

AGENDA

BOARD MEETING SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION BOARD OF RETIREMENT FRIDAY, FEBRUARY 14, 2025 AT 9:00 AM

Location: SJCERA Board Room, 220 East Channel Street, Stockton, California

The public may also attend the Board meeting live via Zoom by (1) clicking here <u>https://us02web.zoom.us/j/82898395142</u> and following the prompts to enter your name and email, or (2) calling (669) 219-2599 or (669) 900-9128 and entering Meeting ID <u>82898395142#</u>

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

1.0 ROLL CALL

2.0 PLEDGE OF ALLEGIANCE

3.0 MEETING MINUTES

- **3.01** Minutes of Board meeting of January 17, 2025
- 3.02 Board to consider and take possible action

4.0 PUBLIC COMMENT

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

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

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

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

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

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

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

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

5.0 CLOSED SESSION

- **5.01** Employee Disability Retirement Application(s) (1) California Government Code Section 54957(b)
 - 01 Mary I Gamboa District Attorney Investigator II DA - Public Assistance Fraud
- **5.02** Public Employee Performance Evaluation California Government Code Section 54957 Title: Retirement Administrator/Chief Executive Officer

6.0 CONSENT

6.01	Service Retirements (14)	07
6.02	General	
	01 Retiree Cost-of-Living Adjustment (COLA) as of April 1, 2025	10
6.03	Trustee and Executive Staff Travel	
	01 Conference and Event Schedules	14
	02 Summary of Pending Trustee and Executive Staff Travel	19
	03 Summary of Completed Trustee and Executive Staff Travel	20
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6.04	Calendar	
	01 Board Calendar	24
6.05	Board to consider and take possible action on consent items	
7.0 PC	DSITION ALLOCATION	
7.01	Executive Secretary Position	25
8.0 IN	VESTMENT CONSULTANT REPORTS	
8.01	Presentation by David Sancewich of Meketa Investment Group	
	01 Monthly Investment Performance updates	
	a Manager Performance Flash Report - December 2024	32
	b Economic and Markets Update - December 2024	37
	02 2025 Projected Returns	
	a 2025 Capital Market Expectations	56

b Total Portfolio Expected Return Update	159
03 Benchmark Review	163
8.02 Board to receive and filed reports, discuss and give direction to staff and consultants as necessary	
9.0 EMPLOYER CONTRIBUTION RATE PROJECTION	
9.01 Presentation by Anne Harper, Consulting Actuary	166
10.0 STAFF REPORTS	
10.01 CEO Report	178
01 Declining Employer Payroll Report	181
10.02 Board to receive and file report	

11.0 REPORT OF CLOSED SESSION

11.01 At the December 8, 2023 meeting, the Board elected to redeem its allocation in the following funds: Bridgewater All Weather & PanAgora Diversified Risk Multi-Asset. The Board approved reinvestments of the proceeds (approximately \$343 million) in public equities and fixed income.

12.0 COMMENTS

12.01 Comments from the Board of Retirement

13.0 SUMMARY OF BOARD DIRECTION

14.0 ADJOURNMENT



MINUTES

BOARD MEETING SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION BOARD OF RETIREMENT FRIDAY, JANUARY 17, 2025 AT 9:00 AM

Location: SJCERA Board Room, 220 East Channel Street, Stockton, California

1.0 ROLL CALL

1.01 MEMBERS PRESENT: Phonxay Keokham, Mario Gardea, Chanda Bassett, Sam Kaisch, Emily Nicholas, JC Weydert, Steve Moore, Michael Duffy and Michael Restuccia, presiding

MEMBERS ABSENT: Raymond McCray STAFF PRESENT: Chief Executive Officer Renee Ostrander, Assistant Chief Executive Officer Brian McKelvey, Chief Counsel Aaron Zaheen, Management Analyst III Greg Frank, Information Systems Specialist Jordan Regevig, Administrative Secretary Elaina Petersen OTHERS PRESENT: David Sancewich, Trent Kaeslin, Community Member

2.0 PLEDGE OF ALLEGIANCE

2.01 Led by Sam Kaisch

3.0 MEETING MINUTES

- 3.01 Minutes of Board meeting of December 13, 2024
- **3.02** The Board voted unanimously (8-0) to approve the minutes of the Board Meeting of December 13, 2024 (Motion: Duffy; Second: Bassett)

4.0 PUBLIC COMMENT

4.01 There was no public comment

5.0 HIRE PROPOSED RETIREMENT INVESTMENT OFFICER

- **5.01** Ratify the selection of Trent Kaeslin as Investment Officer, as selected by the Investment Officer Selection Committee on December 31, 2024.
- **5.02** The Board unanimously approved (8-0) the hire of Retirement Investment Officer Trent Kaeslin (Motion: Keokham; Second: Weydert)

6.0 CLOSED SESSION

The Chair convened Closed Session at 9:05 a.m. and adjourned Closed Session at 10:54 a.m. and after a short break reconvened Open Session at 11:00 a.m.

6.01 Purchase or Sale of Pension Fund Investment California Government Code Section 54956.81

- 6.02 Conference with Legal Counsel Anticipated Litigation
 Significant Exposure to Litigation (Government Code Section 54956.9(d)(2))
 Number of Potential Cases: 1
- 6.03 Conference with Legal Counsel Anticipated Litigation
 Initiation of Litigation (Government Code Section 54956.9(d)(4))
 Number of Potential Cases: 1

Chief Legal Counsel Aaron Zaheen stated that there is nothing to report out of closed session.

7.0 CONSENT

- 7.01 Service Retirements (11)
- 7.02 General
 - 01 Annual Trustee Education Report
 - 02 Retirement Eligible Earnings Codes Ratification Report
- 7.03 Trustee and Executive Staff Travel
 - 01 Conference and Event Schedules
 - 02 Summary of Pending Trustee and Executive Staff Travel
 - a Travel Request (6)
 - 03 Summary of Completed Trustee and Executive Staff Travel
- 7.04 Legislative Summary Report
- 7.05 Calendar
 - 01 Board Calendar
- **7.06** Delegate to the CEO the authority to take actions on behalf of the Board of Retirement in regards to IT, Technical Support, and Professional Technical Services Agreements until June 1, 2025
- 7.07 The Board pulled items 7.02-02 and 7.06 and unanimously approved (8-0) the remaining items on the Consent calendar (Motion: Duffy; Second: Kaisch); the Board unanimously approved (8-0) item 7.02-02 with the requested changes (Motion: Kaisch; Second: Duffy); and unanimously approved (8-0) 7.06 with the over site of an AdHoc IT Committee: Trustee Duffy and Trustee Weydert (Motion: Bassett; Second: Kaisch)

8.0 INVESTMENT CONSULTANT REPORTS

- **8.01** Presentation by David Sancewich of Meketa Investment Group
 - 01 Monthly Investment Performance updates
 - a Manager Performance Flash Report November 2024
 - b Economic and Markets Update November 2024
- **8.02** The Board received and filed reports

9.0 STAFF REPORTS

9.01 CEO Report

In addition to her written report, CEO Ostrander highlighted the following 1) SJCERA is taking retirement education out to our community; we celebrated Law Enforcement Appreciation Day with the Sheriff's Office sharing education with deputies during their shift changes. The meetings were a great success. 2) The Employer Symposium is scheduled for February 19th. One of our employers, The City of Mountain House, offered to host the event. SJCERA hopes to make it an annual event. 3) SJCERA has received the 2023 ACFR Award; it will be included in this year's ACFR. 4)The 1099's have begun printing and will be going out in advance of the 31st deadline. 5) This year marks the earliest interest posting, with the process being completed 1/3/2025. 6) City of Mountain House began processing payroll independent of the county beginning this year; SJCERA's IT team closely partnered with the city to ensure a successful posting of data and contributions to our pension system.

- 01 2024 Action Plan Results
- 9.02 Quarterly Operations Report
 - 01 Accounts Received Fourth Quarter 2024
 - 02 Disability Quarterly Report
 - 03 Quarterly Operations Metrics
 - 04 Pension Administration Update
- **9.03** The Board received and filed reports

10.0 COMMENTS

10.01 All Trustees from the Board of Retirement welcomed new Trustee Mario Gardea

11.0 SUMMARY OF BOARD DIRECTION

11.01 There were no items noted under Summary of Board Direction.

12.0 ADJOURNMENT

12.01 There being no further business the meeting was adjourned at 11:23 a.m.

Respectfully Submitted:

Michael Restuccia, Chair

Attest:

Raymond McCray, Secretary

PUBLIC



San Joaquin County Employees Retirement Association

February 2025

6.01 Service Retirement

01 MARQUETTE C CLARK

Member Type: General Years of Service: 17y 00m 11d Retirement Date: 11/30/2024

02 MARQUETTE C CLARK

Member Type: Safety Years of Service: 08y 01m 11d Retirement Date: 11/30/2024 Comments: Member had prior service in a safety position before transferring to a general position.

03 MARIA D GARZA RAMIREZ

Member Type: General Years of Service: 21y 10m 28d Retirement Date: 11/30/2024

04 RENEE L HALL

Member Type: General Years of Service: 00y 02m 09d Retirement Date: 11/25/2024 Comments: Deferred from SJCERA since July 2005. Outgoing reciprocity and concurrent retirement with CalPERS.

05 YOLANDA J MERLOS

Member Type: General Years of Service: 23y 03m 13d Retirement Date: 12/14/2024

06 LORENZO MILLET

Member Type: General Years of Service: 15y 06m 01d Retirement Date: 11/25/2024 Comments: Deferred from SJCERA since May 2022.

07 ANTONIO A NAVARRETE

Member Type: General Years of Service: 01y 04m 24d Retirement Date: 12/9/2024 Comments: Deferred from SJCERA since September 2010. Tier 1 member - eligible to retire with 10 years of membership.

Office Assistant Specialist Probation - Adult

Consent

Office Assistant Specialist Probation - Adult

> Deferred Member N/A

Eligibility Supervisor HSA - Eligibility Staff

Senior Office Assistant HSA - Clerical Support

> Deferred Member N/A

> Deferred Member N/A

PUBLIC

Deferred Member

N/A



San Joaquin County Employees Retirement Association

February 2025

08 ANTONIO A NAVARRETE

Member Type: Safety Years of Service: 04y 03m 03d Retirement Date: 12/9/2024 Comments: Deferred from SJCERA since September 2010. Tier 1 member - eligible to retire with 10 years of membership.

09 RYAN NGUYEN

Member Type: General Years of Service: 12y 04m 09d Retirement Date: 11/30/2024

10 TRUDY S PRELLER

Member Type: General Years of Service: 18y 11m 06d Retirement Date: 11/22/2024 Comments: Deferred from SJCERA since May 2018.

11 JOANNE P RIPP

Member Type: General Years of Service: 14y 09m 07d Retirement Date: 11/26/2024 Comments: Deferred from SJCERA since August 2024.

12 BRIAN D SCOTT

Member Type: Safety Years of Service: 18y 00m 17d Retirement Date: 11/23/2024 Comments: Incoming reciprocity and concurrent retirement with CaIPERS.

13 LAWRENCE A SHADDIX

Member Type: General Years of Service: 18y 11m 23d Retirement Date: 11/19/2024

14 LAWRENCE A SHADDIX

Member Type: Safety Years of Service: 02y 00m 11d Retirement Date: 11/19/2024 Comments: Member had prior service in a safety position before transferring to a general position.

Eligibility Worker II

HSA - Eligibility Staff

Deferred Member N/A

Deferred Member N/A

Chief Dist Atty Investigator District Attorney

> Social Worker V HSA - Services Staff

> Social Worker V HSA - Services Staff





San Joaquin County Employees Retirement Association

February 2025

15 DAVID J SINGH

Deferred Member N/A

Member Type: General Years of Service: 09y 07m 19d Retirement Date: 12/14/2024 Comments: Deferred from SJCERA since August 2022. Outgoing reciprocity and concurrent retirement with StanCERA.

16 LISA M TRAUDT

Deferred Member N/A

Member Type: General Years of Service: 06y 00m 02d Retirement Date: 11/22/2024 Comments: Deferred from SJCERA since September 2006. Outgoing reciprocity and concurrent retirement with VCERA.

17 GREGORY E VITZ

Fire Captain Waterloo - Morada Rural Fire

Member Type: Safety Years of Service: 05y 00m 09d Retirement Date: 10/23/2024 Comments: Tier 2 member - eligible to retire with 5 years of service credit.



February 14, 2025

Agenda Item 6.02-01

SUBJECT: 2023 Retiree Cost-of-Living Adjustment (COLA)

SUBMITTED FOR: X CONSENT ACTION INFORMATION

RECOMMENDATION

Review and adopt a 3% Cost-of-Living Adjustment, as calculated and recommended by SJCERA's independent actuary, Cheiron.

PURPOSE

To determine if there has been an increase or decrease in the applicable cost of living, and the resulting applicable COLA, as defined by statute.

DISCUSSION

In accordance California Government Code 31870.1, the Board is required to determine, on an annual basis, before April 1, whether there has been an increase or decrease in the cost of living in the Bureau of Labor Statistics Consumer Price Index (CPI) for All Urban Consumers for that County. Because the Bureau of Labor Statistics does not publish a CPI for San Joaquin County, SJCERA uses the CPI for the San Francisco-Oakland-Hayward area. Cheiron has determined that the CPI for All Urban Consumers in the San Francisco-Oakland-Hayward area increased by 2.8%.

Pursuant to statute, members' retirement benefits must be adjusted by a COLA equivalent to the CPI percentage change rounded to the nearest one-half of one percent, up to a maximum of 3%. In years when the change in the CPI is greater than the statutory annual maximum COLA of 3%, the percentage over the 3% limit is "banked" for use in future years when the COLA is less than 3%.

Applying the statutory requirements to this year's facts, the 2.8% CPI change, rounded to the nearest half-percent, results in a 3.0% COLA. Thus, SJCERA would apply the maximum 3% COLA to retirees' May 1, 2025, retirement benefit.

ATTACHMENT

Annual COLA update from Cheiron dated January 21, 2025 Government Code 31870.1

0

RENEE OSTRANDER Chief Executive Officer



Via Electronic Mail

January 21, 2025

Ms. Renee Ostrander Chief Executive Officer San Joaquin County Employees' Retirement Association 220 E. Channel Street Stockton, California 95202

Re: Cost-of-Living Adjustment (COLA) as of April 1, 2025

Dear Ms. Ostrander:

Pursuant to the scope of retainer services under Cheiron's agreement to provide actuarial services to SJCERA, we have computed the cost-of-living adjustment (COLA) percentages to be used by the Association as of April 1, 2025. The calculations outlined herein have been performed in accordance with 31870.1 of the County Employees Retirement Law of 1937.

Background

The cost-of-living-adjustment (COLA) is determined annually based on increases in the Consumer Price Index (CPI) for All Urban Consumers in the San Francisco-Oakland-Hayward area, using a base period of 1982-1984. The ratio of the annual averages for the two prior calendar years is calculated and rounded to the nearest one-half percent. The method for calculating the annual average is to determine the average for all months of data provided by the Bureau of Labor and Statistics (e.g., the sum of six bi-monthly CPI amounts divided by six).

COLA Calculations

The annual average CPIs described above were 349.0 and 339.5 for 2024 and 2023, respectively. This represents an increase of 2.80%, which is subsequently rounded to 3.00%. As a point of comparison, the annual U.S. City Average CPI increased by 2.95% over the same period.

SJCERA members are subject to the provisions of Section 31870.1, which limits annual COLA increases to 3.0% annually. Therefore, members should receive an increase in benefits of 3.0%, based on the current year change in the CPI. Members' accumulated carry-over balances as of April 1, 2025 will remain the same as their balances on April 1, 2024. The enclosed exhibit summarizes the COLA calculations and carry-over balances.

Ms. Renee Ostrander January 21, 2025 Page 2

Please contact us if you have any questions regarding these calculations.

Sincerely, Cheiron

sahin

Graham A. Schmidt, FSA, EA, FCA, MAAA Principal Consulting Actuary

mli

Timothy S. Doyle, ASA, EA, MAAAA Associate Actuary

Attachment

cc: Anne Harper, FSA, EA, MAAA



SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION EXHIBIT A COST-OF-LIVING ADJUSTMENTS (COLA) As of April 1, 2025

Maximum Annual COLA: 3.0%

	April	1, 2024	Increas	se in the		April 1, 20	25
	Accum-	Accum-	Annual			Accum-	Accum-
	ulated	ulated	Avera	ge CPI ¹		ulated	ulated
Initial Retirement Date	Carry-Over	Carry-Over			COLA	Carry-Over	Carry-Over
	w/o PPP ²	w/PPP Adjust.	Actual	Rounded		w/o PPP	w/PPP Adjust.
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
On or Before 04/01/1970	73.5%	16.0%	2.80%	3.0%	3.0%	73.5%	16.0%
04/02/1970 to 04/01/1971	71.0%	16.0%	2.80%	3.0%	3.0%	71.0%	16.0%
04/02/1971 to 04/01/1972	69.0%	16.0%	2.80%	3.0%	3.0%	69.0%	16.0%
04/02/1972 to 04/01/1973	68.0%	16.0%	2.80%	3.0%	3.0%	68.0%	16.0%
04/02/1973 to 04/01/1974	67.5%	16.0%	2.80%	3.0%	3.0%	67.5%	16.0%
04/02/1974 to 04/01/1975	64.5%	16.0%	2.80%	3.0%	3.0%	64.5%	16.0%
04/02/1975 to 04/01/1976	57.5%	16.0%	2.80%	3.0%	3.0%	57.5%	16.0%
04/02/1976 to 04/01/1977	50.5%	16.0%	2.80%	3.0%	3.0%	50.5%	16.0%
04/02/1977 to 04/01/1978	48.0%	16.0%	2.80%	3.0%	3.0%	48.0%	16.0%
04/02/1978 to 04/01/1979	43.5%	16.0%	2.80%	3.0%	3.0%	43.5%	16.0%
04/02/1979 to 04/01/1980	37.0%	16.0%	2.80%	3.0%	3.0%	37.0%	16.0%
04/02/1980 to 04/01/1981	31.5%	16.0%	2.80%	3.0%	3.0%	31.5%	16.0%
04/02/1981 to 04/01/1982	19.5%	16.0%	2.80%	3.0%	3.0%	19.5%	16.0%
04/02/1982 to 04/01/1983	9.5%	N/A	2.80%	3.0%	3.0%	9.5%	N/A
04/02/1983 to 04/01/1984	7.0%	N/A	2.80%	3.0%	3.0%	7.0%	N/A
04/02/1984 to 04/01/1985	7.0%	N/A	2.80%	3.0%	3.0%	7.0%	N/A
04/02/1985 to 04/01/1986	4.5%	N/A	2.80%	3.0%	3.0%	4.5%	N/A
04/02/1986 to 04/01/2022	3.5%	N/A	2.80%	3.0%	3.0%	3.5%	N/A
04/02/2022 to 04/01/2023	3.0%	N/A	2.80%	3.0%	3.0%	3.0%	N/A
04/02/2023 to 04/01/2024	0.5%	N/A	2.80%	3.0%	3.0%	0.5%	N/A
04/02/2024 to 04/01/2025	0.0%	N/A	2.80%	3.0%	3.0%	0.0%	N/A

¹ All Urban Consumers, San Francisco-Oakland-Hayward Area (1982-84 base). (G.C. 31870.1) For a full description of the Consumer Price Index visit the Bureau of Labor Statistics' website http://stats.bls.gov/cpi/cpifaq.htm

² Purchasing Power Protection (PPP) benefits were implemented in 2000 (75% level) and 2001 (80% level) for allowances with an "initial retirement date" of 04/01/1982 or earlier. A "one-time" permanent increase was added to the monthly allowance amount to restore purchasing power to 80% of the purchasing power of the original allowance, determined as of 4/01/2001. These monthly allowances, including the PPP benefit, are adjusted each year by the annual COLA. (PPP reference: G.C. Section 31874.3)

Column A: The COLA Bank as of April 1, 2024, without adjustment for the PPP benefits. For allowances with an Initial Retirement Date on or before 04/01/1982, the values in this column and Column F represent what the total loss of purchasing power would be without the PPP benefits.

Column B: The COLA Bank as of April 1, 2024, with adjustment to reflect implementation of PPP benefits for allowances with an Initial Retirement Date on or before 04/01/1982.

Column E: The cost-of-living adjustment, effective April 1, 2025, to be applied to allowances included in each Initial Retirement Date period.

Column F: The COLA Bank as of April 1, 2025, available for future use, without adjustment for the PPP benefits. For allowances with an Initial Retirement Date on or before 04/01/1982, the values in this column represent what the total loss of purchasing power would be without the PPP benefits. The values in this column equal the value of Column A, less the difference between Columns D and E.

Column G: The COLA Bank as of April 1, 2025, available for future use, with adjustment to reflect implementation of the PPP benefits for allowances with an Initial Retirement Date on or before 04/01/1982. The values in this column equal the value of Column B less the difference between Columns D and E.



	2025 CONFERENCES AND EVENTS SCHEDULE						
<u>2025</u> EVENT	DATES	EVENT TITLE	EVENT SPONSOR	LOCATION	REG. FEE	WEBLINK FOR MORE INFO	EST. BOARD EDUCATION HOURS
Feb 21	Feb 21	Disability Round Table	CALAPRS	San Diego, CA	\$300	calaprs.org	N/A
Mar 2	Mar 5	General Assembly 2025	CALAPRS	Napa, CA	\$250	calaprs.org	N/A
Mar 3	Mar 3	Investment Round Table at GA	CALAPRS	Napa, CA	\$300	calaprs.org	N/A
Mar 24	Mar 26	Pension Bridge The Annual 2025	withintelligence	Half Moon Bay	TBD	withintelligence.com	15
				Rancho Mirage,			
May 13	May 16	SACRS Spring Conference	SACRS	CA	TBD	sacrs.org	*11.5
May 19	May 23	Investment Strategies & Portfolio Management	Wharton	Philadelphia, PA	\$13500	wharton.com	*36
May 23	May 23	Attorneys Roundtable	CALAPRS	virtual	TBD	calaprs.org	N/A
May 30	May 30	Trustee Roundtable	CALAPRS	virtual	TBD	calaprs.org	*4
Ju 6	Jun 6	Administrators Roundtable	CALAPRS	virtual	TBD	calaprs.org	N/A
Jun 24	Jun 27	NAPPA Conference	NAPPA	Denver, CO	TBA	ncpers.com	N/A
Jul 13	Jul 16	SACRS/UC Berkeley Program	SACRS	Berkeley, CA	TBD	sacrs.org	24
Sep 12	Sep 12	Attorneys Roundtable	CALAPRS	virtual	TBD	calaprs.org	N/A
Sep 24	Sep 26	Administrators' Institute	CALAPRS	Carmel, CA	TBD	calaprs.org	N/A
Oct 3	Oct 3	Trustee Roundtable	CALAPRS	virtual	TBD	calaprs.org	*4
Oct 16	Oct 16	SJCERA Investment Roundtable	SJCERA	Lodi, CA	\$0	SJCERA	*7
				Huntington			
Nov 11	Nov 14	SACRS Fall Conference	SACRS	Beach, CA	TBD	sacrs.org	*11.5

* Estimates based on prior agendas



SACRS Spring Conference 2025 Preliminary Agenda

TUESDAY, May 13

Time	Session Title
2:00 pm – 6:30 pm	SACRS REGISTRATION
	PRE-CONFERENCE TRAINING SESSIONS
3:00 pm – 5:00 pm	DISABILITY TRAINING
3:00 pm – 5:00 pm	ETHICS TRAINING FOR TRUSTEES AND STAFF: MORE THAN A CONCEPT This ethics training provides the information required for bi- annual training of public officials in California by AB 1234, and it also addresses key considerations for those public officials whose responsibilities arise from their role as trustees or executives of public retirement systems. *This class is approved for MCLE credit. Sign-In/Sign-Out is mandatory to receive credit for all attendees seeking credit for CEs or MCLE.
3:00 pm – 5:00 pm	SEXUAL HARASSMENT PREVENTION TRAINING FOR JOCAL AGENCY OFFICIALS AB 1661 requires that if a local agency provides any type of compensation, salary, or stipend to its officials, then all local agency officials of the agency shall receive at least two hours of sexual harassment prevention and education training within the first six months of taking office or commencing employment and every two years thereafter. This interactive training session will meet the requirements under AB 1661 and AB 1825 (sexual harassment prevention training to employees who perform supervisory functions) and assist attendees in preventing and effectively responding to complaints of sexual harassment. *This class is approved for MCLE credit. Sign-In/Sign-Out is mandatory to receive credit for all attendees seeking credit for CEs or MCLE.
5:30 pm – 6:30 pm	SACRS NETWORKING RECEPTION
	Get your SACRS 2025 Conference off to a great start: Meet up with old friends, connect with new ones, and discover opportunities during this great networking experience. Held on- site at the Omni, all registered attendees are welcome to participate.

WEDNESDAY, May 14

Time	Session Title				
7:00 am – 8:00 am	SACRS WELLNESS SESSION – YOGA Fitting in fitness when away from home is often difficult, but not during SACRS Spring Conference 2025! We bring a yoga class onsite to start your day the right way. This class, led by a certified yoga instructor, is intended for everyone, beginner to expert. Water and towels are provided. Pre-registration is required to participate for conference attendees & guests and a \$15 participation fee.				
7:30 am – 6:30 pm	SACRS REGISTRATION				
7:30 am – 8:30 am	SACRS BREAKFAST				
8:45 am – 9:00 am	SACRS WELCOME David MacDonald, Trustee, Contra Costa CERA, SACRS President				
9:00 am – 10:00 am	KEYNOTE GENERAL SESSION				
10:00 am –10:30 am	SACRS NETWORKING BREAK				
10:30 am –11:30 am	GENERAL SESSION				
11:40 am –12:40 pm	GENERAL SESSION OUTSIDE THE BOX/CIO PANEL				
12:45 pm – 1:45 pm	SACRS LUNCH				
2:00 pm – 4:30 pm	SACRS BREAKOUTS				
2:00 pm – 4:30 pm	ADMINISTRATORS BREAKOUT Closed Session				
2:00 pm – 4:30 pm	AFFILIATE BREAKOUT				
2:00 pm – 4:30 pm	ATTORNEY'S BREAKOUT				
2:00 pm – 4:30 pm	INTERNAL AUDITORS' BREAKOUT				
2:00 pm – 4:30 pm	INVESTMENT BREAKOUT Closed Session				
2:00 pm – 4:30 pm	OPERATIONS/BENEFITS BREAKOUT				
2:00 pm – 4:30 pm	SAFETY BREAKOUT				
2:00 pm – 4:30 pm	TRUSTEE BREAKOUT				
6:30 pm – 9:30 pm	SACRS ANNUAL WEDNESDAY NIGHT EVENT A magical evening is in store at the Omni Rancho Las Palmas Resort & Spa's 5th Fairway featuring luscious green grass, panoramic mountain views, music, a beautiful networking reception, and delicious dinner. All registered attendees are welcome to participate in this spectacular party.				

Thursday, May 15

Time	Session Title				
7:00 am – 8:00 am	SACRS FUN RUN Your morning starts off with an additional opportunity for team building and networking, while enjoying the early morning air. A SACRS tradition, the 5K (3.1 miles) Fun Run course is the perfect way to get energized for the conference day ahead. Designed for the walker, jogger, or runner, the course is flat and paved. Pre-registration is required and costs \$15 per person. Pocket maps, Fun Run T-shirts, water, and snacks at the end of the course will be provided.				
7:30 am – 6:30 pm	SACRS REGISTRATION				
7:30 am – 8:30 am	SACRS BREAKFAST				
8:45 am – 9:00 am	SACRS VOLUNTEER AWARDS				
9:00 am – 10:00 am	GENERAL SESSION Geopolitics/International Finance SPEAKER: Michael O'Hanlon,				
10:00 am –10:30 am	SACRS NETWORKING BREAK				
10:30 am –11:30 am	GENERAL SESSION Asia Market				
11:40 am –12:40 pm	GENERAL SESSION				
12:45 pm – 1:45 pm	SACRS LUNCH				
2:00 pm – 3:00 pm	SACRS CONCURRENT SESSIONS				
2:00 pm – 3:00 pm	CONCURRENT SESSION A Overlay/Currency				
2:00 pm – 3:00 pm	CONCURRENT SESSION B Corporate Governance				
2:00 pm – 3:00 pm	CONCURRENT SESSION C Cyber Security				
3:00 pm – 3:30 pm	SACRS NETWORKING BREAK				
3:30 pm – 4:30 pm	CONCURRENT SESSION A LEGISLATIVE UPDATE 2025 SPEAKERS: Laurie Johnson and Cara Martinson, Public House Consulting, Inc. MODERATORS: Eric Stern, Chief Executive Officer, Sacramento CERS and Dave Nelsen, Chief Executive Officer, Alameda CERA				
3:30 pm – 4:30 pm	CONCURRENT SESSION B				
3:30 pm – 4:30 pm	CONCURRENT SESSION C OPERATIONS/BENEFITS				
3:30 pm – 4:30 pm	CONCURRENT SESSION D IN SOLIDARITY				

SACRS COMMITTEE MEETINGS

4:30 pm – 5:30 pm	SACRS EDUCATION COMMITTEE MEETING
4:30 pm – 5:30 pm	SACRS NOMINATING COMMITTEE MEETING
4:30 pm – 5:30 pm	SACRS AFFILIATE COMMITTEE MEETING
5:30 pm – 6:30 pm	SACRS RECEPTION Close the final full day of SACRS Spring Conference 2025 with an informal gathering to reflect on the past few days, and to collaborate, and discuss what you have learned with your colleagues. Held on-site at the Omni, all registered attendees are welcome to participate.

FRIDAY, May 16

Time	Session Title
7:30 am – 8:30 am	SACRS BREAKFAST
0.00 40.00	
9:00 am – 10:00am	GENERAL SESSION
10:00 am – 10:15 am	SACRS NETWORKING BREAK
	CACING HE INCINING BREAK
10:15 am – 11:30 am	SACRS ANNUAL BUSINESS MEETING

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

2025				Estimated	BOR Approval
Event Dates	Sponsor / Event Description	Location	Traveler(s)	Cost	Date
			B. McKelvey,		
Feb 21, 2025	CALAPRS Disability Roundtable	San Diego, CA	A. Zaheen	\$1,360	N/A
			R. McCray,		
Mar 3-5, 2025	General Assembly 2025	Napa, CA	T. Kaeslin	\$2,200	N/A
			R. McCray,		
Mar 24-26, 2025	Pension Bridge The Annual 2025	Half Moon Bay, CA	JC Weydert	\$2,200	01/17/2025
			R. Ostrander,		· ·
May 13-16, 2025	SACRS Spring Confernce	Rancho Mirage, CA	T. Kaeslin	\$2,600	N/A
May 19 - 23, 2025	Investment Strategies & Portfolio Management	Philadelphia, PA	P. Keokham	\$16,650	01/17/2025
Jun 24-27, 2025	NAPPA Conference	Denver, CO	A. Zaheen	N/A	01/17/2025

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

Event Dates 2025	Sponsor / Event Description	Location	Traveler(s)	Estimated Cost	Actual Cost	Event Report Filed
Jan 26-27, 2025	Communications Summit	Washington, DC	R. Ostrander	\$1,823	Pending	Pending
Jan 27-29, 2025	Legislative Conference	Washington, DC	R. Ostrander	\$2,467	Pending	Pending
Jan 27-29, 202	5 IREI - VIP Americas	Dana Point, CA	M. Restuccia, JC Weydert	\$3,600	Pending	Restuccia: 2-14-2025 Weydert: Pending
Feb 7, 2025	Virtual Attorney's Roundtable	Virtual	A. Zaheen	\$50	\$50	N/A
Board Member	Travel (not including SACRS & CALAPRS)	Dates	Amount used of \$4500:	Balance of \$4500		
RESTUCCIA	IREI - VIP Americas	1/27-29				
BASSETT						
GARDEA						
DUFFY						
KAISCH						
KEOKHAM						
MCCRAY						
NICHOLAS						
WEYDERT	IREI - VIP Americas	1/27-29				
MOORE						

*Pending Final Expense



The Vision Insights and Perspectives (VIP) event was held in Dana Point California on January 27 thru January 29, 2025. Throughout the memo I will not type each individual's name that spoke or participated but refer you to the agenda included with this memo.

- **Monday** included a chat on Investor perspectives. Look closely that the managers don't style drift from what you believe to be RE investments to credit, they have seen it.
- Some investors and maybe due to the consultants looking at changing which index to use to compare returns to. There was no recommendation or consensus just that some are looking at what is reasonable today, ODCE, NCREIF etc.
- There was a brief discussion on the lack of affordable housing in California, and although the fire in SoCal is a small part of California housing stock, it will have an impact on vacancies rents etc.
- They discussed the various sectors in general multi-family industrial, office retail etc. and it depended on the location of the properties, one sector may be doing fine in one part of the county and not as good elsewhere. There is no blanket, this sector is good, or this sector is bad.
- They discussed the costs of owning a property, not only interest rates but the increasing property taxes and insurance costs, labor etc.
- **Tuesday** included a guest speaker, General Wesely Clark. There was an introduction of his extensive educational background, but his boots on the ground in charge of Nato and other military areas. All of this is his opinion. He is very much concerned about the world and how we have been lax in our efforts that have allowed the world to become more dangerous. He went through the history of threats over time including many conflicts and each time we did not think they could happen, but they did. As an example, in 1930 or 1935 Germany re-built a war machine which in 1938 created many country threats. Germany took Poland and later took France etc. It took the bombing of Pearl Harbor to woke up America. And we decided we would defend the world.
- There were other big events with Stalin and the US moved nukes to Europe but then 911 hit it was full circle again He indicated the four nations trying to defeat the US is Russia, China, Iran and North Korea.
- He believes we are in a crisis again, among other areas, China wants Taiwain.
- He does not believe the US is not the arsenal of democracy anymore.
- The US has many military challenges but the area he is concerned with is the electrical grid, it is old and easy to attack. He indicated that an explosion 3 miles in the sky can wipe out the grid, and everything that has electricity, including cars, phones etc. will be useless. It would kill our system and in six months millions would die.
- Cyber-attacks are a big threat as well
- He believes we need to spend more money on our military, strategic defense, ships, and the electrical grid. He believes in the motto "Peace through Strength."

Page 2

• Certainly a concern is increasing defense spending may spark inflation and what would be the affect on interest rates, building rents, etc.

The next speakers spoke on a Global Perspective as the readers of IREI publications see it.

- There was a consensus for two rate cuts this year, however, when and by how many basis points were undetermined.
- Inflation will stay high for a variety of reasons, and all are underwriting properties at higher interest rates. If taxes increase it will curtail rent growth and indicated the blue states are more of a problem because the red states are growing, presumably revenues will increase.
- Depending on the location of the property, many are now underwriting to disasters,. Floods, fires, tornadoes, hurricanes etc. It was always part of the decision making but looked at more carefully.
- They are having discussions about how to exit an investment if the property they own is in a bad insurance area, meaning insurance may no longer be affordable or available, who would buy and at what cost. They indicated that some properties in Florida are just not insurable.
- Asset allocation is important, stay diversified, both in the types of assets and geographically
- Office, multi-family and industrial hit some headwinds in 2025 but projected to be better in 2026
- Biggest growth is and will be data centers and need a lot of power!!! Other areas are living areas such as senior housing. The conclusion was the right sector, and the right location will be good, if you can determine that with success.
- They do not see lending as a problem now in that banks are well capitalized and have better balance sheets and assets. Considered important in that approximately \$1 trillion in maturities coming do and need to be refinanced, will it require more equity do the values or will cash flows support a reasonable DCR requirement
- Banks will be okay to borrow from, maybe, but much more restrictive than private lenders, so there maybe a bigger market for private debt. The asset that can handle the debt better is core RE since it should have more stable and reliable cash flow.
- Wednesday the discussion was on Benchmarks and implications for which to use 90% use the ODECE index and 10% use other indexes. ODECE as explained tis a group of funds and continues to evolve especially what is the criteria to add new funds, nothing set yet. The index is capped to the property types. Not meeting the index is not bad the mix may be different than yours. Reportedly long term the index beats active management.
- Global Capital Flow Trends, closed end 46% open end 50% and includes \$495 billion. US is 45% and Europe is 38% with over 1,100 fund offerings. Bottom line is investors want their distributions
- Closings in 2024 were 59 at \$76 billion, 2023 96 at \$112 billion and 5 funds represented 27% or \$20 billion of the total, there were some large offerings and 64% were in the Americas and 21% were debt funds and 79% were equity funds. Re-ups with existing managers is down.

- Another area discussed was how to get an investor's attention: communications, transparency, Co- investments, track record and knowing the dollars will be invested. Many investors want managers to sell.
- Global Source of Capital is viewing the US as a good place to invest. US is considered a safe haven, fairly stable tax system, size of market, Europe has too many tax systems laws etc. Long-term investors must match long-term debt and this is not always the case.
- The secondary market is usually always available at some price. REITS follow the stock market volatility but long-term follow RE values. Need best in class operators and need to be in the market and stay local to best understand the investment.
- RE is a stable investment, a good diversifier, cash flow generator and an inflation hedge.
- Som firms using AI to help and one metric to determine which manager maybe best.
- Kenote speaker discussed and had room involved with what should help innovation and the use of productivity tools. Part of productivity is not what we should stop but what we should start. Create a pit crew, a team around you for guidance, input etc., with the thought of who can help me vs how can I do this? Her saying is "Don't Goal Alone"
- Wall of maturities is there a need for capital not sure yet. Banks do not want to own the assets and are willing to work with clients until they can't.
- Start with limited leverage and it will make the maturity date easier to deal with
- No real distress in the market, all are in pretty good shape and sponsors, at least now, are willing to defend their assets. Multi- family is having some problems in a way that it hasn't before, overbuilding, wrong market?
- As always, NOI is king. Underwriting higher risk zones, environmental, floods, fires etc., is done with higher DCR, lower LTV.

Overall, the conference was informative as always and we had around 500 participants

2025 - SJCERA BOARD OF RETIREMENT MEETING CALENDAR

MONTH	DATE	Periodic Items / Other Events	MONTH	DATE	Periodic Items / Other Events
JAN	17	Board Meeting Earnings Code Ratification Fourth Quarter Operations Reports* Trustee Education Compliance Report Action Plan Results	JUL	11	Board Meeting Mid-Year Administrative Budget Report Second Quarter Operations Reports* Election of Board Officers Investment Fee Transparency Report Annual Policy Review
FEB	14	Board Meeting Notice of CPI/Set Retiree COLA Declining ER Payroll Report Assumptions & CMAs CEO Performance Review Committee	AUG	13-16 8	Asset-Liability Study Final SACRS UC Berkeley Board Meeting
	14	CEO Performance Review Committee			Adoption of Plan Contribution Rates & Actuarial Experience Study
MAR	14	Board Meeting Fourth Quarter Inv Reports Asset-Liability Education			
	14	Audit Committee Meeting	SEP	12	Board Meeting
	2-5	CALAPRS General Assembly			Second Quarter Inv Reports
APR	11	Board Meeting First Quarter Operations Reports* Asset-Liability Education	ост	15	Board Meeting Adoption of Board Calendar for next year Third Quarter Operations Reports* 2026 Action Plan
ΜΑΥ	9	Board Meeting		16	Special Meeting - Investment Roundtable
	13-16	Asset-Liability Education SACRS Spring Conf	NOV	7	Board Meeting Consultants and Actuaries Evaluations
	TBD	Audit Committee Meeting		TBD 11-14	Administrative Committee Meeting SACRS Fall Conference
JUN	6	Board Meeting First Quarter Inv Reports			
		Auditor's Annual Report / CAFR Mid Year Action Plan Results Asset-Liability Study Draft	DEC	12	Board Meeting Third Quarter Inv Reports Annual Administrative Budget
	12 TBD	RPESJC Picnic Administrative Committee Meeting		TBD	RPESJC Holiday Lunch

Unless otherwise noted on the agenda, Board Meetings convene at 9:00 a.m.

* Disability App Status Report and Pending Retiree Accounts Receivable Report

Notes: May meeting may move to the first Friday due to the SACRS Spring Conference.

June meeting is on the first Friday due to BOS meeting schedule.

October meeting is on Wednesday prior to the Investment Roundtable.

November meeting may move to the first Friday due to the SACRS Fall Conference.



Agenda Item 7.0

February 14, 2025

SUBJECT: Upgrade the Administrative Secretary to the Executive Secretary Position

SUBMITTED FOR: ____CONSENT _X_ACTION ____INFORMATION

RECOMMENDATION

Staff recommends the Board upgrade the Administrative Secretary position to an Executive Secretary position and approve a temporary, part-time position.

PURPOSE

For staff to initiate recruitment efforts with the county to meet annual work plan objectives and ongoing workload.

DISCUSSION

As approved in the 2025 budget, the Board Assistant position is filled as an Administrative Secretary. Based on consultation and recommendation from the county's Human Resources Department, staff recommends upgrading the current position to an Executive Secretary because this position performs all the duties as outlined in the attached Executive Secretary job description. The major difference between an Executive Secretary and an Administrative Secretary's duties is providing advanced secretarial duties for one or more senior-level administrators. The annual additional salary cost of upgrading this position is \$9,707.96. Approval is required to initiate the process.

Staff is also recommending approval of establishing temporary, part-time position at the Administrative Secretary level. The part-time employment would be for no more than 20 hours/week, varying based on workload needs. First, we do not anticipate having the permanent position filled prior to the current incumbent's departure. Second, due to the anticipated board agenda management software changes underway, we believe having the additional support will mitigate any negative impacts to current workload, board priorities, or Brown Act violations. We anticipate utilizing the temporary position for no more than six months. At the end of the six months (or sooner if the objectives have been achieved), we will end the temporary employment. The anticipated costs would not be more than \$16,473.60.

ATTACHMENT

Executive Secretary job description

RENEE OSTRANDER Chief Executive Officer



Executive Secretary (#RO2060)

\$28.24-\$34.32 Hourly / \$4,894.56-\$5,949.37 Monthly / \$58,734.74-\$71,392.44 Yearly

Notify Me when a Job Opens for the above position(s)

DEFINITION

Under general direction, performs very advanced secretarial work of substantial difficulty and complexity for a department head or comparable senior administrator in various County office settings; performs advanced quasi-administrative/analytical and office technical work within the secretarial role; may be responsible for clerical office management and/or may perform second-level supervision over a group of other clerical/technical employees as a related, but not definitive, duty; and does related or other work as required in accordance with Rule 3, Section 3, of the Civil Service Rules.

CLASS CHARACTERISTICS

This is the highly advanced-level class in the Office Secretary series. Positions must meet specific criteria for allocation to this class and are not multiallocated with other levels in the series. Incumbents in this class usually perform secretarial work for a department head or similar executive-level employee. Consequently, the level of secretarial work expected of incumbents is greatly impacted by the executive focus and related highly sensitive/confidential nature of the assignments. Incumbents are expected to apply a substantial level of initiative and independent judgment to their work, which may also include quasi-administrative/analytical duties.

This class differs from the class of Administrative Secretary because incumbents in that class usually provide advanced secretarial duties for one or more senior-level managers/administrators and often have very strong firstline supervisory responsibilities.

TYPICAL DUTIES

- Performs highly advanced secretarial support duties, usually for a department head or executive with responsibility for a large department or division; acts as a liaison between the manager(s) and staff and may represent management in highly sensitive and confidential situations; develops and recommends complex procedures applicable to areas of assignment; develops and implements systems for improving the efficiency and effectiveness of assigned operations; monitors deadlines and calendars as assigned and develops/maintains control and tracking systems; arranges and coordinates complex meetings, seminars or classes; arranges for travel transportation; may coordinate and/or perform clerical/technical aspects of budget administration.
- Receives and screens visitors and calls, using a very high degree of • judgment in their disposition; interprets and explains specialized and complex information regarding established rules, regulations, policies, procedures and technical office operations to managers, patients, clients, outside agencies and others; researches difficult and complex issues; obtains information from managers, staff, patients, clients, and others; identifies and seeks to meet customer needs, maintaining tact and diplomacy and dood judgment using regarding sensitive/confidential matters; provides customer service in a calm, helpful and effective manner.
- Relieves superior of very complex quasi-administrative/analytical duties in areas such as personnel management, payroll, purchasing, inventory, systems maintenance and/or similar functions; gathers, analyzes and maintains specialized and complex information related to office administrative operations, including administration of the budget; reviews and analyzes complex legal, custody, health care and other administrative records to identify needed information; researches, compiles, maintains and processes statistical, financial and/or other numerical data to support highly specialized office functions; may perform highly-advanced clerical accounting duties.
- Prepares a variety of difficult and complex reports, letters, resolutions and other documents with substantial independence, utilizing a highly advanced knowledge of specialized subject matter; develops and maintains complex spreadsheets and databases, either by hand or computer; maintains data and develops reports for budget and other purposes.

- Develops and maintains specialized filing systems, including coding and indexing various records and/or legal documents; prepares master lists and control files.
- Applies internal and external laws, regulations, ordinances and policies as they relate to assigned responsibilities; may produce and/or issue complex documents and complete complex forms for the purpose of documenting specialized program-related information.
- As an incidental duty, may perform second-level supervision over a small group of clerical and/or technical employees; provides training as assigned; develops, organizes and distributes training materials as appropriate.

MINIMUM QUALIFICATIONS

<u>Either I</u>

Experience: Two years at a level comparable or higher to Office Secretary in San Joaquin County service that included significant responsibility for performing management secretarial duties.

<u>Or II</u>

Experience: Six years of general clerical, secretarial and/or office technical work, including at least two years with primary responsibility for performing management secretarial duties.

<u>Substitutions:</u> a) One year of business training in an approved vocational training program may substitute for one year of the above-required experience; or b) Completion of 30 semester/45 quarter credit units at an accredited college or university may substitute for one year of the above-required experience; or c) Graduation from an accredited college or university with a Bachelor's Degree in public or business administration, human resources management, labor relations, accounting, or a related field may substitute for the four years on non- secretarial experience required above.

<u>And</u>

<u>Certificates:</u> If required by the nature of the assignment: 1) possession of acceptable typing/keyboarding or other certification of ability to input data at the rate of 45 words per minute; and/or 2) possession of an acceptable proficiency certificate in one or more computer software programs.

Special Requirement: Most positions require the ability to use computers and/or word processing equipment. If required by the nature of the

assignment, demonstrated general or software-specific computer proficiency may be required prior to appointment.

KNOWLEDGE

Highly advanced secretarial and other office practices and procedures; advanced principles and practices of prioritizing, planning and organizing work; advanced clerical practices related to personnel management, payroll, labor relations, purchasing, inventory control, clerical accounting, and systems development/maintenance; advanced clerical methods of researching, gathering, organizing and reporting data; standard analytical principles and processes; personal computer systems and general office computer software; public relations techniques; advanced interviewing techniques; advanced filing and record keeping systems; complex correspondence and report formats; advanced clerical accounting methods and practices; principles of training and supervision.

ABILITY

Provide a full range of secretarial duties to support managers and/or other high-level staff; perform quasi-administrative/analytical work related to various specialized office activities; research, interpret, and apply complex laws/regulations, court orders, program policies/procedures, and third-party rules/requirements related to areas such as personnel management, payroll, labor relations, purchasing, inventory control, clerical accounting and systems development/maintenance; evaluate and establish priorities; gather, organize, input and maintain complex information, including financial or programspecific data; provide/obtain detailed information to/from others as appropriate, including confidential and/or otherwise sensitive information; utilize advanced office procedures and equipment; follow complex oral and written procedures and directions; establish and maintain effective working relationships with others, even in difficult situations; communicate effectively with others; write clearly and legibly; perform advanced arithmetical operations; lead or supervise others.

PHYSICAL/MENTAL REQUIREMENTS

Mobility-Frequent operation of a data entry device, repetitive motion, sitting for long periods, walking; occasional standing, pushing, pulling, bending, squatting, climbing; Lifting-Frequently 5 pounds or less; occasionally 5 to 30 pounds; Visual-Constant good overall vision and reading/close-up work; frequent color perception and use of eye/hand coordination; occasional use of depth perception and peripheral vision; Hearing/Talking-Frequent hearing of normal speech, hearing/talking on the telephone, talking in person; Emotional/Psychological-Frequent decision making, concentration, and public contact; Special Requirements-Some assignments may require working weekends, nights, and/or occasional overtime; Environmental-Occasional exposure to varied weather conditions.

San Joaquin County complies with the Americans with Disabilities Act (ADA) and, upon request, will consider reasonable accommodations to enable individuals with disabilities to perform essential job functions.

CLASS: R02060; EST: 8/13/1986; REV: 10/16/2001;

TOTAL PLAN ¹ Policy Benchmark ⁴ Difference:	Commitment (\$000)	Sub-Segment											1	
Policy Benchmark ⁴		•		Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date
			\$	4,605,874,303	100.0%	100.0%	-1.3	-0.9	8.1	8.1	3.0	6.1	7.6	Apr-90
Difference:							-1.1	-0.2	11.4	11.4	4.6	7.0	7.6	
and the second se							-0.2	-0.8	-3.3	-3.3	-1.6	-0.9	0.0	
75/25 Portfolio ⁵							-2.3	-1.9	12.8	12.8	3.3	8.3	7.0	
Difference:							1.0	1.0	-4.7	-4.7	-0.3	-2.2	0.5	
Broad Growth			\$	3,525,816,416	76.6%	78.0%	-1.6	-0.7	9.7	9.7	3.6	7.3	8.3	Jan-95
Aggressive Growth Lag ²			\$	499,405,910	10.8%	12.0%	0.0	0.0	2.7	2.8	9.8	12.5	-1.7	Feb-05
Aggressive Growth Blend ⁶							1.6	1.6	8.3	5.8	5.5	8.8	8.7	
Difference:							-1.6	-1.6	-5.6	-3.0	4.3	3.6	-10.3	
BlackRock Global Energy&Power Lag ³	\$50,000	Global Infrastructure	\$	45,459,712	1.0%		1.3	1.3	5.4	4.9	10.1	13.2	10.0	Jul-19
MSCI ACWI +2% Lag Difference:							3.5 -2.3	3.5 -2.3	25.8 -20.5	22.3 -17.4	8.0 2.0	13.5	13.2 -3.2	
BlackRock Infrastructure ³	\$50.000	Global Infrastructure	\$	22,117,821	0.5%		3.2	3.2	10.5	9.0			7.0	Mar-23
MSCI ACWI +2% Lag	000,000		ľ	22,111,021	0.070		3.5	3.5	25.8	22.3			25.8	
Difference:							-0.3	-0.3	-15.3	-13.3			-18.8	
Bessemer Venture Partners Forge Fund ³	\$20,000	Middle Market VC	\$	10,671,044	0.2%		6.0	6.0	18.0				13.7	Sep-23
MSCI ACWI +2% Lag							3.5	3.5	25.8				27.1	
Difference:	¢20.000	Forthe Stores MC		0.070.400	0.40/		2.5	2.5	-7.9				-13.4	h
Bessemer Venture Partners Fund XII, LP ³ MSCI ACWI +2% Lag	\$30,000	Early-Stage VC	\$	3,670,468	0.1%		-9.3 3.5	-9.3 3.5					-9.3 7.0	Jun-24
Difference:							-12.8	-12.8					-16.3	
Capitol Meridian Fund I Lag ³	\$25,000	Special Situations PE	\$	9,070,223	0.2%		-8.8	-8.8						Jul-24
MSCI ACŴI +2% Lag							3.5	3.5						
Difference:							-12.4	-12.4	-			-	-	
Lightspeed Venture Ptr Select V Lag ³ MSCI ACWI +2% Lag	\$40,000	Growth-Stage VC	\$	24,338,834	0.5%		-3.9 3.5	-3.9 3.5	-4.6 25.8	-5.7 22.3			-10.0 10.0	Jun-22
Difference:							-7.4	-7.4	-30.4	-27.9			-20.0	
Long Arc Capital Fund Lag ³	\$25,000	Growth-Stage VC	\$	25,910,141	0.6%		-1.2	-1.2	3.3	6.7			0.1	Apr-23
MSCI ACWI +2% Lag		0					3.5	3.5	25.8	22.3			25.8	•
Difference:							-4.7	-4.7	-22.6	-15.5			-25.7	
Oaktree Special Situations Lag ³	\$40,000	PE Buyout	\$	10,481,827	0.2%		2.5	2.5					9.1	Mar-24
MSCI ACWI +2% Lag Difference:							3.5 -1.1	3.5 -1.1					18.3 -9.3	
Ocean Avenue II Lag ³	\$40,000	PE Buyout FOF	\$	18,719,337	0.4%		-15.8	-15.8	-24.6	-31.3	-0.8	12.5	11.7	May-13
MSCI ACWI +2% Lag			1 ·	-, -,			3.5	3.5	25.8	22.3	8.0	13.5	10.7	, .
Difference:							-19.3	-19.3	-50.4	-53.6	-8.9	-1.0	1.0	
Ocean Avenue III Lag ³	\$50,000	PE Buyout FOF	\$	50,661,270	1.1%		1.2	1.2	-2.4	3.8	18.1	18.7	21.5	Apr-16
MSCI ACWI +2% Lag Difference:							3.5 -2.3	3.5 -2.3	25.8 -28.2	22.3 -18.5	8.0 10.1	13.5 5.2	11.3 10.2	
Ocean Avenue IV Lag ³	\$50.000	PE Buyout	\$	55,549,656	1.2%		0.4	0.4	12.9	12.4	24.8		28.8	Dec-19
MSCI ACWI +2% Lag	000,000	Duyou	ľ	00,040,000	1.270		3.5	3.5	25.8	22.3	8.0		14.4	00010
Difference:							-3.1	-3.1	-13.0	-9.9	16.8		14.4	
Ocean Avenue V Lag ³	\$30,000	PE Buyout	\$	11,696,975	0.3%		2.8	2.8	8.0	25.3			8.7	Jun-23
MSCI ACWI +2% Lag Difference:							3.5 -0.7	3.5 -0.7	25.8 -17.8	22.3 3.0			23.8 -15.1	

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

² Total class returns are as of 9/30/24, and lagged 1 quarter.

³ Manager returns are as of 9/30/24, and lagged 1 quarter. Since Inception date reflects one quarter lag. ⁴ 5/1/24 to present benchmark is 38% MSCI ACWI IMI, 9% BB Aggregate Bond Index, 7% 50% BB High Yield/50% S&P Leveraged Loans, 9% NCREIF ODCE lag; 4% T-Bill +4%, 8% S&P Leveraged Loans +3%, **12%** Agressive Growth Benchmark, **13%** CRO Custom Benchmark. Prior to 5/1/24 benchmark is legacy policy benchmark. ⁵ 4/1/20 to present **75%** MSCI ACWI, **25%** BB Global Aggregate. Prior to 4/1/20 60% MSCI ACWI, 40% BB Global Aggregate.

⁶ 1/1/2021 to present **50%** MSCI ACWI +2%,**50%** NCREIF +1%

Preliminary Monthly Flash Report (Net) ¹				Decembe	er 2024									
	Commitment (\$000)	Sub-Segment		Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date
Aggressive Growth Lag (continued)	(\$000)				01 TOtal	Target /6								
Morgan Creek III Lag ³ MSCI ACWI +2% Lag	\$10,000	Multi-Strat FOF	\$	5,823,178	0.1%		-3.0 3.5 -6.5	-3.0 3.5 -6.5	20.1 25.8 -5.7	26.9 22.3 4.7	-5.7 8.0 -13.7	-8.4 13.5 -21.9	-2.6 11.0 -13.6	Feb-15
Difference: Morgan Creek V Lag ³ MSCI ACWI +2% Lag	\$12,000	Multi-Strat FOF	\$	5,450,961	0.1%		-1.1 3.5	-1.1 3.5	-1.9 25.8	-2.5 22.3	2.2 8.0	6.3 13.5	10.9 <i>10.7</i>	Jun-13
Difference: Morgan Creek VI Lag ³ MSCI ACWI +2% Lag	\$20,000	Multi-Strat FOF	\$	20,848,390	0.5%		-4.6 -0.3 3.5 -3.8	-4.6 -0.3 3.5 -3.8	-27.7 -5.4 25.8 -31.2	-24.8 -3.8 22.3 -26.1	-5.8 1.8 8.0 -6.2	-7.2 8.9 13.5 -4.6	0.2 7.6 11.0 -3.4	Feb-15
Difference: Ridgemont Equity Partners Lag ³ MSCI ACWI +2% Lag	\$50,000	Special Situations PE	\$	27,722,483	0.6%		-3.8 4.6 3.5	-3.8 4.6 3.5	-31.2 10.5 25.8	8.2 22.3	-0.2	-4.0	-3.4 11.2 25.8	Apr-23
Difference: Stellex Capital Partners II Lag ³ <i>MSCI ACWI + 2% Lag</i> Difference:	\$50,000	Special Situations PE	\$	50,435,969	1.1%		1.0 4.2 3.5 0.6	1.0 4.2 3.5 0.6	-15.4 18.3 25.8 -7.6	-14.1 20.5 22.3 -1.7	 12.3 8.0 4.2		-14.6 7.4 8.7 -1.3	Jul-21
Opportunistic Private Real Estate ⁴			\$	21,670,999	0.5%		0.0	0.0	-1.0	-1.7	4.2		-1.5	
	\$19,100	Opportunistic Pvt. RE	s	1,099,005	0.0%		7.3	7.3	-12.2	-10.0	1.1	6.4	9.6	Oct-14
Greenfield VII ³ NCREIF ODCE + 1% Lag Blend Difference:	313,100	opponumsic PVI. RE		1,099,003	0.0 %		-0.4 7.7	-0.4 7.7	-12.2 -7.4 -4.9	-10.0 -9.1 -0.9	-0.9	3.3 3.1	6.5 3.1	001-14
Grandview ³ NCREIF ODCE + 1% Lag Blend Difference:	\$30,000	Opportunistic Pvt. RE	\$	13,666,636	0.3%		6.5 - <u>0.4</u> 6.9	6.5 -0.4 6.9	18.2 -7.4 25.6	17.7 -9.1 26.8	9.4 2.0 7.4	17.5 3.3 14.2	16.9 4.2 12.7	Apr-18
Walton Street VI ³ NCREIF ODCE + 1% Lag Blend	\$15,000	Opportunistic Pvt. RE	\$	6,308,139	0.1%		-4.1 -0.4	-4.1 -0.4	-5.3 -7.4	-3.8 -9.1	8.3 2.0	3.8 3.3	7.2 7.2	Jul-09
Difference:							-3.7	-3.7	2.1	5.3	6.3	0.5	0.0	
Value-Added Private Real Estate			\$	79,106,900	1.3%									
AG Core Plus IV ³ NCREIF ODCE + 1% Lag Blend Difference:	\$20,000	Value-Added Pvt. RE	\$	6,710,392	0.1%		-7.0 -0.4 -6.6	-7.0 -0.4 -6.6	-15.0 -7.4 -7.6	-23.4 -9.1 -14.3	-16.0 2.0 -18.0	-6.8 3.3 -10.1	-2.2 5.8 -7.9	Sep-15
Almanac Realty VI ³ NCREIF ODCE + 1% Lag Blend Difference:	\$30,000	Value-Added Pvt. RE	\$	3,266,434	0.1%		-10.4 <i>-0.4</i> -10.0	-10.4 <i>-0.4</i> -10.0	-14.8 -7.4 -7.5	-21.7 -9.1 -12.6	-8.3 2.0 -10.3	-10.6 3.3 -13.9	1.1 7.4 -6.3	Feb-13
Berkeley Partners Fund V, LP ³ NCREIF ODCE + 1% Lag Blend Difference:	\$40,000	Value-Added Pvt. RE	\$	33,801,255	0.7%		1.2 -0.4 1.7	1.2 -0.4 1.7	1.9 -7.4 9.3	5.3 -9.1 14.4	12.1 2.0 10.1		14.8 3.6 11.2	Aug-20
Berkeley Partners Value Industrial Fund VI, L.P. ³ NCREIF ODCE + 1% Lag Blend Difference:	\$40,000	Value-Added Pvt. RE	\$	3,584,458	0.1%		12.2 -0.4 12.7	12.2 -0.4 12.7					8.3 -7.4 15.8	Feb-24
IPI Partners III-A Lag ³ MSCI ACWI +2% Lag Difference:	\$50,000	Value-Added Pvt. RE	\$	17,533,271	0.4%		0.0 - <u>0.4</u> 0.4	0.0 -0.4 0.4					0.0 -0.4 0.4	Jul-24
Stockbridge RE III ³ NCREIF ODCE + 1% Lag Blend Difference:	\$45,000	Value-Added Pvt. RE	\$	14,211,090	0.3%		-5.0 -0.4 -4.6	-5.0 -0.4 -4.6	-13.6 -7.4 -6.2	-16.5 -9.1 -7.4	6.2 2.0 4.1	10.0 3.3 6.7	7.3 4.0 3.3	Jul-18

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

³ Manager returns are as of 9/30/2024, and lagged 1 quarter. Since Inception date reflects one quarter lag.

⁴ Market value includes Walton V \$597,219.

Preliminary Monthly Flash Report (Net) ¹		Decemb	er 2024									
c	Commitment Sub-Segment (\$000)	Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date
Traditional Growth ³		\$ 1,838,129,987	39.9%	38.0%	-2.8	-1.2	16.6	16.6	5.6	9.1	9.3	Jan-95
MSCI ACWI IMI Net ²					-2.7	-1.2	16.4	16.4	4.9	10.0	8.1	
Difference:					-0.1	0.1	0.2	0.2	0.7	-0.9	1.2	
Global Equity		\$ 1,838,129,987	39.9%									
Northern Trust MSCI World IMI MSCI World IMI Net Difference:	All Cap Global	\$ 1,659,941,648	36.0%		-3.0 -3.0 0.0	-0.4 -0.4 0.0	17.9 17.5 0.4	17.9 17.5 0.4	6.1 5.7 0.4		11.7 11.3 0.4	Sep-20
Emerging Markets		\$ 178.185.023			0.0	0.0	0.4	0.4	0.4		0.4	
GQG Active Emerging Markets MSCI Emerging Markets Index Net	Emerging Markets	\$ 77,664,320	1.7%		-0.7 -0.1	-7.0 -8.0	6.9 7.5	6.9 7.5	3.1 -1.9		5.8 2.3	Aug-20
Difference: PIMCO RAE Fundamental Emerging Markets MSCI Emerging Markets Index Net Difference:	Emerging Markets	\$ 100,520,703	2.2%		-0.6 -1.5 <i>-0.1</i> -1.4	1.0 -8.3 -8.0 -0.3	-0.6 7.5 7.5 0.0	-0.6 7.5 7.5 0.0	5.0 5.9 -1.9 7.9	- 7.1 1.7 5.4	3.4 5.5 3.3 2.3	Apr-07
Stabilized Growth		\$ 1,188,280,518	25.8%	28.0%	-0.5	-0.4	3.0	3.0	0.2	3.7	3.7	Jan-05
Risk Parity T-Bill +4% Difference:		\$ 216,371,883	4.7%		-2.6 0.7 -3.3	-3.8 2.2 -6.0	6.5 9.4 -3.0	6.5 9.4 -3.0	-4.9 8.0 -12.9	1.1 6.6 -5.5	3.4 5.2 -1.8	
Bridgewater All Weather T-Bill +4% Difference:	Risk Parity	\$ 216,371,883	4.7%		-2.6 0.7 -3.3	-3.8 2.2 -6.0	7.3 9.4 -2.1	7.3 9.4 -2.1	-2.5 8.0 -10.5	2.5 6.6 -4.0	4.0 5.5 -1.5	Mar-12
Liquid Credit 50% BB High Yield, 50% S&P/LSTA Leveraged Lo Difference:	pans	\$ 271,151,688	5.9%		0.1 <i>0.1</i> 0.0	1.6 1.2 0.4	10.1 8.6 1.5	10.1 8.6 1.5	4.3 5.0 -0.7	3.8 5.1 -1.2	2.6 5.8 -3.2	
Neuberger Berman	Global Credit	\$ 115,766,755	2.5%		-0.4	0.3	11.5	11.5	2.5	3.1	3.9	Feb-19
33% ICE BofA HY Constrained, 33% S&P/LSTA L Difference:	L, 33% JPM EMBI GIbl Div.				-0.4 0.0	0.2 0.1	7.8 3.7	7.8 3.7	3.0 -0.5	3.4 -0.3	4.2 -0.4	
	Absolute Return	\$ 155,384,934	3.4%		0.4 <i>0.4</i>	2.6 1.2	8.9 5.5	8.9 5.5	5.7 3.9	4.4 2.6	3.4 1.8	Oct-06

Preliminary Monthly Flash Report (Net) ¹			Decemb	er 20 <u>24</u>													
	Commitment (\$000)	Sub-Segment	Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date				
Private Credit Lag ²	(****)		\$ 442,043,476	9.6%	i ui got /o	0.3	0.3	1.4	3.0	3.1	3.3	3.4					
S&P/LSTA Leveraged Loans +3% Blend Difference:						2.7 -2.3	2.7 -2.3	9.8 -8.4	14.4 -11.4	11.5 -8.4	10.6 -8.4	9.4 -5.9					
res Pathfinder Fund II Lag ³ S&P/LSTA Leveraged Loans +3% Blend ⁴ Difference:	\$62,500	Asset Backed	\$ 12,457,522	0.3%		5.2 2.7 2.6	5.2 2.7 2.6						Feb-24				
lackRock Direct Lending Lag ³ S&P/LSTA Leveraged Loans +3% Blend ⁴	\$100,000	Direct Lending	\$ 84,667,795	1.8%		1.9 2.7	1.9 2.7	6.1 9.8	10.8 <i>14.4</i>	8.3 11.5		8.7 11.0	May-20				
Difference: Iesa West RE Income IV Lag ³ S&P/LSTA Leveraged Loans +3% Blend ⁴	\$75,000	Comm. Mortgage	\$ 33,963,790	0.7%		-0.7 -4.6 2.7	-0.7 -4.6 2.7	-3.7 -13.0 9.8	-3.7 -13.6 14.4	-3.3 -9.8 11.5	-3.2 10.6	-2.4 0.4 9.9	Mar-17				
Difference: Crestline Opportunity II Lag ³ S&P/LSTA Leveraged Loans +3% Blend ⁴	\$45,000	Opportunistic	\$ 9,678,477	0.2%		-7.2 -5.9 2.7	-7.2 -5.9 2.7	-22.8 -13.3 9.8	-28.0 -17.2 14.4	-21.3 -11.2 11.5	-13.8 -5.7 10.6	-9.6 0.4 9.6	Nov-13				
Difference: Davidson Kempner Distr Opp V Lag ³ S&P/LSTA Leveraged Loans +3% Blend ⁴	\$48,275	Opportunistic	\$ 55,331,637	0.0%		-8.5 6.7 2.7	-8.5 6.7 2.7	-23.1 10.6 9.8	-31.6 12.4 14.4	-22.7 5.5 11.5	-16.3 	-9.2 15.5 <i>11</i> .6	Oct-20				
Difference: Daktree Middle Market Lag ³ S&P/LSTA Leveraged Loans +3% Blend ⁴	\$50,000	Leveraged Direct	\$ 32,553,694	0.7%		4.1 2.7 2.7	4.1 2.7 2.7	0.8 7.7 9.8	-2.0 12.2 14.4	-6.0 9.9 11.5	 13.9 <i>10.6</i>	3.9 10.7 <i>10.1</i>	Mar-18				
Difference: IPS EU Asset Value II Lag³ S&P/LSTA Leveraged Loans +3% Blend ⁴	\$50,000	Direct Lending	\$ 36,418,865	0.8%		0.0 1.9 2.7	0.0 1.9 2.7	-2.1 7.5 9.8	-2.2 11.9 <i>14.4</i>	-1.7 10.0 <i>11.5</i>	3.3 	0.6 6.9 <i>11.5</i>	Aug-20				
Difference: Raven Opportunity III Lag ³ S&P/LSTA Leveraged Loans +3% Blend ⁴	\$50,000	Direct Lending	\$ 40,223,784	0.9%		-0.7 -10.5 2.7	-0.7 -10.5 2.7	-2.3 -22.1 9.8	-2.5 -25.6 14.4	-1.5 -5.8 11.5	 -1.5 <i>10.6</i>	-4.7 -0.3 9.8	Nov-15				
Difference: Medley Opportunity II Lag ² S&P/LSTA Leveraged Loans +3% Blend ³	\$50,000	Direct Lending	\$ 179,867	0.0%		-13.1 0.0 2.7	-13.1 0.0 2.7	-31.9 -2.9 9.8	-40.0 -12.2 14.4	-17.4 -5.2 11.5	-12.1 -6.5 10.6	-10.1 -2.1 9.6	Jul-12				
Difference: Silver Point Credit III Lag ² S&P/LSTA Leveraged Loans +3% Blend ⁴	\$62,000	Sub-Sector	\$ 26,096,419	0.6%		-2.7 2.1 2.7	-2.7 2.1 2.7	-12.7 12.3 9.8	-26.6 	-16.8 	-17.1 	-11.6 	Nov-23				
Difference: SilverRock Tactical Allocation Lag ² S&P/LSTA Leveraged Loans +3% Blend ⁴	\$62,500	Opportunistic	\$ 43,297,554	0.9%		-0.6 2.6 2.7	-0.6 2.6 2.7	2.6 8.5 9.8				 11.7 <i>10.1</i>	Jul-23				
Difference: White Oak Summit Peer Fund Lag ² S&P/LSTA Leveraged Loans +3% Blend ³ Difference:	\$50,000	Direct Lending	\$ 21,566,351	0.5%		-0.1 -1.0 2.7 -3.7	-0.1 -1.0 2.7 -3.7	-1.3 0.5 9.8 -9.3	 2.8 14.4 -11.6	 -2.3 11.5 -13.8	 0.6 <i>10.6</i> -10.0	1.6 3.4 9.8 -6.4	Mar-16				
White Oak Yield Spectrum Master V Lag ² S&P/LSTA Leveraged Loans +3% Blend ³ Difference	\$50,000	Direct Lending	\$ 45,607,721	1.0%		-0.1 2.7 -2.7	-0.1 2.7 -2.7	2.0 9.8 -7.8	2.5 14.4 -11.9	1.0 11.5 -10.6		2.3 11.0 -8.7	Mar-20				
Core Private Real Estate Lag			\$ 258,713,471	5.6%		2	2	110	11.0	10.0		0.1					
NEW Essential Housing ² NCREIF ODCE + 1% Lag Blend Difference:	\$50,000	Core Pvt. RE	\$ 1,155,135	0.0%		0.0 - <u>0.4</u> 0.4	0.0 - <u>0.4</u> 0.4	-2.2 -7.4 5.2				-2.2 -7.4 5.2	Jan-24				
Principal US ² NCREIF ODCE + 1% Lag Blend Difference:	\$25,000	Core Pvt. RE	\$ 38,256,406	0.8%		-0.9 -0.4 -0.5	-0.9 -0.4 -0.5	-5.2 -7.4 2.2	-8.9 -9.1 0.2	1.3 2.0 -0.7	2.7 3.3 -0.6	5.4 5.4 0.0	Jan-16				
Prologis Logistics ² NCREIF ODCE + 1% Lag Blend Difference:	\$50,500	Core Pvt. RE	\$ 119,653,774	2.6%		1.0 - <u>0.4</u> 1.4	1.0 - <u>0.4</u> 1.4	-2.5 -7.4 4.8	-4.8 -9.1 4.3	10.3 2.0 8.3	13.6 3.3 10.3	13.6 5.9 7.7	Dec-07				
RREEF America II ² NCREIF ODCE + 1% Lag Blend Difference:	\$45,000	Core Pvt. RE	\$ 50,946,973	1.1%		0.3 -0.4 0.7	0.3 -0.4 0.7	-6.5 -7.4 0.9	-8.7 -9.1 0.4	1.5 2.0 -0.5	3.0 3.3 -0.3	2.3 5.0 -2.7	Jul-16				

⁴ 9% Annual until 6/30/2018; CPI +6% Annual 7/1/2018 - 3/31/2022; S&P/LSTA Leveraged Loans +3% thereafter.

Preliminary Monthly Flash Report (Net) ¹ December 2024														
	Commitment (\$000)	Sub-Segment		Market Value	Physical % of Total	Policy Target %	1-Mo	3-Mos	YTD	1-Yr	3-Yrs	5-Yrs	SI Return	SI Date
Diversifying Strategies			\$	907,785,667	19.7%	22.0%	-0.1	-1.6	3.2	3.2	1.5	2.0	5.9	Oct-90
Principal Protection BB Aggregate Bond Index Difference:			\$	430,184,539	9.3%	9.0%	-1.8 -1.6 -0.2	-3.1 -3.1 -0.1	2.0 1.3 0.8	2.0 1.3 0.8	-0.5 -2.4 1.9	0.3 -0.3 0.6	5.7 5.2 0.5	Oct-90
Dodge & Cox BB Aggregate Bond Index Difference:		Core Fixed Income	\$	261,279,834	5.7%		-1.9 -1.6 -0.3	-3.2 -3.1 -0.2	2.3 1.3 1.1	2.3 1.3 1.1	-0.4 -2.4 2.0	1.4 -0.3 1.7	6.5 5.2 1.2	Oct-90
Loomis Sayles BB Aggregate Bond Index Difference:		Core Fixed Income	\$	168,904,704	3.7%		-1.7 -1.6 0.0	-3.0 -3.1 0.1	1.4 1.3 0.1	1.4 1.3 0.1			-0.2 -0.4 0.2	Mar-22
Crisis Risk Offset CRO Custom Benchmark ² Difference:			\$	477,601,128	10.4%	13.0%	1.5 -1.2 2.7	-0.2 -2.1 1.8	3.1 1.4 1.7	3.1 1.4 1.7	3.0 -0.2 3.2	3.0 2.3 0.7	5.8 4.6 1.3	Jan-05
Long Duration BB US Long Duration Treasu Difference:	ries		\$	109,877,547	2.4%		-5.1 -5.3 0.2	-8.5 -8.6 0.1	-5.4 -6.4 1.0	-5.4 -6.4 1.0	-11.0 -12.0 1.0	-4.7 -5.2 0.5	-1.4 -1.5 0.1	
Dodge & Cox Long Duration BB US Long Duration Treasu Difference:	ries	Long Duration	\$	109,877,547	2.4%		-5.1 -5.3 0.2	-8.5 -8.6 0.1	-5.4 -6.4 1.0	-5.4 -6.4 1.0	-11.0 -12.0 1.0	-4.7 -5.2 0.5	-1.4 -1.5 0.1	Feb-16
Systematic Trend Following BTOP50 Index Difference:			\$	227,661,149	4.9%		2.1 <i>1.3</i> _{0.8}	-2.4 1.3 -3.7	1.4 5.4 -4.0	1.4 5.4 -4.0	7.5 6.0 1.4	7.4 6.6 0.8	7.9 4.8 3.1	
Mt. Lucas Managed Futures - Cash BTOP50 Index Difference:		Systematic Trend Following	\$	115,999,963	2.5%		2.5 1.3 1.2	-4.8 1.3 -6.1	-2.8 5.4 -8.1	-2.8 5.4 -8.1	7.1 6.0 1.0	9.2 6.6 2.6	7.4 4.8 2.6	Jan-05
Graham Tactical Trend SG Trend Index Difference:		Systematic Trend Following	\$	111,661,186	2.4%		1.6 1.5 0.1	0.3 0.3 0.0	6.1 2.6 3.4	6.1 2.6 3.4	7.9 7.8 0.1	5.6 7.7 -2.1	3.1 4.2 -1.1	Apr-16
Alternative Risk Premia 5% Annual Difference:			\$	140,062,432	3.0%		6.3 0.4 5.9	11.5 <i>1.2</i> 10.3	14.4 5.0 9.4	14.4 5.0 9.4	11.0 5.0 6.0	4.2 5.0 -0.8	7.5 6.1 1.4	
AQR Style Premia 5% Annual Difference:		Alternative Risk Premia	\$	75,732,244	1.6%		3.9 0.4 3.5	5.7 1.2 4.5	21.1 5.0 16.1	21.1 5.0 16.1	21.5 5.0 16.5	10.1 5.0 5.1	4.3 5.0 -0.7	May-16
PE Diversified Global Macro 5% Annual Difference:		Alternative Risk Premia	\$	64,330,188	1.4%		9.2 0.4 8.8	19.3 <i>1.2</i> 18.1	7.3 5.0 2.3	7.3 5.0 2.3	13.4 5.0 8.4	2.5 5.0 -2.5	2.0 5.0 -3.0	Jun-16
Cash ³ US T-Bills Difference:			\$	143,071,862	3.1%	0.0%	0.2 0.4 -0.2	0.3 1.2 -0.9	3.1 5.3 -2.2	3.1 5.3 -2.2	2.7 3.9 -1.2	1.7 2.5 -0.8	2.4 2.5 -0.1	Sep-94
Northern Trust STIF US T-Bills Difference:		Collective Govt. Short Term	\$	102,696,201	2.2%		0.3	0.5 1.2 -0.6	4.1	4.1	3.2	2.0 2.5 -0.4	2.6	Jan-95
Parametric Overlay ⁴		Cash Overlay	ŝ	29,200,358	0.6%		0.0	0.0	0.0	0.0			0.0	Jan-20
Returns are preliminary and are finalized during eac ² Benchmark is (1/3) BB Long Duration Treasuries, (1 ³ Includes lagged cash.						orthern Trust.	0.0		0.0	0.0			0.0	



Economic and Market Update

December 2024 Report



Commentary

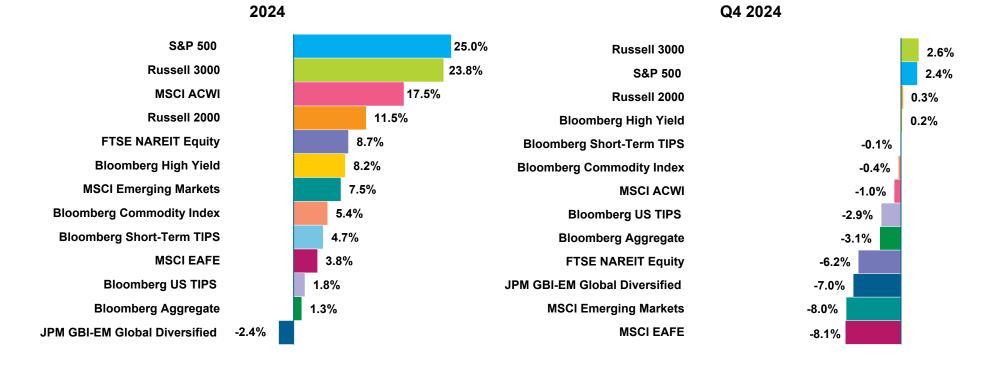
Although most major markets finished 2024 in positive territory, in the fourth quarter, with the exception of US stocks, the majority of markets declined.

- → Trump's victory along with a now Republican controlled Congress, supported US equity markets in the fourth quarter on anticipation of pro-growth policies. Domestic equity markets (Russell 3000) posted a return of 2.6% in the quarter and an impressive 23.8% for the year driven by large cap technology stocks.
- → Non-US developed stocks sold-off in the fourth quarter (MSCI EAFE: -8.1%) largely driven by the strength of the US dollar, as well as slowing growth in Europe and the potential for trade wars. For the year, they trailed US equities by a wide 20% margin (3.8% versus 23.8%).
- → Emerging market stocks also fell (MSCI Emerging Markets: -8.0%) in the fourth quarter, again driven by the strong dollar and concerns about US tariffs. In 2024, emerging markets beat developed international markets (7.5% versus 3.8%) but significantly trailed the US.
- → The Federal Reserve cut its policy rate another 0.25% in December, but its Summary of Economic Projections and hawkish comments provoked a repricing of future rate cuts and their timing.
- → Most fixed income markets fell for the quarter with interest rates rising given fears of inflation from the proposed policies of the incoming US administration. The broad US bond market (Bloomberg Aggregate) declined 3.1% for the quarter, reducing its 2024 gain to 1.3%. For the year, most major bond markets delivered positive returns on cooling global inflation.
- → Looking ahead, uncertainty related to the policies of the new Trump Administration and its impact on the economy, inflation, and Fed policy will be key. The path of China's economy and concerns over elevated valuations and technology driven concentration in the US equity market will also be important focuses of 2025.

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Economic and Market Update

Index Returns¹



 \rightarrow In 2024, most major assets classes posted gains, led by the S&P 500's 25.0% return.

→ Markets had mixed returns in the fourth quarter. US equities rose on optimism over potential pro-growth policies from the incoming administration while inflation concerns and a strong dollar, respectively, weighed on bonds and international equities.

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



Domestic Equity	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-2.4	2.4	25.0	8.9	14.5	13.1
Russell 3000	-3.1	2.6	23.8	8.0	13.9	12.5
Russell 1000	-2.8	2.7	24.5	8.4	14.3	12.9
Russell 1000 Growth	0.9	7.1	33.4	10.5	19.0	16.8
Russell 1000 Value	-6.8	-2.0	14.4	5.6	8.7	8.5
Russell MidCap	-7.0	0.6	15.3	3.8	9.9	9.6
Russell MidCap Growth	-6.2	8.1	22.1	4.0	11.5	11.5
Russell MidCap Value	-7.3	-1.7	13.1	3.9	8.6	8.1
Russell 2000	-8.3	0.3	11.5	1.2	7.4	7.8
Russell 2000 Growth	-8.2	1.7	15.2	0.2	6.9	8.1
Russell 2000 Value	-8.3	-1.1	8.1	1.9	7.3	7.1

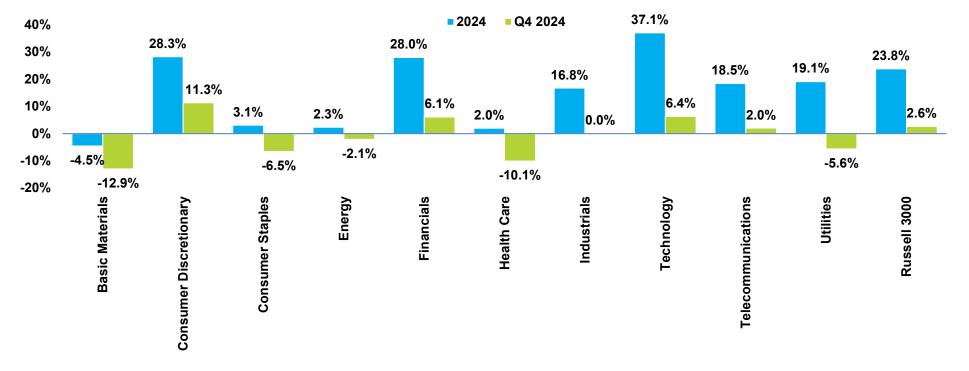
Domestic Equity Returns¹

US Equities: The Russell 3000 rose 2.6% in the fourth quarter, bringing the year-to-date results to +23.8%.

- → US stocks rose broadly in the fourth quarter on a post-election rally. However, value stocks did not participate and ended the quarter lower. In the large cap space, the Russell 1000 Value index's omission of several "Magnificent 7" stocks, such as NVIDIA, Amazon, and Tesla, drove much of the divergence.
- → For the full year, US equities gained 23.8%. NVIDIA was the leading contributor among all stocks in the Russell 3000 index. The stock appreciated 171% during the year and was responsible for 20% of total index gains. The "Magnificent 7" stocks contributed just under 50% of the 2024 index gains.
- → Growth stocks outperformed value stocks across the market cap spectrum in 2024, which was more pronounced in the large cap space. Larger companies (Russell 1000) produced more than double the returns of smaller companies (Russell 2000) for the year.

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





Russell 3000 Sector Returns¹

- → US equity sectors experienced mixed results in the final quarter of the year but all sectors except materials, experienced gains in 2024.
- → Technology stocks rose 37.1% last year, which led all sectors. Within technology, NVIDIA and Broadcom accounted for more than half of the sector's contribution to overall index gains.
- → After technology, consumer discretionary (+28.3%) and financials (+28.0%) were next driven by Amazon and Tesla and a steepening yield curve/strong economy, respectively.

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



Foreign Equity	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI Ex US	-1.9	-7.6	5.5	0.8	4.1	4.8
MSCI EAFE	-2.3	-8.1	3.8	1.6	4.7	5.2
MSCI EAFE (Local Currency)	0.4	-0.6	11.3	6.3	7.5	7.1
MSCI EAFE Small Cap	-2.3	-8.4	1.8	-3.2	2.3	5.5
MSCI Emerging Markets	-0.1	-8.0	7.5	-1.9	1.7	3.6
MSCI Emerging Markets (Local Currency)	1.2	-4.4	13.1	1.6	4.5	6.0
MSCI EM ex China	-1.2	-8.1	3.6	0.1	4.4	4.7
MSCI China	2.7	-7.7	19.4	-6.1	-3.4	1.9

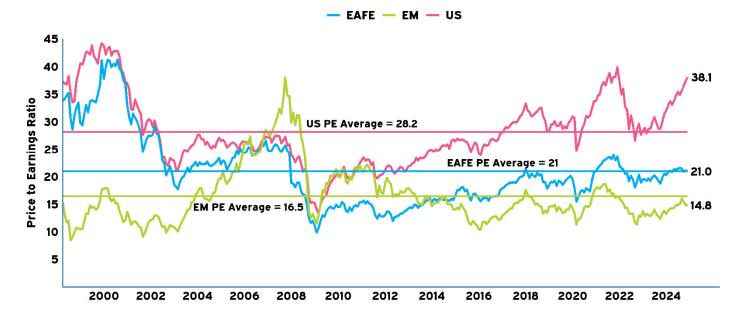
Foreign Equity Returns¹

Foreign Equity: Developed international equities (MSCI EAFE) fell -8.1% in the fourth quarter but rose 3.8% for the year, while emerging market equities (MSCI Emerging Markets) fell -8.0% in the quarter but returned 7.5% for the year.

- → Continued strength in the US dollar weighed on developed market shares, with declines in local terms significantly lower (-0.6% versus -8.1%). An unstable political environment, potential tariffs from the US, and weak growth all weighed on eurozone equities. Japan was a bright spot, outperforming the US for the quarter, with renewed yen weakness boosting the outlook for exporters.
- → Emerging markets reacted poorly to Mr. Trump's win in the fourth quarter, due largely to tariff fears and the Fed's decreased likelihood of reducing rates in 2025. A strong dollar also weighed on results but not as much as in developed markets. China declined less than the broader index for the quarter (-7.7% versus -8.0%).
- \rightarrow Over the full 2024 calendar year, international equities significantly trailed US equities.

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





Equity Cyclically Adjusted P/E Ratios¹

- \rightarrow Valuations in US stocks continued to move higher over the quarter while valuations for international equities fell.
- → US stocks, priced at 38.1 times earnings, continue to trade well above their long-run PE average of 28.2.
- → Non-US developed market valuations are trading at their long-term average. Emerging market stock valuations declined the most over the quarter (16.1 to 14.8) and remain below their long-term average.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E Source: Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of December 2024. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end, respectively.

Fixed Income	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-1.5	-2.7	2.0	-1.9	0.1	1.7	5.1	5.9
Bloomberg Aggregate	-1.6	-3.1	1.3	-2.4	-0.3	1.3	4.9	6.1
Bloomberg US TIPS	-1.6	-2.9	1.8	-2.3	1.9	2.2	4.6	6.5
Bloomberg Short-term TIPS	-0.1	-0.1	4.7	2.1	3.3	2.6	4.4	2.4
Bloomberg US Long Treasury	-5.3	-8.6	-6.4	-12.0	-5.2	-0.6	4.9	14.9
Bloomberg High Yield	-0.4	0.2	8.2	2.9	4.2	5.2	7.5	3.5
JPM GBI-EM Global Diversified (USD)	-1.9	-7.0	-2.4	-1.0	-1.9	-0.4		

Fixed Income Returns¹

Fixed Income: The Bloomberg Universal index fell 2.7% in the quarter, bringing the year-to-date return to +2.0%.

- → Fixed income indexes largely declined over the quarter due to rising interest rates as investors considered proposed policies like tariffs and deportations and their respective risks to inflation.
- → The broad US bond market (Bloomberg Aggregate) fell 3.1% over the quarter, with TIPS performing similarly at longer maturities. Long-term Treasury bonds experienced the largest declines, with a drop of 8.6%.
- → High yield bonds outperformed as investor risk appetite remained robust, while emerging market debt weakened on uncertainty about the path of proposed US tariffs by the incoming administration as well as by higher US interest rates.

¹ Source: Bloomberg. Data is as of December 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration, respectively. JPM GBI-EM data is from J.P. Morgan. Current yield and duration data is not available.



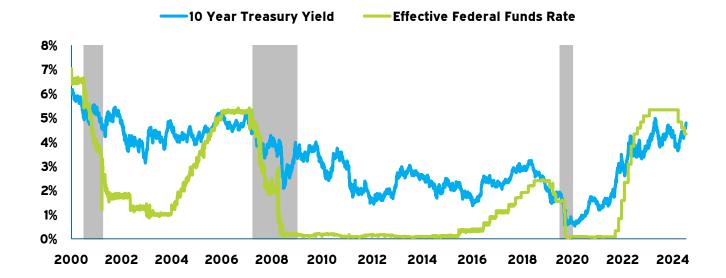


US Yield Curve¹

- → With the exception of the very shortest maturities, US Treasury yields rose in the fourth quarter driven by resilient growth and increased inflation expectations. Term premium (a measure of interest rate uncertainty) spiking over the quarter was a key driver of higher rates.
- → Over the quarter, the more policy sensitive 2-year Treasury yield rose from 3.64% to 4.24%, while the 10-year Treasury yield rose from 3.78% to 4.57%.
- → The yield curve was no longer inverted (short-term interest rates higher than long-term interest rates) at year-end given expectations for the Fed to continue to reduce rates and resilient economic growth and persistent inflation.

¹ Source: Bloomberg. Data is as of December 31, 2024. The August 2024 Treasury yields are shown as a reference before the first interest rate cut.



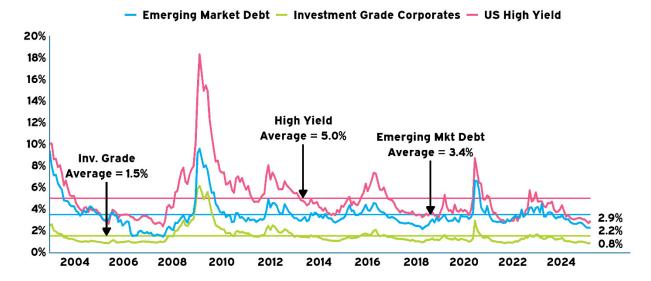


10-Year Treasury Yield versus Fed Funds Rate¹

- → Typically, when the Fed cuts interest rates, the yield on the ten-year Treasury follows as rate cuts often come in an environment of falling inflation and rising unemployment.
- → The recent dynamic has been very unusual with the Fed cutting interest rates by a total of 1.0% since September and the ten-year Treasury increasing by a similar amount over the same time period.
- → Questions remain about why this is happening with some saying it is related to fiscal concerns and others pointing to lower demand for our debt from overseas. It is also possible the market feels the Fed has overcut rates already.

¹ Source: FRED. Data is as of January 15, 2025.



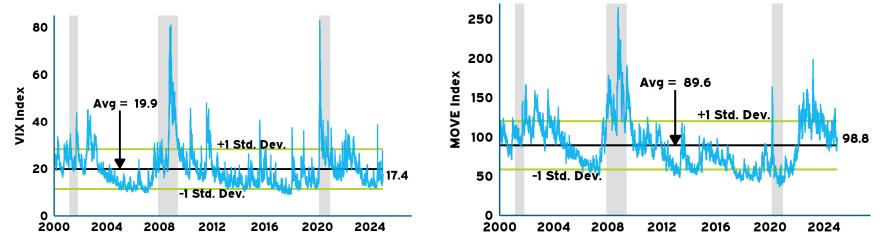


Credit Spreads vs. US Treasury Bonds¹

- \rightarrow Spreads (the yield above a comparable maturity Treasury) all continued to tighten over the quarter.
- → All yield spreads remained below their respective long-run averages, particularly high yield (2.9% versus 5.0%).
- → Although spreads are tight, absolute yields remain at above-average levels compared to the last two decades.

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



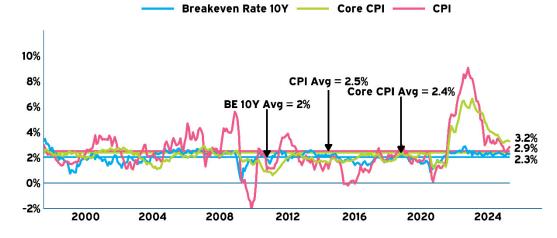


Equity and Fixed Income Volatility¹

- → Bond and equity volatility experienced several spikes over the quarter ahead of the election but finished lower after the clear results.
- → Volatility levels (VIX) in the US stock market finished the quarter below its long-run average, while volatility in the bond market (MOVE) ended December above its long-run average.

¹ Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of December 31, 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and December 2024.

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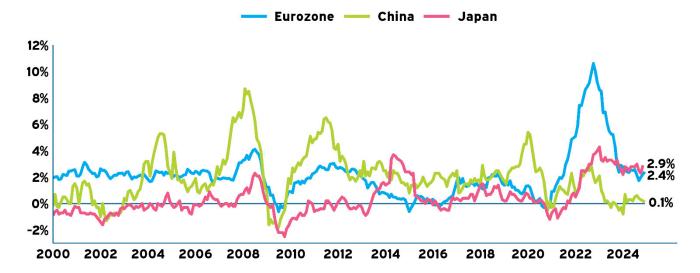


US Ten-Year Breakeven Inflation and CPI¹

- \rightarrow In December, inflation rose 0.4% month-over-month with energy prices accounting for 40% of the monthly increase.
- → Year-over-year inflation increased from 2.4% to 2.9% over the quarter largely driven by base year effects. In the December reading shelter (+4.6%), transportation (+7.3%), and medical care (+3.4%) contributed to the annual gain while energy prices (-0.5%) fell over the past year despite the December (+2.6%) gains.
- \rightarrow Year-over-year core inflation (excluding food and energy) fell slightly over the quarter (3.3% to 3.2%).
- → Inflation expectations (breakevens) rose over the quarter from the September lows of 2.0%, on continued uncertainty regarding the likelihood and magnitude of potential policies of the next US president.

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



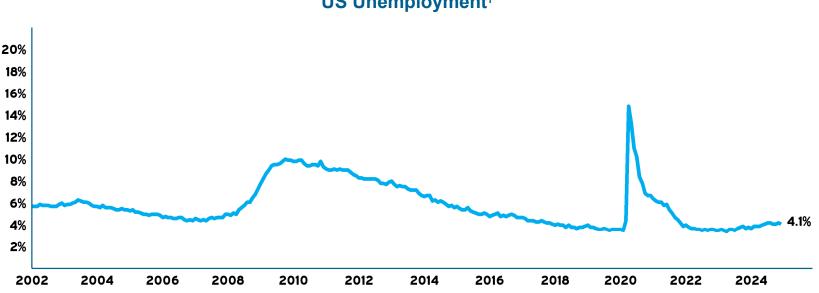


Global Inflation (CPI Trailing Twelve Months)¹

- → In the eurozone, inflation rose each month over the quarter (1.7% to 2.4%) but levels remain below the US. The increase was largely driven by last year's significant fall in energy prices no longer being included in the calculation.
- → Inflation in Japan rose over the quarter due in part to an increase in food prices and the end of energy subsidies driving electricity and gas prices higher.
- → Inflation in China grinded lower in the fourth quarter (0.4% to 0.1%). China continues to experience deflationary pressures despite recent stimulus measures.

¹ Source: Bloomberg. Data is as December 2024, except Japan which is as of November 2024.



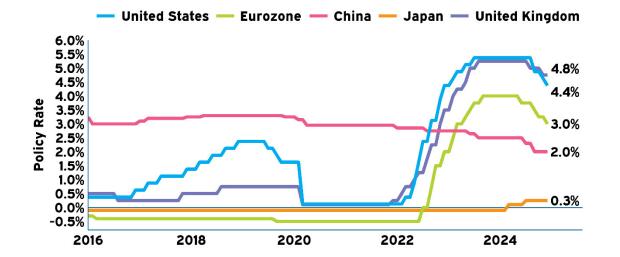


US Unemployment¹

- \rightarrow The unemployment rate stayed stable over the quarter at 4.1% with close to 500k jobs added to the economy since the end of September.
- \rightarrow In December, the heath care (+46K), retail (+43k), and government (+33K) sectors added jobs, while retail which lost jobs in November – rebounded (+43K) jobs.
- \rightarrow Job openings (8.1M) rose over last month's openings (7.7M) but are well below pandemic highs (>12M); the number of openings exceeds the number of unemployed workers looking for work (6.9M).
- \rightarrow Separations (5.1M) and hires (5.3M) remain steady and average hourly wages continue to grow at approximately 3.9% a year.

¹ Source: FRED and BLS. Data is as of December 31, 2024





Policy Rates¹

- → In the US, the Fed reduced interest rates by 0.25% twice over the quarter to a range of 4.25% to 4.50%, in moves largely expected by investors. Going forward, questions remain about the timing and amount of additional cuts given the strength of the economy and persistent above-target inflation.
- → The Bank of England left rates unchanged in December after their November 0.25% cut, while the European Central Bank cut rates by another 0.25% in early December.
- → After exiting negative interest rates in 2024 and making several rate increases, rate cutting by other major central banks are complicating prospects for further policy rate hikes in Japan.

¹ Source: Bloomberg. Data is as of December 31, 2024. United States rate is the mid-point of the Federal Funds Target Rate range. Eurozone rate is the ECB Deposit Facility Announcement Rate. Japan rate is the Bank of Japan Unsecured Overnight Call Rate Expected. China rate is the China Central Bank 1-Year Medium Term Interest Rate. UK rate is the UK Bank of England Official Bank Rate.





US Dollar vs. Broad Currencies¹

- \rightarrow Over the quarter, the US dollar sharply strengthened (+8.0%) versus other currencies.
- \rightarrow A rise in interest rates driven by potential inflationary impacts of proposed higher tariffs, lower taxes, and immigration policies from candidate, and now president-elect Trump, drove the dollar's gains.

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



Summary

Key Trends:

- → According to the International Monetary Fund's (IMF) October report, global growth in 2025 is expected to be similar to 2024 at around 3.2% with most major economies predicted to avoid a recession.
- → Questions remain about what policies will be implemented by the new administration in the US. Although deregulation and tax cuts could support growth, these policies, along with higher tariffs and restrictive immigration, could fan inflation. This will likely lead to additional uncertainty regarding the timing and pace of interest rate cuts in the coming year.
- → US consumers could feel pressure as certain components of inflation (e.g., shelter) remain high, borrowing costs stay elevated, and the job market may weaken further.
- → A focus for US equities going forward will be whether earnings can remain resilient if growth slows. Also, the future paths of the large technology companies that have driven market gains will be important.
- → We have started to see divergences in monetary policy. Some central banks, such as the Fed, European Central Bank, and the Bank of England, have started to cut interest rates and others, like the Bank of Japan, have increased interest rates. This disparity will likely influence capital flows and currencies.
- → China appears to have shifted focus to more policy support for the economy/asset prices with a suite of fiscal and financial policy stimulus measures. Thus far, these efforts have not increased weak consumer spending or helped the lingering trouble in the real estate sector. It is still not clear what the long-term impact of these policies will be on the economy and if policy makers will remain committed to these efforts.



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San Joaquin County Employees' Retirement System

February 14, 2025

2025 Capital Markets Expectations



2025 Capital Markets Expectations

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Executive Summary



Executive Summary

- \rightarrow We update our capital markets expectations ("CMEs") each year in January.
 - Capital markets are dynamic, and regular updates ensure that assumptions accurately reflect the current market environment.
- → Changes in our CMEs are driven by shifts in the capital markets, including factors such as interest rates, credit spreads, cap rates, and equity prices.
 - Yields increased for much of the investment grade bond market, while credit spreads tightened, especially for lower quality credit such as high yield.
 - Stock market valuations continued to rise, especially in the US, where equity markets rallied at a faster pace than the gain in earnings.
 - Cap rates for real estate moved higher, while the rebound in buyout multiples lagged the valuation gains for public markets.
 - Not only did current Treasury yields increase, but projections for future Treasury yields also increased.
- → Our 10-year CMEs continue to be lower than our 20-year CMEs for every asset class, largely due to a higher assumed "risk-free" rate in the future.
- → The return assumption decreased for two-thirds of the asset classes over the 10-year horizon, while it increased for half the asset classes over the 20-year horizon.
- → Our lower return assumptions over the 10-year horizon implies that investors might be well served by moderating their return expectations for the next ten years.



2025 Capital Markets Expectations

Asset Class	10-year Expected Return (%)	Δ From 2024 (%)	20-year Expected Return (%)	Δ From 2024 (%)
Cash Equivalents	2.8	+0.4	3.1	+0.6
Investment Grade Bonds	4.9	+0.3	5.3	+0.5
Long-term Government Bonds	5.0	+0.7	5.7	+0.7
TIPS	4.3	0.0	5.0	+0.3
High Yield Bonds	6.3	-0.2	7.1	+0.3
Bank Loans	6.3	-0.2	6.8	+0.2
Emerging Market Debt	6.3	NA	6.8	NA
Private Debt	8.7	-0.5	9.1	-0.1
US Equity	6.4	-0.5	8.4	-0.1
Developed Non-US Equity	7.2	-0.5	8.7	-0.2
Emerging Non-US Equity	7.1	-0.5	8.7	-0.2
Global Equity	6.7	-0.5	8.5	-0.2
Private Equity	9.8	-0.1	11.2	0.0
Real Estate	6.9	+0.6	8.5	+0.5
Infrastructure	7.2	-0.2	9.2	+0.2
Commodities	5.5	+0.6	5.9	+0.6
Hedge Funds	4.2	-0.3	6.0	+0.2
Inflation	2.3	-0.1	2.7	-0.1

Expected Return and Changes for Major Asset Classes



Market Overview

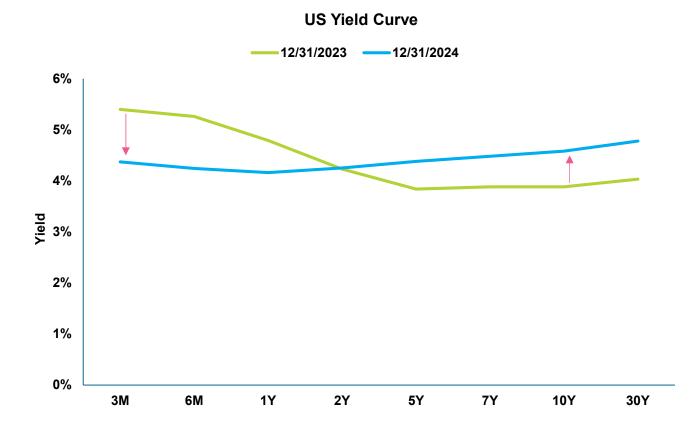
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2025 Capital Markets Expectations

Rising Interest Rates

- \rightarrow While the short end of the yield curve moved down, the long end of the curve moved up.
- → The result was a shift away from the inverted curve of the last two years to a slightly "U"-shaped curve with a nadir at the one-year maturity.

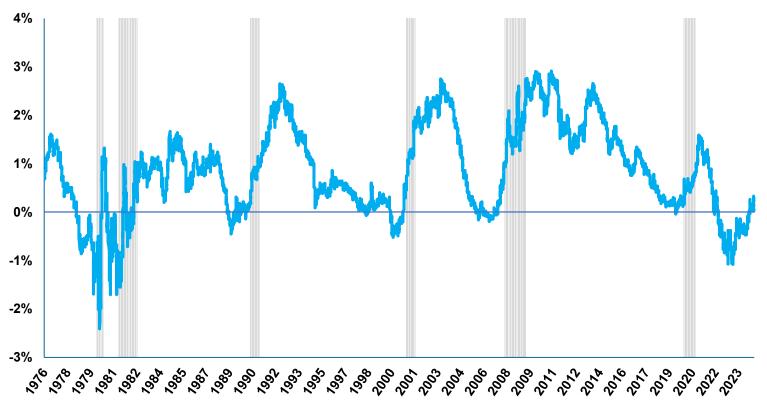




2025 Capital Markets Expectations

Normalizing Yield Curve

- \rightarrow The yield curve began the year in inverted territory but gradually moved toward a positive slope.
 - The 2-10 spread moved positive before year-end; however, the curve is still inverted in other sections.



Yield Curve Slope (Ten Minus Two)

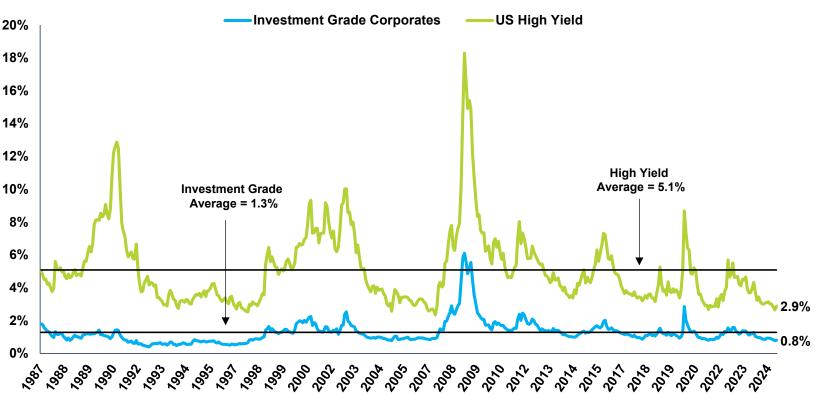
Source: FRED. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield. Data is as of December 31, 2024.



2025 Capital Markets Expectations

Narrower Credit Spreads

- \rightarrow Credit spreads tightened again in 2024, moving further below their long-term averages.
 - The spread for high yield bonds declined from 323 basis points to 287 basis points, while the spread for investment grade corporates declined from 99 basis points to 80 basis points.



US Investment Grade and High Yield Credit Spreads

Source: Bloomberg. High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg US Corporate Investment Grade Index. Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year US Treasury yield. Data is as of December 31, 2024.



2025 Capital Markets Expectations

Similar or Higher Yields

- → Short-term interest rates declined as the Fed cut its target rate, yet the yield on the 10-year Treasury increased.
- → Despite tighter credit spreads, yields increased for all but the lower quality bond markets.

Index	Yield to Worst 12/31/23 (%)	Yield to Worst 12/31/24 (%)
Fed Funds Rate	5.25-5.50	4.25-4.50
10-year Treasury	3.88	4.58
Bloomberg Aggregate	4.53	4.91
Bloomberg Corporate	5.06	5.33
Bloomberg Securitized	4.72	5.25
Bloomberg Global Aggregate	3.51	3.68
Bloomberg US Corporate High Yield	7.59	7.49

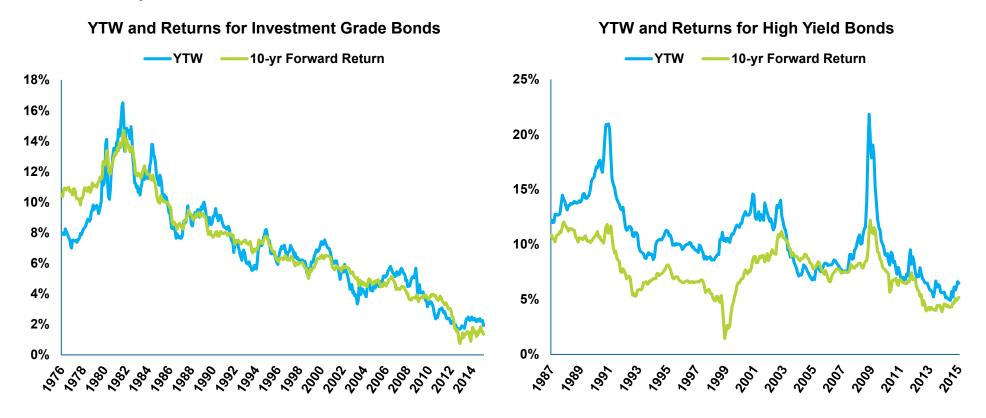
Source: Bloomberg. Data is as of December 31, 2023 and December 31, 2024.



2025 Capital Markets Expectations

Yields Drive Future Returns

→ Changes in interest rates matter because yields are a very good predictor of future returns for bonds,¹ at least over a 10-year horizon.



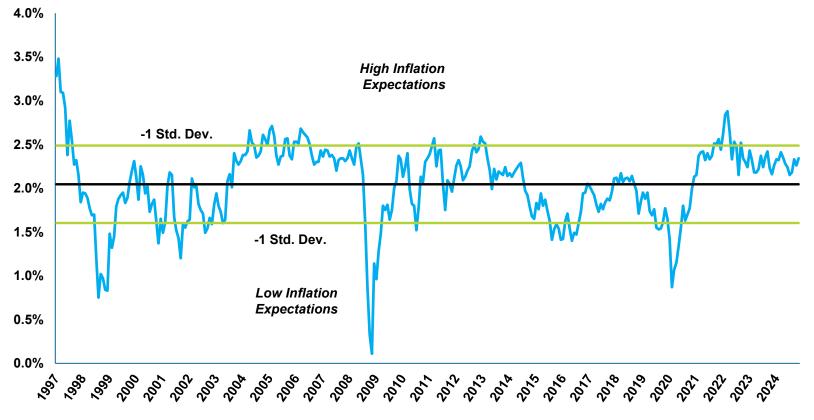
¹ When predicting returns for bonds, default risk should also be taken into account. For example, defaults are why the return for high yield bonds have generally been below the starting yield. Source: Bloomberg Aggregate and Bloomberg High yield indices. Data is as of December 31, 2024.



2025 Capital Markets Expectations

Slightly Lower Inflation Expectations

- → After substantial changes in inflation expectations in recent years, the market's expectations for inflation were little changed at the end of 2024.
 - The 10-year BEI rate increased from 2.2% to 2.3%. The 5-year BEI was slightly higher, at 2.4%.



Ten-Year Breakeven Inflation

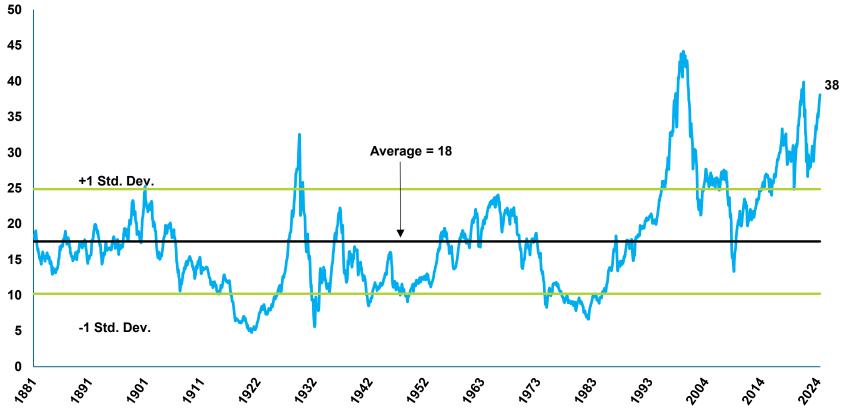
Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA). Data is as of December 31, 2024.



2025 Capital Markets Expectations

Higher Prices for US Equities

- \rightarrow US stocks had another good year, with the S&P 500 index gaining 25%.
- → Valuations increased and remain elevated relative to their long-term history.



US Equity Cyclically Adjusted Price/Earnings

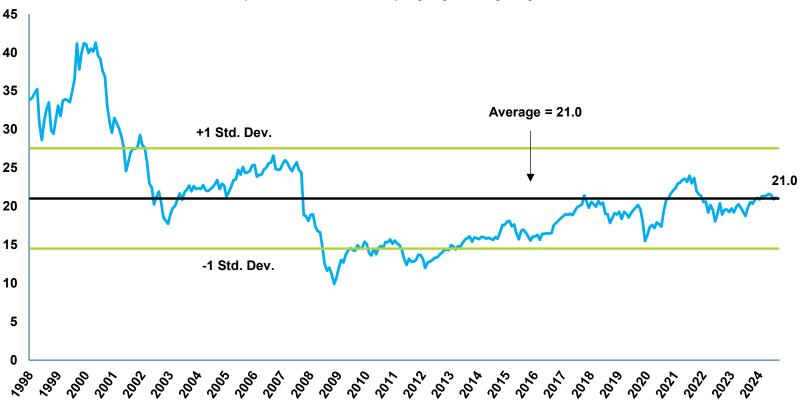
Source: Robert Shiller, Yale University, and Meketa Investment Group. Data is as of December 31, 2024 for the S&P 500 Index.



2025 Capital Markets Expectations

Little Change in Non-US Equity Valuations

- → EAFE equities had a good year in local currency terms (+11.3%), but a currency headwind ate into most of these gains for USD investors who only saw a 3.8% return.
- → EAFE valuations are little changed from one year ago and remain close to their historical average.



Developed International Equity Cyclically Adjusted P/E

Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of December 31, 2024.



2025 Capital Markets Expectations

Slightly Higher Prices in Emerging Market Equities

- → Emerging market equities gained 13.1% in local currency terms, but the rising dollar cut returns to 7.5% for USD investors.
- → EM equity valuations remain below their long-term average, with the EM ex-China index continuing to trade at higher valuations than the China index.



Emerging Market Equity Cyclically Adjusted P/E

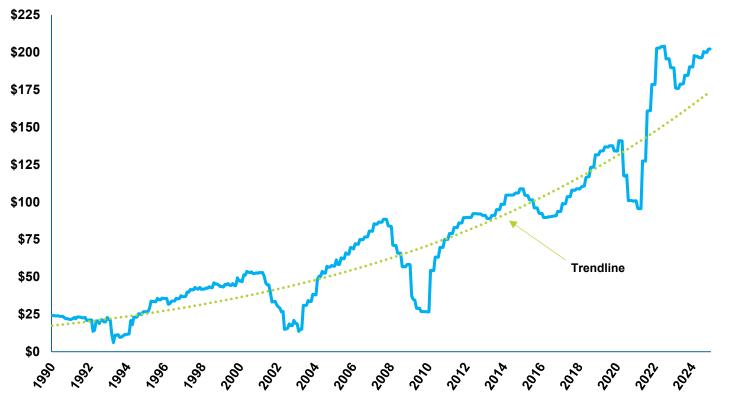
Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.. Data is as of December 31, 2024.



2025 Capital Markets Expectations

US Earnings Growth

- \rightarrow S&P 500 earnings (EPS) rebounded after a short-lived dip in 2023.
 - At year-end, estimates were that EPS was just shy of its peak in July 2022.



S&P 500 Earnings Per Share

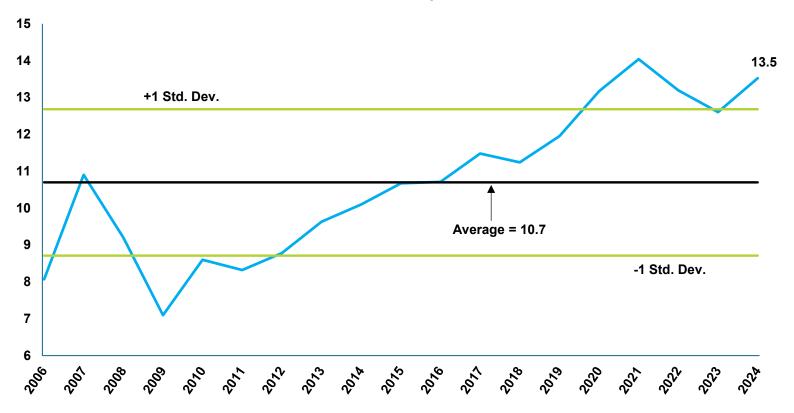
Source: S&P 500 Index data from Bloomberg. Represents trailing 12-month "as reported" earnings per share. Data is as of December 31, 2024.



2025 Capital Markets Expectations

Private Equity Prices Rebounding

- \rightarrow EBITDA multiples rose from year end (note that the endpoint is as of September 30).
 - Like public equities, valuations have been trending up since the GFC, though they did not rise as quickly as those for US equities over the past year.



EBITDA Multiples

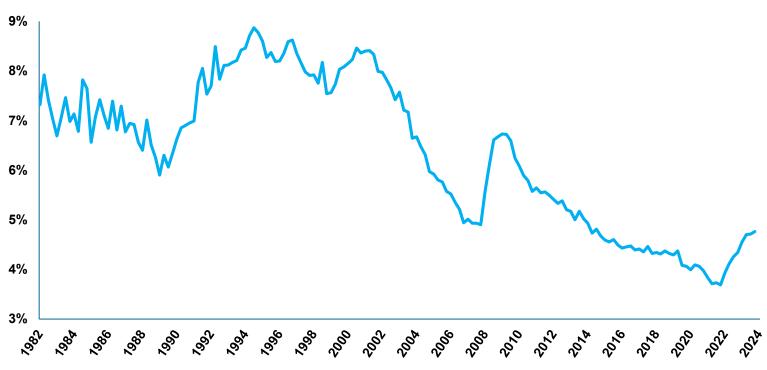
Source: Preqin Median EBITDA Multiples Paid in All LBOs, as of September 30, 2024.



2025 Capital Markets Expectations

Real Estate Valuations Improving

- \rightarrow Cap rates for core real estate continued to improve in 2024.
 - This is despite a challenging year for many real estate segments.
- \rightarrow Higher cap rates may be indicative of better returns going forward.



Core Real Estate Cap Rates

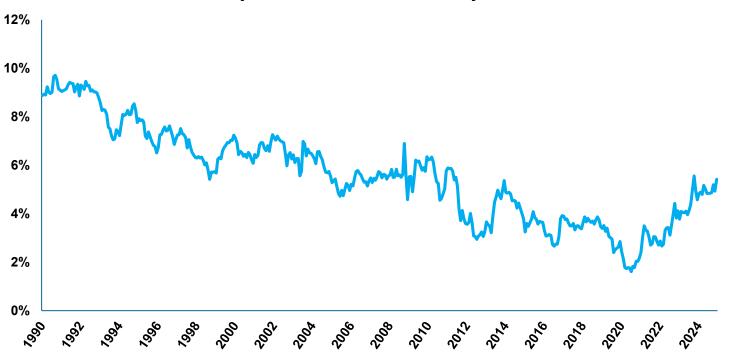
Source: NCREIF NPI value-weighted cap rates. As of September 30, 2024.



2025 Capital Markets Expectations

Higher Projected Rates in the Future

- \rightarrow As interest rates have risen, so have the market's predictions for future interest rates.
 - The market is forecasting that the 10-year Treasury yield in ten years will be 5.42%, versus a prediction of 4.57% twelve months ago.
- → Higher future interest rates implies higher expected returns for any forecasting model that includes a risk premium approach.



Market Projection for the 10-Year Treasury Yield in Ten Years

Source: FRED. Represents the Fitted Instantaneous Forward Rate 10 Years Hence, as of December 31, 2024.



FAQs



FAQs for 2025

How do these CMEs compare to prior years' assumptions?

- → To help evaluate this, we created a weighted average of expected returns for the asset classes that comprise a typical institutional portfolio.¹
- → The value of the expected return for the portfolio is not a precise expected return (i.e., it has not been run via MPT), but the magnitude of the change is what is relevant.
- \rightarrow In short, the average of 20-year expected returns is 10 basis points higher than last January.

Year	Weighted Average Expected Return (%)	Change from Prior Year (%)
2025	8.1	+0.1
2024	8.0	-0.2
2023	8.2	+1.7
2022	6.5	+0.4
2021	6.1	-0.7
2020	6.8	-0.6
2019	7.4	+0.7

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



FAQs for 2025

What is driving the changes from last year?

- \rightarrow US equity markets rallied, pushing them to higher valuations, thus reducing their forward-looking returns.
- \rightarrow Interest rates moved up, increasing yields and hence expected returns for higher quality bonds.
- \rightarrow Credit spreads tightened, leading to lower yields for riskier fixed income assets.
- → Higher anticipated cash yields helped expected returns for hedge funds and related asset classes.
- \rightarrow Cap rates for real estate moved up, pushing up the expected returns.
- → Higher anticipated long-term interest rates also provide a tailwind in our 20-year projections, as the bridge from 10 to 20 years is made via a risk premium being added to a (higher) future risk-free rate.
 - The market projection for the 10-year risk-free rate jumped from 4.57% to 5.42%.



FAQs for 2025

How do Meketa's CMEs compare to peers?

- \rightarrow Our CMEs are typically in the same ballpark as our peers.
- → While we expect be above or below the median for various asset classes, we tend not to be systematically above or below for the entire group.
- → We generally cite the survey conducted each year by Horizon Actuarial Services for making peer comparisons, as it is the most comprehensive survey of CMEs of which we are aware.
 - However, this survey is usually not published until July or August.
- → It is important to distinguish between intermediate-term assumptions (e.g., 7-10 years) and long-term assumptions (e.g., 20-30 years) when making these comparisons.
 - The average intermediate-term return assumptions tend to be lower than the long-term assumptions across the peer group, particularly for riskier asset classes.



FAQs for 2025

What model changes were made?

- \rightarrow We reduced the equity risk premium we assume for years 11-20 by 50 basis points.
 - The 5.5% historical average risk premium for US equities is based on a history that includes significant multiple expansion (e.g., increase in P-E ratio).
 - Using this same level of risk premium implies that we would assume multiple expansion in the future.
 - Therefore, we decided to use a lower risk premium.
 - We are making this change not just for US equities, but for every equity/growth-oriented asset class.
 - We have observed valuation multiples expand over time for most of these asset classes where we have available metrics (e.g., EBITDA multiples, cap rates).
- → We changed to using two distinct currency models, one for developing markets that emphasizes interest rate parity and one for emerging markets that emphasizes purchasing power parity.
 - This was partly driven by the observation that central banks have intervened in their foreign exchange markets.
 - Currency movements are the portion of our CMEs that we probably have the least confidence in (hence why we have capped them historically).
 - For 2025, developed markets switches from a 50 basis point tailwind to a 20 basis point headwind, while there is no impact on emerging markets.
 - There are a few asset classes (e.g., foreign bonds, foreign equities) that feel the full impact and others (e.g., global equities, buyouts, natural resources) that will experience a more modest impact.



FAQs for 2025

What model changes were made?

- → We switched from using historical *real* income to nominal income to predict near-term income for timberland and farmland.
 - The inflation of recent years dispelled the notion of a direct link between income and inflation in the short term for these asset classes.
- → We started incorporating data from third parties for two private market asset classes where such data has traditionally been hard to come by:
 - In private credit, we are including yield and spread data from Lincoln Senior Debt Index.
 - In private infrastructure, we are including valuation metrics from Macquarie.
- → For various private markets where we use a public market proxy to estimate valuations, we modified the composites to reflect the changing natures of those industries:
 - We added an AI index to our VC model.
 - We added an Energy Efficiency index to our Energy model.
 - We added a Clean Energy index to our Sustainability model
- → We assume lower leverage for buyouts (range dropped from 1.4x 1.6x to 1.3x 1.5x) as leverage has declined over the past 5-10 years.



2025 Capital Markets Expectations

FAQs for 2025

What structural changes were made for 2025?

- \rightarrow We added the following "asset classes" (total now at 113):
 - Multi-sector credit
 - High yield municipal bonds
 - Emerging market corporate bonds
 - Emerging market bonds aggregate

Did volatility expectations change?

- \rightarrow Not systematically; there were very few changes, and most were +/- 1%.
- → The biggest change was a 5% decrease in digital currencies. This reflects the growing institutionalization of the asset class (e.g., with bitcoin ETFs being introduced).
- \rightarrow Our methodology includes a 20-year look back, which includes the volatile years of 2022, 2020, and 2008.

Were there any qualitative adjustments?

- → We typically make some qualitative adjustments to the CMEs, though they have grown fewer in number over the years as we have refined our models.
- → We made a manual adjustment to the 10-year foreign equity return given concerns we had about the data for geographic revenue sources provided by the vendor for the underlying index.



FAQs for 2025

What is the equity risk premium implied by the CMEs?

- \rightarrow We assume a long-term risk premium of 5.0% for US equities over 10-year Treasuries in our model.
 - However, our 10-year assumptions imply an equity risk premium of ~1.5%.
 - This averages out to a 20-year implied equity risk premium of \sim 3.0%.
- → Historically, the risk premium for the S&P 500 over the yield for the 10-year Treasury has averaged 5.5%, though the range has varied considerably.





¹ Represents the ten-year risk premium for the S&P 500 index over the 10-year Treasury yield at the start of the period. Data is through December 31, 2024.



FAQs for 2025

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

- \rightarrow We use the market's projections for future rates, based on what was priced in at the time of our analysis.
- → For example, the market is projecting that the ten-year Treasury will be yielding approximately 5.4% in ten years, versus the actual yield of 4.6% at the end of December 2024.
- → By contrast, the FOMC is expecting the fed funds rate to fall to ~3.4% by 2026, implying a return to a more normally shaped yield curve.

What is the steepness of the yield curve you imply?

- → Just as our equity models assume mean reversion in pricing, our bond models assume a kind of mean reversion in the shape of the yield curve over the next ten years.
 - The yield on the 10-year Treasury has averaged 141 basis points over that for T-bills since 1962.
 - The 2-10 spread has averaged 86 basis points since 1976.
- \rightarrow This is consistent with the market's projections for short-term and longer-term rates noted above.

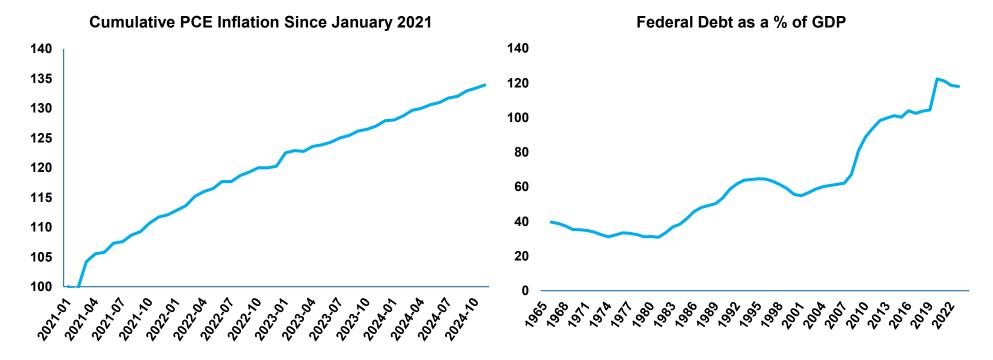
Source: FRED. 3-Month Treasury Bill Secondary Market Rate, Market Yield on US Treasury Securities at 10-Year Constant Maturity, 10-Year Treasury Constant Maturity.



FAQs for 2025

Why is the market projecting rates will be higher in ten years?

- → Expectations of high inflation could necessitate a demand by investors for higher nominal yields to compensation them for the loss of purchasing power.
- → Likewise, expectations of a widening government deficit that will be filled with additional borrowing could be perceived as increasing the credit risk of Treasury issuance, thereby increasing the yield investors seek to compensate them for this new, higher level of risk.



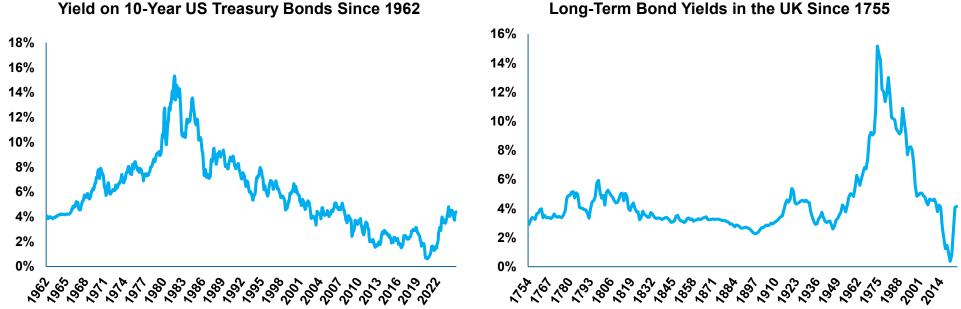
Source: FRED. Personal Consumption Expenditures indexed to 100 on Jan 2021. Federal Debt: Total Public Debt as Percent of Gross Domestic Product, Percent of GDP, Seasonally Adjusted.



FAQs for 2025

Is it reasonable to believe that Treasury yields will be that high (5.4%) in ten years?

- \rightarrow Looking back, a 5.4% rate on the 10-year Treasury is not unreasonable, as the 10-year has spent roughly half of the past 62 years at that level or higher.
- \rightarrow However, when viewed over a (much) longer timeframe, the period from the late 1960s to the late 1990s appears to be a bit of an outlier.
 - From this viewpoint, a 5.4% yield on the debt issuance of the world's (perceived) safest government bonds would typically be associated with an unusually high bout of inflation.



Long-Term Bond Yields in the UK Since 1755

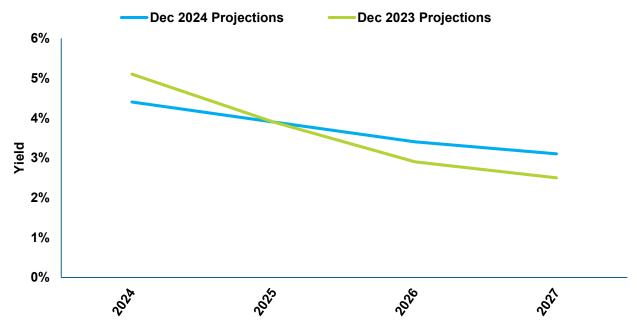
Source: FRED. Market Yield on US Treasury Securities at 10-Year Constant Maturity 1962-2024. Consol (Long-Term Bond) Yields in the United Kingdom 1754-2016, UK Long-Term (10-Year) Government Bond Yields 2017-2024



FAQs for 2025

Why is the expected return for cash increasing when short-term rates decreased during 2024?

- → Our expected returns are long-term projections, reflecting where we expect interest rates to settle in (i.e., the new "normal" rate).
- → Many economists (including the FOMC) and futures markets are expecting short-term rates to settle in much higher in 2-3 years than they were a year ago.
- \rightarrow Most of the horizon will be at these rates that are projected to be higher than they were one year ago.



Projected Fed Funds Rate

Source: FRED. FOMC Summary of Economic Projections for the Fed Funds Rate, Median.



FAQs for 2025

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

- → Most of our economic projections come from the IMF's World Economic Outlook. Their inflation projections are in the table below.
 - They were projecting slightly lower inflation for the US in 2025, followed by benign levels thereafter.
- → We combine the five-year average for the US with the 5-year-5 inflation swap (i.e., what the market is projecting 5-year inflation will be five years from now), to arrive at our 10-year number.

	2025	2026	2027	2028	2029	5-Year Average	5-yr-5 Inflation Swap	10-year Inflation Estimate
US	1.9	2.1	2.1	2.1	2.1	2.1	2.5	2.3
Euro Area	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1
UK	2.1	2.0	2.0	2.0	2.0	2.0	3.2	2.6
Japan	2.0	2.0	2.0	2.0	2.0	2.0	NA	1.7
China	1.7	2.0	2.0	2.0	2.0	1.9	NA	2.8

Inflation Estimates

Sources: IMF World Economic Outlook, October 2024; Bloomberg.



FAQs for 2025

Are US earnings expected to grow faster than the broad economy?

- \rightarrow The companies in the US market have grown their earnings much faster than the broad market since the 1990s.
- \rightarrow We assume this trend will continue, based on structural advantages enjoyed by the US market, including:
 - A global footprint that provides access to potentially faster growth overseas economies.
 - A different sector composition than the broader economy that favors faster growing sectors (e.g., IT).
 - Stable pricing power as exhibited by steady profit margins.
 - Favorable societal norms (e.g., a culture that values risk-taking and innovation).

How does the growth of S&P 500 earnings compare to your forward EPS growth projections?

→ Our long-term US EPS growth projections are 6.4%, which are reasonably consistent with the 6.9% EPS growth rate observed since 1990, and conservatively below the 9.7% rate observed since 2010.

Is trailing 20 years the right period to use to look at mean reversion for equities? Why not use the longest period possible for each asset class?

- \rightarrow We use 20 years because we are trying to do apples-to-apples comparisons across similar asset classes.
- → While we have a long history of data for US equities, the available history (especially of earnings) is much shorter for non-US markets.



FAQs for 2025

Do we believe US companies will continue to be net buyers of their stock, and why does that matter?

- → We believe US companies will continue to be net buyers of their shares over the next decade, though perhaps to a lesser extent than they have for the past decade.
- → Investors have generally rewarded US-based companies who have decided that the best use of their "excess" cash is to repurchase shares.
 - So long as markets continue to support this decision, and so long as companies continue to generate sufficient cash to make buybacks, they are likely to continue to do so.
- → Moreover, a mature and active venture capital market in the US allows companies to fund significant growth while they are still private, thereby not diluting public market shareholders.
- \rightarrow The buyback assumption matters in our models because it impacts EPS growth.
 - If companies are more profitable and they are buying back shares, this will be much more beneficial to EPS than if companies are less profitable and are diluting their shares (e.g., via new issuance).
 - That is, buybacks will be a net tailwind to EPS and thus expected returns.
- \rightarrow We expect non-US markets to be net issuers of shares (i.e., this will be dilutive to shareholder wealth).
 - This is most pronounced in emerging markets, due to their anticipated economic growth.



FAQs for 2025

How do you account for the percentage of earnings/revenues that companies derive from foreign countries?

- → Many large corporations operate internationally, allowing them to generate significant revenues and profits from overseas markets.
- → Hence, exposure to faster-growing economies could help profits to grow faster than domestic economic growth alone would allow.
- \rightarrow Therefore, we estimating earnings growth for a market, we adjust for the geographic revenue source.

		-		
	Revenues from US	Revenues from EAFE	Revenues from EM	Revenues from Frontier
MSCI USA	61.7%	17.1%	19.6%	1.6%
MSCI EAFE	22.9%	52.9%	22.1%	2.0%
MSCI Emerging Markets	14.8%	7.9%	76.0%	1.2%

Revenue Source by Market

Source: MSCI Economic Exposure indices for USA, EAFE, Emerging Markets, and Frontier Markets as of December 31, 2024.



FAQs for 2025

How is your outlook on China affecting your expected returns?

- \rightarrow Our outlook for China has declined in recent years due to a number of factors, including:
 - The lackluster post-COVID economic rebound.
 - A shift in prioritization by the CCP to favor Marxism over growth.
 - Geopolitical tensions and "de-risking" by Western investors.
 - Real estate and debt challenges.
- → As a result, we place a significant discount on Chinese (and hence, emerging market) growth translating to EPS growth.
 - This discount is greater than for EAFE and EM ex-China indices.
- \rightarrow This serves as a drag on expected returns for EM and Chinese equities.
 - It is also consistent with Chinese EPS growth substantially lagging GDP growth over the past twenty years.



FAQs for 2025

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

- → Valuations increased to a greater extent for public equities (e.g., PE ratios) than they did for private equity (e.g., EBITDA multiples).
 - Of note, the private equity data (as always) is one quarter lagged (i.e., as of 9/30/24).

How does Meketa look at valuations for venture capital?

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



FAQs for 2025

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

- \rightarrow Cap rates and REIT yields moved in opposite directions.
 - Value-weighted cap rates are ~80 basis points above REIT yields.
- → Higher cap rates pushed up our expected returns for core and non-core real estate, while lower yields pushed down our expected returns for REITs.

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

 \rightarrow Yes, for the vast majority of real assets, inflation is generally linked with either income or growth in our models.

Why did the yield for EM local debt increase when it decreased for most other credit-focused asset classes?

- → We use the JPM GBI EM Global Diversified Index as our proxy for EM local debt.
- → JPM added India to the index in 1% monthly increments starting in June, and the yield for Indian bonds was generally higher than that for the rest of the index.
 - This had the effect of pulling up the overall yield.



FAQs for 2025

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

- → We assume that the payoff of a long vol strategy is significantly and positively skewed during periods of poor equity market returns (e.g., when equity markets increase or decrease by 10%).
- → However, the average return in most years is driven by the effective "insurance premium" investors pay for this strategy.

How much confidence do you have in your model for cryptocurrencies?

- \rightarrow We have the lowest amount of confidence in our projections for digital currencies.
- → The lack of associated cash flows makes them challenging to model relative to most other financial assets, as does their sensitivity to government policy changes.





2025 Expected Returns and Changes from Prior Years MEKETA

Meketa Investment Group

2025 Capital Markets Expectations

10-year Geometric Expected Returns Rate Sensitive

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
Cash Equivalents	2.4	2.8	0.4	Higher projected short-term rates
Short-term Investment Grade Bonds	3.8	4.2	0.4	Higher projected short-term rates
Investment Grade (Core) Bonds	4.6	4.9	0.3	Higher yields
Intermediate Government Bonds	4.0	4.4	0.4	Higher yields
Long-term Government Bonds	4.3	5.0	0.7	Higher yields
Mortgage-Backed Securities	4.7	5.3	0.6	Higher yields
Investment Grade Corporate Bonds	5.2	5.4	0.2	Higher yields
Long-term Corporate Bonds	5.2	5.9	0.7	Higher yields
Short-term TIPS	3.8	3.9	0.1	Higher real yields
TIPS	4.3	4.3	0.0	Higher real yields
Long-term TIPS	4.7	5.0	0.3	Higher real yields
Global ILBs	4.3	4.2	-0.1	Switched to currency headwind
Foreign Bonds	3.1	2.4	-0.7	Switched to currency headwind
US Inflation	2.4	2.3	-0.1	Slightly lower near-term economist and market projections



2025 Capital Markets Expectations

10-year Geometric Expected Returns Credit

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
High Yield Bonds	6.5	6.3	-0.2	Tighter spreads
Bank Loans	6.5	6.3	-0.2	Higher projected short-term rates offset by tighter spreads
Multi-Sector Credit	NA	6.3	NA	
Collateralized Loan Obligations (CLOs)	8.1	6.9	-1.2	Substantial decline in yield
Emerging Market Bonds (major)	7.0	6.9	-0.1	Lower yields
Emerging Market Bonds (local)	6.3	6.5	0.2	Higher yields with addition of India
Emerging Market Corporate Bonds	NA	5.6	NA	
Private Debt	9.2	8.7	-0.5	Tighter spreads
Direct Lending	8.2	7.6	-0.6	Tighter spreads
Asset Based Lending	9.7	9.3	-0.4	Tighter spreads
Special Situations Lending	9.7	9.4	-0.3	Tighter spreads



10-year Geometric Expected Returns Equities

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
US Equity	6.9	6.4	-0.5	Higher valuations, partly offset by higher projected earnings growth
Developed Non-US (EAFE) Equity	7.7	7.2	-0.5	Switched to currency headwind
Emerging Market Equity	7.6	7.1	-0.5	Higher valuations and lower projected earnings growth
Emerging Market ex-China	7.8	7.5	-0.3	Lower dividends and projected earnings growth
China Equity	7.1	6.0	-1.1	Higher valuations and lower projected earnings growth
Frontier Market Equity	9.6	8.9	-0.7	Lower projected earnings growth
Global Equity	7.2	6.7	-0.5	Higher valuations and some currency headwind
Low Volatility Equity	6.5	6.0	-0.5	Higher valuations
Private Equity	9.9	9.8	-0.1	Higher valuations
Buyouts	9.5	9.5	0.0	Lower valuations relative to public markets offset by lower amount of leverage
Growth Equity	10.4	10.1	-0.3	Higher valuations
Venture Capital	10.8	10.4	-0.4	Higher valuations

MEKETA

Meketa Investment Group

2025 Capital Markets Expectations

10-year Geometric Expected Returns Real Estate and Infrastructure

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
Real Estate	6.3	6.9	0.6	Higher cap rates
US REITs	5.6	5.3	-0.3	Lower yields
Core Private Real Estate	4.8	5.5	0.7	Higher cap rates
Value-Added Real Estate	7.3	8.4	1.1	Higher cap rates
Opportunistic Real Estate	8.4	9.5	1.1	Higher cap rates
Infrastructure	7.4	7.2	-0.2	Higher expected borrowing costs, no more currency tailwind
Infrastructure (Public)	8.0	7.6	-0.4	Higher valuations
Infrastructure (Core Private)	6.5	6.2	-0.3	Higher expected borrowing costs, no more currency tailwind
Infrastructure (Non-Core Private)	8.0	8.2	0.2	Higher income growth partly offset by higher borrowing costs, no more currency tailwind



2025 Capital Markets Expectations

10-year Geometric Expected Returns Natural Resources and Commodities

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
Natural Resources	7.8	7.4	-0.4	Higher valuations
Natural Resources (Public)	8.3	7.8	-0.5	Slightly higher valuations, currency headwind
Natural Resources (Private)	7.7	7.4	-0.3	Higher valuations
Energy	9.1	8.8	-0.3	Slightly higher valuations
Mining	8.6	8.3	-0.3	Slightly higher valuations, currency headwind
Timberland	5.5	5.3	-0.2	Higher valuations
Farmland	5.0	3.6	-1.4	Higher valuations
Sustainability	8.4	8.6	0.2	Lower relative valuations
MLPs	6.6	5.7	-0.9	Higher valuations
Gold Mining	8.0	7.9	-0.1	Slightly higher valuations
Gold (Metal)	2.4	2.3	-0.1	Slightly lower inflation expectations
Commodities	4.9	5.5	0.6	Higher cash yield, moved to positive roll return

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2025 Capital Markets Expectations

10-year Geometric Expected Returns Hedge Funds and Miscellaneous

	2024 E(R) (%)	2025 E(R) (%)	∆ From 2024 (%)	Notes
Hedge Funds	4.5	4.2	-0.3	Higher equity valuations, tighter spreads
Long-Short	3.2	3.1	-0.1	Higher equity valuations, partly offset by higher cash yields
Event Driven	7.0	5.1	-1.9	Higher equity valuations, tighter spreads
Global Macro	4.2	4.5	0.3	Higher yields
CTA – Trend Following	3.8	3.4	-0.4	Less favorable signals for rates and equities
Fixed Income/L-S Credit	5.0	4.9	-0.1	Tighter spreads
Relative Value/Arbitrage	5.6	4.9	-0.7	Lower projected arb spreads
RMS Aggregate	3.6	3.7	0.1	Higher cash yields offset by less favorable trend signals
Long Vol	0.7	0.7	0.0	
Insurance Linked Strategies	5.3	4.8	-0.5	Higher expected losses
Alternative Risk Premia	4.8	5.2	0.4	Higher cash yields
Risk Parity (10% vol)	6.3	6.1	-0.2	Higher equity valuations, tighter spreads
Digital Currencies	2.4	2.9	0.5	Growing institutionalization

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2025 Capital Markets Expectations

20-year Geometric Expected Returns Rate Sensitive

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
Cash Equivalents	2.5	3.1	0.6	Higher yields
Short-term Investment Grade Bonds	3.7	4.3	0.6	Higher yields
Investment Grade (Core) Bonds	4.8	5.3	0.5	Higher yields
Intermediate Government Bonds	4.1	4.6	0.5	Higher yields
Long-term Government Bonds	5.0	5.7	0.7	Higher yields
Mortgage-Backed Securities	4.9	5.5	0.6	Higher yields
Investment Grade Corporate Bonds	5.4	5.9	0.5	Higher yields
Long-term Corporate Bonds	6.0	6.7	0.7	Higher yields
Short-term TIPS	3.7	4.1	0.4	Higher real yields
TIPS	4.7	5.0	0.3	Higher real yields
Long-term TIPS	5.2	5.7	0.5	Higher real yields
Global ILBs	4.7	5.0	0.3	Higher yields
Foreign Bonds	3.9	3.9	0.0	Higher yields offset by currency headwind
US Inflation	2.8	2.7	-0.1	Slightly lower near-term economist and market projections



2025 Capital Markets Expectations

20-year Geometric Expected Returns Credit

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
High Yield Bonds	6.8	7.1	0.3	Higher yields offset by tighter spreads
Bank Loans	6.6	6.8	0.2	Higher yields offset by tighter spreads
Multi-Sector Credit	NA	7.0	NA	
Collateralized Loan Obligations (CLOs)	7.2	7.0	-0.2	Higher yields offset by tighter spreads
Emerging Market Bonds (major)	6.8	7.1	0.3	Higher yields
Emerging Market Bonds (local)	6.2	6.7	0.5	Higher yields with addition of India
Emerging Market Corporate Bonds	NA	6.5	NA	
Private Debt	9.2	9.1	-0.1	Higher yields offset by tighter spreads
Direct Lending	8.4	8.2	-0.2	Higher yields offset by tighter spreads
Asset Based Lending	9.4	9.3	-0.1	Higher yields offset by tighter spreads
Special Situations Lending	9.9	9.9	0.0	Higher yields offset by tighter spreads



20-year Geometric Expected Returns Equities

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
US Equity	8.5	8.4	-0.1	Higher valuations, partly offset by higher projected earnings growth
Developed Non-US (EAFE) Equity	8.9	8.7	-0.2	Switched to currency headwind
Emerging Market Equity	8.9	8.7	-0.2	Higher valuations and lower projected earnings growth
Emerging Market ex-China	9.0	9.0	0.0	
China Equity	8.6	8.1	-0.5	Higher valuations and lower projected earnings growth
Frontier Market Equity	10.0	9.8	-0.2	Lower projected earnings growth
Global Equity	8.7	8.5	-0.2	Higher valuations and some currency headwind
Low Volatility Equity	7.8	7.7	-0.1	Higher valuations
Private Equity	11.2	11.2	0.0	
Buyouts	10.8	10.9	0.1	Lower valuations relative to public markets offset by lower amount of leverage
Growth Equity	11.5	11.4	-0.1	Higher valuations
Venture Capital	12.0	11.9	-0.1	Higher valuations

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2025 Capital Markets Expectations

20-year Geometric Expected Returns Real Estate and Infrastructure

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
Real Estate	8.0	8.5	0.5	Higher cap rates
US REITs	7.8	7.8	0.0	
Core Private Real Estate	6.9	7.4	0.5	Higher cap rates
Value-Added Real Estate	9.0	9.6	0.6	Higher cap rates
Opportunistic Real Estate	10.3	10.9	0.6	Higher cap rates
Infrastructure	9.0	9.2	0.2	Higher income growth
Infrastructure (Public)	9.1	9.0	-0.1	Higher valuations
Infrastructure (Core Private)	8.0	8.0	0.0	
Infrastructure (Non-Core Private)	10.0	10.3	0.3	Higher income growth partly offset by higher borrowing costs



2025 Capital Markets Expectations

20-year Geometric Expected Returns Natural Resources and Commodities

	2024 E(R) (%)	2025 E(R) (%)	Δ From 2024 (%)	Notes
Natural Resources	9.3	9.2	-0.1	Higher valuations
Natural Resources (Public)	9.2	9.1	-0.1	Slightly higher valuations
Natural Resources (Private)	9.3	9.2	-0.1	Slightly higher valuations
Energy	10.4	10.3	-0.1	Slightly higher valuations
Mining	9.9	9.8	-0.1	Slightly higher valuations
Timberland	7.3	7.3	0.0	
Farmland	7.0	6.5	-0.5	Higher valuations
Sustainability	10.0	10.2	0.2	Lower relative valuations
MLPs	8.4	8.0	-0.4	Higher valuations
Gold Mining	9.5	9.5	0.0	
Gold (Metal)	3.5	3.6	0.1	
Commodities	5.3	5.9	0.6	Higher cash yield



2025 Capital Markets Expectations

20-year Geometric Expected Returns Hedge Funds and Miscellaneous

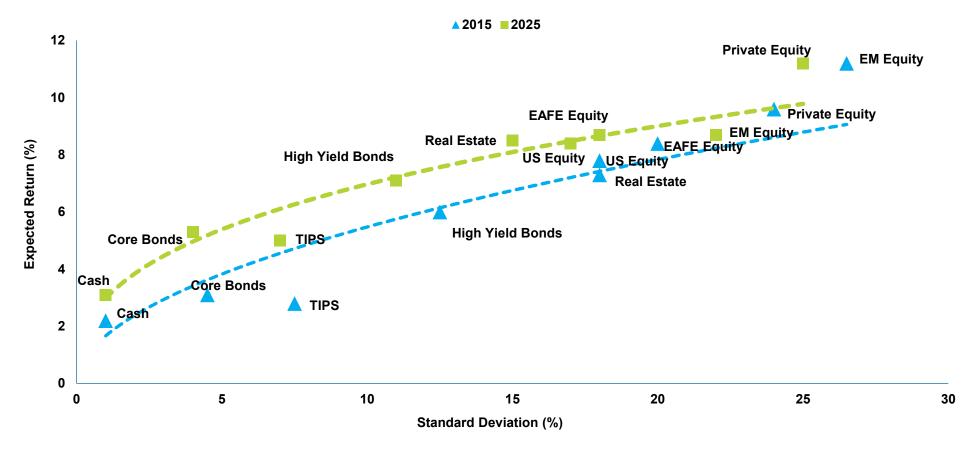
	2024 E(R) (%)	2025 E(R) (%)	∆ From 2024 (%)	Notes
Hedge Funds	5.8	6.0	0.2	Higher valuations offset by higher cash yields
Long-Short	5.3	5.5	0.2	Higher valuations offset by higher cash yields
Event Driven	7.6	6.7	-0.9	Higher equity valuations, tighter spreads
Global Macro	5.4	5.9	0.5	Higher yields
CTA – Trend Following	4.7	4.9	0.2	
Fixed Income/L-S Credit	6.1	6.4	0.3	Higher yields
Relative Value/Arbitrage	6.5	6.5	0.0	
RMS Aggregate	4.4	4.8	0.4	Higher cash yields
Long Vol	1.2	1.5	0.3	
Insurance Linked Strategies	6.2	6.3	0.1	
Alternative Risk Premia	5.2	5.8	0.6	Higher cash yields
Risk Parity (10% vol)	7.2	7.4	0.2	
Digital Currencies	3.5	4.1	0.6	Growing institutionalization



2025 Capital Markets Expectations

The Big Picture: Higher Return for Similar Risk¹

- → The relationship between long-term return expectations and the level of risk accepted is not static.
- → The higher interest rates compared to a decade ago mean that many investors have greater flexibility in how they structure a portfolio to achieve their target returns.



¹ Expected return and standard deviation are based upon Meketa Investment Group's 2015 and 2025 20-year capital market expectations.



Summary Data and Track Record



2025 Capital Markets Expectations

Asset Class	10-year Expected Return (%)	20-year Expected Return (%)	Standard Deviation (%)	Years 11-20 Risk Premium ¹ (%)
Cash Equivalents	2.8	3.1	1.0	-2.0
Investment Grade Bonds	4.9	5.3	4.0	0.4
Long-term Government Bonds	5.0	5.7	12.0	1.0
TIPS	4.3	5.0	7.0	0.4
High Yield Bonds	6.3	7.1	11.0	2.5
Bank Loans	6.3	6.8	10.0	2.0
Emerging Market Debt	6.3	6.8	11.0	1.8
Private Debt	8.7	9.1	15.0	4.1
US Equity	6.4	8.4	17.0	5.0
Developed Non-US Equity	7.2	8.7	18.0	4.9
Emerging Non-US Equity	7.1	8.7	22.0	5.0
Global Equity	6.7	8.5	17.0	5.0
Private Equity	9.8	11.2	25.0	7.3
Real Estate	6.9	8.5	15.0	4.8
Infrastructure	7.2	9.2	18.0	5.7
Commodities	5.5	5.9	17.0	1.0
Hedge Funds	4.2	6.0	7.0	2.4
Inflation	2.3	2.7	NA	NA

Return and Risk Data

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



2025 Capital Markets Expectations

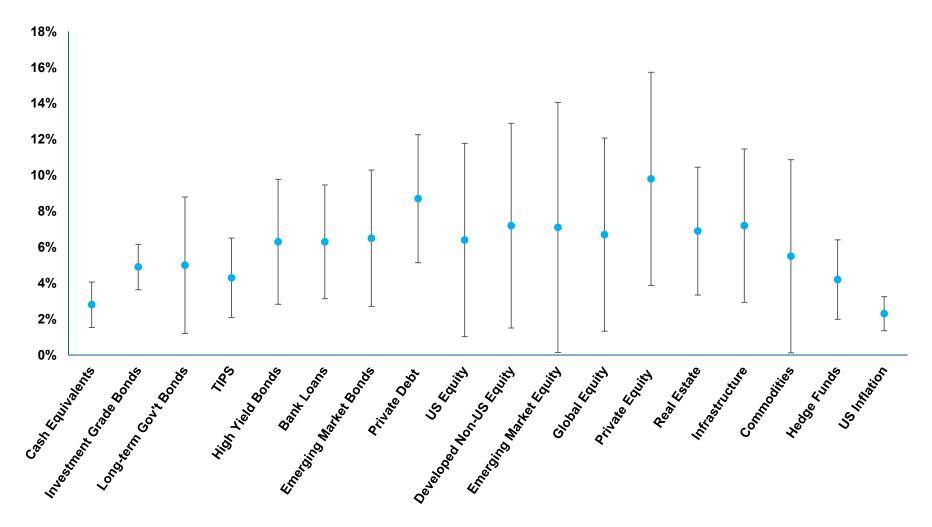
	Inv. Grade Bonds	Long- Term Gov't Bonds	TIPS	High Yield Bonds	US Equity	Dev. Non- US Equity	Em. Market Equity	Private Equity	Real Estate	Commod.	Infra.	Hedge Funds
Investment Grade Bonds	1.00											
Long-Term Government Bonds	0.86	1.00										
TIPS	0.77	0.61	1.00									
High Yield Bonds	0.35	-0.03	0.47	1.00								
US Equity	0.18	-0.13	0.25	0.74	1.00							
Developed Non-US Equity	0.28	-0.07	0.34	0.77	0.87	1.00						
Emerging Market Equity	0.26	-0.06	0.35	0.72	0.71	0.85	1.00					
Private Equity	0.00	-0.10	0.03	0.66	0.90	0.83	0.79	1.00				
Real Estate	0.26	0.07	0.16	0.56	0.53	0.49	0.42	0.48	1.00			
Commodities	-0.01	-0.24	0.27	0.48	0.48	0.55	0.59	0.23	0.15	1.00		
Infrastructure	0.31	0.14	0.32	0.65	0.64	0.68	0.59	0.51	0.61	0.41	1.00	
Hedge Funds	0.15	-0.17	0.30	0.78	0.79	0.83	0.80	0.53	0.47	0.64	0.61	1.00

Correlation Data

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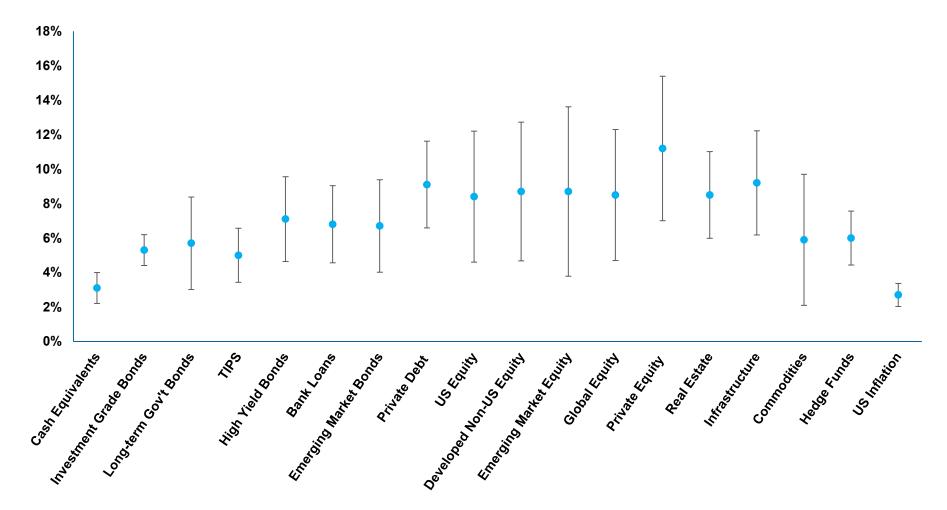
2025 Capital Markets Expectations



10-Year Return Forecasts and Likely Range



2025 Capital Markets Expectations

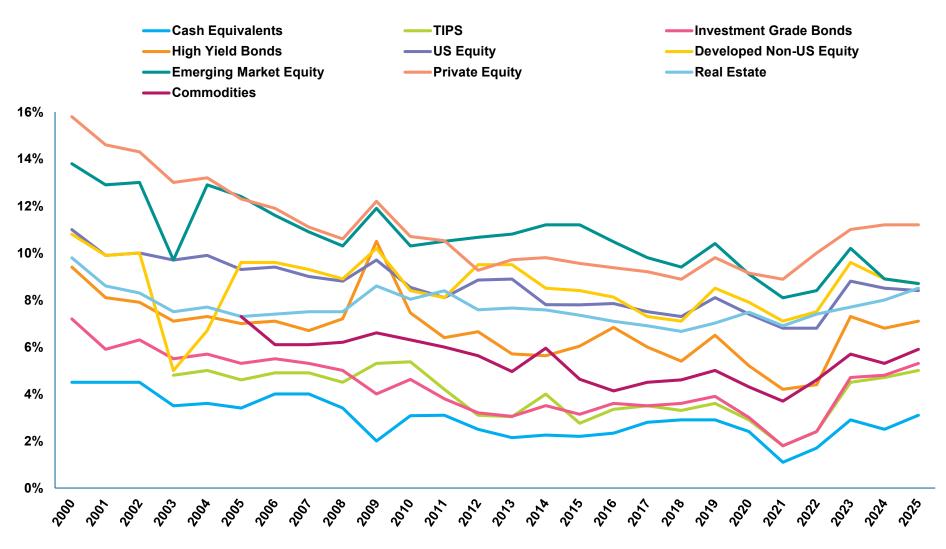


20-Year Return Forecasts and Likely Range



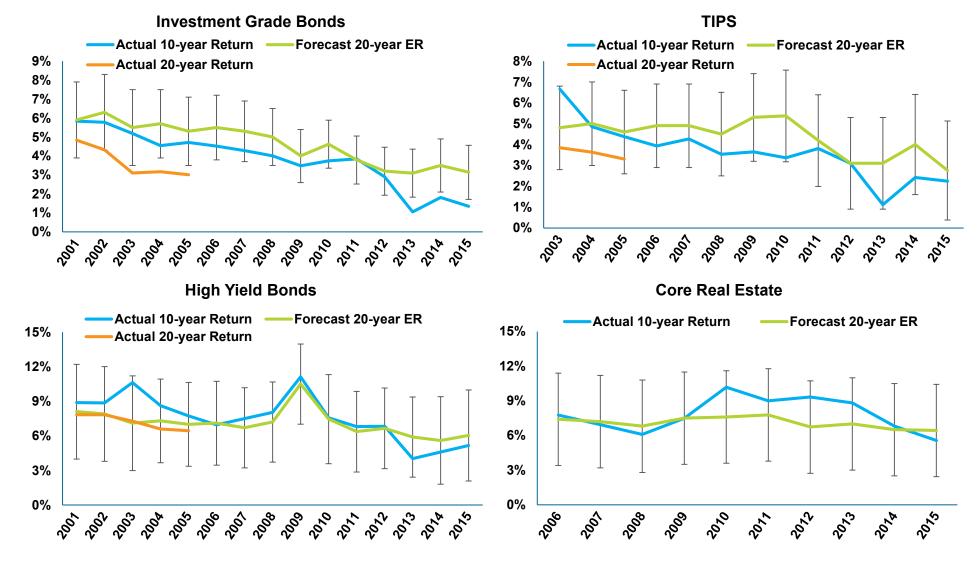
2025 Capital Markets Expectations

Our 20-Year CMEs Since 2000





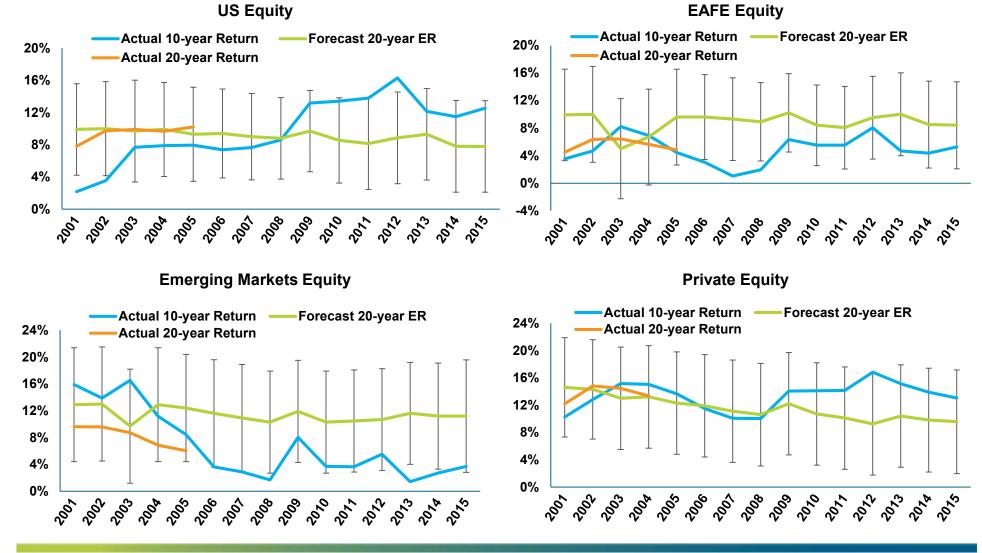
2025 Capital Markets Expectations



Our Track Record



2025 Capital Markets Expectations



Our Track Record (continued)

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2025 Capital Markets Expectations

2024 Peer Survey

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

	Horizon 10-Year		Horizon 20-Year	
Asset Class	Average (%)	Meketa 10-Year (%)	Average (%)	Meketa 20-Year (%)
Cash Equivalents	3.7	2.4	3.4	2.5
TIPS	4.4	4.3	4.3	4.7
US Core Bonds	4.9	4.6	4.9	4.8
US High Yield Bonds	6.1	6.5	6.4	6.8
Emerging Market Debt	6.2	6.3	6.3	6.2
Private Debt	8.3	9.2	8.4	9.2
US Equity (large cap)	6.5	6.9	7.0	8.5
Developed Non-US Equity	7.1	7.7	7.5	8.9
Emerging Non-US Equity	7.7	7.6	8.2	8.9
Private Equity	9.1	9.9	9.7	11.2
Real Estate	6.1	6.3	6.2	8.0
Infrastructure	7.3	7.4	7.4	9.0
Commodities	4.9	4.9	5.0	5.3
Hedge Funds	5.9	4.5	6.2	5.8
Inflation	2.4	2.4	2.4	2.8

¹ The 10-year horizon included all 41 respondents to the survey, and the 20-year horizon included 26 respondents. Figures are based on Meketa's 2024 CMEs. The survey is typically published in August.



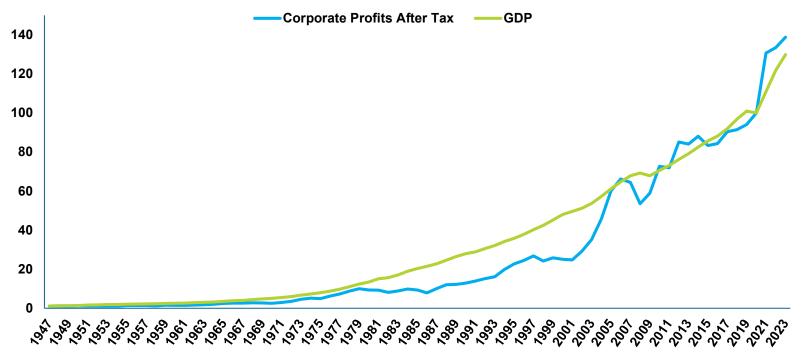
Long-Term Theme: The Sustainability of US Earnings



2025 Capital Markets Expectations

The Long-Term Link Between Profits and GDP

- \rightarrow There is an intuitive appeal to the idea that long-term earnings growth is linked to economic growth.
- → Corporate profitability is based on factors such as consumption, investment, and spending that are the key ingredients of economic growth.
- → Indeed, growth features in the discounted cash flow formula commonly used by investors to calculate the present value of a stock (or any asset).



Corporate Profits and GDP 1947-2023

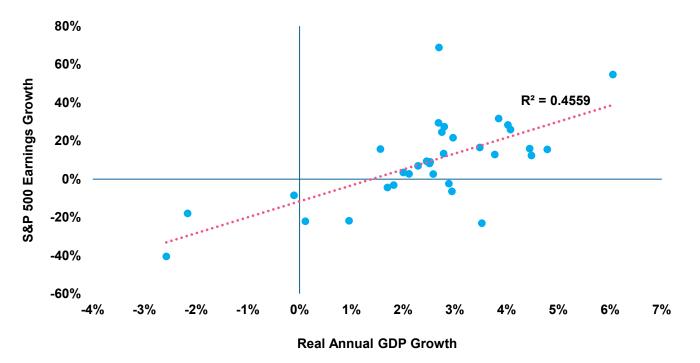
Source: Meketa analysis of FRED data as of December 2023. US annual GDP and corporate profits indexed annual growth to March 2020. Corporate profits include both private and publicly traded companies as calculated by the Bureau of Economic Analysis.



2025 Capital Markets Expectations

The Long-Term Link Between Profits and GDP

- \rightarrow There appears to be a relationship between economic growth and earnings growth, at least in the US.
- → Since 2000, there is a clear positive correlation between the earnings growth of S&P 500 companies and real GDP growth.
- → The r-squared value of 0.456 implies that while economic growth is partly responsible for earnings growth, it is far from the full story.



S&P 500 Earnings Growth and US Real Economic Growth Relationship

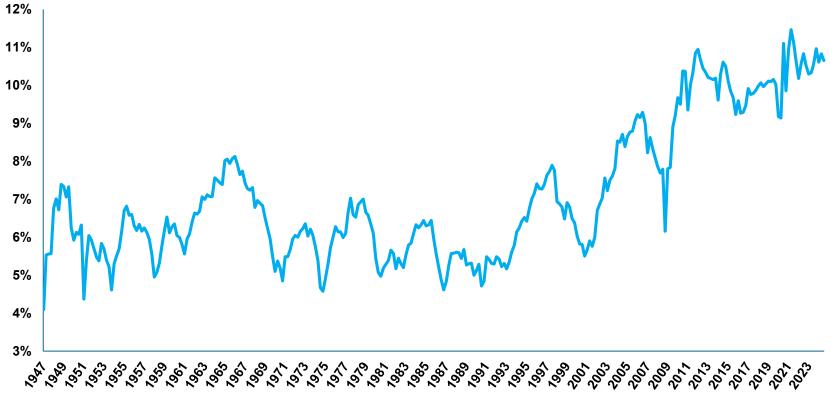
Source: Meketa analysis of FactSet and FRED data as of December 2023.



2025 Capital Markets Expectations

US Profitability

- \rightarrow In the US, corporate profits have grown considerably faster than the broader economy since the 1990s.
- \rightarrow This is coincident with profits consuming a greater proportion of the economic pie.
 - Since 2000, corporate profits averaged 9.1% of GDP, vs 6.1% prior to that.



Corporate Profits as a % of GDP

Source: Meketa analysis of FRED data. Series uses Seasonally Adjusted Annual Rate for Nominal GDP and Corporate Profits After Tax with Inventory Valuation Adjustment (IVA) and Capital Consumption Adjustment (CCAdj). Data is from 1Q1947 through 3Q2024.



2025 Capital Markets Expectations

Recent Corporate Profits

→ The strong growth in US earnings since 1990 is linked in part to profits consuming a greater proportion of the economic pie.

Growth of US GDP, Corporate Earnings, and EPS

	US Nominal GDP Growth Per Annum	US Corporate Earnings Growth Per Annum	S&P 500 EPS Growth Per Annum
Since 1990	4.8%	7.0%	6.9%
Since 2010	4.9%	5.6%	9.7%

- → This begs the question of why US corporate profits have grown faster than the broader economy (as well as other markets), and more importantly, whether this is sustainable.
 - Justifying higher future earnings growth implies that profits will continue to comprise a higher percentage of GDP.

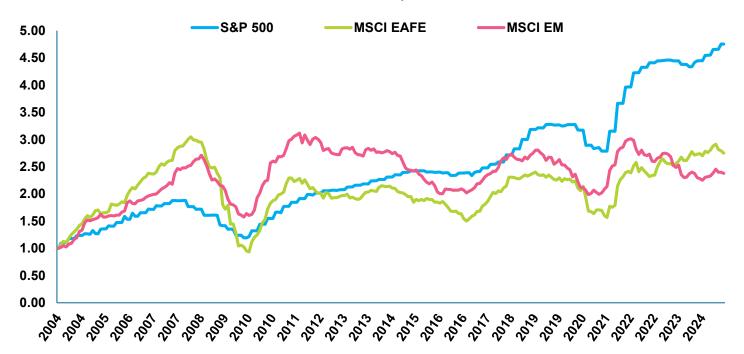
Source: Federal Reserve Economic Data, S&P. Corporate earnings defined as Corporate Profits After Tax (with IVA and CCAdj). Seasonally Adjusted Annual Rate for Nominal GDP. Data is as of September 30, 2024.



2025 Capital Markets Expectations

EPS Growth

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



20-Year EPS Growth, Indexed to \$1

Source: Meketa analysis of MSCI and Bloomberg data. Series uses Trailing 12-month earnings per share in local currency. As of December 31, 2024.



2025 Capital Markets Expectations

Reasons Why Profitability May Decouple from GDP Growth

- → There are several reasons why profits have likely comprised a higher (or lower) percentage of GDP:
 - The global footprint of companies
 - Market composition
 - Technological advancements
 - Labor market dynamics
 - Government policies
 - The level of interest rates
- \rightarrow In addition, EPS can decouple from earnings.
 - Net issuance vs buybacks affects EPS.
- \rightarrow The question is to what extent some or all of these explanations will remain in place.



2025 Capital Markets Expectations

A Global Footprint

- → Many large corporations (i.e., most of the biggest publicly traded companies) operate internationally, allowing them to generate significant revenues and profits from overseas markets.
 - For example, the companies in the MSCI USA index derived an estimated 38.3% of their revenues from outside the US in 2024.
- → Many of these companies expanded to international markets in the hope of taking advantage of faster growth in the target market for their product or service.
- → Hence, exposure to faster-growing economies (e.g., many emerging markets countries) could help boost US profits to grow faster than US economic growth alone would allow.

	% Revenues from US	% Revenues from EAFE	% Revenues from EM	% Revenues Frontier
MSCI USA	61.7	17.1	19.6	1.6
MSCI EAFE	22.9	52.9	22.1	2.0
MSCI Emerging Markets	14.8	7.9	76.0	1.2

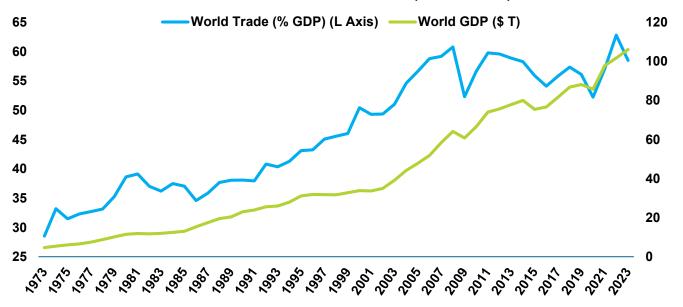
Revenue Source for the Stock Market



2025 Capital Markets Expectations

Shifting Winds in Global Trade

- → Starting around 1990, the world experienced extraordinary growth in trade as countries adopted trade liberalization policies.
- \rightarrow Global trade grew from 20% of global GDP in 1970 to a peak of over 50% in 2008.
 - However, it has since plateaued and appears to be declining.
- \rightarrow As a result, the share of profits for US-based companies coming from outside the US may have peaked.
- → Hence, the tailwind of expanded global trade has likely faded and may even be turning into a headwind if the world continues on its recent path of deglobalization.



Annual Global Trade and GDP (1970 - 2023)

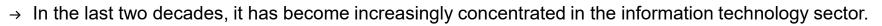
Source: World Bank, as of December 2023. World trade shown in current US dollars.

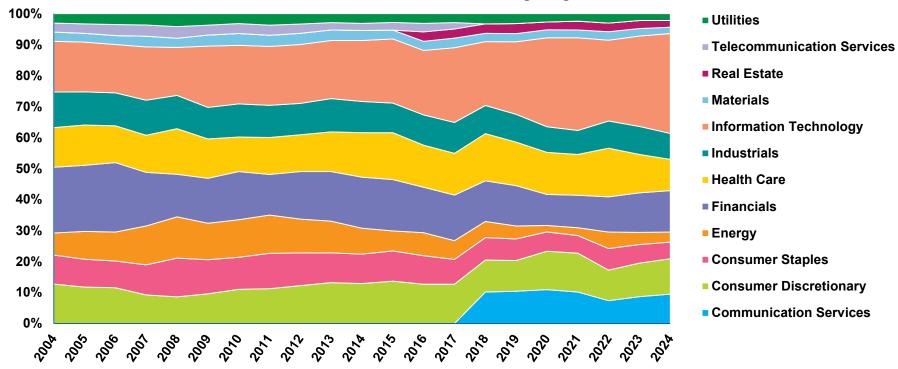


2025 Capital Markets Expectations

Market Composition

- \rightarrow The composition of the US stock market is constantly evolving.
- → At any point in time, it is often led by those companies that are driving change in the economy, from the railroad stocks of the late 1800s to the AI-related stocks of today.





MSCI USA Historical Sector Weightings

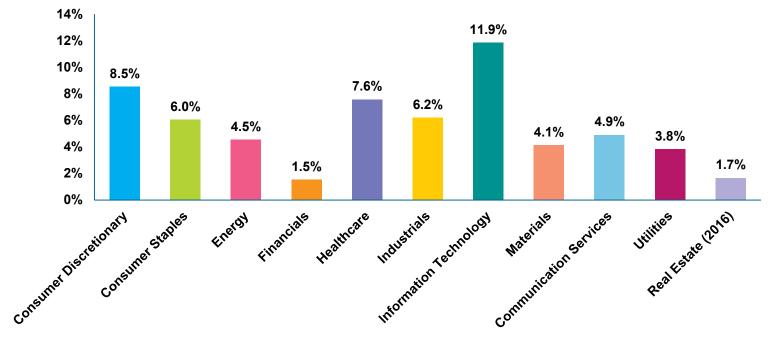
Source: MSCI as of December 2024. In 2017, the Communications sector was created from the telecommunications sector and some social media companies. And in 2017, Real Estate sector was introduced to the index



2025 Capital Markets Expectations

Market Composition, continued

- → This evolution in sector composition is important as different sectors have exhibited varied earnings growth profiles.
- → For example, the two sectors that have exhibited the highest earnings growth since 2000 are now the two largest sectors in the S&P 500.
- → If these sectors continue to grow faster than the rest of the market, their larger weighting supports the concept of the equity market growing faster than the broader economy.



Annualized Average US Earnings Growth by Sector

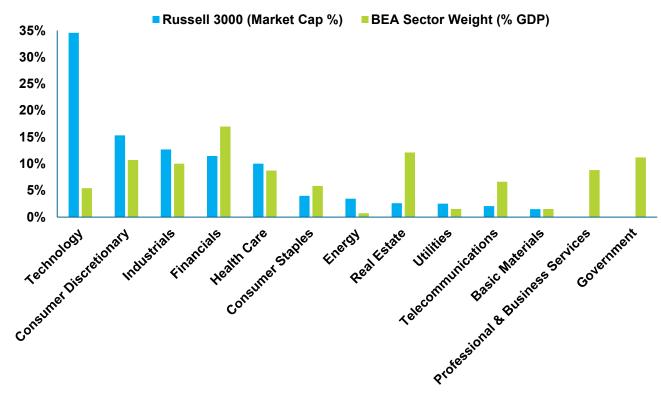
Source: MSCI USA index. Data as for the twenty years ending December 2024. Real estate established in 2016 and showing since inception return. Note that Meta and Alphabet were moved to communication services in 2016.



2025 Capital Markets Expectations

Market Composition (continued)

- → Just as important as the changes in the composition of the equity market are the differences between the stock market and the broad economy.
- \rightarrow For example, IT comprises a substantially larger portion of the stock market than it does of US GDP.



Composition of US Equity Market vs US GDP by Sector

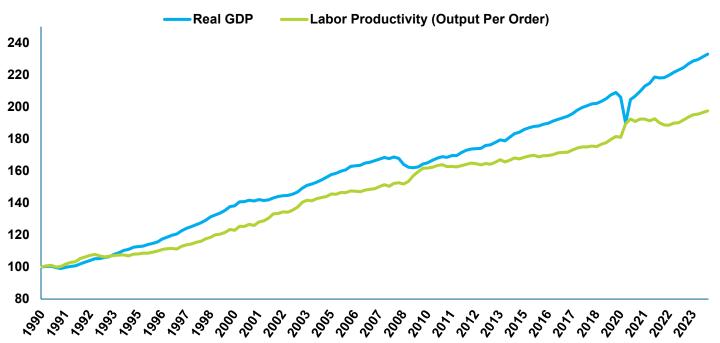
Source: Russell 3000 index fact sheet as of December 2024. Bureau of Economic Analysis as of September 2024. For GDP analysis at the sector level, the BEA uses the 'valued added' approach to GDP calculation. Meketa estimated weights for BEA sectors into GICS sectors.



2025 Capital Markets Expectations

Profitability and Productivity

- \rightarrow Productivity is a driver of growth at both the macroeconomic and microeconomic levels.
- → Increases in labor productivity, for example, mean that more output is produced per hour worked, which directly contributes to GDP growth.
- → Likewise, improvements in total factor productivity, often driven by technological advancements and innovation, can lead to significant increases in GDP.



Labor Productivity and GDP

Source: FRED. Data is for the period 1990 through 3Q2024.



2025 Capital Markets Expectations

Profitability, Productivity, and Labor Market Dynamics

- → Companies that can increase output without a corresponding increase in labor costs will enjoy higher productivity, leading to higher profits.
 - At the macro level, the economy has shifted such that labor has less pricing power.
 - As a result, a smaller share of economic gains goes to labor, while a larger share goes to corporate profits.
- \rightarrow The decreasing share of union workers in the workforce may be both a measure of and cause of this.
 - This decline is due to a number of factors, including the decrease as a % of the economy of heavily unionized industries like manufacturing, mining, and transportation.
 - As these industries have shrunk in relative terms, the economy has shifted towards sectors with traditionally lower unionization rates, such as services and technology.
 - The offshoring of manufacturing and other "low skill" jobs, as well as the automation of much of those industries, has also played a part.
 - More recently, the rise of the gig economy represents yet another area where labor has limited pricing power.



2025 Capital Markets Expectations

Profitability, Productivity, and Scale

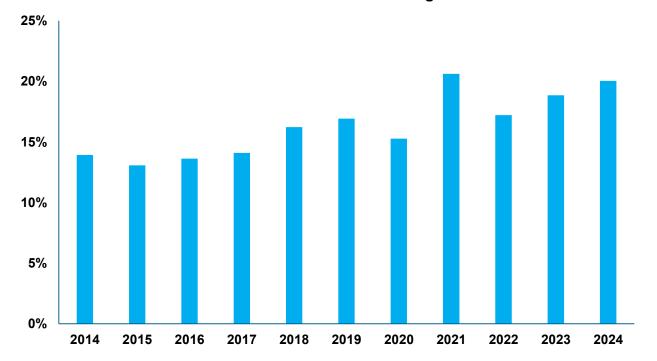
- \rightarrow Productivity can also be driven by economies of scale.
 - For example, companies in the tech sector, particularly those involved in software development and data centers, enjoy significant economies of scale.
 - Once the initial development costs are covered, the cost of producing additional "units" (e.g., software licenses) is minimal.
 - The pharmaceutical industry benefits from economies of scale in research and development (R&D) and production.
 - High initial costs for R&D can be spread over a large volume of drug sales, reducing the average cost per unit.
- → If the stock market is more heavily weighted in industries/companies that have more favorable productivity characteristics, it might help explain why the market has been able to grow earnings faster than the broader economy.
 - Indeed, industries that enjoy low comparative labor costs and high comparative economies of scale represent a disproportionate share of the stock market relative to the economy.



2025 Capital Markets Expectations

Profit Margins

- → Profit margins for the S&P 500 have proved to be quite steady over the past decade, even during the global pandemic.
- → This implies stable pricing power on behalf of listed companies, no matter the political administration, inflationary environment, or stage of the business cycle.



S&P 500 Net Profit Margin

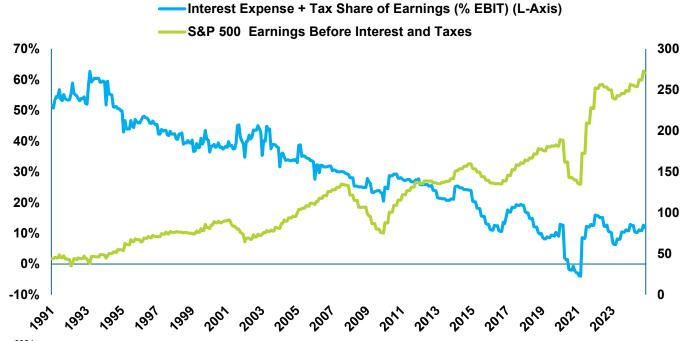
Source: FactSet as of December 31, 2024. Data pulled on January 7, 2025.



2025 Capital Markets Expectations

Government Policies: Taxes and Interest Rates

- → Declining effective tax rates, combined with lower interest rates, have served as a tailwind for profitability since the 1990s.
- → In June of 2023, the Federal Reserve published a research note that found that between 1989 and 2019, falling tax rates and borrowing costs accounted for around forty percent of corporate profit growth.
- → Indeed, corporate taxes and interest expense have fallen from around sixty percent of earnings in the early 1990s to about ten percent of earnings in 2024.



Interest and Tax Share of S&P 500 Earnings (% EBIT)

Source: Bloomberg as of February 2024.



Societal Norms

- \rightarrow The US has a culture that encourages risk-taking, individualism, and entrepreneurial activities.
 - This is perhaps best exemplified by the venture capital industry, which is fairly unique to the US.
 - Venture capital tends to emphasize sectors that, on average, are growing faster than the broad economy, it has served as the breeding ground for many of the companies that are currently driving earnings growth in the US.
 - It is not too far-fetched to believe that the companies that will be powering earnings growth ten or twenty years in the future will come out of the US venture ecosystem of today.
- → In the US, maximizing shareholder wealth has long been the primary goal of the boards and executives that run public companies.
 - Arguably, this results in companies seeking to maximize their long-term earnings per share growth.
 - However, the degree to which shareholder wealth is a primary motivation varies by market, and this changes over time.
 - For example, many European companies are focused on improving outcomes for all "stakeholders" in a company (i.e., stakeholder capitalism).



2025 Capital Markets Expectations

Societal Norms (continued)

- → Perhaps less benevolently, intervention by the state and structural inefficiencies such as lack of property rights or clear rule of law, may also affect earnings growth.
 - State-owned or state-controlled enterprises may pursue motives beside shareholder wealth.
 - State-backed companies may be more willing to tolerate low margins or even operate at a loss in order to achieve other strategic objectives.
 - Likewise, countries that lack clear property rights or rule of law are more likely to be subject to direct intervention by the state that can harm shareholders.
- \rightarrow Corruption, graft, and nepotism can affect the link between economic growth and earnings growth.
 - Capitalism, at least in theory, allows for the efficient allocation of resources and capital, as determined by the marketplace.
 - A culture where corruption is common is more likely to result in the misallocation of resources, where capital is directed from productive to unproductive uses (e.g., bribes).
 - Emerging economies tend to have the lowest scores on the global Corruption Perceptions Index published by Transparency International.
- → A favorable regulatory environment can boost after-tax profits, while a high or unfavorable regulatory environment can detract them.
 - When comparing the relative ease of doing business, the World Bank finds that regulatory burdens are higher in countries with lower national income (i.e., many emerging market countries).

Source: Transparency International, Corruption Perceptions Index, 2023. The CPI measures the perceived levels of public sector corruption in countries and territories around the world. Source: World Bank Group, "Doing Business 2020: Company Business Regulation in 190 Countries," 2020.



2025 Capital Markets Expectations

Earnings Growth

- \rightarrow EPS has grown faster than earnings in the US in recent years, acting as a tailwind.
- → This is primarily due to companies using excess cash to repurchase their shares.¹

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

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

EPS with 2% reduction in shares for ten years
\$1,578B / 8.6M shares
= \$183.9 per share ²
EPS 22% higher

- \rightarrow Data shows that this trend is almost two decades long.³
- → This bucks the longer-term trend (still common in non-US markets) of companies being net issuers of shares.

³ Source: Yardeni research.

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

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

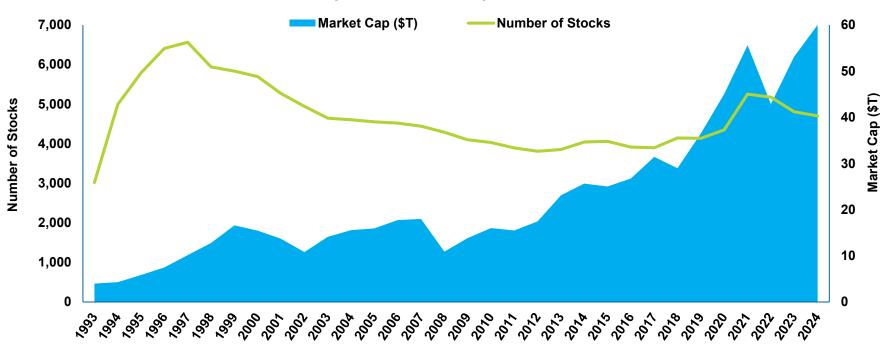


Long-Term Theme: The Decreasing Number of Public Companies



Historical Perspective

- \rightarrow Throughout most of US market history, the number of publicly listed companies grew.
 - This trend peaked in 1997, when there were more than 6,500 listed companies.
- \rightarrow The number then declined by more 40% until reaching a nadir of just 3,800 companies in 2012.
- \rightarrow Market capitalization was relatively unhampered, increasing by nearly 6x to \$60 trillion in June 2024.



Number and Market Cap of US Listed Companies 1980 – June 2024

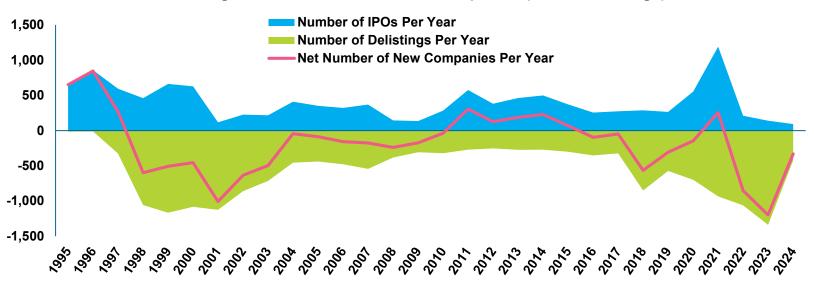
Source: Bloomberg. Stock count from NASDAQ, New York Stock Exchange (NYSE), and New York Stock Exchange American. Note that estimates of the total number of listed stocks vary. For example, data from the World Bank shows a peak of just over 8,000 stocks, while data from CRSP US Stocks Databases shows it peaking at 7,300.



2025 Capital Markets Expectations

Delistings Rise as Initial Public Offerings (IPOs) Fall

- \rightarrow For the majority of the past thirty years, the number of net new companies has declined.
 - The number is impacted by both additions (i.e., IPOs) and subtractions (i.e., delistings).
- \rightarrow Delistings experienced two prolonged surges, one starting in 1997-98 and the other in 2018.
- \rightarrow IPOs declined from a peak in the mid 1990s, aside from a spike in 2021.
- → Other developed markets (e.g., the UK) have seen similar trends of a decreasing number of public companies.
 - However, some emerging markets (e.g., China) have seen the opposite trend.



Net Changes to Number of US Listed Companies (IPOs - Delistings)

Source: London Stock Exchange as June 2024 and Shanghai Stock Exchange as of August 16, 2024

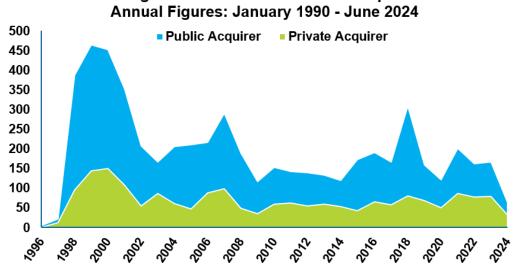
Source: Bloomberg data for delisting from NASDAQ, NYSE and NYSE American. Represents annual figures for 1996 through 2023 and partial year through June 2024. IPOs Data accounts only for "Primary Share Offerings," excludes "Secondary Share Offerings" and "Best Efforts." Delistings are based on delistings from NYSE and NASDAQ. "Other" reasons for delisting include reorganization, bankruptcy, liquidation, and not available.



2025 Capital Markets Expectations

Delisting By Public and Private Acquisition

- \rightarrow If a company delists, shareholders may be bought out or offered new shares.
- \rightarrow Delistings due to M&A peaked in the late 1990s and early 2000s.
 - It has averaged ~250 companies per year since.
- → Delistings due to acquisitions has been driven more by public companies' M&A activity than private companies taking public companies private.
 - When public companies acquire other public companies, investors continue to have access to the growth and revenues of the acquired companies through the merged entity.



Delistings Due to Private and Public Acquisitions Annual Figures: January 1990 - June 2024

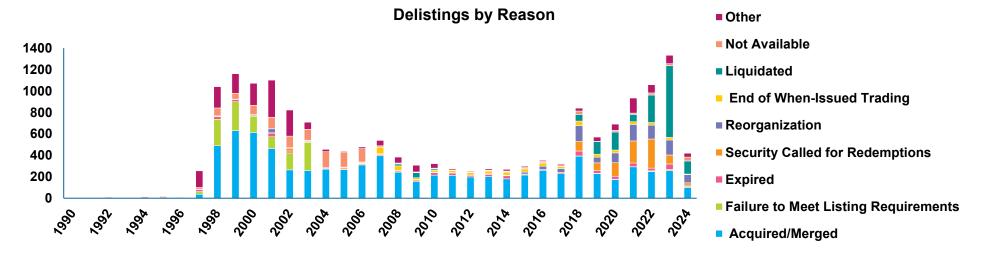
Source: NBER Market Microstructure Meetings 2002, J. Macey et. Al., "Down and Out in the Stock Market: The Law and Economics of the Delisting Process," 2002 and updated in February 2005. Source: Bloomberg data as of June 2024 for NASDAQ, NYSE and NYSE American exchanges.



2025 Capital Markets Expectations

Exchange and SEC Regulatory Changes

- → Between 1990 and 1998, regulatory efforts to separate "penny stocks" from more valuable shares resulted in the creation of the Over-the-Counter Bulletin Board (OTCBB).
 - The number of penny stocks declined from ~6,000 to ~4,000 stocks.
- \rightarrow In 1996, NASDAQ increased its minimum market cap and share price requirements.
- → In 2002, with the passage of Sarbanes-Oxley (SOX) regulation, all US exchanges amended their listing standards to include additional corporate governance requirements such as independent audits.
 - Between 1996 and 2002 more than 7,350 stocks delisted from US exchanges, with half of them being forced to delist for not meeting minimum asset, volume, and shareholder minimums.



Source: NBER Market Microstructure Meetings 2002, J. Macey et. Al., "Down and Out in the Stock Market: The Law and Economics of the Delisting Process," 2002 and updated in February 2005. Source: Doidge, Karolyi, and Stulz, "The US listing gap," July 2015.

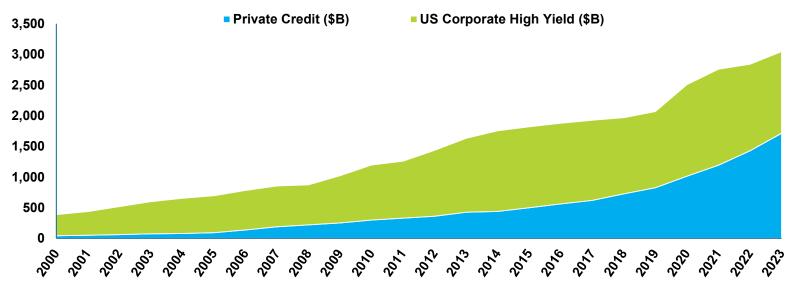
Source: Bloomberg. Represents the period January 1990 to June 2024. IPOs Data accounts only for "Primary Share Offerings," excludes "Secondary Share Offerings" and "Best Efforts." Delistings are based on delistings from NYSE, NYSE American and NASDAQ. Chart does not include all of the reasons cited for delisting but focuses on the most often cited reasons.



2025 Capital Markets Expectations

Private Equity and Shadow Banking

- → In October 1996, the National Securities Markets Improvement Act ("NSMIA") "made it easier for both private start-ups and private equity funds investing in them to raise private capital."
- → In an effort to de-risk systemically important banks and promote financial stability, Congress passed the Dodd-Frank Act in 2010.
 - As a result, many banks took a more conservative approach to lending and many companies found themselves unable to secure loans from banks.
 - Into this void stepped hedge funds, private credit funds, and other lenders, resulting in the rise of the "shadow banking" system.



Growth in Private Credit and High Yield Assets Under Management

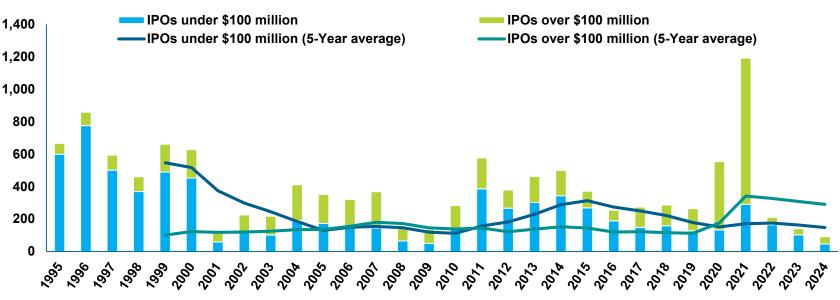
Source: Prequin private credit assets under management as of December 2023. Barclays Live high yield amount outstanding as of December 2023.



2025 Capital Markets Expectations

Annual Number and Size of IPOs Has Declined

- → Between 1980 and 2000, approximately 300 companies IPO'd each year, but for the subsequent decade, the annual average number of IPOs fell to just over 100.
- \rightarrow In recent years, companies are waiting longer, on average, to go public.
 - For example, the average age of a venture-backed IPO has doubled.
- → Moreover, some of the most successful IPOs over the past decade were cashflow positive companies with an initial valuation of over \$1 billion dollars the so-called unicorns.



Number of IPOs by size

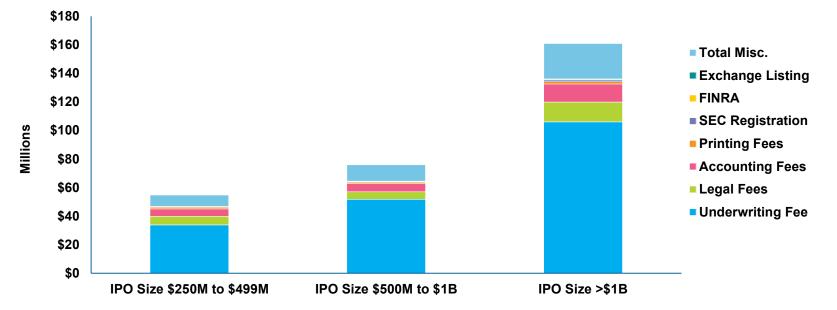
Source: Pitchbook, P. Mathur, "The Meteoric Rise of US Unicorns in 2021," January 5, 2024. Source: Bloomberg. Represents annual figures for 1995 through 2023 and partial year through June 2024 for NYSE, NASDAQ and NYSE American.



2025 Capital Markets Expectations

IPO Costs

- → The higher investor limit provides private companies with more flexibility to access private capital without the burden (and costs) of compliance reporting or becoming public.
- \rightarrow These costs include expenses for accounting, legal, underwriting, and other services.
 - The smaller the company, the greater the proportion the IPO costs would be of their revenues and presumably of their value.
 - The decline in the number of IPOs appears to have been concentrated among small companies.



One-time IPO Costs

Source: SEC, X. Gao et al., "Where Have All the IPO's Gone?" April 3, 2024.

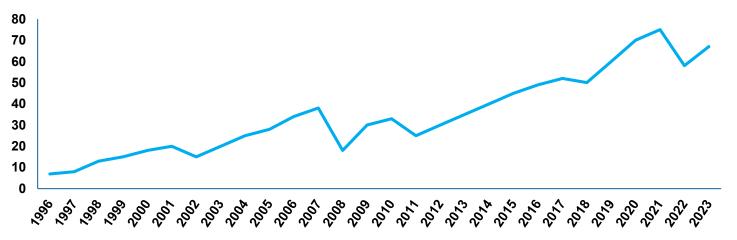
Source: PriceWaterHouse Coopers "Considering an IPO to fuel your company's future?" as of September 2024.



2025 Capital Markets Expectations

Intangible Assets

- → The increasing importance of intangible corporate assets may also be a factor in a company's decision to stay private or go public.
 - Intangibles include patents, software and databases, trademarks, customer lists, franchise agreements, organization capital, and firm-specific human capital.
- \rightarrow Establishing and enforcing exclusive property rights for intangible assets can be challenging.
 - Unlike physical capital, an intangible can be readily copied or imitated.
- \rightarrow Companies heavily investing in intangibles may prefer to stay private.
 - This lowers the risk of proprietary information being divulged to competitors via regulatory disclosures.



Global Market Value of Intangible Assets (USD T)

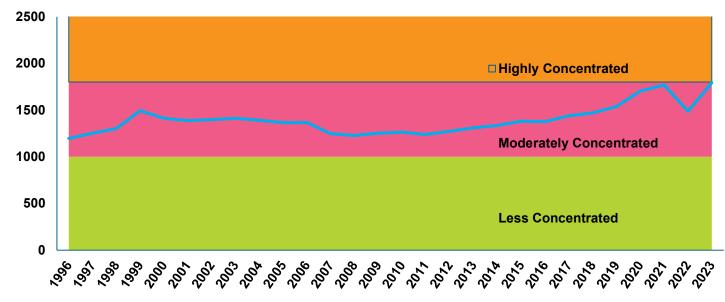
Source: Source: Journal of Economic Perspectives, N. Crouzet et. Al., "The Economics of Intangible Capital," Summer 2022. Source: Brand Finance Global Intangible Finance Tracker (GIFT) as of December 2023. Journal of Economic Perspectives, N. Crouzet et. Al., "The Economics of Intangible Capital," Summer 2022.



2025 Capital Markets Expectations

US Stock Market Concentration

- \rightarrow The change in the number of public US companies has potential ramifications for investors:
 - An increased level of concentration in public markets.
 - A broader opportunity set in private markets.
- → The US stock market recently reached a peak level of concentration (for the past thirty years).



US Stock Market Concentration based on HHI Annual Figures: 1996 – June 2024

Source: Bloomberg and MSCI data. Represents annual figures from 1996 through 2023 and partial year as of June 2024. Based on the MSCI USA Index and GICS sector weights. Mechanics of the calculation make the result hold at the stock level as well. HHI refers to the Herfindahl-Hirschman Index, a widely used measure of market concentration. The metric calculates the sum of the squared market shares (or weights) for each member of the sample, and the higher the total, the more concentrated a market is. At the extreme, a market with only one company, or a monopoly, would be the most concentrated, with a HHI index of 10,000 (100^2).

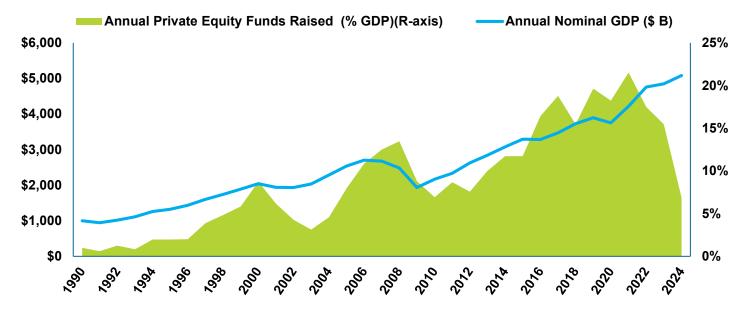
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2025 Capital Markets Expectations

The Shift to Private Markets

- → If investors want to access the growth of a broader swath of companies, they may want to consider investing more in private equity.
 - More than 85% of companies with annual revenues over \$100 million are private companies.
- → Some recent analysis suggests that the return on investment for firms backed by venture capital and private equity are notably higher than those of the companies in the S&P 500.



Private Equity Funds Raised as a % of US GDP

Source: FRED nominal GDP as of June 30, 2024. Prequin annual private equity fund raising as of June 30, 2024. Private equity funds raised includes venture, buyouts and growth equity. Bain & Company, using data from S&P Capital IQ as of December 2022 and Statistics of US Businesses as of 2017.

Source: NBER, B. Jovanovic et al., "Private Equity and Growth" October 2020. The authors' analysis suggest that venture and buyout equity investment of approximately 5% to 7% may contribute to growth between 14% and 21% between 2001 and 2019. See also, NBER, N. Garleau et al., "Finance in a Time of Disruptive Growth," March 2024.



2025 Capital Markets Expectations

Summary

- \rightarrow The number of publicly traded companies in the US has decreased by 40-50% since its peak in 1996.
- \rightarrow The decline may be explained by a variety of developments, including:
 - Fewer companies going public,
 - Rising regulatory burdens from exchanges and federal legislation,
 - The growth and availability of private capital,
 - A surge of mergers and acquisitions, and
 - The rise of propriety technology and intellectual property.
- \rightarrow The changes have improved investor rights and corporate transparency for publicly traded companies.
- \rightarrow One possible side effect is a higher level of market concentration.
- → Private equity provides an avenue for investing in many of the same types of companies that would have been public a generation ago.



Long-Term Theme: China



2025 Capital Markets Expectations

Why the Pessimism on China?

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

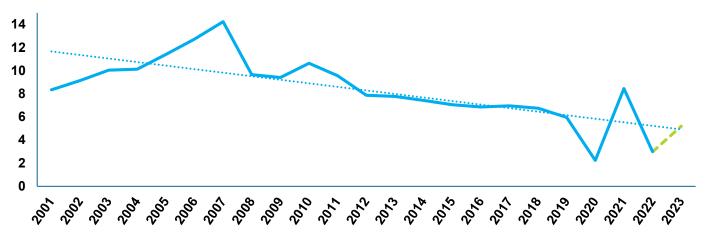


2025 Capital Markets Expectations

The Economic Rebound That Wasn't

Chinese growth has disappointed in 2023 and into 2024.

- \rightarrow China exited their zero-COVID policy in late 2022.
- \rightarrow Many investors and economists alike anticipated a surge in growth as the economy re-opened.
- \rightarrow But the economic rebound did not materialize.
- → Growth projections are being ratcheted down.
- \rightarrow Major causes include:
 - Debt overhang in the property sector nearly 1/4 of China's economy.
 - Domestic demand/consumption has been weak.



China Real GDP Growth (YoY %)

Source: World Bank as of December 2023. World Bank data is from China's National Bureau of Statistics.



2025 Capital Markets Expectations

The Real Estate Bubble

Property market turns from tailwind to headwind.

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



2025 Capital Markets Expectations

CCP Reaction Has Not Been Helpful

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

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



2025 Capital Markets Expectations

The Change in the CCP under President Xi

- → Pragmatism appears to be fading in favor of nationalism and autarky, led by President Xi Jinping.
- → Xi may have an additional goal that takes priority over the others:
 - Personal dominance and cementing his legacy
- → Xi has consolidated power in a way that means he is going to be the final decision maker on major policy issues.
- → The goals announced at the October 2022 Party Congress may be at odds with each other¹:
 - Reinvigorate Party ideological discipline and adherence to Marxist doctrine
 - Achieve first world economic wealth by 2035
 - Build "fortress China" that is self-sufficient in tech, military capacity, and geopolitical power
- → The West has reacted to Xi's assertive nationalism and now pursues an open policy of China containment.



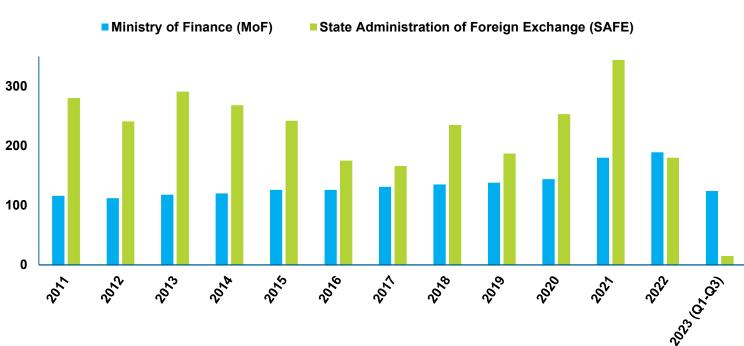
¹ Source: TS Lombard October 2022.



2025 Capital Markets Expectations

Investor Concerns Turn into Portfolio Flows

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



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

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

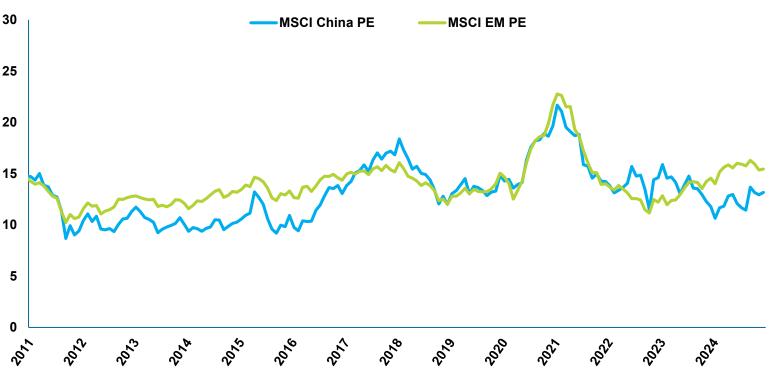
² Source: Peterson Institute for International Economics, N. Lardy "Foreign direct investment is exiting China, new data show," November 17, 2023. SAFE tracks net FDI while the Ministry of Finance tracks gross inflows.



2025 Capital Markets Expectations

Cheap...for a Reason?

- \rightarrow Investors' lack of confidence in the economy and CCP policies continues to weigh on Chinese asset prices.
- → Despite a rally in Chinese equities in 2024, valuations remain lower than the broader EM index.
- → An important question is: Do valuations fairly represent the risks?



Emerging Market and Chinese P-E Ratios¹

¹ Source: Bloomberg, as of December 31, 2024. Indices used: MSCI China, MSCI Emerging Markets.



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MEMORANDUM

- **TO:** SJCERA Board of Retirement
- FROM: Meketa Investment Group (Meketa)
- **DATE:** February 14, 2025
- **RE:** Total Portfolio Expected Return Update 2025 Assumptions

Summary

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

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

Discussion

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

At the beginning of each year, Meketa develops capital market assumptions for a wide range of asset classes/strategies (in 2025 this equated to 113 different asset classes/strategies). These assumptions are developed using a multitude of quantitative and qualitative inputs, and this development process is updated each year with additional data sets and more refined approaches/models. Meketa develops assumptions for both 10-year (i.e., intermediate) and 20-year (i.e., long-term) timeframes. For the purposes of this memorandum, Meketa mapped the 10-year and 20-year assumptions to both the long-term policy targets in order to generate expected return and volatility metrics for the respective portfolios. The long-term policy targets that were used can be found on the following page. The expected return and volatility metrics for the long-term policy targets are also presented. The underlying assumptions that were used are presented in this document.¹

¹ Please also refer to the accompanying presentation deck discussing Meketa's 2025 Capital Market Assumptions.

	2025 Long-term Policy Targets
Classes/Strategies	(%)
BROAD GROWTH	78
Traditional Growth	38
Public Equity	38
Stabilized Growth	24
Core Real Estate	9
Risk Parity	0
Liquid Credit	7
Private Credit	8
Non-Traditional Growth	16
Private Equity	8
Non-Core Real Assets	8
PRINCIPAL PROTECTION	9
CRISIS RISK OFFSET	13
Total	100
Expected Return (10-year)*	7.2
Expected Return (20-year)*	8.5
Annual Volatility	11.9

Policy Targets and Expected Return/Risk

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

As detailed in the table above, the SJCERA investment portfolio is positioned to generate an expected return of 7.2%-8.5% depending on the investment horizon. When examining the portfolio from holistic perspective, Meketa believes that the portfolio remains prudently constructed to achieve and/or modestly exceed the actuarial rate without assuming unnecessary risk. It is important to note that the expected return of the portfolio and the actuarial assumed investment return do not need to be equal at all times, however, they should be similar to one another and directionally track over time.

2024/2025 Comparison of Return Assumptions*

	2024 Expected Return:	2025 Expected Return:	
Composite/Asset Class /Strategy	<u>20-Year</u> Geometric (%)	<u>20-Year</u> Geometric (%)	Difference (%)
Traditional Growth			
Global Equity	8.7	8.5	-0.2
Stabilized Growth			
Core Real Estate	6.9	7.4	0.5
Liquid Credit (High Yield)	6.8	7.1	+0.3
Private Credit	9.2	9.1	-0.1
Non-Traditional Growth			
Private Equity	11.2	11.2	0.0
Value Add Real Estate	8.3	9.6	+1.3
Opportunistic Real Estate	9.6	10.9	+1.3
Principal Protection			
Investment Grade Bonds	4.8	5.3	+0.5
Crisis Risk Offset			
Long US Treasuries	5.0	5.7	+0.7
Systematic Trend Following	4.7	4.9	+0.2
Alternative Risk Premia	5.2	5.8	+0.4
Total Portfolio	8.4	8.5	+0.1

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

Correlation Assumptions

	Investment Grade Bonds	Long-term Governme nt Bonds	High Yield	Private Debt	Global Equity	Private Equity	Core Private Real Estate	Value-Added Real Estate	Opportunisti c Real Estate	CTA (Trend Following)	Alternative Risk Premia (ARP)
Investment Grade Bonds	1.00										
Long-term Government Bonds	0.86	1.00									
High Yield	0.35	-0.03	1.00								
Private Debt	0.07	-0.35	0.87	1.00							
Global Equity	0.23	-0.11	0.79	0.73	1.00						
Private Equity	0.00	-0.10	0.66	0.72	0.91	1.00					
Core Private Real Estate	0.25	0.10	0.45	0.44	0.39	0.41	1.00				
Value-Added Real Estate	0.20	0.00	0.50	0.46	0.50	0.44	0.90	1.00			
Opportunistic Real Estate	0.15	-0.05	0.55	0.51	0.60	0.49	0.85	0.90	1.00		
CTA (Trend Following)	-0.03	0.06	-0.09	0.00	0.04	0.00	0.00	0.00	0.00	1.00	
Alternative Risk Premia (ARP)	0.17	0.16	013	0.13	0.12	0.09	-0.02	0.03	0.09	0.37	1.00



MEMORANDUM

TO: SJCERA Board of Retirement

FROM: Meketa Investment Group (Meketa)

DATE: February 14, 2025

RE: 2025 SJCERA Benchmark Review

On an annual basis, Meketa reviews the benchmarks for SJCERA's portfolio, the underlying classes, and the various managers. This review is focused on the continued suitability of these benchmarks in light of changing investment markets. Secondarily, Meketa will review benchmarks as part of ongoing asset class reviews throughout the year.

Over the last several years Meketa has worked with SJCERA to enhance the policy, class and manager benchmarks and move them closer to their long-term objectives. <u>Meketa recommends changing the</u> policy benchmarks for Core Real Estate and Private Credit as stated below.

Each of the various portfolio components are reviewed below.

SJCERA Total Fund Policy

	Current Policy Target		
Asset Class	(%)	Current Benchmark	New Benchmark
Traditional Growth			
Public Global Equity	38	MSCI ACWI IMI ND	No Change
Aggressive Growth			
Private Equity	8	50% MSCI ACWI ND + 2%/ 50%	No Change
Opp/Value Add Real Estate	8	NCREIF ODCE + 1%	No Change
Stabilized Growth			
Liquid Credit	7	50% BB High Yield/ 50% S&P/LSTA Leveraged Loan	No change
Private Credit	8	S&P/LSTA Leveraged Loan +3%	S&P/LSTA Leveraged Loan +2%
Core Real Estate	9	NCREIF ODCE +1%	NCREIF ODCE
Diversifying Strategies			
Principal Protection	9	BB Aggregate Index	No change
Crisis Risk Offset	13	1/3rd BB long Duration, 1/3rd BTOPS 50, 1/3rd 5% Annual	No change
Cash	0	U.S. T-bills	N/A
Total	100	Total Fund Custom Benchmark	

Discussion

When evaluating the performance of a portfolio, sub-class or a specific manager, it's important to compare it against an appropriate benchmark. There are numerous index providers that create investments. benchmarks performance used to gauge the of most including Standard & Poor's, Russell, MSCI, and Bloomberg, among others. In general, an appropriate benchmark represents the investable universe (or opportunity set) while also adhering to broadly accepted industry standards.¹ Such standards are easily implemented through the broad market benchmark framework.

While liquid, long-only classes are fairly easy to benchmark, illiquid and/or more complex strategies/classes, such as Private Equity, are more difficult. Since these types of investments are often multi-asset in nature, they commonly do not possess an easily identifiable investable universe, and are highly illiquid, finding benchmarks that fulfill all of the desired criteria can prove challenging. To this end, Aggressive Growth is currently benchmarked against a hybrid target: a market index + a premium (MSCI ACWI ND +2%)² as opposed to solely broad market indexes.

In short to medium term periods of markets inflections, such as 2024, having a benchmark tied to highly volatile market like equites can lead to relatively high-performance dispersions. This can be seen in the SJCERA Aggressive growth portfolio, where relative performance was down (5.6%) for the YTD ending September 2024.

¹ See, for example, <u>A Primer for Investment Trustees</u>, ©2011, The Research Foundation of the CFA Institute. This publication highlights that broad class benchmarks provide reasonable proxies for the types of capital market risks that must be borne by investors in order to capture investment returns over time. In addition, the most common metrics utilized to measure investment performance rely upon broadly published benchmarks. Finally, the basic standard for a benchmark is that it be (i) unambiguous, (ii) measurable, (iii) investable, (iv) appropriate, (v) measurable in advance, and (vi) owned (i.e., the publisher adheres to high-quality accountability standards). Widely-followed broad class benchmarks easily meet these standards.

² MSCI ACWI ND comprises both developed and emerging markets less the United States. This series approximates the minimum possible dividend reinvestment. The dividend is reinvested after deduction of withholding tax, applying the rate to non-resident individuals who do not benefit from double taxation treaties. MSCI Barra uses withholding tax rates applicable to Luxembourg holding companies, as Luxembourg applies the highest rates.

Disclosure

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

Preliminary Projections

San Joaquin County Employees' Retirement Association

> February 14, 2025 Anne Harper

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Each year, we review the primary economic assumptions for reasonableness. A detailed review of all actuarial assumptions - economic and demographic - is performed every three years as part of the triennial experience study, with the next one scheduled for this year. A summary of the current economic assumptions is shown below.



Return on Assets Current: 6.75%

Assumed annual return on investments; net of investment expenses



Inflation Rate Current: 2.75%

Price inflation; building block for other assumptions



Wage Growth Current: 3.00%

Price inflation plus real wage growth



COLA Rates Current: 2.60% (actives); 2.75% (retirees)

Increases in post-retirement COLAs; affected by caps and banking provisions



As part of our review of the economic assumptions, we reviewed the most expectations for the SJCERA target portfolio based on the Meketa and Horizon Survey of capital market assumptions, and compared the results to the prior year. The 10-year geometric expected return is 7.2% under the most recent assumptions from both sources, with higher expectations over a longer time horizon. The 6.75% assumption is still reasonable, with a modest (<0.5%) margin for conservatism for the 10-year period.

Expected Returns (for SJCERA Target Portfolio)

Source Horizon (2023) Meketa (2024) Horizon (2024) Meketa (2025)

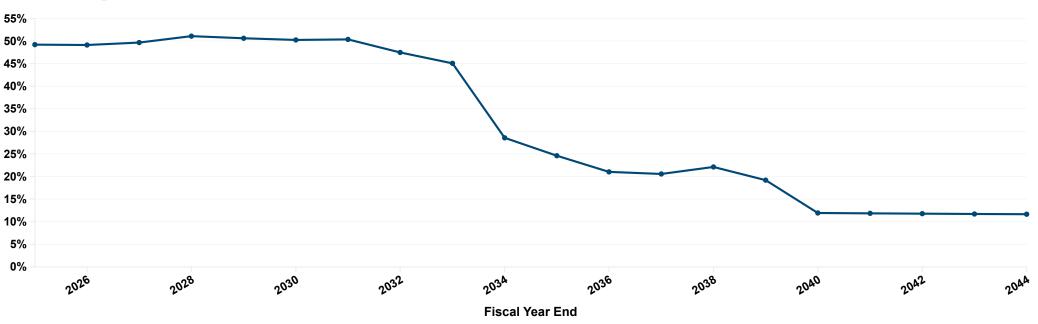


The following slides review various projections using the preliminary asset return for 2024 of 8.1%, with no changes to the discount rate or other actuarial assumptions. The liabilities have been rolled forward from the January 1, 2024 actuarial valuation using the current actuarial assumptions.



This graph shows the projected aggregate employer contribution rates based on a preliminary investment return of 8.1% for 2024 and **5/12** assumed returns of 6.75% for years after 2024.

SJCERA -



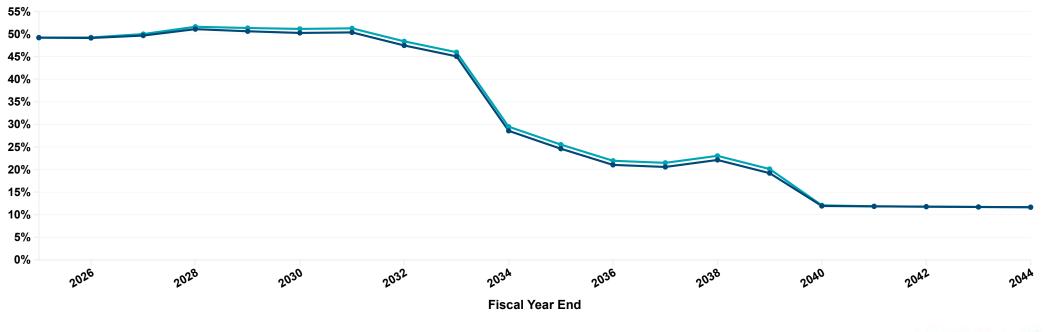
Baseline 2024 8.1% Return for 2024

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The projected contribution rates are slightly lower than the baseline projected costs from the 2024 AVR (based on a 6.75% assumed return for 2024), due to the investment gain.

SJCERA -

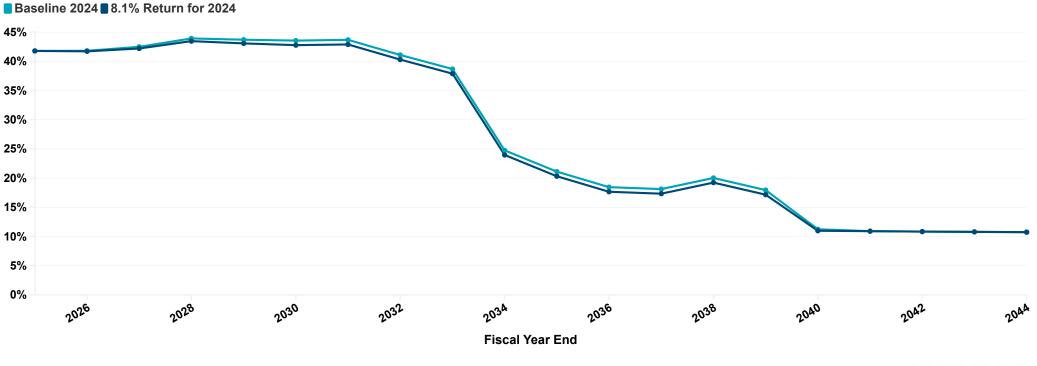
Baseline 2024 8.1% Return for 2024



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Below is the same comparison for the General employer rates, which reflect a similar pattern

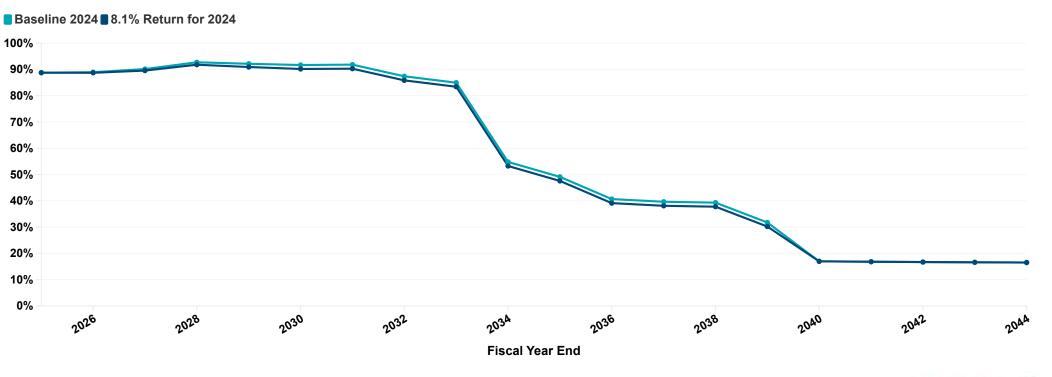
General -



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As well as the Safety employer rates.

Safety -

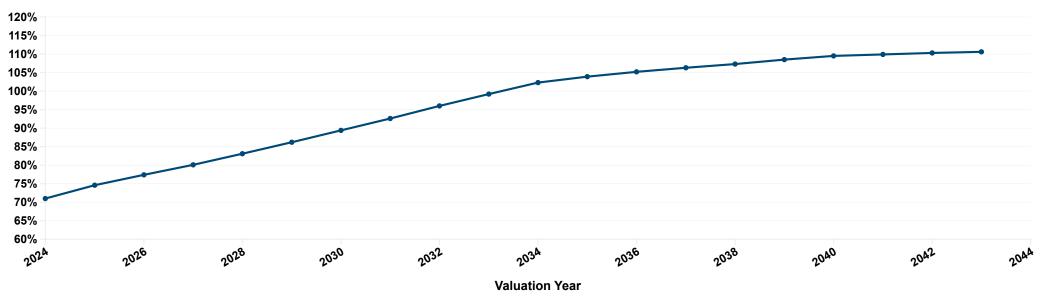


8/12

-CHEIRON 🧩

Finally, we show the projection of funded status using the **market value** of assets. The projection based on a 8.1% return shows an expected improvement in the funded status from 2024 to 2025 of about 3.6%, with further improvement of 2.7%-3.4% per year thereafter, until the plan is fully funded, (assuming the assumptions are met, including a 6.75% return each year). The funded status projections include the value of the additional contribution reserves (made by the County, Courts, and Mosquito District) as of January 1, 2024, but assume no additional contributions thereafter.

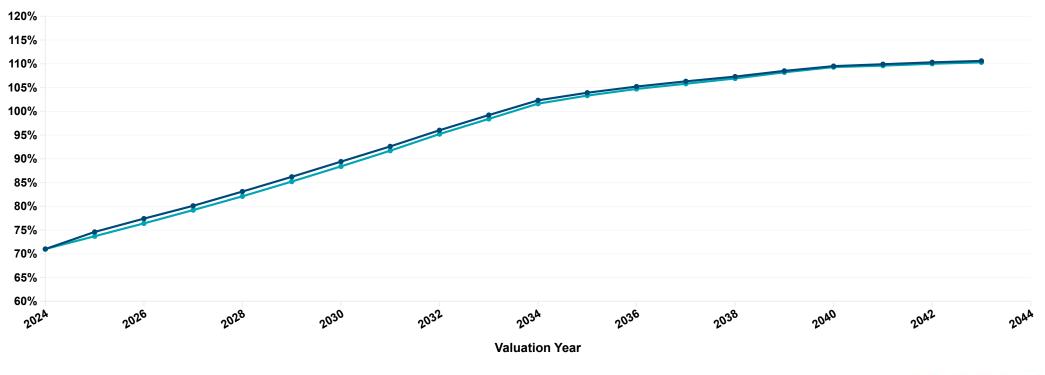
Baseline 2024 8.1% Return for 2024



9/12

The funded ratio projection is about 1.0% higher than that from the 2024 AVR, due to the investment gain, which is reflected immediately in **10/12** the market value of assets and not smoothed in, as it is in the contribution projections.

Baseline 2024 8.1% Return for 2024





SJCERA Consulting Team

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Timothy Doyle Consulting Actuary

Portland, OR

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Certification

The purpose of this presentation is to present a projection of contributions and funded status for SJCERA based on preliminary market returns for 2024.

In preparing our presentation, we relied on information (some oral and some written) supplied by SJCERA. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23. The data and actuarial assumptions used (unless modified within this communication) are described in our January 1, 2024 actuarial valuation report.

Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

Deterministic projections in this presentation were developed using R-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. R-scan uses standard roll-forward techniques that implicitly assume a stable active population. Because R-scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.

To the best of our knowledge, this presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This presentation was prepared for the SJCERA Retirement Board for the purposes described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.





San Joaquin County Employees' Retirement Association

February 7, 2025

TO:	Board of Retirement
FROM:	Renee Ostrander Chief Executive Officer

SUBJECT: Chief Executive Officer Report

Strengthen the long-term financial health of the Retirement Plan

Asset Allocation

Review benchmarks, including private credit, for necessary adjustments. Meketa is scheduled to present their review of SJCERA's benchmarks at the February meeting. They are recommending modifications to the benchmarks for both Core Real Estate and Private Credit.

Modernize the Operations Infrastructure

New Pension Administration System (PAS)

Re-evaluate PAS implementation schedule; determine feasibility of accelerated timeline.

The team met with Tegrit and Linea Solutions to get post implementation support costs, postimplementation upgrade timing, and initiated a revisit of a phased implementation to bring the schedule back in line with the original go-live date. Given resource constraints, information will be accumulated in March and shared with SJCERA as soon as possible.

Member Experience

Revamp current education strategy. We had our first webinar of the year. On February 6th, our Communications Officer hosted a revamped Understanding Your Retirement Webinar. Prior to the webinar, we strategically marketed our active members via our employers, including those outside of San Joaquin County; the result was successful. We had 245 attendees listen in and actively asking questions. By comparison, this is a 190% increase over last February's webinar. We hope to continue this great start to the year.

Improve Business Operations

Evaluate and replace board meeting agenda software. SJCERA Admin staff met with multiple Agenda Management solution providers beginning in November 2024 to evaluate solutions. The organization is currently utilizing the system's legacy PAS Agenda Management functionality; it will not be included in the new solution. Staff have made a tentative vendor selection. The team is reviewing a Statement of Work, along with legal and information security components before moving forward. We are targeting the project to start later this month. We are hopeful the monthly Board of Retirement agenda can be implemented before our Admin Secretary, Elaina Petersen, retires in late March. The system will vastly improve administrative time, effort, and reduce the cost of obtaining, organizing, and distributing materials monthly and periodically for scheduled Committee meetings.

Employer Experience

Establish an annual Employer Roundtable. We are gearing up for our 2025 Employer Symposium where we will talk about updates to employer operational requirements, 2026 contribution rate projections, communication initiatives, and more. The Symposium will take place at Mountain House Townhall on February 19, 2024, at 9am.

Align Resources and Organizational Capabilities

Board of Retirement Practices

Develop and present board fiduciary education presentation for trustees. SJCERA administrative team provided orientation training to its newest board member, Trustee Gardea. The first round of orientation included information related to SJCERA operations and trustee fiduciary responsibilities.

Maintain Business Operations

Employee of the Month

Several members of the SJCERA team stepped up during the last month to support SJCERA operations. Our first named Employee of the Month is Marissa Smith. Despite the departure of the Finance Manager, Marissa stepped up to make certain the semi-annual interest posting occurred as scheduled this year. Not only did it occur timely, but Marissa completed the earliest interest posting ever for SJCERA, putting her hard work ethic and dedication to SJCERA on display.

Our next Employee of the Month is Melinda DeOliveira. Melinda showed true "own it" mentality by presenting education to the Sheriff's Office on Law Enforcement Appreciation Day. She met with four shifts of Deputies and other staff, from as early as 6am to the final session starting at 9pm. Melinda provided information and answered questions for those that serve and protect our community.

Our final two Employees of the Month are from our IT team, Jordan Regevig and Adnan Khan. The City of Mountain House transitioned their payroll reporting responsibilities back from the county beginning in 2025. Jordan and Adnan worked closely with both the city and their payroll provider to finalize the process of reporting payroll data and contributions to SJCERA. Despite the unanticipated difficulties, their efforts ensured the city's pension data and payments were received and posted. Their proactive approach is helping with future payroll cycles so both the short term and long term workload is successfully processed! Thank you all!

Provide Excellent Customer Service

A few quotes from our members:

"The staff member (Andrea Bonilla) was very thorough. I asked my first question and she responded with the exact information I needed. I still had a question on my time I bought back and she replied with in minutes and gave me exact dates and hours. And explained how it was determined. I appreciate her time, her kindness and patience. Please thank her for me!!"

"This was my first contact with SJCERA since starting employment with the County over 12 years ago. Vickie (Monegas) was so helpful and patient with me and provided me with the information needed. She was very knowledgeable and kind. Thank you for your help Vickie!"

"Bethany (Vavzincak) was very helpful and respectful of my concerns about my wife"

CEO Report

Staff Education

SJCERA team attended multiple training sessions this month. Greg Frank and Yvonne Downs attended a Basic Life Saving Skills course. Yvonne Downs attended the NCPERS Communications Conference. Sean Byrne from Rimon brought Investments Contracts training in-house for SJCERA staff; several from the administrative (including investments and legal) and financial teams attended. Marissa Smith and Frank Oppong Kyekyeku attended the GFOA Account for Pensions virtual training.

IRS Form 1099-R Mailed to Payees

All 1099-R forms were mailed to recipients on January 24, 2025, ahead of the January 31 deadline. Kudos to Investment Accountant, Frank Oppong Kyekyeku, Accounting Technician II, Marissa Smith, Information Technology Manager, Adnan Khan, and Information Systems Specialist II, Jordan Regevig for reviewing, correcting, and coordinating the mailing of these documents ahead of the IRS deadline. In addition to the member 1099-R forms to members, SJCERA must report annual tax liabilities and payments to the IRS through the 945 form which was completed on February 6, 2025, ahead of the February 10, 2025 deadline by Investment Accountant, Frank Oppong Kyekyeku. These year-end projects takes a team to complete—great job everyone!

IRS 1099R Electronic File Testing

Every year, the IT and Finance teams test our 1099-R electronic file (the electronic file SJCERA submits to the IRS) to verify compliance with this year's required system changes. Staff have completed this year's file testing and are ready to upload the production file ahead of the March 31, 2025 deadline.

Annual TEFRA Notice

The Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 requires SJCERA to issue an annual notice reminding members and beneficiaries receiving a monthly retirement benefit that their benefit is (with limited exceptions) subject to federal income tax. Additionally, the notice informs them of their right to change their tax withholding election at any time and directs them to the appropriate forms. As we do each year, SJCERA included this required notice with payees' February 1 benefit payment.

Conclusion

The start of the new year has long been a signal to take stock of your current situation/environment and then set new goals. We have established our Action Plan for the upcoming year, and there are several impactful initiatives included. In taking stock of your current situation to support those goals, it's important to make sure your environment is organized and functional. To that end, SJCERA established a day in January as Office Beautification Day. The goal of the day was to ensure that our office, personal and shared spaces along with physical and electronic environments, were cleaned and



organized and ready for the year to come. To provide everyone with ideas of ways to accomplish their mission and to bring a little fun, Office Beautification BINGO cards were developed. The team enjoyed the approach while accomplishing their goals. We intend to establish this as an annual event at the beginning of each year.

As I wrap up my first year with SJCERA, I am grateful for the collaborative team I've joined, the accomplishments we have achieved, and excited about the path that we are laying for the future. Our commitment to being a trusted partner in delivering retirement services will continue to drive the decisions and actions we take, and I look forward to it.



San Joaquin County Employees' Retirement Association

February 2	2, 2025
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TO:	Board of Retirement	
THROUGH:	Renee Ostrander, CEO	
FROM:	Greg Frank, MA III	Frak

SUBJECT: Declining Employer Payroll Report

Background

The purpose of the Board's Declining Employer Payroll policy is to establish guidelines by which SJCERA intends to assure that a participating employer experiencing a declining active member payroll would continue to satisfy its obligation to timely pay all unfunded actuarial accrued liabilities (UAAL).

Currently, SJCERA's employers pay contributions based on a percentage-of-payroll. If an employer's covered payroll is declining or is expected to decline over time, a different methodology to fund the UAAL would need to be determined. The policy directs the CEO to work with staff, the actuary, and participating employers to obtain the information needed to annually report if there are any declining payroll triggering events. This memo is intended to fulfill the annual reporting requirement.

Recommendation

No action required at this time. My analysis identified no triggering events and all SJCERA participating employers have made their required contribution payments with three employers (the County, the Superior Court, and the Mosquito and Vector Control District) making additional contributions.

Summary of Analysis

The policy defines two types of triggering events: (1) Ceasing to enroll new hires and (2) A material and expected to be long-lasting reduction in SJCERA-covered payroll. Analysis of each follows.

1) Triggering event resulting from ceasing to enroll new hires.

To analyze if employers are ceasing to enroll new hires, I compared the active member data (from SJCERA's Annual Comprehensive Financial Report) to employer full-time equivalent (FTE) data (from employer documents). Allocated FTE data includes both filled and funded vacant positions but vacant positions would not be included in SJCERA's member data. I would expect to see the percentage of members to FTEs to either increase or remain fairly stable. If the percentage of members to FTEs begins decreasing, additional investigation may be required to determine if the employer is avoiding hiring employees into retirement-eligible positions.

It is not a perfect comparison because employer FTE data is reported on a fiscal year end of June 30 and SJCERA's member data is on the calendar year end of December 31. The primary driver of employers who have a decline in FTEs is a result of turnover and not due to the elimination of positions, the cessation of hiring employees into SJCERA-eligible positions, or the exclusion of eligible employees from SJCERA enrollment. As the chart below indicates, the number of Total Members compared to Total FTEs ranges between 83.8% to 90.6% for 2019 to 2023.

									Member to FTE Comparison										
2019	2019-20 Annual % Change	2020	2020-21 Annual % Change	2021	2021-22 Annual % Change	2022	2022-23 Avg. % Change	2023	2019-23 Avg. % Change										
								1010											
5,970	0.2%	5,980	-1.2%	5,911	0.6%	5,949	4.7%	6,228	1.1%										
6,633	0.7%	6,680	3.4%	6,906	3.4%	7,138	3.4%	7,384	2.8%										
90.0%		89.5%		85.6%		83.3%		84.3%											
312	-5.8%	294	0.7%	296	-1.7%	291	-2.4%	284	-2.2%										
									-1.2%										
96.4%		91.6%		88.9%		90.4%		92.2%											
e District ((LMFD)				_														
48	-2.1%	47	-4.3%	45	0.0%	45	0.0%	45	-1.6%										
45	4.4%	47	-6.4%	44	-4.5%	42	7.1%	45	0.0%										
106.7%		100.0%		102.3%		107.1%		100.0%											
Control Dis	strict (MVC	D)																	
36	-2.8%	35	2.9%	36	-2.8%	35	5.7%	37	0.7%										
36	-2.8%	35	0.0%	35	2.9%	36	2.8%	37	0.7%										
100.0%		100.0%		102.9%		97.2%		100.0%											
mmunity §	Services Dist	rict (MH	CSD)																
		•		26	15.4%	30	16.7%	35	6.3%										
27						40		47	19.3%										
105.7%		94.7%		72.2%		75.0%		74.5%											
ire District	(WMFD)																		
17		20	-5.0%	19	0.0%	19	10.5%	21	5.9%										
17	11.8%	19	5.3%		5.0%		4.8%	22	7.4%										
100.0%		105.3%		95.0%		90.5%		95.5%											
erv																			
-	14.3%	8	0.0%	8	-37.5%	5	20.0%	6	-3.6%										
7		7		8				8	3.6%										
100.0%		114.3%		100.0%		62.5%		75.0%											
4	0.0%	4	25.0%	5	0.0%	5	-20.0%	4	0.0%										
4		4		5		6		6	12.5%										
100.0%		100.0%		100.0%		83.3%		66.7%											
2	0.0%	2	-50.0%	1	0.0%	1	0.0%	1	-12.5%										
2		1	0.0%	1	0.0%	1	0.0%	1	-12.5%										
100.0%		200.0%		100.0%		100.0%		100.0%											
0		0		0		1	100.0%	2											
0		0		0		2	0.0%	2											
						50.0%		100.0%											
6 474	0 10/	6 117	1 10/	6 247	0.5%	6 201	A A0/	6 662	0.9%										
-									2.7%										
	0.7%		5.4%		5.1/0		5.2%		2.1/0										
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¹ – Members data from Annual Comprehensive Financial Report Schedule of Participating Employers ² – FTE data is from annual employer reports (if available) or provided directly by the employer

2) Triggering event resulting from a material and expected long-lasting reduction in SJCERAcovered payroll.

Per the Pensionable Payroll chart below, there is no long-lasting reduction in covered payroll and the majority of employers have had an increase in pensionable payroll from 2019 to 2023, with a Total Average Annual Percent Change of 4.5%. This increase in Pensionable Payroll is in line with Cheiron's 3% assumption for the annual expected increase in base payroll.

Pensionable Payroll ¹										
Employer	2019	2019-20 Annual % Change	2020	2020-21 Annual % Change	2021	2021-22 Annual % Change	2022	2022-23 Annual % Change	2023	2019-23 Ave. % Change
County	423,208,843	1.6%	429,994,745	2.1%	438,892,823	2.7%	450,756,541	11.0%	500,119,425	4.5%
Superior Court	20,315,771	-3.9%	19,521,004	3.0%	20,107,867	7.3%	21,567,290	2.0%	21,991,480	2.1%
LMFD	3,513,665	6.5%	3,743,525	-3.0%	3,630,093	3.0%	3,737,284	10.8%	4,142,247	4.5%
MVCD	2,603,914	4.9%	2,732,383	3.0%	2,813,341	4.1%	2,927,353	6.0%	3,102,123	4.8%
MHCSD	2,241,456	7.5%	2,408,599	6.0%	2,553,381	10.4%	2,818,964	26.0%	3,550,935	14.6%
WMFD	1,187,062	17.6%	1,395,677	8.2%	1,510,141	-0.8%	1,498,210	15.9%	1,735,796	11.6%
Tracy Public Cemetery	301,079	14.7%	345,388	2.4%	353,716	-6.5%	330,787	-14.0%	284,449	-1.4%
Historical Society	231,608	-1.2%	228,822	2.8%	235,249	27.8%	300,672	0.5%	302,144	7.6%
Law Library	107,186	-19.0%	86,791	-5.0%	82,425	2.1%	84,191	-2.1%	82,389	-5.8%
LAFCO	0		0		0		34,460	476.9%	198,792	
Total	453,710,584	1.5%	460,456,934	2.1%	470,179,036	3.0%	484,055,752	10.6%	535,509,780	4.5%

¹ – The pensionable payroll information is taken from the annual GASB 67/68 reports

The member and pensionable payroll information for 2024 are not yet available and consequently will be included in next year's report.