4Q.

Returns for Periods ended 12/31/23

	Quarter	1 Year	2 Years	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	12.07	25.96	0.88	15.16	11.48	7.74
S&P 500	11.69	26.29	1.69	15.69	12.03	7.56
Russell 2000	14.03	16.93	-3.55	9.97	7.16	7.91
Global ex-U.S. Equity						
MSCI World ex USA	10.51	17.94	0.54	8.45	4.32	4.62
MSCI Emerging Markets	7.86	9.83	-6.32	3.69	2.66	--
MSCI ACWI ex USA Small Cap	10.12	15.66	-3.79	7.89	4.88	7.28
Fixed Income						
Bloomberg Aggregate	6.82	5.53	-4.19	1.10	1.81	3.85
90-day T-Bill	1.37	5.01	3.22	1.88	1.25	1.90
Bloomberg Long Gov/Credit	13.24	7.13	-11.62	1.12	3.22	5.21
Bloomberg Global Agg ex-US	9.21	5.72	-7.29	-1.56	-0.79	2.25
Real Estate						
NCREIF Property Index	-3.02	-7.94	-1.44	4.33	6.80	8.03
FTSE Nareit Equity	16.22	13.73	-7.25	7.39	7.65	9.27
Alternatives						
HFRI Fund Weighted	3.64	7.57	1.55	7.01	4.54	6.31
Cambridge Private Equity*	-0.42	4.17	0.19	14.59	14.27	13.87
Bloomberg Commodity	-4.63	-7.91	3.40	7.23	-1.11	2.83
Gold Spot Price	11.02	13.45	6.44	10.09	5.59	8.19
Inflation - CPI-U	-0.34	3.35	4.89	4.07	2.79	2.54

*Cambridge PE data as of 9/30/23.

Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices

U.S. Equity

Callan style group median and index returns*

Periods Ended 12/31/23

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years
Large Cap Equity									
Large Cap Core Style	11.9	26.2	26.2	10.3	15.7	11.9	14.0	10.1	8.4
Russell 3000	12.1	26.0	26.0	8.5	15.2	11.5	13.8	9.7	7.7
Russell 1000	12.0	26.5	26.5	9.0	15.5	11.8	14.0	9.8	7.7
S&P 500	11.7	26.3	26.3	10.0	15.7	12.0	14.0	9.7	7.6
Large Cap Growth Style	14.2	40.5	40.5	6.7	17.1	13.5	16.0	11.2	8.7
Russell 1000 Growth	14.2	42.7	42.7	8.9	19.5	14.9	16.7	11.3	7.8
Large Cap Value Style	10.0	13.0	13.0	11.1	12.6	9.1	12.0	9.0	8.4
Russell 1000 Value	9.5	11.5	11.5	8.9	10.9	8.4	11.1	8.0	7.1
Mid Cap Equity									
Mid Cap Core Style	11.5	15.3	15.3	7.8	13.1	9.7	14.2	10.7	11.2
Russell Midcap	12.8	17.2	17.2	5.9	12.7	9.4	13.6	9.8	9.3
Mid Cap Growth Style	11.8	20.9	20.9	0.0	13.7	10.3	14.1	10.6	10.2
Russell Midcap Growth	14.5	25.9	25.9	1.3	13.8	10.6	14.7	10.2	8.5
Mid Cap Value Style	11.4	13.5	13.5	10.9	13.5	8.8	12.9	10.0	10.8
Russell Midcap Value	12.1	12.7	12.7	8.4	11.2	8.3	12.4	9.3	9.1
Small Cap Equity									
Small Cap Core Style	12.8	17.6	17.6	6.8	12.3	8.7	13.3	9.9	11.2
Russell 2000	14.0	16.9	16.9	2.2	10.0	7.2	11.3	8.1	7.9
Small Cap Growth Style	11.1	17.9	17.9	-1.5	12.2	9.5	14.8	10.5	10.5
Russell 2000 Growth	12.7	18.7	18.7	-3.5	9.2	7.2	12.1	8.3	6.8
Small Cap Value Style	13.5	16.6	16.6	11.1	12.3	8.2	12.7	9.5	10.7
Russell 2000 Value	15.3	14.6	14.6	7.9	10.0	6.8	10.3	7.7	8.6

Periods Ended 12/31/23

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
Smid Cap Equity							
Smid Cap Core Style	12.0	18.8	18.8	7.7	13.0	9.4	13.7
Russell 2500	13.4	17.4	17.4	4.2	11.7	8.4	12.7
Smid Cap Growth Style	11.8	18.5	18.5	-1.9	12.5	9.9	15.0
Russell 2500 Growth	12.6	18.9	18.9	-2.7	11.4	8.8	13.6
Smid Cap Value Style	12.7	18.5	18.5	10.8	13.3	8.4	13.1
Russell 2500 Value	13.8	16.0	16.0	8.8	10.8	7.4	11.3
S&P 500 Sectors							
Communication Svcs**	11.0	55.8	55.8	4.4	13.3	7.8	9.4
Consumer Discretionary	12.4	42.4	42.4	3.7	13.7	11.7	16.8
Consumer Staples	5.5	0.5	0.5	5.8	10.9	8.5	10.9
Energy	-6.9	-1.3	-1.3	36.2	13.4	3.5	6.7
Financials	14.0	12.1	12.1	10.7	12.0	10.0	11.3
Health Care	6.4	2.1	2.1	8.1	11.6	11.3	13.6
Industrials	13.1	18.1	18.1	10.6	14.2	10.0	13.2
Information Technology	17.2	57.8	57.8	15.1	26.9	20.8	21.2
Materials	9.7	12.5	12.5	7.9	13.6	8.6	11.9
Real Estate**	18.8	12.4	12.4	6.7	8.9	--	--
Utilities	8.6	-7.1	-7.1	3.6	7.1	8.9	9.3

*Returns less than one year are not annualized.

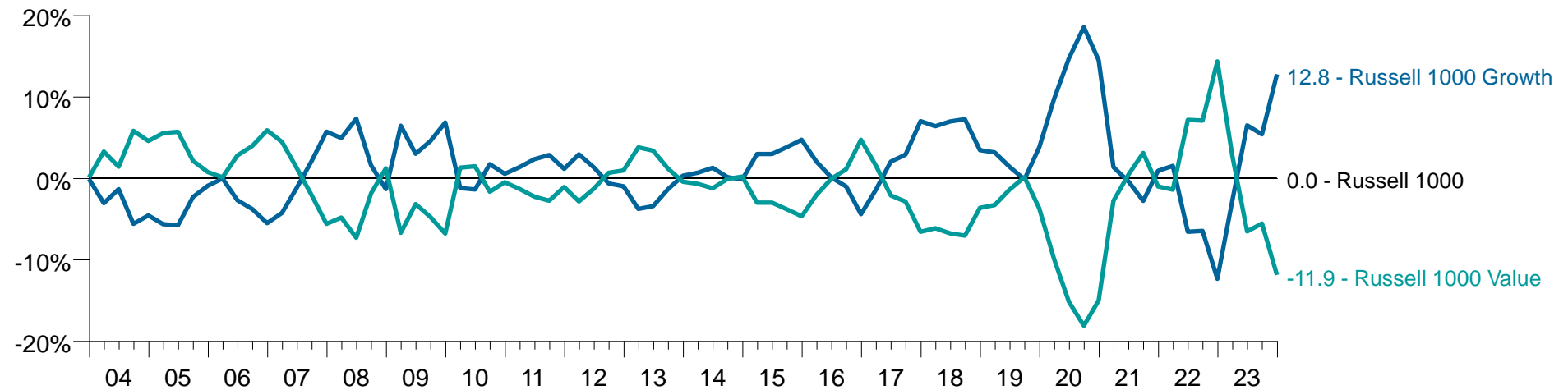
**The Communication Services sector, which replaced and expanded the Telecommunication Services sector, was created in September 2018. The Real Estate sector was carved out from the Financials sector in September 2016, due to a change in the Global Industry Classification Standard taxonomy.

Sources: Callan, FTSE Russell, S&P Dow Jones Indices. All style group returns presented gross of fees.

U.S. Equity

Index relative returns and characteristics

Rolling One-Year Relative Returns (vs. Russell 1000 Index)



Index Characteristics as of 12/31/23

	Number of Issues	Wtd. Average Market Cap (\$bn)	Price/Book Ratio	Forward P/E Ratio	Dividend Yield	5-Year Earnings Forecast
Russell 3000	2,974	590	3.7	19.6	1.4%	14.5%
Russell 1000	1,010	623	3.9	19.7	1.4%	14.5%
Russell 1000 Value	849	128	2.2	15.1	2.3%	10.0%
Russell 1000 Growth	443	1,040	10.8	26.4	0.7%	18.3%
S&P 500	503	680	4.1	19.7	1.5%	14.3%
Russell Midcap	814	24	2.6	17.6	1.6%	14.0%
Russell 2500	2,466	7	2.2	16.6	1.5%	14.0%
Russell 2000	1,964	3	1.9	17.3	1.4%	14.0%

Sources: FTSE Russell, S&P Dow Jones Indices

Global Equity

Callan style group median and index returns*

Periods Ended 12/31/23

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
Global Equity							
Global Style	11.3	21.7	21.7	6.3	12.6	8.7	11.5
MSCI World	11.4	23.8	23.8	7.3	12.8	8.6	10.7
MSCI ACWI	11.0	22.2	22.2	5.7	11.7	7.9	10.2
Global ex-U.S. Equity							
Global ex-U.S. Style	10.1	18.1	18.1	3.4	8.9	5.2	8.2
MSCI EAFE	10.4	18.2	18.2	4.0	8.2	4.3	6.9
MSCI World ex USA	10.5	17.9	17.9	4.4	8.5	4.3	7.0
MSCI ACWI ex USA	9.8	15.6	15.6	1.5	7.1	3.8	6.7
Regional Equity							
MSCI China	-4.2	-11.2	-11.2	-18.4	-2.8	0.9	4.4
MSCI Europe ex UK	12.3	21.7	21.7	4.9	9.8	4.7	7.1
MSCI Japan	8.2	20.3	20.3	0.7	6.9	5.0	5.9
MSCI Japan (local)	2.2	28.6	28.6	11.7	12.4	8.1	9.0
MSCI Pacific	9.3	15.3	15.3	1.0	6.5	4.6	6.7
MSCI Pacific (local)	3.7	20.1	20.1	9.0	10.3	7.3	8.6
MSCI Pacific ex Japan	11.4	6.4	6.4	1.6	5.7	3.9	8.5
MSCI Pacific ex Japan (local)	6.8	5.8	5.8	4.2	6.0	5.7	8.3
MSCI United Kingdom	6.9	14.1	14.1	8.8	6.9	2.5	6.8
MSCI United Kingdom (local)	2.3	7.7	7.7	11.3	6.9	5.2	7.7

Periods Ended 12/31/23

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
Emerging/Frontier Markets							
Emerging Market Style	8.2	11.9	11.9	-4.8	5.4	4.0	8.1
MSCI Emerging Markets	7.9	9.8	9.8	-5.1	3.7	2.7	6.6
MSCI Emerging Markets (local)	5.6	9.9	9.9	-2.5	5.4	5.2	8.2
MSCI Frontier Markets	4.0	11.6	11.6	-0.5	3.3	2.0	4.3
Global/Global ex-U.S. Small Cap							
Global ex-U.S. Small Cap Style	10.9	15.1	15.1	0.0	7.8	5.6	10.7
MSCI World Small Cap	12.5	15.8	15.8	2.9	9.8	6.8	11.3
MSCI ACWI Small Cap	12.0	16.8	16.8	3.3	9.9	6.7	11.2
MSCI World ex USA Small Cap	10.6	12.6	12.6	-0.2	7.1	4.6	9.0
MSCI ACWI ex USA Small Cap	10.1	15.7	15.7	1.5	7.9	4.9	9.3
MSCI Emerging Markets Small Cap	8.9	23.9	23.9	6.5	9.9	5.3	9.9

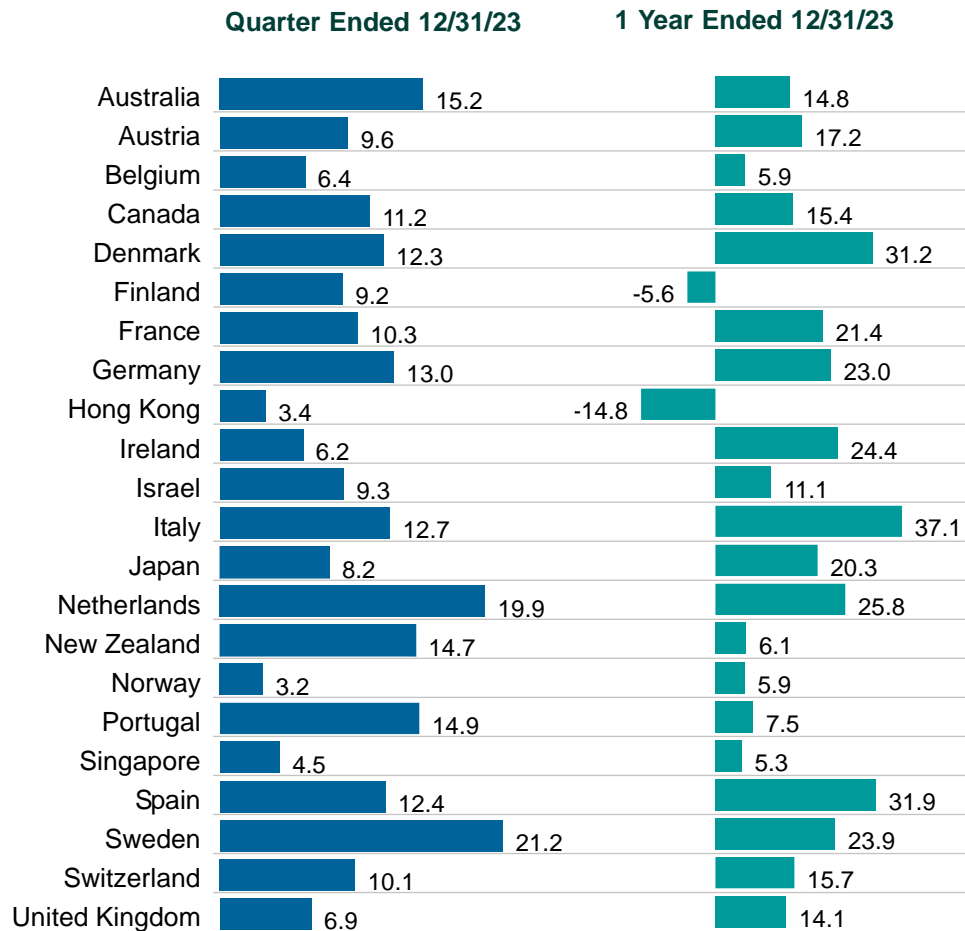
*Returns less than one year are not annualized.

Sources: Callan, MSCI. All style group returns presented gross of fees.

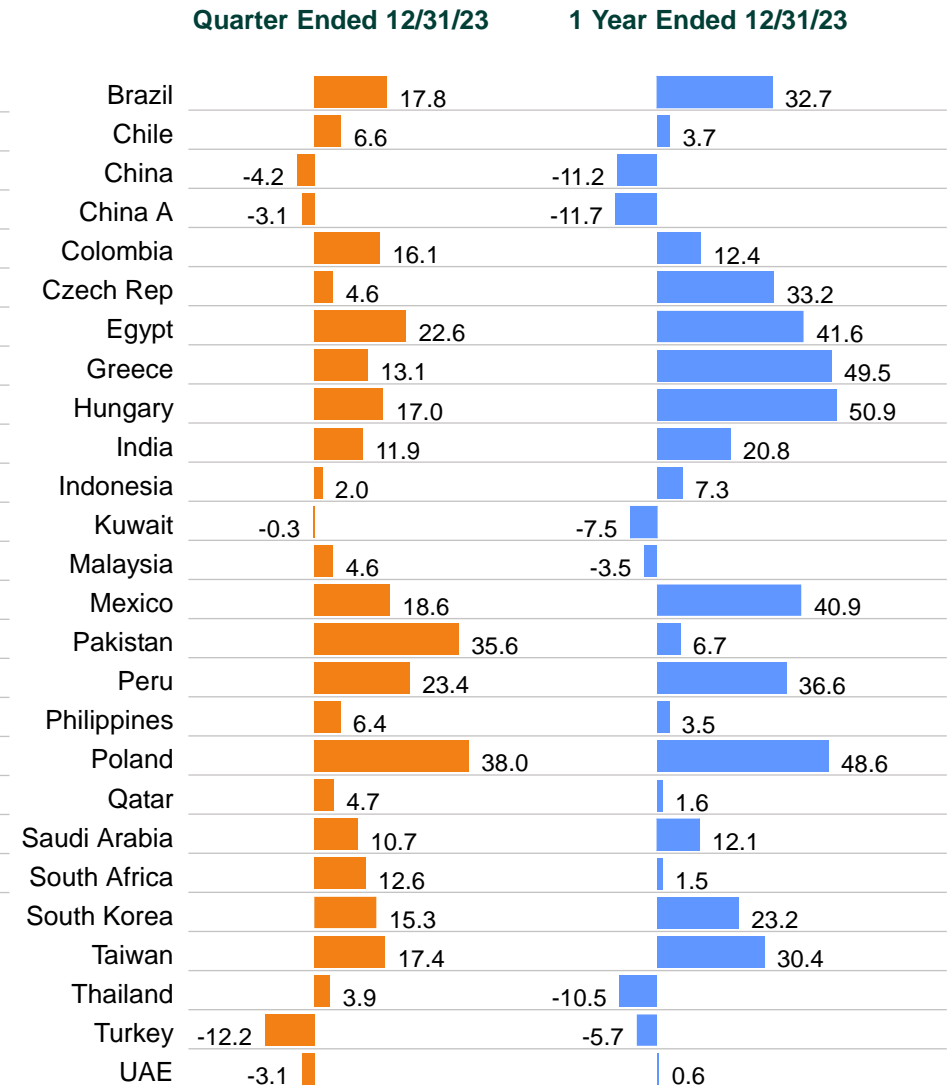
Global ex-U.S. Equity

Returns for developed ex-U.S. market countries and emerging market countries

Developed Country Returns (%)



Emerging Market Country Returns (%)



Source: MSCI

Global ex-U.S. Equity

Quarterly returns in dollars and local currencies

Developed Market Countries

Country	Equity Index (\$)	Equity Index (Local Currency)	Currency Returns	Weight*
Australia	15.2%	9.0%	5.7%	4.9%
Austria	9.6%	5.0%	4.3%	0.1%
Belgium	6.4%	2.0%	4.3%	0.6%
Canada	11.2%	8.5%	2.5%	7.7%
Denmark	12.3%	7.6%	4.4%	2.1%
Finland	9.2%	4.7%	4.3%	0.7%
France	10.3%	5.7%	4.3%	7.7%
Germany	13.0%	8.3%	4.3%	5.5%
Hong Kong	3.4%	3.1%	0.3%	1.4%
Ireland	6.2%	1.8%	4.3%	0.3%
Israel	9.3%	6.0%	5.7%	0.4%
Italy	12.7%	8.1%	4.3%	1.7%
Japan	8.2%	2.2%	5.8%	14.4%
Netherlands	19.9%	15.1%	4.3%	3.0%
New Zealand	14.7%	8.8%	5.4%	0.1%
Norway	3.2%	-1.5%	4.8%	0.4%
Portugal	14.9%	10.2%	4.3%	0.1%
Singapore	4.5%	1.3%	3.5%	0.9%
Spain	12.4%	7.7%	4.3%	1.7%
Sweden	21.2%	12.4%	7.8%	2.1%
Switzerland	10.1%	1.3%	8.7%	6.4%
U.K.	6.9%	2.3%	4.4%	9.5%

Emerging Market Countries

Country	Equity Index (\$)	Equity Index (Local Currency)	Currency Returns	Weight*
Brazil	17.8%	14.4%	3.0%	1.6%
Chile	6.6%	4.2%	2.3%	0.1%
China	-4.2%	-4.8%	2.3%	7.4%
Colombia	16.1%	11.2%	4.4%	0.0%
Czech Republic	4.6%	1.6%	2.9%	0.0%
Egypt	22.6%	22.7%	-0.1%	0.0%
Greece	13.1%	8.4%	4.3%	0.1%
Hungary	17.0%	10.3%	6.0%	0.1%
India	11.9%	12.1%	-0.2%	4.7%
Indonesia	2.0%	1.6%	0.4%	0.5%
Kuwait	-0.2%	-0.2%	**	0.2%
Malaysia	4.6%	2.3%	**	0.4%
Mexico	18.6%	15.6%	2.6%	0.8%
Pakistan	35.6%	32.0%	2.7%	0.0%
Peru	23.4%	23.4%	2.4%	0.1%
Philippines	6.4%	4.1%	2.2%	0.2%
Poland	38.0%	24.3%	11.0%	0.3%
Qatar	4.7%	4.7%	0.0%	0.2%
Saudi Arabia	10.7%	9.3%	**	1.2%
South Africa	12.6%	10.0%	3.0%	0.9%
South Korea	15.3%	11.6%	4.8%	3.6%
Taiwan	17.4%	-2.6%	5.2%	4.5%
Thailand	3.9%	-5.4%	6.7%	0.5%
Turkey	-12.2%	-3.1%	-7.2%	0.2%
United Arab Emirates	-3.1%	10.7%	0.0%	0.4%

*Weight in the MSCI ACWI ex USA Index

**Data not available at time of publication

Source: MSCI

U.S. Fixed Income

Callan style group median and index returns*

Periods Ended 12/31/23

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
Fixed Income							
Core Bond Style	7.0	6.2	6.2	-2.9	1.7	2.3	3.6
Core Bond Plus Style	7.2	6.9	6.9	-2.5	2.2	2.7	4.6
Bloomberg Aggregate	6.8	5.5	5.5	-3.3	1.1	1.8	2.7
Bloomberg Universal	6.8	6.2	6.2	-3.0	1.4	2.1	3.2
Long-Term							
Extended Maturity Credit Style	13.9	11.2	11.2	-6.3	3.5	4.5	6.6
Bloomberg Long Credit	13.7	10.7	10.7	-6.5	2.7	3.9	5.8
Extended Maturity Gov/Credit Style	13.4	7.8	7.8	-8.3	1.8	3.7	5.3
Bloomberg Long Gov/Credit	13.2	7.1	7.1	-8.7	1.1	3.2	4.3
Intermediate-Term							
Intermediate Fixed Income Style	4.8	5.7	5.7	-1.3	2.0	2.1	3.1
Bloomberg Interm Gov/Credit	4.6	5.2	5.2	-1.6	1.6	1.7	2.5
Short-Term							
Short Fixed Income Style	2.9	5.4	5.4	0.6	2.0	1.7	2.3
Bloomberg Gov/Credit 1-3 Yr	2.7	4.6	4.6	0.1	1.5	1.3	1.5
Bank Loans							
Bank Loan Style	3.0	12.8	12.8	5.5	5.5	4.4	7.4
Credit Suisse Leveraged Loan	2.9	13.0	13.0	5.6	5.6	4.4	7.3

Periods Ended 12/31/23

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
High Yield							
High Yield Style	6.9	13.1	13.1	2.3	5.7	4.8	8.8
Bloomberg Corp High Yield	7.2	13.4	13.4	2.0	5.4	4.6	9.2
Unconstrained							
Unconstrained Fixed Style	5.0	8.3	8.3	1.5	3.7	3.1	5.0
90-Day T-Bill + 3%	2.1	8.0	8.0	5.2	4.9	4.3	3.9
Stable Value							
Stable Value Style	0.7	2.7	2.7	2.2	2.3	2.2	2.5
iMoneyNet Mutual Fund Avg	1.3	4.8	4.8	2.0	1.7	1.0	0.7
TIPS							
Inflation-Linked Style	4.7	4.0	4.0	-0.9	3.2	2.5	3.6
Bloomberg US TIPS	4.7	3.9	3.9	-1.0	3.2	2.4	3.5
Municipal							
Short Municipal Style	3.8	3.9	3.9	0.6	1.5	1.5	2.1
Bloomberg Municipal 1-5 Yr	3.9	3.8	3.8	0.1	1.5	1.4	2.0
Intermediate Municipal Style	5.9	4.9	4.9	-0.1	2.0	2.3	3.0
Bloomberg Municipal 1-10 Yr	5.5	4.6	4.6	0.0	2.0	2.2	2.9
Long Municipal Style	7.2	6.3	6.3	-0.4	2.4	3.1	4.0
Bloomberg Municipal	7.9	6.4	6.4	-0.4	2.3	3.0	4.0

*Returns less than one year are not annualized.

Sources: Bloomberg, Callan, Credit Suisse, iMoneyNet. All style group returns presented gross of fees.

U.S. Fixed Income Index Characteristics

Statistics as of 12/31/23

	Yield to Worst	Modified Adjusted Duration	Average Maturity
Bloomberg Aggregate	4.5	6.2	8.5
Bloomberg Universal	4.8	6.0	8.2
Bloomberg Long Credit	5.2	13.0	22.8
Bloomberg Long Gov/Credit	4.7	14.3	22.7
Bloomberg Intermediate Gov/Credit	4.4	3.8	4.3
Bloomberg Gov/Credit 1-3 Year	4.5	1.8	1.9
Credit Suisse Leveraged Loan	9.1	0.3	4.1
Bloomberg Gov/Credit	4.5	6.4	9.0
Bloomberg Corp High Yield	7.6	3.2	4.9
Bloomberg US TIPS	4.2	5.9	7.1
Bloomberg Municipal	3.2	6.0	13.3
Bloomberg Muni Bond 1-5 Year	2.8	2.6	3.4
Bloomberg Muni 1-10 Year	2.8	3.8	6.1

Yield to Worst: The lowest yield an investor can expect if a bond is held to maturity, and it does not default. Yield to maturity, yield to call, or yield to put are alternative measures of yield.

Modified Adjusted Duration: A measure of the percentage price change of a bond given a change in its yield-to-maturity, adjusted for the presence of embedded options.

Average Maturity: The market value-weighted average time to stated maturity for all securities in a portfolio.

Sources: Bloomberg, Credit Suisse

Real Assets

Callan style group median and index returns and risk*

Periods Ended 12/31/23

10 Years

	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years	Standard Deviation	Sharpe Ratio
U.S. Private Real Assets									
Real Estate ODCE Style	-0.4	-10.0	-10.0	4.9	4.7	7.0	6.5	7.6	0.4
NFI-ODCE (value-weighted net)	-5.0	-12.7	-12.7	4.0	3.3	6.3	6.2	7.4	0.2
NCREIF Property	-3.0	-7.9	-7.9	4.6	4.3	6.8	7.7	5.4	0.5
NCREIF Farmland	2.3	5.0	5.0	7.4	6.0	7.3	12.3	2.1	2.0
NCREIF Timberland	4.3	9.5	9.5	10.5	6.6	5.8	7.1	3.1	1.5
Public Real Estate									
Global Real Estate Style	15.4	12.2	12.2	2.6	5.6	6.0	7.6	21.1	0.2
FTSE EPRA Dev Core Infra 50/50	11.3	2.2	2.2	3.5	5.9	6.0	--	22.0	0.0
Global ex-U.S. Real Estate Style	15.4	9.0	9.0	-3.7	3.2	4.8	--	22.0	0.1
FTSE EPRA Nareit Developed ex US	14.9	6.3	6.3	-4.5	-0.5	1.0	--	21.5	-0.1
U.S. REIT Style	16.5	14.0	14.0	6.8	8.8	8.6	8.9	21.8	0.3
FTSE Nareit Equity REITs	16.2	13.7	13.7	7.2	7.4	7.6	8.0	22.8	0.2
Other Public Real Assets									
Alerian MLP	5.0	26.6	26.6	32.4	12.0	1.9	8.3	42.4	0.2
Bloomberg Commodity	-4.6	-7.9	-7.9	10.8	7.2	-1.1	-0.1	19.3	0.3
DJB Global Infrastructure	12.1	4.5	4.5	5.4	7.0	5.3	9.2	2.1	1.1
Consumer Price Index (CPI-U)	-0.3	3.4	3.4	5.6	4.1	2.8	2.6	17.5	0.3

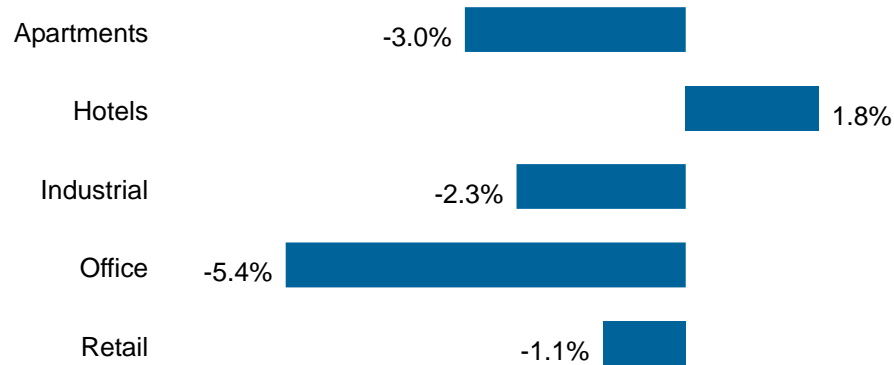
* Returns less than one year are not annualized.

Sources: Alerian Capital Management, Bloomberg, Bureau of Economic Analysis, Callan, Dow Jones Brookfield, FTSE Russell, NCREIF

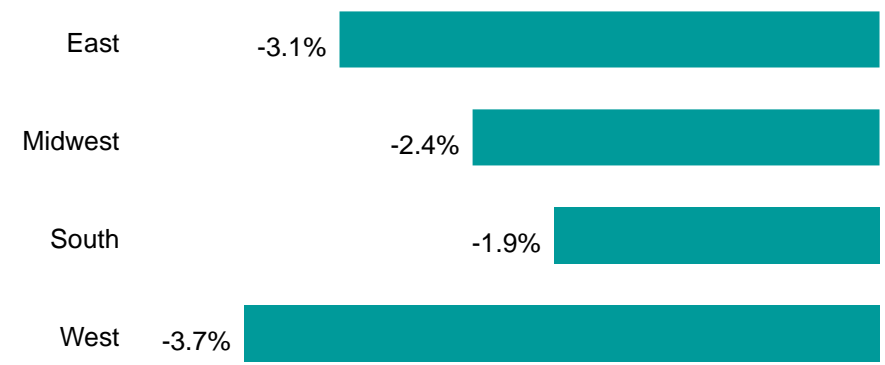
Real Estate Quarterly Performance and Capitalization Rates

NCREIF Property Index

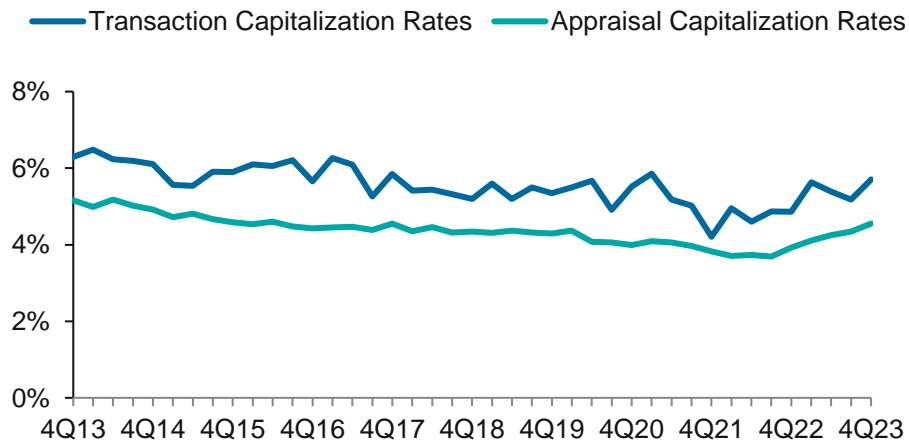
Quarterly Returns by Property Type (12/31/23)



Quarterly Returns by Region (12/31/23)



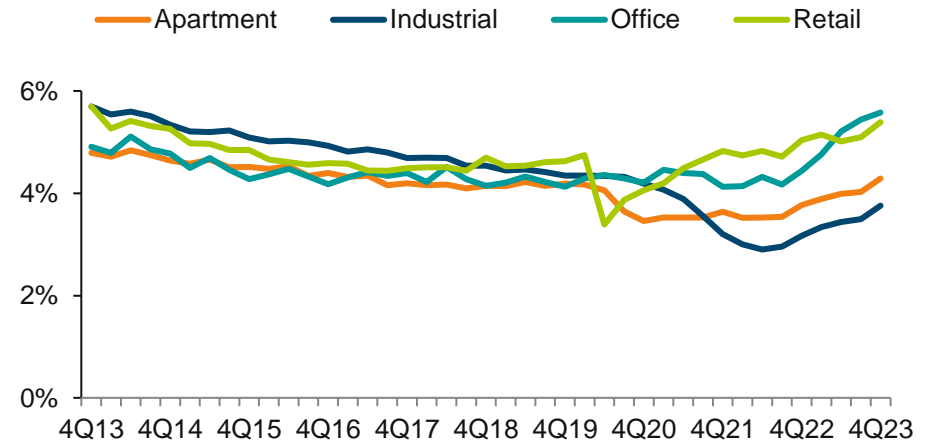
NCREIF Transaction and Appraisal Capitalization Rates



Note: Transaction capitalization rate is equal-weighted. Capitalization rate = net operating income / current market value (or sale price)

Source: NCREIF

NCREIF Capitalization Rates by Property Type



Note: Capitalization rates are appraisal-based.

U.S. Private Real Estate Performance: 4Q23

Income returns positive but appreciation returns negative once again

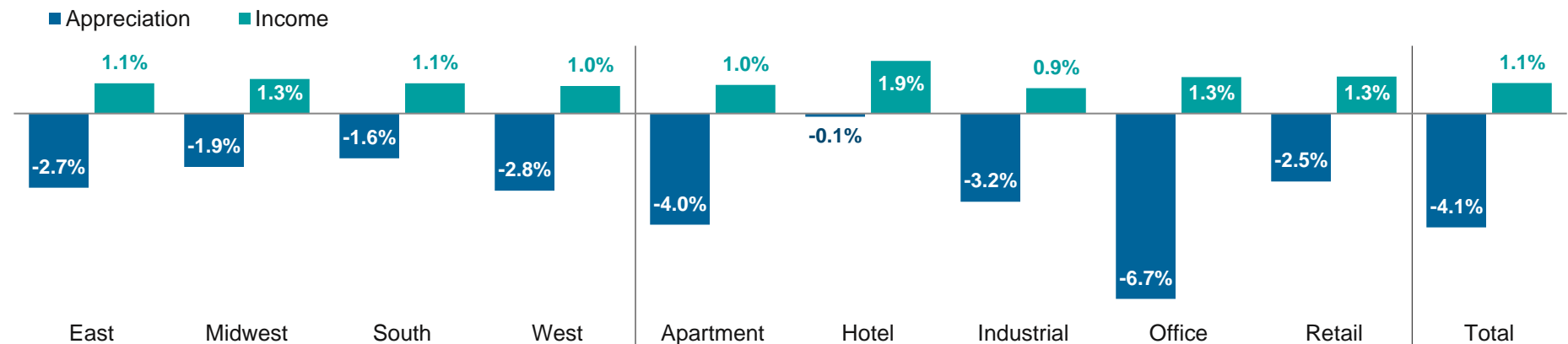
Valuations reflect higher interest rates

- Income returns were positive across sectors and regions.
- All property sectors and regions experienced negative appreciation.
- Valuations are reflective of higher interest rates, which have put upward pressure on capitalization rate and discount rate assumptions.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
NCREIF ODCE	-5.0%	-12.7%	4.0%	3.3%	6.3%
Income	0.7%	2.8%	2.8%	2.9%	3.3%
Appreciation	-5.7%	-15.2%	1.2%	0.4%	3.0%
NCREIF Property Index	-3.0%	-7.9%	4.6%	4.3%	6.8%
Income	1.1%	4.3%	4.1%	4.2%	4.6%
Appreciation	-4.1%	-11.8%	0.4%	0.1%	2.2%

Returns are geometrically linked

NCREIF Property Index Quarterly Returns by Region and Property Type



Source: NCREIF, ODCE return is net

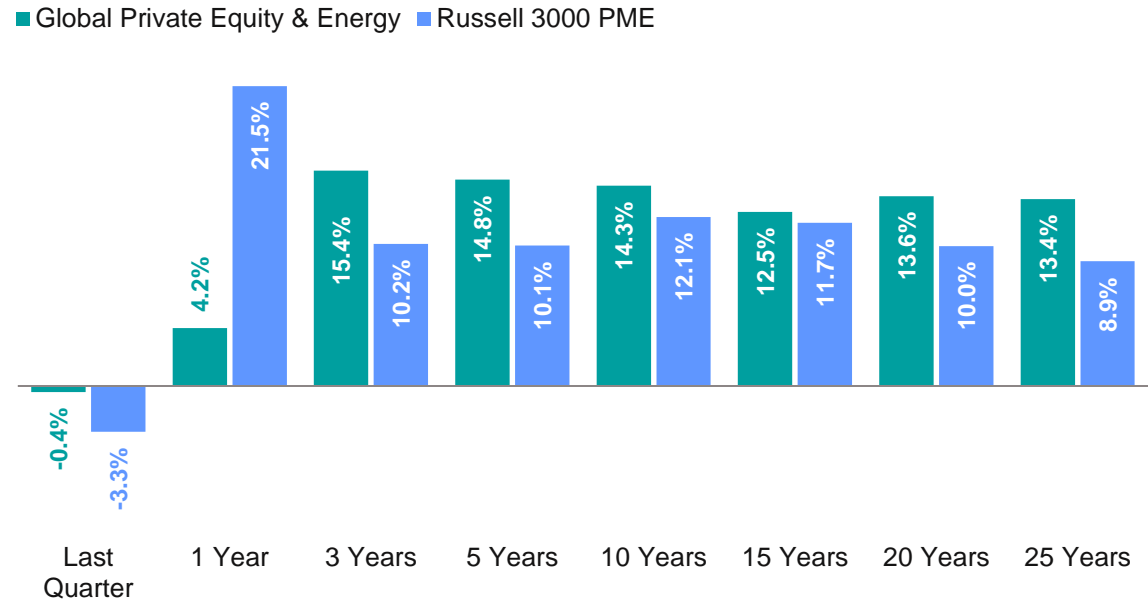
Private Equity Market Trends

Gains for stocks not shared by private equity

Smoothing effect in performance

- Public equity's strong recovery in 2023 (led by the "Magnificent Seven" technology stocks) has left private equity in its wake.
- Private equity doesn't recover as quickly as the public markets, because the smoothing effect dampens private equity returns in both up and down markets.
- Private equity only saw about a fifth of the gains of the public markets over the last year, on a PME basis.
- While buyouts saw solid performance for the year, venture capital and growth equity continued to struggle. These strategies have seen the largest valuation adjustments from the highs of 2021.

Net IRRs as of 09/30/23



Net IRRs by Strategy as of 09/30/23

Strategy	Last Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Venture Capital	-2.4%	-8.9%	14.8%	17.2%	17.2%	13.4%
Growth Equity	-0.6%	0.8%	12.3%	14.8%	14.3%	13.1%
Buyouts	0.1%	10.2%	16.8%	15.0%	14.6%	12.4%
Mezzanine	1.8%	13.0%	13.5%	11.0%	11.1%	10.7%
Credit Opportunities	1.2%	8.2%	11.1%	7.1%	7.5%	10.1%
Control-Oriented Distressed	0.4%	5.6%	19.4%	13.6%	11.7%	11.5%

Source: Refinitiv/Cambridge. PME: Public Market Equivalent

Private Equity Market Trends

Another down year for fundraising

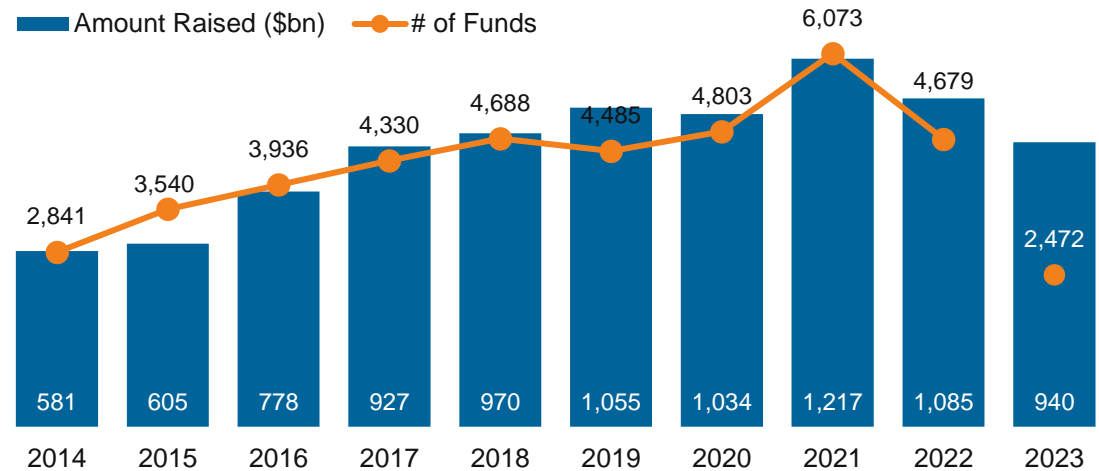
Back to 2022 levels

- Fundraising declined back closer to historical levels in 2022 after its frenzied peak in 2021.
- So far, 2023 has been another down year, with LPs being more selective with their commitments.
- With significantly fewer funds closing this year and constrained LP commitment budgets, many GPs are reluctant to come back to market in the near term.

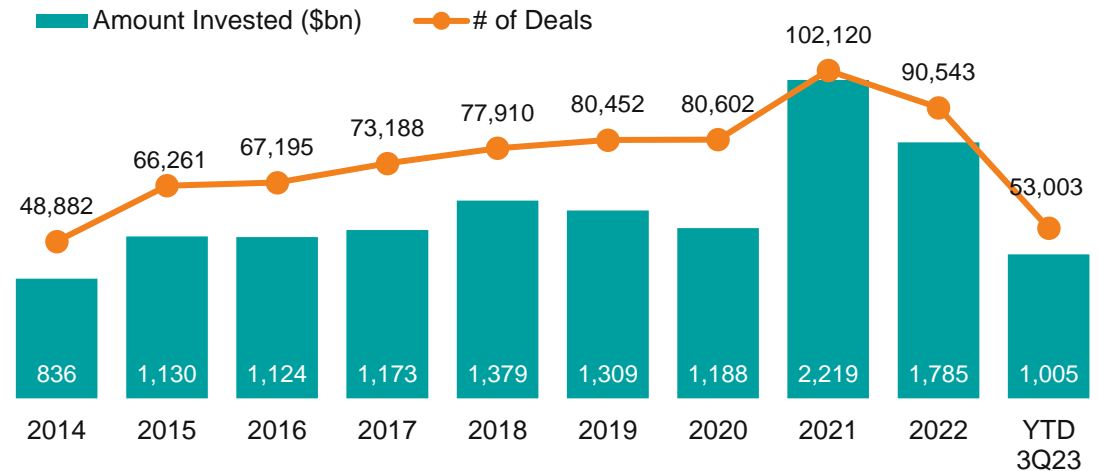
Deal activity slowdown continues

- Both new investment activity and exit activity slowed markedly in 2023, following rising interest rates, declines in the public markets, and continued price uncertainty.

Annual Fundraising



Annual Deal Activity

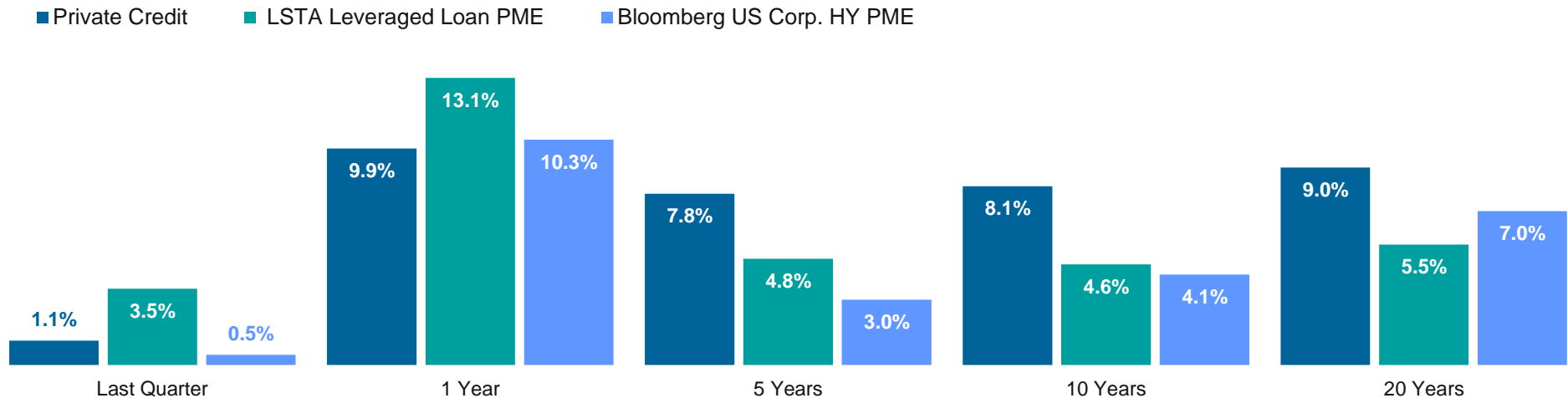


Source: PitchBook

Private Credit Market Overview

Has outperformed leveraged loans over three years ended 3Q23

Pooled Horizon Net IRRs as of September 30, 2023



Pooled Horizon Net IRRs by Strategy as of September 30, 2023

Strategy	Last Quarter	1 Year	5 Years	10 Years	20 Years
Senior Debt	0.1	11.4	5.9	6.6	6.8
Mezzanine	1.8	13.0	11.0	11.1	10.5
Credit Opportunities	1.2	8.2	7.1	7.6	8.9

Private credit performance varies across sub-asset class and underlying return drivers. Over the past ten years the asset class has generated a net IRR of nearly 8.1%, outperforming leveraged loans as of September 30, 2023. Higher-risk strategies have performed better than lower-risk strategies.

Source: LSEG/Cambridge

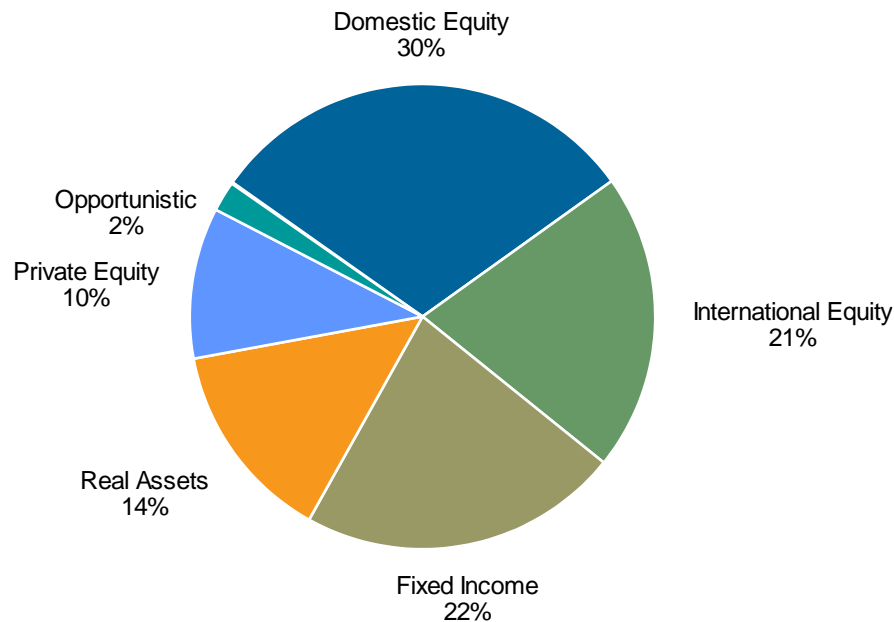
Callan

MCERA Total Fund Review

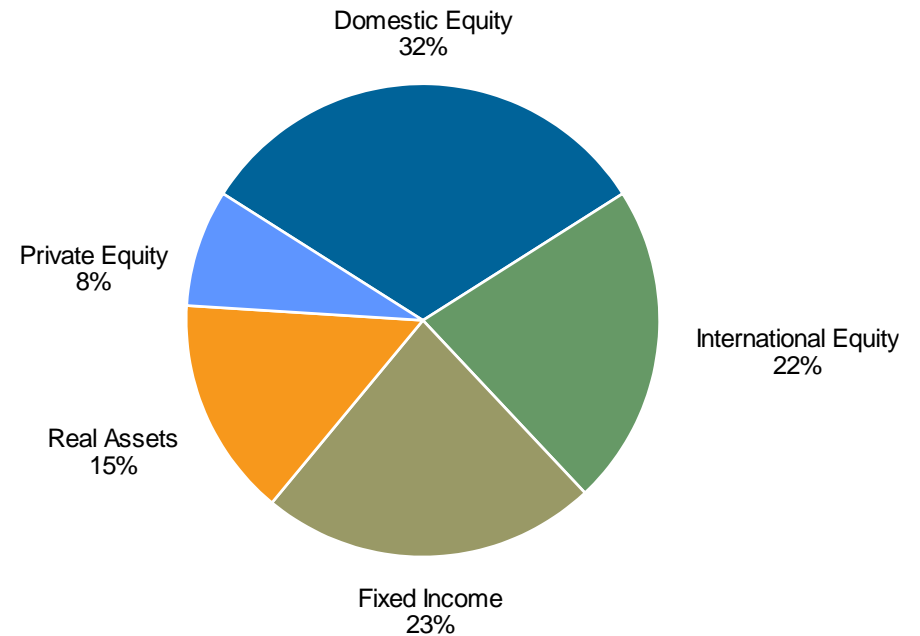
Total Fund Asset Allocation

As of December 31, 2023

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$000s Actual	Weight Actual	Min Target	Target	Max Target	Percent Difference	\$000s Difference
Domestic Equity	973,280	30.3%	28.0%	32.0%	36.0%	(1.7%)	(54,817)
International Equity	665,596	20.7%	19.0%	22.0%	25.0%	(1.3%)	(41,221)
Fixed Income	718,073	22.4%	20.0%	23.0%	26.0%	(0.6%)	(20,871)
Real Assets	450,788	14.0%	12.0%	15.0%	18.0%	(1.0%)	(31,132)
Private Equity	336,549	10.5%	0.0%	8.0%	12.0%	2.5%	79,525
Opportunistic	68,517	2.1%	0.0%	0.0%	5.0%	2.1%	68,517
Total	3,212,803	100.0%		100.0%			

Total Fund Asset Distribution

	December 31, 2023			September 30, 2023		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Equity	\$973,280,051	30.29%	\$(17,008,571)	\$112,138,249	\$878,150,373	29.22%
Parametric Domestic Equity Futures (1)	-90,704,033	(2.82%)	(13,095,726)	(5,381,892)	-72,226,415	(2.40%)
SSGA Russell 1000 Index (2)	803,579,710	25.01%	(2,989,946)	86,120,026	720,449,629	23.97%
DFA Small Cap Core	260,404,374	8.11%	(922,900)	31,400,115	229,927,159	7.65%
International Equity	\$665,595,866	20.72%	\$2,035,176	\$59,883,311	\$603,677,379	20.09%
Morgan Stanley Value	214,291,564	6.67%	0	21,093,639	193,197,925	6.43%
Artisan Partners Growth	203,914,114	6.35%	0	17,696,422	186,217,692	6.20%
TimesSquare Intl Small Cap	106,250,197	3.31%	(204,774)	9,273,363	97,181,608	3.23%
FIAM Select Emerging Equity	107,158,439	3.34%	0	8,921,700	98,236,740	3.27%
Parametric International Equity Futures	33,981,551	1.06%	2,239,950	2,898,187	28,843,414	0.96%
Fixed Income	\$718,073,264	22.35%	\$(7,422,308)	\$49,235,602	\$676,259,970	22.50%
Wellington Core Plus	287,808,713	8.96%	(2,939,788)	20,480,975	270,267,526	8.99%
Western Core Plus	306,114,370	9.53%	(2,718,503)	23,937,408	284,895,465	9.48%
Parametric Fixed Income Futures	124,150,181	3.86%	(1,764,017)	4,817,219	121,096,979	4.03%
Real Assets	\$450,788,093	14.03%	\$(2,274,571)	\$9,525,264	\$443,537,399	14.76%
Real Estate	\$219,351,216	6.83%	\$(2,177,730)	\$(5,738,653)	\$227,267,599	7.56%
Woodmont	17,099,992	0.53%	0	0	17,099,992	0.57%
UBS Trumbull Property Fund	90,199,649	2.81%	(885,277)	(3,753,711)	94,838,637	3.16%
AEW Core Property Trust	112,051,575	3.49%	(1,292,453)	(1,984,942)	115,328,970	3.84%
Public Real Assets	\$231,436,877	7.20%	\$(96,840)	\$15,263,917	\$216,269,800	7.20%
INVESCO Commodities Fund	53,841,291	1.68%	(96,840)	(1,960,943)	55,899,074	1.86%
BlackRock TIPS Index Fund	57,988,225	1.80%	0	2,528,728	55,459,496	1.85%
KBI Global Resources Fund	61,075,467	1.90%	0	6,483,182	54,592,286	1.82%
Blackrock REIT Index Fund	58,531,894	1.82%	0	8,212,950	50,318,944	1.67%

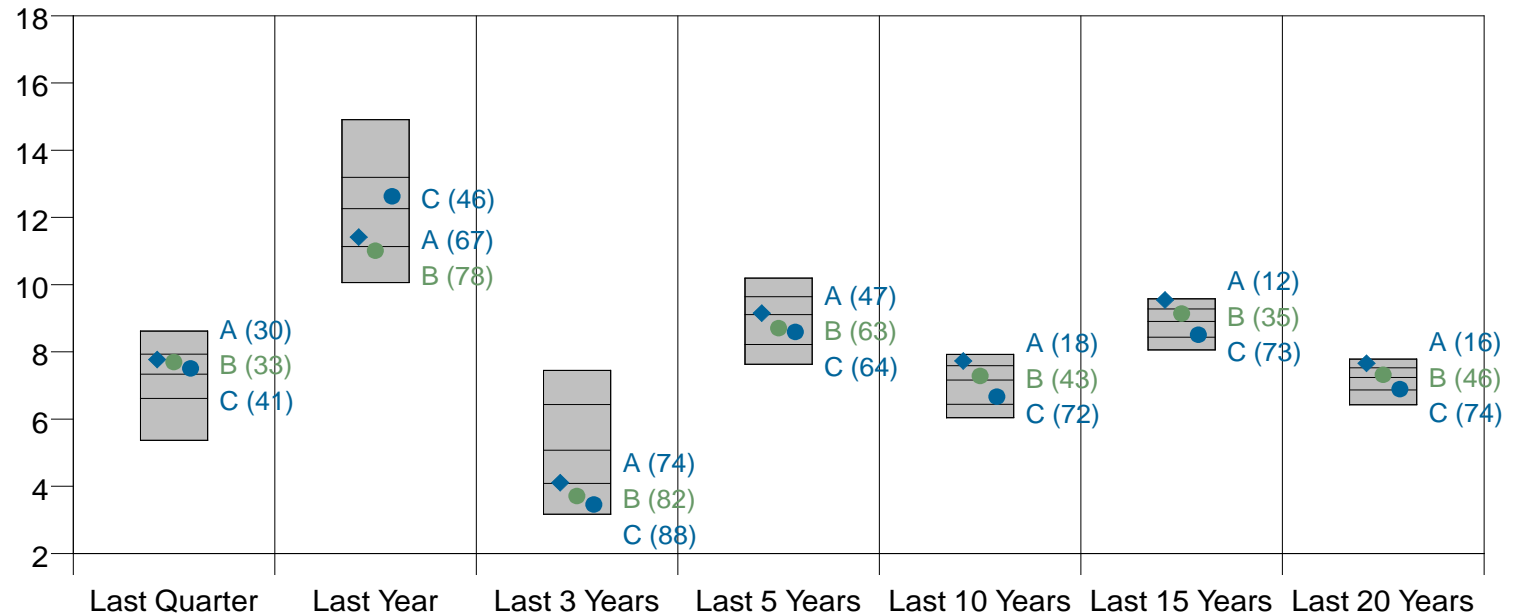
Total Fund Asset Distribution

	December 31, 2023				September 30, 2023	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Opportunistic (3)	\$68,516,700	2.13%	\$5,644,102	\$1,449,835	\$61,422,763	2.04%
CarVal Credit Value V	26,258,655	0.82%	1,587,062	800,091	23,871,502	0.79%
Fortress Credit Opps Fund V	18,366,579	0.57%	4,125,000	0	14,241,579	0.47%
Varde Dislocation Fund	23,891,466	0.74%	(67,960)	649,744	23,309,682	0.78%
Private Equity (4)	\$336,548,884	10.48%	\$(5,996,053)	\$(0)	\$342,544,937	11.40%
Abbott ACE VI	33,131,866	1.03%	(978,260)	0	34,110,126	1.13%
Abbott ACE VII	36,421,138	1.13%	(1,565,821)	(0)	37,986,959	1.26%
Abbott 2016	68,068,131	2.12%	(1,975,000)	0	70,043,131	2.33%
Abbott 2017	20,222,286	0.63%	0	0	20,222,286	0.67%
Abbott 2021	11,502,725	0.36%	1,493,750	0	10,008,975	0.33%
Abbott 2023	1,620,416	0.05%	0	0	1,620,416	0.05%
Pathway PPEF 2008	35,917,899	1.12%	(888,481)	(0)	36,806,380	1.22%
Pathway PE I-7	30,241,356	0.94%	(1,677,244)	0	31,918,600	1.06%
Pathway PE I-8	57,227,321	1.78%	(1,508,034)	0	58,735,355	1.95%
Pathway PE I-9	16,720,091	0.52%	(415,790)	0	17,135,881	0.57%
Pathway PE I-10	23,186,292	0.72%	523,445	(0)	22,662,847	0.75%
Pathway PE I-11	2,289,362	0.07%	995,381	(0)	1,293,981	0.04%
Total Fund	\$3,212,802,857	100.0%	\$(25,022,225)	\$232,232,262	\$3,005,592,821	100.0%

Total Fund Performance – Annualized

Returns for Periods Ended December 31, 2023

Group: Callan Public Fund Sponsor - Large (>1B)



10th Percentile	8.63	14.91	7.45	10.20	7.93	9.58	7.79
25th Percentile	7.94	13.20	6.44	9.65	7.59	9.28	7.53
Median	7.34	12.27	5.08	9.12	7.17	8.91	7.25
75th Percentile	6.62	11.14	4.09	8.23	6.45	8.44	6.87
90th Percentile	5.38	10.07	3.18	7.64	6.05	8.07	6.43

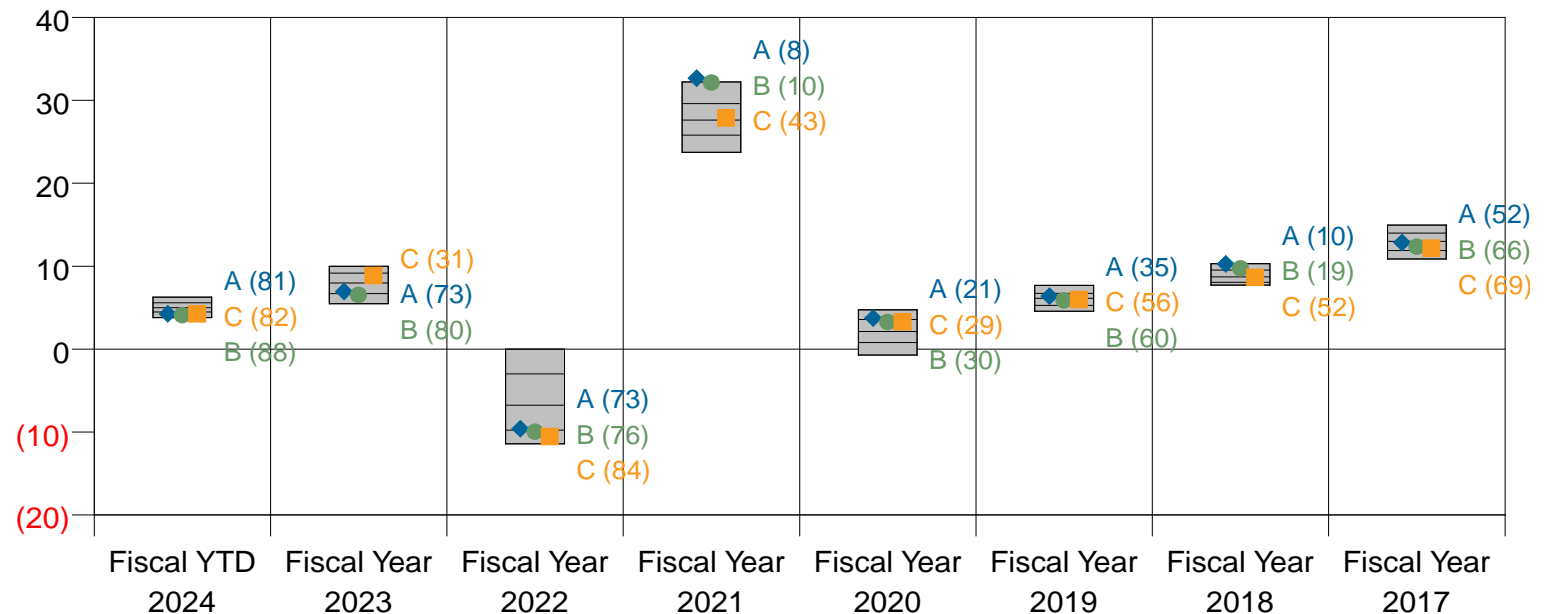
MCERA Total Fund - Gross	◆ A	7.78	11.42	4.11	9.16	7.73	9.55	7.66
MCERA Total Fund - Net	● B	7.70	11.01	3.71	8.71	7.29	9.14	7.32
Marin-Total Fund Target	● C	7.51	12.63	3.46	8.60	6.67	8.51	6.90

Current Quarter Target = 32.0% Russell 3000 Index, 22.0% MSCI ACWI ex US IMI Index, 23% Bloomberg Aggregate Index, 8.0% NCREIF NFI-ODCE Equal Weight Net, 1.8% Bloomberg Commodity Price Index, 1.8% S&P Global Natural Resources Index, 1.8% S&P DJ US Select REIT Index, 1.8% Bloomberg US TIPS Index, 4.8% Russell 3000 Index (Lagged) and 3.2% MSCI ACWI ex US IMI Index (Lagged).

Total Fund Performance – Fiscal Year

Fiscal Year Returns

Group: Callan Public Fund Sponsor - Large (>1B)



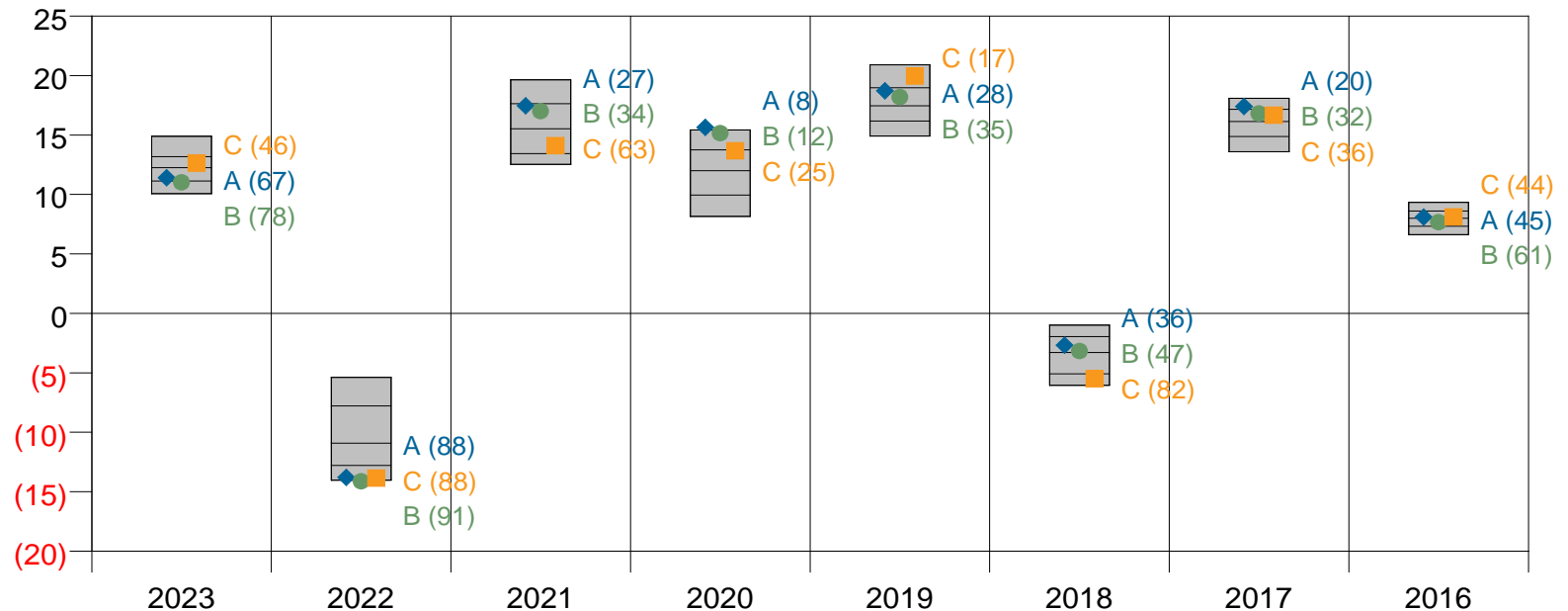
	Fiscal YTD 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019	Fiscal Year 2018	Fiscal Year 2017
10th Percentile	6.29	10.00	0.01	32.23	4.74	7.70	10.30	14.97
25th Percentile	5.61	9.16	(2.97)	29.63	3.58	6.73	9.56	14.01
Median	5.00	7.98	(6.76)	27.65	2.13	6.13	8.71	13.00
75th Percentile	4.50	6.72	(9.78)	25.82	0.79	5.29	8.07	11.91
90th Percentile	3.81	5.47	(11.40)	23.75	(0.69)	4.57	7.74	10.88

MCERA Total Fund - Gross	◆ A	4.28	6.95	(9.60)	32.69	3.74	6.39	10.29	12.88
MCERA Total Fund - Net	● B	4.10	6.53	(9.95)	32.15	3.26	5.88	9.74	12.37
MCERA Total Fund Target	■ C	4.26	8.89	(10.52)	27.89	3.29	5.99	8.67	12.20

Total Fund Performance – Calendar Years

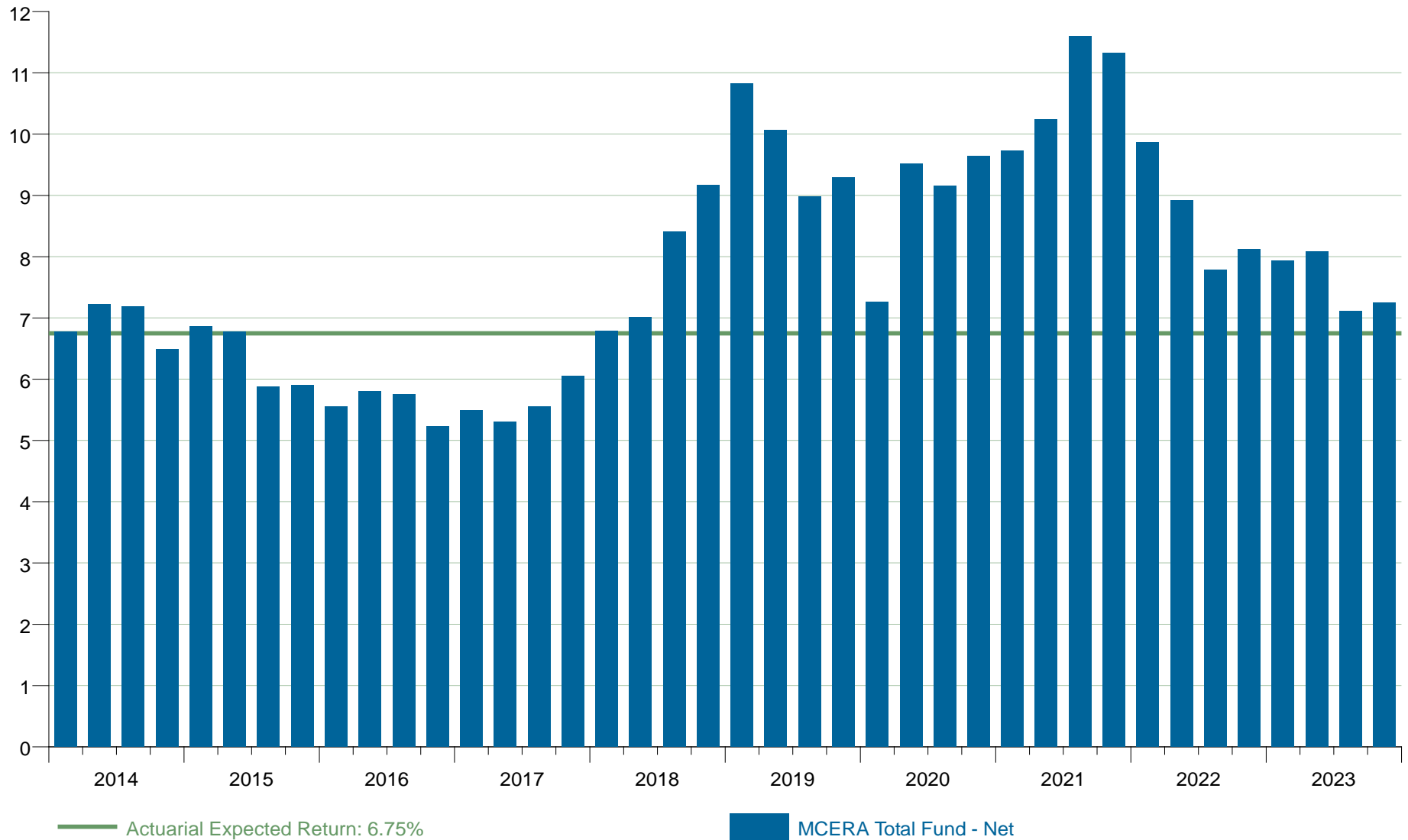
Returns for Periods Ended December 31, 2023

Group: Callan Public Fund Sponsor - Large (>1B)



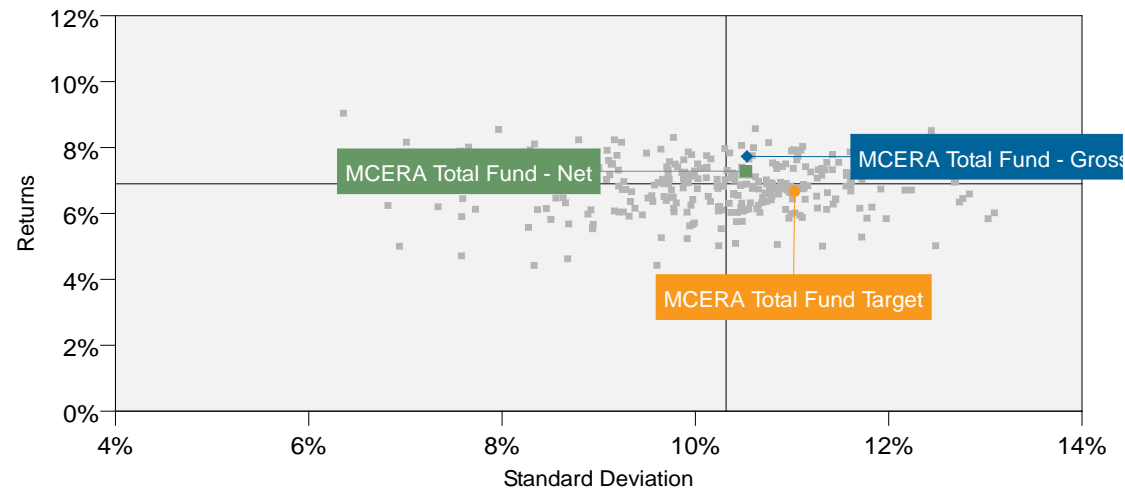
10th Percentile	14.91	(5.37)	19.66	15.44	20.92	(0.97)	18.09	9.34	
25th Percentile	13.20	(7.78)	17.63	13.77	18.98	(1.94)	17.17	8.63	
Median	12.27	(10.91)	15.54	12.01	17.45	(3.28)	16.14	8.01	
75th Percentile	11.14	(12.78)	13.44	9.96	16.18	(5.07)	14.89	7.33	
90th Percentile	10.07	(14.01)	12.53	8.16	14.92	(6.05)	13.61	6.62	
Total Fund - Gross	◆ A	11.42	(13.78)	17.47	15.66	18.73	(2.68)	17.41	8.10
MCERA Total Fund - Net	● B	11.01	(14.12)	17.01	15.16	18.19	(3.16)	16.81	7.68
Total Fund Target	■ C	12.63	(13.84)	14.12	13.68	19.97	(5.49)	16.68	8.13

Annualized 10 Year Total Fund Net Returns (Quarterly Roll)

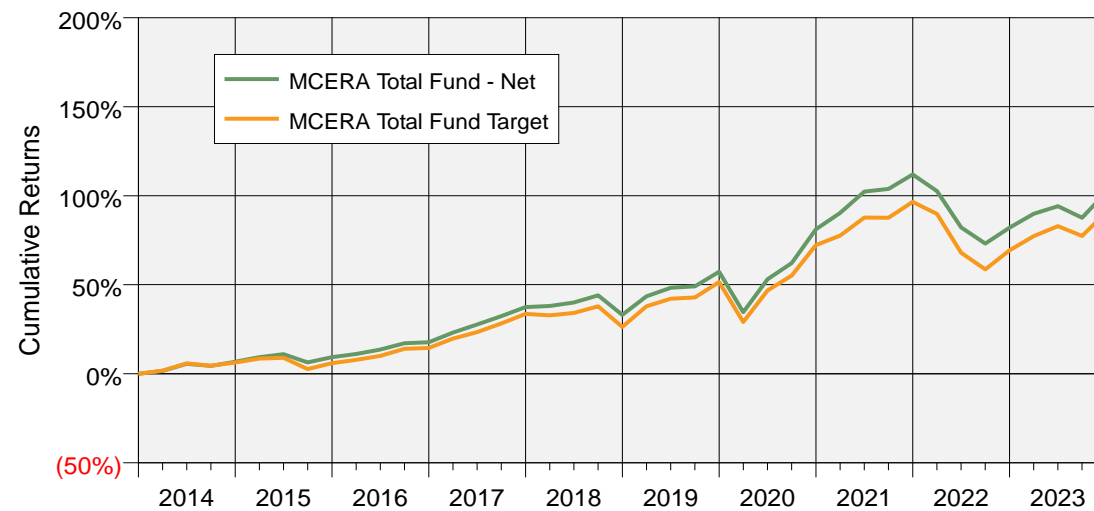


Total Fund – Cumulative Returns Relative to Target

Ten Year Annualized Risk vs. Return
As of December 31, 2023



Total Fund Cumulative Returns vs. Target
10 Years Ended December 31, 2023



Watchlist

Investment Manager Monitoring Summary Report Active Managers as of December 31, 2023

Investment Manager	Organization/ Team	3 Year Performance vs Benchmark	3 Year Performance vs Peers	5 Year Performance vs Benchmark	5 Year Performance vs Peers	Qualify for Watchlist?	Date Added
DFA Small Cap Core Equity <i>Russell 2000 Index</i>						No	
Morgan Stanley International Value Equity <i>MSCI EAFE Index</i>						Yes	4Q17 (Terminated 1Q24)
Artisan International Growth Equity <i>MSCI EAFE Index</i>						Yes	4Q17 (Terminated 1Q24)
TimesSquare International Small Cap Equity <i>MSCI EAFE Small Cap Index</i>				N/A	N/A		
Fidelity Emerging Markets Equity <i>MSCI Emerging Markets Index</i>		N/A	N/A	N/A	N/A		
Wellington Core Plus Fixed Income <i>Bloomberg U.S Aggregate Index</i>						Yes	4Q23
Western Asset Core Plus Fixed Income <i>Bloomberg U.S Aggregate Index</i>		N/A	N/A	N/A	N/A		
Invesco Balanced Risk Commodity Fund <i>Bloomberg Commodity Index</i>						Yes	
KBI Global Natural Resources Fund <i>S&P Global Natural Resource Index</i>			N/A		N/A		
UBS Trumbull Property Fund* <i>NFI-ODCE Index</i>		N/A	N/A	N/A	N/A		4Q19

*UBS Trumbull Property Fund placed on watch for organizational concerns. Quantitative criteria for private market portfolios under review by Governance Committee.

Quantitative Criteria

If a manager trails its relevant benchmark by more than 100 basis points (net of fees) and ranks in the bottom quartile of its peer universe (gross of fees ranking) for the trailing three years, or if a manager trails its relevant benchmark (net of fees) or ranks below median of its peer universe (gross of fees ranking) for the trailing five years, then the manager may be placed on the Watchlist.

Color Code

	meets watch list criteria, no concerns, no actions recommended
	concerns exist, no actions recommended
	violates watch list criteria, concerns exist, action to be determined

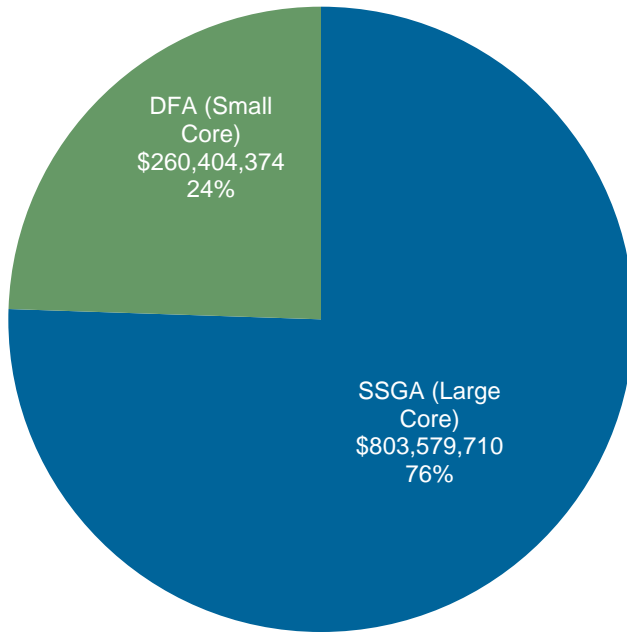
Watchlist

Investment Manager	3 Year Net Return Trails Benchmark by more than 100 bps (relative return shown in bps)	<u>AND</u>	3 Year Gross Return Ranks 75th - 100th%	<u>OR</u>	5 Year Net Return Trails Benchmark (relative return shown in bps)	<u>OR</u>	5 Year Gross Return Ranks 50th - 100th%	Qualify for Watchlist (Quantitative)
DFA Small Cap Core Equity <i>Russell 2000 Index</i>	772		16th		260		36th	No
Morgan Stanley International Value Equity <i>MSCI EAFE Index</i>	-214		99th		-71		83rd	Yes (Terminated 1Q24)
Artisan International Growth Equity <i>MSCI EAFE Index</i>	-373		52nd		-100		81st	Yes (Terminated 1Q24)
TimesSquare International Small Cap Equity <i>MSCI EAFE Small Cap Index</i>	-496		85th		N/A		N/A	No
Fidelity Emerging Markets Equity <i>MSCI Emerging Markets Index</i>	N/A		N/A		N/A		N/A	No
Wellington Core Plus Fixed Income <i>Bloomberg U.S Aggregate Index</i>	36		65th		91		52nd	Yes
Western Asset Core Plus Fixed Income <i>Bloomberg U.S Aggregate Index</i>	N/A		N/A		N/A		N/A	No
Invesco Balanced Risk Commodity Fund <i>Bloomberg Commodity Index</i>	-225		99th		48		56th	Yes
KBI Global Natural Resources Fund <i>S&P Global Natural Resource Index</i>	-504		N/A		423		N/A	No
UBS Trumbull Property Fund <i>NCREIF NFI-ODCE Index</i>	Quantitative criteria for private markets portfolios under review by Governance Committee. On watch due to organizational changes.							Under Review

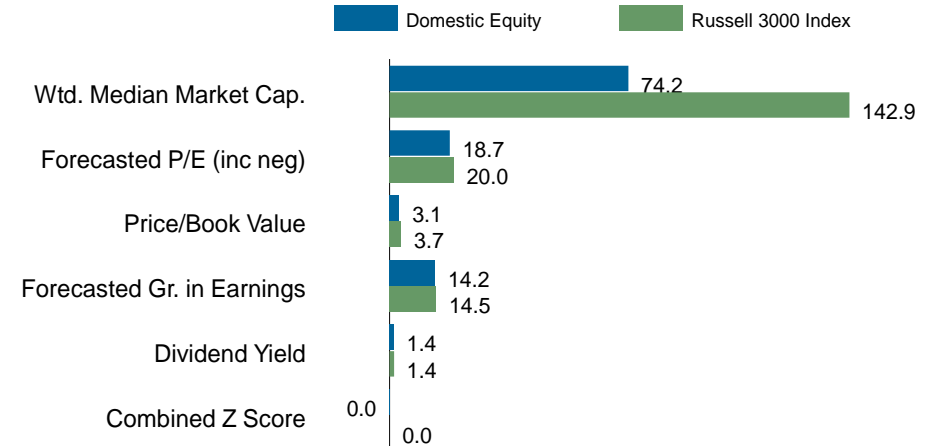
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MCERA Asset Class Review

Domestic Equity Composite



Portfolio Characteristics as of December 31, 2023



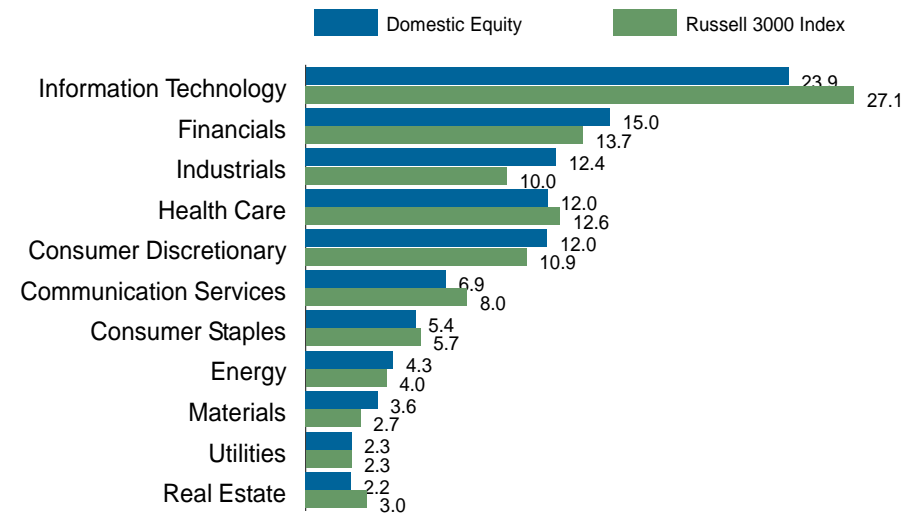
Style Exposure Matrix

Holdings as of December 31, 2023

-- Domestic Equity
-- Russell 3000 Index

	Value	Core	Growth	Total
Large	15.7% (99) 19.6% (99)	14.7% (87) 18.3% (87)	33.6% (108) 42.0% (108)	64.1% (294) 80.0% (294)
Mid	3.9% (157) 4.3% (157)	5.8% (215) 5.2% (218)	6.8% (209) 4.8% (214)	16.5% (581) 14.3% (589)
Small	3.5% (212) 1.2% (285)	7.4% (423) 2.2% (530)	6.1% (305) 1.7% (364)	17.0% (940) 5.1% (1179)
Micro	1.1% (347) 0.2% (302)	0.9% (253) 0.3% (425)	0.4% (121) 0.1% (157)	2.5% (721) 0.6% (884)
Total	24.3% (815) 25.4% (843)	28.8% (978) 26.0% (1260)	46.9% (743) 48.6% (843)	100.0% (2536) 100.0% (2946)

Sector Allocation as of December 31, 2023



Domestic Equity Composite

Returns and Rankings for Periods Ended December 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Equity - Net	12.75	25.01	10.22	15.24	11.22
Domestic Equity Target	12.07	25.96	8.54	15.16	11.48
SSGA - Net	11.98	26.50	9.20	15.15	11.79
Large Cap Blended Benchmark	11.96	26.53	9.17	15.16	11.78
Ranking vs. Large Cap Equity	53	50	55	50	50
DFA Small Core - Net	13.61	18.16	9.94	12.57	--
Russell 2000 Index	14.03	16.93	2.22	9.97	7.16
Ranking vs. Small Cap Equity	27	36	16	36	--

Returns and Rankings for Calendar Years

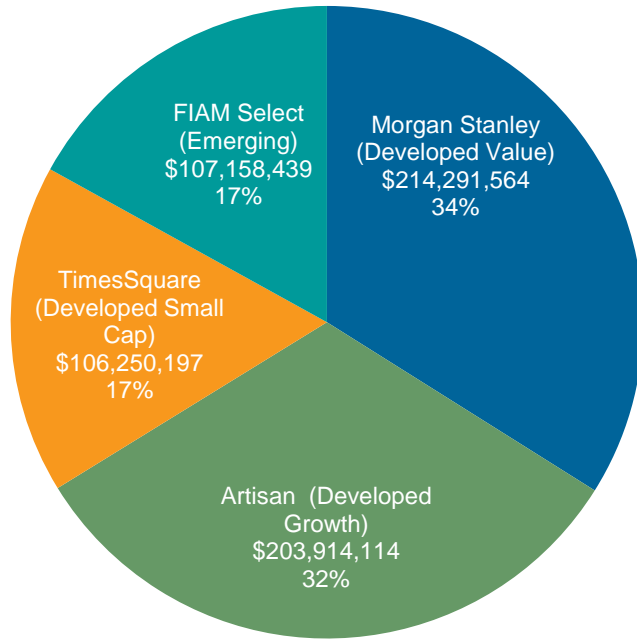
	2023	2022	2021	2020	2019
Domestic Equity - Net	25.01	(17.43)	29.74	17.85	28.77
Domestic Equity Target	25.96	(19.21)	25.66	20.89	31.02
SSGA - Net	26.50	(19.06)	27.16	18.33	31.43
Large Cap Blended Benchmark	26.53	(19.13)	27.15	18.40	31.49
Ranking vs. Large Cap Equity	50	55	49	53	43
DFA Small Core - Net	18.16	(12.97)	29.22	11.74	21.77
Russell 2000 Index	16.93	(20.44)	14.82	19.96	25.52
Ranking vs. Small Cap Equity	36	21	19	54	71

- The domestic equity composite outperformed the benchmark over the quarter, but modestly underperformed the benchmark over the last year.
- Although small cap has underperformed large cap over intermediate and long time periods, DFA's relative outperformance has been very beneficial over the last one, three, and five years.
 - They exclude stocks with the lowest profitability and highest relative prices (high growth). At times, the market has favored the relative safety of value-oriented stocks, which has greatly benefitted returns in 2021 and 2022.

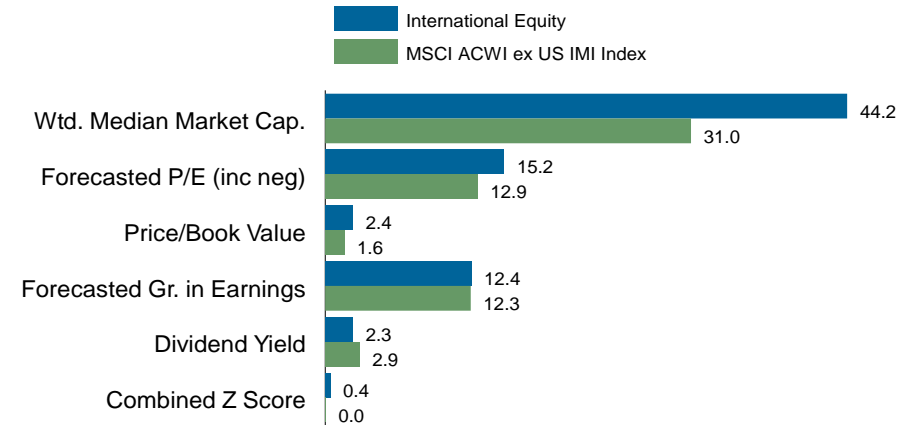
The Domestic Equity Target consists of the Russell 3000 Index.

The Large Cap Blended Benchmark consists of the S&P 500 Index to 7/31/2021 and the Russell 1000 Index thereafter.

International Equity Composite



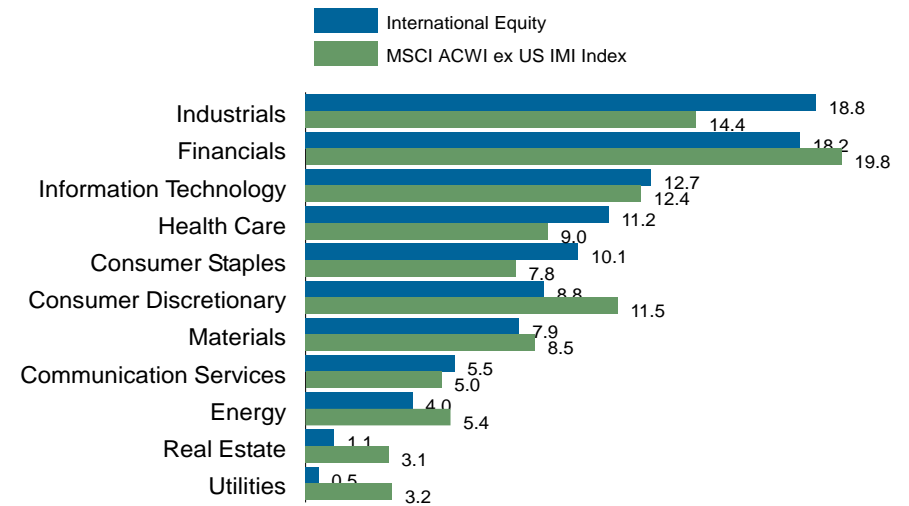
Portfolio Characteristics as of December 31, 2023



Region & Style Exposure Matrix Holdings as of December 31, 2023

	<div> <div>-- International Equity</div> <div>-- MSCI ACWI ex US IMI Index</div> </div>			
	Value	Core	Growth	Total
Europe	7.3% (17) 12.0%	23.7% (42) 13.4%	27.7% (56) 15.7%	58.7% (115) 41.1%
N. America	-- 1.5%	1.9% (6) 1.6%	6.0% (7) 1.5%	7.8% (13) 4.6%
Pacific	0.2% (1) 7.7%	3.6% (10) 9.7%	8.3% (29) 7.3%	12.1% (40) 24.6%
Emerging	2.9% (29) 7.7%	8.1% (46) 10.1%	10.4% (54) 11.9%	21.4% (129) 29.7%
Total	10.3% (47) 28.8%	37.3% (104) 34.8%	52.4% (146) 36.3%	100.0% (297) 100.0%

Sector Allocation as of December 31, 2023



International Equity Composite

Returns and Rankings for Periods Ended December 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
International Equity - Net	9.81	14.35	(0.95)	5.87	3.42
International Equity - Target	9.81	15.62	1.53	7.19	3.97
MSIM - Net	10.76	16.92	1.88	7.45	3.80
MSCI EAFE Index	10.42	18.24	4.02	8.16	4.28
Ranking vs. Non-US Developed Value Equity	1	80	99	83	63
Artisan - Net	9.50	14.79	0.29	7.16	3.70
MSCI EAFE Index	10.42	18.24	4.02	8.16	4.28
Ranking vs. Non-US Developed Growth Equity	85	69	52	81	85
TimesSquare - Net	9.56	12.32	(5.65)	--	--
MSCI EAFE Small Cap	11.14	13.16	(0.69)	6.58	4.80
Ranking vs. International Small Cap Equity	79	67	85	--	--
FIAM Select EM - Net	9.08	12.22	--	--	--
MSCI Emerging Markets Index	7.86	9.83	(5.08)	3.69	2.66
Ranking vs. Emerging Markets Equity	26	45	--	--	--

Returns and Rankings for Periods Ended December 31, 2023

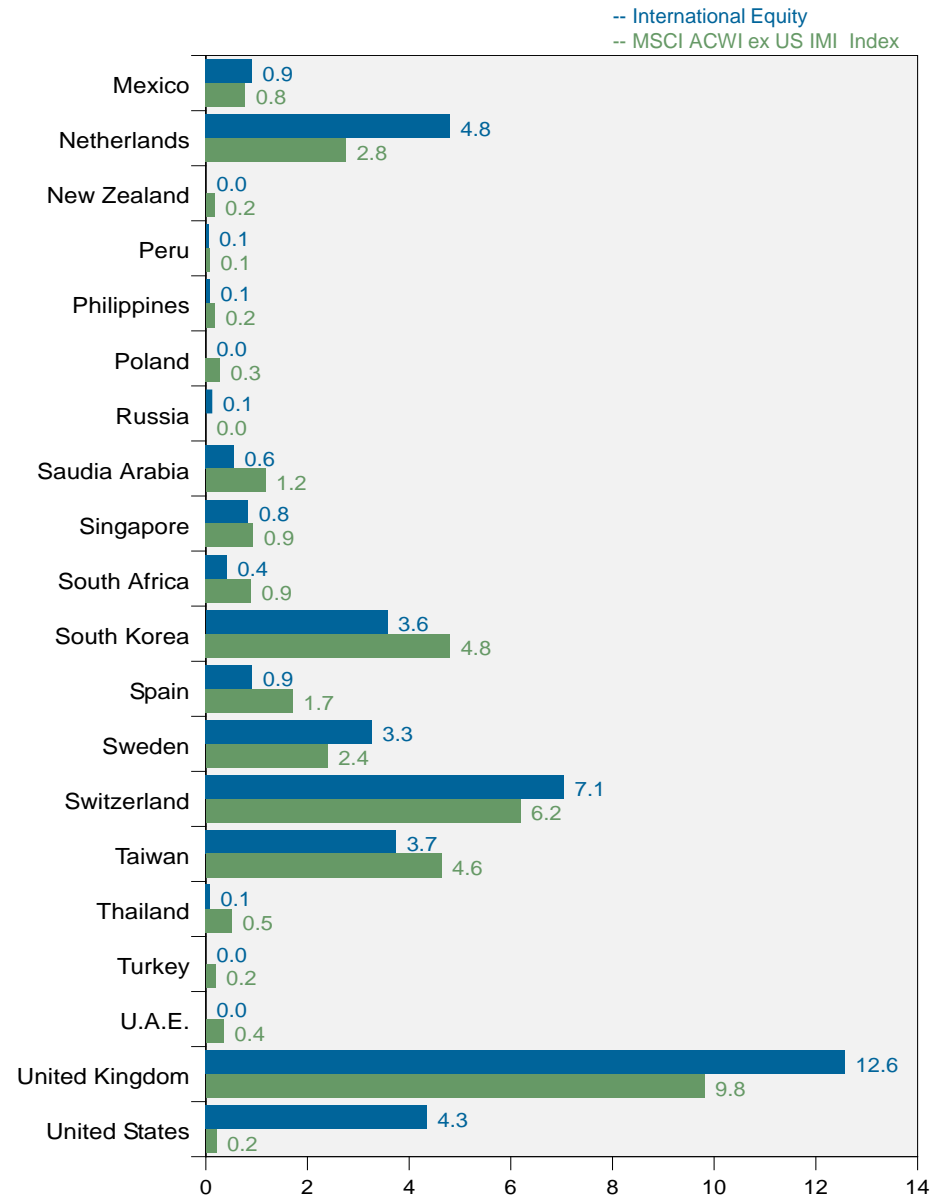
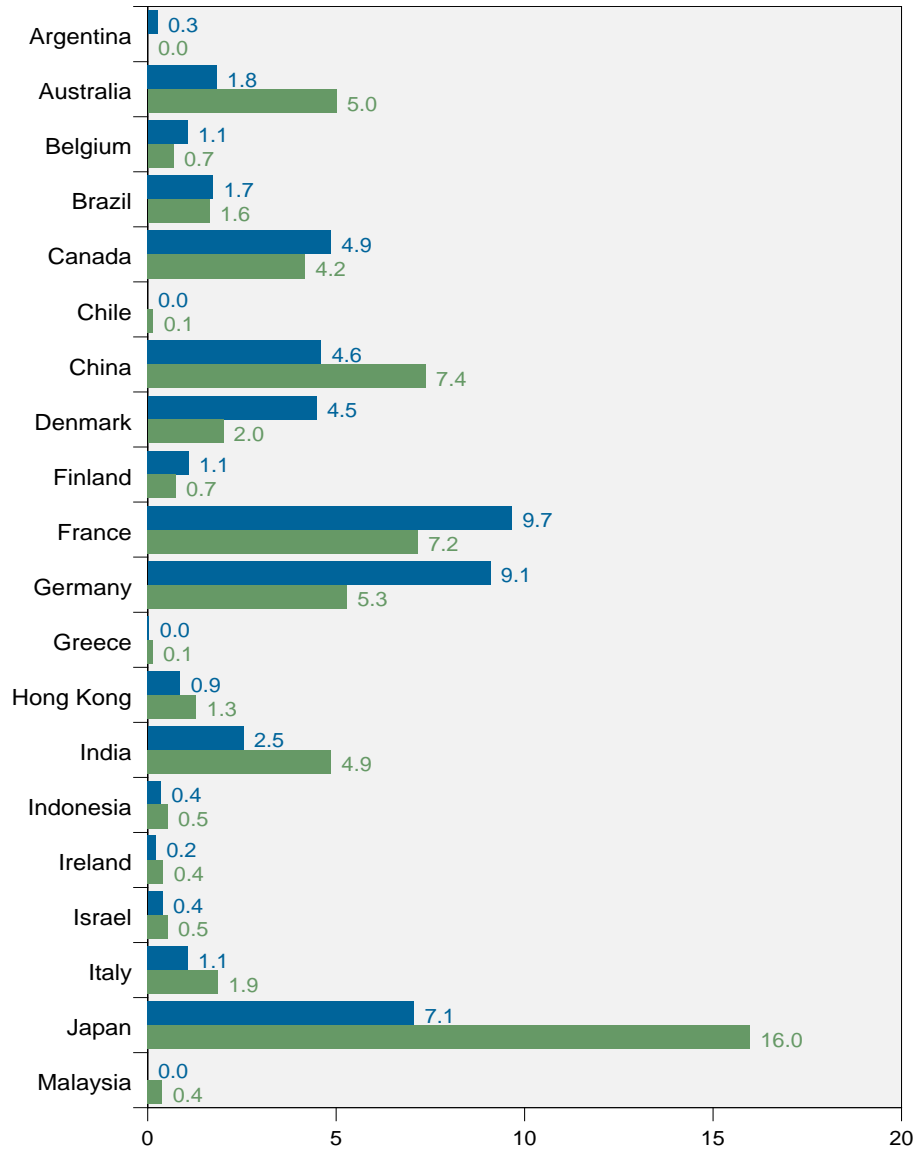
	2023	2022	2021	2020	2019
International Equity - Net	14.35	(19.28)	5.28	10.79	23.52
International Equity - Target	15.62	(16.58)	8.53	11.12	21.63
MSIM - Net	16.92	(13.62)	4.70	12.00	20.93
MSCI EAFE Index	18.24	(14.45)	11.26	7.82	22.01
Ranking vs. Non-US Developed Value Equity	80	92	99	1	35
Artisan - Net	14.79	(19.08)	8.59	8.09	29.62
MSCI EAFE Index	18.24	(14.45)	11.26	7.82	22.01
Ranking vs. Non-US Developed Growth Equity	69	30	60	96	26
TimesSquare - Net	12.32	(26.82)	2.18	13.87	--
MSCI EAFE Small Cap	13.16	(21.39)	10.10	12.34	24.96
Ranking vs. International Small Cap Equity	67	74	93	40	--
FIAM Select EM - Net	12.22	(23.89)	--	--	--
MSCI Emerging Markets Index	9.83	(20.09)	(2.54)	18.31	18.44
Ranking vs. Emerging Markets Equity	45	70	--	--	--

- The International Equity composite was in line with the benchmark during the quarter and fell short over the trailing year.
 - Morgan Stanley: a more than 2x overweight to IT, the strongest performer in the index, enhanced relative returns in the quarter.
 - Artisan: a large underweight to IT and Japan dampened relative returns.
 - TimesSquare: underperformance was driven by relative weakness in Europe and Japan.
 - FIAM: stock selection within Consumer Discretionary and Industrials drove relative outperformance.

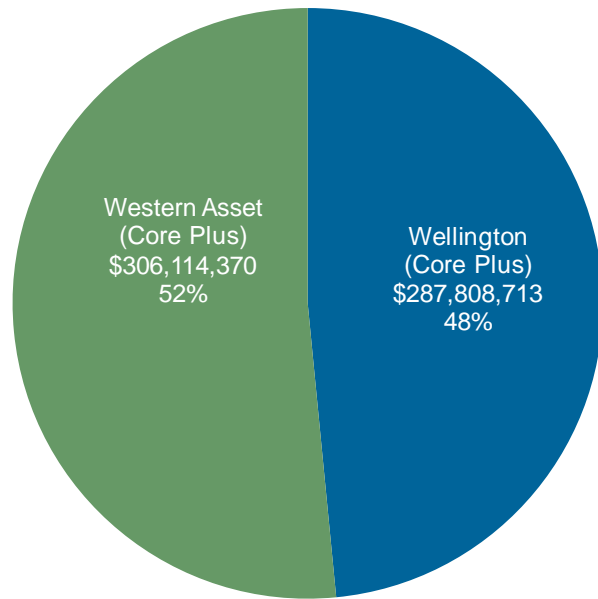
The International Equity Target is comprised of 100% MSCI EAFE Index through 06/30/2010, and 100% MSCI ACWI ex-US IMI Index thereafter.

International Equity Composite

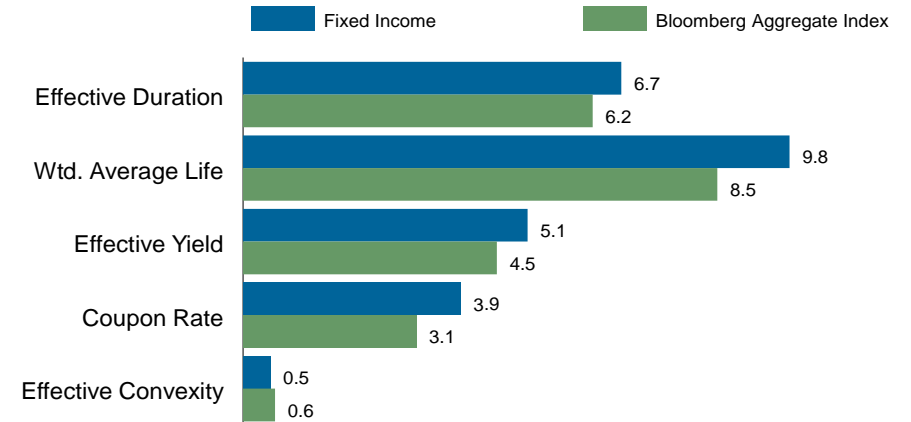
Country Allocations as of December 31, 2023



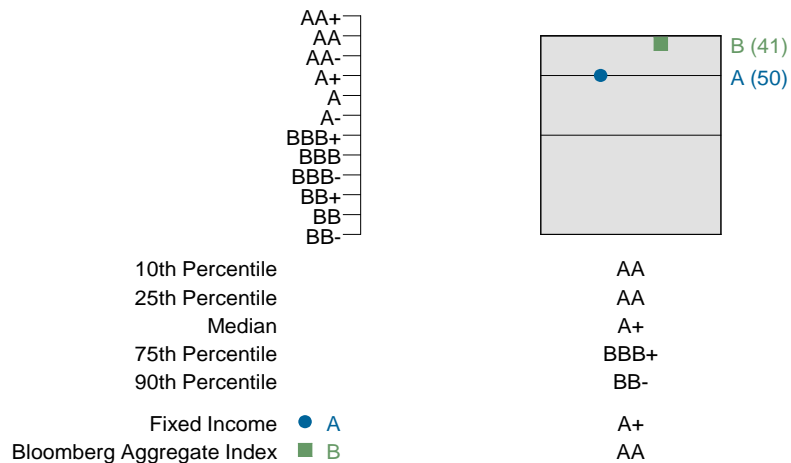
Fixed Income Composite



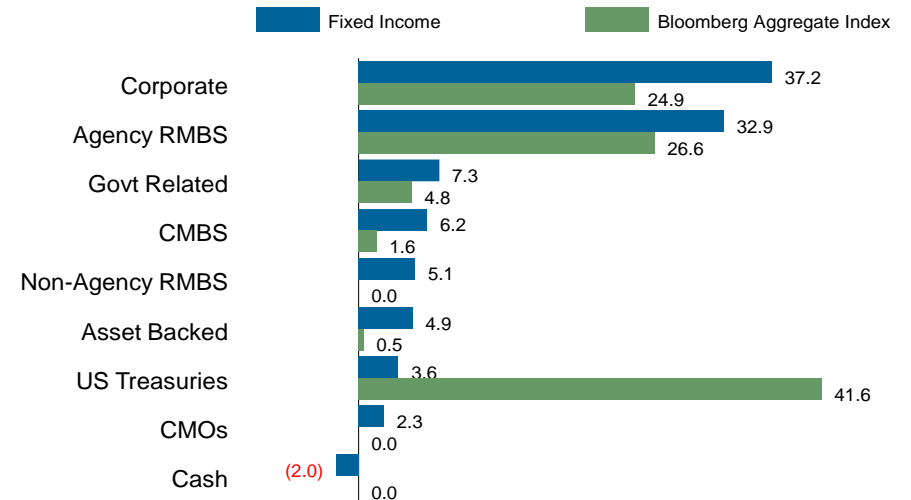
Portfolio Characteristics as of December 31, 2023



Quality Rating as of December 31, 2023 Total Domestic Fixed Income Database



Sector Allocation as of December 31, 2023



Fixed Income Composite

Returns and Rankings for Periods Ended December 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Fixed Income - Net	7.37	5.74	(4.51)	1.06	1.80
Fixed Income Target	6.82	5.53	(3.93)	0.73	1.39
Wellington - Net	7.59	6.66	(2.95)	2.01	2.59
Bloomberg Aggregate Index	6.82	5.53	(3.31)	1.10	1.81
Ranking vs. Core Plus Fixed Income	5	55	65	52	48
Western Asset - Net	8.40	7.32	(1.92)	2.65	2.79
Western Asset Blended Benchmark	6.82	5.53	(2.41)	1.74	2.13
Ranking vs. Core Plus Fixed Income	2				

Returns and Rankings for Calendar Years

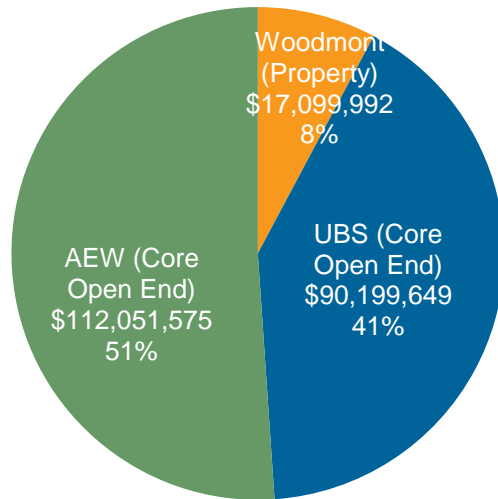
	2023	2022	2021	2020	2019
Fixed Income - Net	5.74	(15.56)	(2.50)	11.47	8.60
Fixed Income Target	5.53	(13.58)	(2.79)	8.08	8.21
Wellington - Net	6.66	(13.68)	(0.71)	9.93	9.95
Bloomberg Aggregate Index	5.53	(13.01)	(1.54)	7.51	8.72
Ranking vs. Core Plus Fixed Income	55	62	64	26	43
Western Asset - Net	7.32	(11.71)	(0.43)	10.03	9.82
Western Asset Blended Benchmark	5.53	(11.01)	(1.03)	7.08	9.52
Ranking vs. Core Plus Fixed Income	26				

- The Fixed Income composite outpaced the benchmark during the quarter and over the trailing year. Performance for periods longer than one year includes the Colchester Global and Western Asset Intermediate Credit portfolios (transitioned in 4Q22).
 - Relative returns for both managers benefitted from selection within investment grade credit, allocations to high yield, and above index duration positioning as yields declined.

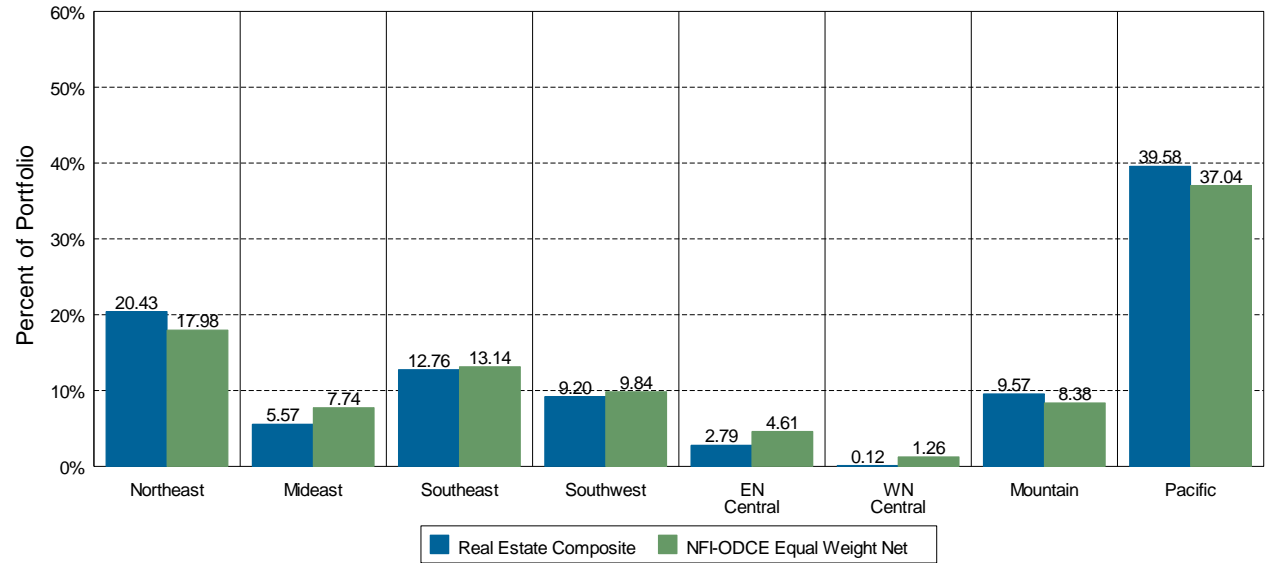
Fixed Income Target is comprised of 100% Bloomberg US Aggregate Index until March 2014, 50% Bloomberg US Aggregate Index, 25% Bloomberg US Intermediate Credit Index, and 25% FTSE World Government Bond Index until November 2022, and 100% Bloomberg US Aggregate Index thereafter.

Western Asset Blended Benchmark is comprised of the Bloomberg US Aggregate Index until March 2014, the Bloomberg US Intermediate Credit Index to 11/6/2022, and the Bloomberg US Aggregate Index thereafter.

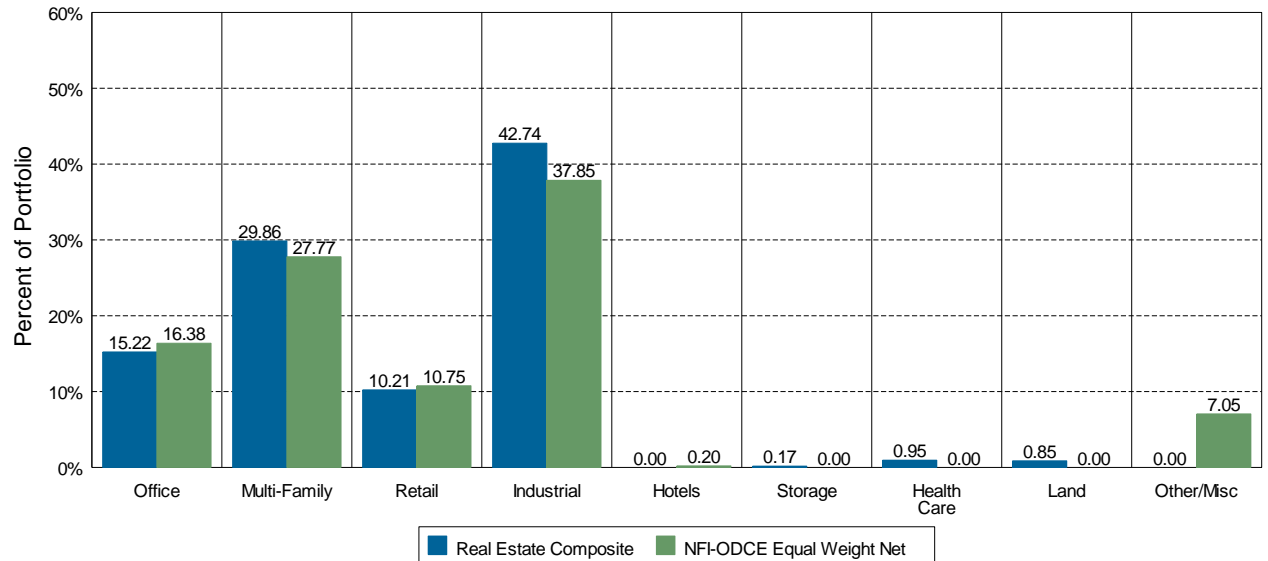
Real Estate Composite



Diversification by Geographic Region as of December 31, 2023



Diversification by Property Type as of December 31, 2023



Real Estate Composite

Returns and Rankings for Periods Ended December 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Real Estate - Net	(2.71)	(12.04)	2.76	1.31	6.59
Real Estate Target	(5.37)	(13.33)	4.35	3.78	6.69
AEW Core Property Trust - Net	(1.94)	(10.00)	5.54	4.48	6.63
NFI-ODCE Equal Wt Net Index	(5.37)	(13.33)	4.35	3.78	6.65
Ranking vs. Core Open End Funds	66	50	48	52	66
UBS Trumbull Property Fund - Net	(4.15)	(15.53)	0.85	(1.03)	3.37
NFI-ODCE Equal Wt Net Index	(5.37)	(13.33)	4.35	3.78	6.65
Ranking vs. Core Open End Funds	70	88	99	97	96

Returns and Rankings for Calendar Years

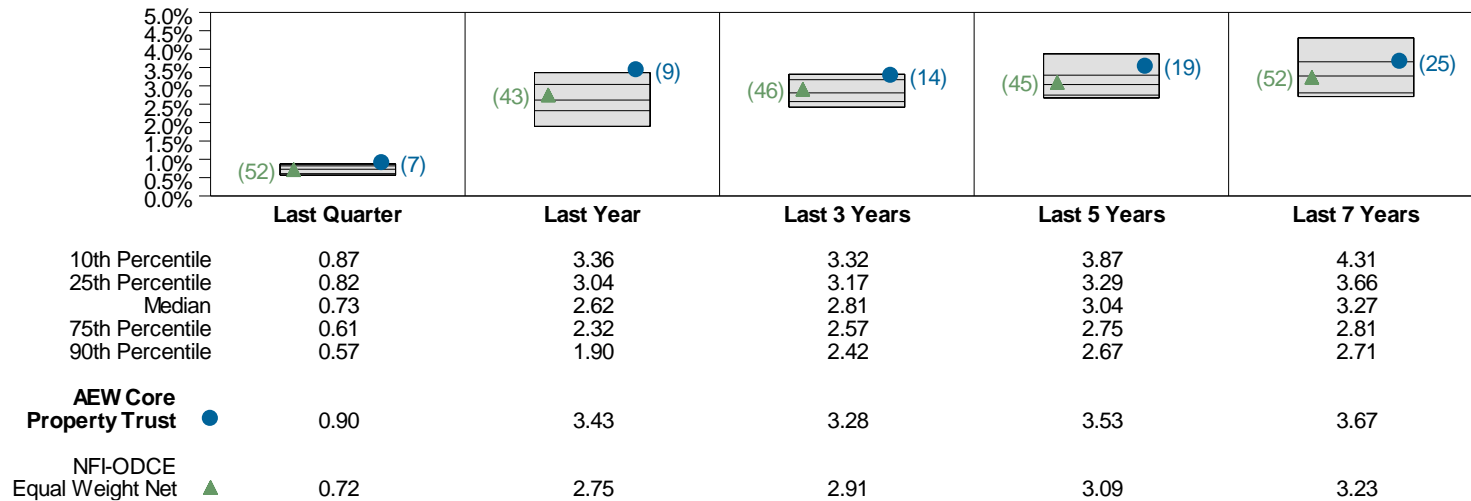
	2023	2022	2021	2020	2019
Real Estate - Net	(12.04)	6.20	16.16	(2.29)	0.64
Real Estate Target	(13.33)	7.56	21.88	0.75	5.18
AEW Core Property Trust - Net	(10.00)	7.95	21.00	0.57	5.29
NFI-ODCE Equal Wt Net Index	(13.33)	7.56	21.88	0.75	5.18
Ranking vs. Core Open End Funds	50	54	56	66	71
UBS Trumbull Property Fund - Net	(15.53)	5.21	15.41	(4.68)	(2.88)
NFI-ODCE Equal Wt Net Index	(13.33)	7.56	21.88	0.75	5.18
Ranking vs. Core Open End Funds	88	82	89	96	96

- The AEW Core Property Trust's current leverage is 29% (NFI-ODCE leverage: 26%).
- The UBS Trumbull Property Fund's current leverage is 21%.
- The office sector continued to face headwinds, while residential also detracted to a lesser extent. Retail was modestly positive in both funds.

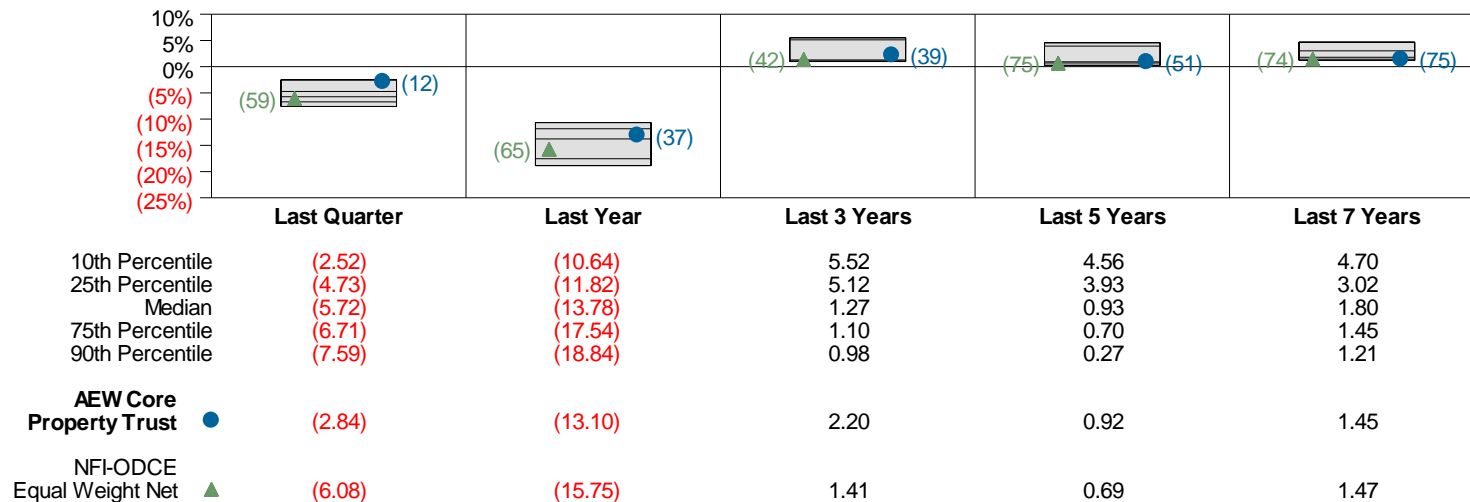
The Real Estate Target is comprised of the NCREIF Classic Index through 12/31/2004, NCREIF Total Property Index through 12/31/2014, and the NFI-ODCE Equal Weight Net thereafter.

AEW Income and Appreciation Returns

Income Rankings vs Callan Real Estate ODCE Periods ended December 31, 2023

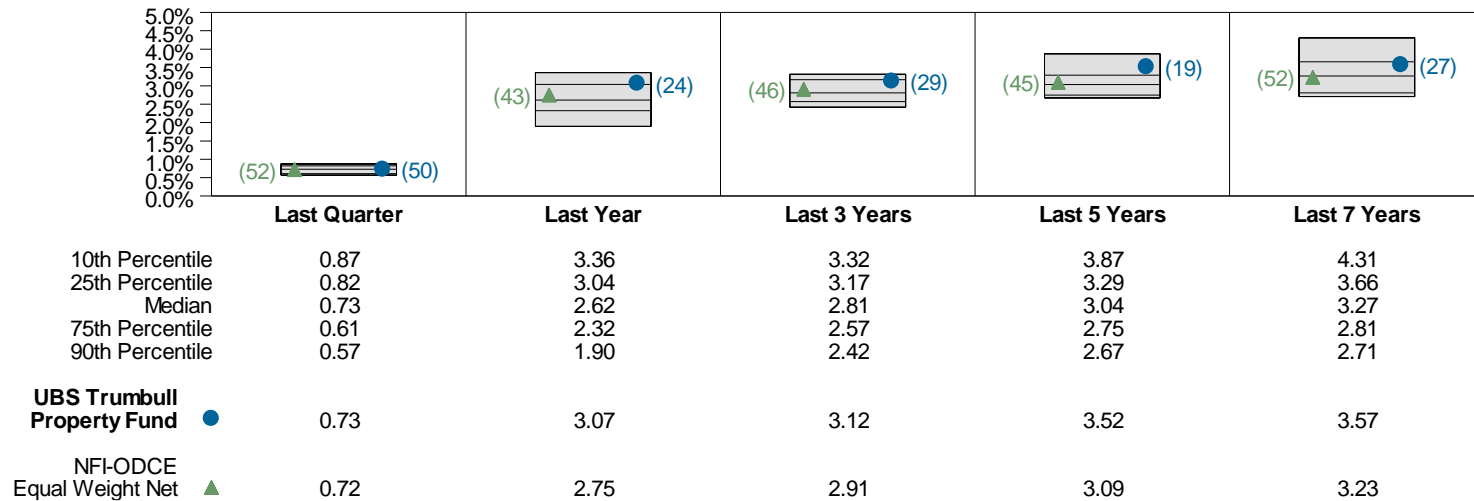


Appreciation Rankings vs Callan Real Estate ODCE Periods ended December 31, 2023

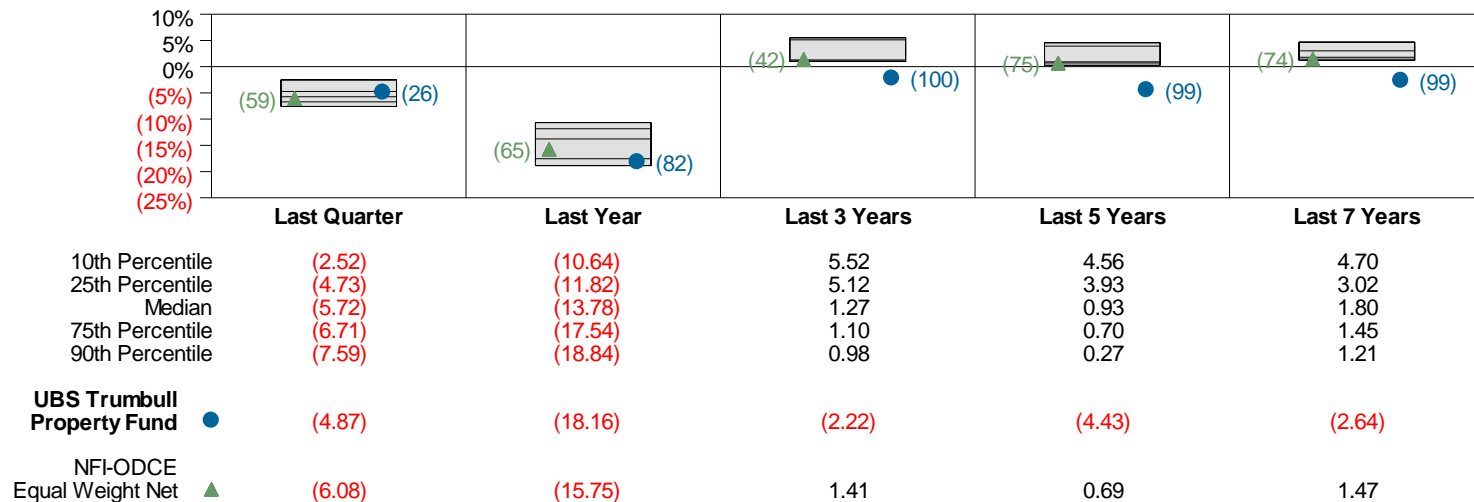


UBS Income and Appreciation Returns

Income Rankings vs Callan Real Estate ODCE Periods ended December 31, 2023



Appreciation Rankings vs Callan Real Estate ODCE Periods ended December 31, 2023



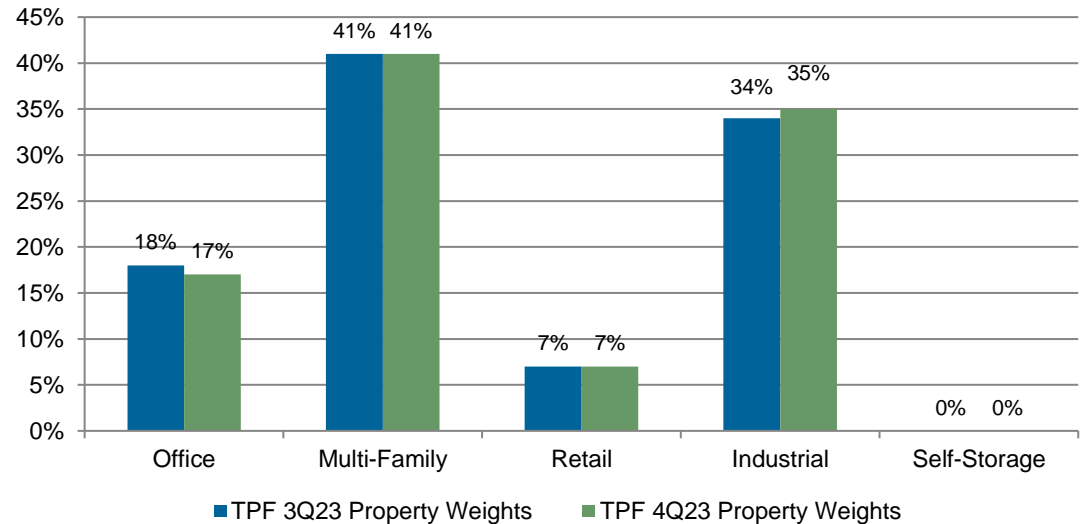
UBS Trumbull Property Fund Snapshot

As of December 31, 2023

As of 4Q 2023

Gross Asset Value	\$14.0B
Net Asset Value	\$10.8B
Leverage	21.4%
Number of Investments	130
Number of Investors	435
Redemption Queue	\$6.5 billion
4Q23 Redemption Queue Payout	\$0 million
Contribution Queue	\$0 million

Property Type Weights (Change from Prior Quarter)



- The Fund has a current redemption pool of \$6.5 billion. The Fund made a 3Q 2023 redemption payment in October 2023 of \$100 million but did not make a 4Q 2023 redemption payment in January 2024. UBS estimates, based on current capital flows and the fund's disposition program, that the fund's redemption queue will be brought into balance in 2026.
- In September 2019, UBS announced a Loyalty Fee Program, which MCERA in 2019 elected to participate in the four-year option for a management fee discount of 25% on approximately \$100 million NAV (effective January 1, 2020). In 2023, MCERA again elected for the four-year option for a 25% discount on the total NAV, effective January 1, 2024.
- In February 2024, UBS announced significant changes to the Loyalty Fee Program, including no lock-up required and no management fee clawback should MCERA opt to enter the redemption queue. These changes provide greater flexibility for MCERA in managing its position in the fund.

NFI-ODCE Funds – Key Fund Metrics

As of December 31, 2023

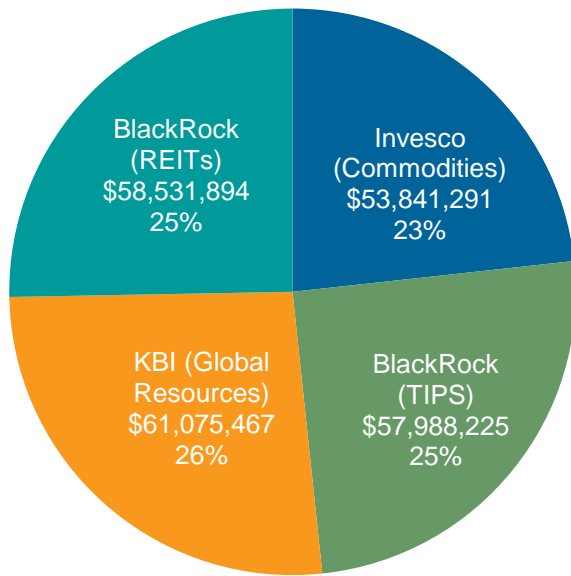
Fund Name	Last Quarter	Net Asset Value (\$ millions)	Contribution Queue (\$ millions)	Redemption Queue (\$ millions)	Redemption Queue % of NAV
AEW Core Property Trust	-1.92%	\$6,938.7	\$0.0	\$890.0	12.83%
ARA Core Property Fund	-6.21%	\$5,547.0	\$22.0	\$752.9	13.57%
ASB Allegiance Real Estate Fund	-7.98%	\$5,146.3	\$0.0	\$885.0	17.20%
Bailard Real Estate Fund	-4.98%	\$1,008.5	\$0.0	\$11.0	1.09%
Barings Core Property Fund	-11.20%	\$2,094.7	\$0.0	\$711.6	33.97%
BentallGreenOak BGO Diversified	-5.91%	\$7,411.1	\$0.0	\$1,540.0	20.78%
BlackRock U.S. Core Property Fund	-7.66%	\$2,227.6	\$0.0	\$353.0	15.85%
CBRE U.S. Core Partners LP	-6.67%	\$7,622.7	\$0.0	\$690.0	9.05%
CIM Urban Income Investments	-5.34%	\$1,340.1	\$25.0	\$483.0	36.04%
Clarion Lion Property Fund	-4.59%	\$13,943.7	\$0.0	\$3,300.0	23.67%
DWS RREEF America REIT II	-6.17%	\$12,782.5	\$0.0	\$1,488.2	11.64%
Heitman America Real Estate Trust	-4.38%	\$8,953.0	\$60.1	\$1,680.0	18.76%
Intercontinental U.S. Real Estate Investment Fund	-5.80%	\$8,803.5	\$0.0	\$1,000.0	11.36%
Invesco Core Real Estate USA	-4.83%	\$10,861.3	\$0.0	\$2,500.0	23.02%
J.P. Morgan Strategic Property Fund	-7.64%	\$27,383.7	\$830.6	\$6,200.0	22.64%
LaSalle US Property Fund	-4.87%	\$6,203.7	\$7.8	\$57.1	0.92%
MetLife Core Property Fund	-7.22%	\$4,447.6	\$213.0	\$626.0	14.08%
Morgan Stanley Prime Property Fund	-2.21%	\$31,941.1	\$0.9	\$5,300.0	16.59%
NYL Madison Core Property Fund	-5.07%	\$1,522.6	\$0.0	\$83.7	5.50%
PGIM PRISA	-4.62%	\$24,029.3	\$0.0	\$3,159.8	13.15%
Principal U.S. Core Property Account	-2.29%	\$8,733.0	\$597.0	\$1,400.0	16.03%
Sagard Real Estate U.S. Property Fund	-4.30%	\$933.5	\$0.0	\$199.0	21.32%
Stockbridge Smart Markets Fund	-2.97%	\$3,427.9	\$68.5	\$374.4	10.92%
TA Realty	-5.38%	\$5,583.1	\$346.7	\$352.1	6.31%
UBS Trumbull Property Fund	-4.17%	\$10,843.1	\$0.0	\$6,500.0	59.95%

NFI-ODCE Funds - Gross of Fee All Sector Returns

As of December 31, 2023

Fund	Retail 4Q 2023	Apartment 4Q 2023	Industrial 4Q 2023	Office 4Q 2023
AEW	0.71%	-2.34%	1.44%	-3.35%
ARA	-0.74%	-8.40%	-0.81%	-6.86%
ASB	-7.29%	-6.28%	-2.94%	-5.66%
Bailard	0.09%	-2.76%	-4.13%	-4.93%
Barings	0.43%	-7.39%	-6.79%	-14.98%
BGO	-2.02%	-3.54%	-2.74%	-9.67%
BlackRock	-0.79%	-5.97%	-2.54%	-8.96%
CBRE	-0.21%	-4.95%	-2.63%	-5.96%
CIM Group	2.79%	-5.51%	-3.49%	-3.62%
Clarion	-1.51%	-4.26%	-1.61%	-4.39%
DWS	-1.21%	-5.49%	-4.71%	-5.32%
Heitman	-1.16%	-3.76%	-1.69%	-6.22%
Intercontinental	0.07%	-3.58%	-5.32%	-6.01%
Invesco	0.21%	-3.40%	-1.88%	-5.88%
JP Morgan	-2.21%	-6.41%	-3.18%	-7.32%
LaSalle	-0.21%	-4.13%	-1.12%	-6.97%
MetLife	0.00%	-7.25%	-3.04%	-4.33%
MSIM	-1.67%	-0.74%	-0.10%	-4.85%
NYLIM	-2.99%	-4.47%	-3.96%	-2.08%
PGIM	-1.54%	-2.64%	-1.87%	-8.67%
Principal	-0.60%	-1.59%	-0.60%	-3.84%
Sagard	0.09%	-3.32%	-2.24%	-5.36%
Stockbridge	0.60%	-1.15%	-3.31%	-5.17%
TA Realty	-1.59%	-4.08%	-3.50%	-1.81%
UBS	1.18%	-2.45%	-1.31%	-6.76%

Real Assets Composite



- The BlackRock TIPS and REITs Funds are passive.
- Invesco outperformed with energy being the largest contributor. In a difficult period for commodities broadly, the fund's underweight to oil, natural gas, and nickel offered downside protection.
- KBI sharply outperformed the index. The index contains traditional energy names which KBI does not own as the fund focuses on renewable energy sources. Water and Energy Transition segments bolstered relative returns, while traditional energy was challenged in the quarter.

Returns and Rankings for Periods Ended December 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Real Assets - Net	6.95	5.69	5.88	8.78
Real Assets Target	4.97	3.52	7.85	7.55
BlackRock TIPS Index Fund - Net	4.55	3.98	(1.02)	3.18
Bloomberg US TIPS Index	4.71	3.90	(1.00)	3.15
Ranking vs. Real Returns Database	55	41	61	48
BlackRock REIT Index Fund - Net	16.30	13.99	7.10	6.07
S&P Dow Jones US Select REIT	16.35	13.96	7.18	6.12
Ranking vs. Real Estate Mutual Funds	49	15	12	79
Invesco Commodity Fund - Net	(3.68)	(2.05)	8.51	7.71
Bloomberg Commodity Index	(4.63)	(7.91)	10.76	7.23
Ranking vs. Commodities Funds	52	1	99	56
KBI Global Resources Fund - Net	11.64	7.37	7.08	14.63
S&P Global Natural Resources Index	3.44	3.38	12.12	10.40

Returns and Rankings Calendar Years

	2023	2022	2021	2020
Real Assets - Net	5.69	(9.41)	23.96	11.08
Real Assets Target	3.52	(3.52)	25.60	0.57
BlackRock TIPS Index Fund - Net	3.98	(11.96)	5.92	11.17
Bloomberg US TIPS Index	3.90	(11.85)	5.96	10.99
Ranking vs. Real Returns Database	41	78	36	23
BlackRock REIT Index Fund - Net	13.99	(26.08)	45.80	(11.21)
S&P Dow Jones US Select REIT Index	13.96	(25.96)	45.91	(11.20)
Ranking vs. Real Estate Mutual Funds	15	51	17	96
Invesco Commodity Fund - Net	(2.05)	9.00	19.68	7.58
Bloomberg Commodity Index	(7.91)	16.09	27.11	(3.12)
Ranking vs. Commodities Funds	1	83	87	1
KBI Global Resources Fund - Net	7.37	(7.85)	24.08	29.17
S&P Global Natural Resources Index	3.38	9.59	24.40	(0.05)

Private Equity Portfolio (as of 9/30/23)

- 84% Paid-In through 9/30/22.
- When ranked against the Thomson-Cambridge Private Equity Database, MCERA is ranked in the second quartile for Total Value to Paid-In (TVPI) basis.
- The total portfolio is well diversified by vintage year and investment type.

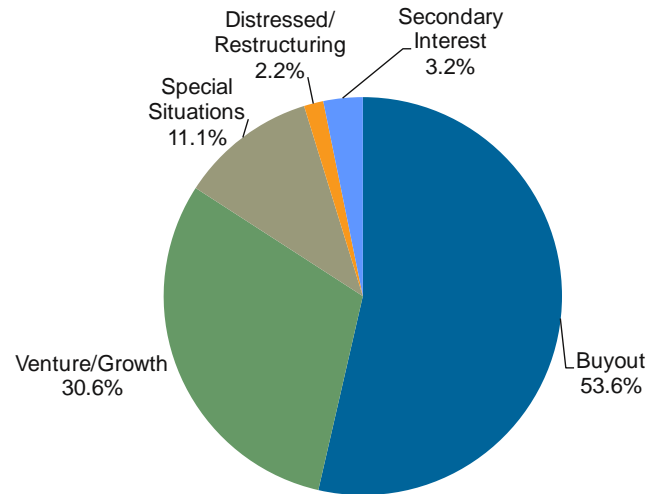
	September 30, 2023	Quarter Change	June 30, 2023
Summary			
Vintage Years	17 in 2008-2024		16 in 2008-2023
# Total Partnerships	577	10	567
# Active Partnerships	552	9	543
# Liquidated Partnerships	25	1	24
Changes in Value			
Capital Commitments	\$500,000,000	-	\$500,000,000
Paid-In Capital	\$421,227,453	\$4,595,472	\$416,631,981
Uncalled Capital	\$94,979,292	\$(4,285,100)	\$99,264,392
% Paid-In	84.25%	0.92%	83.33%
Distributed Capital	\$489,894,526	\$12,404,656	\$477,489,870
Net Asset Value	\$342,544,937	\$(12,266,017)	\$354,810,954
Total Realized and Unrealized Value	\$832,439,463	\$138,639	\$832,300,824
Ratios and Performance			
Distributions to Paid-In Capital (DPI)	1.16x	0.02x	1.15x
Residual Value to Paid-In Capital (RVPI)	0.81x	(0.04)x	0.85x
Total Value to Paid-In Capital (TVPI)	1.98x	(0.02)x	2.00x
Quartile Ranking	2nd		2nd
Net IRR	14.90%	(0.31%)	15.21%
Additional Performance Metrics			
Distribution Rate, as % of Beginning NAV		3.50%	
Unrealized Gain/(Loss), Dollars		\$(4,456,833)	
Unrealized Gain/(Loss), %		(1.26%)	

Quartile Rankings against the All Private Equity, All Regions Refinitiv/Cambridge Database.

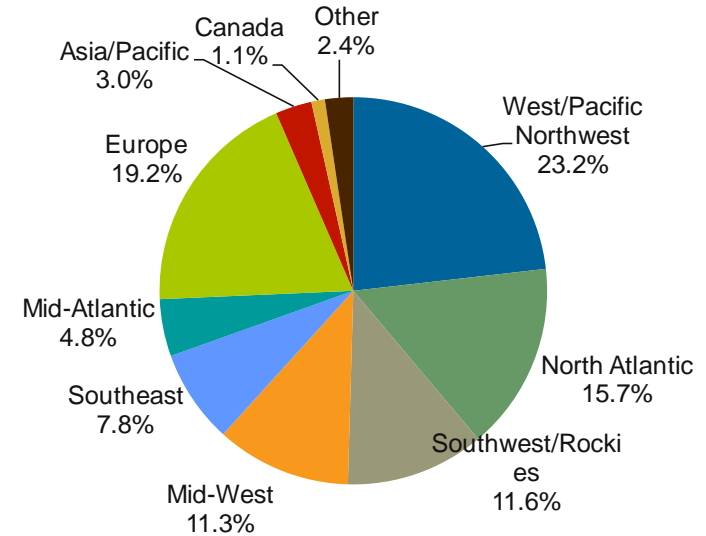
Pathway does not include capital called for fees towards the commitment. Paid-in may exceed the total commitment due to fees and/or currency effects. .

Private Equity Portfolio Exposure

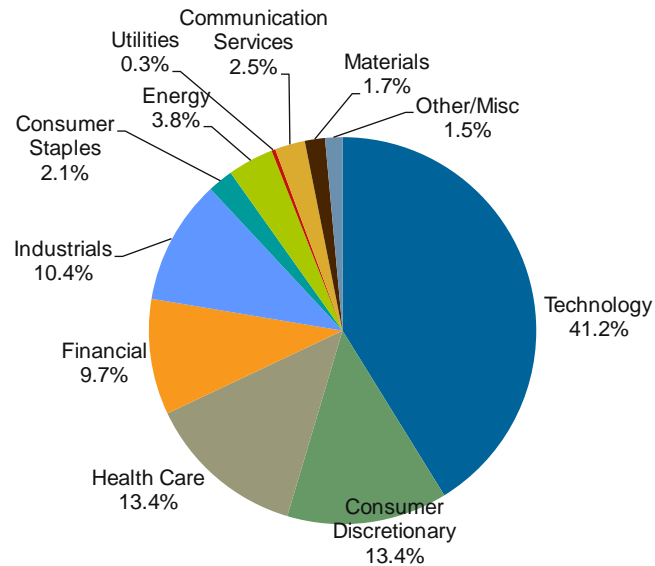
Strategy Mix by Net Asset Value



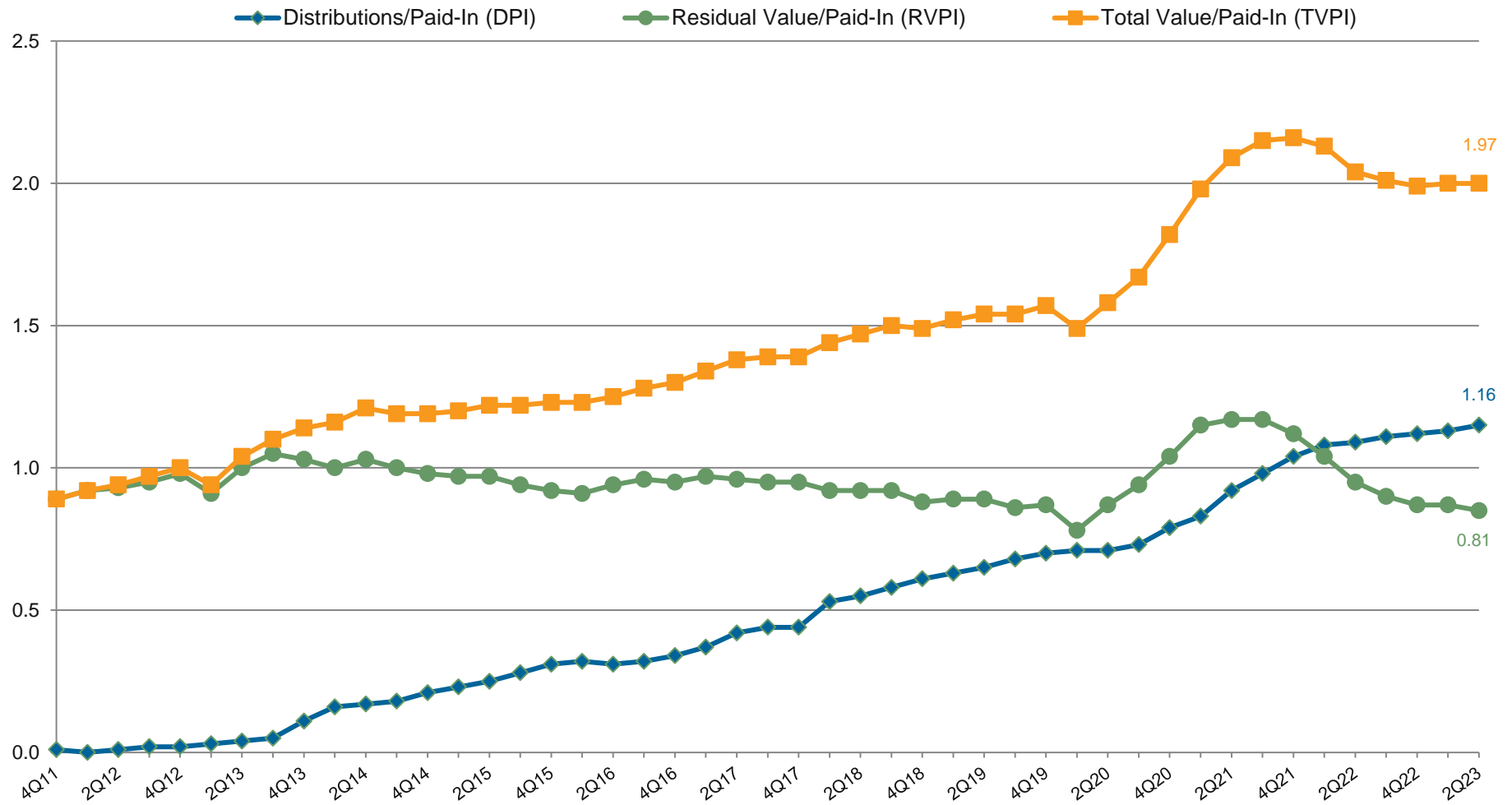
Geographic Mix by Net Asset Value



Industry Mix by Net Asset Value



Private Equity Ratios – Changes Over Time



Opportunistic Portfolio

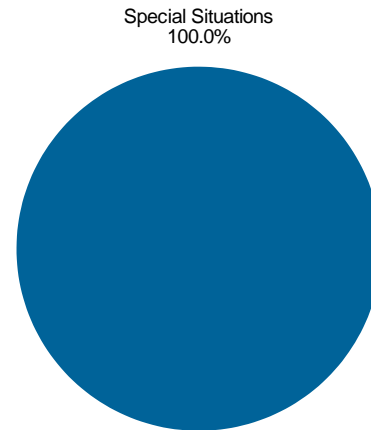
- 71% Paid-In through 12/31/23.
- The total portfolio is diversified by industry type and geographic location.

	December 31, 2023	Quarter Change	September 30, 2023
Summary			
Vintage Year	2020		2020
# Total Partnerships	193	-	193
# Active Partnerships	193	-	193
# Liquidated Partnerships	0	-	0
Changes in Value			
Capital Commitments	\$100,000,000	-	\$100,000,000
Paid-In Capital	\$71,179,923	\$5,800,000	\$65,379,923
Uncalled Capital	\$31,930,938	\$(5,800,000)	\$37,730,938
% Paid-In	71.18%	5.80%	65.38%
Distributed Capital	\$13,086,308	-	\$13,086,308
Net Asset Value	\$68,516,700	\$7,093,937	\$61,422,763
Total Realized and Unrealized Value	\$81,603,008	\$7,093,937	\$74,509,071
Ratios and Performance			
Distributions to Paid-In Capital (DPI)	0.18x	(0.02)x	0.20x
Residual Value to Paid-In Capital (RVPI)	0.96x	0.02x	0.94x
Total Value to Paid-In Capital (TVPI)	1.15x	0.01x	1.14x
Quartile Ranking	3rd		3rd
Net IRR	7.70%	0.06%	7.65%
Additional Performance Metrics			
Distribution Rate, as % of Beginning NAV		0.00%	
Unrealized Gain/(Loss), Dollars		\$1,293,937	
Unrealized Gain/(Loss), %		2.11%	

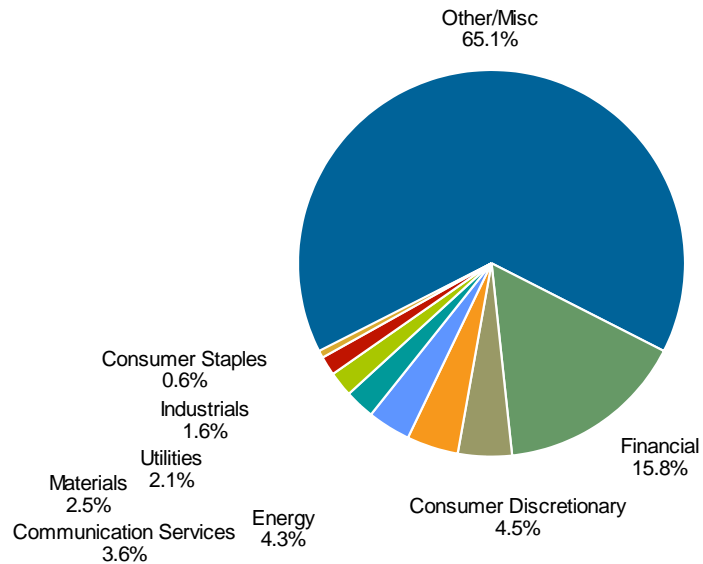
Quartile rankings against the 2020 vintage Control Oriented Distressed and Credit Opportunities Refinitiv/Cambridge Database.

Opportunistic Portfolio Exposure

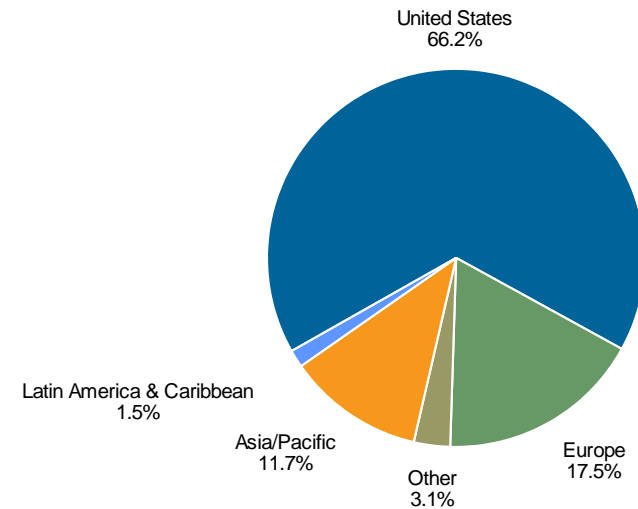
Strategy Mix by Net Asset Value



Industry Mix by Net Asset Value



Geographic Mix by Net Asset Value



CarVal and Fortress do not categorize their assets by industry and therefore classify their investments as Other.

CarVal portfolio by asset class: corporate securities, loan portfolios, structured credit, and special opportunities/hard assets.

Fortress portfolio by asset class: asset backed securities, commercial real estate and debt securities, consumer loans, corporate debt and securities (distressed), corporate debt and securities (stressed), corporate loan originations, diversified credit, legal assets, preferred and common equity corporate securities, residential, and transportation assets.

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Past performance is no guarantee of future results.

**Marin County Employees' Retirement Association
Defined Benefit Plan**

Managers	February 2024 Market Value	Fiscal Year To Date 7/1/23 - 2/29/24	Calendar Year To Date 1/1/24 - 2/29/24
Domestic Equity	\$1,116,071,532	14.7%	5.3%
<i>Russell 3000 Index</i>		15.6%	6.6%
SSGA Russell 1000 Index	\$856,937,779	15.9%	6.9%
<i>Russell 1000 Index</i>		15.9%	6.9%
Dimensional Fund Advisors	\$262,316,460	10.7%	0.9%
<i>Russell 2000 Index</i>		9.9%	1.5%
Parametric Domestic Equity Overlay	-\$3,182,707		
International Equity	\$701,280,950	8.0%	3.7%
<i>MSCI ACWI ex-US IMI Index</i>		7.3%	1.2%
Morgan Stanley (Liquidated)	\$0	2.8%	0.4%
Artisan Partners (Liquidated)	\$0	10.7%	5.1%
SSGA World ex US Index	\$303,637,840	NA	NA
<i>MSCI World ex-US Index</i>		7.2%	1.5%
TimesSquare	\$153,875,367	7.2%	2.2%
<i>MSCI EAFE Small Cap Index</i>		5.9%	-1.3%
FIAM Emerging Markets	\$154,336,977	6.6%	1.7%
<i>MSCI Emerging Markets Index</i>		4.6%	-0.1%
Parametric International Equity Overlay	\$89,430,766		
Fixed Income	\$730,023,841	2.4%	-1.5%
<i>Bloomberg US Aggregate Index</i>		1.6%	-1.7%
Wellington	\$282,241,338	2.7%	-1.2%
Western Asset	\$298,806,691	2.2%	-1.9%
<i>Bloomberg US Aggregate Index</i>		1.6%	-1.7%
Parametric Fixed Income Overlay	\$148,975,812		
Public Real Assets	\$225,463,610	2.0%	-1.6%
<i>Blended Benchmark</i>		1.5%	-2.5%
BlackRock TIPS Index Fund	\$57,572,213	1.1%	-0.7%
<i>Bloomberg US TIPS Index</i>		1.1%	-0.9%
BlackRock REIT Index Fund	\$57,220,011	5.4%	-2.2%
<i>DJ S&P US Select REIT Index</i>		5.3%	-2.3%
Invesco Balanced Risk Commodities Fund	\$54,562,983	4.5%	1.3%
<i>Bloomberg Commodities Index</i>		-1.2%	-1.1%
KBI Global Resources Fund	\$58,209,512	-2.3%	-4.7%
<i>S&P Global Natural Resources Index</i>		0.9%	-5.8%
Parametric Real Assets Overlay	-\$2,101,109		

All market values and returns shown are preliminary and subject to revision.

**Marin County Employees' Retirement Association
Defined Benefit Plan**

Managers	February 2024 Market Value	Fiscal Year To Date 7/1/23 - 2/29/24	Calendar Year To Date 1/1/24 - 2/29/24
Real Estate(1)	\$249,066,638	-5.2%	-1.7%
<i>NFI-ODCE Equal Weight Net(1)</i>		-10.7%	-3.5%
Woodmont	\$17,099,992	-	-
UBS Trumbull Property Fund	\$90,199,649	-	-
AEW Core Property Trust	\$112,051,575	-	-
Parametric Real Estate Overlay	\$29,715,422		
Private Equity(2)	\$212,506,596	-1.1%	0.0%
Abbott ACE VI	\$33,131,866	-	-
Abbott ACE VII	\$36,421,138	-	-
Abbott AP 2016	\$68,068,131	-	-
Abbott AP 2017	\$20,222,286	-	-
Abbott AP 2021	\$11,502,725		
Abbott 2023	\$1,620,416		
Pathway PPEF 2008	\$35,917,899	-	-
Pathway PPEF I-7	\$30,241,356	-	-
Pathway PPEF I-8	\$57,227,321	-	-
Pathway PPEF I-9	\$16,720,091	-	-
Pathway PPEF I-10	\$23,186,292		
Pathway PPEF I-11	\$1,285,703		
Parametric Private Equity Overlay	-\$123,038,628		
Opportunistic(3)	\$68,516,700	6.9%	1.5%
CarVal Credit Value Fund V	\$26,258,655	-	-
Fortress Credit Opportunities Fund V Expansion	\$18,366,579	-	-
Varde Dislocation Fund	\$23,891,466	-	-
Total Fund	\$3,302,929,867	6.4%	1.7%

(1)Market values as of December 31, 2023. FYTD and YTD returns use MCERA's and ODCE's pro-rata performance of prior quarter.

(2)Market values as of September 30, 2023. FYTD and YTD returns use MCERA's pro-rata performance of prior quarter.

(3)Market values as of December 31, 2023. FYTD and YTD returns use MCERA's pro-rata performance of prior quarter.

All market values and returns shown are preliminary and subject to revision.